ALAMEDA COUNTYWIDE
clean water
PROGRAM

Protecting Alameda County Creeks, Wetlands & the Bay

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September 12, 2025

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

Transmitted via SMARTS Upload

Subject: Transmittal of Alameda Countywide Clean Water Program Annual Report for Fiscal Year 2024/2025

Dear Ms. White:

The member agencies of the Alameda Countywide Clean Water Program (ACCWP) through their Management Committee, and in conformance with the Memorandum of Agreement signed by their governing bodies, have authorized and directed me to prepare and submit certain reports as part of their compliance with the Municipal Regional Stormwater Permit (MRP) (Order No. R2-2022-0018, as amended, NPDES No. CAS612008).

Provision C.22 of the MRP requires the Permittees to submit Annual Reports by September 30 of each year that document the implementation of MRP requirements during the previous Fiscal Year (FY). Each Permittee is submitting an individual Annual Report using the format approved by you. Additionally, ACCWP prepares an Annual Report that describes the activities that were conducted by ACCWP, the Bay Area Municipal Stormwater Collaborative (BAMSC), and the California Stormwater Quality Association (CASQA) on behalf of the Permittees in Alameda County. This report is referenced in and incorporated by reference into the Alameda Permittees' Annual Reports.

I am submitting the *ACCWP Fiscal Year 2024/25 Annual Report to the San Francisco Bay Regional Water Board* on behalf of and for the benefit the ACCWP member agency Permittees. The report was approved by the designated permittee representatives at the ACCWP Management Committee meeting on August 27, 2025.

By signing this letter on behalf of ACCWP, I certify under penalty of law that these documents and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. [40CFR 122.22(d)].

Please contact me at sandym@lwa.com if you have questions or comments.

Sincerely,

Sandra Mathews

Digitally signed by Sandra Mathews
Date: 2025.09.12 16:44:38 -07'00'

Sandy Mathews
Program Manager

Attachment(s): Alameda Countywide Clean Water Program Annual Report for Fiscal Year 2024/2025

Cc: ACCWP Management Committee

ALAMEDA COUNTYWIDE
cleanwater
PROGRAM

MEMBER AGENCIES:

Alameda

Albany

Berkeley

Dublin

Emeryville

Fremont

Hayward

Livermore

Newark

Oakland

Piedmont

Pleasanton

San Leandro

Union City

County of Alameda

Alameda County Flood Control and Water Conservation District

Zone 7 Water Agency

Alameda Countywide Clean Water Program

Fiscal Year 2024/25 Annual Report to the San Francisco Bay Regional Quality Control Board

August 27, 2025

Contents

List of Tables

Table of Figures

List of Appendices

List of Acronyms and Abbreviations

ACCWP	Alameda Countywide Clean Water Program
AGOL	ArcGIS Online
BAHM	Bay Area Hydrology Model
Alameda Permittees	Cities of Alameda, Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Oakland, Piedmont, Pleasanton, San Leandro, and Union City; and the County of Alameda, the Alameda County Flood Control and Water Conservation District (District), and the Zone 7 Water Agency
BAMSC	Bay Area Municipal Stormwater Collaborative
Basin Plan	Water Quality Control Plan for the San Francisco Bay Basin
BMP	Best Management Practice
CASQA	California Stormwater Quality Association
CEDEN	California Environmental Data Exchange Network
CGP	Construction General Permit
CMP	Control Measure Plan
DA	District Attorney
District	Alameda County Flood Control and Water Conservation District
DPR	Department of Pesticide Regulation
DTSC	Department of Toxic Substances Control
EO	Executive Officer
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FOG	Fats, Oils, and Grease
FY	Fiscal Year (July 1 through June 30)
GI	Green Infrastructure
GIS	Geographic Information System
GSI	Green Stormwater Infrastructure
HM	Hydromodification Management
HHS	Alameda County Health Department's Housing and Homelessness Services
HUD	Housing and Urban Development

IIDC	Industrial and Illicit Discharge Control
IMR	Integrated Monitoring Report
IPM	Integrated Pest Management
LID	Low Impact Development
LTGSI	Long-Term Green Stormwater Infrastructure
MPC	Monitoring and Pollutants of Concern
MRP	Municipal Regional Permit
MRP 1	Municipal Regional Permit adopted in 2009
MRP 2	Municipal Regional Permit reissued in 2015
MRP 3	Municipal Regional Permit reissued in 2022
MS4	Municipal Separate Storm Sewer System
NDS	New Development Subcommittee
NPDES	National Pollutant Discharge Elimination System
OFEE	Oil-Filled Electrical Equipment
O&M	Operation and Maintenance
OVTA	On-land Visual Trash Assessment
OWOW	Our Water Our World
PCBs	Polychlorinated Biphenyls
PCBs TMDL Project	PCBs TMDL Special Studies and Implementation Project
Permit	Stormwater Discharge Permit
PID	Proposed Interim Decision
PIP	Public Information and Participation
PIT	Point-In-Time
PLDA	Private Land Drainage Areas
POC	Pollutant of Concern
ppm	Parts per million
Program	Alameda Countywide Clean Water Program
QAPP	Quality Assurance Project Plan
RAA	Reasonable Assurance Analysis

RMC	Regional Monitoring Coalition
RMP	Regional Monitoring Program
RWL	Receiving Water Limitation
SFEI	San Francisco Estuary Institute
SOP	Standard Operating Procedure
SPM	Sustainable Pest Management
SWAMP	Surface Water Ambient Monitoring Program
TAG	Technical Advisory Group
TWG	Technical Working Group
TMDL	Total Maximum Daily Load
UCMR	Urban Creeks Monitoring Report
Water Board	San Francisco Bay Regional Water Quality Control Board
WOW Project	Watching Our Watersheds – Improving Trash Monitoring Methods and Pollution Prevention Strategies through Regional Partnerships in the Bay Area
WQIF	Water Quality Improvement Fund
WY	Water Year

Preface

Provision C.22 of the San Francisco Bay Regional Water Quality Control Board's (Water Board's) Municipal Regional Stormwater Permit (MRP) (Order No. R2-2022-0018, as amended, NPDES No. CAS612008) requires the Permittees covered by the MRP to submit Annual Reports by September 30 of each year that document the implementation of MRP requirements during the previous Fiscal Year (FY, July 1 through June 30). The MRP recognizes that the County of Alameda, the 14 cities within the County, the Alameda County Flood Control and Water Conservation District (District), and the Zone 7 Water Agency (Alameda Permittees) have joined together to form the Alameda Countywide Clean Water Program (ACCWP or Program). Each Alameda Permittee is submitting a separate Annual Report using the Annual Report format approved by the Water Board Executive Officer (EO). Those Alameda Permittee reports describe the activities conducted by each of the Permittees during the previous FY. This Program Annual Report describes the activities that were conducted by the Program, the Bay Area Municipal Stormwater Collaborative (BAMSC), and the California Stormwater Quality Association (CASQA) on behalf of the Alameda Permittees during the previous FY. This report is referenced in and incorporated by reference into the Alameda Permittees' Annual Reports.

Introduction

Background

The Alameda Countywide Clean Water Program (ACCWP or Program) is a consortium comprising the cities of Alameda, Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Oakland, Piedmont, Pleasanton, San Leandro, and Union City; the County of Alameda; the Alameda County Flood Control and Water Conservation District (District); and the Zone 7 Water Agency (Member Agencies). The Program was established in 1991 through a Memorandum of Agreement in response to the San Francisco Bay Regional Water Quality Control Board's (Water Board's) issuance of a National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit (Permit) to the Member Agencies. The Program allows the Member Agencies to work together to more efficiently comply with many of the Permit requirements. The Program also works collaboratively with other jurisdictions in the Bay Area through the Bay Area Municipal Stormwater Collaborative (BAMSC) and throughout the State through the California Stormwater Quality Association (CASQA).

For the first several permit cycles, the Water Board issued permits on a county-by-county basis. In 2009, the Water Board issued one permit to all the jurisdictions within the more urbanized counties in the Bay Area (Alameda, Contra Costa, San Mateo, Santa Clara, and Solano). This permit was referred to as the Municipal Regional Stormwater Permit or MRP 1. The MRP was subsequently reissued on November 19, 2015 (MRP 2) and on May 22, 2022 (MRP 3). MRP 3 was amended on October 11, 2023. The effective start date of MRP 3 was July 1, 2022. This Annual Report covers the FY from July 1, 2024 to June 30, 2025 and is the third Annual Report under MRP 3.

Organization of the Report

This countywide Annual Report only addresses the MRP 3 provisions applicable to Alameda County and, as such, does not include Provisions C.14, C.16, C.18, and C.19. This report is organized in order of the major MRP provisions, as listed below. In FY 2024/25, there were no countywide activities relevant to C.1 or C.13, and they are not included in this report.

- 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.15. Exempted and Conditionally Exempted Discharges
- C.17. Discharges Associated with Unsheltered Homeless Populations
- C.20. Cost Reporting
- C.21. Asset Management

Within each section, the requirements being reported on are summarized, along with a description of Program, BAMSC, or CASQA activities conducted to comply with the Permit requirement.

Highlights of Significant FY 2024/25 Accomplishments

Our Water Our World

Our Water Our World (OWOW) is a highly successful point-of-purchase outreach campaign promoting the use of less-toxic pest control methods. During FY 2024/25, the OWOW program continued partnering with 34 retailers throughout Alameda. This total includes nine Home Depot Stores. A total of 225 store visits were conducted. Each retailer received at least four store maintenance and monitoring visits, and several received up to 10 store maintenance and mentoring visits, engaging with 196 customers. A total of 11 training events were conducted, and 90 employees received the OWOW training. In addition, 13 in-person public outreach events and two online webinars were held, reaching a total of 659 attendees. A OWOW Mentorship program participant at one of the Home Depots is shown in **Figure 2**.

OUR WATER OUR WORLD

HELPING CONSUMERS FIND LESS-TOXIC PRODUCTS FOR USE IN THEIR HOMES AND GARDENS

Figure 1: Our Water Our World Logo And Slogan

Figure 2: OWOW Mentoring Associates Participant At Home Depot Livermore

Kids for the Bay Storm Drain Rangers

The Kids for the Bay Storm Drain Rangers Schoolwide Trash Reduction Program is designed to engage and educate elementary school students in Alameda County about stormwater pollution reduction. Grade level teams of students learn about watersheds, stormwater pollution, and pollution prevention strategies, including trash cleanup efforts, and practice the Five Rs (Reduce, Reuse, Recycle, Rot, and Refuse) to reduce trash and waste at the source. A total of 17 classrooms at seven elementary schools participated in the Storm Drain Rangers program this year. They conducted cleanups and litter audits, performed assemblies, designed posters, and received five classroom lessons on storm drains, litter, and water pollution. In total, they collected 5,827 pieces and 295 gallons of trash. Environmental stewardship activities totaled 858 hours, and 464 students became Storm Drain Rangers and pledged to make behavior changes to help the watershed environment. A student poster from the Kids for the Bay Storm Ranges Program is shown in **Figure 3**.

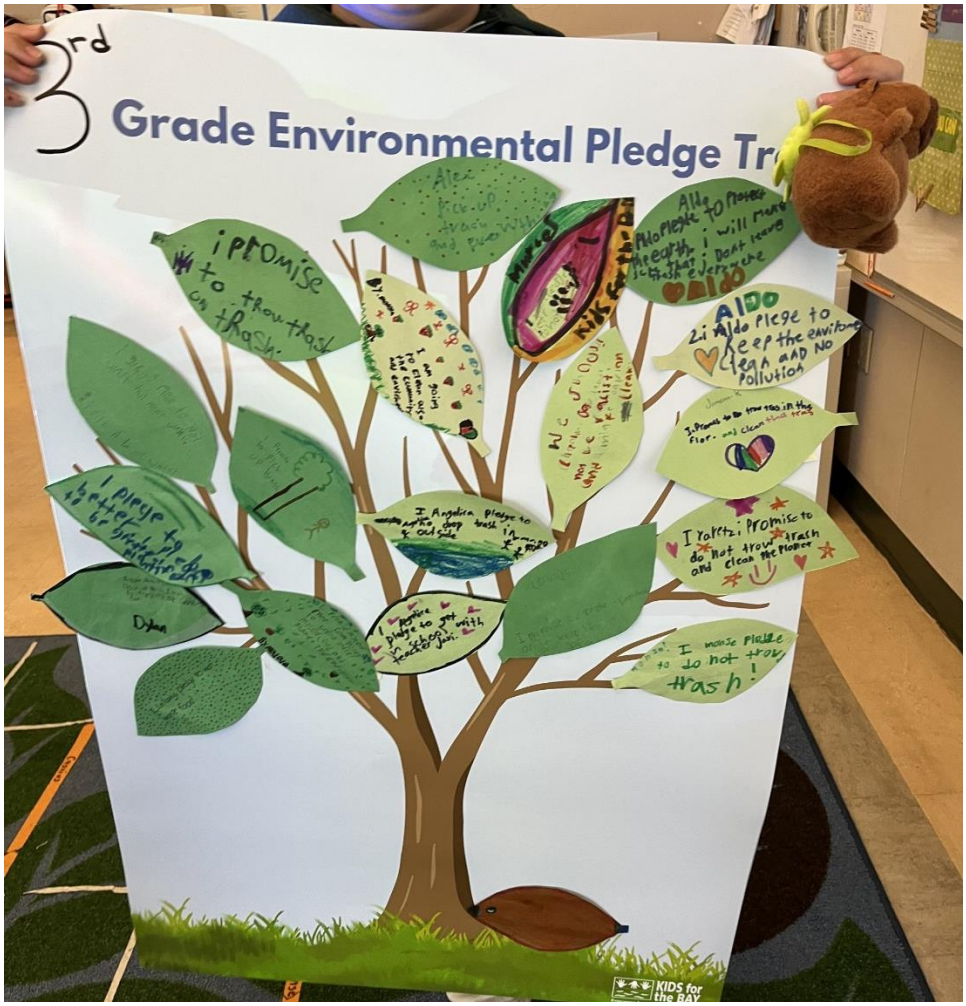


Figure 3: Kids For the Bay Storm Rangers Program Classroom Posters

Alameda County Fair Summer 2025

Once again, ACCWP coordinated and installed an exhibit at the Alameda County Fair. This year, the Program's booth featured storm drains and their connections to creeks. The Program's mascots, Fred the Frog and Izzy the Egret, guided viewers through the exhibit via a Scavenger Hunt. An educational infographic showed how storm drains start in neighborhood streets, then connect to underground pipes, which empty into a creek. Educational posters, interactive signs, and sound recordings provided information on water health, microbes, plants, and wildlife. The exhibit ended with tips on how to prevent stormwater pollution. The fair was open from June 13 to July 6, 2025. The booth won all four first prizes in the Invitational category, and 233 completed scavenger hunt forms were received. In addition, the Fred and Izzy mascots were recognized by several students, who mentioned seeing them at their Caterpillar Puppets school performance. A photo of the booth is shown in **Figure 4**.

Figure 4: Photo of the Booth and its First Place Blue Ribbons

AGOL Tools and C.3 Training

This year, the ACCWP provided a hybrid training on the ArcGIS Online (AGOL) C.3 inspection application. The training focused on Green Stormwater Infrastructure (GSI) inspections using the online geographic information system (GIS) application and featured a GSI Field Inspection Exercise of the bioretention areas at the County's Turner Court parking lot. The training was held online and attended by 109 Members. The presentations included C.3 regulatory background, operations and maintenance agreements, and inspections. The meeting recording is available to Members via the Program's Vimeo.

C.8 Water Quality Monitoring

The Program coordinated with the BAMSC Low Impact Development (LID) Monitoring Workgroup on final required revisions on the Regional LID Monitoring Quality Assurance Project Plan (QAPP) report. The *BAMSC Regional LID Monitoring QAPP, Version 2* was submitted to the Water Board in September 2025. The Program also coordinated with the BAMSC Trash Monitoring Workgroup to address Water Board comments on the *BAMSC Regional Trash Outfall Monitoring Plan* and *BAMSC Regional Trash Outfall Monitoring QAPP.* The Water Board approved the BAMSC Trash Outfall Monitoring Plan and

QAPP on January 30, 2025. Additionally, the Program submitted its Urban Creeks Monitoring Report (UCMR) and electronic data in March 2025 based on monitoring data obtained in water years (WY) 2023, 2024, and 2025.

C.9.g Pesticide Implementation Evaluation

The Program evaluated the implementation of the Pesticide Sources Control Actions in achieving TMDL targets and avoiding future pesticide toxicity in urban creeks. The evaluation covered Participation in the Regulatory Process, Public Outreach, and Monitoring. For this evaluation, the Program completed a report, *Pesticide and Toxicity Monitoring: Summary of Municipal Regional Stormwater Permit Monitoring Conducted WY 2019 through WY 2024*.

C.11 Mercury and C.12 PCBs

The Program completed the *Mercury and PCBs Control Measures – Update 2025* report as part of the risk reduction program aimed at reducing public health impacts of mercury in San Francisco Bay/Delta fish. The Program also conducted an evaluation and developed a *2025 Fish Advisory Sign Assessment*.

The Program worked collaboratively with BAMSC members to secure $8 million from the San Francisco Bay Program (formerly the Water Quality Improvement Fund) for the PCBs TMDL Project. The project will expand existing partnerships between local and regional agencies and organizations who are collectively working to implement the PCBs TMDL by improving and expediting monitoring, mapping, and implementation efforts. Work on the five-year project will begin in July 2025.

Provision C.2 Municipal Operations

Requirement: Provision C.2 requires Permittees to implement Best Management Practices (BMPs) to control and reduce non-stormwater and polluted stormwater discharges to storm drains and watercourses during operation, inspection, and routine repair and maintenance activities from municipal facilities and infrastructure.

Program Activities: To assist Member Agencies in complying with this provision, ACCWP held three Municipal Maintenance Subcommittee meetings during the FY. Mike Wells, City of Livermore, and Anthony Daquioag, City of Fremont, were the Co-Chairs of the Subcommittee. Subcommittee topics included assessing trash loads in Private Land Development Areas (PLDAs), using updated AGOL tools for trash load reduction efforts, installing and maintaining public and private GSI devices, modifying trash capture devices to reduce confined space issues, ongoing impacts to the storm drain system by the homeless population, and comparing data management tools used by different Member Agencies. The Municipal Maintenance Subcommittee continues to provide a forum for Member Agencies to share information, benefit from other municipal staff field experiences, and receive information on products and training related to municipal maintenance activities.

Provision C.2.g: Storm Drain Marking

Requirement: Provision C.2.g requires Permittees to mark and maintain storm drain inlets with an appropriate stormwater pollution prevention message.

Program Activities: Municipal Maintenance Subcommittee Members shared information during subcommittee meetings about the use of various marker types and suppliers and the use of color-coded markers to indicate if a trash capture device is in the inlet or if green infrastructure is present.

Provision C.2.h: Staff Training

Requirement: Provision C.2.h requires Permittees to provide training at least once within the five-year term of the Permit to municipal staff on topics relevant to municipal staff responsible for maintenance activities.

Program Activities: During this FY, the following training opportunities were available for Member Agencies:

- *Green Stormwater Infrastructure – Inspections from Construction through Operations* (April 29, 2025). This training, hosted by the ACCWP New Development subcommittee, provided hands-on training for inspecting and maintaining GSI and bioretention facilities.
- *AGOL 101 & PLDA App Training* (March 18, 2025). This training, hosted by the ACCWP Data Management/GIS Subcommittee, provided an AGOL 101 basics introduction and a PLDA Application training. The training included demonstrations of how to use AGOL and the PLDA application.

Additional Activities

Requirement: Pesticide Toxicity Control (C.9): MRP 3 requires Permittees to submit an evaluation of the effectiveness of Integrated Pest Management (IPM) efforts.

Program Activities: Subcommittee members discussed how effective current IPM efforts are and how IPM practices could be improved and reviewed the Integrated Pest Management Resource Manual (June

2018), developed by the Clean Water Program. Two IPM checklists, one by activity and the other by pest, were provided to assist Agency Member Staff in identifying the types of activities and pests managed in their agency and aid in evaluating the effectiveness of these efforts.

Requirement: Cost Reporting (C.20). The MRP requires each Permittee to prepare and submit annual capital, operation, and maintenance costs associated with stormwater compliance.

Program Activities: Municipal Maintenance Subcommittee members during subcommittee meetings discussed approaches to estimating maintenance costs associated with the stormwater program and how proportional equipment maintenance costs and the resources shared with stormwater and other agency programs should be addressed.

Requirement: Asset Management Plan (C.21). Provision C.21 requires each Permittee to develop an Asset Management Plan to track the location and maintenance of publicly owned Low Impact Development (LID) and/or Green Stormwater Infrastructure (GSI).

Program Activities: Municipal Maintenance Subcommittee members discussed the types of assets being included in the Asset Management Plan and compared common reporting procedures.

Provision C.3: New Development and Redevelopment

Requirement: Provision C.3 requires Permittees to use their planning authorities to include appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address stormwater runoff pollutant discharges and prevent increases in runoff flows from new development and redevelopment projects.

Provision C.3.a.i.(4): Provision C.3 Training

Requirement: Provision C.3.a.i.(4) requires Permittees to provide training adequate to implement the requirements of Provision C.3 for staff, including interdepartmental training.

Program Activities: To assist Member Agencies in complying with this provision, ACCWP provides C.3 training every other year. The Program's FY 2024/25 workshop focused on Provision C.3. The workshop focused on GSI inspections with presentations on: .

- Orientation to C.3 Regulatory;
- Design/Construction of GSI Facilities;
- Inspecting GSI Facilities During Installation;
- Operations and Maintenance Agreements;
- Operations and Maintenance Inspections; and
- GSI Field Inspection Exercise of the bioretention areas at the County's Turner Court parking lot.

The virtual training session was recorded and will remain available on ACCWP's Vimeo Site. The workshop was attended by 109 Member Agency staff and consultants that support ACCWP and its Member Agencies, along with four Water Board staff. The Post Workshop Report is included in **Appendix A**.

The Program hosted a virtual training on the C.3 AGOL inspection application on June 11, 2025. Training on the Bay Area Hydrology Model (BAHM), including a module for municipal reviewers, can be accessed by Member Agencies and the public on the BAHM download page.

Provision C.3.b: Regulated Projects

Requirement: Under Provision C.3.b, the Permittees must require all projects fitting the category descriptions provided in Provision C.3.b.ii (i.e., Regulated Projects) to implement LID source control, site design, stormwater treatment, and alternative certification by third party reviews, as required in Provisions C.3.c, C.3.d, and C.3.f. Provision C.3.b.iv.(2) lists detailed information that must routinely be included in Annual Reports for Regulated Projects that are approved during the reporting period.

Program Activities: To assist Member Agencies in compiling the information on C.3 Regulated Projects that they are required to routinely report in accordance with Provision C.3.b.iv.(2), ACCWP continued to maintain the AGOL C.3 Tracking Tool. This software tool includes a feature to support the reporting of C.3 Regulated Projects by Member Agencies in the annual reports they prepare for compliance with MRP 3.

Provision C.3.c: Low Impact Development (LID)

Requirement: Provision C.3.c requires Permittees to implement LID source control, site design, and stormwater treatment requirements in all Regulated Projects.

Program Activities: To assist Member Agencies in complying with the requirements of this provision, the ACCWP maintains the Program's *C.3 Technical Guidance* manual, which provides comprehensive guidance to project applicants and designers of municipal capital projects regarding the implementation of LID source control, site design, stormwater treatment, and hydromodification management (HM) measures. The manual underwent a major update in FY 2022/23, and Version 8 accounted for the new MRP 3 requirements and provided new content. Version 8.1 accounted for the MRP 3 amendment affecting Special Projects Category C. In FY 2024/25, a minor update was completed to correct errata and respond to comments submitted by Member Agencies, the public, and the Water Board. Version 8.3 was posted in June 2025.

Provision C.3.d.iv: Tree Runoff Reduction and Tree-Based Stormwater Treatment Systems

Provision C.3.d.iv allows Permittees to collectively submit a proposal that evaluates the benefits and associated criteria of runoff reduction associated with trees with respect to treatment control sizing; evaluates and includes, as appropriate, the findings of the Healthy Watersheds, Resilient Baylands project; and will be considered for incorporation into a subsequent Permit.

Program Activities: Following discussions with the Water Board staff, the MRP Permittees collectively decided not to pursue developing this optional report.

Provision C.3.e.i.(2): Payment of In-Lieu Fees

Requirement: Under Provision C.3.e.i.(2), Permittees may allow a Regulated Project to treat a portion of the amount of runoff identified in Provision C.3.d for the Regulated Project's drainage area with LID treatment measures onsite or with LID treatment measures at a joint stormwater treatment facility and pay equivalent in-lieu fees to treat the remaining portion of the Provision C.3.d runoff with LID treatment measures at a Regional Project.

Program Activities: To assist Member Agencies in providing an in-lieu fee option the New Development Subcommittee (NDS) formed a workgroup to research and evaluate options. In FY 2024/25, NDS completed a Technical Memorandum and spreadsheet training tool for members to use is created a local in-lieu fee program. In FY 2025/26 the NDS will continue to evaluate countywide or regional program options.

Provision C.3.g.vi.(4): Bay Area Hydrology Model Modifications

Requirement: Provision C.3.g.vi.(4) requires Permittees allowing the use of the BAHM to annually report collectively a listing, summary, and date of modifications made to the BAHM, including the technical rationale.

Program Activities: The 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 was jointly funded 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. In FY 2023/24, the Program, along with three other countywide programs, provided in-kind support to a BAMSC project of regional benefit to update the BAHM and User Manual. The User Manual, model, and training can be accessed by Member Agencies and the public on the BAHM download page.

Provision C.3.h: Operation and Maintenance of Stormwater Treatment Systems

Requirement: Provision C.3.h requires each Permittee to implement an Operation and Maintenance (O&M) Verification Program in accordance with the requirements specified in Provision C.3.h.

Program Activities: The Program continued to support Members by maintaining AGOL C.3 Tracking Tool to facilitate data entry of C.3 projects and continued improvements to the AGOL Field Maps application for collecting and documenting data during O&M verification inspections by merging the C.3 and C.10 inspection applications. As described in the Provision C.3.a.i.(4) C.3 Training section, training on the C.3 inspection application was provided in FY 2024/25.

Provision C.3.i: Required Site Design Measures for Small Development and Redevelopment Projects and Smaller Detached Single-Family Home Projects

Requirement: Provision C.3.i requires Permittees to enforce development and redevelopment projects and detached single-family home projects within certain impervious surface area criteria to install one or more site design measures listed in Provision C.3.i.i.

Program Activities: The Program continued to maintain the *C.3 Technical Guidance* manual, as described in the Provision C.3.c LID section. The manual provides information on the requirements and project thresholds for Small Projects and Smaller Detached Single-Family Home Projects.

Provision C.3.j: Green Infrastructure Planning and Implementation

Requirement: Provision C.3.j requires each Permittee to continue to implement a Green Infrastructure (GI) Plan for the inclusion of LID storm drain infrastructure on public and private lands. The Plan serves as an implementation guide and reporting tool during this and subsequent Permit terms to provide reasonable assurance that urban runoff Total Maximum Daily Load (TMDL) waste load allocations (e.g., for the San Francisco Bay mercury and polychlorinated biphenyls (PCBs) TMDLs) will be met, and to set goals for reducing, over the long term, the adverse water quality impacts of urbanization and urban runoff on receiving waters.

Program Activities: To assist Member Agencies in complying with this provision, the Program conducted various activities, described here and in the specific sub-provisions of C.3.j below. The Program addressed topics related to GI at meetings of the NDS, including information sharing on the Member Agencies' activities to implement their GI Plans and progress toward achieving individual and countywide metrics. The NDS formed a technical working group (TWG) to provide additional support to Member Agencies on C.3.j and other topics that needed more frequent discussion and input than the quarterly NDS meetings. As described in the Provision C.3.c LID section, the Program continued to maintain the *C.3 Technical Guidance* manual, which includes a chapter on Public Agency Projects and appendices that provide resources and references to assist Member Agencies with implementing GI projects.

Provision C.3.j.ii.(1)(g): Green Infrastructure Plan Outreach and Education

Requirement: Provision C.3.j.ii.(1)(g) requires Permittees to conduct outreach and education on the requirements of Provision C.3.j and methods of implementation, including public outreach (both general outreach and targeted outreach to professionals involved in infrastructure planning and design); staff training (including planning, engineering, public works maintenance, finance, fire/life safety, and

management staff); and education of appropriate Permittee-elected officials (i.e., mayors, city council members, county supervisors, and district board members).

Program Activities: To assist Member Agencies in complying with this provision, the Program continued to make available to Member Agencies various tools developed during MRP 2, and information on GI is featured on the Program's Green Infrastructure website. Regionally, the Program supports BAMSC's outreach efforts that are described in the Provision C.3.j.iv Participate in Processes to Promote GI section.

Provision C.3.j.ii.(3): Design and Other Criteria

Requirement: Provision C.3.j.ii.(3) requires GI projects built pursuant to Provision C.3.j to comply with Provisions C.3.c, C.3.d, and C.3.e-h. With cause, Permittees may use the Guidance for Sizing Green Infrastructure Facilities in Streets Projects with companion analysis, Green Infrastructure Facility Sizing for Non-Regulated Street Projects, to size non-regulated green streets projects.

Program Activities: The Program continued to maintain the *C.3 Technical Guidance* manual, as described in the Provision C.3.c LID section, which includes a chapter on Public Agency Projects and information on alternative sizing requirements for non-regulated road projects.

Provision C.3.j.ii.(4): Long-Term Green Infrastructure Implementation

Requirement: Provision C.3.j.ii.(4) allows Permittees, Water Board staff, and impartial science experts to collectively form a TWG to discuss long-term GI goals and recommend long-term percentage reductions in Permittees' impervious surfaces.

Program Activities: To assist Member Agencies, the Program took on a lead role in the development and coordination of the Long-Term Green Stormwater Infrastructure (LTGSI) TWG. Program representatives coordinated with the other countywide programs and Water Board staff to plan the agenda and arrange speakers for the LTGSI TWG meetings. Member Agencies and Program representatives participated the LTGSI TWG, which met four times during FY 2024/25. The LTGSI TWG discussions and outcomes are documented in the *Long-Term Green Stormwater Infrastructure Technical Working Group Summary and Recommendations Report* (**Appendix A**). The LTGSI TWG will continue to meet in FY 2025/26.

Provision C.3.j.iv: Participate in Processes to Promote Green Infrastructure

Requirement: Provision C.3.j.iv requires Permittees to, 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 with planning, design, and funding incorporation of GI 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.

Program Activities: To support the Member Agencies in complying with this provision, the Program participated through BAMSC in sharing information about regional efforts and outreach, which are described in the *Regional Supplement for New Development and Redevelopment* (**Appendix A**). Additionally, meetings of the NDS included information-sharing regarding GSI implementation.

Provision C.3.j.v: Tracking and Reporting Progress

Requirement: Provision C.3.j.v requires Permittees to continue to implement regionally consistent methods to track and report implementation of GI measures, including treated area and connected and disconnected impervious area on both public and private parcels within their jurisdictions. The methods shall also address tracking needed to provide reasonable assurance that waste load allocations for TMDLs, including the San Francisco Bay PCBs and mercury TMDLs, and trash, are being met.

Program Activities: To assist Member Agencies in complying with this provision, the Program continued to support the Alameda Countywide GSI Mechanism for its Member Agencies to use in prioritizing and mapping areas for planned and potential GSI projects. The mechanism consists of the Alameda Countywide Multi-Benefit Metrics Prioritization Protocol interface, in conjunction with the AGOL C.3 Tracking Tool described in the Provision C.3.b Regulated Projects section. The Member Agencies continued to use the AGOL C.3 Tracking Tool to track and map information on GI measures implemented on public and private parcels.

Additional Activities

The Program held four meetings of the NDS, which is currently led by Daniel Matlock, City of Fremont, Chair, and Erwin Ching, San Leandro, Vice Chair. The NDS provides a valuable venue for Member Agency staff to share information, benefit from lessons learned by others, and receive training on permit requirements and products developed by the Program related to Provision C.3, as well as Provisions C.6 Construction Site Control, C.12.g Manage PCBs-Containing Materials and Wastes During Building Demolition Activities, and C.13.a Manage Waste Generated from Cleaning and Treating of Copper Architectural Features. In FY 2024/25, the NDS focused on supporting Members with information on C.3.b and C.3.j implementation. The NDS Members participated in the regional LTGSI TWG and the BAMSC Development Committee. Program staff and their technical consultants continued to provide on-call support to Member Agency requests for assistance regarding Provision C.3 compliance.

Provision C.4: Industrial and Commercial Site Controls

Provision C.4.d: Inspections

Requirement: Provision C.4.d requires Permittees to conduct inspections according to their Business Inspection Plan and Enforcement Response Plan to prevent stormwater pollution.

Program Activities: To assist Member Agencies in complying with this provision, the Program developed the *Grease Handling and Storage* postcard for restaurants. The Program's public outreach contractor is finalizing the layout, and it will be available early FY 2025/26.

Provision C.4.e: Staff Training

Requirement: Provision C.4.e requires Permittees to provide focused training for industrial and commercial site inspectors and illicit discharge detection and elimination inspectors annually. Training may be program-wide, region-wide, or Permittee specific.

Program Activities: To comply with this provision, the ACCWP's Industrial and Illicit Discharge Control (IIDC) Subcommittee sponsored a hybrid business and illicit discharge stormwater inspectors training workshop on March 17, 2025. Presentations and a group exercise were provided for both in-person and virtual attendees. The group exercise reviewed real case studies of inspections that had fats, oils, and grease (FOG) issues and material storage issues. Attendees discussed how they would handle the FOG and Material Storage issues in their inspections. The workshop included the following presentations:

- Overview of U.S. Environmental Protection Agency (EPA) Stormwater Inspection Program in Region 9, presented by Kristine Karlson, Enforcement & Compliance Assurance Division, EPA Pacific Southwest Region;
- Overview of Water Board Industrial Stormwater Inspection Program, presented by Maggie Monahan and Jerry Xu, Water Board; and
- Development of the ACCWP Moderate PCBs Old Industrial Program, presented by Lisa Austin, Geosyntec.

Presentation materials from the workshop are available to Member Agencies for use as in-house training. Recorded presentations from the workshop are available to Member Agencies on the ACCWP Trainings Vimeo. Evaluation surveys showed that the training met expectations. Overall, attendees deemed the presentations informative and useful, with an average rating of 3.7 out of 4. **Appendix B** contains the workshop report, including the agenda, attendance list, and evaluations.

Additional Activities

The Program held four IIDC Subcommittee meetings during the FY 2024/25. Aileen Mendoza, Alameda County Department of Environmental Health, served as the Chair of the subcommittee, and Echo Lee, City of Alameda, served as the Vice Chair. On average, 19 people attended each meeting and shared information on MRP 3 compliance and activities. The IIDC meetings provide a valuable venue for Member Agency staff to share information, benefit from lessons learned by others, and receive information on permit requirements and products developed by the Program related to Provision C.4, as well as Provisions C.5 Illicit Discharge Detection and Elimination, C.13.b. Manage Discharges from Pools, Spas and Fountains that Contain Copper-Based Chemicals, C.13.c Copper Source Control for Industrial Sources, and C.15. Exempt and Conditionally Exempt Discharges.

A description of the *Fire Restoration Contractors* Tip Sheet *and Sites Prone to Fires* Tip Sheet developed by the IIDC is included in Section C.15.b.iii.

Provision C.5: Illicit Discharge Detection and Elimination

Provision C.5.c: Spill, Dumping and Complaint Response Program

Requirement: Provision C.5.c requires Permittees to implement a program to respond to spills, dumping and complaints.

Program Activities: To assist Member Agencies in complying with this provision, the Program maintains a list of Member Agencies and a point of contact for reporting spills on the Program's "Report a Spill" webpage. The list is periodically updated.

Provision C.5.e: Control of Mobile Sources

Requirement: Provision C.5.e requires Permittees to implement a program to reduce the discharge of pollutants from mobile businesses. The Program must include standard BMPs, an enforcement strategy, inventory, outreach strategy, and inspections, as needed. Permittees may cooperate countywide and/or region-wide with the implementation of their programs for businesses, including sharing of mobile business information, BMP requirements, enforcement action information, and educational materials.

Program Activities: The categories of mobile businesses currently addressed by the Program include automobile washing, power washing, steam cleaning, carpet cleaners, pet care providers, graffiti removal, and mobile fuelers. These mobile business categories have minimum standards and BMPs identified in a series of Tip Sheets developed by the Program:

- *Tips for Mobile Businesses;*
- *Tips for Pet Care Providers;*
- *Tips for Carpet Cleaners;*
- *Tips for Pools, Spas, and Fountains;*
- *Tips for Fundraising Car Washes;*
- *Tips for Graffiti Removal;*
- *Tips for Mobile Fleet Service Providers;*
- *Tips for Surface Cleaning & Power Washing;*
- *Tips for Surface Cleaning & Power Washing (Spanish);*
- *Tips for Surface Cleaning & Power Washing (Chinese); and*
- *Tips for Graffiti Removal.*

During this FY, the City of Oakland invited the IIDC Subcommittee to a demonstration of a local power washer's new equipment that allows for containment and collection of wash water used to clean the sidewalks in the downtown Oakland business district.

Outreach to Mobile Businesses: The Program developed a countywide mobile business inventory in FY 2016/17. The countywide inventory is updated annually with businesses identified by municipal inspectors in the field and business license lists provided by agencies. Businesses are removed from the list when internet searches show they are closed. The inventory is available on the IIDC Subcommittee's Members-only webpage.

Mobile Business Enforcement Strategy: In FY 2017/18, the IIDC Subcommittee worked with the Alameda County District Attorney's (DA's) office to develop an enforcement strategy for mobile businesses. When City and County IIDC inspectors issue an enforcement action to a mobile business, they will also complete a Referral Form for the DA. The DA's office will keep a list of mobile businesses that receive

enforcement actions from all jurisdictions in Alameda County. If an individual business receives more than one enforcement action, even if they are from different jurisdictions, the DA's office may choose to take action. The Referral Form was emailed to the Subcommittee for reference and use again during this FY.

BAMSC is continuing the Surface Cleaner Training and Recognition Program that educates mobile surface cleaners about proper BMPs to protect water quality and allows them to market themselves as "recognized" cleaners. This FY, BAMSC updated the BMP brochure, quiz, and videos to emphasize that wash water is not allowed in the storm drain. BAMSC maintains the website with the BMPs, training resources, and recognized cleaners list.

Provision C.5.f: MS4 Maps

Requirement: Provision C.5.f requires Permittees to determine information missing from the Permittee's current Municipal Separate Storm Sewer System (MS4) map and develop a plan and schedule for updating the Permittee's storm sewer system information. The plan and schedule must be submitted with the September 2026 Annual Reports.

Program Activities: Program staff developed an MS4 Mapping Update Plan Template (June 2025) to assist Member Agencies with development of their individual plans during FY 2025/26. The Template is available on the Clean Water Program's members-only webpage.

Additional Activities

The C.4.e Staff Training section includes a description of illicit discharge related training that was included in the IIDC workshop. Illicit Discharge Detection and Elimination Program activities are also discussed at the IIDC Subcommittee meetings.

The C.15.b.iii section includes a description of the *Fire Restoration Contractors* Tip Sheet developed by the IIDC. Program staff developed a list of illicit discharge response contractors that could potentially respond to clean up after firefighting activities in Alameda County and mailed a letter with the Tip Sheet to the contractors in July 2025.

Provision C.6: Construction Site Control

Provision C.6: Construction Site Control

Requirement: Provision C.6.b requires each Permittee to implement a construction site inspection and control program at all construction sites, with follow-up and enforcement consistent with each Permittee's respective enforcement response plan, to prevent construction site discharges of pollutants into storm drains.

Program Activities: To assist Member Agencies in complying with this provision, ACCWP included discussions of Provision C.6 requirements at meetings of the NDS, at which Member Agency staff share information, learn from the experience of other agencies, and receive guidance and training from the Program. Examples of C.6-related topics addressed at NDS meetings include discussing preparations for the wet season, implementing BMPs, and the 2022 Construction General Permit (CGP). Member of the NDS and Data Management-GIS Subcommittee led the effort to develop a C.6 construction inspection AGOL Application. Development and testing of the application were completed in FY 2024/25. The application will be rolled out to Member Agencies with training in the Fall of 2025. To assist Member Agencies with the 2022 CGP requirement to post project information signs at CGP permitted projects, the Program developed a sign template. Additionally, ACCWP and their technical consultants continued to provide on-call support to Member Agency requests for assistance regarding Provision C.6 compliance.

Provision C.6.e.ii.(1): Wet Season Notification

Requirement: Provision C.6.e.ii.(1) requires Permittees to, by September 1 of each year, remind all site developers and/or owners of projects disturbing one acre or more of soil, hillside projects, and high priority projects to prepare for the upcoming wet season.

Program Activities: To assist Member Agencies in complying with this provision, an email notification was sent to NDS Members on July 29, 2024, regarding the requirement for Member Agencies to provide pre-wet season notifications (by September 1, 2024) to all site developers or owners of hillside sites, high priority sites, and sites disturbing one acre or more of soil, in order to prepare for the upcoming wet season.

Provision C.6.f: Staff Training

Requirement: Provision C.6.f requires Permittees to provide training at least every other year to municipal staff responsible for conducting construction site stormwater inspections.

Program Activities: To assist Member Agencies in complying with this provision, ACCWP provides C.6 training every other year. The Program's FY 2024/25 workshop focused on Provision C.3; however, the C.3 training included a module on the inspection of bioretention facilities during installation. See Section C.3 for more information on the FY 2024/25 training. In addition, recordings of past C.6 trainings remain available in ACCWP's Vimeo Site to Member Agencies for their use for refresher training or training new staff.

Provision C.7: Public Information and Outreach

Provision C.7.a: Outreach Campaigns

Requirement: Provision C.7.a requires Permittees to participate in or contribute to outreach campaigns, with the goal of significantly increasing overall awareness of stormwater runoff pollution prevention messages and behavior changes in target audiences.

Program Activities: To comply with this provision, the Program conducted the activities described below.

Public Outreach Campaign

The FY 2024/25 public outreach campaign effort included the digital promotion of existing Fred & Izzy videos, as well as a new, multi-touch campaign promoting awareness and encouraging behavior change through pledges and giveaways.

"A Clean Bay Begins Here" Multi-Touch Media Campaign Strategy and Results

A 2024 survey by the program found that 60% of county residents believe runoff flows straight into local waterways, but the other 40% thought it may be treated first, or that it flows into the sewer system. To address this knowledge barrier, the multi-touch media campaign drew attention to the humble storm drain, making the connection from streets to creeks and the Bay. A partnership with local artist Joanna Sokua brought new energy and attracted attention to advertising. A sample of the new artwork is shown in **Figure 5.**

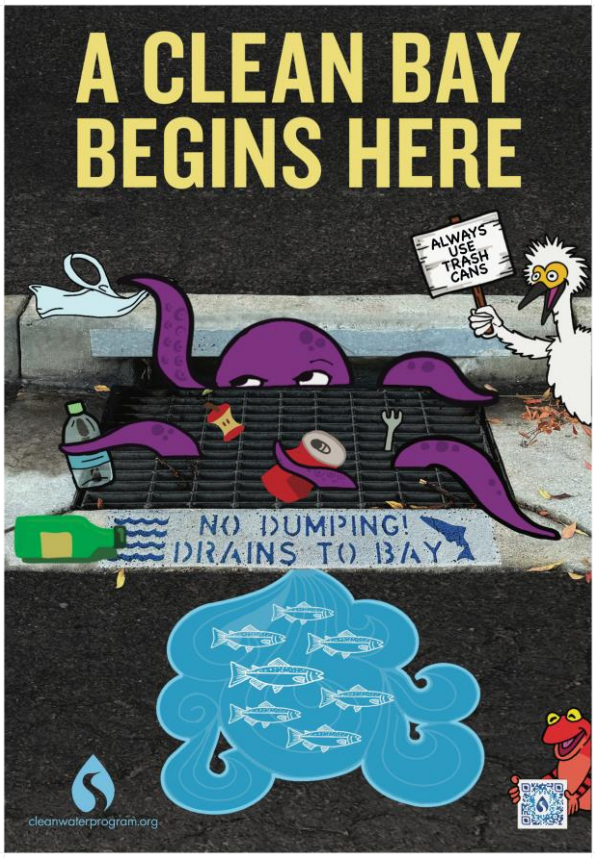


Figure 5: Campaign Bus Shelter Ad

Goals: Raise awareness that storm drains connect **directly** our streets to our creeks and the Bay! Inspire residents to keep litter and other pollution off our streets.

Target Audience: Young to middle-aged adults (age 18-49) who may not know that storm drains connect directly to creeks and the Bay without any cleaning or treatment. This audience is less engaged than other age groups.

Tactics

- **Campaign Landing Page:** The Residents landing page was replaced with campaign content for the duration of the campaign.
- **Promotional Giveaways and a Campaign Pledge**: A total 177 notebooks imprinted with campaign art were sent to residents that took a pledge of action, selecting from a list of pollution prevention behaviors. The linked calls to action on the pledge form included the following:
    - Always Use a Trash Can
    - Take Household Hazardous Waste to a Drop-Off
    - Use a Commercial Car Wash
    - Think Before You Spray—Use Less-Toxic Pest Control
    - Pick up Pet Waste and Dispose in the Trash
    - Sweep Don't Hose Your Driveway
    - Tap Into the Rain
- **E-blasts Announcing Campaign:** These were sent to the Program's e-newsletter distribution list and to Bay Area News Group list subscribers.
- **Media & Community Relations:** Outreach was provided to local media outlets and community partners.
- **Social Media Posts and Reel/Short:** These were created using the new artwork.
- **Paid Media:** The campaign ran digital display ads and Transit Ads.

Transit Advertising

The media package included advertising on 49 AC Transit and 20 Tri-Valley Transit buses, along with 18 shelters in the AC Transit Service Area. Samples of the ads are shown in **Figure 6** and **Figure 7**.

Figure 6: Sample Bus Shelter Ad

Figure 7: Ad on Tri-Valley Transit

E-blasts

Blasts to Program Subscribers

On March 20, 2025, an E-blast was distributed to the Program's 1,289 e-newsletter subscribers, sparking significant engagement with its subject line: "Where Do Storm Drains Go? Find out and snag a limited-edition notebook!" This call to action led to a strong 41.2% open rate and 106 clicks to the campaign's pledge page. Click here to see a sample of the E-blast.

Blasts through the Bay Area News Group Lists

On March 24 and April 18, 2025, an E-blast campaign with similar content targeted Alameda County residents with interest in the outdoors. These emails reached 225,000 residents via their subscription to the Bay Area News Group.

Results across all three blasts included 18,668 views and 2,552 clicks. The most successful E-blast was the one sent via Bay Area News Group on April 18 with the subject line, "Get Your Free Clean Bay Notebook, While Supplies Last." It had a 19.29% open rate, 14,465 views, and 1,899 clicks. The March 24 E-blasts to the same recipients using the subject line, "Do you Know Where the Storm Drain Goes?" received a 3.2% open rate and 634 clicks, leading us to believe the subject line offering a giveaway was more compelling to this subscriber list. All emails directed recipients to the campaign landing and pledge pages.

Promotion Through Outreach Partners

Several community partners and local media outlets ran articles about the campaign in their communications, highlighting the giveaways and the pledge link. These outlets included printed and online publications: San Leandro Times, Patch, and City of Fremont and City of Oakland e-newsletters to residents. Member agencies and media, such as the Tri-Valley Voice, also shared social media posts. Sample coverage of the San Leandro Times is provided in **Figure 8**.

Where Do Storm Drains Go?

Local cartoonist's art shows how streets connect through the storm drains to creeks and the bay

The Alameda Countywide Clean Water Program is partnering with Bay Area artist Joanna Sokua on a public outreach campaign to raise the visibility of the county's storm drains and send a simple message: Storm drains connect streets directly to creeks and the Bay.

"Many people don't know that whatever gets washed down the storm drain—or gutter as many would say—can end up in our waterways," explains spokesperson Cynthia Butler.

"The drains flow directly to local waterways without going to a treatment plant first," Butler said. "That's why it's important to keep pollution off our streets, driveways, yards, gardens and sidewalks by reducing pesticide use, and picking up pet waste."

Through mid-April, Sokua's art will be seen on buses and transit shelters throughout the county, including San Leandro, and on limited-edition promotional giveaways.

PHOTO BY STEFANIE PRUEGEL

Storm drains are the focus of awareness campaign by the Alameda Countywide Clean Water Program, seen here at a bus shelter on Davis Street in San Leandro. Through April, residents can get limited-edition giveaways with the campaign art.

Online, the campaign will be promoted via digital ads, on Facebook and Instagram, and includes an online pledge to take action to prevent pollution.

The first 200 people who pledge online will receive a limited-edition notebook with the original campaign art.

Stickers are also available while supplies last. To learn more and take the pledge visit www.cleanwaterprogram.org/residents.

The Clean Water Program does outreach about stormwater pollution prevention on behalf of the jurisdictions in the county, including the City of San Leandro.

– Submitted by the Alameda County-wide Clean Water Program

Figure 8: San Leandro Times Coverage

Hearst Media Digital Display Ads

Digital advertisements also ran alongside the campaign, delivering 312,930 impressions and 152 clicks.

Social Media Advertising-Clean Bay Campaign

To complement the transit and digital advertising, the Program ran several ads and boosted posts on social media to encourage pledges and promote the giveaway. Google Display ads also ran, which resulted in 853 clicks to the pledge page. Details on the ads and promotions are provided in **Table 1**.

Table 1: Summary of Campaign Promotion Results — March 2025 through May 2025

	Cost	Impressions	Views	Cost Per Thousand Views
Hearst Digital Banner Ads	$3,300	312,930	NA	$10.55
BANG E-blast	$3,300.00	225,000	NA	$14.67
Meta Static Ad	$1,190.09	184,345	NA	$6.46
Google Display Ad	$253.30	21,526	NA	$11.77
Social Giveaways/Boosted Posts	$110	15,200	NA	$7.24
Transit Ads—All	$24,950	22,519,816	NA	$1.11
Total, Clean Bay Campaign	**$33,103.39**	23,278,817		**$1.42**

Website Traffic During Campaign

The combined efforts of all the promotional tactics above led to a significant increase in website traffic during the campaign period (3/17/25-5/20/25) compared to the same timeframe last year. Website visits jumped by 121%, with 6,790 page views compared to 3,079 visits the prior year.

Fred & Izzy Digital Campaign Results

The video campaign covered all the strategic messaging goals: litter, pesticide reduction (OWOW program), car washing, surface hosing, fishing, mercury bulb pollution, pet waste, hiring a certified eco-friendly pest contractor, and general watershed/stormwater education. These videos were promoted throughout the year via a strategy that used a mix of smaller, digital promotions on the usual low-cost media, such as Facebook, Google, YouTube, TikTok, and streaming video.

As of June 30, 2025, the YouTube Channel has 318 subscribers, a 16% increase from FY 2023/24. Combined, all Fred & Izzy videos were viewed on YouTube more than 528,334 times between July 2024 and June 2025,a 104% increase compared to the same period last year, which had 259,265 views. The videos are available on the Program's YouTube Channel. The Facebook page has 1,453 followers, and the Instagram page has 342. The TikTok channel has 490 followers and 11,268 likes. A summary of FY 2024/25 promotion results across all topics is shown in **Table 2.** Campaign Details are shown in **Table 3.**

Table 2: Summary of Video Promotion Results — July 2024 through June 2025

Media	YouTube Views	Facebook Reach	Instagram Reach	TikTok Views	Streaming Views	Pandora Reach
Paid Posts	523,419	323,844	43,312	288,687	253,041	99,910
Total, including Organic Posts	523,844	455,305	105,772	288,687	253,041	99,910

Table 3: Campaign Details July 2024 through June 2025

Date	Message	Platforms						
		Google Display Ad	YouTube	Facebook	Streaming	Pandora	TikTok	Instagram
September 2024	Coastal Cleanup Short Video		**Views:** 181	**Reach:** 18,656 **Views:** 29,722 **Impressions:** 29,722				**Views**: 202
	Litter Hurts (English)			**Reach:** 21,966 **Views:** 41,300 **Impressions***:* 41,404				
	Litter Hurts (Spanish)			**Reach:** 42,712 **Views:** 43,973 **Impressions:** 43,973				
	Litter Hurts (Chinese)			**Reach:** 19,357 **Views:** 22,616 **Impressions:** 22,616				
	Litter 1						**Reach:** 33,480 **Views:** 63,149 **Impressions:** 63,469 **Clicks:** 610	**Reach:** 43,110 **Views:** 78,823 **Impressions:** 84,023
January 2025	Storm Drains		**Views:** 134,665 **Shorts:** 4,076	**Reach:** 90,036 **Views:** 101,215 **Impressions:** 104,595	**Streaming:** 33,709			
	Hire a Certified Pest Contractor	**Clicks:** 307 **Impressions:** 440,480 **Organic Views:** 344			**Views:** 33,670		**Views:** 131,058 **Impressions:** 131,863 **Clicks:** 590 **Reach:** 63,573	
February 2025	Pick-up Pet waste		**Views:** 97,926					
	Mercury HHW		**Views:** 168,590 **Shorts:** 9,391		**Views:** 50,511	**Listen Rate:** 95% **Listeners Reached:** 54,148 **Clicks:** 66 **Impressions:** 87,554		

Date	Message	Platforms						
		Google Display Ad	YouTube	Facebook	Streaming	Pandora	TikTok	Instagram
March 2025	Water-shed Video		**Views:** 67,625 **Shorts:** 4,332			**Listen rate:** 92% **Listeners Reached:** 45,762 **Clicks:** 161 **Impressions:** 71,647	**Views:** 94,480 **Impressions:** 95,298 **Clicks:** 1,382 **Reach:** 45,180	
	OWOW Resources		**Views**: 50,537	**Reach:** 167,970 **Views:** 171,288 **Impressions:** 172,767	**Views:**33,806			
April 2025	Fred's Gardening Getaway			**Reach:** 6,096 **Views:** 11,411 **Impressions:** 10,860	**Views:** 33,886			
	Fred's Gardening Getaway (Spanish)			**Reach:** 5,758 **Views:** 11,854 **Impressions:** 11,239				
	Fred's Gardening Getaway (Chinese)			**Reach:** 10,938 **Views:** 15,654 **Impressions:** 12,901				
May 2025	Sweeping				**Views:** 33,696			
	Car Washing			**Reach:** 32,763 **Views:** 49,623 **Impressions:**44,893	**Views:** 33,763			
	Car Washing (Spanish)			**Reach:** 34,410 **Views:** 51,310 **Impressions:** 47,290				
	Car Washing (Chinese)			**Reach:** 4,643 **Views:** 22,733 **Impressions:** 20,840				
June 2025	Fishing Advisories	**Google Display Ad:** **Clicks:** 1,301 **Impressions:** 28,862						

Coastal Cleanup Promotion, September 2024

Throughout Coastal Cleanup Month in September 2024, many local jurisdictions offered in-person events. The Program compiled a list of these local events and promoted it via its website, E-blasts, and outreach partners. In addition, the Program ran social media posts, using artwork provided by the California Coastal Commission and Fred & Izzy video clips focused on litter and cleanup. Some of the Fred & Izzy video posts were promoted; results from these promotions are listed in the previous section. After the events, several "thank you" posts expressed appreciation to volunteers and shared litter cleanup results. Coastal Cleanup Promotion Details are shown in **Table 4**.

Table 4: Coastal Cleanup Promotion Details

Date	Campaign	Promo Activities	Results
September 2024	**Coastal Cleanup Month 2024** *Event listing page* *E-blast* Social media post examples: - Facebook (announcement, thank you post) - Instagram - TikTok - YouTube	E-blast, Social media posts (organic and promoted) on Facebook, Instagram, TikTok and YouTube	**E-blast:** 1,186 recipients 37% open rate 8% click rate **Social media:** See **Table 3** in previous section.

Hire A Certified Pest Contractor Campaign, January and February 2025

This campaign effectively raised awareness for pest control contractors committed to less-toxic methods. The Program leveraged a multi-faceted approach, starting with organic content like video posts on Facebook and YouTube. Recognizing that some homeowners prefer to watch content on smart TVs, the streaming video platform was prioritized to maximize reach. Furthermore, the display ad campaign proved highly effective in achieving awareness goals, generating over 475,854 impressions and 403 visits to the pest control landing page. Campaign details are shown in **Table 5**.

Table 5: Hire a Certified Pest Control Contractor Program

Date	Campaign Content	Promo Activities	Results
January 22 to February 2 2025	**Hire a Certified Pro** Promote hiring a pest contractor that uses less-toxic methods. *Pest Control at Home Landing Page*	Web Page	**Website:** 403 pageviews
	30-second Video	Facebook Video (Organic post)	**Views**: 68 **Likes**: 2 **Reach**: 47
	Google Display Ad	Google Display Ad	**Impressions**: 440,480 **Clicks**: 307
	30-second Video	YouTube (Organic)	**Impressions**: 1,704 **Views**: 506
	30-second Video	Streaming Video	**Completed Views:** 33,670 (100% of video watched)

Fishing Advisory Campaign

The Program ran a digital campaign to promote awareness of fish consumption health advisories. The ads targeted fishing and outdoor enthusiasts and included Google Display Ads, Facebook, Instagram Reels, YouTube, and streaming video. In addition to digital advertising, a paid article and advertisement in the Fish Sniffer Online Magazine and an E-blast reached 30,000 readers interested in fishing in California. Digital ads linked to the Program's Fishing and Health page. The Fish Sniffer ads directed viewers to the State of California's Fishing Advisory page. Website traffic to the Clean Water Program page received 2,150 visits in June, making it the fourth most-visited page in FY 2024/25. Fishing Advisory Campaign Promotion Details are shown in **Table 6**.

Table 6: Fishing Advisory Campaign Promotion Details

Date	Campaign Content	Promo Activities	Results
June 6-13 2025	**Fishing in the Bay** Promote awareness of fish consumption health advisories. *Fishing and Health content landing page*	Web Page	**Website:** 2,150 pageviews
	30-second Video	Facebook/Instagram Reels (Organic post)	**Views**: 77 **Likes**: 3 **Reach**: 70
	Google Display Ad	Google Display Ad	**Impressions**: 28,862 **Clicks**: 1,301
	Print Ad, Article, E-blast	Fish Sniffer Magazine	**Reach:** 30,000 subscribers

Provision C.7.b: Stormwater Pollution Prevention Education

Requirement: Provision C.7.b: Permittees shall continue to maintain a point of contact to provide the public with stormwater pollution prevention information.

Program Activities: To comply with this provision, the Program conducted the following activities.

Website and Website Promotions

The Program's website can be found at www.cleanwaterprogram.org. In addition to comprehensive content on commercial stormwater pollution prevention issues, compliance guidelines, and resources, the website offers information on the local watersheds and monitoring, the Program's school outreach, and content tailored to residents, promoting everyday practices to help prevent stormwater pollution. Focus areas include toxics reduction and runoff prevention in home and garden, less-toxic pest control at home, car care, litter prevention, healthy fish consumption, and local volunteer opportunities. Users can connect with the Program through email or phone, listed in the "Contact Us" section.

In FY 2024/25, the website received a total of 67,107 page views. This is an increase of 20% compared to last year (55,839 page views). The average session duration was 29 seconds. Sessions per month during the reporting period are shown in **Figure 9**.

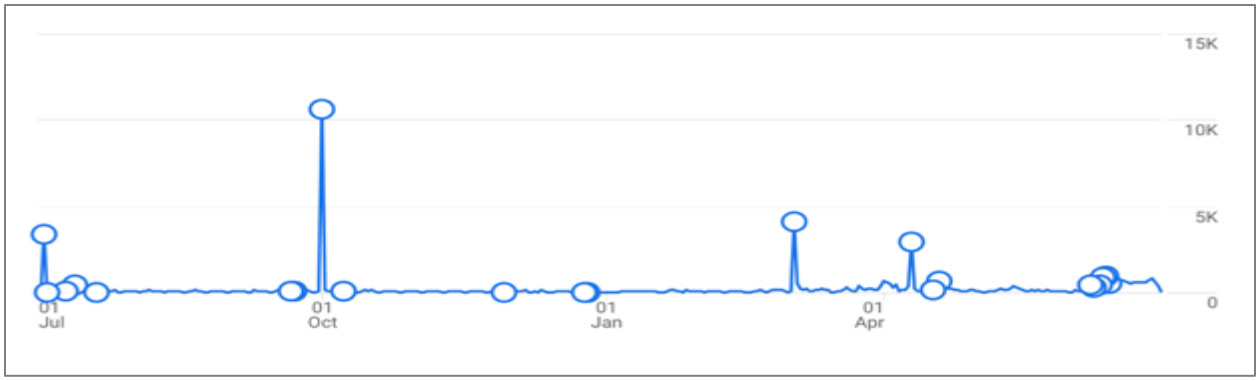


Figure 9: Website Traffic, July 1,2024, through June 30, 2025

The site receives steady "baseline" traffic to pages tailored to the commercial audience, due to compliance requirements. "Peaks" in traffic are generally due to residential traffic that ebbs and flows with seasonal and topic-specific promotions. Throughout the FY, the Program launched several outreach efforts to drive traffic to specific portions (pages) of the residential website content.

Typically, efforts included one or more E-blasts to the Program's E-news subscribers and social media posts. The campaigns described in section C.7.b. also used online advertising (YouTube video ads, Google display ads, search ads, text ads, and Facebook and TikTok ads), resulting in periods of particularly high website traffic. The peaks in the graph above correspond to Program's seasonal promotions along with monthly Fred & Izzy short video campaigns.

About the E-blasts: The Program maintains an email database of 1,286 active contacts, as of June 2025. Residents can opt into receiving E-blasts via a signup form on the website or at outreach/tabling events.

In addition to sending E-blasts to the Program's email list, the content was pitched directly to selected local media outlets to promote coverage. Other contacts, including neighborhood and creek groups, social media interest groups, and member cities, helped increase the reach of Program announcements via their own E-blast, newsletter, or website listing, and/or by sharing a social media post.

Social Media

The Program has a presence on Facebook, X (formerly Twitter), and Instagram, with the Facebook page content managed on a weekly basis. The Program added a TikTok channel in April of 2022 to reach younger viewers, since that platform is popular with Gen Z (age 10-20). The posting strategy includes promoting Program projects, events, and issues through original content, sharing Member Agency posts, monthly paid promotions, and posts about local watershed related events. Posts were made weekly from July 1, 2024, to June 30, 2025.

Facebook: https://www.facebook.com/CleanWaterProgram
The Program's Facebook page currently has 1,453 followers, a slight increase (1.4%) from the previous year. During the reporting period, the page reached 326,432 users an increase of 411% compared to the previous year of 63,865 users. Paid promotions reached over 455,305 people with over 682,020 impressions compared to 120,000 the previous year which is a 468% increase, and 2,244 link clicks compared to the previous year of 482 link clicks (+365.56% increase).

Instagram: https://www.instagram.com/cleanwaterprog/
The Program's Instagram page currently has 342 followers, an 11% increase from the previous year (308 followers). In the period from July 1, 2024, through June 30, 2025, the page had 37 posts and reached 105,772 accounts, compared to the previous year of 8,898 accounts, an ***increase of 1,088%***. Link clicks increased from 230 to 1,335, an increase of 480% from the previous fiscal year. Content interaction, defined as "the number of likes or reactions, saves, comments, shares and replies on your content," also increased 100% to more than 610 interactions.

X (former Twitter): https://x.com/cleanwaterprog?lang=en
In FY 2024/25, we reduced our activity (currently with 108 followers). This decision was made after changes in Twitter's services shifted to X, and we observed lower engagement compared to other social media channels. As a result, we made nine tweets during this period, generating 174 impressions, two reshares, and one like.

TikTok: https://www.tiktok.com/@fred_and_izzy
The Program's TikTok account currently has 490 followers. During FY 2024/25, three vertical format snippets were posted and promoted, and these received a total of 288,687 video views, 1,411 likes, and 2,582 link clicks. Followers increased by 34.

Provision C.7.c: Public Outreach and Citizen Involvement Events

Requirement: Provision C.7.c requires Permittees to annually provide a certain number of public outreach and citizen involvement events based on the Permittee's population.

Program Activities: To comply with this provision, the Program conducted the following activities.

Alameda County Fair Outreach Event

On behalf of all members, the Program coordinated and installed an exhibit at the Alameda County Fair. The fair was open on Wednesdays-Sundays from June 13 to July 6, 2025. The booth won all four first prizes in the Invitational category.

This year, the Program's booth featured storm drains and their connection to creeks. Fred & Izzy guided viewers through the exhibit via a Scavenger Hunt activity and the chance to win a $100 gift card. An educational infographic showed how storm drains start in neighborhoods, then connect to underground pipes, which empty into a creek. Numbered "Drop Stops" helped visitors move through the pipeline, to the creek, where the exhibit changed focus from infrastructure to the riparian habitat. Educational posters, interactive signs and sound recordings provided information on water health, microbes, plants and wildlife. The exhibit ended with tips on how to prevent stormwater pollution. This activity encourages visitors to engage with the content and provides the Program with a valuable metric and new subscribers to our e-news.

The booth was staffed by program member volunteers or consultants on 13 of the 18 days. We received 233 completed scavenger hunt entry forms. Pictures of the County Fair booth are shown in **Figure 10** and **Figure 11**.

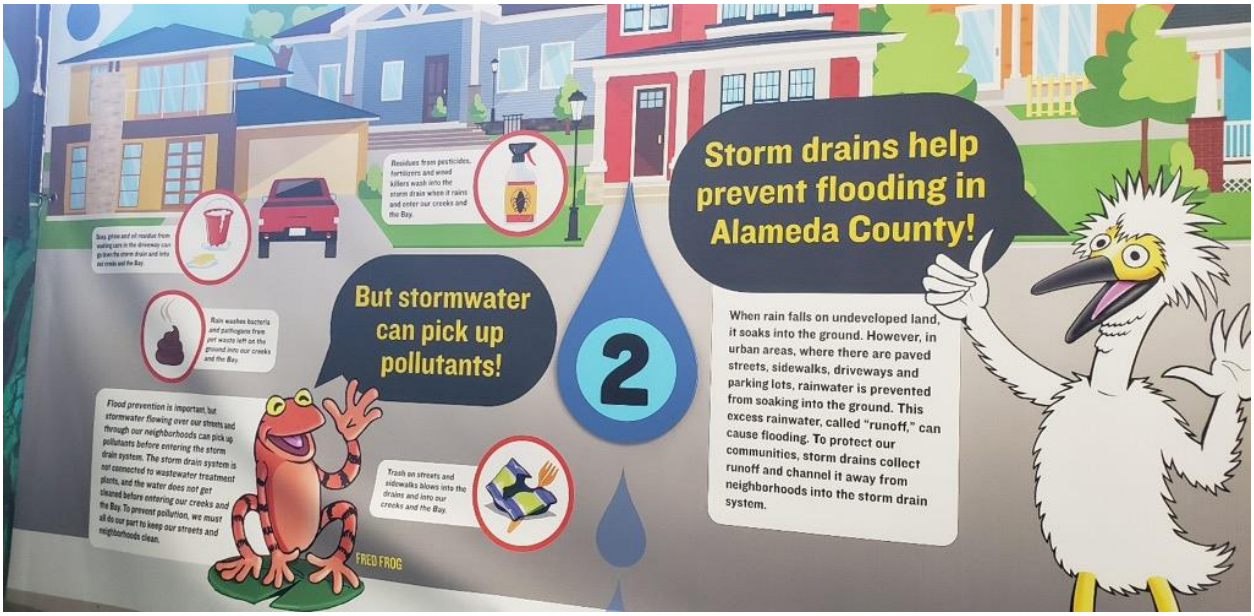


Figure 10: Photo of the County Fair Program Booth

Figure 11: Photo of attendees at the County Fair Program Booth

Provision C.7.d: Watershed Stewardship Collaboration

Requirement: Provision C.7.d requires Permittees to encourage and support development of grassroots watershed groups or engagement of an existing group, such as a neighborhood association, in watershed stewardship activities.

Program Activities: To comply with this provision, the Program conducted the following activities.

In FY 2024/25, the Program continued its annual Community Stewardship Grants Program. Grantees who had received grant funding for FY 2024/25 started their projects in August 2024, submitted mid-year reports on their activities in early 2025 and completed their projects with final reports submitted to the Public Information and Participation Subcommittee by June 30, 2025. See **Figure 12** below showing a FY 2024/25 grantees, I Heart Oakland Alameda Estuary, working on their grant-funded cleanup in September 2024.

Figure 12: Stewardship Program 2024/25 Grantees Working on their Grant-funded Cleanup

The Grants Program also began the next grant cycle, allocating up to $30,000, to be awarded in small grants of between $500 and $6,000 per project. Led by a work group formed among members of the PIP Subcommittee and their facilitator, the Program revised the application process, announced and promoted the grant cycle, collected applications, and selected grantees for funding. Details of the Community Stewardship Grants Program are shown in

Table 7. A list of the awarded grantees and project details are shown in **Table 8**; a total of $29,999 was awarded.

Table 7: Community Stewardship Grant Program FY 2024/25 Details

Date	Activities	Results
March 4	Grant program announced: *Grants webpage* *E-blast* *Social media: Facebook, Instagram, X*	1,282 successful deliveries 46.1% open rate 7.7% click rate
April 9	Reminder E-blast	1,274 successful deliveries 39.6% open rate 5.9% click rate
March-May	Outreach to local media outlets, outreach partners, grant aggregators, past grantees, creek groups, local jurisdictions and others.	Excellent pickup and coverage in local media (printed and online), City newsletters and social media channels, via community groups, etc.
May 9	Submission deadline	**20 applications received**
May/June	Review and evaluation of applications, Grantees selected and notified.	**6 grant projects selected**

Table 8: Projects Awarded Community Stewardship Grants

Grantee	Project Location	Project Focus	Grant Amount
Earth Team	Castro Valley Creek	Water Quality testing, invasive removals, litter identification, mapping, and removal	$3,217[a]
Friends of Peralta Hacienda Historical Park	Oakland	Education, restorations, cleanup and maintenance	$6,000
Rivers for Change	Alameda County	Water education to 180 High School students	$6,000
Rotary Nature Center Friends	Oakland	Including litter, stormwater pollution prevention education in their Naturalist Certification program.	$3,217 [a]
Shark Stewards, The Earth Island Institute	Berkeley	Cleanups and data collection on water quality, documentation algal blooms, invasive species	$5,565
Thomasin Dewhurst Creative Arts	Livermore	Arroyo Las Positas Creek Stepping Stone Art & Signage installation	$6,000
Total			**$29,999**

[a] Partial funding – grant amount offered was lower than the requested amount.

The contract agreements with the selected grantees will be made in FY 2025/26. The grant-funded projects must be completed by the end of FY 2025/26.

Provision C.7.e: School-Age Children Outreach

Requirement: Provision C.7.e requires Permittees to implement outreach activities designed to increase awareness of stormwater and/or watershed message(s) in school-age children (K through 12).

Program Activities: During FY 2024/25, school outreach was performed by two of the environmental education organizations contracted by the Program: Kids for the Bay, Caterpillar Puppets, and the Hayward Area Recreation District.

Kids for the Bay's Storm Drain Rangers Schoolwide Trash Reduction Program is designed to engage and educate elementary school students in Alameda County about stormwater pollution reduction. Grade level teams of students learn about watersheds, stormwater pollution, and pollution prevention strategies. Students perform a school campus cleanup and record data on the types of pollution observed and the number of pieces and gallons of litter they collected. Students deliver a schoolwide assembly, virtually or in person, to inspire their buddy classes, families and/or their entire school to participate in trash cleanup efforts and practice the Five Rs (Reduce, Reuse, Recycle, Rot, and Refuse) to reduce trash and waste at the source. Students also create and share informational posters to educate others about taking care of the watershed and reducing plastic pollution.

The Storm Drain Rangers program engaged 464 students who pledged to help protect watersheds and became storm drain rangers. Students in 17 classrooms at seven elementary schools conducted cleanups and litter audits, assemblies, and five classroom lessons on storm drains, litter, and water pollution. Students also engaged their families, with 460 families interviewed by their students. In total, 85 lessons were conducted at the 17 classrooms. Students collected 5,827 pieces and 259 gallons of trash. A picture of students participating in litter audits in the Storm Drain Rangers program is shown in **Figure 13.**

Figure 13: Students Participate in Building a Watershed Model in the Storm Drain Rangers Program

Caterpillar Puppets offers watershed education puppet shows for kindergarten through third grade classes throughout Alameda County, and they continue to be in high demand. In FY 2024/25, they completed 50 presentations to a total of 4,139 students at 29 Alameda County schools. This year, they also distributed a Fred & Izzy Stormwater Activity Booklet and bookmark to 3,800 students. The puppet shows teach the following topics: what is a watershed, what is a storm drain, how to keep our watershed clean, what causes watershed pollution, and how such pollution be reduced or stopped. Caterpillar Puppets addresses the types of pollution that affect local waterways and the animals of the creek, bay, and ocean, with a special emphasis on litter. Follow-up activities are introduced to students at the Question & Answers session. Ideas include campus clean-up clubs and picking up litter at school as a first step in making a difference and stopping pollution.

Hayward Area Recreation District: offered a new Protect Your Watershed Program aimed at middle schoolers. The program reached 437 students through 19 programs on Watersheds and the Water Cycle; Watershed Pollution and Runoff, Protecting Our Watershed, and Watershed Ecosystems.

Provision C.8: Water Quality Monitoring

Coordination of monitoring activities required by Provision C.8 continues through ongoing communication with the other countywide stormwater programs and their representatives via the BAMSC Steering Committee and the Monitoring and Pollutants of Concern (MPC) subcommittee. Water quality monitoring activities are also coordinated regionally through the Regional Monitoring Coalition (RMC), a collaborative effort of MRP 3 Permittees.

Provision C.8.a: Compliance Options

Requirement: Provision C.8.a outlines mechanisms that Permittees may choose to meet the monitoring requirements in Provision C.8.

Program Activities: All Alameda Permittees continue to participate in the RMC and coordinate monitoring through the Program. This agreement has been confirmed through authorization of the Program's annual work plans. Program staff and consultants continued to coordinate monitoring activities through meetings and communications of the RMC and the BAMSC MPC subcommittee. When available, the Permittees also used data collected by third-party organizations, including the San Francisco Estuary Regional Monitoring Program (RMP).

Provision C.8.b: Monitoring Protocols and Data Quality

Requirement: Provision C.8.b requires that, where applicable, monitoring data must be comparable to the Surface Water Ambient Monitoring Program (SWAMP).

Program Activities: To comply with this provision, the Program continued to ensure that monitoring activities follow the RMC QAPP and Standard Operating Procedures (SOPs), as updated by the RMC in 2016 and 2020 to incorporate changes in the MRP requirements and SWAMP standards. The Program conducted quality control review of the monitoring reports prepared by its consultants.

Provision C.8.c: San Francisco Estuary Receiving Water Monitoring

Requirement: Provision C.8.c requires that Permittees participate in implementing an estuary receiving water monitoring program, at a minimum equivalent to the San Francisco Estuary RMP, by contributing their fair share financially on an annual basis.

Program Activities: To comply with this provision, the Program made its fair-share annual contributions to the RMP during the reporting period. The Program participated in stakeholder oversight of the RMP through BAMSC representation on the Steering and Technical Review Committees. The Program actively participated as BAMSC representatives to the following RMP work groups or teams:

- Sources, Pathways and Loadings Work Group;
- Small Tributaries Loading Strategy Team;
- Emerging Contaminant Work Group;
- PCBs Work Group; and
- Mercury Work Group.

Participation included attending meetings or conference calls, reviewing technical reports and work products, reviewing articles included in the RMP's annual update, and providing general program direction to RMP staff.

Provision C.8.d: LID Monitoring

Requirement: Provision C.8.d requires Permittees to conduct LID monitoring to measure compliance and effectiveness of LID controls. Permittees shall, regionally or at the countywide level develop LID Monitoring Plans for EO approval. Permittees shall form a Technical Advisory Group (TAG) with impartial science advisors and Water Board staff to review and make recommendations regarding the LID Monitoring Plans. With Water Board approval or conditional approval of the LID Monitoring Plans, the TAG shall be convened at least annually to provide continued feedback regarding the implementation of the LID Monitoring Plans. Permittees shall begin implementing their approved or conditionally approved LID Monitoring Plans no later than October 1, 2023. ACCWP shall sample 25 events during the permit term with an annual minimum of three events.

Program Activities: To comply with this provision, the Program joined with other countywide stormwater programs subject to MRP 3 to form the BAMSC LID Monitoring Workgroup in 2022. The LID Monitoring Workgroup meets bimonthly as part of the RMC to discuss monitoring issues and generally support regional consistency in LID monitoring across the Bay Area. In 2022, and in collaboration with workgroup partners, ACCWP identified ideal criteria for selection of LID facilities that could be monitored using the methods prescribed in the MRP. The Program identified a bioretention facility on Admiral Toney Way in Oakland to comply with permit requirements for LID Monitoring. ACCWP continues to monitor inflow and outflow from the east and west side of the facility.

The *ACCWP LID Monitoring Plan* and *BAMSC LID Monitoring QAPP* were submitted to the Water Board on May 1, 2023, for EO approval. The Water Board conditionally approved the LID Monitoring Plan in a letter sent to the BAMSC stormwater programs on August 23, 2023. The letter permitted the MRP Permittees to proceed with equipment purchases and planning for WY 2024 and required the programs to revise the LID Monitoring Plan in response to the comments as expeditiously as possible sufficient to implement them during WY 2024. The revised *ACCWP LID Monitoring Plan, Version 1.1* and *BAMSC LID Monitoring QAPP, Version 1.1* were submitted to the Water Board by October 31, 2024.

The Program initiated LID monitoring in FY 2023/24 and continued with LID sampling and hydrologic monitoring in FY 2024/25, as summarized in **Table 9**. Also in FY 2024/25, the Program conducted extensive work to prepare the site to better address the management and monitoring questions. This included: a) constructing a concrete barrier between the east and west sides of the facility to prevent comingling of effluent flows; and b) removing and replanting vegetation and increasing ponding depth on the west side to test the effect of varying levels of maintenance on water quality and hydrologic function. See the WY 2024 UCMR or the MRP 3 IMR (to be submitted March 2026) for details on the sampling effort and monitoring results.

Table 9: LID Monitoring Summary

Monitoring Type	Sample Water Year	# of Events	Reported Results
LID Influent/ Effluent	October 2023 to April 2024	5	WY 2024 UCMR submitted March 31, 2025
LID Influent/ Effluent	October 2024 to April 2025	6	MRP 3 IMR to be submitted March 31, 2026

In Fall 2022, the BAMSC LID Monitoring Workgroup formed and convened a TAG, which included the following science advisors and Water Board staff:

- Keith Lichten – Watershed Management Division Manager Division at the Water Board,
- Alicia Gilbreath – Environmental Scientist at the San Francisco Estuary Institute (SFEI),
- Dipen Patel – Research Engineer at the Office of Water Programs at Sacramento State University,
- Eric Strecker – Professional Engineer in California and Oregon and principal investigator for the International BMP Database, and
- Michael Stenstrom – Distinguished Professor at University of California, Los Angeles, Civil and Environmental Engineering Department.

In FY 2024/25, the LID TAG was convened on May 9, 2025. The Program worked with the BAMSC LID Monitoring Workgroup to coordinate on the agenda for the TAG meeting, prepare an update on the monitoring accomplishments and challenges to date, and resolve outstanding issues raised by Water Board staff on the monitoring plans that required TAG input. Following the May 9 LID TAG meeting, the LID Monitoring Workgroup coordinated final required revisions to the LID Monitoring QAPP. The revisions largely reflect changes between the draft and final EPA Method 1633 for Perfluoroalkyl and Polyfluoroalkyl Substances, commonly known for its acronym PFAS, and updated quality assurance procedures on the frequency of field and pour blanks. Accordingly, BAMSC is preparing the *BAMSC Regional LID Monitoring QAPP, Version 2*. This document was submitted to the Water Board in September 2025.

Provision C.8.e: Trash Monitoring

Requirement: Provision C.8.e requires Permittees to implement trash monitoring to verify whether Permittees' trash control actions to date have effectively prevented trash from their jurisdictions from discharging to receiving waters and to evaluate whether discharges of trash from areas of Permittees' jurisdictions where full trash capture equivalency has been achieved are causing and/or contributing to adverse trash impacts in receiving waters. Permittees shall form a TAG with impartial science advisors and Water Board staff to review and provide input on ongoing trash monitoring, site selection, analysis methods, results, and conclusions. Permittees shall convene the Trash TAG twice prior to submission of the Trash Monitoring Plan and annually thereafter. Permittees shall collectively submit a Trash Monitoring Plan by July 31, 2023, for EO approval.

Permittees shall begin implementing trash outfall monitoring based on their approved or conditionally approved Trash Monitoring Plans no later than October 1, 2023. Annually, ACCWP shall sample at three outfalls for a minimum of three storm events, including the first forecasted significant storm event and at least one storm event that is forecast to be greater than the one-year, one-hour storm event.

Permittees shall also implement a pilot program for direct in-stream trash monitoring. Permittees shall conduct this monitoring annually, starting October 1, 2024. Annually, ACCWP shall sample at two in-stream locations for a minimum of three storm events, including the first forecasted significant storm event and at least one storm event that is forecast to be greater than the one-year, one-hour storm event.

Program Activities: To comply with this provision, the Program joined with other countywide stormwater programs subject to MRP 3 to form the BASMC Trash Monitoring Workgroup in 2022. The

Trash Monitoring Workgroup meets bimonthly as part of the RMC to discuss monitoring issues and support regional consistency in trash monitoring across the Bay Area. A summary of trash outfall and receiving water monitoring activities is provided below.

Trash Outfall Monitoring

In FY 2022/23, in collaboration with Permittees and Trash Monitoring Workgroup partners, ACCWP identified criteria for selecting trash outfall locations that could be monitored safely using the methods prescribed in the MRP. ACCWP identified three trash outfall monitoring locations in the City of Dublin near the I-580/I-680 interchange.

The BASMC Trash Monitoring Workgroup conducted a project of regional benefit to develop a Regional Trash Outfall Monitoring Plan and QAPP. The *BAMSC Regional Trash Outfall Monitoring Plan* and *BAMSC Regional Trash Outfall Monitoring QAPP* were submitted to the Water Board by July 28, 2023, for EO approval. The Water Board conditionally approved the BAMSC Trash Outfall Monitoring Plan and QAPP on August 31, 2023. The letter allowed the MRP Permittees to proceed with planning for WY 2024 and required a revised monitoring plan and QAPP to be summitted by July 31, 2024. The Program coordinated with the BAMSC Trash Monitoring Workgroup to address Water Board comments on the reports. The *BAMSC Regional Trash Outfall Monitoring Plan, Version 2.0,* and the *BAMSC Regional Trash Outfall Monitoring QAPP*, Version 2.0 were submitted to the Water Board by July 31, 2024 along with additional responses to comments on December 20, 2024. The Water Board approved the BAMSC Trash Outfall Monitoring Plan and QAPP on January 30, 2025.

In its 2023 Conditional Approval letter, the Water Board required ACCWP to change at least one of the three outfall monitoring sites, or add an additional site elsewhere in the County, for greater geographic representation across the County. The Program identified a replacement outfall in the City of Hayward near De Anza Park. Site AC-CIVIC in Dublin was discontinued after FY 2023/24, and site AC-CTYCTR in Hayward was activated in FY 2024/25. The Program continued with annual trash outfall sampling and hydrologic monitoring in FY 2024/25 as summarized in **Table 10**. See the WY 2024 UCMR or MRP 3 Integrated Monitoring Report (IMR) (to be submitted March 2026) for details on the sampling effort and the monitoring results.

Table 10: Trash Outfall Monitoring Summary

Monitoring Type	Sample Water Year	# of Events	Reported Results
Trash Outfall	October 2023 to April 2024	3[a]	WY 2024 UCMR submitted March 31, 2025
Trash Outfall	October 2024 to April 2025	3[a]	MRP 3 IMR to be submitted March 31, 2026

[a] Included a first flush event and an event forecast to be greater than the one-year, one-hour storm event.

In FY 2024/25, the Program also participated in a BAMSC project of regional benefit to evaluate and potentially develop alternative monitoring methods to trash capture nets installed at outfalls that would allow for more areas to be monitored, thereby increasing the representativeness of the monitoring data. A white paper summarizing the alternative methods investigation will be submitted to the Water Board in FY 2025/26.

Trash Receiving Water Monitoring

In March 2023, the City/County Association of Governments of San Mateo, on behalf of BAMSC, was awarded an EPA Water Quality Improvement Fund (WQIF) grant for receiving water trash monitoring. A total of $3.35 million in funding was awarded to support the *Watching Our Watersheds – Improving Trash Monitoring Methods and Pollution Prevention Strategies through Regional Partnerships in the Bay Area* (WOW Project). The grant and match funds will support a Trash TAG coordination and TAG-member honorariums; evaluation of trash source control measures; implementation of a public outreach campaign; trash monitoring planning, permitting, and implementation; trash characterization and associated public engagement events; and dissemination of information and knowledge gained through trash monitoring via a guidance document, a web portal, and a Bay Area trash symposium. In FY 2024/25, ACCWP participated on the WOW Project Management Team, which is responsible for guiding the overall project.

As part of the WOW Project, two trash receiving water monitoring locations were identified in Alameda County – Crandal Creek at Bonanza Drive in Fremont and Alamo Canal at Dublin Blvd in Dublin. The *BAMSC Receiving Water Monitoring Plan and QAPP, Version 1.0* was submitted to the Water Board by July 31, 2024, along with responses to comments on December 20, 2024. The Water Board approved the BAMSC Trash Receiving Water Monitoring Plan and QAPP on January 30, 2025. The planning and preparation for monitoring that occurred during WY 2024 is summarized in the Trash Receiving Water Monitoring Progress Report submitted with the WY 2024 UCMR on March 31, 2025.

Implementation of the Trash Receiving Water Monitoring Plan and QAPP began on October 1, 2024. In FY 2024/25, three trash receiving water monitoring events occurred in Alamo Canal. For Crandall Creek, backwater conditions were observed at Bonanza Drive at the tail end of sampling in February 2025. Sampling was halted when these conditions were observed. Subsequently, the sampling location was moved approximately 1.4 kilometers upstream to Siward Drive, where sampling was conducted during a storm event in March 2025. Details on the sampling effort and the monitoring results will be included with the MRP 3 IMR, submitted March 2026.

In 2022, the Regional Trash Monitoring Workgroup worked together to form and convene a TAG. In FY 2024/25, the Regional Trash Monitoring TAG included the following members, which included impartial science advisors and Water Board staff:

- Tony Hale, PhD – Director of the Environmental Informatics Program at SFEI,
- Shelly Moore – Executive Director of the Moore Institute for Plastic Pollution Research,
- Rebecca Nordenholt – Senior Environmental Scientist at the Water Board,
- Dawn Petschauer – Stormwater Program Administrator for the City of Pasadena, and
- Ted Von Bitner, PhD – Assistant Vice President at WSP USA.

The Regional Trash Monitoring TAG was convened once in FY 2024/25 on February 25, 2025. The Program coordinated with the BAMSC Trash Monitoring Workgroup and the WOW Project Management Team to provide updates on trash outfall monitoring. The BAMSC Trash Monitoring Workgroup will continue to meet, as needed, to facilitate Regional Trash Monitoring TAG input, discuss monitoring issues that may arise, and support regional consistency in trash monitoring across the Bay Area.

Provision C.8.f: Pollutants of Concern Monitoring

Requirement: Provision C.8.f requires that Permittees conduct Pollutant of Concern (POC) Monitoring to assess inputs of POC to San Francisco Bay from local tributaries and urban runoff, provide information to support implementation of TMDLs and other pollutant control strategies, assess progress toward achieving waste load allocations for TMDLs and help resolve uncertainties associated with loading estimates and impairments associated with these pollutants. In particular, monitoring required by this provision must be directed toward addressing six priority POC management information needs (described in MRP 3 Table 8.1, POC Monitoring Methods) for the priority POCs listed in MRP 3 Table 8.2, POC Monitoring Parameters, Effort and Type – which identifies the minimum effort and type of samples to be collected for each POC. In addition, Permittees were required to submit a *Receiving Water Limitations Assessment Report* by March 31, 2023, for EO approval. This report provides a plan for monitoring receiving waters (i.e., creeks and rivers that flow to San Francisco Bay) to provide information to assess whether receiving water limitations (RWL) are achieved.

Per Provision C.8.f.ii, Table 8.2, footnote c, Permittees must conduct or cause to be conducted emerging contaminants stormwater monitoring to execute the emerging contaminants stormwater monitoring strategy the level of effort indicated in the table. This level of effort can be satisfied either through sampling and analysis of the number of samples indicated in Table 8.2 or through augmentation of the San Francisco Bay RMP Emerging Contaminants Monitoring Strategy in the amount of $100,000 per year for all Permittees combined.

Program Activities: To comply with this provision, the Program continued to conduct annual POCs sampling in FY 2024/25, as summarized in **Table 11** for Monitoring Types #1 (Source Area Identification), #2 (Contributions to Bay Impairment), #4 (Loads and Status), and #5 (Trends). Monitoring Type #3 (Effectiveness of Management Actions) is being fulfilled through LID Monitoring. A summary of Monitoring Type #6 (RWL Assessment) is provided in **Table 12**. See the WY 2023 UCMR, WY 2024 UCMR or MRP 3 IMR (to be submitted March 2026) for details on the sampling effort and the monitoring results.

Table 11: POCs Monitoring Summary for Monitoring Types #1, 2, 4, and 5

Water Year	Monitoring Type	Parameter	Sample Date	Reported Results
WY 2023	POCs Type #4	Copper	July 2023[a]	WY 2023 UCMR submitted March 31, 2024
	POCs Types #1,2	Mercury and PCBs	August 2023[b] September 2023[b]	
WY 2024	POCs Type #4	Copper	July 2024[a]	WY 2024 UCMR submitted March 31, 2025
	POCs Types #1,2,4,5	Mercury and PCBs	May 2024[c] June 2024[c] September 2024[c]	
WY 2025	POCs Types #1,2,4,5	Mercury and PCBs	May 2025[d] June 2025[d]	MRP 3 IMR to be submitted March 31, 2026
	POCs Type #4	Copper	July 2025 (planned)	

[a] Sampled concurrent with pesticides and toxicity monitoring.
[b] Sampled urban sediment in industrial area right-of-way (ROW) in Oakland.
[c] Sampled urban sediment in industrial area ROW in the Ettie Street Pump Station and San Leandro Bay watersheds.
[d] Sampled urban sediment on private properties adjacent to ROW samples with elevated concentrations of PCBs in Oakland.

ACCWP participated in BAMSC projects to prepare a *Receiving Water Limitations Assessment Report* (submitted to the Water Board on March 31, 2023) and a *Receiving Water Limitations Assessment Report Addendum, Demonstration of the Representativeness of the Selected Monitoring Locations* (submitted to the Water Board on March 31, 2024). The RWL Assessment Report was conditionally approved on June 12, 2023, allowing Permittees to proceed with RWL monitoring in WY 2024. The selected POCs RWL monitoring location for the Program is in Castro Valley Creek and a summary of the monitoring conducted is provided in **Table 12**. See the WY 2024 UCMR or MRP 3 IMR (to be submitted March 2026) for details on the sampling effort and the monitoring results. The WY 2024 and WY 2025 efforts combined satisfied all MRP 3 POCs RWL monitoring requirements.

Table 12: POCs Monitoring Summary for Monitoring Type #6 (RWL Assessment)

Water Year	Monitoring Type	Sample Date	Reported Results
WY 2024	POCs Type #6 (wet season)	November 2023 December 2023 February 2024	WY 2024 UCMR submitted March 31, 2025
	POCs Type #6 (dry season)	July 2024	
WY 2025	POCs Type #6 (wet season)	February 2025	MRP 3 IMR to be submitted March 31, 2026

In addition, Permittees have collectively agreed to augment the San Francisco Bay RMP Emerging Contaminants Monitoring Strategy in the amount of $100,000 per year. ACCWP Members are satisfying this requirement by annually contributing their equitable share of the cost.

Provision C.8.g: Pesticides and Toxicity Monitoring

Requirement: Provision C.8.g requires Permittees to conduct wet weather and dry weather monitoring of pesticides and toxicity in urban creeks. If a statewide coordinated pesticides and pesticides-related toxicity monitoring program begins collecting data on an ongoing basis during the Permit term, Permittees may request that the Water Board EO modify, reduce, or eliminate this monitoring requirement.

Program Activities: To comply with this provision, in November 2022, in coordination with other RMC members, ACCWP conducted wet weather toxicity and pesticide monitoring collaboratively through the RMC. This collaboration satisfied all MRP 3 wet season monitoring requirements. Since July 2023, the Program has conducted dry weather pesticides and toxicity monitoring annually with results reported in the applicable UCMR or IMR, as summarized in **Table 13**. See the applicable UCMR or IMR for details on the sampling effort and presentation of the monitoring results.

Table 13: Pesticides and Toxicity Monitoring Summary

Water Year	Monitoring Type	Sample Date	Reported Results
WY 2023	P&T (wet season)	November 2022	WY 2023 UCMR submitted March 31, 2024
	P&T (dry season)	July 2023	
WY 2024	P&T (dry season)	July 2024	WY 2024 UCMR submitted March 31, 2025
WY 2025	P&T (dry season)	July 2025 (planned)	MRP 3 IMR to be submitted March 31, 2026

Provision C.8.h: Reporting

Requirement: Provision C.8.h requires Permittees to submit the following by March 31 of each year, concerning data collected during the previous WY, October 1 – September 30 period:

- Electronic data to the California Environmental Data Exchange Network (CEDEN), including results from monitoring conducted pursuant to Provisions C.8.d, C.8.e, C.8.f, and C.8.g. Data that CEDEN cannot accept are exempt from this requirement.
- A comprehensive UCMR on these results, including an LID Monitoring Status Report, an Annual Trash Monitoring Progress Report, a Pesticides and Toxicity Monitoring Status Report, and a POC Monitoring Report.
- In 2026, an IMR, in lieu of the UCMR, will report on the data collected since the previous IMR.

Program Activities: To comply with this provision, the Program submitted its UCMR and electronic data in March 2025.

Provision C.9: Pesticides Toxicity Control

Provision C.9.d: Interface with County Agricultural Commissioners

Requirement: Provision C.9.d requires that Permittees maintain communications with county agricultural commissioners to (a) get input and assistance on urban pest management practices and use of pesticides; (b) inform them of water quality issues related to pesticides; and (c) report any observed or citizen-reported violations of pesticide regulations (e.g., illegal handling and applications of pesticides) associated with stormwater management, particularly the California Department of Pesticide Regulation (DPR) surface water protection regulations for outdoor, nonagricultural use of pyrethroid pesticides by any person performing pest control for hire.

Program Activities: To assist Member Agencies in complying with this provision, the Program contacted the County Agricultural Department to discuss any issues with the implementation of pest control regulations. The following updates were provided:

1. Within FY 2024/25, there were no observed or citizen-reported violations of pesticide regulations associated with stormwater management.
2. Within FY 2024/25, there were no violations of DPR's surface water protection regulations for outdoor, nonagricultural use of pyrethroid pesticides by any person performing pest control for hire.
3. The County Agricultural Department maintains a regulatory enforcement presence in the community, as required by law, and conducts inspections and investigations in response to complaints and incidents. As part of this work, inspectors document violations and conduct various types of enforcement response. In FY 2024/25, the County Agricultural Department conducted 739 Pesticide Use Enforcement inspections in Alameda County. A frequently encountered violation is unlicensed and/or unregistered pest control companies. The County Agricultural Department is finding unlicensed Pest Control Businesses along with Maintenance Gardeners that are operating without licenses from the DPR, and similarly have failed to register with the County Agricultural Department prior to doing pesticide work in the County. The County Agricultural Department also finds pesticides not applied in accordance with label requirements, and this year, more violations were observed with regard to container requirements and service container labeling.
4. DPR has published results for Surface Water Ambient Monitoring Report DPR Study 329 (DPR, 2025), which focused on the presence and concentrations of pesticides in surface water by monitoring rivers and creeks in urban areas in the Sacramento and San Francisco Bay Area. They tested both in dry periods and during storm events. Toxicity was evaluated using 96-hour water quality toxicity tests with Hyalella azteca, Chronomus dilutes, and Ceriodaphnia dubia. While toxicity was found in 13 samples in the Sacramento area, none were found in the San Francisco Bay Area.

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

Requirement: Provision C.9.e.ii.(1) requires Permittees to:

- Conduct outreach to consumers at the point of purchase;
- Provide targeted information on proper pesticide use and disposal, potential adverse impacts on water quality, and less toxic methods of pest prevention and control; and

- Participate in and provide resources for the OWOW program or a functionally equivalent pesticide use reduction outreach program.

Program Activities: The OWOW program is now partnering with 34 retailers throughout Alameda, including nine Home Depot stores and five Ace Hardware stores. A total of 225 stores visits were provided. Each retailer received at least four store maintenance and monitoring visits, and several received up to ten store maintenance and mentoring visits, engaging with 196 customers. Eleven retailer training events were conducted, and 90 associates received the OWOW training. Additionally, 13 in-person public outreach events were conducted with a total of 659 participants. The *ACCWP Our Water Our World Integrated Pest Management Retail Store Partnership Program Report* on the Program-specific FY 2024/25 OWOW activities and their effectiveness is included in **Appendix C**, and *the OWOW 2025 Annual Report*, a California-wide OWOW report prepared by CASQA is also included in **Appendix C**. By offering point-of-purchase materials and via its website, the Program provides targeted information on proper pesticide use and disposal, potential adverse impacts on water quality, and less toxic methods of pest prevention and control.

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

Requirement: Provision C.9.e.ii.(2) requires Permittees to conduct outreach to residents who use or contract for structural pest control and landscape professionals by (a) explaining the links between pesticide usage and water quality; (b) providing information about IPM in structural pest management certification programs and landscape professional trainings; and (c) disseminating tips for hiring structural pest control operators and landscape professionals such as the tips prepared by the University of California Extension IPM Program .

Program Activities: The Program explains the links between pesticide usage and water quality via numerous outreach efforts, including a Fred & Izzy video promoting IPM and promotion of the OWOW program content. To promote pest control companies that use IPM, the Program re-ran its ad to promote the services of certified pest control professionals that use less-toxic methods. Promotions linked to the Pest Control at Home webpage, which includes details on how to hire a pest control company and links to a fact sheet, *Finding a Pest Control Company*. The page also refers visitors to the EcoWise website for a list of certified contractors.

Provision C.9.e.ii.(3): Outreach to Pest Control Professionals

Requirement: Provision C.9.e.ii.(3) requires Permittees to conduct outreach to pest control operators, urging them to promote IPM services to customers and to become IPM-certified by EcoWise Certified or a functionally equivalent certification program.

Program Activities: In FY 2017/18, the Program sent a letter to all pest control companies registered in Alameda County that encouraged them to provide and promote IPM services to their customers. In FY 2024/25, the Program ran a digital campaign aimed at consumers looking to hire a pest control company, which included a video ad using Fred & Izzy promoting the hiring of EcoWise Certified and other IPM services providers. The Program is continuing to promote EcoWise Certified contractors on its Pest Control at Home webpage.

Provision C.9.f: Track and Participate in the Regulatory Processes

Requirement: Provision C.9.f requires Permittees to conduct the following activities, which may be done at a county, regional, or statewide level: (a) the Permittees shall track EPA pesticide evaluation and registration activities as they relate to surface water quality and, when necessary, encourage EPA to coordinate implementation of the Federal Insecticide, Fungicide, and Rodenticide Act and the Clean Water Act and to accommodate water quality concerns within its pesticide registration process; (b) the Permittees shall track DPR pesticide evaluation activities as they relate to surface water quality and, when necessary, encourage DPR to coordinate implementation of the California Food and Agriculture Code with the California Water Code and to accommodate water quality concerns within its pesticide evaluation process; (c) the Permittees shall assemble and submit information (such as monitoring data) as needed to assist DPR and county agricultural commissioners in ensuring that pesticide applications comply with water quality standards; and (d) as appropriate, the Permittees shall submit comment letters on EPA and DPR re-registration, re-evaluation, and other actions relating to pesticides of concern for water quality.

Program Activities: The Program fulfilled this requirement through participation in and financial support of the CASQA True Source Control Subcommittee.[1] See the *CASQA Pesticide Annual Report and Effectiveness Assessment* in **Appendix C**.

Provision C.9.g. Evaluate Implementation of Pesticide Control Actions

Requirement: Provision C.9.g requires Permittees to evaluate the implementation of the Pesticide Source Control Actions in achieving TMDL targets and avoiding future pesticide-related toxicity in urban creeks.

Program Activities: This evaluation covers the activities conducted by the Program, BAMSC, and CASQA. Member agency activities are covered in the individual Permittees Annual Reports. There are three primary areas of pesticide source control actions conducted by or on behalf of the Program: Participation in the pesticide regulatory process; public outreach; and water quality monitoring.

Participation in the Regulatory Process:

To advance true source control for pesticides, CASQA is actively engaged with the state and federal regulators 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. CASQA accounts for these regulatory engagement efforts in their Pesticides Annual Report which describes activities annually from July to June.

Additionally, through CASQA's True Source Control subcommittee, the Program has been able to track a range of regulatory activities including reviewing the Federal Register and DPR's notices of regulatory actions. Through this tracking, CASQA can identify gaps in current procedures and highlight potential urban runoff-related impacts. CASQA also reviews relevant regulatory actions, guidance documents, and work plans from EPA and DPR to assess their alignment with urban runoff concerns and determine whether additional input is warranted. State and Regional Water Board Activities are monitored to

[1] This Subcommittee continues the work of the former CASQA Pesticide Subcommittee and additionally addresses the source control of other priority pollutants.

identify opportunities for improving TMDLs, Basin Plan Amendments, and NPDES permits. A monthly summary titled Pesticides Regulatory Action Items documenting regulatory tracking efforts is distributed by the CASQA's True Source Control subcommittee. See the CASQA's 2025 Pesticides Annual Report in **Appendix C** for details on this FY's pesticide regulatory engagement activities.

CASQA's Pesticides Annual Report includes near-term and long-term regulatory activities progress and assessment questions to describe effectiveness of those regulatory activities. For near-term activities, the report finds that at 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. DPR's Human Health Assessment Branch published the Fipronil Risk Characterization Document in March 2023.

CASQA's long-term pesticide program regulatory activities focus less on specific pesticides and more on instilling systematic process improvements. At the state level, DPR's transition to Sustainable Pest Management (SPM) offers opportunities to reshape how pesticides are used and evaluated in California. SPM is a holistic, systems-based approach that integrates pest control with broader goals related to environmental protection, public health, and economic vitality. DPR released its final SPM Roadmap in January 2023, outlining key leverage points for urban implementation. In July 2025, CASQA met with DPR to strengthen relationships and receive updates to their SPM initiatives. A summary of recent successful CASQA activities addressing long-term regulatory concerns is shown in **Table 14**.

Table 14: CASQA's Recent Activities Successfully Addressing Long-Term Regulatory Concerns

Topic, Outcomes, and Notes
Endangered Species Act (ESA): Endangered species habitats frequently overlap with urban areas, and the ESA plays a critical role in shaping mitigation measures to protect these species. Historically, EPA has focused its ESA implementation efforts on agricultural pesticide use. In 2023, CASQA submitted two comment letters addressing ESA implementation and pesticide registrations. In 2024, the EPA announced a targeted analysis of residential pesticide use and issued proposed guidance for antimicrobial pesticides, which included considerations for outdoor urban applications. This marks a notable shift toward incorporating residential and urban pesticide uses into the ESA review process, reflecting a longer-term evolution in EPA's approach. Furthermore, on January 15, 2025, the EPA and the U.S. Fish and Wildlife Service signed a joint statement of cooperation to support data sharing and process alignment. This interagency collaboration is expected to improve coordination and outcomes under the ESA.
GSA Regulation.gov website: The 2021 version of Regulations.gov limited public access and impaired CASQA's ability to access data and provide comments. CASQA submitted a comment letter to GSA identifying four issues with the regulations.gov website. While two issues were handled promptly in 2022, two issues remained that significantly hindered docket searches. In 2024, GSA updated the system to respond to all CASQA's comments. All EPA OPP documents are now accessible and searchable on Regulations.gov.
DPR Draft Strategic Plan: CASQA provided comment in support of DPS's plan for greater engagement, collaboration, and transparency, including a commitment to Diversity, Equity, and Inclusion. In addition, CASQA recommended DPR revise their pesticide prioritization process to reflect a group—based approach rather than by active ingredient.

Topic, Outcomes, and Notes
The final DPR Strategic Plan kept all goals and details related to engagement and transparency, and commitment to diversity. The section of the plan related to pesticide prioritization was revised to focus on a science-based approach, which can be consistent with our recommended group-based approach.

Public Outreach

A significant component of ACCWP's pesticide related public outreach effort is the OWOW program. OWOW is a 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. The program was administered by the former Bay Area Stormwater Management Agencies Association until 2021. In January 2022, the program was transferred to CASQA. This transfer provided municipalities across California with statewide access to the OWOW program. The goal of OWOW is to support a statewide IPM outreach program that provides direct-to-consumer information and education on less-toxic IPM practices. CASQA accounts for OWOW outreach activities in their CASQA Our Water Out World Annual Report which describes activities from July to June. See FY 2024/25 *CASQA Our Water Our World Report* in **Appendix C.**

To date, the OWOW program has developed 18 fact sheets with 11 are available in Spanish. In January 2022, posters with trackable QR codes were developed to encourage consumers to digitally access the OWOW fact sheets in pesticide aisles. These trackable QR codes record which fact sheets are viewed by consumers in retail stores. The OWOW website provides public access to the fact sheets, the less-toxic product database, 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.

Besides the state effort, ACCWP currently sponsors the OWOW partnership locally in 34 retail businesses though Alameda County including nine Home Depot Stores. Local OWOW activities include public outreach events, IPM advocates, webinars, and in store mentoring and training. Throughout FY 2024/25, all retailers continue to increase the number of eco-friendly pesticides as they decreased their problem pesticide inventory for alternatives. Each of the retailers that still sell synthetic, or problem pesticides have experienced an increase in sales with eco-friendly alternative pesticides. This is a significant increase in response to consumer awareness and demand. OWOW summarizes its annual activities in the *ACCWP Our Water Our World Integrated Pest Management Retail Store Partnership Program* Final Report. See FY 2024/25 *ACCWP Our Water Our World Integrated Pest Management Retail Store Partnership Program* in **Appendix C**.

In addition to the OWOW effort, ACCWP has a robust public outreach program that informs and motivates the public to adopt less-polluting behaviors including those related to pesticide usage. The Program's two mascots (Fred and Izzy) are a big part of our outreach efforts. With successful videos across various social media platforms related to littering, pesticide reduction, car washing, hiring a certified eco-friendly pest contractor, and hosing driveways and sidewalks (see the C.7 section for details).

In FY 2023/24, ACCWP evaluated public outreach effectiveness by surveying Alameda County residents regarding their concerns and knowledge of the stormwater program, pollution and water supply issues

in the County, willingness to change behavior, as well as reactions to motivating messaging regarding the use of pesticides in their homes and around creeks. Results highlighted that more than half of the contesters found public messaging to use less-toxic pesticides inside their house and outside in the yard to be very motivating to change their behaviors. In particular, they are motivated by benefits to their health. Other pollutants, such as pet waste, are not seen as having as much of an impact on water pollution. Highlights of the responses to the survey:

- 82% agreed that pesticides, herbicides, and fertilizers from yards, gardens or farms have a major impact on water quality in local waterways.
- 57% report already not littering when asked about actions around proper disposal and clean alternatives to pollutants.
- 52% are very willing and somewhat to start taking leftover paints, pesticides, and other hazardous liquid wastes to a household hazardous waste collection facility, while 35% of respondents reportedly already properly dispose of those hazardous wastes.
- 42% are willing to use less-toxic products to control pests and weeds in their lawns and gardens while 30% already use less-toxic products.
- 43% are willing to hire pest control services that use less-toxic pest control methods while 14% already hire less-toxic pest control services.

Monitoring

The Program has been conducting pesticide and toxicity water quality monitoring since the 1990s. In this report, monitoring results for the current reporting period (WY 2019 through WY 2024) are presented and compared with those generated through the prior study period (WY 2012 through WY 2018). Dry weather aquatic and sediment toxicity results were similar between the two reporting periods. Sediment chemistry parameters indicated low or uncertain likelihood of toxic effects at the concentrations reported. Pesticides and Toxicity Monitoring conducted during wet weather had significant differences between the current and previous monitoring periods. One constituent group, pyrethroids, exhibited order of magnitude increases in concentrations, while another, fipronil, experienced order of magnitude decreases) from the prior to the current reporting period. However, wet weather aquatic toxicity testing results were similar between the two reporting periods. See the *Pesticide and Toxicity Monitoring: Summary of Municipal Regional Stormwater Permit Monitoring Conducted WY 2019 through WY 2024* report in **Appendix C** for details.

Summary

Participation in the regulatory process has clearly been the most effective approach to reducing pesticide related toxicity in urban waterways. These efforts have assisted in the decisions to ban diazinon and chlorpyrifos for urban uses which has resulted in a significant reduction in stormwater toxicity to test organisms. This effort has also led to the DPR restricting the use of pyrethroids and other current generation pesticides that will help to reduce any resulting toxicity. The public outreach efforts, especially the OWOW program, have also been very effective. The pesticide and toxicity monitoring has both documented decreased levels of pesticides and associated decreased toxicity and also alerted stormwater program managers to potential pesticides of emerging concern.

Although participation in the regulatory process and public outreach activities had more far-reaching effects on reducing pesticide related toxicity in urban waterways, the activities undertaken by the

Municipal Maintenance Subcommittee to improve the effectiveness of Permittees IPM programs should also contribute to the reduction. One such example is the IPM Practices Effectiveness Evaluation checklist that the Subcommittee developed. The checklist was a tool to help municipalities identify effective IPM practices.

Recommendations for Future Actions

ACCWP and its Member Agencies should continue with their current efforts to participate in the regulatory process via CASQA, participate in the OWOW program including local implementation of the program, and conduct public outreach, and continue implementing IPM within municipal operations. CASQA has begun to explore DPR's new Sustainable Pest Management Initiative, which may provide new information and pathways to raise awareness about IPM for urban pest management.

Provision C.10: Trash Load Reduction

Provision C.10.a: Trash Reduction Requirements

Requirement: Provision C.10.a requires Permittees to reduce their trash load by 90% by June 30, 2023, and 100% by June 30, 2025.

Program Activities: To assist Member Agencies in complying with this provision, the Program provided guidance for addressing trash generation on PLDAs; technical assistance with mapping of baseline trash generation categories, full trash capture systems, full trash capture system drainage areas, PLDAs, and trash management areas; guidance on achieving the 100% trash load reduction compliance benchmark, specifically through the ACCWP Trash Compliance Workgroup. This Workgroup, chaired by the ACCWP Program Manager, met four times in FY 2024/25. ACCWP also provided guidance on required submittals to the Water Board if they could not achieve the 100% trash load reduction by June 30, 2025.

The ACCWP Trash Subcommittee, co-chaired by Ben Livsey, City of Oakland, and Jim Scanlin, City of Newark, met four times in FY 2024/25. The Subcommittee has provided a useful forum for disseminating technical information on Provision C.10 compliance, providing updates on enhancements to the Trash Reporting and Analysis AGOL application, and sharing information on trash-related topics among Member Agencies. The ACCWP Data Management-GIS (DM-G) Subcommittee continued to provide information on AGOL enhancements to the PLDAs, On-land Visual Trash Assessment (OVTA), and Full Trash Capture Maintenance AGOL Field Maps applications during FY 2024/25.

Provision C.10.b.i: Full Trash Capture Systems

Requirement: Provision C.10.b.i requires Permittees to maintain, and provide for inspection and review upon request, documentation of the design, operation, and maintenance of each of their full trash capture systems, including the mapped location and drainage area served by each system. In addition, Permittees are required to provide their respective vector control agencies with the names and locations of new and existing full trash capture devices with each Annual Report by September of each year.

Program Activities: To assist Member Agencies in complying with this provision, the Program updated the Full Trash Capture Maintenance AGOL Field Maps application that allows Member Agencies to document and track the maintenance of each of their full trash capture devices, including the mapped location, drainage area, and maintenance history. To address the required vector control agency submittal, the Program developed and submitted an Excel Spreadsheet with the device type and location of Member Agency full trash capture systems to the Alameda County Mosquito Abatement District.

Provision C.10.b.iii.(b): Visual Assessment of Outcomes

Requirement: Provision C.10.b.iii.(b) requires Permittees to conduct visual on-land assessment, including photo documentation, or other acceptable assessment method (see C.10.b.iii.(b)(iv)), of each trash generation area within which it is implementing other trash management actions or combination of actions other than full trash capture, to determine or verify the effectiveness of the action or combination of actions.

Program Activities: To assist Member Agencies in complying with this provision, the Program updated AGOL Field Maps and Reporting applications that allow Member Agencies to document, track, and

report OVTA results of public right-of-way (i.e., public streets and sidewalks) and PLDAs (i.e., parking lots and other land areas). OVTA results entered in AGOL are used to demonstrate reductions in trash levels observed on-land and available to the MS4; and are included in the calculation to show achievement of the 100% trash load reduction benchmark.

Provision C.10.b.v: Source Control

Requirement: Permittee jurisdiction-wide actions to reduce trash at the source, particularly persistent trash items other than those addressed under previous Permits (i.e., expanded polystyrene food ware and single-use plastic bags) may be valued toward trash load reduction compliance for all such actions. To claim a load percentage reduction value, Permittees must provide substantive and credible evidence that new source control actions are being implemented jurisdiction-wide and reduce trash by the claimed value. A Permittee may support its claimed source reduction value with reference studies from other jurisdictions if it also provides credible evidence that the chosen source control action would achieve comparable trash reduction if implemented in the Permittee's jurisdiction. A jurisdiction-wide source control load reduction value cannot be claimed after June 30, 2025.

Program Activities: The FY 2024/25 Section 10 Annual Report Form developed by BAMSC and approved by the Water Board staff indicates that Permittees may no longer claim source control actions implemented under previous Permits. During FY 2024/25, Member Agencies who adopted new source control actions will determine if they may claim these control actions for trash load reduction compliance. If permissible, Member Agencies' FY 2024/25 Annual Reports will provide trash load percentage reduction values for those who claim credit. Prior to FY 2022/23, all Member Agencies had previously adopted a single-use bag ban. Additionally, the following Member Agencies have adopted expanded polystyrene food ware bans: Alameda, Albany, Berkeley, Emeryville, Fremont, Hayward, Livermore, Oakland, Pleasanton, San Leandro, and Union City. The County of Alameda has also adopted a polystyrene ban that applies to the unincorporated area of the County. Member Agencies continue to implement both prohibitions as a source control action.

Additional Activities

The Program also conducted anti-litter public outreach efforts. See Provision C.7 section for details.

In addition, the Program participates in quarterly BAMSC Trash Subcommittee meetings. The Subcommittee includes Permittee staff, Water Board staff, Caltrans representatives, Non-Governmental Organization representatives, and stormwater program staff and managers. It provides a forum for Members to discuss MRP 3 compliance-related matters, receive updates from the Water Board and Caltrans, and hear from guest speakers on various trash topics.

Provision C.11: Mercury Controls

Provisions in C.11 reflect the implementation plan incorporated in the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) for the San Francisco Bay mercury TMDL. The MRP 3 Fact Sheet describes a General Strategy for Sediment-Bound Pollutants that progresses from pilot testing of controls in a few specific locations, through focused implementation in areas where benefits are likely to accrue, to full-scale implementation throughout the region, where warranted, by understanding the effectiveness of each control measure or activity. As noted in the MRP 3 Fact Sheet, the permit emphasizes specific programmatic control measures deemed effective based on implementation experience and analyses in previous permit terms. The MRP 3 control program for mercury consists of load reduction assessment, source control measures, treatment control measures, measures to reduce risk to consumers of Bay fish, and reporting.

Most of the MRP 3 provisions for mercury are similar to provisions in C.12 for controlling PCBs. In this permit term, management decisions may be driven predominantly by considerations for reducing PCBs loads but are expected to also result in mercury load reductions. Permittees may comply with any requirement of this provision through a collaborative effort.

Provision C.11.a: Assess Mercury Load Reductions from Stormwater

Requirement: Provision C.11.a requires Permittees to implement an assessment methodology and data collection program to quantify, in a technically sound manner, mercury loads reduced through implementation of pollution prevention, source control, and treatment control measures implemented during this permit term. Permittees must quantify the mercury load reductions achieved through control measure implementation in the 2026 Annual Report.

Program Activities: Pursuant to Provision C.11.a.iii(1), the Program prepared a report documenting that the control measures implemented during the MRP 2 permit term for which load reduction credit was recognized continue to be implemented at an intensity sufficient to maintain the credited load reduction. See **Appendix D** for the *Mercury and PCBs Control Measures – Update 2025* Report, which is submitted on behalf of all ACCWP Members to comply with Provision C.11.a.iii (1).

Provision C.11.b: Program for Source Property Identification and Abatement

Requirement: Provision C.11.b requires Permittees to investigate 2,620 acres of likely mercury source properties during the MRP 3 permit term. Permittees shall take action to abate mercury sources or refer properties to the Water Board for land areas found to be contributing substantial amounts of mercury or where high mercury concentrations are found. Permittees shall implement interim enhanced O&M measures for source properties referred to by the Water Board.

Program Activities: During FY 2024/25, samples were collected in September 2024 and May and June 2025. Based on data from September 2024 and May 2025, mercury source properties were identified because of these investigations. Results from samples collected in June 2025 are expected in Fall 2025. Follow-up investigations may be conducted in FY 2025/26 to confirm source property identification. See the *Mercury and PCBs Control Measures – Update 2025* Report (**Appendix D**) for further details.

Provision C.11.c: Program for Control Measure Implementation in Old Industrial Areas

Requirement: Provision C.11.c requires Permittees to implement, or cause to be implemented, control measures (treatment controls, diversion to wastewater treatment plants, redevelopment (provided GSI

implemented in compliance with Provision C.3.b), enhanced O&M controls, or other controls) to achieve mercury load reductions. Control measures must be implemented within the MRP 3 permit term to treat urban runoff from 664 acres of old industrial areas, areas containing known or suspected source areas, or areas with evidence of moderate to high mercury or PCBs soil concentrations.

Program Activities: To assist Member Agencies in complying with this provision, the Program submitted the *Alameda County Old Industrial Area Control Measure Plan* on March 31, 2023. The plan addressed the requirements of MRP Provisions C.11.c.iii.(1) and C.12.c.iii.(1) for providing a plan and schedule for focused implementation of control measures in old industrial areas to address mercury and PCBs load reduction requirements. On August 25, 2023, the Water Board sent a letter to the BAMSC stormwater programs stating that the Control Measure Plans (CMPs) were not acceptable and required Permittees to remedy the identified shortcomings. To address Water Board comments, ACCWP formed an ad hoc old industrial CMP workgroup and met with Water Board staff to discuss CMP revisions.

A revised *Alameda County Old Industrial Area Control Measure Plan, Version 1.1* was submitted on March 31, 2024. This revised plan includes maps identifying focus areas with known moderate PCBs concentrations and lays out the process by which specific treatment control measures will be assessed and implemented for these focus areas. In response to Water Board comments received in June 2024, the Program submitted the *Alameda County Old Industrial Area Control Measure Plan, Version 1.2* to add the predicted area for inlet-based and large full trash capture devices. The Water Board accepted the revised Old Industrial Control Measure Plans in a letter dated October 10, 2024.

The *Mercury and PCBs Control Measures – Update 2025* report (**Appendix D**) summarizes control measures implemented in old industrial and moderate areas between July 1, 2022 and June 30, 2024, including maps of the areas treated, the acreage of catchments addressed, and a description of the control measures.

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

Requirement: Provision C.11.d requires Permittees to promote, facilitate, and/or participate in collection and recycling of mercury-containing consumer products, devices, and equipment, and make efforts to increase effectiveness of recycling efforts throughout the region.

Program Activities: The *Mercury and PCBs Control Measures – Update 2025* report (**Appendix D**) reports on efforts to promote recycling of mercury-containing products and efforts to increase effectiveness of these recycling efforts, as well as the mass of mercury-containing material collected within Alameda County and an estimate of the mass of mercury contained in the recycled material.

Provision C.11.e: Plan and Implement Green Stormwater Infrastructure to Reduce Mercury Loads

Requirement: Provision C.11.e requires Permittees to implement GSI projects consistent with the implementing requirements in Provision C.3.j.

Program Activities: Activities related to implementation of Provision C.3.j are described in the Provision C.3.j GI Planning and Implementation section above.

Provision C.11.f: Prepare Implementation Plan and Schedule to Achieve TMDL Wasteload Allocations

Requirement: Provision C.11.f requires Permittees to update their mercury control measures implementation plan and corresponding Reasonable Assurance Analysis (RAA) as necessary by March 31, 2026.

Program Activities: The Program prepared and submitted the *Alameda County PCBs and Mercury Control Measure Plan and RAA Report* with the FY 2019/20 Annual Report. In FY 2024/25 the Program began efforts to update the mercury control measures implementation plan and RAA and will submit an updated report by March 31, 2026.

Provision C.11.g: Fate and Transport Study of Mercury: Urban Runoff Impact on San Francisco Bay Margins

Requirement: Provision C.11.g requires Permittees to conduct or cause to be conducted studies concerning the fate, transport, and biological uptake of mercury discharged from urban runoff to San Francisco Bay margin areas. Permittees shall submit in their FY 2022/23 Annual Reports a workplan describing how these information needs will be accomplished, including the studies to be performed and a preliminary schedule. Permittees are required to report on the status of the studies in their FY 2022/23 Annual Report. The Permittees are required to 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 in the March 2026 IMR.

Program Activities: The Program submitted a workplan and status update in their FY 2022/23 Annual Report on studies concerning the fate, transport, and biological uptake of mercury discharged from urban runoff to San Francisco Bay margin areas. The Program will report on the findings and results of the studies in the March 2026 IMR.

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

Provision C.11.h: Implement a Risk Reduction Program

Requirement: Provision C.11.h requires Permittees to conduct an ongoing risk reduction program to address public health impacts of mercury in San Francisco Bay/Delta fish. The fish risk reduction program shall take 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. At a minimum, Permittees shall conduct or cause to be conducted an ongoing risk reduction program with the potential to annually reach 3,000 individuals throughout the region who are likely consumers of San Francisco Bay-caught fish. The Permittees shall report on the status of the risk reduction program in each of their Annual Reports and report the findings of the effectiveness evaluation of their risk reduction program in their FY 2025/26 Annual Report.

Program Activities: To comply with this provision, the Program ran a digital campaign to promote awareness of fish consumption health advisories. The ads targeted fishing and outdoor enthusiasts and included Google Display Ads, Facebook, Instagram Reels, YouTube, and streaming video. In addition to digital advertising, a paid article and advertisement in the Fish Sniffer Online Magazine reached 30,000

readers interested in fishing in California. Fish Sniffer also sent an E-blast to its full subscriber list with Program-only content. Digital ads are linked to the Program's Fishing and Health page. The Fish Sniffer ads directed viewers to the State of California's Fishing Advisory page. See the Provision C.7.a Fishing Advisory Campaign section for details on the effort.

In FY 2024/25, the Program further enhanced their outreach campaign by visiting and evaluating fish advisory signs at several pier and shoreline locations throughout Alameda County. The *Fish Risk Reduction Program for Mercury and PCBS – Fiscal Year 2024/25 Status Summary Memorandum* report (**Appendix D**) summarizes the results of this effort.

Provision C.12: Polychlorinated Biphenyls (PCBs) Controls

Provisions in C.12 reflect the implementation plan incorporated in the Basin Plan for the San Francisco Bay PCBs TMDL. The MRP 3 Fact Sheet describes a General Strategy for Sediment-Bound Pollutants that progresses from pilot testing of controls in a few specific locations, through focused implementation in areas where benefits are likely to accrue, to full-scale implementation throughout the region were warranted by understanding the effectiveness of each control measure or activity. As noted in the MRP 3 Fact Sheet, the current permit emphasizes specific programmatic control measures deemed effective based on implementation experience and analyses in previous permit terms implementation at full-scale. Permittees may comply with any requirement of this provision through a collaborative effort.

In December 2024, the City of San Pablo, on behalf of BAMSC, was awarded an EPA San Francisco Bay Program (formerly the WQIF) grant for supporting the protection and restoration of San Francisco Bay. A total of $8 million of the San Francisco Bay Program FY 2024 funds were awarded for the PCBs TMDL Special Studies and Implementation Project (referred to as the PCBs TMDL Project), for continuing and expanding implementation of the San Francisco Bay PCBs TMDL. Collectively, the BAMSC programs will provide a 25% match for a total project budget of $10,666,667. The project will expand existing partnerships between local and regional agencies and organizations who are collectively working to implement the PCBs TMDL by improving and expediting monitoring, mapping, and implementation efforts. The goals of the PCBs TMDL Project include:

- Inform the PCBs TMDL reissuance process prior to 2030
- Support achievement of PCBs TMDL wasteload allocations for the stormwater category
- Optimize and focus PCBs control measures to improve the trajectory of Bay recovery
- Support the Phase I Municipal Regional NPDES Permit monitoring, modeling, and TMDL implementation tasks
- Support implementation of the Phase II NPDES Permit requirements for the PCBs TMDL.

In late March 2025, the City of San Pablo released a request for proposals for a consulting team to implement the PCBs TMDL Project and awarded the contract in May. The start date of the project is July 1, 2025, and will continue through December 2029.

Provision C.12.a: Assess PCBs Load Reductions from Stormwater

Requirement: Provision C.12.a requires Permittees to implement an assessment methodology and data collection program to quantify, in a technically sound manner, PCBs loads reduced through implementation of pollution prevention, source control, and treatment control measures implemented during this permit term. In the 2026 Annual Report, Permittees shall report the total loads reduced from each control measure implemented since the beginning of the Permit term. In their 2026 Annual Report, the Permittees shall submit, for EO approval, any refinements, if necessary, to the measurement and estimation methodologies to assess PCBs load reductions from control measures in the subsequent Permit.

Program Activities: The *Mercury and PCBs Control Measures – Update 2025* report (**Appendix D**) provides documentation confirming that control measures implemented 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.

Provision C.12.b: Program for Source Property Identification and Abatement

Requirement: Provision C.12.b requires Permittees to investigate 2,620 acres of likely PCBs source properties during the MRP 3 permit term. Permittees shall take action to abate PCBs sources or refer properties to the Water Board for land areas found to be contributing substantial amounts of PCBs or where high PCBs concentrations are found. Permittees shall implement interim enhanced O&M measures for source properties referred to the Water Board.

Program Activities: In FY 2024/25, samples were collected in September 2024 and May and June 2025. Based on data received from samples collected in September 2024 and May 2025, several PCBs source properties were identified. Results of samples collected in June 2025 are expected in Fall 2025. In addition, in FY 2024/25, the ACCWP brought together multiple agencies in the County working on PCBs and initiated quarterly meetings with Alameda County Environmental Health Department, Water Board staff, Department of Toxic Substances Control (DTSC), and City staff, as applicable. See the *Mercury and PCBs Control Measures – Update 2025* report (**Appendix D**) for further details.

Provision C.12.c: Program for Control Measure Implementation in Old Industrial Areas

Requirement: Provision C.12.c requires Permittees to implement, or cause to be implemented, control measures (treatment controls, diversion to wastewater treatment plants, redevelopment (provided GSI implemented in compliance with Provision C.3.b), enhanced O&M controls, or other controls) to comply with the performance metrics in Provision C.12.c.i. Control measures must be implemented within the MRP 3 permit term to treat urban runoff from 664 acres of old industrial areas, areas containing known or suspected source areas, or areas with evidence of moderate to high mercury or PCBs soil concentrations.

Program Activities: To assist Member Agencies in complying with this provision, the Program submitted the *Alameda County Old Industrial Area Control Measure Plan* on March 31, 2023. The plan addressed the requirements of MRP Provisions C.11.c.iii.(1) and C.12.c.iii.(1) for providing a plan and schedule for focused implementation of control measures in old industrial areas to address mercury and PCBs load reduction requirements. On August 25, 2023, the Water Board sent a letter to the BAMSC stormwater programs stating that the CMPs were not acceptable and required Permittees to remedy the identified shortcomings. To address Water Board comments, ACCWP formed an ad-hoc old industrial CMP workgroup and met with Water Board staff to discuss CMP revisions. The ad-hoc workgroup comprised ACCWP staff and eight permittee representatives.

A revised *Alameda County Old Industrial Area Control Measure Plan, Version 1.1* was submitted on March 31, 2024. This revised plan includes maps identifying focus areas with known moderate PCBs concentrations and lays out the process by which specific treatment control measures will be assessed and implemented for these focus areas. In response to Water Board comments received in June 2024, the Program submitted the *Alameda County Old Industrial Area Control Measure Plan, Version 1.2* to add the predicted area for inlet-based and large full trash capture devices. The Water Board accepted the revised Old Industrial Control Measure Plans in a letter dated October 10, 2024.

The *Mercury and PCBs Control Measures – Update 2025* report (**Appendix D**) summarizes control measures implemented in old industrial and moderate areas between July 1, 2022 and June 30, 2024, including maps of the areas treated, the acreage of catchments addressed, and a description of the control measures.

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

Requirement: Provision C.12.d requires Permittees to implement a Caltrans specification to manage, as part of bridge and overpass roadway replacement or major repair, potential PCBs-containing material in bridge roadway expansion joints. Permittees shall track the development of the Caltrans specification, develop an inventory of bridges in their jurisdiction, and implement the Caltrans specification during applicable replacement activities.

Program Activities: To assist Member Agencies with complying with Provision C.12.d, the Program developed a preliminary bridge inventory database in FY2022/23. Also, in FY2022/23, the Program, in collaboration with the BAMSC MPC subcommittee, reviewed and commented on a draft Caltrans SOP for managing PCBs-containing materials during bridge replacement or repair projects. The Caltrans SOP was not a specification, as stipulated in MRP 3 Provision C.12.d.ii. The Program, in collaboration with the BAMSC MPC subcommittee, suggested that Caltrans amend Caltrans Specification 13 Water Pollution Control to establish specifications for use by its contractors to address PCBs in bridge projects that the MRP 3 Permittees could then adopt. The Program tracked the development of the Caltrans specification through shared participation in monthly BAMSC Steering Committee meetings. A Caltrans specification was not made available in FY 2024/25.

The Program, in collaboration with the BAMSC MPC subcommittee, is developing a guidance document for managing materials in bridges and overpasses containing PCBs prior to demolition or renovation of structures. This effort will continue into FY 2025/26.

Provision C.12.e: Program for Controlling PCBs from Electrical Utilities

Requirement: Provision C.12.e requires Permittees to: (1) develop or improve and implement SOPs to respond to, clean up, and report spills and releases from municipally owned oil-filled electrical equipment (OFEE); (2) develop and implement a plan to maintain and upgrade municipally owned OFEE; (3) document PCBs loads avoided through existing and ongoing OFEE removal and replacement programs; and (4) collaborate with the Water Board to request information from non-municipally owned electrical utilities.

Program Activities: To assist the Member Agencies with complying with Provision C.12.e, the Program participates in a BAMSC workgroup focusing on municipally owned electrical utility equipment. In FY 2022/23, the workgroup coordinated to develop an enhanced spill response and reporting methodology that each municipal utility will implement, consistent methods for reporting estimates of the total PCBs mass removed from each municipal utility's equipment between 2002 and 2023, and annual documentation of the removal/disposal of PCBs-containing electrical utility equipment for each municipal utility.

In FY 2023/24 the workgroup coordinated on plans to maintain and upgrade municipally owned OFEE. The Program continues to assist the City of Alameda with estimating PCBs loads avoided resulting from the removal of municipally owned PCBs-containing OFEE through maintenance programs and system updates. See the *Mercury and PCBs Control Measures – Update 2025* report (**Appendix D**) documenting of PCBs loads avoided through existing and ongoing OFEE removal and replacement.

Provision C.12.f: Plan and Implement Green Stormwater Infrastructure to Reduce PCBs Loads

Requirement: Provision C.12.f requires Permittees to implement GSI projects consistent with the implementing requirements in Provision C.3.j.

Program Activities: Activities related to implementation of Provision C.3.j are described in the Provision C.3.j GI Planning and Implementation section above.

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

Requirement: Provision C.12.g requires that Permittees implement their established protocol prior to issuing a demolition permit. Permittees shall ensure construction sites are inspected during demolition and obtain verification that materials from demolished buildings are appropriately disposed. Permittees shall enhance their construction site control program to minimize migration of PCBs into the Municipal Separate Storm Sewer Systems (MS4) from applicable structures containing building materials with PCBs concentrations of 50 parts per million (ppm) or greater during demolition activities. A Permittee is exempt from this requirement if it provided evidence acceptable to the Water Board Executive Officer in its FY 2022/23 Annual Report that the only buildings that existed pre-1980 within its jurisdiction were single-family residential and/or wood-frame buildings.

Program Activities: In FY 2022/23, the Program participated in a BAMSC project of regional benefit to assist Member Agencies in addressing Provision C.12.g. The *Mercury and PCBs Control Measures – Update 2025* (**Appendix D**) report also documents the reporting required in Provision C.12.g.iii.(3). No Member Agencies claimed exemption for this requirement in their FY 2022/23 Annual Report.

Provision C.12.h: Prepare Implementation Plan and Schedule to Achieve TMDL Wasteload Allocations

Requirement: Provision C.12.h requires Permittees to update their PCBs control measures implementation plan and RAA as necessary by March 31, 2026.

Program Activities: The Program prepared and submitted the *Alameda County PCBs and Mercury Control Measure Plan and Reasonable Assurance Analysis Report* with the FY 2019/20 Annual Report. In FY 2024/25, the Program began efforts to update the PCBs control measures implementation plan and RAA and will submit an updated report by March 31, 2026.

Provision C.12.i: Fate and Transport Study of PCBs: Urban Runoff Impact on San Francisco Bay Margins

Requirement: Provision C.12.i requires Permittees to conduct or cause to be conducted studies concerning the fate, transport, and biological uptake of PCBs discharged from urban runoff to San Francisco Bay margin areas. Permittees shall submit in their FY 2022/23 Annual Reports a workplan describing how these information needs will be accomplished, including the studies to be performed and a preliminary schedule. Permittees are required to report on the status of the studies in their FY 2022/23 Annual Report. The Permittees are required to 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 in the March 2026 IMR.

Program Activities: The Program submitted a workplan and status in their FY 2022/23 Annual Report on studies concerning the fate, transport, and biological uptake of PCBs discharged from urban runoff to San Francisco Bay margin areas. The Program will report on the findings and results of the studies in the March 2026 IMR.

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 PCBs in stormwater runoff and reducing the San Francisco Bay's impairment by these pollutants.

Provision C.12.j: Implement a Risk Reduction Program

Requirement: Provision C.12.j requires Permittees to conduct an ongoing risk reduction program to address public health impacts of PCBs in San Francisco Bay/Delta fish. The fish risk reduction program shall take 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. At a minimum, Permittees shall conduct or cause to be conducted an ongoing risk reduction program with the potential to annually reach 3,000 individuals throughout the region who are likely consumers of San Francisco Bay-caught fish. The Permittees shall report on the status of the risk reduction program in each of their Annual Reports and report the findings of the effectiveness evaluation of their risk reduction program in their FY 2025/26 Annual Report.

Program Activities: To comply with this provision, the Program ran a digital campaign to promote awareness of fish consumption health advisories. The ads targeted fishing and outdoor enthusiasts and included Google Display Ads, Facebook, Instagram Reels, YouTube, and streaming video. In addition to digital advertising, a paid article and advertisement in the Fish Sniffer Online Magazine reached 30,000 readers interested in fishing in California. Fish Sniffer also sent an E-blast to its full subscriber list with Program-only content. Digital ads are linked to the Program's Fishing and Health page. The Fish Sniffer ads directed viewers to the State of California's Fishing Advisory page. See Section C.7.a Fishing Advisory Campaign for details on the effort.

In FY 2024/25, the Program further enhanced their outreach campaign by visiting and evaluating fish advisory signs at several pier and shoreline locations throughout Alameda County. The *Fish Risk Reduction Program for Mercury and PCBS – Fiscal Year 2024/25 Status Summary Memorandum* (**Appendix D**) summarizes the results of this effort.

Provision C.15: Exempted and Conditionally Exempted Discharges

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

Requirement: Provision C.15.b.iii requires Permittees to collectively convene a regionwide Firefighting Discharges Working Group to identify and evaluate opportunities to reduce the impacts of emergency discharges to the MS4 associated with firefighting activity. The Permittees shall collectively submit, by September 30, 2025, a Firefighting Discharges Report that describes progress on, and recommendations regarding, the implementation of the items listed in Provision C.15.b.iii.(2)(a)(i)-(vii). Permittees shall implement the recommendations from the Firefighting Discharges Report, ensure proper BMPs and SOPs are included in contracts for non-municipal staff hired by Permittees to assist with containment and cleanup, and Permittees shall evaluate the adequacy of large industrial sites' BMPs and SOPs for the prevention, containment, and cleanup of emergency firefighting discharges into storm drains and receiving waters.

Program Activities: The Program solicited for stormwater program and fire department representatives interested in participating in the BAMSC Regional Firefighting Discharges Work Group. ACCWP and Member Agency representatives, as well as staff and members of other countywide stormwater programs and fire departments, actively participated in the FY 2022/23 through FY 2024/25 Work Group meetings. The BAMSC Regional Firefighting Discharges Work Group developed a project profile for a BAMSC project of regional benefit. The project profile outlined the tasks and schedule to develop the Regional Firefighting Discharges Report. ACCWP provides in-kind services for the development of the Regional Report, and ACCWP representatives participate in the BAMSC Regional Firefighting Discharges Work Group.

In FY 2023/24, Program representatives organized and participated in the March 26 and June 17, 2024, BAMSC Regional Firefighting Discharges Work Group meetings and two BAMSC Regional Firefighting Discharges Task Force meetings. The BAMSC Regional Firefighting Discharges Task Force is a smaller, working group that provides guidance for developing the BAMSC Regional Firefighting Discharges Work Group agendas.

In FY 2024/2025, Program representatives organized and participated in the January 14 and April 22, 2025 BAMSC Regional Firefighting Discharges Work Group meetings, two BAMSC Regional Firefighting Discharges Task Force meetings held on October 21, 2024, and March 31, 2025, and an Internal BAMSC Regional Firefighting Discharges Regional Work Group meeting on May 7, 2025.

Program representatives assisted with the development of a Working Draft *Regional Firefighting Emergency Discharges Work Group Report* that was provided to the BAMSC Regional Firefighting Discharges Task Force for review and comment. Program representatives updated the report and provided a Draft Report to the Internal BAMSC Regional Firefighting Discharges Working Group for review and comment. Program representatives assisted with revising the report based on comments received and provided a Revised Draft Report to the ACCWP IIDC Subcommittee and Management Committee for review. Program representatives revised the report based on comments received from the five countywide stormwater programs in July 2025. The Final Report was provided to the ACCWP Management Committee and BAMSC Steering Committee for approval in August 2025. The *Final Regional Firefighting Emergency Discharges Work Group Report* is in **Appendix E**.

The Program provided information on the BAMSC Regional Firefighting Discharges Work Group activities to the IIDC Subcommittee and Management Committee. The IIDC Subcommittee continued to discuss the requirement to evaluate the adequacy of large industrial facilities' BMPs and SOPs for the prevention, containment, and cleanup of emergency firefighting discharges into storm drains and receiving waters.

There is a requirement in C.15.b.iii to develop outreach materials on containment and cleanup BMPs and SOPs for contractors hired by private parties to participate in the containment and cleanup of discharges of firefighting water and foam and outreach materials for sites that are prone to firefighting emergencies regarding good housekeeping practices and preventative measures. These outreach materials must be distributed by September 2025. Two outreach materials, *Fire Restoration Contractors* Tip Sheet and *Sites Prone to Fires* Tip Sheet, were developed by the IIDC and shared with the BAMSC Regional Firefighting Work Group countywide stormwater program leads. The final Tip Sheets are available on the Program's Resource webpage, under the Commercial and Industrial tab. See **Appendix E** for the final Tip Sheets described above.

By September 2025, the Program will distribute a *Fire Restoration Contractors* Tip Sheet to the list of contractors that would typically respond to illicit discharges in Alameda County. The list was compiled from DTSC hazardous waste transporters in Alameda County, internet searches, and contractors provided by Member Agencies. Member Agencies will also distribute the *Sites Prone to Fires* Tip Sheet to those sites they identify. The IIDC discussed different methods for Member Agencies to identify these sites.

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

Requirement: Provision C.15.b.iv requires the Permittee to discourage, through outreach efforts, individual residential car washing discharges into the storm drain system. It also requires Permittees to encourage individuals to direct car wash water to landscape, use as little detergent as necessary, or wash cars at commercial car wash facilities.

Program Activities: To assist Member Agencies in complying with this provision, the Program provides outreach materials and information on proper car washing for residents posted on the Program's Car Care webpage. The Program promotes two car wash videos featuring the Program's mascots Fred and Izzy: one is a shorter ad for broadcast TV, and one is a longer video for digital promotion, including versions in Chinese and Spanish. A video discouraging hosing off driveways and other impervious surfaces is also available in English, Spanish, and Chinese.

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

Requirement: Provision C.15.b.v requires Permittees to prohibit polluted discharges from pools, hot tubs, spas, and fountains; provide public outreach; allow discharges to the storm drain system only if there are no other alternatives and proper BMPs are implemented; require new facilities to have a connection to the sanitary sewer; and implement illicit discharge program Enforcement Response Plans to address polluted discharges from these facilities.

Program Activities: To assist Member Agencies in complying with this provision, the Program provides the *Proper Disposal of Wastewater: Don't Drain Pools, Spas and Fountains to Storm Drains* Tip Sheet on the Program website, under the Drain Pools, Spas, and Fountains to Sanitary Sewers header.

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

Requirement: Provision C.15.b.vi. requires Permittees to promote measures that minimize runoff and pollutant loading from excess irrigation.

Program Activities: To assist Member Agencies in complying with this provision, the Program implements countywide outreach efforts through the New and Redevelopment program Public Information and Outreach program, and Pesticide Toxicity Control program. These efforts are discussed in those sections of the Annual Report.

Additional Activities

Compliance with the conditionally exempt discharge categories, specifically pumped groundwater, foundation drains, water from crawl space pumps, and footing drains, are also discussed at the IIDC Subcommittee meetings. As mentioned in the C.4 Industrial and Commercial Site Controls section of this report, there were four meetings held this FY, and the focus of the meetings is to share information on MRP 3 compliance and activities, including conditionally exempt discharges that stormwater inspectors may encounter. The PIP Subcommittee also addresses outreach and education for several of the conditionally exempt discharge categories.

Provision C.17: Discharges Associated with Unsheltered Homeless Populations

Requirement: Provision C.17 requires Permittees to individually and collectively identify and ensure the implementation of appropriate control measures to address non-stormwater discharges into MS4s associated with unsheltered homeless populations. At the individual level, Permittees are required to implement and evaluate the effectiveness of BMPs, map locations of unsheltered populations, and work together with Permittees and other stakeholders at the countywide and regional levels. As defined in MRP 3, unsheltered population areas are where unsheltered people congregate (e.g., formal and informal encampments including, but not limited to, informal tent or small cabin encampments, areas where people living in vehicles park, and safe parking areas).

Summary of Program Activities: The Program reconvened the ACCWP C.17 Work Group in FY 2024/25 to provide updated reporting guidance and assist with development of updated maps.

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

Requirement: Provision C.17.a.ii.(1) requires each Permittee to submit a map with the FY 2022/23 and FY 2024/25 Annual Reports identifying, within its jurisdiction, the approximate locations of unsheltered homeless populations, including homeless encampments and other areas where other unsheltered homeless people live. Each map shall identify those location(s) in relation to storm drain inlets and existing streams, rivers, flood control channels, and other surface water bodies within the Permittee's jurisdiction.

Program Activities: To assist Member Agencies with the mapping requirement and provide consistency, the ACCWP C.17 Work Group recommended utilizing data from existing work done by the Alameda County Health Department's Housing and Homelessness Services (HHS) in their 2024 Point-in-Time (PIT) Count, completed in January of 2024. As required by the U.S. Department of Housing and Urban Development (HUD) of all communities receiving federal funding to provide homeless services, Alameda County Continuum of Care Program reports the findings of their local point-in-time counts to HUD. Alameda County, its providers and cities, and the State of California all use their PIT Count data for various fundraising, modeling for bringing the system to scale, planning, funding allocations, and expanding housing and services to meet the needs and make improvements. In the Alameda County PIT Count, the HUD definition of homelessness was used. This definition includes individuals and families:

- Living in a supervised publicly or privately operated shelter designated to provide temporary living arrangements; or
- 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.

The 2024 PIT Count used a combination of modeled and enumerated counts of sheltered and unsheltered persons experiencing homelessness. The ACCWP C.17 Work Group coordinated with HHS staff to acquire the GIS data pertaining to the PIT Count and created maps for each Permittee to include in their individual FY 2024/25 Annual Reports.

Provision C.17.a.ii.(2): Programmatic Efforts

Requirement: Provision C.17.a.ii.(2) requires each Permittee to report on the programmatic efforts being implemented within their jurisdiction, or at the countywide or regional level, to address MS4 discharges

associated with homelessness. To encourage ongoing regional, countywide, and municipal coordination efforts, Permittees are required to collectively develop a BMP report that identifies effective practices to address non-storm water discharges associated with homelessness into MS4s that impact water quality.

Program Activities: The Program coordinated with BAMSC and others (e.g., Caltrans, County and City housing departments/divisions) to develop the *Regional BMP Report for Addressing Non-Stormwater Discharges Associated with Unsheltered Homeless Populations* (Regional BMP Report) that documents programmatic efforts implemented by the Member Agencies. The Regional BMP Report was finalized and included in the September 30, 2023, ACCWP Annual Report.

To meet the broader goal of regional and statewide coordination, BAMSC members convened a panel presentation at the inaugural Forum on Municipal Stormwater Management in the San Francisco Bay Area on November 7, 2024. The title of the session was *Addressing Water Quality Impacts from Illegal Dumping and Encampments*. After a brief presentation on the Regional BMP Report by Kristin Kerr from EOA and Nicole Wilson from Larry Walker Associates, a moderated panel discussed the innovative, collaborative programs in two of the Bay Area's largest cities. Panelists included Terri Fashing and Kristin Hathaway from City of Oakland and Mary Morse, Arian Collen, Greg Pensinger, and Paul Pereira from City of San Jose.

Provision C.17.a.ii.(3): Implement BMPs

Requirement: Provision C.17.a.ii.(3) requires Permittees to identify and implement appropriate BMPs to address MS4 discharges associated with homelessness that impact water quality, including those impacts that can lead to public health impacts. To address water quality impacts from discharges associated with unsheltered homeless populations, Permittees need to evaluate the specific occurrence and/or location involved and implement appropriate BMPs.

Program Activities: To assist Member Agencies and as required by MRP 3 Provision C.17.a.i.(2), the ACCWP C.17 Work Group to updated guidance regarding effectiveness evaluation in the FY 2024/25 Annual Report Template. The BMPs implemented to address water quality issues in the short term can supplement longer term measures by municipalities to address unsheltered homelessness, such as providing housing and supportive services.

Provision C.17.a.ii.(4): Review and Update Implementation Practices

Requirement: Provision C.17.a.ii.(4) requires Permittees to use the information generated through biennial point-in-time surveys and related information, and the regional coordinated tasks to review and update their implementation practices.

Program Activities: At the ACCWP C.17 Work Group meeting on April 3, 2025, the group reviewed the effectiveness evaluations in the FY 2022/23 Annual Reports, shared information on BMP implementation, and discussed updating guidance for the FY 2024/25 Annual Reports. The ACCWP C.17 Work Group will hold additional meetings during FY 2025/26, if needed or requested by Member Agencies.

Provision C.20: Cost Reporting

Provision C.20.b.i: Cost Reporting Framework and Methodology

Requirement: 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 shall consider identification of costs incurred solely to comply with the MRP 3 requirements as listed in Provision C.20.b.(iii) 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.

Program Activities: ACCWP, along with the other countywide stormwater programs, provided in-kind support to a BAMSC project of regional benefit to collectively develop a cost reporting framework and methodology. Member Agencies submitted the *Final Bay Area Cost Reporting Framework and Guidance Manual* (Framework and Guidance Manual) to the Water Board on June 26, 2023, and Water Board staff provided comments on August 11, 2023. In March 2024, the Member Agencies completed revisions to the framework based on Regional Water Board comments and submitted the revised final Framework and Guidance Manual. On June 26, 2024, the Water Board provided conditional approval for the revised final Framework and Guidance Manual. The condition of approval was that any future modifications, either for better alignment with Permittee accounting practices or for consistency with the State Water Board's Water Quality Control Policy For Standardized Cost Reporting in Municipal Stormwater Permits, must be approved by the Water Board's EO.

During FY 2024/25, the Program focused on assisting Member Agencies with use of the approved Framework and Guidance Manual to track and report costs of implementing MRP requirements. Member Agencies made the necessary adjustments to internal personnel cost budgeting and/or tracking systems in order to use the Framework. The FY 2024/25 cost analysis for each Member Agency was submitted with their individual FY 2024/25 Annual Report in September 2025.

In addition, the ACCWP continued to track the State Water Board and CASQA efforts on development of the Statewide Municipal Stormwater Cost Policy. Comments on the Revised Draft Policy were submitted in July 2024, and a Final Draft Policy was released in December 2024 and adopted in January 2025. ACCWP will provide in-kind support during FY 2025/26 for a BAMSC Regional Project to update the Bay Area Cost Reporting Framework to allow submittal of cost information to the State's Municipal Cost Data Portal for FY 2026/27, per the requirements of the adopted Water Quality Control Policy For Standardized Cost Reporting in Municipal Stormwater Permits.

Provision C.21: Asset Management

Provision C.21.b: Asset Management Plan

Requirement: Provision C.21.b requires Permittees to develop and begin implementation of an Asset Management Plan in order to ensure the satisfactory condition of all hard assets constructed during this and previous Permit terms. The Asset Management Plan must be developed by June 30, 2025, and begin implementation by July 31, 2025, and be reassessed and updated on an as-needed basis. Permittees must also complete a Climate Change Adaptation Report to identify potential climate change-related threats to assets and appropriate adaptation strategies. The Climate Adaptation Report shall be submitted with the FY 2025/26 Annual Report.

Program Activities: In FY 2024/25, the ACCWP Asset Management Work Group continued to meet and help guide Member Agencies in the development of Asset Management Plans. The ACCWP Asset Management Work Group met six times during the FY. Participants in the ACCWP Asset Management Work Group included representatives from ACCWP, Alameda County, and the Cities of Berkeley, Dublin, Fremont, Livermore, Newark, Oakland, Pleasanton, Albany, Alameda, and Piedmont. Over the course of the FY, ACCWP supported Member Agencies on developing their agency-specific Asset Management Plans and coordinating countywide approaches and tools. ACCWP Asset Management Work Group meetings included an overview presentation of the Asset Management Template, as well as topic-specific presentations during which Member Agencies received guidance focused on how to complete specific sections of the template. Topic-specific presentations included prioritization and scheduling, assessing risk, managing asset data, and projecting costs. In addition, the Program compiled and distributed resources for Member Agencies to reference with the development of their Asset Management Plans.

ACCWP also finalized a guidance framework for Member Agencies to use to develop their Asset Management Plans. ACCWP reconfigured the original annotated outline format to a template format at the request of the ACCWP Asset Management Work Group so that the document could be used more effectively for the development of Member Agency Asset Management Plans. The final Asset Management Plan Template included language provided as examples for Member Agencies to use or modify as appropriate. The Template was reviewed and approved by the ACCWP Asset Management Work Group in December 2024 and approved as a final product by the Management Committee in January 2025.

ACCWP and several Member Agencies also participated in the BAMSC Asset Management Work Group, which was formed for Permittees to collaborate and share resources. During FY 2024/25, the BAMSC Asset Management Work Group held one meeting, which focused on discussing approaches to assessing the condition of trash-related assets and reporting on asset inventories and operations and maintenance needs. ACCWP provided updates to the ACCWP Asset Management Work Group on outcomes and materials from the BAMSC Asset Management Work Group meeting.

Appendix A

New Development and Redevelopment Controls

C Post Workshop Report

ong Term Green Storm ater nfrastructure Technical Working Group Summary and Recommendations Report

Regional Supplement for e De elopment and Rede elopment

New Development Subcommittee Training Workshop Fiscal Year 2024-25

The Clean Water Program's New Development Subcommittee (NDS) sponsored a MRP Provision C.3 training workshop on April 29, 2025. The workshop was held in-person at the County's Turner Court facility in Hayward, CA with a virtual attendee option. The workshop was attended by 109 agency staff and consultants that support the Clean Water Program and its member agencies and four Regional Water Board staff. The workgroup members responsible for planning the workshop were:

Daniel Matlock	City of Fremont
Mike Perlmutter	City of Oakland
Sandy Mathews, Alina Constantinescu, Jane Schauerman	Larry Walker Associates

The workshop focused on the MRP C.3 requirements relevant to Green Stormwater Infrastructure (GSI) inspections. The presentations included:

- *Orientation to C.3 Regulatory Requirements* presented by Daniel Matlock, Fremont
- *Constructing GSI Facilities* presented by Alina Constantinescu, Larry Walker Associates
- *Inspecting GSI Facilities During Installation* presented by Sam Brathwaite, Ground Zone
- *Operations and Maintenance Agreements* presented by Farooq Azim, Eddie Yu, and Carly Kasper, Union City
- *Operations and Maintenance Inspections* presented by Neftali Romero and Emily Meyers, Geosyntec Consultants
- *GSI Field Inspection Exercise* facilitated by Alina Constantinescu and assisted by the speakers and workshop planners at the field stations.

The virtual training session was recorded and will remain available on the Clean Water Program's video hosting platform, available to the Clean Water Program members.

Effectiveness Assessment

Pre- and post-workshop surveys provided insights into the knowledge of the participants before and after the workshop. Eighty-four attendees (74%) completed the pre-workshop survey, and fifty-seven attendees (50%) completed the post-workshop survey. Those that responded showed significant knowledge improvements on the key concepts following the workshop. The pre-workshop survey had an average correct response rating of 58% compared to 73% in the post-workshop survey.

Workshop Evaluation

Fifty-seven of 114 attendees (50%) completed evaluations. The overall average rating of the workshop was approximately 4.77, out of a maximum of 5.0 (**Table 1**). Attendees generally valued the information presented in the training and several specifically identified the GSI inspection exercise and the perspective from the consultants who conduct these inspections as valuable.

Future training needs identified by attendees included: more examples of the variety of GSI facilities; municipal programs for tracking and maintaining GSI facilities; common deficiencies, and processes for enforcement and review of design and submittals.

Table 1. Workshop Evaluation Summary

Evaluation Item	Average Rating (out of 5)[1]
The training was useful and informative.	4.77
I will use the skills learned in the workshop today on the job.	4.77
Overall Rating	**4.77**

[1] Rating scale 1-5 with 1 = Strongly Disagree and 5 = Strongly Agree

Attachments: Workshop Agenda, Attendance Report

New Development Subcommittee Training Workshop

Green Stormwater Infrastructure (GSI)
Inspections from Construction through Operations

Agenda

April 29, 2025
Check-In starts at 8:45 a.m.
9:00 – Noon
951 Turner Court, Hayward, CA

Topic	Speaker	Time
Registration and Refreshments Complete Pre-Workshop Survey		9:00-9:15
Welcome & Orientation to Regulatory Requirements	Daniel Matlock, Fremont	9:15-9:30
Constructing GSI Facilities	Alina Constantinescu, LWA	9:30-9:50
Inspecting GSI Facilities During Installation	Sam Brathwaite, Ground Zone	9:50-10:10
Operations and Maintenance Agreements	Farooq Azim, Union City	10:10-10:30
BREAK		10:30-10:45
Operations and Maintenance Inspections	Neftali Romero and Emily Meyers, Geosyntec Consultants	10:45-11:05
Exercise: GSI Inspection	Alina Constantinescu, LWA	11:05-11:35
Review any questions and key take aways	Alina Constantinescu, LWA	11:35-11:50
Wrap up and Questions Complete Post-Workshop Survey and Evaluation		11:50-Noon

Attendee	Organization
Bijan Emadi	City of Alameda
Echo Lee	City of Alameda
Jim Barse	City of Alameda
Ben Matlaw	City of Albany
David Lam	City of Albany
James Cirelli	City of Albany
Nick Brown	City of Albany
Allan Wong	City of Berkeley
Canhui Li	City of Berkeley
Csilla Kenny	City of Berkeley
Diego Figueroa	City of Berkeley
Evelyn Chan	City of Berkeley
Jacob Several	City of Berkeley
Jesus Espinoza	City of Berkeley
Jonathan Caudillo	City of Berkeley
Jose Alonso	City of Berkeley
Joseph Griffi	City of Berkeley
Joshua Laranang	City of Berkeley
Mary Skramstad	City of Berkeley
Michael Lancelot	City of Berkeley
Nic Firestone	City of Berkeley
Raina Larson	City of Berkeley
Scott Britt	City of Berkeley
Stacey Rutherford	City of Berkeley
Debbie Bell	City of Dublin
Gabrielle Abdon	City of Dublin
Marc Sisto	City of Dublin
Mark Pulgarin	City of Dublin
Robert Magno	City of Dublin
Rosemary Alex	City of Dublin
Shannan Young	City of Dublin
Matt Anderson	City of Emeryville
Daniel Matlock	City of Fremont
Elliot Wier	City of Fremont
Jasmin Lara	City of Fremont
Ken Shih	City of Fremont
Michelle Sim	City of Fremont
Bashir Sarwary	City of Hayward
Jaime rosenberg	City of Hayward
Kiel Ella	City of Hayward
Melissa Fajardo	City of Hayward
Miguel Del Rio	City of Hayward
Paulo Pulu	City of Hayward
Ramon Ramirez	City of Hayward

Attendee	Organization
Ernest Garcia	City of Livermore
Gabriel Sendaydiego	City of Livermore
Jacob Wells	City of Livermore
Jarrett Rasmussen	City of Livermore
Jennifer Rieben	City of Livermore
Kristina Mai	City of Livermore
Leo Sum	City of Livermore
Leon Taing	City of Livermore
Li-Teck Lau	City of Livermore
Monica Navarro	City of Livermore
Nidhi Thanki	City of Livermore
James Scanlin	City of Newark
Vibha Deshmukh	City of Newark
Ben Livsey	City of Oakland
Chris Candell	City of Oakland
David Carrillo	City of Oakland
Dennis Larks	City of Oakland
Kelley Lee	City of Oakland
Laura Ullom-Minnich	City of Oakland
Mike Perlmutter	City of Oakland
Nina Hamilton	City of Oakland
Samantha Moran	City of Oakland
Seth Gunari	City of Oakland
Shane Norris	City of Oakland
Tam Vo	City of Oakland
Nick Millosovich	City of Piedmont
Bryan Toledo	City of Pleasanton
Lily Peng	City of Pleasanton
Michael Warning	City of Pleasanton
Tommy Nguyen	City of Pleasanton
Alysia Reyes	City of San Leandro
Anna Vickroy	City of San Leandro
Dane Rodgers	City of San Leandro
Diana Garcia (External)	City of San Leandro
Iman M. Fawzy	City of San Leandro
Javier Perez	City of San Leandro
John O'Driscoll	City of San Leandro
Antonio Pulido Lizaola	City of Union City
Carly Kasper	City of Union City
Eddie Yu	City of Union City
Farooq Azim	City of Union City
Jose Gutierrez	City of Union City
Lazaro Carrasco	City of Union City
Michael Jester	City of Union City
Nigel Lewis	City of Union City
Willard Balisi	City of Union City

Attendee	Organization
Luis Gonzalez	County of Alameda
Nivedita Gupta	County of Alameda
Sharon Gosselin	County of Alameda
Emily Meyers	Geosyntec
Neftali Romero	Geosyntec
Alejandro Rodriguez	Ground Zone
Jose Ambriz	Ground Zone
Mher Avanesyan	Ground Zone
Sam Brathwaite	Ground Zone
Tony Jones	Ground Zone
Tony Xiong	Ground Zone
Hannah Collver	MCE-Corp
Diana Cangco	Pakpour Consulting Group
Gary Ushiro	Pakpour Consulting Group
Alina Constantinescu	Program Consultant
Jane Schauerman	Program Consultant
Sandy Mathews	Program Consultant
Aidan Cecchetti	San Francisco Bay Water Board
Imtiaz-Ali Kalyan	San Francisco Bay Water Board
Joseph Monical	San Francisco Bay Water Board
Muhammad Ashraf Ali	San Francisco Bay Water Board
Michael O'Connor	SNG & Associates, Inc.
Ritu Shrestha	SNG & Associates, Inc.

BAY AREA MUNICIPAL
STORMWATER (BAMS) COLLABORATIVE

Long-Term Green Stormwater Infrastructure Technical Working Group Summary and Recommendations Report

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.3.j.v.(7)

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, 2025

Table of Contents

List of Tables

List of Attachments

Attachment A: TWG Members

Attachment B: Meeting Summaries

Attachment C: Project Examples

1. Background

1.1 Permit Requirements

MRP 2 required Permittees to complete and implement a Green Infrastructure (GI) Plan) in 2019. In MRP 3, the focus changed from planning green stormwater infrastructure (GSI) to implementing GSI projects, and the permit established numeric targets for retrofitting existing impervious surface with GSI facilities. Each Permittee was assigned a retrofit target of three acres of impervious surface treated per 50,000 population, capped at five acres. Permittees could meet their target individually or collectively at the countywide level. If meeting the target collectively, each Permittee, at a minimum, had to implement a project to treat 0.2 acres of existing impervious surface. A full breakdown of the individual permittee targets is provided in MRP 3 Attachment H. Table 1 summarizes the C.3.j.ii.(2) targets at the county level.

Table 1. County Level Summary of GSI Retrofit Targets

County	GSI Retrofit Target (acres)
Alameda	58.42
Contra Costa	57.32
Santa Clara	46.09
San Mateo	43.31
Solano	11.78
Total	216.92

MRP Provision C.3.j.ii (4) states that Permittees may, together with Regional Water Board staff and impartial science experts (e.g., SFEI, SFEP, U.S. EPA Region 9), collectively form a Technical Working Group (TWG) to discuss long-term GSI goals and recommend long-term percentage reductions in Permittees' impervious surfaces, at individual, countywide, and regional scales. The TWG should prioritize discussion of long-term GSI goals for development and redevelopment projects not already captured by Provision C.3.b, and in particular, public road and right of way reconstruction projects that are not already defined as Regulated Projects by Provision C.3.b.ii.(5). The TWG should additionally review BMPs and performance metrics and should consider linkages to climate change impacts and resiliency including the benefits of urban forestry.

MRP Provision C.3.j.v (7) states that the Permittees shall collectively submit a report summarizing any TWG efforts and recommendations for long-term percentage reductions in Permittees' impervious surfaces with the September 2025 Annual Report.

1.2 TWG Formation and Participants

Working cooperatively through the Bay Area Municipal Stormwater Collaborative (BAMSC) as a project of regional benefit, Permittees began planning the formation of the TWG in fiscal year (FY) 2023-24. In FY 2024-25, the TWG was formed and began meeting. The work of the TWG is anticipated to continue in FY 2025-26.

The TWG is composed of countywide program and municipal staff knowledgeable about planning and other processes that can facilitate implementation of GSI; technical staff knowledgeable about existing stormwater requirements; Regional Water Board staff; and EPA staff. A list of the TWG members is provided in **Attachment A**. Each countywide program contributed a proportional in-kind cost share towards the effort, and technical consultants facilitated TWG meetings and coordinated the development of this TWG Summary and Recommendations Report.

1.3 TWG Activity During FY 2024-25

During FY 2024-25, four meetings of the TWG were held on the dates shown in Table 2.

Table 2. Long Term GSI TWG Meetings

TWG Meeting	Date
Mtg #1	September 13, 2024
Mtg #2	December 5, 2024
Mtg #3	March 26, 2025
Mtg #4	June 4, 2025

Program staff and consultant facilitators met with Regional Water Board staff prior to each TWG meeting to plan the agenda and identify discussion and presentation topics for each TWG meeting. Small permittee work group meetings were held to explore ideas discussed at the TWG meetings. Permittee representatives met separately to plan and develop presentations and discuss the outcomes of the TWG meetings. Permittee representatives provided updates on the TWG progress at BAMSC Steering Committee and Development Subcommittee meetings.

2. Summary of Key TWG Discussion Points and Outcomes

Over the course of the four meetings, the TWG engaged in dialogue regarding GSI requirements in future MRPs and community greening goals. The discussions considered various conceptual ideas that were debated and evolved over the course of the nine-month process. At the last meeting, the TWG reached consensus on a general framework that would incentivize urban greening and GSI projects, recognize a larger range of project types, and could be implemented within the structure of a National Pollutant Discharge Elimination System (NPDES) Permit. The TWG did not address numeric targets or impervious area percent reductions during the FY 2024-25 meetings but anticipates that these discussions will continue into FY 2025-26 TWG meetings and MRP 4 negotiations. The following subsections summarize the key discussions from each meeting. The full meeting summaries, along with materials presented at the meetings, are included in **Attachment B**.

2.1 TWG Meeting #1

The first meeting of the TWG included a discussion of the history and need for the TWG and its goals, including the final report that will be submitted with the September 2025 Annual Report. The TWG noted that their efforts would form a foundation for MRP 4 negotiations, anticipated to commence in Fall 2025.

The TWG discussed: 1) drivers for urban greening; 2) constraints and barriers to urban greening; 3) bridges to address the constraints/barriers; and 4) the need to identify the planning horizon for long-term GSI implementation. Two examples of planning horizons were cited: 1) Permittee GI Plans required by MRP 2 had a planning horizon of 2040; and 2) Plan Bay Area, a regional planning document, has a horizon of 2050. The GSI planning timeframe was briefly discussed, noting that targets based on a five-year permit term introduce challenges given the typical delivery time (planning, funding, design, and construction) for municipal projects.

Topics were identified for discussion at future meetings or research. Some of the key topics included:

- Understanding the implementation of GSI at different scales, e.g., parcel-based projects, green street projects, and regional projects.
- Exploring how a larger range of project types, such as stream restoration and urban forestry, could be incorporated into GSI targets.

- How to align GSI planning with other planning and funding efforts, e.g., climate action plans, bicycle and pedestrian safety plans, roadway improvement master plans, and urban forestry plans.
- Identifying clear translatable metrics that can communicate project benefits to stakeholders and serve as credit toward numeric retrofit targets for GSI projects and programs.

2.2 TWG Meeting #2

The second TWG meeting explored two topics identified in TWG Meeting #1: GSI implementation at different scales and options for meeting long-term goals.

The discussion on GSI implementation at different scales initially focused on terminology to reach a common understanding. Permittee-developed plans, such as Stormwater Resource Plans, describe three types of GSI projects:

- Parcel-based projects that treat runoff from the identified parcel;
- Green street projects that treat runoff from the road and can treat runoff from portions of the adjacent parcels; and
- Regional projects that treat runoff from an area larger than the parcel on which they are located.

It was noted that regional projects can vary significantly in size, from smaller projects capturing runoff from less than 100 acres to larger projects capturing runoff from greater than 1,000 acres. Regional Water Board staff noted some concerns about very large regional projects, especially those that may involve diversion of water from creeks, and those that cannot meet the 80% capture of annual runoff standard in the MRP. However, Permittees and Regional Water Board staff recognized that larger regional projects can be more cost-effective than parcel-based or green street projects, have greater potential to provide multiple benefits, including capture and use of stormwater, and may be more effective at reducing pollutant loads. Regional multi-benefit projects could also attract alternative funding sources, such as from Caltrans, state or federal grants, or Public Private Partnerships. Permittees also noted that, while large-scale regional projects have many desirable aspects, it can be challenging to identify feasible locations and to fund ongoing O&M.

For parcel-based and green street projects, the TWG discussed the potential water quality benefits of smaller projects that may not meet the MRP sizing criteria but provide opportunities to incorporate GSI elements and stormwater treatment.

In general, there was agreement that future requirements should achieve a balance between distributed GSI projects (parcel-based and green streets) and regional projects.

During the discussion of options for meeting long-term goals, Regional Water Board staff presented a working concept of a potential two-path approach that would allow Permittees to either meet a numeric retrofit target (Path 1) or an alternative path that would have reduced numeric retrofit targets compared to Path 1 for voluntarily coordinating GSI planning and implementation with other planning efforts (urban forestry, climate change adaptation, stream restoration, etc.). The TWG explored the concept of Path 2, including the types of planning that might qualify, how progress might be measured, how water quality benefits might be determined, and how innovative or multi-benefit projects could be incentivized. The TWG suggested developing a framework for Path 2 and looking at concrete project examples to determine how metrics might be established and applied.

2.3 TWG Meeting #3

The key topics at the third TWG meeting were the continued discussion of the integrated planning path (Path 2) from TWG Meeting #2 and developing a framework for meeting long-term green infrastructure goals.

Building on the conceptual two-path approach discussed in the second meeting, the TWG considered a hybrid approach incorporating aspects of both paths into a single path. A hybrid approach could evaluate the integrated planning aspects and the area treated on a project basis, rather than committing to a Path 1 or 2 program from the outset. The TWG considered an example matrix of project evaluation criteria and a suggested approach for providing incentive bonuses for multi-benefit projects. The challenge of creating an equitable and uniform system, given the diversity of Permittee planning efforts and documents, was noted as a drawback.

Permittees presented two examples of existing projects as types of projects that a future framework could address: 1) The Three Creeks Parkway Project in Brentwood; and 2) The Lower Walnut Creek Restoration Project. Both projects involve restoration of creek functions and habitat along with community recreation, outreach, and flood protection benefits.

During the discussion of the hybrid path for meeting long-term green infrastructure goals, Regional Water Board staff pointed to the frameworks in the Western Washington Phase I and Phase II Stormwater Permits, which allow for a variety of project types to count toward achieving a numeric retrofit target. The TWG agreed to review and evaluate the Western Washington Phase II Stormwater Permit system for its suitability for the Bay Area, as its crediting system aligned more closely with the direction in which the TWG was focusing.

The TWG also explored how a long-term goal could be successfully implemented in permits that are structured in five-year terms. The key concern raised by Permittees is the current MRP's lack of recognition for past projects and how that will affect future project

planning. Permittees noted that GSI requirements, in some form, have been in Bay Area permits since MRP 1. Permittees that were "early adopters" may have installed GSI in earlier permits before there were metrics. In addition, Permittees are currently working to install GSI to meet the MRP 3 numeric targets, and some may exceed the targets. As such, Permittees expressed interest in having the long-term goals consider all the GSI installed, i.e., count past projects toward the long-term goal, and allow excess treated acres to carry over from one permit term to the next. On the latter point, Permittees noted that project delivery timelines often do not synchronize with permit terms, which may result in an overabundance of acres treated in one permit term and a deficit in another. Regional Water Board staff recognized these timing challenges and noted that they want the future permit requirements to continue to build capacity, accelerate progress, and incentivize smart decisions regarding GSI.

2.4 TWG Meeting #4

The final TWG meeting continued the exploration of the Western Washington Phase II Stormwater Permit as a starting point for a Bay Area framework. Regional Water Board staff presented an overview of Appendix 12 of the permit, which contains the Stormwater Management for Existing Development Program, noting that many of the project types that the TWG has discussed are part of the framework. The Western Washington Phase II Stormwater Permit allows Permittees to select from a variety of project types and activities to achieve their GSI numeric targets, including, for example, reconnecting riparian zones or maintenance of existing GSI. The permit establishes ratios for crediting the different types of projects and actions toward the numeric targets. It also limits the amount of credit that can be taken from certain project/activity categories. The TWG noted that this type of framework could be adapted for the MRP, since it has been shown that such a framework can work within an NPDES permit structure.

Overall, the TWG agreed that a framework that envisions a mix of project types is desirable and that such a framework could set a good foundation for future permit terms because the mix of project types or allowance for category credits can be adjusted as Permittees' GSI programs advance. For example, as retrofit projects get built out, the focus could potentially shift to allow more credit for maintenance. Several items were identified for further discussion:

- Permittees would like more definition on the Regional Water Board's concerns about diverting stormwater from a receiving waterbody and requested that different conditions be considered for diversion projects from concrete channels and large storm drain pipes vs. natural channels.

- Permittees would like more guidance on acceptable parameters for regional projects, including stormwater diversions.
- Permittees would like a clearer indication from Regional Water Board staff as to whether excess treated impervious acres from MRP 3 can be carried over into MRP 4.
- Regional Water Board staff would like Permittees to continue to provide input on the Western Washington Phase II Permit approach and identify a set of projects and activity types that a Bay Area framework should include.

3. Permittee Recommendations

3.1 Purpose of this Section

The MRP requires that Permittees collectively submit a report summarizing any TWG efforts and recommendations with the September 2025 Annual Report. The TWG had productive, wide-ranging discussions of GSI opportunities, successes, challenges, and issues from the perspective of both Permittees and Regional Water Board staff. However, several issues, approaches, and goals are yet to be resolved and agreed upon before the permit reissuance process begins. The TWG anticipates that discussions will continue into FY 2025-26 via TWG meetings and subsequent MRP 4 negotiations. As a result, the recommendations in this report are high-level, based on the TWG's progress to date, and are intended to be a starting point to inform and facilitate future discussions of MRP 4 requirements.

The Permittee Recommendations begin with a statement of guiding goals and principles (Section 3.2). This section is followed by identification of the desired elements of a framework for crediting public projects towards compliance with future numeric retrofit requirements (Section 3.3), including project phasing, project types, and benefits to be recognized within the framework. Section 4 presents examples of project types, and Section 5 concludes with recommended next steps.

3.2 Guiding Goals and Principles

Based on TWG discussions as well as separate discussions with Permittees and countywide program managers, the recommended guiding goals and principles for a crediting framework include the following:

- The framework should address water quality improvement and protection, climate resilience, and other benefits.
- The framework should provide flexibility in meeting numeric retrofit targets.
- The framework should recognize a broader range of project types beyond the standard GSI described in the MRP.
- The framework should incentivize multi-benefit projects that meet multiple municipal planning goals.
- The framework should incentivize opportunistic or "tactical" LID/GSI (i.e., LID/GSI that provides benefits in strategic locations but may or may not meet all GSI design standards).
- The framework should recognize time, resource, and funding limitations.

- The framework should recognize actual municipal infrastructure planning and implementation timelines and include credit for progress in each phase, from conceptual planning through the maintenance of GSI projects.
- The framework should grant credits to municipalities that constructed GSI projects under earlier permits (e.g., MRP 1.0 or 2.0) and allow for rolling over credit for municipalities that went beyond their required target in MRP 3.0.
- The framework should consider the constraints associated with implementing GSI in built-out areas and small communities where available land and resources are limited.

3.3 Desired Elements of a Framework

The TWG discussed establishing a Bay Area Long-Term GSI Implementation Framework (Framework) to guide how Permittees could achieve future numeric targets in the MRP. The TWG agreed that the range of Framework elements eligible for crediting should be more comprehensive and flexible than the range of elements in the current MRP. As an example of this type of framework, the TWG (based on the recommendation of Regional Water Board staff) referenced the Western Washington Phase I and Phase II permits. Based on the TWG discussions and Western Washington permits, the elements considered by the TWG for crediting included project phasing, expanded project types, and multiple benefits.

3.3.1 Washington Phase I and Phase II Permits

The Western Washington Phase I[1] and Phase II[2] permits include expanded elements to address numeric targets for runoff treatment from existing impervious surfaces. The Western Washington permits include a Stormwater Management for Existing Development (SMED) program. The SMED program addresses stormwater discharges from areas of existing development, including runoff from highways, streets, and roads owned or operated by the Permittee. These are generally areas that are not addressed as part of new and redevelopment project requirements. The SMED programs in the Phase I and II permits are not identical, but both include a point system and mandatory targets for Permittees to meet within the permit term.

While the SMED program may be a good general reference for Framework elements, the TWG agreed that its details were not directly relevant or appropriate to the MRP in their entirety. The SMED program offers some examples of crediting for project phasing, an expanded project list, and multiple benefits that the TWG should consider when developing a Framework.

[1] https://fortress.wa.gov/ecy/ezshare/wq/permits/MS4_2024_App12_Final.pdf
[2] https://fortress.wa.gov/ecy/ezshare/wq/permits/MS4_2024_App12_PhIIWWA_Final.pdf

3.3.2 Project Phasing

Including project phasing consideration in the Framework would recognize that GSI projects can take multiple years to implement fully. It would also give the Permittees more confidence in their ability to scope project implementation across multiple permit terms. To account for project phasing in the Framework, the Permittees considered establishing credits for the project phases shown in Table 3.

Table 3. Example Project Phases for Crediting Toward Long-Term Goals

Phase	Description
Planning and Collaboration	This phase would credit the significant effort that goes into Permittees identifying projects, interagency collaboration, educating and receiving buy-in from their communities, conducting feasibility studies, and obtaining funding.
Design	Credit for this phase would account for the time and expense of going through the design, permitting, and outreach processes.
Construction	Credit for this phase would account for the acreage Permittees treat with constructed GSI.
Operations and Maintenance	Credit for operating and maintaining constructed GSI projects recognizes that this is a significant effort for Permittees to fund and conduct, and one that will continue to increase over time.

The TWG also discussed the fact that Permittees have constructed projects that did not receive numeric credit under MRP 3 because they were built before January 1, 2021. By limiting numeric target credits to a 6 ½ year period, the Permittees become restricted in their ability to plan ahead. The incentive for Permittees to construct beyond their required numeric target in any given permit term is also reduced significantly. The Framework should consider projects and/or credits spanning multiple permit terms to address these issues, especially for larger regional projects with multiple stakeholders.

3.3.3 Project Types

The TWG also discussed expanding the list of possible project types that can be counted toward numeric retrofit targets. The intent of expanding the list of project types is to increase the opportunities for Permittees to address water quality and other benefits desired by their communities. An expanded list will give Permittees more options for

overcoming the numerous challenges of GSI implementation, such as space constraints, utility conflicts, and funding. The TWG discussed establishing standard metric ratios to account for various expanded project types. Developing metric ratios would allow for credit to be applied to projects that provide benefits but don't fully meet the current characteristics and design standards for structural GSI required in Provision C.3. The TWG also considered the benefit of non-structural controls and how they could be credited for their water quality-related benefits.

Table 4 provides a preliminary list of example projects and actions that should be considered for receiving credit toward numeric retrofit targets. The list below is not intended to be exhaustive of all potential project types. The TWG should continue to vet and expand the list as appropriate during the development of the Framework. Ultimately, the Framework should provide some flexibility so as not to preclude certain project types that may not fit the exact categories below but still meet the intent of the type(s) of projects listed.

Table 4. Project Type Examples

Example Project Type	Description
Low impact development	Current project type receiving credit.
Undersized / opportunistic LID	Project with LID treatment not achieving C.3.d sizing requirements.
Regional projects with some or all non-LID treatment	Multi-benefit projects using a potential range or mix of treatment options, including media filters and other high-flowrate treatment systems.
Urban forestry	Increasing canopy cover throughout a jurisdiction results in reduced runoff and urban heat.
Stream restoration	Stream restoration, replanting, erosion control, and/or restoration of riparian buffers.
Stream maintenance	Removal of sediment for pollutant control and re-establishment of natural conditions/flow.
Preservation of land	Land acquisition for water quality and/or flow control benefits.
Removal of impervious surfaces	Removal of impervious surfaces and replacement with pervious pavement or pervious vegetated surfaces that promote infiltration, dispersion, and uptake by plants and/or reduce the amount polluted runoff.
Enhanced sweeping and line cleaning	Reduction in sediment transport to address Provision C.11 Mercury or C.12 PCBs requirements.
Flood control and floodplain reconnection projects	Projects that reduce flooding and/or reconnect riparian areas that serve as enhanced floodplains.
Climate Resilience	Projects that address sea-level rise, urban heat, and/or other climate impacts through infrastructure improvements and urban greening and which have a direct water quality and/or hydrology improvement aspect.

3.3.4 Multiple Benefits

As part of the standard metric ratios discussed for project types, the TWG also considered how projects with multiple benefits could be credited, accounting for their added benefits and the additional effort often required to incorporate them. The approach discussed by the TWG was to have projects with multiple benefits receive additional credits that go beyond those provided for the acreage treated. In other words, Permittees could achieve a higher than "one for one" credit ratio for each project, including multiple benefits. It is also a way to recognize the extra work conducted and funds expended by Permittees to incorporate multiple benefits and the extra benefits that are realized as a result.

Table 5 includes examples of multiple benefits for which projects could receive additional credit towards numeric targets beyond the credit for treated acreage achieved by the project.

Table 5. Example Project Benefits List

Example Project Benefits	
– Improved water quality	– Reduced energy use and/or greenhouse gas emissions, or provision of a carbon sink
– Reduction of Mercury or PCBs for compliance with C.11 or C.12	– Reestablishment of natural hydrology
– Support of underserved communities and/or tribal communities and values	– Reduced water temperatures
– Watershed collaboration among multiple agencies	– Employment opportunities and workforce development
– Increased water supply and/or conservation	– Public education
– Increased evapotranspiration, filtration, and/or treatment of runoff	– Community involvement
– Nonpoint source pollution control	– Increased and/or enhanced recreational and public use areas
– Reestablished natural water drainage and treatment	– Climate change adaptation and resilience
– Decreased flood risk by reducing runoff rate and/or volume	– Increased tree canopy, urban cooling, soil restoration, infiltration, and groundwater recharge
– Reduced sanitary sewer overflows	– Improved air quality
– Environmental and habitat protection and improvement	– Increased urban green space, habitat, and regenerative landscaping

4. Examples of Project Types

Attachment C includes example projects that have been planned and/or completed by Permittees and represent a subset of project types that could be considered for a framework as outlined in Section 3.3.3. Each project page includes the project name, goals, description, location, project proponent, type, status, and benefits provided. Asterisks are applied to the Project Type if they are also included in the WA State Phase II Permit, Appendix 12. The project benefits serve as examples of the types of multiple benefits that a framework could acknowledge with additional credits towards numeric targets. The benefits are further broken down into primary and secondary benefits that are generally based on Proposition 1 Project Proposal Evaluation Criteria. The project examples in **Attachment C** include flood control and riparian restoration, urban forestry, and parcel-based, green street, and regional GSI projects. There is also an example of a project that has significantly advanced GSI planning in the community but has not resulted in any constructed projects to date.

5. Recommended Next Steps

Based on the TWG progress to date and the proposed Framework elements described in this document, the Permittees recommend the following next steps:

- Continue to discuss and reach agreement on desired elements of a GSI Implementation Framework for MRP 4 at two additional TWG meetings in FY 2025-26.
    - Work with Regional Water Board staff to develop a preliminary Framework outlining project types, metric ratios, and multi-benefit factors for discussion by the TWG.
    - Test the preliminary Framework using example projects to develop metrics and credit scenarios.
- Continue to discuss a potential approach for establishing long-term GSI implementation goals and reductions in Permittees' impervious surfaces, at individual, countywide, and regional scales, if such goals would support the GSI Implementation Framework.
    - Work with Regional Water Board and SFEI staff to evaluate the need for and desired outputs of any potential studies, mapping, and/or decision support tools needed for setting long-term GSI implementation goals.
- Continue to discuss other outstanding issues, including:
    - The Regional Water Board staff's concerns about diverting stormwater from a receiving waterbody. The discussion should consider whether regulations should consider different conditions for diversion projects from concrete channels and large storm drainpipes vs. natural channels.
    - Acceptable parameters for regional projects, including stormwater diversions.
    - The potential for excess treated impervious acres from MRP 3 to be carried over into future permits and for projects constructed pre-2021 to be credited.

Attachment A: TWG Members

Organization	Name	Agency	Alternates
SCVURPPP	Vanessa Marcadejas	Santa Clara County	Julianna Martin Brad Hunt Mary Morse Kendra Boutros
	Pam Boyle Rodriguez	Palo Alto	
	Rajani Nair	San Jose	
	Melody Tovar Emma Hinojosa	Sunnyvale	
	James Downing	Valley Water	
	Jill Bicknell	SCVURPPP/EOA	
	Jeff Sinclair	SCVURPPP/EOA	
SMCWPPP	Reid Bogert	C/CAG	N/A
	Dan Sternkopf	C/CAG	
	Kelly Havens Lisa Austin	SMCWPPP/Geosyntec	
	Peter Schultze-Allen	SMCWPPP/EOA	
ACCWP	Sandy Mathews	ACCWP/LWA	N/A
	Alina Constantinescu	ACCWP/LWA	
	Daniel Matlock	Fremont	
	Erwin Ching	San Leandro	
	Echo Lee	Alameda	
CCCWP	Rinta Perkins	CCCWP/Geosyntec	Brianne Visaya Joe Camacho Mitra Abkenari
	Erin Lennon	CCCWP	
	Lucile Paquette	Walnut Creek	
	John Michelle Steere Giolli	Contra Costa County	
	Frank Kennedy	Various CCCWP Permittees	
	Amanda Booth	San Pablo	
	Yvana Horvat	CCCWP/Haley & Aldrich	
	Rachel Kraai	CCCWP/Lotus Water	
SSA	Meg Herston		N/A
Regulators	Keith Lichten	Regional Water Board	Richard Looker
	Rebecca Nordenholt	Regional Water Board	
	Aidan Cecchetti	Regional Water Board	
	Luisa Valiela	EPA	

Attachment B: Meeting Summaries

Long-Term Green Stormwater Infrastructure (GSI) Implementation
Technical Working Group (TWG) Meeting #1
September 13, 2024
1:00pm – 3:00pm

Meeting Summary

Meeting Attendees: Jill Bicknell (EOA/SCVURPPP), Jeff Sinclair (EOA/SCVURPPP), James Downing (Valley Water), Sandra Freitas (City of San Jose), Mary Morse (City of San Jose), Norman Mascarinas (City of San Jose), Rajani Nair (City of San Jose), Jason Day (City of San Jose), Julianna Martin (County of Santa Clara), Pam Boyle Rodriguez (City of Palo Alto), Emma Hinojosa (City of Sunnyvale), Rinta Perkins (Geosyntec/CCCWP), Erin Lennon (CCCWP), Michelle Giolli (Contra Costa County), Amanda Booth (City of San Pablo), Elizabeth Callahan (City of Concord), Brianne Visaya (City of Oakley), Rachel Kraai (Lotus Water/CCCWP), Reid Bogert (C/CAG), Kelly Havens (Geosyntec/SMCWPPP), Peter Schultze-Allen (EOA/SMCWPPP), Sandy Mathews (LWA/ACCWP), Erwin Ching (City of San Leandro), Daniel Matlock (City of Fremont), Keith Lichten (SF Bay Regional Water Board), Aidan Cecchetti (SF Bay Regional Water Board)

1. Introductions

Participants introduced themselves. There were no changes to the agenda.

2. Review Agenda and Meeting Goals

Meeting goals were reviewed, including scoping the TWG effort, developing a list of topics to be discussed at meetings, and suggesting potential outside speakers to inform discussion.

3. History of Long Term GSI Provision and Need for TWG

A brief history of the long-term GSI provision was shared. The need for discussion of long-term GSI goals was raised by Permittees during the MRP 3.0 negotiations. Permittees had expressed concerns about how MRP 3.0's numeric retrofit targets were developed as well as concerns about the project types applicable to the targets and the cut-off dates for accounting for/crediting constructed GSI projects. Permittees also had general concerns and questions about long-term goals for GSI and how the numeric targets fit into those long-term goals. Water Board staff added concerns about water quality impacts of existing impervious surface and the need to recognize other pollutant specific goals in the permit as well. They'd like to understand how to provide flexibility that allows recognition of other goals including climate resilience, flood control, and urban greening in dense urban environments.

4. Goals of the TWG

Participants discussed: 1) drivers for urban greening; 2) constraints and barriers to urban greening; and 3) bridges to address the constraints/barriers. Drivers included: sustainability planning; pedestrian and bike safety; climate adaptation and hazard mitigation planning; regenerative solutions; habitat; urban forestry; CA Water Strategy; and placemaking. Permittees would like to define GSI more broadly and link it to other drivers for urban greening.

Constraints and barriers discussed included: maintenance capacity, urban forestry/bioretention soil media (BSM) concerns, risk aversion, limited GSI track records, water conservation restrictions, design uncertainties, scales of GSI, funding for construction and maintenance,

housing demand, timeframe for retrofit/targets, and permit constraints including limitations on small projects and regional projects.

Water Board staff noted that: 1) they are aware there are difficulties following the permit's requirements while scaling up, such as with regional projects; and 2) they do not see housing demand as a conflict with GSI but as an opportunity for more GSI, and think Permittees should be using the many examples of GSI integrated with housing around the Bay and the country as models for successful GSI integration. Water Board staff also mentioned the opportunity to work on improvements to the BSM specification that address issues with moisture retention, irrigation, etc., leading into the next permit reissuance.

Participants discussed the importance of finding ways to bridge the following constraints:

- Linking GSI to related funding initiatives (e.g. climate change funding)
- Adapting performance standards for small projects
- Expanding GSI definition to adapt for constraints as we work to scale up these programs/projects and adapt to climate change
- Receive value and credit for all scales of GSI
- Workforce development
- Time to build, learn, and adapt
- Integration with other planning efforts, Plan Bay Area, Estuary Blueprint
- Integration with related permit provisions
- Assess and learn: who can we learn from?

Water Board staff agreed with these approaches, and mentioned that, for workforce development, we have the National GI Certification Program and other models to learn from. They were interested in exploring expansion of the GSI definition and how we integrate with the Estuary Blueprint. They'd also like to recognize the benefits of stream restoration, flood control, and other work going on in streams.

Additional Permittee goals discussed included:

- Balancing equity and environmental justice goals when setting milestones/crafting metrics.
- Clarity on whether Permittees can take credit for Caltrans funded projects and other partnerships.
- Clarity on how credit gets allocated based on trash, PCBs, etc. It is hard for the Permittees to move forward with projects without this clarity.
- Recognition of the large amount of time/effort for municipal staff to be involved in larger, more innovative, and/or grant-funded projects.
- Integrating different environmental and social goals instead of siloing them.
- Aiming to enable and use translatable metrics like impervious acres treated or volumes managed which can be a useful "currency" in terms of cost-sharing on projects with a variety of partners (especially multi-benefit projects) and in communicating to the public.

Some participants stated that they did not want a total impervious surface goal/requirement that is very difficult to achieve and indicated strong preference for the current numeric retrofit requirement approach in MRP 3.0.

The group started to talk about the timeframe to accomplish a long-term vision. The question was raised as to the relevancy/role of the GI Plans' timeframe in this effort (i.e., 2040). Some planning documents (e.g., Plan Bay Area) have planning horizons to 2050. Water Board staff mentioned that long-term GSI planning is a way to flexibly accommodate the "early adopters" and the "minimum compliance" permittees and to bridge the gap of 5-year permit requirements. They'd like to look at how they can more flexibly target progress over time and ways of categorizing different groups of projects or providing interim milestones. Water Board staff also stated that one of the outcomes they would like to see is a way for permittees to flexibly set their own path that meets Water Board expectations.

There was also discussion of the timeframe for conducting the TWG meetings. Water Board staff noted that they generally start permit reissuance discussions 1.5-2 years ahead of the reissuance date and requested that this group look to identify some tentative outcomes which could be put in a permit draft by fall 2025 and come to some kind of consensus by late 2026. A request was made that at the end of each meeting there should be actionable items that will help Permittees with permit implementation.

5. Topics, Research and Potential Speakers for FY 24-25 TWG Meetings

The group discussed topics for future meetings. Ideas included:

- Implementation of GSI at different scales. Participants discussed the importance of permit changes that allow more flexibility in GSI implementation now that programs are scaling up; both smaller and larger regional projects require more flexibility. Water Board staff indicated the importance of having project/plan examples that will allow the group to look at where/how to allow flexibility in the permit. Water Board staff also noted that they want to know how permittees are prioritizing the different drivers for the range of GSI work.
- Discussion about what needs to be demonstrated to get credit for a larger/more flexible range of projects. It would be helpful for Permittees to understand what could be acceptable and to look at existing technical studies and case studies.
- Interest in looking at/learning from examples of how GSI Plans are currently being implemented and lessons learned about constraints.
- Long-term funding sustainability is a major issue for Permittees and is a topic they want to plan for in concert with GSI goals. TWG needs to think cleverly about how to align long-term goals with funding; an example is municipal bonds.
- It could be helpful to look at other plans (e.g., bike/ped, urban forestry) to find the touch points to GSI and if there are metrics and goals in those plans. This could be a homework assignment and report out during a future meeting.
- San Mateo Program's (C/CAG's) One Watershed project will be examining the linkages between climate adaptation, energy, and other watershed goals later this year and will have some metrics/linkages the TWG could look at.
- A full meeting on trees, stormwater and the integration with other city greening goals. Permittees want to have a discussion about how cities can get C.3.j credit for trees at the municipal scale. The group discussed whether most cities have urban forestry plans or components in other plans. Water Board staff suggested that discussions of urban forestry

could be woven into a larger discussion of multiple benefits and associated metrics and funding sources.

Participants set up an online shared document where working group members can contribute ideas on future speakers.

Participants also suggested circulating a survey to all countywide stormwater programs on potential topics and framework for the next three meetings. This survey could be organized by categories like: funding and incentives, policy and regulations, Innovative design to promote GSI, and integrated planning.

6. Schedule for FY 24-25 TWG Meetings

- Next meeting will be on December 5th from 1-3 pm.
- Two additional meetings will be scheduled during the remainder of the FY (tentatively March and June).

7. Next Steps/Action Items

Water Board staff suggested that the next meeting focus on GSI at different scales. The group agreed that participants would bring specific issues/examples to discuss.

Long Term Green Stormwater Infrastructure (GSI) Implementation
Technical Working Group (TWG) Meeting #2
December 5, 2024, 1:00pm – 3:00pm

Meeting Summary

Meeting Attendees: Jill Bicknell (SCVURPPP/EOA), Jeff Sinclair (SCVURPPP/EOA), James Downing (Valley Water), Rajani Nair (City of San Jose), Mary Morse (City of San Jose), Pam Boyle Rodriguez (City of Palo Alto), Emma Hinojosa (City of Sunnyvale), Julianna Martin (Santa Clara County), Rinta Perkins (CCCWP/Geosyntec), Erin Lennon (CCCWP), Amanda Booth (City of San Pablo), Lucile Paquette (Walnut Creek), John Steere (Contra Costa County), Frank Kennedy (Kennedy & Associates), Mitra Abkenari (City of Concord), Rachel Kraai (CCCWP/Lotus Water), Reid Bogert (C/CAG), Dan Sternkopf (C/CAG), Kelly Havens (Geosyntec), Sandy Mathews (ACCWP/LWA), Alina Constantinescu (ACCWP/LWA), Daniel Matlock (Fremont), Keith Lichten (SF Bay Regional Water Board), Aidan Cecchetti (SF Bay Regional Water Board), Rebecca Nordenholt (SF Bay Regional Water Board), Richard Looker (SF Bay Regional Water Board)

Introductions
Meeting participants introduced themselves. Edits to the TWG Meeting #1 Summary were requested by December 12th.

GSI Implementation at Different Scales
An overview of three different scales of GSI was shared: parcel-based GSI, green streets, and regional GSI. Regional projects can vary in size from small projects capturing runoff from < 100 acres to large projects capturing runoff from >1,000 acres. Permittees reported that they have received comments from Water Board staff with concerns about large regional projects including Orange Memorial Park (OMP) in San Mateo County. Permittees requested clarity from Water Board staff about issues with regional projects like OMP, so they can move forward with developing and taking credit for them.

Water Board staff noted that there are opportunities and constraints at all scales of regional projects. Water Board staff have concerns about large projects that are taking water out of creeks and then putting it back in (ideally, stormwater treatment would be provided prior to discharge to receiving water). These projects are more complex and involve more agencies; as projects get larger, water quality benefits also seem less certain. They are concerned that these projects may not meet the 80% capture of annual runoff standard in the permit. They indicated that they are not sure how the water quality benefits of these projects should be quantified, as they are complex and are only capturing/treating a portion of the runoff from the upstream watershed. However, staff do recognize some potential benefits to larger scale projects including stormwater capture and reuse. Water Board staff also recognize that Permittees are working in tightly constrained environments where limited retrofits are possible. Staff wondered if there is an intermediate scale of regional project that is better suited to meeting sizing and treatment requirements and still provides multiple benefits.

A San Mateo representative noted that the "subregional" project scale is interesting but stressed that what cities are looking for is locations where they can maximize cost/benefit. OMP was paid for by trash capture funds, but the community was looking for other benefits, e.g., climate resilience, groundwater recharge, and flood control. A Contra Costa representative also noted that Contra Costa Permittees are very interested in regional projects from a cost/benefit standpoint. But they have not been able to find suitable locations on public lands, especially park lands in disadvantaged communities. Permittees asked about the Water Board's vision for these subregional projects.

Water Board staff reiterated that they are concerned about moving away from the notion of 80% capture and allowing partial credit. They know that all Permittees are working in different conditions and want to know what kind of design flexibility will make projects more feasible. They want feel comfortable that Permittees are looking at multiple scales of projects.

Permittees shared that larger GSI projects allow more potential flood control benefits. In general, larger projects have potential to provide more benefits, and when there are more benefits, there are more opportunities for funding, including critical maintenance. Permittees noted that in order to get funding, projects need to address what people care about, e.g., flooding, storm drains that are too small, etc. Permittees also noted that they also want to get some kind of credit for smaller projects and programs like downspout disconnection; there needs to be a new way to consider and talk about credits, because supporting/incentivizing smaller projects and programs is also important for watershed health. The permit's narrow requirements cause Permittees to reject smaller/partial projects and programs. Permittees also indicated that a shift towards an incentive-based approach versus a credits-based approach would encourage Permittees who are already meeting their baseline numeric requirements. Permittees also noted that there needs to be a balance between the desire to have distributed GSI projects that protect creeks and the need for larger scale projects to meet TMDLs for the Bay.

Options for Meeting Long Term Goals

Water Board staff indicated that they are starting to think through how a comprehensive planning approach could potentially be recognized in MRP 4, but still intend to require a subset of applicable projects to meet the current standards. They recognize that projects are more implementable when they incorporate multiple benefits and meet multiple needs.

Permittees noted that they would like to be able to leverage what is already being done and count it for compliance. Examples include urban forestry projects and downspout disconnection programs.

Water Board staff shared a presentation titled "Long-Term GSI Implementation in MRP 4" (attached) with a proposed alternative framework for MRP 4 compliance. They indicated that there are many questions to be addressed about how the alternative would be implemented and enforced, but that the goal is to support a broader view of watershed health and to provide flexibility as requested by Permittees. Another goal is to develop a framework that can support longer term planning beyond the limitations of single permit terms.

Water Board staff started the presentation by reviewing current MRP 3 C.3.j requirements. Then staff presented two potential "pathways" for compliance with MRP 4. Path 1 would include prescriptive requirements similar to current MRP 3 numeric retrofit requirements (but likely increased acreage based om TWG input). Path 2 was described as an "Alternative Compliance" pathway that would allow compliance through voluntarily coordinating GSI planning and implementation with other planning efforts (e.g., urban forestry, climate change adaptation, stream restoration, etc.). There would still be numeric retrofit targets under Path 2 but they would be reduced compared to Path 1.

Water Board staff indicated that some of the details to be worked out around a potential Path 2 include:

1) Basic minimum requirements for Path 2;
2) Framing/categorizing multiple benefits and how planning efforts can be recognized as compliant with the MRP (i.e., have water quality benefits);
3) Quantifying/measuring multi-benefit planning efforts;
4) Relationship to jurisdiction-wide vs. countywide crediting
5) Time scale - what can be achieved during MRP 4 vs. a longer time scale and how to make GSI implementation more predictable and sustainable
6) How to avoid concerns about anti-backsliding.

Permittees indicated interest in and appreciation for the Path 2 concept. Permittees shared the following questions and comments:

1) Request to call it something different than "Alternative Compliance" as that term is already in use. Some suggestions included: "Multi-Benefit Pathway" or "Adaptive Compliance Strategy".
2) Request that both Paths recognize cumulative accomplishments across permit terms.
3) Support for including stream restoration efforts in Path 2.
4) How would disadvantaged communities be affected by this potential provision?
5) Could there be a Path 1.5 or a Path 2 "Light" that recognizes previous efforts?
6) When would Permittees choose their Path?
7) Request to include community-driven watershed/creek stewardship and restoration in Path 2. Some communities have a very strong culture of community-driven projects and planning.
8) Request that there still be flexibility for accounting at the countywide scale.
9) Request to consider incentivizing a program for greening.
10) Consider boundaries around what advancing programmatic GSI looks like.

Water Board staff indicated that they are open to discussing these questions with the TWG. Water Board staff asked what Permittees would suggest as reasonable requirements for stream restoration efforts. The group discussed the multiple "slowing and spreading" benefits that some flood control projects can have, including water quality. The Water Board indicated that they are looking for projects with more benefits than conventional flood control projects and don't want to miss capturing and treating the smaller flows. The group also discussed balancing the "no missed opportunities" approach with good planning for coordinated projects.

Permittees asked how consideration of disadvantaged communities would factor into the integrated planning approach in Path 2. Water Board staff indicated that MRP 3 opened the door for different types of prioritization and that disadvantaged communities could be considered in project prioritization.

Permittees also emphasized the importance of getting confirmation/clarification regarding allowing MRP 3 credits to be rolled over to MRP 4. Water Board staff indicated that this is likely, but that it is difficult for the Water Board to link requirements across two permits. Permittees also indicated that they would like to receive credit for projects done under earlier permits. Water Board staff indicated that this might be more difficult because of the anti-backsliding rules. Permittees also stressed the importance of clarifying how current project types and planning efforts can be counted.

Water Board staff indicated that they have discussing how to get better data on the water quality benefits of "allied efforts" (e.g. through monitoring of existing projects that may have been implemented in past permit terms) and also trying to figure out how to use planning and modeling tools to identify strategic implementation locations. Water Board staff noted that they have been considering the benefits of having a more strategic geographic focus where integrated/more comprehensive planning occurs on a smaller scale. Integration over time might be more feasible in a smaller area with legacy pollutants, limited green space, underserved community, etc., where integrated benefits could maximize return on investment. An analogous approach might be the "Specific Plans" used by Planning Departments. Water Board staff asked if Permittees' "allied plans" would align well with a more focused approach for GSI implementation. Permittees pointed out that even if GSI implementation is coordinated with other plans, it may not be the highest priority of those plans and resulting projects (e.g., "Vision Zero" pedestrian safety plans).

The group continued to discuss questions about how progress would be recognized by the Water Board using a potential Path 2. Water Board asked whether local documents/frameworks included implementation benchmarks that could potentially be used to mark progress. Participants discussed developing a structure and/or a matrix for the Water Board to use to evaluate plans and/or programs.

Permittee representatives suggested that concrete examples be discussed and "run through" a potential Path 2 in order to clarify how metrics would be used and different efforts be credited. Examples of concrete examples include Palo Alto's urban forest plan, downspout disconnection programs, coastal floodplain/wetland projects, community-driven creek restoration projects, projects with proposed media filters with equivalent multiple benefits, etc. Permittee representatives also suggested that the Water Board consider incentivizing projects/plans that go above and beyond existing requirements or pilot projects that attempt to address new compounding problems like climate change.

Next Steps/Action Items

The TWG summarized next steps including:

1) Water Board staff to send their presentation slides to the TWG.

2) Countywide Program representatives to discuss proposed Path 2 with Permittees and come to future TWG meetings with feedback.
3) Schedule next TWG meeting.
4) Schedule small group agenda planning meeting with Water Board staff. Topics for the next meeting include:
    a. Continuing discussion of regional projects and potential limitations.
    b. Determining what can be credited and what metrics can be used for Path 2.
    c. Determining points/benchmarks to recognize progress.
    d. Determining flexibility in design criteria desired/needed.
    e. Determining how disadvantaged communities fit into Path 2.
    f. Discussion of example projects and how they would work through Path 2 to illustrate/troubleshoot metrics and crediting.
    g. Determining how MRP 3 projects could get credit through MRP 4 Path 1 and 2.
    h. Beginning discussion of potential requirements for Path 1.
5) Continue discussions with Water Board staff about issues with different scales of regional projects and how to move forward with large regional projects this permit term.

Adjourn

Water Boards Draft Framework: Long-Term GSI Implementation in MRP 4

Technical Working Group Meeting #2

December 5, 2024

CALIFORNIA Water Boards

San Francisco Bay Regional Water Quality Control Board Staff

Overview

- Current framework (MRP 3)
- Proposed MRP 4 framework
- Considerations, discussion, and next steps

Image of GSI from CCCWP website (https://cccleanwater.org/development-infrastructure/green-infrastructure).

MRP 3 Green Infrastructure Provisions

- C.3.j.ii.(1) – Programmatic Implementation
  - Continuous progress through GI Plan updates and revisions
- C.3.j.ii.(2) – Numeric Implementation (GSI Retrofits)
  - Mercury and PCB TMDLs as drivers
- C.3.j.ii.(4) – Long-Term GI Implementation (TWG)

MRP 4 Proposed GSI Framework

- Multiple compliance pathways within permit
- Path 1: Compliance with prescriptive requirements
  - Continuation of MRP 3 C.3.j requirements
  - Increased retrofit acreage requirements
  - Updated with TWG-determined input on GSI drivers and goals
- Path 2: Alternative compliance pathway
  - Recognize multi-benefit planning efforts
  - Comply through voluntarily coordinating GSI planning and implementation with other planning efforts (e.g., urban forestry, climate change adaptation, complete streets, stream restoration)
  - Potential for focused implementation to move water quality needle

Considerations

- Scale and framing of multi-benefit implementation
  - Permittee-specific v. countywide commitments
- Level of effort required versus credit
  - Reduced retrofit requirements in alternative pathway relative to prescriptive compliance path
- How to determine credit for multi-benefit planning efforts
- Time-scale for planning and implementation

Long Term Green Stormwater Infrastructure (GSI) Implementation
Technical Working Group (TWG) Meeting #3
March 26, 2025, 1:30pm – 3:30pm

Meeting Summary

Meeting Attendees: Jill Bicknell (SCVURPPP/EOA), Jeff Sinclair (SCVURPPP/EOA), James Downing (Valley Water), Rajani Nair (City of San Jose), Pam Boyle Rodriguez (City of Palo Alto), Rinta Perkins (CCCWP/Geosyntec), Erin Lennon (CCCWP), Peter Schultze-Allen (SCVURPPP/EOA), Sandra Freitas (City of San Jose), Lucile Paquette (Walnut Creek), Joel Camacho (Walnut Creek), John Steere (Contra Costa County), Michelle Giolli (Contra Costa County), Mitra Abkenari (City of Concord), Yvana Hrovat (CCCWP/Haley & Aldrich), Reid Bogert (C/CAG), Dan Sternkopf (C/CAG), Kelly Havens (Geosyntec), Sandy Mathews (ACCWP/LWA), Alina Constantinescu (ACCWP/LWA), Daniel Matlock (Fremont), Keith Lichten (SF Bay Regional Water Board), Aidan Cecchetti (SF Bay Regional Water Board), Rebecca Nordenholt (SF Bay Regional Water Board), Ashraf Ali (SF Bay Regional Water Board)

Introductions

Meeting participants introduced themselves. The TWG Meeting #2 Summary was approved.

Agenda and Meeting Goals

The agenda and meeting goals were reviewed, and it was asked if anyone had additions to the agenda. A SCVURPPP representative mentioned the Trees and GSI Workgroup meeting on April 2nd at 1 pm.

Pathway for Integrated Planning

At the TWG Meeting #2, San Francisco Bay Regional Water Quality Control Board (Water Board) staff presented two proposed pathways for compliance with GSI numeric retrofit targets in the next permit. Path 2 looks at integrated planning and gives some consideration for implementing projects that address multiple municipal plans and goals. Water Board staff had asked for permittee input on the integrated planning path. A SCVURPPP representative explained one possible approach in which you would not have to select Path 1 or 2, but would use a matrix of municipal plans and goals and apply this to a selected project to show how the project meets multiple goals. The representative then went over an example project and matrix. The lists (plans, programs, benefits) would vary by project and municipality. Another approach would be to evaluate the project from a grant application scoring perspective, listing the primary and/or secondary benefits. As an example, the SCVURPPP representative reviewed the Proposition 1 grant application benefits list. The list could work with the matrix that includes goals around those benefits. The general concept would be that a project that has multiple benefits and/or meets multiple planning goals could earn some type of bonus credit (e.g., additional acres treated) toward the numeric targets.

The draft matrix and Prop 1 benefits list are attached to the meeting summary.

A Contra Costa County representative said he liked the approach and requested that General Plans and Watershed Plans be added to the list of planning documents. He noted that challenges remain around cost and ongoing maintenance of GSI. Models involving nonprofits and community groups for operations and maintenance (O&M) have been successful, and projects that include such partnerships could potentially receive bonus credits. Municipalities

with strong community stewardship could also be acknowledged for their efforts. While this approach was seen as promising, questions were raised about how it fits into broader strategies.

Water Board staff expressed interest in the matrix approach but raised a concern that, because each municipality has different planning documents, creating a uniform crediting system may be difficult. It was suggested that focusing on the benefits list rather than the specific planning documents could make things simpler. Ideally, crediting would evolve from construction in the early permit terms to maintenance in later ones. Water Board staff expressed that designing projects to maximize benefits by aligning with existing plans was also recommended, particularly for projects still in development. A SCVURPPP representative responded that there are many different project drivers and there is not always enough budget to maximize secondary benefits. It would help if there were incentives (such as treated acres credits) to integrate more benefits during design.

An ACCWP representative clarified that the proposed table is more useful as a tracking tool for completed efforts. A SCVURPPP representative expressed an interest in including workforce development and green jobs as benefits, though measuring those benefits for determining credit remains a challenge.

A Palo Alto representative reminded the group that GSI Plans were required in the last permit term and that many permittees have worked hard to integrate GSI into planning updates. Caution was given against excluding these resource-intensive efforts from crediting. GSI integration into other plans, even in the absence of a formal program, should be recognized, as it will result in more projects in the ground with multiple benefits.

Water Board staff emphasized the importance of equity, warning against giving more points to municipalities simply because they have more plans or programs. A SMCWPPP representative suggested that crediting should accommodate either a single plan or multiple documents, as long as certain goals were achieved. Other permittees proposed that General Plans should be considered differently, since they are more comprehensive and require more effort to update, and that bonus credits should be given for projects in disadvantaged communities, ideally captured in a dedicated column of the matrix or benefits list. Water Board staff reiterated the importance of considering community input in projects serving disadvantaged communities. It was stressed that without meaningful engagement of the community, projects may not deliver the intended benefits.

A SCVURPPP representative noted that any metric-based evaluation might not align directly with General Plans. Other permittees urged moving away from numbers of planning documents and metrics and focusing on the multiple benefits provided by the projects. To illustrate this point, two presentations were made about ongoing projects with multiple benefits.

A Walnut Creek representative presented the Three Creeks Parkway Project in Brentwood, focused on providing flood conveyance capacity and restoring riparian habitat along Marsh Creek (attached). The project also includes “soft” benefits such as community engagement and public education. Water Board staff agreed this was a strong project with clear water quality drivers and benefits that could fit the proposed framework. The question as to whether projects in receiving waters could receive credit was reiterated, though it seemed clear that projects in riparian zones adjacent to receiving waters could receive credit. A Valley Water representative expressed strong interest in participating in any follow-up conversation, explaining that many of the projects they hoped to fold into this framework are in wetted zones and include adjacent improvements. It was stressed that the complexity of this issue needed continued discussion.

A Contra Costa County representative presented the Lower Walnut Creek Restoration Project, the purposes of which are to restore and enhance habitat in Lower Walnut Creek, provide sustainable flood management, and allow opportunities for public access and recreation (attached). A City of San Jose representative asked how multi-jurisdictional projects could be credited and raised concerns about balancing time and resource requirements. It was suggested that allowing regional projects to count toward permit targets, such as through a collective countywide stormwater program, could be an option. This could offset individual permittees' targets. Water Board staff shared that Washington State's Department of Ecology has a credit system, as part of the Phase 1 and Phase II NPDES permits, that assigns points for project design, construction, and maintenance phases, which could help address time-based considerations. The goal is to recognize arcs of project implementation and planning across permit terms. Another question raised was, if permittees engage in a multi-jurisdictional project, how would a credit system work? This was added to the list of issues that would need to be worked out.

Water Board staff emphasized the importance of coordination with resource agencies. A City of San Jose representative reiterated the point about acknowledging regional projects. Water Board staff commented that youth engagement in stewardship activities can have lasting effects and pointed to Three Creeks and Lower Walnut Creek as projects that combine education and water quality benefits.

Framework for Long Term GSI Implementation

The objective of this agenda item was to discuss elements of a framework for meeting long term goals, including types of projects that qualify, scales of projects, and whether retrofit acres exceeding permit term targets can be carried over to future permit terms.

Permittees requested clarification on which projects qualify for Path 2 crediting. Water Board staff pointed to the Western Washington Phase II permit, where Appendix 12 outlines eligible and ineligible project types, although it was noted that Bay Area municipalities differ significantly and that Water Board staff are still evaluating whether projects in receiving waters could be credited.

Permittees also asked whether excess acreage from MRP 3.0 could be rolled over to count toward MRP 4.0 retrofit requirements. Water Board staff stated that past efforts should be recognized but they want to see accelerating implementation over time. It was further stated that continued progress should be emphasized, rather than large, one-off projects; however, they will continue to recognize larger projects. A SCVURPPP representative added that project timelines and opportunities for funding don't always follow a linear five-year cycle and questioned whether a long-term goal for GSI (including regulated and nonregulated projects) would be established. Permittees suggested raising the question of a long-term goal and rolling over credits with the Water Board during the C.3 information item at the August 13th meeting.

Water Board staff stated that the intent of C.3.j is to incentivize accelerated progress while acknowledging associated challenges. It was acknowledged that if permits continue to require more and more acres to be retrofit, permittees may run out of opportunities in their jurisdictions. Water Board staff shared that they have been talking with SFEI about mapping impervious surfaces and redevelopment opportunities to assess realistic targets.

Permittees asked how "long-term" is being defined. Water Board staff responded that timelines haven't been defined yet but emphasized that a framework for measuring progress is needed. A SCVURPPP representative remarked that there may be a practical limit to what can be done on

public property or rights-of-way. It was suggested that any timeline should not go beyond the next three permit terms. The long-term benefit of creek restoration in terms of receiving water quality was pointed to as a valuable indicator of upstream project effectiveness.

Concerns were raised about the possibility of not being able to carry over acreage into future permit cycles, despite some jurisdictions exceeding their goals. Projects are being designed and implemented based on the assumption that credit can be applied to the next permit term. Water Board staff acknowledged that the issue requires careful framing and consideration of adverse consequences. It was confirmed this topic would be addressed at the August Board meeting, and it was noted that it would be helpful to show progress on provision C.3.j and support for rolling over acreage.

Water Board staff stated that the Annual Report includes completed projects but lacks information on projects in progress and recommended including that in the August presentation for a complete picture. A SCVURPPP representative stated that they would help collect that information and confirmed there would be a coordinated Permittee presentation.

There was also general agreement on the need to credit projects that convert impervious areas to pervious surfaces. Many restoration efforts already incorporate this work, making it a key interest.

The group concluded by agreeing to meet again in May or early June, preceded by an internal planning session. It was also agreed that future meetings in FY 25/26 should be scheduled earlier in the fiscal year to support timely progress. Water Board staff concluded by encouraging the group to resolve these discussions before moving into MRP 4.0 negotiation topics.

Next Steps/Action Items

The TWG summarized next steps including:

1) Send all materials from today's meeting to the TWG.
2) Schedule internal meeting, ahead of next TWG meeting.
3) Schedule TWG meeting #4 for May/early June.
4) Collect information on C.3.j projects in progress for the August information item.
5) Continue discussion and move toward agreement on:
    a. Role, benefits, and potential limitations of regional projects;
    b. What can be credited and what metrics can be used for Path 2;
    c. Crediting/points for construction and maintenance phases of projects;
    d. Rolling over of acreage from MRP 3 to MRP 4;
    e. Points/benchmarks to recognize progress;
    f. Potential for flexibility in design criteria desired/needed;
    g. Crediting projects in disadvantaged communities;
    h. Beginning discussion of potential requirements for Path 1.

DRAFT 3-26-25

Documentation of Integrated Planning and Multiple Benefits of GSI Retrofit Projects

Project Name	Project Description	Impervious Area (IA) Treated (acres)	Related Municipal Plans and Programs			Bonus IA Treated (acres)	Total IA Treated (acres)
			Plan or Program[1]	Goal, Mandate or Action[2]	Benefit of This GSI Project[3]		
Main Street Improvement Project	Street reconstruction and enhancements in DAC, including bike/ped safety improvements, climate resilience, and GSI curb extensions and planters.	2.0	GSI Plan/Stormwater Resource Plan (SWRP)	Implement GSI projects in priority areas and/or coordinated with planned PW projects.	Meets C.3.j (water quality) requirements and achieves benefits used to set priorities in SWRP	0.5 (25%)	2.5
			Climate Action Plan	Reduce heat island effect in critical areas	GSI includes trees, which provide shade in this critical area		
			Urban Forestry Plan	Replace dying trees; Increase density of canopy	GSI includes trees of type recommended in Plan to increase canopy		
			Vision Zero	Increase bike/ped safety in specific location	GSI is incorporated into bulbouts at inter-sections/crosswalks and planter strips along protected bike lanes		
			One Water Plan (or other watershed management plan)	Implement GSI in specific locations to address watershed management goals	GSI addresses a desired action in this location		
			Environmental Justice	Provide urban greening and better air and water quality in DACs	GSI provides the desired benefits		

[1] Only list those plans or programs relevant to the project.
[2] Examples provided are general. In the actual table, the permittee would provide a specific reference to the document, section, and identified goal, mandate, or action.
[3] The benefit of the project is how it accomplishes the goal, mandate or action of a plan/program. The examples provided are general. Ideally, benefits would be quantified as much as possible.

Multi-Benefit Scored Criteria
(Modified from Prop 1 List)

Does the applicant provide a quantification of **one or more primary and secondary benefits** from the list below? Was documentation supporting the claimed benefit provided? Preference will be given to primary benefits for water quality or water supply. Points will be awarded based on the geographic scale, and quantification of the benefit relative to other Proposals (e.g., acre-feet infiltrated, gallons of storm water reused, pounds of pollutant reduced).

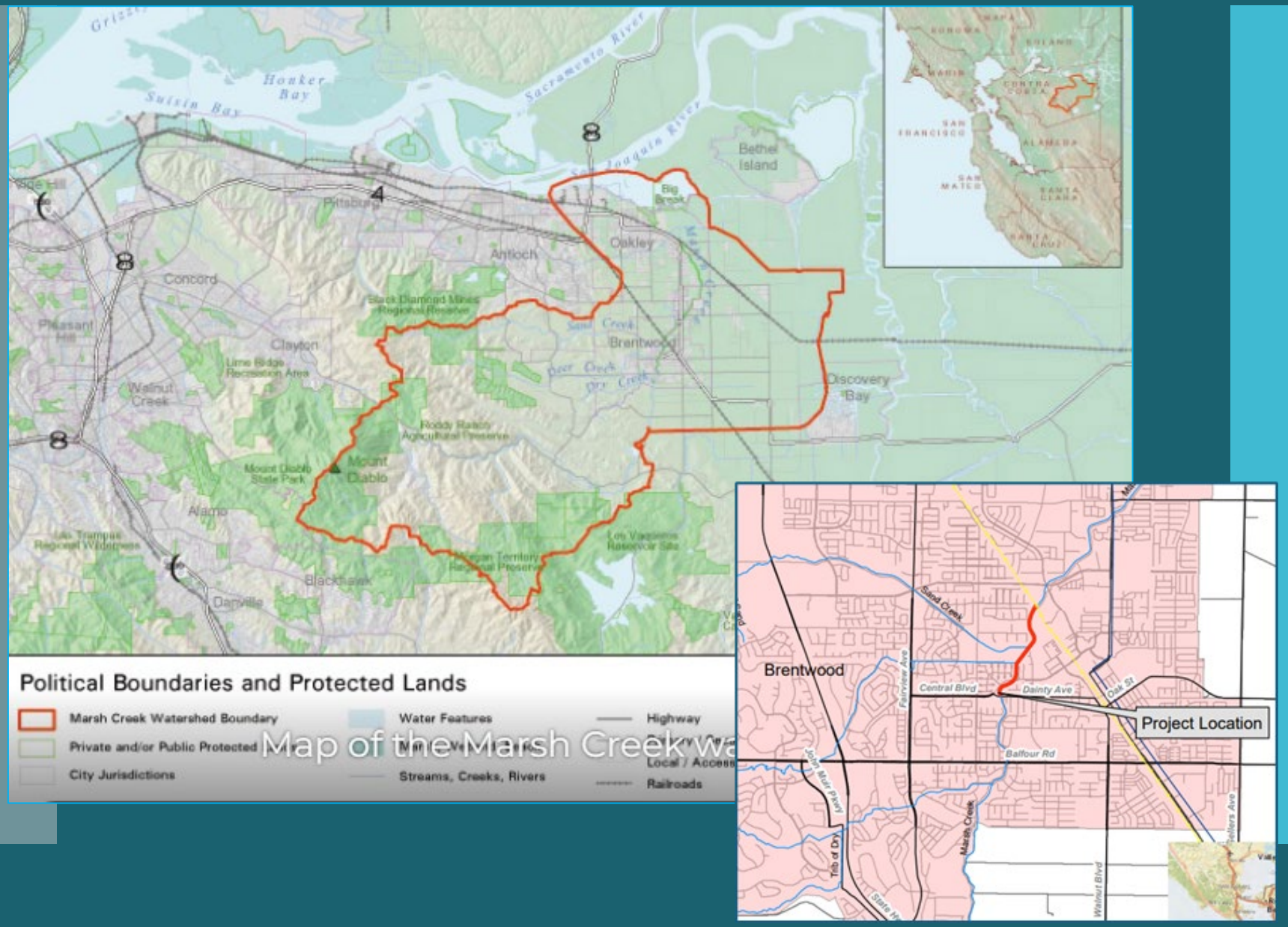
a) Increased water supply reliability
b) Conjunctive use
c) Increased water conservation
d) Increased filtration and/or treatment of runoff
e) Nonpoint source pollution control
f) Reestablished natural water drainage and treatment
g) Decreased flood risk by reducing runoff rate and/or volume
h) Reduced sanitary sewer overflows
i) Environmental and habitat projection and improvement
j) Increased urban green space
k) Improved air quality
l) Reduced energy use, greenhouse gas emissions, or provides a carbon sink
m) Reestablishment of natural hydrograph
n) Water temperature improvements
o) Improved public health
p) Employment opportunities provided
q) Public education
r) Community involvement
s) Enhance and/or create recreational and public use areas

Other Beneficial Uses:

- **Climate change adaptation.** Addressing sea level rise and climate changes.
- **Recreation:** Supporting recreational activities like swimming, boating, and fishing.
- **Aesthetic Enjoyment:** Maintaining water quality for visual enjoyment
- **Estuarine and Marine Habitats:** Protecting estuaries and marine ecosystems.
- **Fish and Wildlife Habitat:** Supporting healthy populations of fish, amphibians, reptiles, and other wildlife.
- **Warm and Cold Freshwater Habitats:** Maintaining specific water temperatures for different types of fish and aquatic life.
- **Shellfish Harvesting:** Supporting the collection of shellfish for human consumption
- **Migration and Spawning:** Supporting the movement and reproduction of fish, including anadromous species.
- **Tribal/Cultural.** Supporting collaboration with tribal groups and promoting cultural values.

Three Creeks Parkway Project, Brentwood

Contra Costa County Flood Control and Water Conservation District, American Rivers, EPA, Bay Delta Authority, Friends of Marsh Creek



Map of the Marsh Creek Wa

Project Location

-Marsh Creek, downstream of Marsh Creek reservoir

-East Contra Costa County

-Wide trapezoidal earth channel

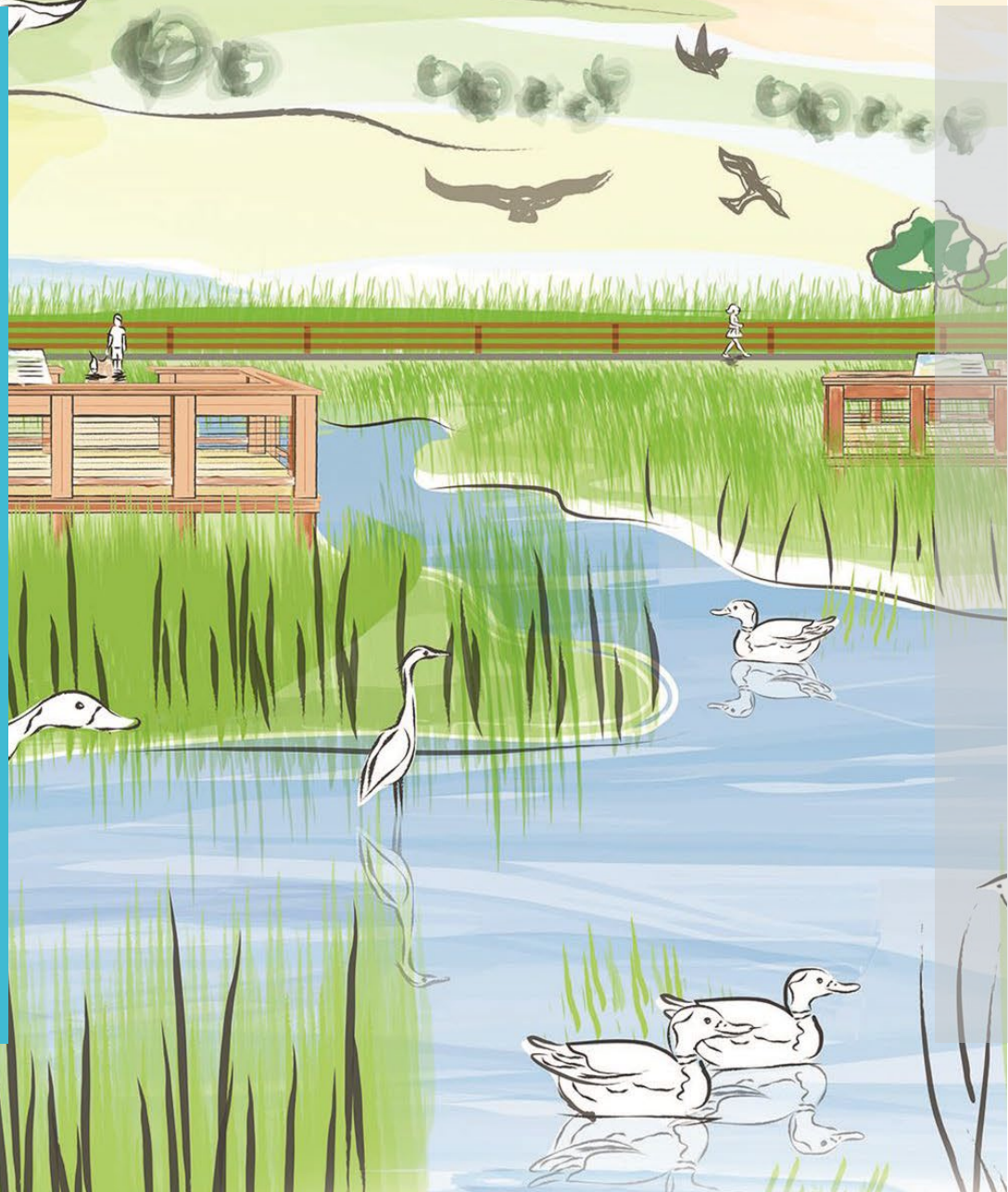
-Draining ~150 sq. mile into Sacramento-San Joaquin Delta

Project Goals

To widen and improve a section of Marsh Creek to provide additional flood conveyance capacity and restore riparian habitat along the creek by planting 1 acre of seasonal wetland, 2 acre of woody vegetation and 2 acre of grassland and native scrub

Project Benefits

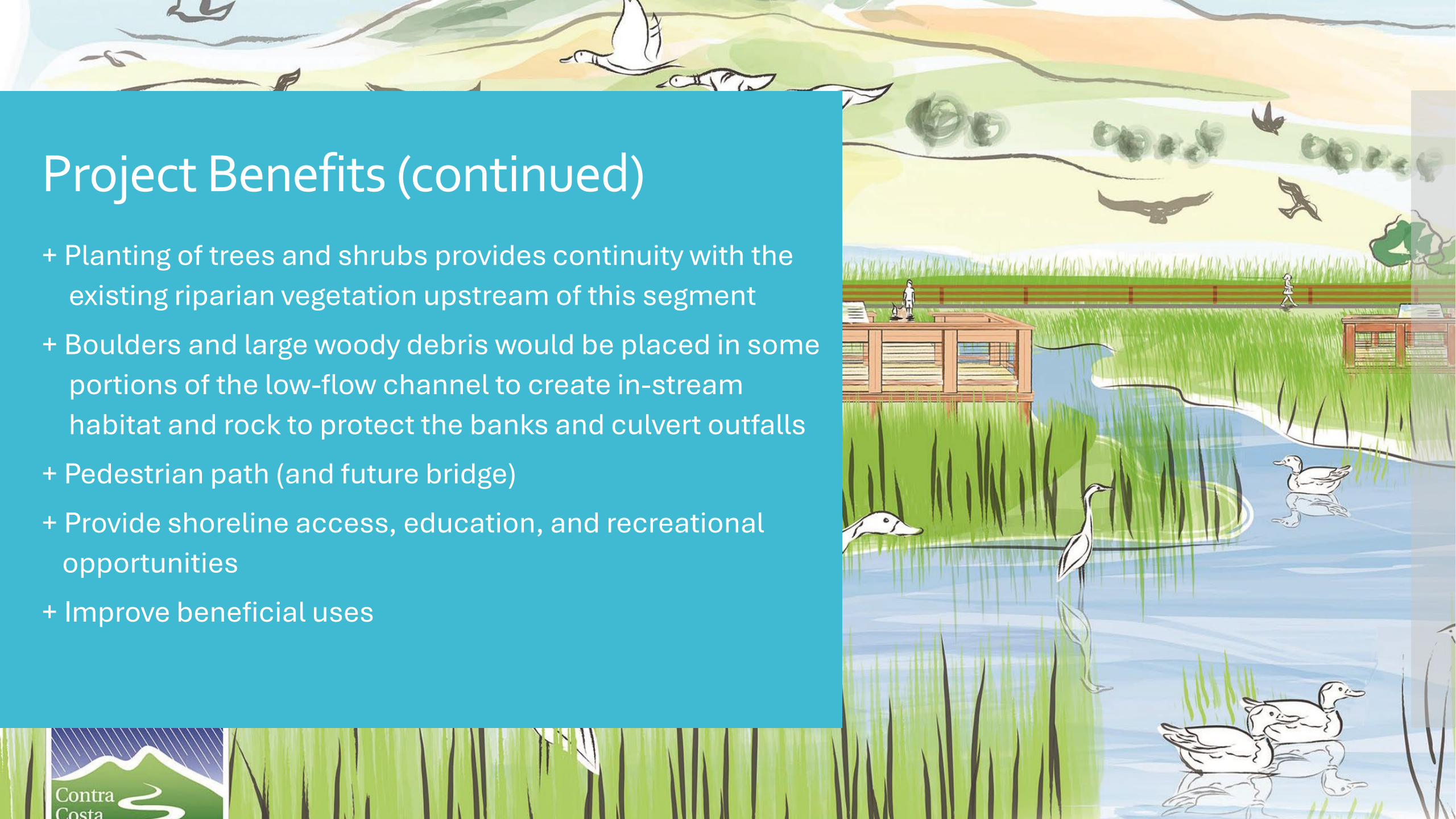
+ Improve flood conveyance capacity, to meet standards for 100-year flood protection
+ Restore native vegetation along an approximately 4,000 linear foot section of Marsh Creek
+ Restore spawning habitat
+ Plant up to 1.0 acre of frequently inundated floodplain (seasonal wetland), 1.87 acres of woody riparian vegetation, and 1.87 acres of grasslands and native scrub
+ Enhances ecosystem habitat and recreational uses



Contra Costa

Project Benefits (continued)

+ Planting of trees and shrubs provides continuity with the existing riparian vegetation upstream of this segment
+ Boulders and large woody debris would be placed in some portions of the low-flow channel to create in-stream habitat and rock to protect the banks and culvert outfalls
+ Pedestrian path (and future bridge)
+ Provide shoreline access, education, and recreational opportunities
+ Improve beneficial uses



Other long-term complimentary projects along Marsh Creek

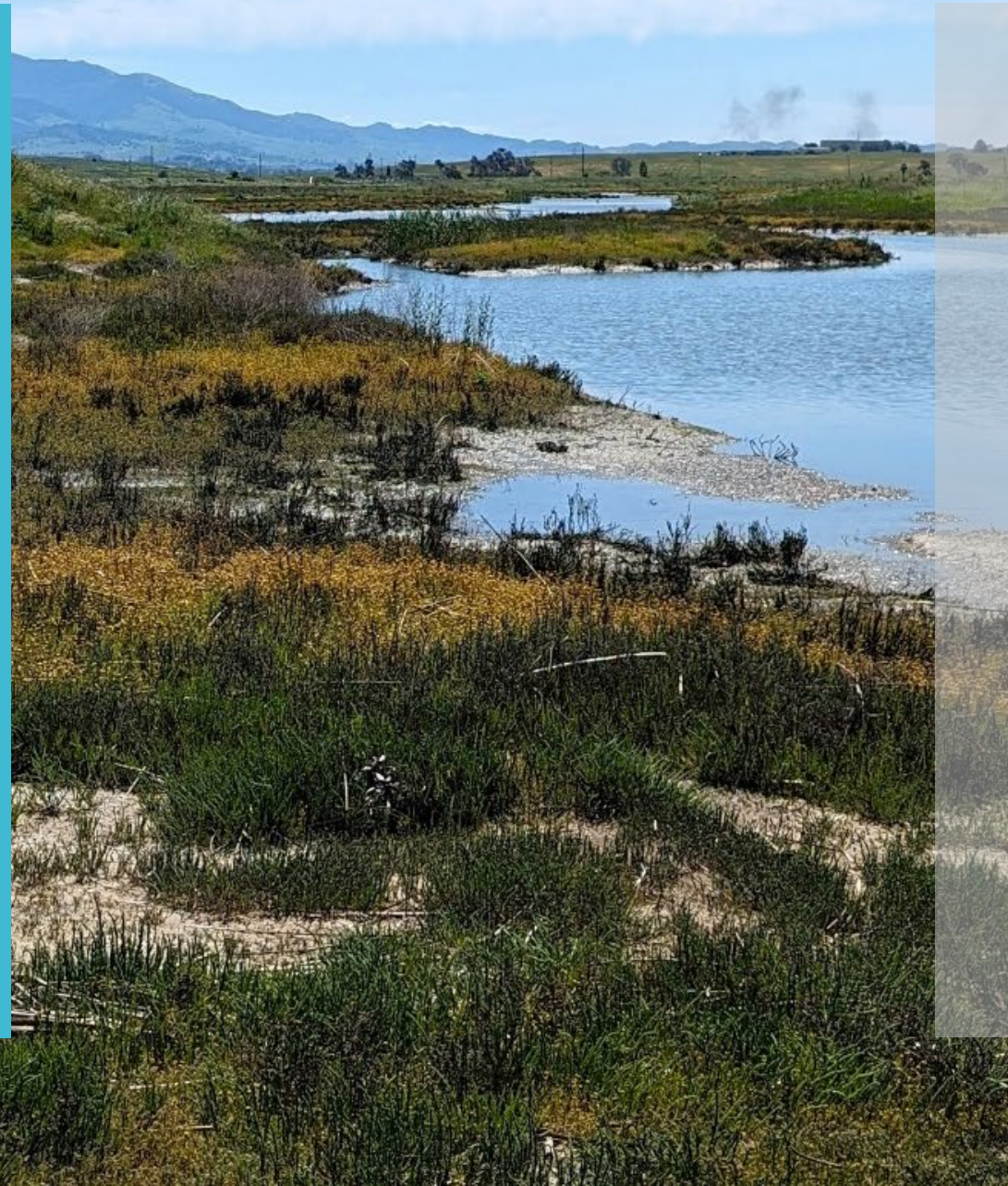
- Installation of a fish ladder (2005)
- Building a pedestrian bridge – abutments were done as part of the Three Rivers project
- Restoring Dutch Slough at the mouth of Marsh Creek
  - Benefit native species by re-establishing a natural ecological network, especially for Delta species currently in decline
  - Contribute to scientific understanding of ecological restoration in the Delta
  - Provide shoreline access, education, and recreational opportunities

- Other proposed projects in discussion

Example Scored Matrix

(From Prop 1 Evaluation)

Primary Benefits	Secondary Benefits
Flood protection	Recreational use
Habitat protection	Shoreline access
Wetland protection	Improved public health (via trail)
Water quality improvement	
Native planting	
Greenhouse gas reduction	
Pedestrian trail	
Public education	



Project Statistics

Completed Construction: 2020 – June 2023

Restoration Planting: 2021

Funding:

+ EPA $1.5 million

+ Proposition 1 Grant Fund awarded by the Sacramento-San Joaquin Delta Conservancy $836,409 with help from American Rivers

Lower Walnut Creek Restoration Project

Contra Costa County Flood Control and Water Conservation District

Project Location

-Downstream 'Lower' end of Walnut Creek

-East of Martinez, Contra Costa County

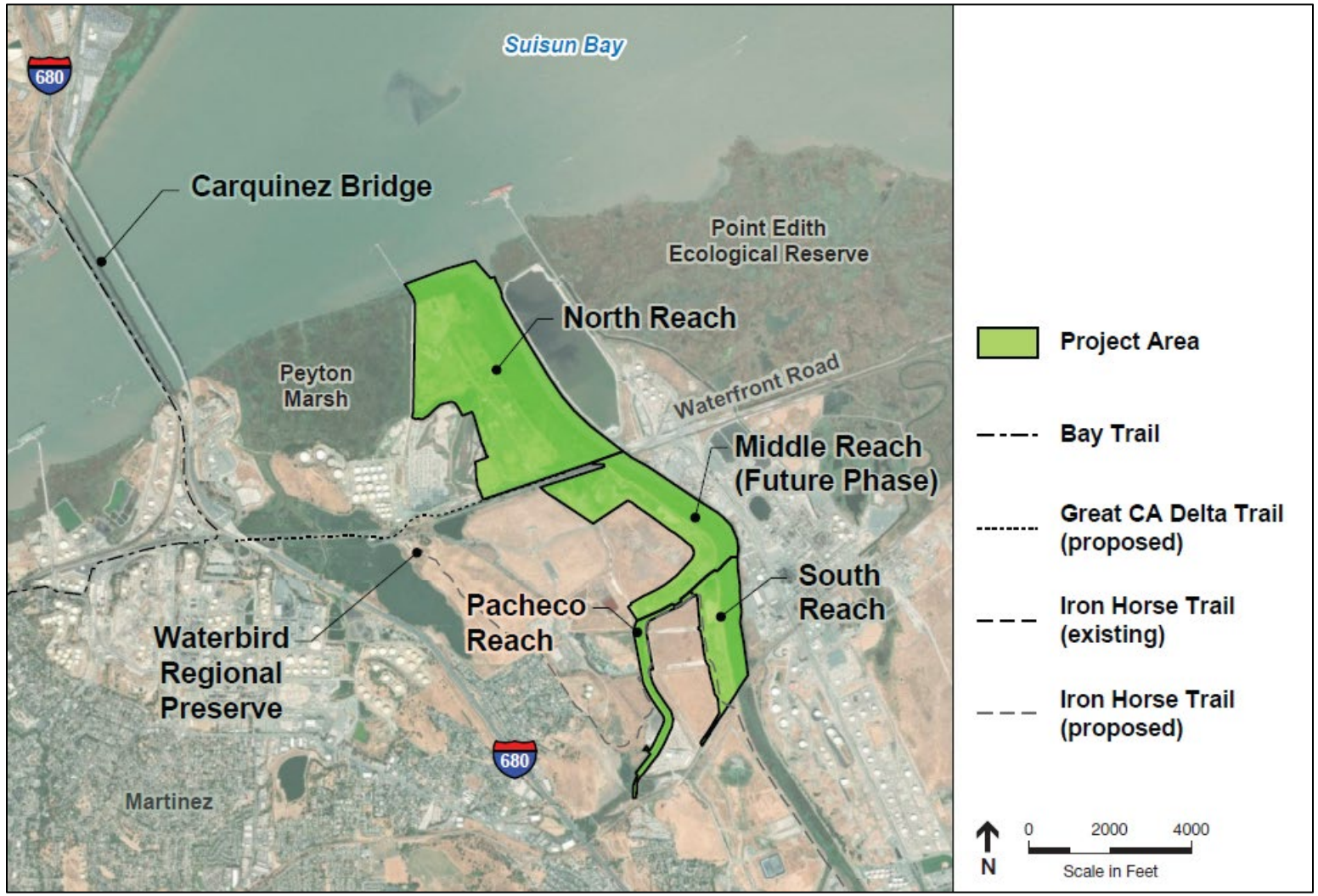
-Draining ~150 sq. mile into Suisun Bay

-Wide trapezoidal earth channel with levees on one or both sides and accumulated sediment

-Upland areas previously diked from the bay

Project Goals

…to restore and enhance habitat in Lower Walnut Creek and to provide sustainable flood management, while allowing opportunities for public access and recreation.



Public Access

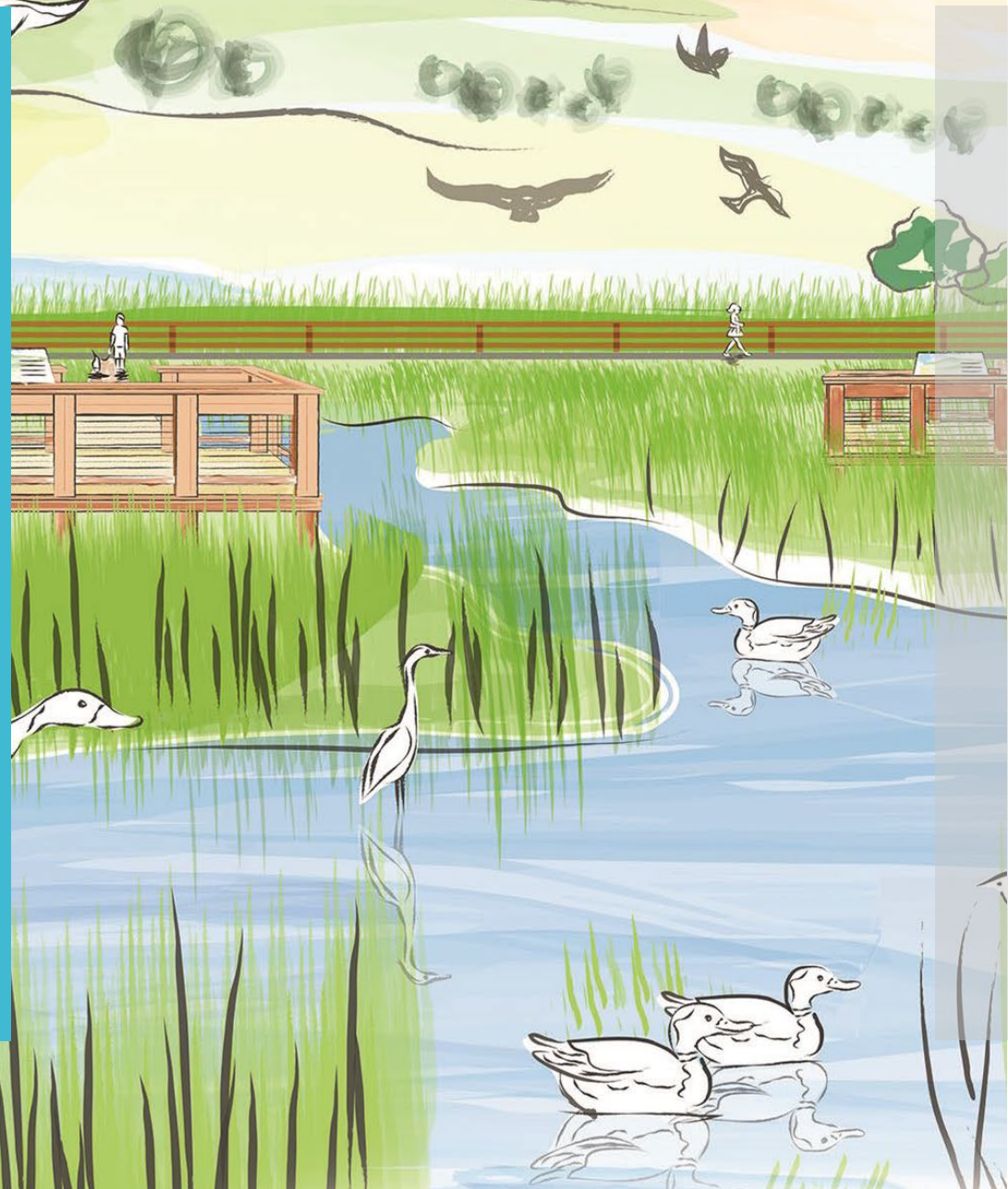
- John Muir Land Trust
- ~ 3 miles of trails
- Bird blinds, bridges, vista points
- Kayak launch
- Working with EBPRD for potential future connection to Iron Horse Trail

Project Benefits

- Restore and enhance ~200 acres wetlands and waters
- Increase habitat quality, connectivity, and diversity
- Flood protection
- Resiliency to future sea level rise
- Increase public access, recreation and community involvement
- Water quality benefits: tidal nutrient exchange, dissolved oxygen, water quality treatment through wetlands
- Monitoring and adaptive management
- Enhance Beneficial Uses of Walnut Creek: MIGR, RARE, SPWN, WARM, COLD, WILD, REC-1 and REC-2

Consistency with Local and Regional Plans

- Baylands Ecosystem Habitat Goals Project Science Update 2015
- Recovery Plan for Tidal Marsh Ecosystem of Northern and Central California, USFWS 2013
- Flood Control 2.0's Resilient Landscape Vision for Lower Walnut Creek (SFEI 2016)
- Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan)



Contra Costa

Scored Matrix Example

Primary Benefits	Secondary Benefits
Flood protection	Trail improvement
Wetland restoration	
Aquatic migratory habitat	
Fish spawning habitat	
Cold and Warm freshwater habitat	
Water quality improvement	
Water contact + non-contact recreation	

Project Stats

- *Completed Construction:* April 2021 – June 2023
- *Monitoring & Adaptive Management*: Year 4 of 10
- *Recreation*: John Muir Land Trust Construction Fall 2024
- Funding: $16.5 million in grants
- Project Partners/Funders: JMLT, DWR, NWFW, USFWS, CDFW, EPA, Coastal Conservancy, etc.
- Opening to the public this year!

Long Term Green Stormwater Infrastructure (GSI) Implementation
Technical Working Group (TWG) Meeting #4
June 4, 2025, 1:30pm – 3:30pm

Meeting Summary

Meeting Attendees: Jill Bicknell (SCVURPPP/EOA), Jeff Sinclair (SCVURPPP/EOA), Rajani Nair (City of San Jose), Pam Boyle Rodriguez (City of Palo Alto), Emma Hinojosa (City of Sunnyvale), Julianna Martin (Santa Clara County), Rinta Perkins (CCCWP/Geosyntec), Erin Lennon (CCCWP), Amanda Booth (City of San Pablo), Lucile Paquette (City of Walnut Creek), John Steere (Contra Costa County), Michelle Giolli (Contra Costa County), Frank Kennedy (Kennedy & Associates), Rachel Kraai (Lotus Water), Mitra Abkenari (City of Concord), Reid Bogert (C/CAG), Dan Sternkopf (C/CAG), Peter Schultze-Allen (SMCWPPP/EOA), Lisa Austin (Geosyntec), Sandy Mathews (ACCWP/LWA), Alina Constantinescu (ACCWP/LWA), Echo Lee (City of Alameda), Daniel Matlock (City of Fremont), Keith Lichten (San Franscisco Bay Regional Water Board [Water Board]), Aidan Cecchetti (Water Board), Rebecca Nordenholt (Regional Water Board), Luisa Valiela (EPA)

Introductions

Brief introductions were made, focusing on new members of the TWG. A SCVURPPP representative served as the meeting facilitator.

Review Agenda and Meeting Goals

The meeting agenda and goals were reviewed. There were no changes to the agenda.

Approve TWG Meeting #3 Summary

TWG Meeting #3 Summary was approved.

Pathway for Integrated Planning

Water Board staff reported that they are considering using the Washington State Department of Ecology (Ecology) Phase II permit as a potential framework for an integrated planning approach for GSI implementation goals in MRP 4. Staff provided an overview of the applicable sections of the Ecology permit and aspects considered for the Bay Area. Staff indicated that one of the benefits of the Ecology Phase II permit is that it includes a list of different types of projects and efforts that permittees can choose from to meet their GSI implementation requirements, including, for example, reconnecting riparian zones or maintenance of existing GSI. Permittees can use a variety of project types to meet their acreage requirements. There are also different crediting factors for different levels of water quality benefits and bonuses for additional benefits. For example: while an LID project may get full credit, other project types that don't have the same benefits will get partial credit.

Water Board staff noted that the Ecology permit includes project types which may have limited applicability in the Bay Area due to the different land uses in the Washington region (for example – large rural areas). Ecology originally based their GSI implementation requirements on the MRP but raised the acreage requirements in their permit. They also give credit for projects in different phases of implementation (i.e. planning, construction, operations and maintenance), however their permittees cannot get all their credit from one project type or projects in only one phase of implementation.

Water Board staff noted that they have been discussing giving credit for projects in different phases of implementation in MRP 4, as well as credit for projects that have a wider range of benefits. Water Board staff encouraged Permittees to read Ecology's Phase II permit and provide feedback on how the framework could be applied in the Bay Area and individual jurisdictions.

ACCWP representatives noted that there are good sections of the Ecology permit, such as the riparian restoration and maintenance provisions, and that it has an interesting structure that could be adapted for the MRP. A SCVURPPP representative asked whether impervious surface removal projects would be considered applicable; Water Board staff indicated that the answer was conditionally "yes" as long as the removal was permanent.

Permittee representatives asked whether the Ecology framework would be incorporated into the Path 1/Path 2 framework previously discussed in TWG meetings. Water Board staff indicated that their current thinking is that the Ecology approach would replace the Path 1/Path 2 framework, and that the MRP 4 language would instead use an "a la carte" approach. SCVURPPP representatives indicated support for this change.
Water Board staff noted that they would like to use the Ecology Phase II permit as the model (vs the Ecology Phase I permit) because the crediting scheme is less complicated and already expressed in acreage units. Water Board staff stressed that they want to provide flexibility within the bounds of the permit, i.e., as long as the water quality benefits can be justified. They also noted that they may look to the Permittees in the future to support/justify this kind of flexibility.
An EPA representative expressed interest in the Ecology approach and asked about the level of confidence in Ecology's crediting framework for the different project types. SF Bay Regional Water Board staff responded that the level of confidence varies depending on the project type. Ecology has recalibrated some of their crediting factors over time/permit cycles. They have a "medium" confidence level. Ecology has also recalibrated based on stakeholder feedback.

Meeting attendees discussed the scientific basis for Ecology's permit, indicating that the work was driven by salmonid health, and noted belief that the science behind the crediting framework is solid.

One Permittee representative requested that restoring soils in urban areas be considered as a project type. Permittees also indicated that it would be helpful for the Water Board to consider actual built Bay Area projects as they are developing the framework. CCCWP representatives have given presentations to the TWG on several built projects that fall into riparian restoration category and would like to have these considered as "test cases"; Permittees would also be happy to put forward an urban forest project and an undersized GSI project for consideration. These could be used to test permit language as it is developed. Water Board staff responded positively to this suggestion and requested more project examples.

Water Board staff indicated that Ecology's permit has stipulations for undersized projects and that they are interested in exploring applicability to the Bay Area permit and projects. A Permittee requested that the Water Board also consider giving credit for community-driven watershed stewardship and education. Water Board staff noted that it will be difficult to give credit for work that has already been done. Permittees requested that project retrofits or upgrades be added to crediting framework.

A meeting attendee asked what Ecology's permittees experiences have been with implementing their permit requirements. Water Board staff responded that Ecology has received recent feedback from some permittees that their targets are not high enough; this is because some jurisdictions get credit for a lot of project types that they are already doing; overall it sounds like the implementation has been relatively smooth.

Meeting attendees asked whether the Water Board intends this framework to be a model for public retrofits only or for regulated projects on private property as well. Water Board staff responded that they envision it for public projects, but these projects may also be treating water from private property.

Framework for Long Term GSI Implementation

The meeting facilitator recapped the discussion in the TWGs thus far, highlighting common areas of agreement. It was noted that:

- Participants seem to agree that a framework which envisions a mix of project types is desirable – for example, not all regional projects or all distributed projects;
- Permittees would like more definition on the Water Board's concerns about diverting stormwater from a receiving waterbody. It was requested that the Water Board consider diversion projects from concrete channels and large storm drain pipes vs natural channels;
- Permittees would like more guidance about acceptable parameters for regional projects.

Water Board staff indicated a willingness to look at "bands" of flexibility around some of the regulatory requirements and indicated that it may make sense to include ranges in the permit language. One of the examples discussed was including a potential percent capture range instead of the strict 80% capture standard in the current permit; Water Board staff stressed that once the percent capture gets too small, a potential project might not be worth it and/or there might not be a significant water quality benefit. A second example was potential flexibility around allowing diversion if additional ecosystem benefits are provided, such as groundwater recharge. Southern California was pointed to as a precedent. Water Board staff also noted that one of the reasons they are concerned about diversion is that they want to allow potential for urban creek daylighting and maintaining baseflow. A third potential applicable example was urban forestry projects.

One Permittee asked for more flexibility on the C.3.d sizing standards, including underdrain requirements. Another Permittee indicated interest in credit for keeping water on site through LID site design measures, but not necessarily treating it to current requirements. Water Board staff responded that the "a la carte" system could allow for these scenarios.

The meeting facilitator also indicated that Permittees want more assurance that credits will be counted across permit terms. Water Board staff noted that they understand that project planning takes a long time and that the five-year permit term is arbitrary relative to municipal project planning cycles. Water Board staff indicated belief that their staff can develop a system that allows credits to count across permit terms. Water Board staff also noted that they want to acknowledge Permittees' hard work, but that they also need to continue to use the permit to advance GSI implementation. The meeting facilitator noted that it was great to hear that the underlying agreement is that projects can span permit terms, and that projects could also get credit in the planning and O&M phases.

Water Board staff noted that they would like Permittees to provide input on the pool of project types that should be considered. Water Board staff also asked whether language could be included in a future sub-provision that could help Permittees develop long-term funding sources/measures. Permittees responded that broadening project definition will help; the more benefits a project has, the easier it is to get funding from other sources and also community support. Permittees indicated specific interest in project types that can help address flood risk, sea level rise, and shoreline adaptation. One Permittee also noted that it is important to think about project types that can meet multiple permit provisions.

Water Board staff indicated that they are interested in exploring crediting for projects that also

address sea level rise, but that the connection is more tenuous because those projects are generally constructed in or adjacent to a receiving water body. Staff indicated interest in thinking through how recent climate change adaptation studies in San Mateo County could inform the permit.

Permittee representatives indicated that Permittees will need to meet internally about the outcomes of the TWG meetings and develop the accompanying report due with the FY 24/25 Annual Reports. Two additional meetings of the full TWG are also planned for next fiscal year. It was suggested that the next full TWG meeting be held in September or October.

Water Board staff agreed that September/October is an appropriate time for the next full TWG meeting and indicated that they believe that the TWG is in a good place to start framing proposed MRP 4 language.

Permittee representatives asked whether and how Water Board staff would use example built projects in the regulatory framework development process. Water Board staff stated that they are hoping Permittees will respond to the Ecology permit framework in the TWG report including indicating which categories make sense for Bay Area Permittees and which categories do not. Water Board staff also indicated that a list of example projects or "test cases" could potentially be submitted in the TWG report for discussion at future TWG meetings. Staff noted that a cut sheet for each project is not needed; instead, project summaries could be more descriptive, with key details noted.

Next Steps/Action Items

1. Permittees will develop a report on the outcomes and recommendations from the TWG meeting series to be included with FY 24/25 Annual Reports. In the TWG Report, Permittees will respond to the Ecology Phase II permit language as a potential framework for MRP 4, as well as consider providing a list of example built projects or "test cases" to inform the framework development process.
2. Meeting facilitators will send out a Doodle Poll for an internal Permittee meeting in June.
3. Next TWG Meeting is proposed for September or October. Water Board would like to work together to start developing draft MRP language in the fall of 2025.

Adjourn

The meeting was adjourned.

Attachment C: Project Examples

THREE CREEKS PARKWAY PROJECT

Brentwood, California

PROJECT GOALS & DESCRIPTION

The goals of the Three Creek Parkway Project include widening and improving a section of Marsh Creek to provide additional flood conveyance capacity and restoring riparian habitat along the creek by planting ~1 acre of seasonal wetland, 2 acres of woody vegetation, and 2 acres of grassland and native scrub.

PROJECT LOCATION

- Marsh Creek
- Draining ~150 mi^2 into Sacramento-San Joaquin Delta

PROJECT PROPONENTS

- CCFCD, American Rivers
- Partners: Brentwood, EPA, DWR, Delta Conservancy, Coastal Conservancy, Friends of Marsh Creek

PROJECT TYPE

- Riparian Buffer Restoration*
- Floodplain Reconnection*

STATUS

- Completed: June 2023
- Funding: $2.3M: $1.5M EPA, $0.8M Prop 1

PROJECT BENEFITS

- Improve flood conveyance capacity
- Restore native vegetation along ~4,000 ft section of creek
- Plant up to 1ac of frequently inundated floodplain (seasonal wetland), 1.87ac of woody riparian, and 1.87ac of grasslands and native scrub
- Provide riparian vegetation continuity with upstream reach
- Create in-stream habitat, protect banks and culvert outfalls
- Restore spawning habitat
- Shoreline access, education & recreational opportunities

PRIMARY BENEFITS+	SECONDARY BENEFITS+
Flood protection	Recreational use area
Habitat protection	Shoreline access
Wetland protection	Improve public health (via trail)
Water quality improvement	Community involvement
Native planting	Public education
Greenhouse gas reduction	
Reestablish natural drainage	
Urban greening	

** Project Types with an asterisk are included in the WA State Phase II Permit, Appendix 12*
+ Primary and Secondary Benefits are generally based on Proposition 1 Project Proposal Evaluation Criteria

LOWER WALNUT CREEK RESTORATION

Contra Costa County, California

PROJECT GOALS & DESCRIPTION

The goals of the Lower Walnut Creek Restoration Project included restoring and enhancing habitat in Lower Walnut Creek, improving water quality, and providing sustainable flood management, while allowing opportunities for public access and recreation.

PROJECT LOCATION

- East of Martinez
- Lower Walnut Creek
- Draining ~150 mi^2 into Suisun Bay

PROJECT PROPONENTS

- CCFCD, JMLT
- Partners: DWR, NWFW, USFWS, CDFW, EPA, Coastal Conservancy

PROJECT TYPE

- Riparian Buffer Restoration*
- Floodplain Reconnection*
- Sea Level Rise Resilience

STATUS

- Completed: June 2023
- Funding: $19.8M in grant funds from numerous sources

PROJECT BENEFITS

- Restore and enhance 200ac of wetlands and waters
- Increase habitat quality, connectivity, and diversity
- Flood protection
- Resiliency to future sea level rise
- Increase public access, recreation, and community involvement
- Water quality benefits: tidal nutrient exchange, dissolved oxygen, water quality treatment through wetlands
- Monitoring and adaptive management
- Enhance Beneficial Uses of Walnut Creek: MIGR, RARE, SPWN, WARM, COLD, WILD, REC-1, & REC-2

PRIMARY BENEFITS+	SECONDARY BENEFITS+
Flood protection	Improve public health (via trail)
Wetland restoration	Community involvement
Aquatic migratory habitat	Resilience to sea level rise
Fish spawning habitat	
Cold & Warm freshwater habitat	
Water quality improvement	
Recreation use area	
Reestablish natural drainage	
Public education	

** Project Types with an asterisk are included in the WA State Phase II Permit, Appendix 12*
+ Primary and Secondary Benefits are generally based on Proposition 1 Project Proposal Evaluation Criteria

SUTTER AVENUE GREEN STREET

San Pablo, California

PROJECT GOALS & DESCRIPTION

The Sutter Avenue Green Street Project is a state and locally funded multi-benefit project that incorporates stormwater facilities, urban greening (street trees), and pedestrian and roadway improvements to capture and treat stormwater in bioretention facilities, reduce flooding, enhance pedestrian safety, and add urban greening.

PROJECT LOCATION

- Sutter Avenue between Church Lane & Fordham Street

PROJECT PROPONENTS

- City of San Pablo

TYPE REPRESENTED

- Undersized project
- High flow media in constrained site

STATUS

- Completed: 2025
- Funding: $5.6M
  - $2.9M from Prop 1
  - $0.6M from City General Fund
  - $2.0M from other funding

PROJECT BENEFITS

- Average annual PCBs removal of 0.11 grams per year and average annual Mercury removal of 0.96 grams per year.
- 9.9 acre-ft per year in volume captured
- "San Pablo Shines" Campaign in conjunction with this project resulted in:
  - 369 volunteers over 25 events
  - 7,800 gallons of trash removed
  - 61 hours of outreach

PRIMARY BENEFITS+	SECONDARY BENEFITS+
Water quality improvement	Public education
Flood protection	Community involvement
Increased filtration of runoff	
Urban greening	
Recreation use area/pedestrian improvements	

** Project Types with an asterisk are included in the WA State Phase II Permit, Appendix 12*
+ Primary and Secondary Benefits are generally based on Proposition 1 Project Proposal Evaluation Criteria

ENHANCED STREET TREE PLANTING

Emeryville, California

PROJECT GOALS & DESCRIPTION

The Park Ave Beautification project replaced stunted street trees with new trees that, after 15 years of growth, shade 50% of the public right of way and provide rainfall interception, habitat, and reduced heat island benefits. Utilities were undergrounded, and large tree planting areas with increased volumes of rootable soil were constructed, allowing for large stature trees that have fewer sidewalk lifting issues.

PROJECT LOCATION

- Park Ave between Hollis and Halleck Streets.

PROJECT PROPONENTS

- City of Emeryville

PROJECT TYPE

- Restoration of Forest Cover*

STATUS

- Completed: 2010
- Total Funding: $5,000,000
- Tree-related costs:
  - 80 trees planted
  - $5,000 per tree (in 2010 $)

PROJECT BENEFITS

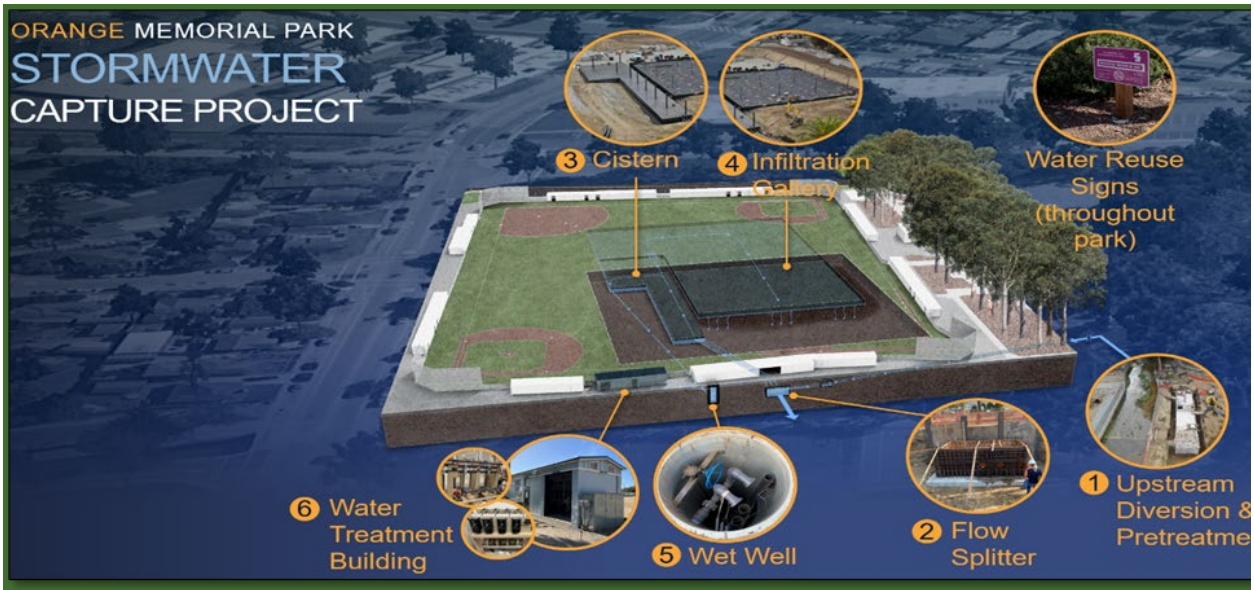
- Beautifies public street with large shade trees
- Improves pedestrian realm and incentivizes walking
- Increases canopy coverage in the City
- Reduces urban heat - cools neighborhood
- Undergrounding utilities increases resiliency & allows for larger trees
- Large canopy increases rainfall interception
- Providing larger planting areas and soil volumes allows tree roots to grow and reduces damage to sidewalks and other infrastructure
- Climate Action Plan progress
- Reduces trip and fall hazards
- Longer pavement lifespan

PRIMARY BENEFITS+	SECONDARY BENEFITS+
Improves air quality	Reduces building energy use
Increases infiltration of runoff	Improves public health
Increases urban green space	Improves habitat
Reduces impervious surface	Enhances public use areas
Reestablishes natural water drainage	

** Project Types with an asterisk are included in the WA State Phase II Permit, Appendix 12*
+ Primary and Secondary Benefits are generally based on Proposition 1 Project Proposal Evaluation Criteria

ORANGE MEMORIAL PARK REGIONAL STORMWATER CAPTURE PROJECT

South San Francisco, California



PROJECT GOALS & DESCRIPTION

This project is a first-of-its-kind in the Bay Area, a large-scale multi-benefit stormwater capture project. The project diverts dry and wet weather runoff from Colma Creek Channel via an instream drop inlet diversion structure and moves the water through a series of treatment mechanisms, including a certified full trash capture debris separator (pretreatment), a flow splitter which directs water into two subterranean storage basins. When the storage basins are at capacity, the pretreated water is returned to the channel. The project drainage area includes seven jurisdictions, with a total area of over 6,500 acres and an impervious area of approximately 2,500 acres. Water stored in the cistern is treated through an onsite treatment shed and can be used to irrigate the park and neighboring Centennial Trails.

PROJECT LOCATION

- South San Francisco, CA

PROJECT PROPONENTS

- City of South San Francisco, C/CAG, Caltrans

PROJECT TYPE

- Regional Stormwater Capture Project with Multiple Benefits

STATUS

- Completed: June 2022
- Funding: $15.5M (design and capital funding)

PROJECT BENEFITS

- 1,720 ac-ft of stormwater managed annually
- 10 g PCBs removed annually, 30 g Hg removed annually
- 240 ac-ft of water recharged annually
- Up to 45 ac-ft potable water offset for irrigation annually
- New park amenities

PRIMARY BENEFITS+	SECONDARY BENEFITS+
Water quality improvement	Climate resilience
Groundwater recharge	Channel maintenance benefits
Stormwater capture and use	Flood mitigation
Enhanced recreational use area	

** Project Types with an asterisk are included in the WA State Phase II Permit, Appendix 12*
+ Primary and Secondary Benefits are generally based on Proposition 1 Project Proposal Evaluation Criteria

RESILIENT SAN CARLOS SCHOOLYARDS

San Carlos, California

PROJECT GOALS & DESCRIPTION

In partnership with Green Schoolyards America, Bay Tree Design, SMC Office of Education, and the San Carlos School District (SCSD), C/CAG led the Resilient San Carlos Schoolyards Project, which is a collaborative schoolyard greening and resilience planning project. The project established a vision and goals for what Resilient Schoolyards in the SCSD and throughout San Mateo could be, developed a clear and objective process for site selection based on set quantitative and qualitative metrics, and through a participatory engagement process developed campuswide schoolyard resilience concept plans for three pilot sites. The hope is that this process and program could be replicated in other school districts throughout San Mateo County, California, and the country.

PROJECT LOCATION

- San Carlos School District, San Mateo County, CA (Arundel Elementary, Tierra Linda Middle, and Mariposa Elementary Schools)
- Pulgas and Belmont Creek Watersheds

PROJECT PROPONENTS

- SCSD, C/CAG, San Mateo County Office of Education

PROJECT TYPE

- Resilient Schoolyard Planning Guidance
- GSI*
- Flood Protection

STATUS

- Completed: January 2023
- Funding: $95,342 (planning only, no capital costs estimated)

PROJECT BENEFITS

- Schoolyard resilience/nature play areas
- Water quality improvements
- Support curriculum development
- Habitat restoration
- Heat island mitigation
- Flood protection

PRIMARY BENEFITS+	SECONDARY BENEFITS+
Community involvement	Flood protection
Public education	
Water quality improvement	
Habitat restoration	
Heat island mitigation	
Increase urban green space	
Enhance public use areas	

** Project Types with an asterisk are included in the WA State Phase II Permit, Appendix 12*

+ Primary and Secondary Benefits are generally based on Proposition 1 Project Proposal Evaluation Criteria

RIVERVIEW STORMWATER GARDEN

San Jose, California

PROJECT GOALS & DESCRIPTION

The Riverview Stormwater Garden is a 5.2-acre bioretention basin and public park. The project converted an existing untreated stormwater detention basin to a bioretention basin that collects and treats runoff from ~344 acres of impervious and pervious surfaces. Stormwater runoff now flows through the 2.1-acre bioretention basin to receive bio-treatment; the treated stormwater is then captured by underdrains and discharged to the Guadalupe River, and ultimately the San Francisco Bay, through an upgraded pump station. This project is an example of integrating GSI into existing urban spaces, converting outdated "gray" infrastructure into green spaces, combining multiple community, public art, and environmental benefits, and maximizing water quality benefits with streamlined operations and maintenance (O&M) costs.

PROJECT LOCATION

- Eastern bank of Guadelupe River, San Jose, CA

PROJECT PROPONENTS

- City of San Jose

PROJECT TYPE

- Regional Stormwater Capture Project with Multiple Benefits

STATUS

- Project Completed: April 2025
- Cost: $17.5M
- Funding Sources: Prop 1 IRWP Grant, City of San Jose Measure T Bond Program

PROJECT BENEFITS

- Reduces pollutant load to the Guadelupe River
- Improves riverine habitat
- California-native plantings
- Maintains flood prevention functionality
- New park space with walking paths, boardwalk, and nature-inspired play area for children
- Includes public art and educational signage
- Streamlined O&M costs
- Non-potable reuse potential currently being assessed

PRIMARY BENEFITS+	SECONDARY BENEFITS+
Water quality improvement	
Habitat restoration	
Enhance recreational area	
Increase urban green space	
Flood mitigation	
Public education	

** Project Types with an asterisk are included in the WA State Phase II Permit, Appendix 12*
+ Primary and Secondary Benefits are generally based on Proposition 1 Project Proposal Evaluation Criteria

Annual Reporting for FY 2024-2025

Regional Supplement for New Development and Redevelopment

San Francisco Bay Area Municipal Regional Stormwater Permit

Bay Area Municipal Stormwater Collaborative

September 30, 2025

MRP Regional Supplement for New Development and Redevelopment
Annual Reporting for FY 2024-2025

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. Most of the 2024-25 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 2024-25 to promote green infrastructure (GI or GSI). The BAMSC activities described in this section provide compliance for MRP Permittees with this provision.

Activities and Accomplishments during FY 2024-25

MRP 3.0 C.3/GSI Work Groups

The following development-related BAMSC regional work groups began to meet or continued to meet in FY 2024-25: the Long Term GSI Technical Working Group, the Asset Management Work Group, and the Trees in GSI Work Group.

BAMSC Long Term GSI Technical Working Group

Provision C.3.j.ii (4) of the MRP allows Permittees, Water Board (WB) staff, and impartial science experts to collectively form a technical working group to discuss long-term GSI goals and recommend long-term percentage reductions in Permittees' impervious surfaces, at individual, countywide and regional scales. Working cooperatively through BAMSC, Permittees formed the Long Term GSI Technical Working Group (TWG) in FY 2023-24, and the TWG met four times in FY 2024-25. The TWG includes WB and EPA staff.

MRP Provision C.3.j.v (7) requires Permittees to collectively produce a report summarizing TWG efforts and recommendations and submit it to the WB by September 2025. The BAMSC "TWG Summary and Recommendations Report" was completed in August 2025 and submitted with each Countywide Program's FY 2024-25 Annual Report. The TWG Summary and Recommendations Report includes summaries of all TWG meetings and Permittee recommendations for a proposed GSI Implementation Framework that includes crediting of a broader range of project types, projects with multiple benefits, and projects in various phases of implementation. The TWG anticipates holding two meetings in FY 2025-26 to continue to discuss this topic.

BAMSC Asset Management Work Group

The purpose of the Work Group is to provide a forum to discuss and get regional agreement on approaches to condition assessment and O&M needs of stormwater quality assets. In FY 2023-24, two Work Group meetings were held, both focused on condition assessment of LID/GSI assets. In FY 2024-25, one meeting was held on July 23, 2024 to discuss assessing condition of trash control assets. Following the July meeting, the effort to assist Permittees with development of Asset Management Plans shifted to the Countywide Programs, and no additional BAMSC Work Group meetings were held.

BAMSC Trees in GSI Work Group

The Trees in GSI Work Group is a work group of the Development Subcommittee. The Work Group met twice in FY 2024-25. Attendees included staff from several municipalities, the Regional Water Board, UC Extension, Davey Resource Group, and NGOs. The Work Group met on August 27, 2024, and discussed the current Biotreatment Soil Media specification and how it impacts trees in GSI. The Work Group also discussed the regional biotreatment wood mulch specification. At the second meeting on March 12, 2025, the Work Group received a presentation from Peter Schultze-Allen (SCVURPPP) on a spreadsheet of the types of stormwater systems that utilize trees. In FY 2025-26, the Trees in GSI Work Group will continue to meet and focus on design and construction challenges with integrating trees into bioretention systems.

BAMSC Development Subcommittee

The BAMSC Development Subcommittee continued to meet approximately quarterly during FY 2024-25 and promoted the implementation of GSI by providing a forum to discuss the following topics:

- The regional biotreatment soil media (BSM) and biotreatment wood mulch (BWM) specifications.
- Native and non-native drought tolerant plant species for low/no irrigation bioretention landscapes including a panel presentation on the topic moderated by John Steere, Contra Costa County Watershed Program.
- The "Climate Resilience Resources Guide" funded by the GI Leadership Exchange, led by Reid Bogert (SMCWPPP) and Kelly Havens (Geosyntec), and in partnership with several agencies across the US (and Canada), including the SF Public Utilities Commission. The CRRG collected information from municipalities in the US and Canada on approaches to addressing the effects of climate change on green stormwater infrastructure. The guide provides information on benefits from resilience practices and challenges that climate change is bringing. The document is posted on the Flows to Bay (SMCWPPP) website.
- The Contra Costa County Regional Alternative Compliance (RAC) System is a collaborative framework enabling participating municipalities and developers to meet permit compliance through a regional, market-based approach. RAC System allows for the purchase of "compliance units" generated by off-site Green Stormwater Infrastructure (GSI) projects. To administer and sustain the RAC System, a Joint Powers Authority (JPA) and a Community Facilities (CFD), providing a recurring funding stream for operations and maintenance. The JPA will serve as a separate legal entity responsible for managing compliance exchanges and coordinating among member agencies. The CFD will finance long-term operations and maintenance of GSI projects. The RAC System was selected to receive **the 2025 CASQA Award for the Outstanding Stormwater Funding Initiative.** Rinta Perkins, Program Manager for CCCWP, delivered two presentations on the CCCWP Regional Alternative Compliance Program to the BAMSC Development Committee on recent efforts to establish a Joint Powers Authority and a Community Facilities District to support its implementation.

Other Participation and Comments

- Peter Schultze-Allen (EOA/SCVURPPP) worked with staff from MTC and Valley Transportation Authority, to host the workshop, "Embrace the Future – Green Complete Streets Technical Deep Dive" on September 12, 2024 at the Campbell Community Center with over 130 attendees. Staff from BAAQMD (now known as the Bay Area Air District), Save the Bay, Bay Area Regional Collaborative, the City of San Jose, City of Mountain View, and City of Campbell assisted in the workshop and gave presentations. MTC Commissioner and Mountain View Councilmember, Margaret Abe-Koga, gave the welcoming remarks. The workshop included presentations on proposed and completed green and complete projects in Santa Clara County.
- Peter Schultze-Allen (EOA/SCVURPPP) attended a coordination meeting on October 7, 2024, in Sacramento organized by several State of California departments to discuss recent developments and strategies for the use of biochar in California projects and policies. The attendees included

representatives from Caltrans, CalRecycle, the Sacramento State University - Office of Water Programs, California Department of Conservation, California Air Resources Board, private biochar companies and other organizations.

- Reid Bogert (SMCWPPP) presented the following technical and panel presentations at the California Stormwater Quality Association 2024 Annual Conference in Sacramento on October 21 and 22, 2024:
    - "Developing a OneWatershed Framework in San Mateo County" (technical presentation);
    - "Assembling the Puzzle - Developing Comprehensive Strategies for Local Stormwater Program Funding" (panel); and
    - "Integrating Safe Routes to School and Green Streets Pilot Program in San Mateo County" (technical presentation).
- Reid Bogert (SMCWPPP) met with State Assembly and Federal Congressional leaders, including Senator Padilla's Office on April 21, 2025, Senator Schiff's Office on April 22, 2025, and Assemblymember Stefani on April 24, 2025, to advocate for federal funding for GSI projects in San Mateo County, focusing on earmark requests for $3M in funding for a sustainable streets project in Colma and $1.5M for advancing SMCWPPP's OneWatershed effort to develop a comprehensive Countywide OneWatershed Strategic Plan. Bogert also submitted a $20M grant under the USEPA Community Change Grant Program in November 2024 for the proposed *Groundwork for Equity and Resilience in San Mateo County: Advancing Green Infrastructure and a Green Workforce in Frontline Communities*, which would make substantial investments in nature-based climate resilience infrastructure and work force development in the county.
- Reid Bogert (SMCWPPP) presented on green stormwater infrastructure and resilient schoolyards partnership opportunities at the San Mateo County Office of Education's 10th Annual Environmental Solutionary Teacher Fellowship community partners event. The presentation was focused on how school site and district staff can effectively integrate GSI with schoolyard greening and climate resilience initiatives through partnerships with the countywide stormwater program.
- Reid Bogert (SMCWPPP)worked in partnership with the Ten Strands Institute to feature the Resilient San Carlos Schoolyards planning project on the California Collaborative for Educational Excellence website - https://spotlights.ccee-network.org/spotlights/san-carlos-sd. The Resilient San Carlos Schoolyards project was a grant funded project led by SMCWPPP in collaboration with the San Carlos School District, Green Schoolyards America and the San Mateo County Office of Education, geared towards establishing a participatory planning process to develop schoolyard greening concept plans and initiate planning and funding strategies in a pilot school district to advance schoolyard resilience, water quality, and other school community benefits through GSI and related infrastructure.

- Rinta Perkins (CCCWP) delivered three presentations to Contra Costa County Public Managers Association (PMA), City/County Engineering Advisory of Contra Costa (CCEAC), and Contra Costa Planning Directors on the RAC System JPA and CFD. The CCCWP held an informational session for stakeholders in March. It is anticipated that the RAC JPA formation will be completed in January 2026.

- Funded by the US EPA Water Quality Improvement Fund (WQIF) program, the CCCWP *Clean Watershed for All (CW4A)* project focused on countywide implementation (i.e., funding and delivery) of GSI and other water quality improvement projects, especially in underserved communities. In this permit year, the Project completed identifying and prioritizing stormwater capture projects and developed concept designs. As part of its funding and delivery option, the Project explored alternative public-private partnerships (P3) strategies.

Future Activities

The Long Term GSI TWG will continue meeting in FY 2025-26 to discuss long-term goals for GSI and a proposed GSI Implementation Framework.

BAMSC representatives will also continue to engage in various coordination efforts related to funding and implementation support for GSI. For example, the current BAMSC Steering Committee Co-Chair, Reid Bogert, has served during FY 2024-25 as the BAMSC representative on the San Francisco Estuary Partnership Implementation Committee to continue advocating for appropriate funding and policy support for multi-benefit GSI projects. Additionally, BAMSC representatives will continue efforts to promote green and complete streets with MTC, BAAQMD, Save the Bay, CalBike, Caltrans, BARC and other Bay Area and California organizations.

Appendix B

Industrial and Commercial Site Controls

Post Workshop Report Storm ater usiness and licit Discharge Storm ater nspectors Workshop

Post Workshop Report: Stormwater Business and Illicit Discharge Inspectors Workshop
Training Fiscal Year 2024-2025

The Clean Water Program's Industrial and Illicit Discharge subcommittee (IIDC) sponsored a stormwater business inspectors and illicit discharge inspector training workshop on March 17, 2025, with presentations and case studies. The Workshop was held in person at the Alameda County Turner Court Facility, Hayward with an option to attend the workshop via the Zoom Webinar platform. The Training Workgroup members responsible for planning the workshop are identified below.

Aileen Mendoza	Alameda County
Echo Lee	City of Alameda
Mary Skramstad	City of Berkeley
Michael Perlmutter	City of Oakland
Kristin Kerr	EOA, Inc.
Claudia Mayo	EOA, Inc.

The Agenda for the Workshop is attached. There were presentations on the U.S. EPA stormwater inspection program, the Regional Water Board Industrial Stormwater General Permit program and the ACCWP old industrial PCBs inspection program. In addition, people that attended in-person and on Zoom broke out into smaller groups to discuss inspection case studies, which allowed for in depth discussion. Fifty-one (51) people attended the entire 2.5-hour workshop in person and thirty-four (34) people attended the workshop virtually. The attendance list for the Workshop, sorted by agency, is attached. The presentations are available on the Clean Water Program's (CWP's) website IIDC members only webpage. The three presentations are available to the CWP's members as a recording on the Vimeo training website.

MRP (R2-2022-0018) provision C.4.e staff training requirements include 5 topics that must be provided in inspection training within the 5-year permit term. The table below will track the topics covered by the CWP trainings. Note that the CWP training coverage of Business Inspection Plans (BIP) and Enforcement Response Plans (ERP) will discuss what generally is included in these documents. Agencies should consider internal training activities that address their agency specific BIP and ERP.

MRP Training Topics (C.4.e.ii)

MRP Training Topics (C.4.e.ii)	Fiscal Year				
	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27
Urban Runoff P2	X[1]	X	X		
Inspection Procedures		X	X		
Business Inspection Plan	X[2]				
Enforcement Response Plan	X[2]				
Illicit Discharge Detection and Elimination	X	X	X		
Best Management Practices	X[1]	X	X		

Notes:

1. Provided inspector resources for identifying BMPs for business categories and illicit discharge sources.
2. Generally discussed required elements of BIPs and ERPs. Agencies should consider internal training activities that address their agency specific BIP and ERP.

Workshop Evaluation

Completed evaluations: 52
Percent of attendees completing evaluation: 63%

Evaluation Question	Response
The presentations were clear and easy to follow	3.70 average rating (out of 4)[1]
Overall, the presentations were informative and useful	3.75 average rating (out of 4)[1]
I will use the skills learned in the workshop today on the job	3.60 average rating (out of 4)[1]
The presenter(s) were knowledgeable in the subject matter	3.80 average rating (out of 4)[1]
Did this training meet your expectations?	Yes: 51 No: 1
Do you prefer in the in-person training in the future?	Yes: 41 No: 11

Note: [1]Strongly Disagree = 1, Strongly Agree = 4

What parts of the training were most useful to you?

- The case studies examples (32)
- Group discussions (17)
- Presentations from the EPA and Regional Waterboard (9)
- The presentations from guest speakers (8)
- Learning about the number of agencies you can go to for help and consultation (2)

- Geosyntec – PCBs Presentation (5)
- Being able to collaborate with different agencies (2)
- Q&A- discussion with other inspectors (2)
- Q&A section of presentations
- Learning about specific enforcement
- Discussion of permit types
- BMP assessments

What would have made this training more useful?

- Include more time for case studies (5)
- Include more interactive segments (3)
- Include more in person discussion
- Make training a full day instead of a half day
- Presentation slides were too small
- What are local jurisdictions responsible for regarding enforcement when working in collaboration with other agencies like the Waterboard.
- Review more case studies
- Include more PCBs research
- Include an enforcement section
- Have each program (EPA, and Waterboard) tell the agencies what they need us to do to support them.
- Allow college students to attend/promote workshop to colleges
- Owners of sites (PGNE, Cal Trans, Project Owners) come and tell their perspective
- More focus on environmental enforcement and violations expectations by city
- More information on MRP policy specifics
- Conduct a real inspection together as a group

What subjects would you like to see addressed in future workshops?

- Types of enforcement actions local agencies can use (8)
- Overview PFAs solutions (2)
- How to be addressing, identifying, and inspecting mobile business
- Include more inspection discussions
- How to properly fill out an inspection form
- Include case studies in other areas that are difficult (gray areas)
- Have a C.10 inspection example
- Specific pollutants, their sources, suggestions for mitigation and avoidance as well as BMPs for inspectors to utilize and implement
- Include frequent violators and how to address when issues are not resolved
- Types of monetary penalties
- Funding and legislation for background
- Intersection between Stormwater and aquatic wildlife

General Comments?

- Very good presentation!
- This was a good overview

- Good training, helpful
- Certification requirements for inspectors
- Very informative. Thanks!
- I really enjoyed this training. Thank you for the experience.
- Make slides bigger next time
- Good presentations
- Too cold
- Good training
- I think that IGP Facilities should submit pictures of their sites to the SMARTs Database
- Great workshop, excited to come to more
- Slide printouts too small
- Good location, easy parking
- It was not engaging enough
- Great training
- Helpful to have State and EPA speak, different authorities are helpful to distinguish between.
- Overall, very informative, add another break in the beginning

Attendees

Inspector - 34

Supervisor – 6

Stormwater Program Staff/Manager - 6

Other - 6

Stormwater Business and Illicit Discharge Inspectors Workshop: Collaboration, Coordination and Inspector Calibration

Monday, March 17, 2025
9:00 am to 11:30 am

Alameda County Turner Court Facility
951 Turner Court, Hayward, CA 94545

	Topic	Speaker	Time
	Registration		8:45 am
	Welcome	Aileen Mendoza, Alameda County Environmental Health IIDC Chair	9:00 AM
1.	Overview of EPA Stormwater Inspection Program in Region 9	Kristine Karlson, Enforcement & Compliance Assurance Division, U.S. EPA Pacific Southwest Region	9:10 am
2.	Overview of Regional Water Board Industrial Stormwater Inspection Program	Maggie Monahan and Jerry Xu, SF Bay Regional Water Quality Control Board	9:40 am
3.	Development of the Moderate PCBs Old Industrial Program	Lisa Austin, Geosyntec	10:10 am
	BREAK		10:40am
4.	Group Exercise Case Study #1: FOG Case Study #2: Material Storage Case Study #3: Illicit Discharge Case Study #4: Waste Storage	Kristin Kerr, EOA	10:55 am
	Wrap Up	Kristin Kerr, EOA, Inc.	11:30 am

ACCWP Business and Illicit Discharge Stormwater Inspector Workshop

March 17, 2025

Attendance List (In-Person)

	First Name	Last Name	Agency/Organization
1	Sandy	Mathews	ACCWP/LWA
2	Sharon	Gosselin	County of Alameda/Alameda County Flood Control and Water Conservation District
3	Roseanna	Garcia La Grille	Alameda County Environmental Health Department
4	Timothy	Hildreth	Alameda County Environmental Health Department
5	Aileen	Mendoza	Alameda County Environmental Health Department
6	Nicholas	Nobrega	Alameda County Environmental Health Department
7	Antoinette	Stetzenmeyer	Alameda County Environmental Health Department
8	Michael	Cheng	Aliquot (Oakland)
9	Robert	Wong	Aliquot (Oakland)
10	Bijan	Emadi	City of Alameda
11	Echo	Lee	City of Alameda
12	David	Lam	City of Albany
13	Jamie	Cooney	City of Berkeley
14	Karl	Etulle	City of Berkeley
15	Julia	Heath	City of Berkeley
16	Daisy	Hoover	City of Berkeley
17	Nicole	Kim	City of Berkeley
18	Raina	Larson	City of Berkeley
19	Meridith	Lear	City of Berkeley
20	Muzna	Rauf	City of Berkeley
21	Mary	Skramstad	City of Berkeley
22	Kiel	Ella	City of Hayward
23	Jaimee	Rosenberg	City of Hayward
24	Bashir	Sarwary	City of Hayward
25	Braden	Christensen	City of Livermore
26	Ernest	Garcia	City of Livermore
27	Mike	Perlmutter	City of Oakland
28	Matthew	Oh	City of San Leandro
29	Manjot	Sandhu	CSWT2 (Dublin)
30	Kristin	Kerr	EOA, Inc.
31	Claudia	Mayo	EOA, Inc.
32	Joseph	Palaniuk	EOA, Inc.
33	Lisa	Austin	Geosyntec
34	Kevin	Torres	Northgate Environmental Management, Inc (Oakland)
35	Ali Fuat	Yuvali	Northgate Environmental Management, Inc (Oakland)
36	Jay	Pu	Northgate Environmental Management, Inc. (Oakland)
37	Shane	Cruzen	Surf 2 Snow Environmental Resource Management (Newark)
38	Dylan	Dabel	Surf 2 Snow Environmental Resource Management (Newark)

	First Name	Last Name	Agency/Organization
39	Blake	Fitzwater	Surf 2 Snow Environmental Resource Management (Newark)
40	Julianne	Keam	Surf 2 Snow Environmental Resource Management (Newark)
41	Eddy	Pelayo	Surf 2 Snow Environmental Resource Management (Newark)
42	Cassidy	Ross	Surf 2 Snow Environmental Resource Management (Newark)
43	Megan	Sampiere-Prochnow	Surf 2 Snow Environmental Resource Management (Newark)
44	Luke	Swanson	Surf 2 Snow Environmental Resource Management (Newark)
45	Mike	Taylor	Surf 2 Snow Environmental Resource Management (Newark)
46	Alicia	Dutrow	Union Sanitary District
47	Marian	Gonzalez	Union Sanitary District
48	Mike	Lothian	Union Sanitary District
49	Edda	Marasigan	Union Sanitary District
50	Joe	Mendoza	Union Sanitary District
51	Alex	Paredes	Union Sanitary District
52	Jose	Soto	Union Sanitary District
53	Kristine	Karlson	USEPA
54	Jerry	Harris	Zone 7 Water

ACCWP Business and Illicit Discharge Stormwater Inspector Workshop

March 17, 2025

Attendance List (Virtually)

	First Name	Last Name	Agency/Organization
1	Zaida	Cholico	ACCWP/LWA
2	Stephanie	Hessler	Alameda County Department of Environmental Health
3	Luis	Montano	Aliquot (Oakland)
4	David	Craighead	City of Albany
5	Jose	Alonso	City of Berkeley
6	Johnathan	Caudillo	City of Berkeley
7	Jeffrey	Diep	City of Berkeley
8	Diego	Figueroa	City of Berkeley
9	Joseph	Germono	City of Berkeley
10	Lam	Inthavong	City of Berkeley
11	Joshua	Laranang	City of Berkeley
12	Jay Ogden	Ogden	City of Berkeley
13	Christina	Pallmann	City of Berkeley
14	Mark	Sproat	City of Berkeley
15	Ronald	Torres	City of Berkeley
16	Michelle	Sim	City of Fremont
17	Elliot	Wier	City of Fremont
18	Monica	Navarro	City of Livermore
19	Rita	Di Candia	City of Pleasanton
20	Miguel	Salcido	City of Pleasanton
21	Brian	Toledo	City of Pleasanton
22	Micheal	Warning	City of Pleasanton
23	Michael	McMahon	CSWT2 (Dublin)
24	Jason	Van Tighem	CSWT2 (Dublin)
25	Axel	Rieke	Northgate Environmental Management, Inc. (Oakland)
26	Evan	De lay	Surf 2 Snow Environmental Resource Management (Newark)
27	Kelsey	Laux	Surf 2 Snow Environmental Resource Management (Newark)
28	Michael	Dunning	Union Sanitary District
29	Dennis	Arauz	WSP
30	Ishika Nawrin	Chowdhury	Zone 7 Water Agency
31	Andrew	Reyna	Zone 7 Water Agency
32	Josh	Ruggiero	Zone 7 Water Agency

Appendix C

Pesticide Toxicity Controls

CCWP ur Water ur World ntegrated Pest Management Retail Store Partnership Program

CS ur Water ur World nnual Report

CS Pesticides nnual Report

Pesticides and Toicity Monitoring Summary of Municipal Regional Storm ater Permit Monitoring Conducted W Through W

OUR WATER — OUR WORLD

Alameda Countywide Clean Water Program
Our Water Our World
Integrated Pest Management Retail Store Partnership Program
Final Report for contract fiscal year 2024-2025
Prepared by Suzanne Bontempo, Plant Harmony, July 2025

Program Overview

Our Water Our World (OWOW) is a public outreach program designed to reduce the use of toxic pesticides and to reduce pesticide pollution in urban run-off. OWOW uses a point-of-purchase approach that educates and encourages retail nurseries, hardware stores, and home improvement stores that sell pesticides, to provide less-toxic, eco-friendly products for their customers. In addition, the OWOW program provides Integrated Pest Management (IPM) educational Fact Sheets for the public. Promoting the use of less toxic products around the home and garden can lead to a reduction of pollutants in our local creeks, and local waterways, as well as a healthier environment for the public.

The OWOW program meets the National Pollutant Discharge Elimination System (NPDES) stormwater permit requirements that require municipalities to have a program in place to educate the public on IPM.

Alameda Countywide Clean Water Program currently sponsors the Our Water Our World retail partnership program in 34 retail businesses throughout Alameda County. The OWOW program services are provided by me, and IPM Educators; Katherine Meler, Kaelin Head, and James Gajewski

OWOW Retail Partners

This is the list of the OWOW Retail Partners as of June 30th, 2025:

Alameda

1. Encinal Nursery, 2057 Encinal Avenue
2. Encinal Hardware, 2801 Encinal Avenue
3. Ploughshares, 2701 Main Street

Albany

4. Flowerland, 1330 Solano Avenue

Berkeley

5. Ace Hardware, 2020 Milvia Street, Unit 100
6. Berkeley Horticultural Nursery, 1310 McGee Avenue

7. East Bay Nursery, 2332 San Pablo Avenue
8. Outdoor Supply Hardware, 1025 Ashby Avenue
9. Westbrae Nursery, 1272 Gilman Avenue

Castro Valley

10. Pete's Ace Hardware, 2569 Castro Valley Boulevard

Dublin

11. Alamo Ace Hardware, 7373 Village Parkway
12. Summer Winds Nursery, 7360 San Ramon Road

Emeryville

13. The Home Depot Store, 3838 Hollis Street

Fremont

14. Dale Hardware 3700 Thornton Avenue
15. The Home Depot Store, 43900 Ice House Terrace
16. Regan's Nursery, 4268 Decoto Road

Hayward

17. The Home Depot Store, 21787 Hesperian Boulevard

Livermore

18. Alden Lane Nursery, 981 Alden Lane
19. The Home Depot Store, 2500 Las Positas Road

Newark

20. The Home Depot Store, 5401 Thornton Avenue

Oakland

21. Broadway Terrace Nursery, 4340 Clarewood Drive
22. Cole Hardware, 5533 College Avenue
23. Grand Lake Ace Garden Center, 4001 Grand Avenue
24. The Home Depot Store, 4000 Alameda Avenue
25. Laurel Ace Hardware, 4024 MacArthur Boulevard
26. Montclair Village Nursery, 5048 Woodminister Lane
27. Yarrow Nursery, 6250 Thornhill Drive

Piedmont

28. Grand Lake Ace Hardware, 1221 Grand Avenue

Pleasanton

29. The Home Depot Store, 6000 Johnson Drive
30. Western Garden Nursery, 2756 Vineyard Avenue

San Leandro

31. Evergreen Nursery and Garden Supply, 350 San Leandro Boulevard
32. The Home Depot Store, 1933 Davis Street
33. Outdoor Supply Hardware, 300 Floresta Boulevard

Union City

34. The Home Depot Store, 30055 Industrial Parkway SW

Contract Deliverables

Summary of Tasks Completed for this Contract.

- A total of 225 store visits were provided.
  Each retailer received at least 4 store maintenance and mentoring visits, and several received up to 10 store maintenance and mentoring visits.
- Engaged with no less than a total of 196 customers during these store visits.
- OWOW shelf talker tags are placed to identify eco-friendly products at these retailers.
- Stock the OWOW rack with the 17 fact sheet topics, including topics in Spanish.
- The OWOW fact sheet QR Code poster is accessible to shoppers to use.
- Provided an OWOW training for the associates at 11 retailers training a total of 90 associates.
- Provided 13 in-person public outreach events, engaging with no less than 659 people.

OWOW tasks throughout the year

Store Set-up

Each retailer received new shelf talker tags to identify the eco-pesticides available for consumers to purchase. The Home Depot Stores physically remerchandise their products each winter. As for the other retailers, they might remerchandise and/or add new eco-products to the retail shelves for sale.

Retailers such as Berkeley Horticultural Nursery, Flowerland, Yarrow and Broadway Terrace Nursery only sell eco-friendly products so have declined the placement of shelf talker tags.

Placing new shelf talker tags on eco-pesticides at retailers throughout the OWOW partnership. Here are photos of shelf tags at the Ace Hardware, Berkeley *(left)* and the Home Depot Store, Pleasanton *(right)*

Retail Store Mentoring and Maintenance Visits:

A total number 225 program store mentoring and maintenance visits were provided for the year.

Retailer	Number of visits
Ace Hardware, Berkeley	5
Alamo Ace Hardware, Dublin	5
Alden Lane Nursery	7
Berkeley Horticultural Nursery	5
Broadway Terrace Nursery	6
Cole Hardware	8
Dale Hardware	7
East Bay Nursery	5
Encinal Hardware	6
Encinal Nursery	6
Evergreen Nursery and Garden Supply	7
Flowerland Nursery	4
Grand Lake Ace Garden Center	8
Grand Lake Ace Hardware	6
Home Depot, Emeryville	9
Home Depot, Fremont	8
Home Depot, Hayward	9
Home Depot, Livermore	6
Home Depot, Newark	8
Home Depot, Oakland	7
Home Depot, Pleasanton	7
Home Depot, San Leandro	8
Home Depot, Union City	10
Laurel Ace Hardware	8
Montclair Village Hardware	4
Outdoor Supply Hardware, Berkeley	6

Outdoor Supply Hardware, San Leandro	8
Pete's Ace Hardware	9
Ploughshares	4
Regan Nursery	7
Summer Winds Nursery	5
Westbrae Nursery	5
Western Garden Nursery	5
Yarrow	6

Store mentoring and maintenance activities throughout the year:

- Replenish fact sheets
- Update shelf talkers on new products
- Ask associates if they are hearing of any new or unusual pest problems from their customers
- Answer associate pest and product questions
- Focus on the pest of the month calendar
- Bring the quarterly UCIPM Retail Newsletter to each retailer
- Remind associates about the resource on the OWOW & UCIPM website
- Demonstrate how to use the UCIPM website for pest problem assistance
- Demonstrate how to access OWOW fact sheet through the QR code poster
- Guide customers to less-toxic solutions in the aisle
- Mentor buyer and manager at each retailer about new eco-friendly product on the market
- Mentor associates about the current pest problems and IPM strategies for the pests
- Mentor associates on how less toxic active ingredients work
- Follow up with emails and phone calls on pest questions from associates and customers

Throughout the year, subcontractors Katherine, Kaelin, James, and I provided each store with mentoring and support around assorted seasonal pest, such as aphids, earwigs, gophers, and peach leaf curl, along with other leaf and plant diseases, especially around managing weeds and rodents. Flies, yellowjackets, whitefly, and ants were also highlighted with many customers coming in the stores with these pests.

Mentoring associates at the Home Depot Livermore

We continue to provide each retailer with more resources for pest prevention by planting the right plant in the right place, keeping plants healthy, how to efficiently water plants that reduces water usage, and the benefits of planting regionally appropriate plant material. This year, we provided extra resources and information for attracting beneficial insects to gardens to manage pests.

Throughout the year we provided the retailers with information around excluding pests from the home and the tools to do so with, how to keep gardens healthy through times of drought, and how to cultivate a

beneficial bug friendly garden. We provided each with the CA Pest Alert ‘Keep the Spotted Lanternfly out of CA’, the ‘Don’t Move Firewood’, and the quarterly UC IPM Retailer Newsletter.

Fact sheets:

OWOW fact sheets are made available at each retailer in print form and/or digital form. These fact sheets provide the basic information for less-toxic pest management based off the information found on the UCIPM website. The OWOW fact sheets provide user friendly, easy to understand tools and techniques for pest management.

This is the current list of fact sheet available:

- Controlling **Ants** in Your Home
- Controlling **Aphids** in Your Garden
- Keep **Bed Bugs** Out of Your Home
- Keep **Cockroaches** Out of Your Home
- Keep **Fleas** Off Your Pests and Out of Your Home
- Planting a **Healthy Garden**
- Tips for a Beautiful, **Healthy Lawn**
- Protect Your Garden from **Moles, Voles and Gophers**
- Controlling **Mosquitoes** Around Your Home
- Hiring a **Pest Control Company**
- Keep **Rats and Mice** Out of Your Home
- Growing Beautiful **Roses**
- **Snails and Slugs** in Your Garden
- **Spiders** – The Helpful Hunters
- Pesticide **Use and Disposal**
- Controlling **Weeds** in Your Garden
- Controlling **Yellowjackets** Around Your Home

OWOW Fact Sheet Rack at Summer Winds, Dublin

QR Code signage for digital fact sheets

We have place the QR Code posters or signage at most of the retailers. We currently have the QR code signage for Roses, Healthy Gardens, and the 10 Most Wanted brochure placed in the nurseries. In each associate training, we review how to access the OWOW and UCIPM websites in both English and Spanish by using the QR code signage so that associates feel comfortable using them with ease.

OWOW Fact Sheet Rack with QR Codes at Encinal Hardware, Alameda

In May the Alameda Public Library requested OWOW QR Code poster to place on display at each of their branches throughout Alameda County.

QR Code data can be provided by Joseph Draper at CASQA.

OWOW IPM Retailer Trainings

The OWOW trainings are designed to educate the associates about storm water runoff, where the local HHW facility is located, their role in reducing problem pesticide usage, the principles of IPM, how to read a pesticide label, the less toxic pesticides their store sells, proper usage of these pesticides, current pest problems and less toxic solutions for these problems for their customer. These trainings also provide suggested alternatives to their customers to manager their gardens sustainably with the intent to reduce the toxic pesticides and fertilizers that so easily can get into the waterways.

A total of 11 training events were provided with a total of 90 associates received the training. Each associate received a training folder stocked with reference materials, pest problem solving for the common seasonal pests they are asked about, OWOW Fact Sheets, Pest Identification key, and UCIPM Pest Notes for some of the current pest problems. Pre & Post Training Surveys were provided to each attendee.

Date	Store	Number Trained	Instructor
9/12/24	The Home Depot, San Leandro	9	Suzanne
10/9/24	The Home Depot, Emeryville	9	James
11/12/24	Dale Ace	19	Suzanne
11/22/24	The Home Depot, Hayward	7	James
1/31/25	Alden Lane Nursery	14	Suzanne
2/5/25	The Home Depot, Fremont	6	Katherine
2/22/25	Pete's Ace	5	James
3/4/25	Broadway Terrace Nursery	4	Suzanne
3/5/25	The Home Depot, Union City	7	Katherine
3/7/25	Yarrow Nursery	5	Suzanne
3/20/25	Westbrae Nursery	5	Suzanne
	Total associates trained:	**90**	

Topics covered in the training:

- An OWOW partnership program overview
- Pesticides that are water pollutants of concern
- Where to dispose of local HHW
- 'How less-toxic products' work
- How to read a pesticide label
- IPM principles & techniques
- Beneficial Insect Identification
- Water Conservation
- Benefits of Compost
- Benefits of Mulch
- Water-wise plant choices for our area

Training associates at
Home Depot, Union City

- Pests highlighted: Aphids, ants, powdery mildew, citrus leaf miner, earwigs, fleas, gophers, rats & mice, snails & slugs, spider mites, whitefly, fungal diseases, codling moth, rose care without problem pesticides and how to address the many customer habits, such as how over fertilizing can increase pest populations. Also, the importance of adding compost to the soil and protecting the soil with a layer of mulch.
- Invasive pests: Asian Citrus Psyllid
- OWOW website, UC Davis IPM website

Resources provided to each OWOW training attendee includes:

- The Mac's Field Guide Good Garden Bugs of California
- Monthly Pest Calendar
- How to Apply Beneficial Nematode
- 'How Less Toxic Products Work' handout
- Home Depot less toxic product list for the Home Depot Store training
- List of websites, books, and catalogs on a resource sheet
- Sheet Mulching instructions
- The CA DPR's 'How to read a pesticide label' handout
- Information on pest problem solving for the following pests: spider mites, lifecycle of grubs, whiteflies, spider mites, citrus leaf miner, codling moth, keeping rodent out of the home and reducing their activity in the garden, Asian Citrus Psyllid, and the UCIPM Quick tips for Mealybugs & Powdery Mildew
- '10 Most Wanted Bugs for Your Garden' brochure
- OWOW pocket guides
- A one sheet informational handout on 'Protecting Landscapes in a Drought' and '10 Tips for Water-wise Gardening'
- A one sheet informational handout on 'Keeping Rats & Mice out'
- A one sheet informational handout on 'Rats in the Garden'
- Invasive Pests: Asian Citrus Psyllid
- 'Keep Spotted Lanternfly Out of California' brochure
- Eco-herbicide recommendations
- Retail Nursery & Garden Center IPM News
- A one sheet handout that includes services offered by the Alameda County Mosquito Abatement District and the Alameda County Vector Control Program

Compilation of Training Feedback 2024-25 contract year

Though getting managers to agree to schedule trainings is more challenging that before due to labor shortages and the late rainy season, the training classes are well received by the associates, they see the value and appreciate the up-to-date IPM education we provide to them. We continued to focus our attention on how to guide their customers through the importance of keeping rainwater on site, adding compost to the soil, feeding plants organically, protecting the soil with mulch, and how to water to grow healthy plants, because when we grow healthy plants, they are more resilient and less likely to be affected by pest issues.

Program Training Assessment

Summary of Store Training Pre-Training Surveys

A total of 90 associates trained, 87 pre-training surveys were returned.

Here are the results of those surveys:

1) Are you familiar with the OWOW program?
a) Yes: **47%** b) No: **53%**
2) When does urban runoff occur?
a) When a sprinkler is broken & excess water is running into the street: b) During & after a rain event: **6%** c) From watering or irrigation overflows: **8%** d) All of the above: **86%** e) I'm not sure:
3) Which of these pollutants can be carried into the waterways with urban runoff?
a) Motor oil & solvents: **3%** b) Pet waste, debris & litter: **1%** c) Pesticides & synthetic fertilizers: **2%** d) Household cleaning agents: **2%** e) All of the above: **92%** f) I'm not sure:
4) Storm drains, including the storm drains in parking lots & loading docks, flow directly to:
a) The sanitary sewer that goes to the wastewater treatment facility: **17%** b) The nearest creek, river, bay, or ocean: **58%** no answer: **25%**
5) Are pesticides removed at the wastewater treatment facility?
a) Yes: **17%** b) No: **46%** c) I'm not sure: **37%**
6) What is the best way to dispose of unused household hazardous waste, including pesticides & fertilizers?
a) Bury them in the garden: b) Dump them into the trash: **2%** c) Pour them down the sink or flush down toilet: **2%** d) Take them to the local HHW facility: **96%** e) I'm not sure:
7) Do you know where your local HHW facility is located?
a) Yes, I do know: **26%** b) No, I don't know: **74%**
8) Do your customers ask for eco-friendly solutions & less-toxic products that are safer for the environment?
a) Yes: **31%** b) No: **17%** c) Sometimes: **52%**
9) What is the highly effective, science-based strategy for controlling pests in the home/garden that also helps to protect our waterways from toxic pesticide pollutants?
a) Synthetic pesticide program: b) Homemade, D.I.Y. remedies & cures: **11%** c) IPM (Integrated Pest Management) Principles: **82%** d) I'm not sure: **7%**

Summary of Store Training Post-Training Surveys

A total of 90 associates trained, 87 post-training surveys were returned.

Here are the results of those surveys:

1) Are you familiar with the OWOW program
a) Yes: **89%** b) No: **11%**
2) When does urban runoff occur?
a) When a sprinkler is broken & excess water is running into the street: **6%** b) During & after a rain event: c) From watering or irrigation overflows: d) All of the above: **94%**
3) Which of these pollutants can be carried into the waterways with urban runoff?
a) Motor oil & solvents: b) Pest waste, debris & litter: c) Pesticides & synthetic fertilizers: d) Household cleaning agents: e) All of the above: **94%** f) Left blank: **6%**
4) Storm drains, including the storm drains in parking lots & loading docks, flow directly to:
a) The sanitary sewer that goes to the wastewater treatment facility: b) The nearest creek, river, bay, or ocean: **95%** c) I'm not sure or left blank: **5%**
5) Are pesticides removed at the wastewater treatment facility?
a) Yes: **6%** b) No: **89%** **c)** I'm not sure: **5%**
6) What is the best way to dispose of unused household hazardous waste, including pesticides & fertilizers?
a) Bury them in the garden: b) Dump them into the trash: c) Pour them down the sink or flush down toilet: d) Take them to the local HHW facility: **92%** e) Left blank: **8%**
7) Do you know where your local HHW facility is located?
a) Yes, knew: **86%** b) No, left blank: **14%**
8) How can you identify products that are less toxic for pest management in your store?
a) The OWOW shelf labels that identify eco-friendly products: **5%** b) The OWOW pest management fact sheets: c) The OWOW website at ourwaterourworld.org: **10%** d) Talking with an OWOW IPM Advocate: e) All of the above: **83%**
9) What is the highly effective, science-based strategy for controlling pests in the home/garden that also helps to protect our waterways from toxic pesticide pollutants?
a) Synthetic pesticide program: b) Homemade, D.I.Y. remedies & cures: c) IPM (Integrated Pest Management) Principles: **90%** d) Left blank: **10%**

Summary of End of Training Evaluation Form.
A total of 90 associates trained, 87 post-training surveys were returned, 76 completed the evaluation. Here are the results of the evaluations:

1) You feel comfortable using the OWOW resources available in this store?
a) Yes: **90%** b) No: c) Left blank: **10%**
2) You understand a less toxic solution for at least one pest problem discussed today.
a) Yes: **90%** b) No: c) Left blank: **10%**
3) What type of support can the OWOW IPM Advocate provide you more of?
a) More print & online resources for less toxic pest management: **20%** b) More information about seasonal pest problems and how to manage less toxically: **40%** c) More OWOW training & product knowledge classes: **40%**

What was the most useful thing you learned today?

'chemicals are not removed at wastewater facility
'what spray to use and how to identify
'IPM awareness. municipal drainage pathways > destinations
'Synthetic fertilizer causes bad pests
'About plants and a little bit of everything
'Using mulch for proper plant watering
'Where to dump unwanted waste.
'I learned about natural pesticides, also plants that help.
'Mulch on top of soil
'about IPM
'Mulch on top of soil
'the in-depth pesticide information
'how each of the pesticides work and their differences
'everything was helpful
'i love learning about the eco-friendly pest controls
'Everything helpful especially learning t how to control citrus leaf miner
'all of the information was helpful - TY
'how to address further IPM education for customers
'managing thrips
'learning about how neem vs neem max works

Additional comments:
'It was great class.
'more classes please
'thank you for the information
'very helpful, I learned a lot'

Training associates at Broadway Terrace Nursery, Oakland and Westbrae Nursery, Berkeley

Training associates at Dale Ace, Fremont and Alden Lane, Livermore

Public education & outreach

Throughout the year, we provided 13 public in-person outreach events engaging with no less than 659 people, almost twice as many people than last year.

Date	Event Type & Location	Number of people engaged
10/13/24	Alden Lane Nursery	51
10/19/24	OSH San Leandro	48
1/25/25	Evergreen Nursery	16
2/8/25	Home Depot Hayward	23
4/5/25	Yarrow Nursery	35
4/5/25	Pete's Ace Hardware	11
4/19/25	Fremont's Earth Day event	189
4/27/25	Home Depot Pleasanton	31
5/3/25	Home Depot Fremont	117
5/3/25	Laurel Ace	40
5/4/25	Home Depot Livermore	27

5/17/25	Alden Lane Nursery	59
5/31/25	Summer Winds Nursery – presentation	12

Public Outreach Events:

The outreach events consisted of assisting people at the retailer, answering their pest & gardening questions, and guiding each to a less toxic solution. This engagement educates the consumer and guiding each towards less toxic pesticides and products. The encouraging shift is seeing that most of the people are asking for alternatives to the problem pesticides.

Tabling at the Home Depot Fremont

- Managing aphids and other common garden pests
- Managing rats and mice, both indoors and outdoors
- Flying insects; flies, mosquitoes, yellowjackets, fungus gnats
- Gophers and moles in the garden
- Crawling insects in the home, and around the perimeter
- Fungus gnats in houseplants
- Weeds in the garden, showing the different tools such as mulch, as well as the eco-herbicides.
- Fruit Tree care, Citrus care, Rose Care, Veggie Garden care
- Plant diseases; powdery mildew, peach leaf curl, black spot, rust
- Best fertilizers to feed plants.
- How to water

Each person received a corresponding OWOW fact sheet when available, OWOW & UCIPM website information, the ’10 Most Wanted Good Bugs’ brochure, and the ‘Healthy Gardens’ fact sheet.

Tabling at Home Depot, Livermore

OWOW Presentations Events:

The OWOW in-person presentations enable me to provide an in-depth introduction to the OWOW program, one that is tailored to the venue and audience, an introduction to Integrated Pest Management, beneficial insect awareness, alternatives to problem pesticides, and helpful resources. These presentations also allow for audience engagement, a question-and-answer session, and the distribution of OWOW fact sheets.

Webinars from the 2021-23 fiscal years are still receiving views:

Date	Type of Event	Number of Attendees
7/8/21	**Gardening During Drought – Webinar*	*173 views on CWP YouTube* *21 more views since July 2023*
8/12/21	Vegetable Pest Management - Webinar	86 views on CWP YouTube, 1 more views since July 2024
9/9/21	Fall is for Planting - Webinar	136 views on CWP YouTube, 75 more views since July 2024
1/13/22	Managing Weeds Effectively – Webinar	169 views on CWP YouTube, 2 more views since July 2024
2/10/22	Organic Rose Care - Webinar	160 views on CWP YouTube, 6 more views since July 2024
3/10/22	Soil Basics – Webinar	116 views on CWP YouTube, 16 more views since July 2024
4/14/22	Waterwise Food Gardening – Webinar	93 views on CWP YouTube, 6 more views since July 2024
5/12/22	Spring Pest Management – Webinar	163 views on CWP YouTube, 20 more views since July 2024
6/9/22	Bring in the Pollinators - Webinar	220 views on CWP YouTube, 14 views since July 2024
10/13/22	**Webinar: 'Fall is for Planting'*	*112 views on CWP YouTube,* *10 more views since July 2023*
11/10/22	Webinar: 'Fall Pest Prevention'	97 views on CWP YouTube, 7 more views since July 2024
2/16/23	Webinar: 'Managing Weeds'	167 views on CWP YouTube, 12 views since July 2024
3/16/23	Webinar: 'Setting Garden Up for Success'	162 views on CWP YouTube, 9 views since July 2024
4/13/23	Webinar: 'Gardening for the Good Bugs'	369 views on CWP YouTube, 25 views since July 2024
5/11/23	Webinar: 'Spring Pest Management'	137 views on CWP YouTube, 16 views since July 2024

The recorded webinars have received a total of **209 views throughout this 2024-25** contract year.
**Could not find this recording on the CWP You Tube channel.*

In total, since these webinar recordings have been posted on the Clean Water Program's YouTube Channel, they have received a total of **2360 views**.

OWOW's Retail Influence

Eco-friendly Pesticide Increases

Throughout the 2024-25 fiscal year, all retailers continue to increase the number of eco-friendly pesticides as they decrease their problem pesticide inventory for the alternatives.

- Yarrow, Flowerland, Berkeley Horticultural Nursery, Broadway Terrace Nursery only sell eco-friendly products.

- Each of the retails that still sell synthetic, or problem pesticides have experienced an increase in sales with the eco-friendly alternative pesticides. This is a significant increase in response to the consumer awareness and demand.
- All stores value the OWOW program and the services we provide.

OWOW Program Evaluation

Fact Sheets Displayed:

- All 34 retailer have a fact sheet rack and/or fact sheet QR code signage on display for their customers to reference.
- 85% noted: The fact sheet is very effective.
- 60% noted: The print fact sheet information is more effective.
- 28% noted: The QR codes to views the fact sheets digitally is better.
- 12% noted: Both print and digital facts sheets are preferred.

Shelf Taker Tags:

- 100% of the retailers noted that the shelf talker tags are very effective, they really help us identify the eco-friendly products we sell.

OWOW Retailer Trainings:

- 100% of the retailers noted that the OWOW trainings are very valuable, feel that they are an important addition to staff enrichment and would like them more often when possible.

OWOW Outreach Events:

- 100% of the retailers who have had us join their events, said that they value our time when we are working in the store, helping their customers.

Overall challenge for the year:

The biggest challenge I continue to see throughout the year with each retailer is staffing issues; staff shortages, reduced staff hours, and employees not showing up to work. This leads to frustration and stress from the management teams. In relationship to providing OWOW services it means that trainings are more difficult to schedule, they more often get rescheduled or even canceled. This is the primary reason the focus has shifted to join more public outreach events. Thankfully I have found more opportunities for OWOW to participate.

Providing OWOW Services Beyond the Retailer

I continue to work closely and learn from the team at UC IPM and their regional advisors, learning science-based, less-toxic best practices for pest management, so that I can uphold the integrity of knowledge I provide the retailers and the public I engage with. I believe that the OWOW program has been a strong influencer in reducing problem pesticides the consumers use because of the invaluable relationship with UC IPM and by the dedicated efforts the trained IPM Advocates provide.

As an Integrated Pest Management and Garden Educator, I share the OWOW message beyond the retailer in several capacities. I am a board member for the Sonoma County Beekeepers Association (SCBA), where I provide monthly articles and updates on gardening without pesticides. Though this may not seem relevant to Alameda County, it has been brought to my attention that the SCBA newsletter if very popular within the Alameda County Beekeepers Association. I also completed the international Pollinator Partnership Pollinator Stewardship program in 2024, receiving my certification in September, and currently provide a quarterly article for their national newsletter with seasonal eco-friendly pest management tips.

With the OWOW program and the other organizations I am involved with, throughout the 2024-25 fiscal year I have collectively engaged in-person with over 4961 people (*this does not include the distribution of the newsletters I contribute to)* with eco-friendly pest management support, beneficial insect and pollinator conservation, and clean water awareness. This is a huge privilege.

I'd like to thank the Alameda Countywide Clean Water Program for the opportunity to provide OWOW services to the communities. I appreciate being able to provide education around reducing pesticide pollutants by sharing IPM knowledge, by offering support around stressful pest problems, and by being available to guide people to less toxic, sustainable pest & gardening solutions.

Thank you so much for allowing me to contract with you**.**

California Stormwater Quality Association®

Dedicated to the Advancement of Stormwater Quality Management, Science and Regulation

Our Water Our World 2025 Annual Report

Prepared by the California Stormwater Quality Association

August 2025

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Table of Contents

Section 1. Introduction

Our Water, Our World (OWOW) is an award-winning partnership between municipal agencies, 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 harm 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 to 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 the California Stormwater Quality Association (CASQA), to provide 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 Permit,[3] and the Phase II – Small MS4 General Permit.[4]

Section 2. Program Elements

The OWOW program consists of several elements that 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 offer in-store displays, shelf tags, in-store presentations and training for store employees, and advice to customers about pest management methods that are healthier for people and the environment.

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 various 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 Stormwater NPDES Permit, California Regional Water Quality Control Board – San Francisco Bay Region, 2022. Order R2-2022-0018, NPDES NO. CAS612008, as amended, CA.
[3] NPDES Permit and Waste Discharge Requirements General Permit for Discharges from MS4s, California Regional Water Quality Control Board – Central Valley, 2016. Order R5-2016-0040, NPDES NO. CAS0085324, CA
[4] NPDES Permit and Waste Discharge Requirements for Storm Water Discharges from Small MS4s, California State Water Resources Control Board, 2013. Water Quality Order 2013-0001-DWQ, NPDES General Permit No. CAS000004, as amended, CA.

On the OWOW website, consumers can view the following:

- All 18 fact sheets.
- Stores participating in the OWOW program.
- A database of less-toxic products and their 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, and implemented by local cities and counties. IPM Advocates and University of California Statewide IPM Program (UC IPM) serve as collaborative partners.

CASQA manages and provides the central services necessary to operate and maintain the OWOW program, including the development of 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.

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, 2025. Bay Area Clean Water Agencies (BACWA) continues to support the OWOW program as a sponsor.

IPM Advocates are trained individuals who support the local implementation of the OWOW program. They provide retail stores, nurseries, hardware stores, and garden centers with direct-to-consumer information, IPM tools, products, and practices. IPM Advocates are the link between the municipalities and the retailers where they reach consumers. The active IPM Advocates include Suzanne Bontempo, Julie Barbour, and Maris Sidenstacker.

UC IPM provides research and expertise on IPM practices promoted throughout the state and maintains a website of less-toxic IPM practices for nearly 1,000 home, garden, landscape, and turf pests. Karey Windbiel-Rojas, Associate Director for Urban and Community IPM, UC IPM 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 the University of California resources.

Table 1. Agencies Implementing OWOW

Bay Area and Northern California

Alameda County
Alameda County Flood Control & Water Conservation District
Alameda Countywide Clean Water Program
City of Alameda
City of Albany
City of American Canyon
City of Antioch
City of Belmont
City of Belvedere
City of Benicia
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 Fairfield
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 Petaluma
City of Piedmont
City of Pinole
City of Pittsburg
City of Pleasant Hill
City of Pleasanton
City of Redwood City
City of Richmond
City of San Bruno
City of San Carlos
City of San José
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

Bay Area and Northern California (Continued)

City of St. Helena
City of Suisun City
City of Sunnyvale
City of Ukiah
City of Union City
City of Vallejo
City of Walnut Creek
Contra Costa Clean Water Program
Contra Costa County
Contra Costa County Flood Control and Water Conservation District
Fairfield-Suisun Sewer District
Marin County
Marin County Flood Control and Water Conservation District
Marin Countywide Stormwater Pollution Prevention Program
Mendocino County
Napa County
Napa County Flood Control and Water Conservation District
Napa Countywide Stormwater Pollution Prevention Program
Russian River Watershed Association
San Mateo County
San Mateo Countywide Water Pollution Prevention Program
Santa Clara County
Santa Clara Valley Urban Runoff Pollution Prevention Program
Santa Clara Valley Water District (Valley Water)
Solano Stormwater Alliance
Sonoma County
Sonoma County Water Agency
The San Mateo County Flood and Sea Level Rise Resiliency District
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 Los Gatos
Town of Moraga
Town of Portola Valley
Town of Ross
Town of San Anselmo
Town of Tiburon
Town of Windsor
Town of Woodside
Town of Yountville
Vallejo Flood and Wastewater District
Zone 7 Water Agency

Central Valley, Tahoe, and Inland Areas

Butte County
City of Ceres
City of Citrus Heights
City of Davis
City of Dixon
City of Elk Grove
City of Escalon
City of Folsom
City of Galt
City of Lathrop
City of Lincoln
City of Lodi
City of Manteca
City of Merced
City of Modesto
City of Newman
City of Patterson
City of Rancho Cordova
City of Ripon
City of Riverbank
City of Rocklin
City of Roseville
City of Sacramento
City of Stockton
City of Tracy
City of Turlock
City of Woodland

Central Valley, Tahoe, and Inland Areas (Continued)

City of Yuba City
El Dorado County
Fresno Metropolitan Flood Control District
Mountain House Community Service District
Sacramento County
Sacramento Stormwater Quality Partnership
San Joaquin County
Stanislaus County

Central Coast

City Buellton
City of Buellton
City of Carmel-by-the-Sea
City of Carpinteria
City of Del Rey Oaks
City of Goleta
City of Guadalupe
City of Lompoc
City of Marina
City of Monterey
City of Pacific Grove
City of Sand City
City of Santa Barbara
City of Santa Maria
City of Seaside
City of Solvang
Monterey Regional Storm Water Management Program
Monterey County
Santa Barbara County

Southern California

City of Santa Clarita

Sponsor

Bay Area Clean Water Agencies

Section 4. Annual Program Implementation

This section describes the OWOW outreach services conducted between July 2024 and June 2025.

4.1 IPM ADVOCATES

Several municipalities contracted with IPM Advocates to implement the OWOW program at local stores. IPM Advocates shared their knowledge with store staff and held educational events for customers.

During the 2024-2025 reporting year, demand from municipalities for IPM Advocate services exceeded availability capacity, limiting coverage of some retail locations. In response, CASQA has initiated a program planning initiative to improve support and guide future growth (see Section 5. Program Development for more information).

In-Store Coordination

An in-store coordination meeting was held in August 2024 to build on the progress made in 2023-2024 to begin sharing and memorializing in-store best practices, such as contacting prospective retail stores, onboarding retail stores, and setting up shelf displays. All OWOW Subscribers were invited to this in-store coordination meeting, including contractors that implement the in-store component of the OWOW program, to learn best practices for developing and maintaining store partnerships.

4.2 EDUCATIONAL OUTREACH MATERIALS

Educational materials include fact sheets on specific pests, gardening, and pesticide applications, shelf tags to identify eco-friendly products in stores, and the OWOW website that makes the materials accessible to the public. Examples of OWOW outreach materials are provided in Appendix A and all are accessible on the OWOW website.

Fact Sheets

The OWOW program has 18 fact sheets. Between July 2024 and June 2025, the *Cockroaches, Aphids, Mosquitos,* and *Spiders* fact sheets were revised and translated into Spanish. Currently, 11 of the 18 fact sheets are available in Spanish, and efforts are underway to translate the entire fact sheet series. Additionally, QR codes were added to the revised and translated factsheets to help consumers easily navigate to the OWOW website.

In January 2022, posters with trackable QR codes were developed to encourage consumers to digitally access the OWOW fact sheets in pesticide aisles. These trackable QR codes record which fact sheets consumers view in retail stores. Based on the tracking data collected between July 2024 and June 2025, the three most viewed fact sheets were *Ants*, *Aphids*, and *Rats and Mice*. Table 2 presents a summary of QR code scans for each fact sheet. Additionally, Figure 2: *OWOW by the Numbers* provides an overview of engagement with our educational outreach materials, including total QR code scans, fact sheet views, and website activity.

Website

The OWOW website provides public access to fact sheets, the less-toxic product database, and the Store Finder, an interactive map allowing users to search for participating stores. Updates to the Store Finder are made quarterly. During the 2024 – 2025 reporting year, three stores were added to the OWOW program and made available on the Store Finder. Website visitors increased 9%, from 17,467 unique visitors between July 2023 and June 2024 to 19,076 unique visitors between July 2024 and June 2025. Figure 2 shows the monthly website visitor history since May 2021.

Less-Toxic Pest Product Database

In August 2024, enhancements were made to both the less-toxic product lists and the OWOW website to develop an integrated less-toxic product database hosted on the OWOW website. The database enhances accessibility for both IPM Advocates, who rely on the database to identify less-toxic products, and the general public, who can now easily search for products using their phones.

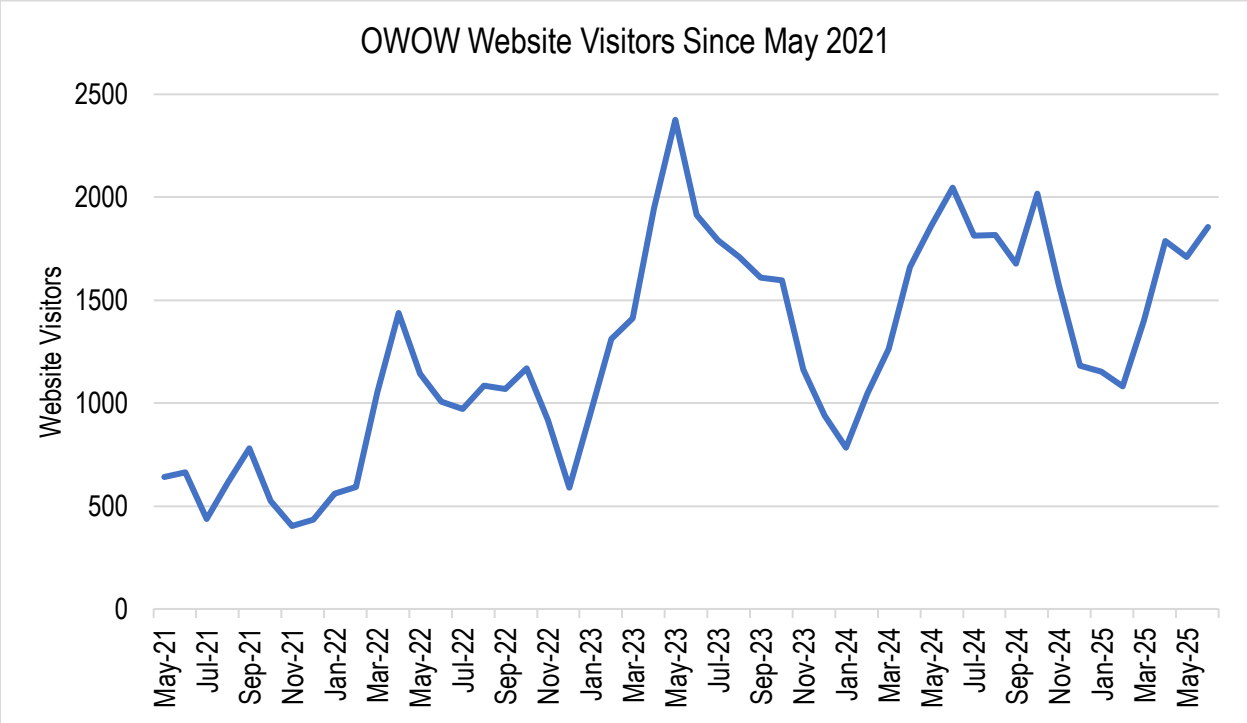
The store-specific product lists will continue to be updated as needed to support the printing of shelf tag labels. Each year, new products are reviewed, and updates are made in consultation with subject matter experts to ensure the information remains current and accurate.

Table 2. QR Code Scans by OWOW Product from July 2024 to June 2025

OWOW Product	QR Code Scans	OWOW Product	QR Code Scans
Ants	196	Bed Bugs	70
Rats & Mice	179	10 Most Wanted	64
Aphids	162	Healthy Gardens	62
Moles, Voles, & Gophers	161	Weeds	53
Cockroaches	145	Yellowjackets	51
OWOW Website	130	Spanish Fact Sheets	29
Mosquitoes	115	Lawns	27
Fleas	112	Hiring a Pest Company	25
Spiders	98	Pesticide Use & Disposal	18
Snails & Slugs	92	Pesticides & Water Quality	16
Roses	74		
Total QR Code Scans		**1,879**	

Figure 1. OWOW by the Numbers

Figure 2. OWOW Website Visitors Since May 2021



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

The OWOW program added three new retail partners during the 2024–2025 reporting year. However, due to store closures and a reconciliation of the list of participating stores, the total number of active stores decreased from 288 to 281. The Home Depot Corporate continues to be a model retail partner and OWOW strives to replicate this partnership with other retailers and vendors. In January 2025, The Home Depot Corporate delivered an internal memorandum to California store managers to facilitate OWOW collaboration in The Home Depot stores (see Appendix B). In addition to The Home Depot, OWOW retail partners include Outdoor Supply Hardware, Ace Hardware, and independent hardware and garden centers throughout California.

Trade Show Booths

Attending trade shows provides an opportunity to meet pesticide buyers and vendors, learn about the new products coming to the California marketplace, answer questions, and provide mentorship to the retail pesticide buyers and vendors. In 2024 – 2025, OWOW representatives attended the following trade show event:

- BFG Marketplace Expo, Reno, NV, October 2024 – Retailer Show

4.4 TRAINING AND OUTREACH FOR RETAILERS AND CONSUMERS

IPM Advocates and local municipal agency staff/consultants conduct OWOW outreach activities to educate pesticide 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 sheets distributed).

IPM Advocates and local municipal agency staff/consultants provided OWOW services to approximately 281 participating retailers throughout California. Table 3 provides a summary of outreach activities between July 2024 and June 2025, which were funded by local municipalities' stormwater programs

Table 3. Summary of Outreach Activities

Audience	OWOW Outreach Activity
Retailers	281 retailers participated in the OWOW program
	48 trainings conducted
	266 retail staff trained
Consumers	30 in-person classes, presentations, or workshops (1,025 persons in attendance)
	130 public outreach events
	6,296 person interactions

IPM Advocates and local municipal agency staff/consultants conducted 48 trainings and trained 266 retail store staff. The training topics include IPM and strategies for managing pest problems with less-toxic and eco-friendly products. Additionally, of the 136 public outreach events to consumers, 30 were classified as in-person classes, presentations, or workshops, reaching a combined total of 1,025 attendees. The remaining consumer outreach, most often in the form of tabling at public outreach events, included 106 reported events, with 6,296 person interactions.

4.5 RETAILER E-NEWSLETTER

After receiving training, retail store associates can opt into the OWOW Retailer e-Newsletter. This biannual newsletter is emailed at the beginning of spring and fall and 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. The newsletter is delivered to 301 retail associates.

Section 5. Program Development

To support a growing demand for OWOW outreach material and IPM Advocates, efforts are underway to advance the OWOW program.

5.1 UPDATES IN PROGRESS

Fact Sheets

In 2025, the *Moles, Voles, and Gophers*, *Finding a Pest Control Company*, and *Snails and Slugs* fact sheets are being reviewed by subject matter experts and a public communications specialist. Additionally, these fact sheets will be translated into Spanish and made available on the OWOW website. Once these fact sheet updates are complete, 14 of the 18 OWOW fact sheets will have Spanish translations. While not considered part of the fact sheet series, the 10 Most Wanted brochure will also be updated and translated into Spanish.

Program Planning

To support statewide scalability and long-term sustainability, the OWOW program is currently undergoing a structured planning process. This effort includes a Subscriber Survey and market research to inform the development of a comprehensive Program Plan that defines the program's goals, strategies, and implementation tactics. The Program Plan will also outline priority actions to guide execution. This program planning initiative is expected to be completed in early 2026.

The primary objective of the Program Plan is to promote consistency and uniformity in OWOW program implementation while increasing flexibility to support diverse implementation across California.

5.2 FUTURE CONSIDERATIONS

IPM Advocate Training Program

In 2022, CASQA began developing an outline for the IPM Advocate Training Program. In September 2023, CASQA met with Department of Pesticide Regulation (DPR) representatives to discuss collaboration and funding opportunities for the OWOW program. The development of an IPM Advocate Training Program will require outside funding support and collaboration with partners such as UC-IPM. Work on advancing the IPM Advocate Training Program is on hold pending the outcomes of the Program Plan, which is currently in development.

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

ANT CONTROL IS EASY AS 1–2–3!

1. Seal the source

- Store food in sealed containers
- Caulk and weatherstrip cracks and gaps

2. Bait them

- Use bait stations and sticky traps, which are more effective than sprays
- Choose a bait station with borax (tetraborate decahydrate) or hydramethylnon

3. Monitor

- After ants are gone, watch for new ant activity
- To avoid a new ant invasion, spread desiccating dust in areas where you see ants
- Avoid sprays, which only temporarily get rid of ants

Argentine ants are frequent invaders in California homes. Their small size (1/8 inch) allows them to enter the home through cracks and crevices. They typically arrive 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

1. Find what ants are after (usually food or water) and where they are entering the room (usually through a crack in the wall).
2. Spray lines of ants with soapy water and wipe up. Clean up any food or spills.
3. Block entry points temporarily with a smear of petroleum jelly or a piece of tape.
4. If you can't find an entry point, 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.*)

TIPS FOR USING ANT BAITS

Bait stations are much safer for humans, pets, and the environment than sprays. Ants carry small quantities of bait back to the nest to share, reducing the local ant population.

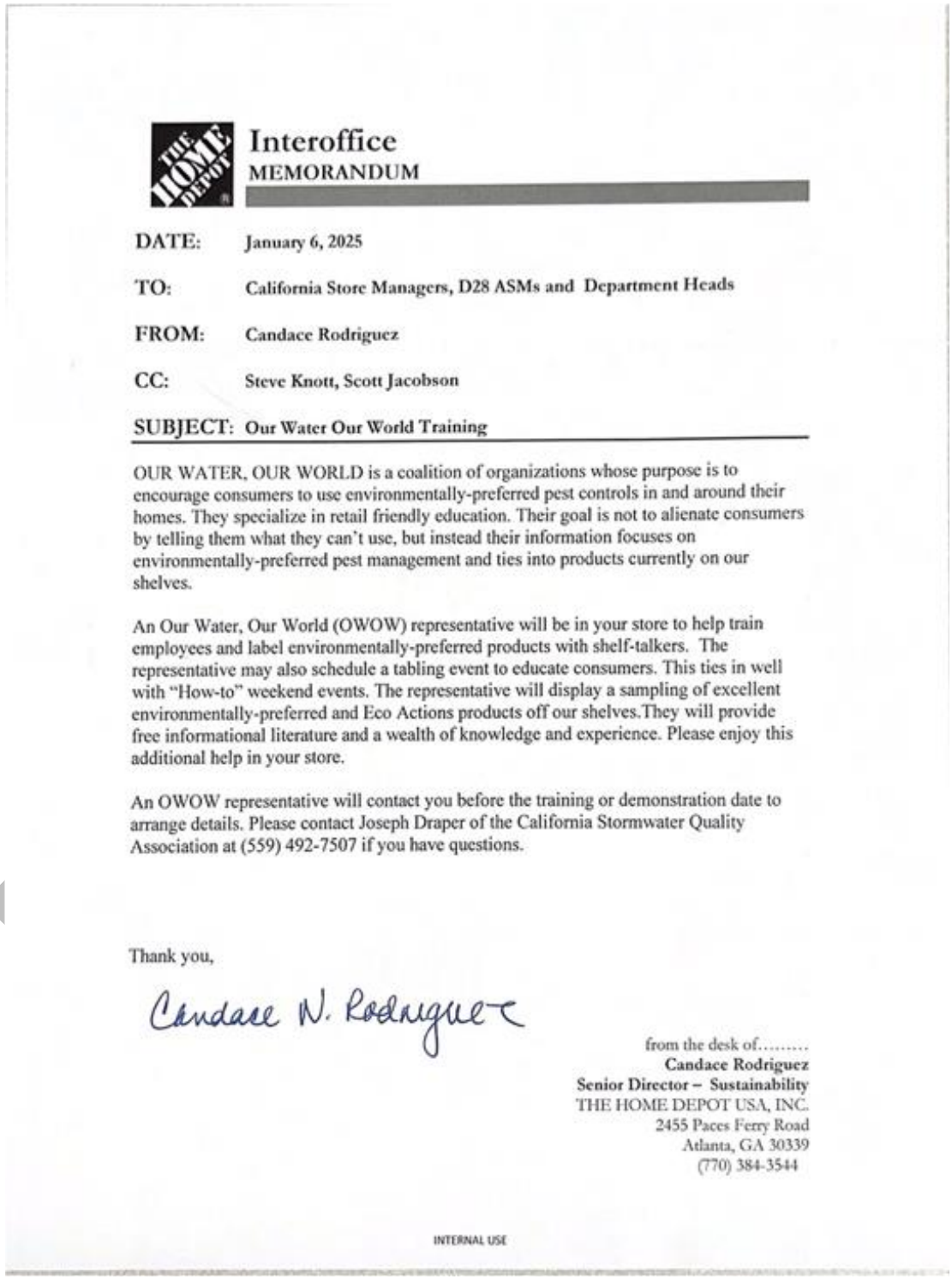
- Use baits with active ingredients borax/tetraborate decahydrate. Bait stations with hydramethylnon should be enclosed.
- Argentine ants change their food preferences frequently. If one bait is not working, try another type. Wait at least a day to see if ants take the bait.
- Place bait stations out of reach from children and pets. Do not spray insecticide around the bait; it will repel the ants.
- Baits may take several weeks to kill the ants. At first you may see more ants coming to the bait, but after a few days to a week you should see fewer ants.
- When ants are gone, remove the bait so you don't attract more ants. Return enclosed bait stations to the original box to save and use again. Put the box inside a sealed plastic bag, and store away from children and pets.

OUR WATER OUR WORLD

Choose eco-friendly products for your home and garden. Look for this symbol before you buy.

Figure A2: Ants Fact Sheet (Front)

Appendix B: The Home Depot Support Letter



Interoffice
MEMORANDUM

DATE: January 6, 2025

TO: California Store Managers, D28 ASMs and Department Heads

FROM: Candace Rodriguez

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 environmentally-preferred 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 environmentally-preferred 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 environmentally-preferred 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 environmentally-preferred and Eco Actions 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.

An OWOW representative will contact you before the training or demonstration date to arrange details. Please contact Joseph Draper of the California Stormwater Quality Association at (559) 492-7507 if you have questions.

Thank you,

Candace N. Rodriguez

from the desk of.....
Candace Rodriguez
Senior Director – Sustainability
THE HOME DEPOT USA, INC.
2455 Paces Ferry Road
Atlanta, GA 30339
(770) 384-3544

INTERNAL USE

California Stormwater Quality Association®

Dedicated to the Advancement of Stormwater Quality Management, Science and Regulation

2025 Pesticides Annual Report

Prepared by the California Stormwater Quality Association

August 2025

Preface

ADVANCING SUSTAINABLE STORMWATER MANAGEMENT

The California Stormwater Quality Association (CASQA) is a nonprofit corporation that advances sustainable stormwater management protective of California water resources. With well over 2,000 members, CASQA's membership is comprised of 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 34 million people in California.

CASQA's *Vision for Sustainable Stormwater Management*[1] (Vision) defines the actions needed to manage stormwater as an essential component of the state's water resources, support human and ecological needs, protect water quality, and enhance and restore California's waterways. There are four guiding principles to achieve this Vision. Like the legs of a chair, each Principle is essential and all four must be in place to support the whole.

Principle #1: Program Implementation: Projects and programs that use stormwater as a resource, protect water quality and beneficial uses, and efficiently minimize pollution are critical for sustainable stormwater management. Stormwater capture and true source control (identifying and mitigating a pollutant at its source) are the primary drivers of these solutions, with effective BMPs providing an important supportive role.

Principle #2: Permits, Regulations, and Legislation: Permits, regulations, and legislation need to focus on effectiveness and desired outcomes to support sustainable stormwater management. Regulatory and legislative actions must align with and support the other components of the Vision – advancing stormwater capture, true source control, effective BMPs, increasing public education and awareness focused on stormwater as a resource, and securing funding to support these solutions.

Principle #3: Public Education: Public awareness, understanding, and support is essential to sustainable stormwater management. The key shift is viewing stormwater as a resource that must be protected and integrated into overall water resource management.

Principle #4: Funding: Significant financial investment is required to achieve sustainable stormwater management. Stormwater is the most underfunded portion of the water sector and substantial funding is needed to bring these solutions forward.

2025 PESTICIDES ANNUAL REPORT

This report, *2025 Pesticides Annual Report,* advances Principle #1 by addressing pesticide pollution through source control solutions. CASQA has identified Current Use Pesticides as a Water Quality Priority, requiring solutions at a statewide scale. To advance true source control for pesticides, 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. This report describes CASQA's regulatory engagement activities from July 2024 through June 2025.

[1] https://www.casqa.org/wp-content/uploads/2022/10/final_-_vision_for_sustainable_stormwater_management_-_10-07-2020.pdf

Acknowledgements

This report was prepared by CASQA with consulting services from Stephanie Hughes and Tammy Qualls.

Funding to support this work was provided from Alameda Countywide Clean Water Program, Contra Costa Clean Water Program, Fairfield-Suisun Urban Runoff Management Program, Marin Countywide 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 the Solano Stormwater Alliance.

Disclaimer

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Table of Contents

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, several pesticides are present in California urban water bodies at concentrations above aquatic toxicity thresholds.[2] Our member agencies face substantial costs to comply with pesticides-related Total Maximum Daily Loads (TMDLs), California State Water Board Toxicity Provisions, and additional permit requirements. Throughout California, more municipalities will be subject to similar requirements, as additional TMDLs and Basin Plan Amendments are adopted (Table 1). Meanwhile, while local agencies in California have authority over their own use of pesticides, they are pre-empted by state law from regulating pesticide use by consumers and businesses to address these sources of pollution in stormwater.

Consistent with CASQA's Vision for Sustainable Stormwater Management (Vision), our efforts focus on reducing pesticide pollution at the source. Minimizing pesticide pollution before it can occur, as opposed to attempting to remove pesticides from the environment, is essential to sustainable stormwater management. True source control (the elimination of a pollutant at its source) and the use of alternative products offers the most effective and economical approach to eliminating pesticides that impair the beneficial uses of California's waterways.

[2] California Integrated Report (Clean Water Act Section 303(d) List and 305(b) Report)
https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html

Table 1. California TMDLs, Statewide Water Quality Control Plans, and Basin Plan Amendments Addressing Currently Registered Pesticides and/or Toxicity in Urban Watersheds[3, 4, 3]

Water Board Region	Water Body	Pesticide	Status
Statewide	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[6]	Approved
	Toxicity Provisions (Inland Surface Waters and Enclosed Bays & Estuaries)	Toxicity	Approved May 2023[7]
San Francisco Bay (Region 2)	All Bay Area Urban Creeks	All Pesticide-Related Toxicity	Approved
Central Coast (Region 3)	Santa Maria River Watershed	Pyrethroids, Toxicity	Approved
	Lower Salinas River Watershed	Pyrethroids, Toxicity, Malathion, Chlorpyrifos, Diazinon9	Amended by Central Coast Water Board, June 2024[8]
	San Lorenzo River Watershed (Santa Cruz)	Chlorpyrifos[9]	Approved
Los Angeles (Region 4)	Marina del Rey Harbor	Copper (Marine antifouling paint)[10]	Approved
	Oxnard Drain 3 (Ventura County)	Bifenthrin, Toxicity	EPA-Adopted Technical TMDL
	Calleguas Creek, its Tributaries and Mugu Lagoon	Water & Sediment Toxicity[7]	Approved

[3] Excludes pesticides that are not currently registered in California, such as organochlorine pesticides.
[4] https://www.waterboards.ca.gov/water_issues/programs/tmdl/
[3] https://www.waterboards.ca.gov/water_issues/programs/tmdl/2020_2022state_ir_reports_final/apx_d_adopted_tmdls_list.pdf
[6] These TMDLs/Plan provisions can trigger toxicity testing stressor source identification studies, and additional follow up, even when toxicity is linked to current pesticides.
[7] https://www.waterboards.ca.gov/water_issues/programs/state_implementation_policy/tx_ass_cntrl.html
[8] https://www.waterboards.ca.gov/centralcoast/water_issues/programs/tmdl/docs/salinas/oppesticides/
[9] Use prohibited in urban areas (diazinon) or no meaningful use due to use limitations (chlorpyrifos).
[10] Primarily addresses pesticides that are directly discharged and should not ordinarily appear in stormwater (marine antifouling paint).

Water Board Region	Water Body	Pesticide	Status
		Diazinon & Chlorpyrifos[9]	
	McGrath Lake (Ventura County)	Sediment Toxicity[6]	Approved
	Colorado Lagoon (Long Beach)	Sediment Toxicity[6]	Approved
	Dominguez Channel; Greater Los Angeles & Long Beach Harbor	Sediment Toxicity[6]	Approved
	Ballona Creek Estuary	Sediment Toxicity[6]	Approved
Central Valley (Region 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 (Region 6)	Pesticide Discharge Prohibition	All Pesticides	Approved[11]
Santa Ana (Region 8)	Newport Bay	Copper (Marine antifouling paint)[10]	Adopted by Santa Ana Water Board[12]
	San Diego Creek, and Upper and Lower Newport Bay	Toxicity (Diazinon & Chlorpyrifos)[9]	EPA-Adopted Technical TMDL
San Diego (Region 9)	Shelter Island Yacht Basin (San Diego Bay)	Copper (Marine antifouling paint)[10]	Approved
	Chollas Creek	Diazinon[9]	Approved

[11] https://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/pesticidebpa.shtml
[12] https://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/tmdl_metals.html

Section 2. Pesticide Program Activities

The following pesticide program activities support the development of 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.

2.1 REGULATORY TRACKING

CASQA actively tracks a range of regulatory activities to identify potential issues and opportunities for engagement. This effort includes reviewing Federal Register and DPR notices to flag regulatory actions that may affect high priority active ingredients requiring further review. Through this tracking, CASQA can identify gaps in current procedures and highlight potential urban runoff-related impacts. CASQA also reviews relevant regulatory actions, guidance documents, and work plans from EPA and DPR to assess their alignment with urban runoff concerns and determine whether additional input is warranted.

Activities at the State and Regional Water Boards are monitored to identify opportunities for improving TMDLs, Basin Plan Amendments, and National Pollutant Discharge Elimination System (NPDES) permits. A monthly summary titled *Pesticides Regulatory Action Items* documents regulatory tracking efforts and informs future engagement. This summary is distributed to the CASQA True Source Control Subcommittee. See Attachment 1: Pesticides Regulatory Action Items for the most recent update.

2.2 REGULATORY COMMUNICATIONS

To maintain strong working relationships and to provide early input, CASQA maintains communications with both EPA and DPR. These communications may be formal through comment letters in response to regulatory actions or informal to share areas of concern or collaboration. The purpose is to provide information sharing about immediate issues or ongoing efforts and inform EPA and DPR about issues confronting the stormwater community. Early communication on upcoming proceedings can reduce the need for time-intensive letters and add context.

2.3 EDUCATION

Through presentations and discussions with EPA, DPR, Water Boards, and CASQA members, CASQA provides education on the urban runoff-related challenges of the existing pesticide regulatory process, educational efforts to support process improvements, and report on achievements. Through these educational activities, CASQA encourages 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, and inform development of new pesticides by manufacturers and selection of pesticides by professional users.

2.4 PARTICIPATION IN FEDERAL AND STATE ADVISORY GROUPS

When opportunities allow, CASQA may serve on policy and scientific advisory committees convened by EPA, DPR, and the Water Boards. Through this participation, CASQA can contribute technical information, identify data gaps, and foster collaboration in the development of more effective pesticide regulatory system. CASQA closely follows relevant advisory groups such as EPA's Pesticide Program Dialogue Committee (PPDC) and DPR's Pest Management Advisory Committee (PMAC).

2.5 PESTICIDE WATCH LIST

To prioritize pesticide regulatory efforts, CASQA updates its Pesticide Watch List annually based on a combination of new scientific and regulatory literature and data analysis of the California Water Boards Statewide Ambient Monitoring Program, DPR, the U.S. Geological Survey (USGS), DPR, and MS4 monitoring. The Pesticide Watch List prioritizes pesticides based on their current and potential impacts to water quality from urban uses.

2.6 PARTNERSHIPS

CASQA and the Bay Area Clean Water Agencies (BACWA) continue to work on parallel efforts to effect long-term systemic changes in the pesticide regulatory process. CASQA and BACWA combine resources to track stormwater and wastewater priorities into a unified monthly Pesticides Action Plan. Partnering with BACWA to coordinate the review of EPA and DPR pesticide regulatory actions allows for increasing the capacity and value of our collective pesticide program activities.

Section 3. Annual Program Implementation

3.1 REGULATORY ENGAGEMENT

At any given time, there are dozens of pesticides with current or pending actions before EPA or DPR. Addressing these regulatory concerns is critical because some pesticides may pose an immediate threat to water quality and create compliance risks for MS4s. In addition, regulatory decisions made by EPA and DPR often remain in place for many years – typically revisited only once every fifteen years – making early engagement essential to avoid long-term consequences for stormwater programs. Our engagement with EPA and DPR seeks to reinforce source control measures and alternatives as an effective strategy to reduce pesticide pollution.

Table 2 summarizes recent CASQA and partner activities in responding to regulatory actions, along with the latest outcomes. For additional details on ongoing pesticide registrations, see Attachment 2: Regulatory Participation Outcomes and Effectiveness Assessment Summary Tables.

Table 2. Recent Regulatory Activities and Outcomes

Regulatory Action or Concern	Activity	Partner Support	Outcomes and notes
General Services Administration (GSA) Regulation.gov website	Comment Letter: January 29, 2021	BACWA	***Success.*** The 2021 version of Regulations.gov limited public access and impaired CASQA's ability to access data and provide comments. CASQA submitted a comment letter to GSA identifying four issues with the regulations.gov website. While two issues were handled promptly in 2022, two issues remained that significantly hindered docket searches. In 2024, GSA updated the system to respond to all CASQA's comments. All EPA OPP documents are now accessible and searchable on Regulations.gov.
Carbaryl Proposed Interim Decision	Comment Letter: February 14, 2023		***Success.*** CASQA provided comment in support of EPA's proposed label language mitigations for carbaryl. These mitigations include use deletions, general environmental protection measures (including water protection statements), and updated environmental hazard statements. Further, CASQA recommended label mitigation measures for consistency. These recommendations included clarification of application statement on pervious surfaces. CASQA also recommended that EPA correct the application rates in the PID mitigations to be consistent with the mitigations stated in the November 2022 Biological Evaluation Memorandum. EPA included all label language mitigation and clarifications in the Final Biological opinion as well as the application rate correction.
Carbendazim (Thiophanate methyl) Interim Decision	Comment Letter: March 23, 2023		***Partial Success.*** EPA included many of the proposed mitigation measures outlined in the PID and our comment letter. This included a reduction in active ingredient in paint and building materials from 3,450 ppm to 2,000-2,500ppm. CASQA also recommended that EPA adapt its existing standard surface water quality modeling approach by modifying the Residential Scenario to enable risk assessment for antimicrobial pesticides, such as carbendazim, that are used outdoors for protection of building materials. However, EPA did not respond to our recommendation.

Regulatory Action or Concern	Activity	Partner Support	Outcomes and notes
Endangered Species Act (ESA)	Comment Letter: February 13, 2023 & June 16, 2023	BACWA	***Partial Success.*** Endangered species habitats frequently overlap with urban areas, and the ESA plays a critical role in shaping mitigation measures to protect these species. Historically, EPA has focused its ESA implementation efforts on agricultural pesticide use. In 2023, CASQA submitted two comment letters addressing ESA implementation and pesticide registrations. In 2024, the EPA announced a targeted analysis of residential pesticide use and issued a proposed guidance for antimicrobial pesticides, which included considerations for outdoor urban applications. This marks a notable shift toward incorporating residential and urban pesticide uses into the ESA review process, reflecting a longer-term evolution in EPA's approach. Furthermore, on January 15, 2025, the EPA and the U.S. Fish and Wildlife Service (USFWS) signed a joint statement of cooperation to support data sharing and process alignment. This interagency collaboration is expected to improve coordination and outcomes under the ESA.
DPR Draft Strategic Plan	Comment Letter: November 9, 2023		***Partial Success.*** CASQA provided comment in support of DPR's plan for greater engagement, collaboration, and transparency, including a commitment to Diversity, Equity, and Inclusion (DEI). In addition, CASQA recommended that DPR revise their pesticide prioritization process to reflect a group-based approach, such as by pest or application type, rather than by active ingredient. The final DPR Strategic Plan kept all goals and details related to engagement and transparency, and DEI. The section of the plan related to pesticide prioritization was revised to focus on a science-based approach, which can be considered consistent with our recommended group-based approach. DPR is actively meeting goals within its updated strategic plan. In 2025, DPR held a pesticide prioritization process workshop and added transparency by creating a Continuous Evaluation and Mitigation webpage detailing its current actions to continuously evaluate pesticides and mitigations to protect people and the environment.

Regulatory Action or Concern	Activity	Partner Support	Outcomes and notes
Chlorothalonil	Comment Letter: January 17, 2024		***Partial success.*** EPA agreed that consumer product directions should be in smaller units that make sense to consumers rather than pounds active ingredient per acre. However, EPA did not extend the rain advisory from 24-hour to 48-hour, as requested by CASQA. CASQA requested EPA to include mitigation measures for the antimicrobial uses of chlorothalonil, specifically uses that occur outdoors, with potential exposure to rain, such as paints, coatings, and wood treatments. EPA responded that they do not regulate product labels for pesticide-treated products, because these are part of a "treated article exemption" for pesticide active ingredients that are intended to present the article itself. EPA stated that the "treated article exemption" gap is an area they will consider in the future.
Pesticides Label White Paper	Comment Letter: March 13, 2024	BACWA, NACWA, SFBRWQCB	***Pending.*** CASQA is recommending that EPA: • Harmonize pesticide labeling practices with those developed by the World Health Organization and United Nations, including standards for font and pictogram usage and sizing. • Simplify pesticide label language to better accommodate the reading level of adults in the United States. Provide pesticide labels in multiple languages.
IPBC (3-Iodo-2-propynyl butylcarbamate) Draft Risk Assessment (RA)	Comment Letter: July 19, 2024	BACWA	***Pending.*** The Draft RA acknowledged several data gaps in the IPBC ecotoxicity dataset: • Chronic ecotoxicity endpoints for freshwater invertebrates • Ecotoxicity endpoints for aquatic vascular plants • Ecotoxicity endpoints for benthic species CASQA recommended that EPA require registrants to submit the missing ecotoxicity data as noted above for freshwater invertebrates, aquatic vascular plants, and benthic species, and reevaluate risk to aquatic life with this information included.

Regulatory Action or Concern	Activity	Partner Support	Outcomes and notes
Malathion PID	Comment Letter: September 16, 2024		***Pending.*** The Proposed Interim Decision's (PID's) ecological risk assessment conclusions were based on a limited analysis included in the March 2024 Memorandum. While the March 2024 Memorandum was primarily focused on endangered species, but did address non-listed species, the aquatic risk assessment was limited to environmental exposure and risk associated with only three crops: corn, cotton, and citrus. The PID does not address urban and residential uses, even though residential uses account for 24 percent of overall malathion annual use. In a comment letter, CASQA recommended EPA prepare a comprehensive ecological risk assessment that is consistent with EPA's Guidelines for Ecological Risk Assessment and incorporate the findings into a revised PID. CASQA further recommended that EPA identify mitigation measures to effectively address the risks posed to aquatic life from registered outdoor, non-agricultural uses of malathion, with special attention on pollutant fate and transport in runoff from impervious surfaces to surface waters. Lastly, CASQA commented that the toxicological endpoints in the March 2024 Memorandum did not match EPA's Aquatic Life Benchmarks (ALBs) for malathion. In each case, the listed ALB is lower than the March 2024 Memorandum toxicity endpoint. The use of higher-than-recommended toxicological endpoints would likely result in underestimation of potential risk to aquatic life.
Comparison of Aquatic Life Protective Values Developed for Pesticides Under the FIFRA and the CWA	Comment Letter: January 30, 2025 & March 3, 2025		***Pending.*** In March 2025, CASQA submitted a letter describing the need for EPA OPP actions to better align with water quality criteria in the Clean Water Act, noting that incongruence can impact permit compliance for stormwater agencies.
DPR Pesticide Prioritization Process	Comment Letter: May 7, 2025		***Pending.*** In May 2025, CASQA submitted a comment letter in support of DPR's proposed pesticide prioritization process, including recommendations to develop a work plan-like approach to prioritization similar to Department of Toxic Substances Control's Safer Consumer Products Program.

Regulatory Action or Concern	Activity	Partner Support	Outcomes and notes
Isocyloseram Proposed Registration if a New Active Ingredient	Comment Letter: June 10, 2025	BACWA	***Pending.*** Isocycloseram, a new pesticide with proposed urban outdoor uses, appears to be more toxic than existing pesticides (including pyrethroids) with parallel uses. The proposed perimeter band spray label language for around structures allows for a seven-foot application band, irrespective of the permeability of the surface type surrounding the structure. For context, from 2019 to 2020, EPA worked extensively with pyrethroid registrants to develop perimeter band label language that was both effective against pests as well as protective of aquatic life. This reduced the band spray width for some applications on impervious surfaces to be just 1-inch wide. CASQA has recommended that EPA require pesticide registrants to submit revised labels for urban pesticides, using a process similar to the development of the pyrethroid labels. Further, because the proposed labels for isocycloseram allow product use in and around sewers and do not prohibit use in storm drains, CASQA recommended that EPA clarify urban labels so that isocycloseram is not applied in or around storm drains.

3.2 PARTICIPATION IN FEDERAL AND STATE ADVISORY GROUPS

As presented in Table 3, CASQA remains actively involved with various agencies and advisory groups that affect urban pesticide use and pest management. In addition to the PPDC and PMAC, new advisory groups are currently being proposed by DPR, such as a Scientific Advisory Committee and an Environmental Justice Advisory Committee.

Table 3. 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. The PPDC holds biannual public meetings. At the June 2025 meeting, key CASQA topics included: • OPP provided an extensive update on their 2025 goals, including proposed new active ingredients and priority and process improvements; • An update from the PPDC Label Reform Workgroup, with recommendations to support improvements to the review and approval process, quality and consistency of review and approval of labeling, and adoptability by industry and consumers; • An update on ESA Outreach and Education.
DPR's Pest Management Advisory Committee (PMAC)	Victoria Kalkirtz (co-chair of the True Source Control Subcommittee) participates on the 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. In February 2025, the PMAC considered 21 research grant proposals.

3.3 UPDATED PESTICIDE WATCH LIST

A key tool for identifying near-term regulatory concerns is the Pesticide Watch List. To maintain the Pesticide Watch List, scientific literature, government reports, and monitoring studies are reviewed 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). The Pesticide Watch List, as shown on Table 4, serves as a management tool to help focus efforts on the most important pesticides from the perspective of MS4 agencies.[13] The Pesticide Watch List serves as a benchmark to prioritize activities, but it is not based on a comprehensive review of all pesticides. As a result, during regulatory tracking, 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.

The 2025 investigation assessed Watch List chemicals, incorporating information from the following surface water monitoring programs:

- **DPR**: (1) Study 329. *Surface Water Monitoring for Pesticides in Urban Areas of Northern California (FY2023-2024*), McClanahan 2025 and (2) Study 320. *Ambient Surface Water and Mitigation Monitoring in Urban Areas in Southern California (FY2022-2023*), Nepal 2024.

[13] The first Watch List was published by the UP3 in 2005.

- **San Francisco Estuary Institute (SFEI)**: Vuckovic, D et al. Pharmaceuticals, pesticides, and ultraviolet filters in wastewater discharges to San Francisco Bay as drivers of ecotoxicity. Environmental Pollution 336. SFEI Contribution No. 1153. San Francisco Estuary Institute, 2023.
- **Delta Regional Monitoring Program:** Current Use Pesticides monitoring data (available from CEDEN).
- **MS4/NPDES monitoring**: the Bay Area Municipal Stormwater Collaborative and the Southern California Stormwater Monitoring Coalition.
- **Additional study**: Li, Zhong-Min et al. 2025. A survey of 27 quaternary ammonium compounds in surface water, drinking water, stormwater runoff, swimming pool water, and rainwater from New York State, USA. Water Research 282 (2025) 123736.

The available data were compared to aquatic toxicity thresholds, represented by Aquatic Life Benchmarks established by EPA based on Ecological Risk Assessments. For the DPR data sets, this comparison was performed by DPR and reported in the associated study reports. Following the review of monitoring data, additional factors were checked, including section 303(d) impaired waters listings and pesticide product uses. Based on the review, the following Watch List updates were implemented:

- **Confirmation of Priority 1 pesticides.** All of the pesticides listed under Priority 1 exceeded EPA's Aquatic Life Benchmarks in the latest monitoring data provided by DPR for Southern California and Northern California urban watersheds. These pesticides continue to be the highest concern.
- **Quaternary Ammonium Compounds (QACs).** QACs are antimicrobial pesticides that are used in many products, including disinfectants and algaecides. The previous Watch List focused on one key QAC family, ADBAC.[13] Since then, several studies have looked more closely at QACs in stormwater, including Lin, et al. 2025. These studies identified numerous additional QAC families in stormwater, often at concentrations higher than swimming pool water or wastewater. In response, the Watch List has been updated to include the general category of QACs, with specific QAC families of interest listed in the footnote.
- **Removal of Dacthal (DCPA) from Watchlist.** In August 2024, EPA issued an emergency order to remove all registered uses of Dacthal due to significant concerns for human health.
- **Addition of Isocycloseram to "Keep Watching" section of the Watch List.** Isocycloseram is a new pesticide that appears to be more toxic to aquatic invertebrates than existing pesticides for parallel uses. Its approved use on outdoor impervious surfaces – including applications up to seven feet wide for structural perimeter treatments – is of particular concern.
- **Addition of Veratridine to "Keep Watching" section of the Watch List.** Veratridine is a new pesticide that is expected to be a pyrethroid replacement. The limited data available indicates that veratridine may have aquatic toxicity characteristics.

[13] Alkyl Dimethyl Benzyl Ammonium Chlorides (ADBAC) include a family of 21 different quaternary ammonium pesticides.

Table 4. Pesticide Watch List

Priority	Basis for Priority Assignment	Pesticides
1	Monitoring data exceeding benchmarks; linked to toxicity in surface waters; urban 303(d) listings	Diuron Fipronil Imidacloprid Malathion Pyrethroids with significant monitoring data: • Bifenthrin • Cyfluthrin • Cyhalothrin (lambda • Cypermethrin • Deltamethrin/Tralomethrin • Esfenvalerate/Fenvalerate • Permethrin
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 Chlorantraniliprole Clothianidin (Neonic) Copper pesticides[14] Creosote (PAHs) Indoxacarb Pendimethalin Polyhexamethylenebiguanidine (PHMB)[14] Pyrethroids with little or no monitoring data[15] Simazine Thiamethoxam (Neonic, degrades into Clothianidin) Zinc pesticides (including Ziram)[14] 2,4-D[16]
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 Bensulide Chromium pesticides Dichlorvos (DDVP) Naled Naphthenates Silver pesticides[14] 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	Antimicrobials in paints/coatings Abamectin Quaternary Ammonium Compounds (QACs)[14, 17] Azoxystrobin *Bacillus sphaericus*[14] *Bacillus thuringiensis* (Bti)[14] Bromacil N-Bromosulfamates[14] Busan-77[14] Methoprene[14] Mineral bases, weak[14] Mineral oil (aliphatic)[14] Methoxyfenozide Methyl anthranilate[14] MGK-264 Novaluron Oryzalin Oxadiazon Oxyfluorfen

[14] Used in pools, spas, and/or fountains.
[15] Pyrethroids *with little or no* urban monitoring data include Allethrins, Cyphenothrin, Etofenprox, Flumethrin, Imiprothrin, Metofluthrin, Momfluorothrin, Prallethrin, Sumethrin [d-Phenothrin], Tau-Fluvalinate, Tefluthrin, and Tetramethrin. Etofenprox is included in SoCal analytes but has not been detected; there continue to be no NorCal monitoring data for etofenprox.
[16] These pesticides may have dioxins as contaminants; there are several bay and estuary 303(d) listings for dioxin compounds.
[17] QACs found in stormwater include DDACs, ADBAC, ATMACs, BACs, EBAC, and others. Discharges from pools, spas, and fountains can be a source of QACs in stormwater but the main sources of QACs in stormwater are undetermined at this time.

Priority	Basis for Priority Assignment	Pesticides	
		Carbaryl	PCNB
		Chlorinated isocyanurates[2]	Peroxyacetic acid[14]
		Chlorine[14]	Phenoxy herbicides[18]
		Chlorine dioxide[14]	Piperonyl butoxide (PBO)
		Chlorfenapyr	Prodiamine
		Chlorothalonil[16]	Propiconazole
		Chlorsulfuron	Pyrethrins
		DCOIT[14]	Pyriproxyfen[14]
		DDAC[14]	Sodium bromide[14]
		Dichlobenil	Sodium chlorite[14]
		Dithiopyr	Sodium percarbonate[14]
		Halohydantoins[14]	Sodium tetraborate[14]
		Hydramethylnon	Spinosad/Spinetoram
		Hypochlorites[14]	Sulfometuron-methyl
		Imazapyr	Tebuconazole
		Isoxaben	Terbuthylazine[14]
		Mancozeb	Triclopyr
		Methomyl	Triclosan
			Trimethoxysilyl quats
5	Frequent questions from partners[19]	Glyphosate Metaldehyde	
Keep Watching	Urban pesticides that may threaten water quality depending on approved urban use patterns.	Acetamiprid (Neonic) Cyantraniliprole Dinotefuran (Neonic) Flupyradifurone (Neonic-like) Sulfoxaflor (Neonic-like)	Isocycloseram Veratridine (pyrethroid replacement)
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	

3.4 PARTNERSHIPS

CASQA and BACWA continued to combine resources to track stormwater and wastewater priorities into a unified monthly pesticide action plan (see Attachment 1: Pesticides Regulatory Action Items for the most recent update). In July, CASQA and BACWA jointly met with DPR to strengthen relationships and receive updates to their Sustainable Pest Management (SPM) initiatives. CASQA will continue to seek opportunities to support DPR's efforts across the SPM focus areas, and work with BACWA on areas of shared priority.

[18] MCPA, 2,4-DP, MCPP(Mecoprop), Dicamba. 2,4-D is listed separately.
[19] Chlorpyrifos and Diazinon, while often asked about, have near zero or no urban uses, respectively.

Section 4. Assessment of Progress

Since the mid-1990s, CASQA (and its predecessor organization the Stormwater Quality Task Force) has worked toward a future in which the pesticide regulatory structure at the state and federal level regulates pesticide uses to protect water quality. CASQA's long-term pesticide program activities focus less on specific pesticides and more on instilling systematic process improvements. A central aspect of achieving these changes involves supporting key initiatives at EPA, DPR, and the Water Boards that make progress toward these changes

4.1 STATE-LEVEL PROGRESS

At the state level, significant progress has been made by DPR in addressing 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.

DPR's transition to Sustainable Pest Management (SPM) offers promising opportunities to reshape how pesticides are used and evaluated in California. SPM is a holistic, systems-based approach that integrates pest control with broader goals related to environmental protection, public health, and economic vitality. DPR released its final SPM Roadmap in January 2023, outlining four key leverage points for urban implementation:[20]

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

Furthermore, in 2014, the State Water Board established an urban pesticides reduction project (now titled the Statewide Urban Pesticide Provisions or UPP) as a top priority under the comprehensive stormwater strategy, known as "Strategy to Optimize Resource Management of Stormwater" or STORMS. CASQA has been actively supporting the development of the UPP since their inception.

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 MS4 permits. The goal is to embody this process in the State's UPP and the Management Agency Agreement (MAA) between DPR and the Water Boards

4.2 FEDERAL-LEVEL PROGRESS

CASQA's engagement with EPA focuses on promoting the standardization in labeling, enhancing modeling of pesticide use and water quality impacts, and ensuring Endangered Species Act (ESA) considerations are incorporated into regulatory decisions. Our regulatory activities, as described by Table 2, show moderate success in addressing pesticide registration decisions. 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. Consequently, further engagement on pesticide registration decisions is necessary to effectively communicate the impacts of urban use pesticides to water quality.

[20] https://www.cdpr.ca.gov/docs/sustainable_pest_management_roadmap/spm_executive_summary.pdf

Section 5. Looking Forward

In the coming year, CASQA will continue to address near-term pesticide concerns and seek long-term regulatory change. In the coming year, CASQA will continue engagement on specific regulatory actions for priority pesticides at the federal level, while continuing to support DPR in their rollout of the SPM initiative and their proposed Pesticide Prioritization Process. The pesticide program's priority focus areas include:

(1) Seek near-term changes in pesticide regulatory actions:

- Support completion of DPR action on fipronil water pollution, including implementation of effective education for professional users regarding restrictions on its outdoor urban use.
- Advocate for the enforcement of DPR's existing mitigation measures for pyrethroids and fipronil and recommend adoption of additional mitigation measures as warranted.
- Support completion of DPR's evaluation of the impacts of neonicotinoid pesticides on aquatic organisms.
- Continue to respond to EPA pesticide registration decisions, including the eight proposed new active ingredients slated for review in the coming fiscal year.

(2) Seek long-term changes in the pesticide regulatory structure:

- Continue 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.
- Continue engagement with DPR regarding the SPM Roadmap specific to urban implementation programs and opportunities.
- Support DPR's proposed pesticide prioritization process as an effective pathway to prioritize pesticides under their continuous reevaluation process.
- Encourage and assist the Water Boards to continue to implement its MAA with DPR to prevent and mitigate pesticide impairments through more effective pesticide regulation.

CASQA will continue to seek opportunities to coordinate on high-priority regulatory actions with the Water Boards and other water quality stakeholders to take advantage of efficiencies and increased effectiveness. Attachment 1: June Pesticides Regulatory Action Items details the prioritization and estimated schedule of future pesticide regulatory items, which serves as the basis for planning future pesticide regulatory activities.

Attachment 1: Pesticides Regulatory Action Items

Estimated CA DPR Schedule (Next 12 months):

Priority	Topic	Estimated Due Date	Wastewater / Stormwater	Item	Water Quality Issue
2	Non-agricultural neonics (acetamiprid, clothianidin, dinotefuran, & thiamethoxam)	Q2 2025		DPR Draft Human Health Assessment	High toxicity, monitoring data, 303(d) listings
2	Non-agricultural neonics (acetamiprid, clothianidin, dinotefuran, & thiamethoxam)	Q3 2025		DPR Draft Environmental Assessment for aquatic organisms	High toxicity, monitoring data, 303(d) listings

Estimated US EPA Schedule (Next 12 months):

Priority	Topic	Estimated Due Date	Wastewater / Stormwater	Item	Water Quality Issue
unknown	New Antimicrobials	various		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
2	2,4-D	2025		PID	Pesticide with dioxins impurity
1	Fipronil	2025		PID	Monitoring data; Anticipated 303(d) listings
1	Imidacloprid	2025		Re-release of PID (ESA process)	High toxicity, monitoring data, 303(d) listings
2	Thiamethoxam	2025		Re-release of PID (ESA process)	High toxicity, monitoring data, 303(d) listings
2 3	Clothianidin	2025		Re-release of PID (ESA process)	High toxicity, monitoring data, 303(d) listings
3	Bioban P-1487	2025		RA	Antimicrobial
3	Bronopol	2025		RA	Antimicrobial
3	Dichlorvos (DDVP)	2025		PID	Organophosphate insecticide
3	Naled	2025		PID	Degrades to DDVP
3	Diuron	2025		PID (Re-release of PID)	303(d) listings
3 4	Isothiazolinones (includes DCOIT, BBIT, BIT, MIT, OIT)	2025		RA	Antimicrobials. Uses include paints.
3 5	Dinotefuran	2025		PID	Neonicotinoid. Toxicity.
4	Dicamba	2025		PID	Toxicity, stormwater monitoring data
4	Peroxy Compounds (peroxyacetic acid)	2025		PID (re-release)	Fountain chemical
4	Sodium percarbonate	2025		PID	Pool chemical
4	Bacillus thuringiensis (Bt)	2025		Draft RA	Used in pools, spas, and fountains.
4	Piperonyl butoxide (PBO)	2025		PID	Pyrethroid synergist

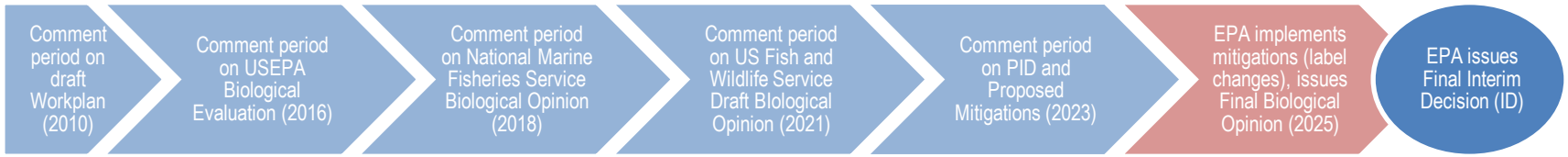
Priority	Topic	Estimated Due Date	Wastewater / Stormwater	Item	Water Quality Issue
4	Pyrethrins	2025		PID	Related to pyrethroids, but less stable and less toxic
4	Tebuconazole	2025		PID	Fungicide
4	MGK-264	Reissue in 2025		PID	Pyrethroid synergist
5	Acetamiprid	2025		PID	Neonicotinoid. Toxicity.

Key: RA = Risk Assessment; PID = Proposed Interim Decision; BE (ESA) = Biological Evaluation (Endangered Species Act)

Attachment 2: Regulatory Participation Outcomes and Effectiveness Assessment Summary Tables

Carbaryl Regulatory Participation Outcome and Effectiveness Assessment Summary Table

Pesticide: **Carbaryl** (EPA–HQ–OPP–2014–0004)
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 Final Biological Opinion and the Required Label Changes document on April 9, 2025.



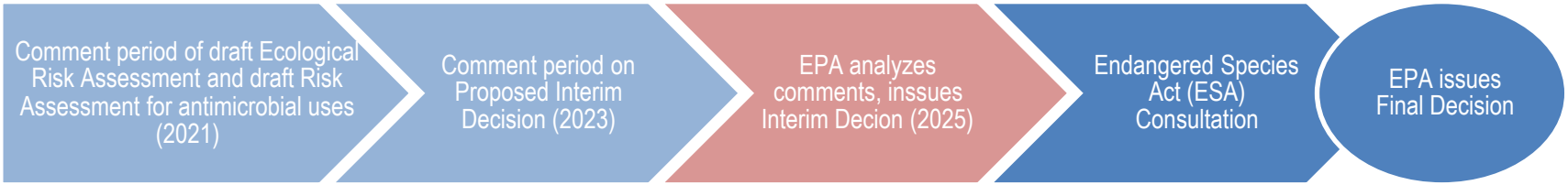
Next steps: EPA will release the final Interim Decision (ID), expected late 2025. (No comment period.)

CASQA Feb 14, 2023 Comments to EPA	EPA Response	Did EPA incorporate CASQA's comment?
Comment #1: CASQA Supports EPA's Proposed Mitigation Measures for Carbaryl CASQA provided support for 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 Final Biological Opinion (BiOp).	Yes.
Comment #2: CASQA Suggests Label Mitigation Measures for Consistency CASQA recommended edits to label mitigation measures for consistency. These recommendations included clarification of	EPA included the reduced rates of application for turf, golf courses, and ornamental plants/trees in the Final BiOp. (Final BiOp, p.40-41)	Yes.

CASQA Feb 14, 2023 Comments to EPA	EPA Response	Did EPA incorporate CASQA's comment?
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: • 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)" • However, the BE Memo documents the pesticide registrants' recommendations [Appendix C. Summary of Mitigations from Carbaryl Registrants for Listed Species, p. 85]: o Ornamental Trees and Plants 1. Maximum Annual Amount: 4 lbs. ai / acre (currently 6 lbs. ai / acre) 2. Maximum Annual Number of Applications: 4 (currently 6 lbs. ai / acre) o Turfgrass (Golf Turf, Sports Fields, Sod Farms, Domestic and Commercial Lawns, Cemeteries, Parks, Campsites, Recreational Areas) 1. Maximum Annual Amount: 10 lbs. ai / acre (currently 16 lbs. ai / acre) 2. Maximum Application Rate: 5 lbs. ai / acre (currently 8 lbs. ai / acre)		

Chlorothalonil Regulatory Participation Outcome and Effectiveness Assessment Summary Table

Pesticide: **Chlorothalonil** (EPA–HQ–OPP–2011–0840)
Use: Fungicide
Why we care: Central Valley Water Board high relative risk; 303(d) listings (dioxins); Contains Clean Water Act Priority Pollutant (Dioxins)
Actions taken: CASQA submitted a comment letter on the Preliminary Ecological Risk Assessment (Sept. 2021) and the Proposed Interim Decision (2023).
Status: EPA released the Interim Decision in January 2025. There is no public comment period at this stage.



Next steps: EPA will release Endangered Species Act (ESA) ESA Consultation.

CASQA 1/17/2024 Comments to EPA	EPA Response	Did EPA incorporate CASQA's comment?

Comment #1: Include mitigation measures for antimicrobial uses
• Include mitigation measures for the antimicrobial uses of chlorothalonil, specifically uses that occur outdoors, with potential exposure to rain, such as paints, coatings, and wood treatments. Label mitigations, similar to those for conventional uses, could include:
  • Advisory Statement: "This product is toxic to fish, aquatic-phase amphibians, and aquatic invertebrates." (PID, Appendix B, p.80)
  • Surface Water Advisory Statement: "Surface Water Advisory. This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils
	"EPA thanks CASQA for their comment on the PID. Due to chlorothalonil's niche use as one of the few remaining preservatives for solvent-based paints, low risks to human health and the extremely conservative nature of the ecological risk assessment for chlorothalonil treated products, EPA did not identify a need to include additional mitigation language on labels for chlorothalonil-treated products. Additionally, EPA does not regulate language on product labels for exempt pesticide-treated products, including chlorothalonil-treated paints or building materials. These products fall under the "treated article exemption" as long as the inclusion of the pesticide active ingredient is only intended to preserve the	The EPA noted that the "treated article exemption" gap is an area they will consider in the future. However, EPA did not include the requested additional mitigation language on chlorothalonil-treated products.

CASQA 1/17/2024 Comments to EPA	EPA Response	Did EPA incorporate CASQA's comment?
and soils with shallow ground water. This product is classified as having a [medium/large] potential for reaching both surface water and aquatic sediment via runoff for several months or more after application." (PID, Appendix B, p.80) • Ecological Incidents Statement: "REPORTING ECOLOGICAL INCIDENTS: For guidance on reporting ecological incidents, including death, injury, or harm to plants and animals, including bees and other non-target insects, see EPA's Pesticide Incident Reporting website: https://www.epa.gov/pesticide-incidents or call (registrant phone number)." (PID, Appendix B, pp.83-84) • Consistent with other recent EPA pesticide label updates, all warning and advisory labels should be provided in both English and Spanish.	material itself and not objects that may be painted with or otherwise come into contact with the treated articles. However, EPA has solicited comments on the issue of including label language on treated paint cans in a recent Advanced Notice of Proposed Rulemaking (ANPRM) that was released for public comment. The Office of Pesticide Programs (OPP) continues to look into this issue. Finally, EPA does not require registrants to use specific units when describing application rates of antimicrobial pesticide products. As these products are often being used in the manufacture of chlorothalonil-treated products, EPA defers to product registrants who are more familiar with the manufacturing settings to choose how application rates should be communicated. That being said, EPA converts all application rates to parts per million (PPM) for the purposes of assessing risk, so product application rates may be compared to one another." (ID, pp.37-38)	
Comment #2: For both conventional and antimicrobial uses, revise label language for consumer use • Revise the proposed label improvements for the maximum annual application rate for consumer products to be stated in square feet instead of acreage. • Revise the proposed label improvements for the maximum annual application rate for consumer	"EPA appreciates CASQA's feedback on the annual application rate for non-agricultural/ consumer products containing chlorothalonil. EPA agrees that lbs a.i./acre is not a meaningful unit of measure for residential non-commercial agriculture products. However, the Agency notes that the application rates are not listed in lbs a.i./ acre on these types of products, and that products intended for	EPA agreed that consumer product directions should be in smaller units that make sense to consumers. Individual manufacturers of these consumer products can include these smaller units in their registration/ reregistration applications or label updates to EPA.

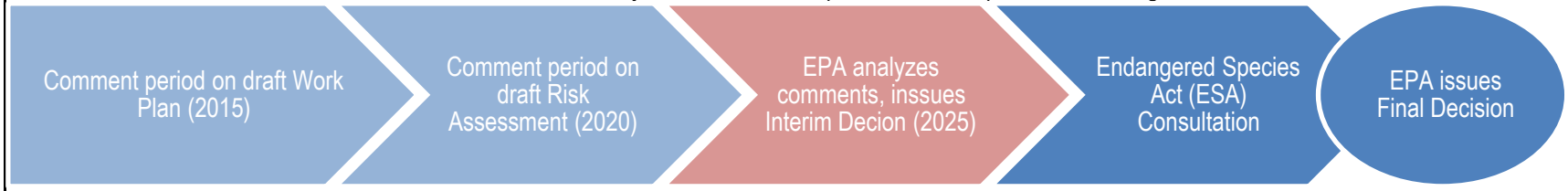
CASQA 1/17/2024 Comments to EPA	EPA Response	Did EPA incorporate CASQA's comment?
products to be stated fluid ounces instead of pounds for liquid formulations. • Revise antimicrobial labels to units that are more intelligible for consumers. For example, instead of 0.12 pounds of pesticide product per 100 pounds of adhesive [EPA Reg #:53883-186], we suggest that this be scaled to amounts used by consumers, in the units proportional to that amount, such as ounces instead of pounds of pesticide product.	residential use express the application rate in smaller units, such as ounces, teaspoons/gallon, or pounds/square foot." (ID, pp. 28-29)	
Comment #3: Adopt a 48-hour warning instead of the proposed 24-hour warning for conventional uses Use a 48-hour rain advisory instead of the proposed 24-hour rain advisory in following label sections: • For Liquid Concentrate Products: "To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 - 48 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems." • For Granule Products: "To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 48 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Sweeping any product that lands on a driveway,	"EPA appreciates CASQA's proposal to extend the period prior to rainfall where application is prohibited from 24 hours to 48 hours and acknowledges that 24-hour rainfall statement included in this ID for chlorothalonil is inconsistent with the 48-hour rainfall statements included in registration review decisions for other active ingredients. Rainfall statements, like other mitigation measures, are developed on a case-by-case basis by considering the risks and benefits of the pesticide. EPA identified that a 24-hour interval was appropriate for chlorothalonil. Fungicides, including chlorothalonil, are often used as protectants and require applications be made immediately prior to anticipated rain events to prevent disease from occurring or worsening due to wet conditions. The rainfastness, or the interval between a fungicide application and a rain event for which a pesticide product maintains effectiveness, for most fungicides varies from	EPA did not adjust the 24-hour warning as requested. EPA noted that it makes exceptions to the typical 48-hour warning on a case-by-case basis.

CASQA 1/17/2024 Comments to EPA	EPA Response	Did EPA incorporate CASQA's comment?
sidewalk, or street, back onto the treated area of the lawn or garden will help to prevent run off to water bodies or drainage systems." • For Ready to Use Products: "To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 48 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area."	15 minutes to 24 hours. For this reason, EPA modified the interval from the standard 48 hours to 24 hours for chlorothalonil to maintain fungicidal effectiveness while also providing protection against runoff." (ID, p. 29)	
Comment #4: CASQA supports proposed label improvements for conventional uses CASQA supports EPA's proposed label improvements for conventional uses of chlorothalonil (PID, Appendix B, pp.79-98), including: • Updated Non-Target Organism Advisory Statement: "This product is toxic to fish, aquatic-phase amphibians, and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas." • Ecological Incidents Statement: "REPORTING ECOLOGICAL INCIDENTS: For guidance on reporting ecological incidents, including death, injury, or harm to plants and animals, including bees and other non-target insects, see EPA's Pesticide Incident Reporting website: https://www.epa.gov/pesticide-incidents or call (registrant phone number)." • Updated Surface Water Label Advisory: "Surface Water Advisory. This product may impact surface water quality	"EPA thanks SRSWPP and CASQA for their support of the mitigation measures proposed in the PID." (ID, p.28)	The supported mitigation measures remain in the final ID.

CASQA 1/17/2024 Comments to EPA	EPA Response	Did EPA incorporate CASQA's comment?
due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a medium potential for reaching both surface water and aquatic sediment via runoff for several months or more after application."		

Thiophanate-methyl and Carbendazim Regulatory Participation Outcome and Effectiveness Assessment Summary Table

Pesticide:	**Thiophanate-methyl and Carbendazim** (EPA–HQ–OPP–2014–0004)
Use:	Fungicide
Why we care:	Thiophanate-methyl and carbendazim are registered as conventional pesticides for outdoor urban use on turf, ornamentals, and ornamental trees and large woody shrubs. Carbendazim is also registered for antimicrobial uses as a fungicide for exterior coatings, paints, sealants, caulks, and plastics. Thiophanate-methyl and carbendazim are highly toxic to aquatic life.
Actions taken:	CASQA sent a comment letter to EPA on the Proposed Interim Registration Review Decision (PID) in 2023.
Status:	EPA released the Interim Decision in January 2025. There is no public comment period at this stage.



Next steps: EPA will release Endangered Species Act (ESA) ESA Consultation.

CASQA 3/23/2023 Comments to EPA	EPA Response	Did EPA incorporate CASQA's comment?
EPA's proposed mitigation measures for Thiophanate-methyl and Carbendazim are appropriate and necessary to protect aquatic life. 1. **Ornamental commercial spot treatment restriction for thiophanate-methyl (TM):** "Broadcast uses of TM for ornamentals with rates of 26 lbs ai/A and 20 lbs ai/A are limited in application to spot treatment only. Spot treatment is defined as a small, localized area (not to exceed 1,000 sq ft per acre where pests are found)." [PID, p.88]	"EPA thanks CASQA and SSQP for their comments on CWA compliance and comments supporting the proposed mitigation." (ID, pp.17-18) EPA made considerable changes to the list of mitigations since the PID was published in 2022. (ID, p.7 and pp. 103-124) Changes relevant to CASQA include: • Updated mitigation for use on turf (now allows a higher use rate [0.1232 lbs.	EPA included many of the proposed mitigation measures outlined in the PID and our comment letter. Although the reduction in active ingredient in paint and building materials is not as large as expected, it still results in a significant reduction given that these materials are currently being sold at 3,450 ppm. (The new requirements will reduce materials down to 2,000-2,500ppm.)

CASQA 3/23/2023 Comments to EPA	EPA Response	Did EPA incorporate CASQA's comment?
2. **Maximum application rates and numbers of applications**. "Set the maximum annual application rates and number of applications for the following to: Turf: 0.78 lbs ai/A at 2 applications per year. Residential ornamentals: 1.8 lbs ai/A at 2 applications per year." [PID, p.88] 3. **Updated Environmental Hazard Statement and Surface Water Advisory Statement**. "For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment washwater or rinsate". and "This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching aquatic sediment via runoff for several months or more after application. A level, well-maintained buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of TM and MBC. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours. Sound erosion control practices will reduce this product's potential to reach aquatic sediment via runoff." [PID, p.93] 4. **Deletion of Use of MBC Materials Preservative in Vinyl Flooring (includes outdoor vinyl flooring)**. "This product is not to be used as a material preservative intended for use in polyvinyl	ai/A] if resident applies once per year instead of twice per year) (See #2 in column to the left) • Updated mitigation for use on ornamentals to reduce the concentration of pesticide allowed but to allow it to be used over a greater area. [Reduce the maximum application rate from 26 lb ai/A to 12.5 lb ai/A and increase the size of the treatment area from 1,000 to 5,000 sq ft. Add new directions to label: (1) Don't apply more than 0.287 lb ai/A to a 1,000 sq ft treatment area, (2) Don't apply more than 5,000 sq ft treatment area in an acre and (3) Don't apply more than 1.435 lb in an acre per year. (See #1 in column to the left) • Updated rate reductions in paints, caulks, plasters, sealants, and adhesives. Instead of reducing the concentration of the pesticide in paints and caulks/plasters/sealants/adhesives (See #5 in column to the left), EPA instead reduced the concentration in paints to 2,500 ppm and the concentration in caulks/plasters/sealants/adhesives to 2,000 ppm. EPA stated that, "Although risk remains with this change, the risk considerations are balanced with the results of the benefits assessment and	

CASQA 3/23/2023 Comments to EPA	EPA Response	Did EPA incorporate CASQA's comment?
chloride (PVC) flooring." Remove all references (including, but not limited to, all use directions) to polyvinyl chloride (PVC) flooring within material preservation section." [PID, p.101] 5. **Rate reduction to 1,265 ppm for paint preservative uses**. "Maximum application rate for paint, caulk, plaster, sealants, and inks must not exceed 1,265 ppm (or equivalent)." [PID, p.101]• "Treat surfaces to ensure thorough coverage but avoid runoff."	the Agency has determined that lowering the rate to 1,265 ppm as previously proposed would create undue burden to end-users." (ID, p.20) • Added incident reporting language for ecological incidents with EPA's new incident reporting website as well as a placeholder space for the pesticide registrant's phone number. • Removed MBC use in <u>all</u> plastic, not just vinyl flooring. EPA stated that, "In order to mitigate risks from MBC-treated vinyl flooring, the Agency determined that the plastics (PVC) use needs to be deleted from registered products." (ID, p.93) • EPA kept the same environmental hazard statement and surface water advisory statement as drafted in the PID. (See #3 in column to left)	
As noted in Sacramento County's 2020 comment letter, MBC is commonly detected in California surface waters. As summarized in that letter, California DPR's surface water quality (SURF) database contains numerous water quality monitoring detections of carbendazim in urban creeks, including many approaching or exceeding the lowest Aquatic Life Benchmark (0.99 ppb, for fish/chronic).	EPA acknowledged that MBC is often detected in California surface waters. (ID, p. 18)	EPA acknowledged CASQA's comment about monitoring data.

CASQA 3/23/2023 Comments to EPA	EPA Response	Did EPA incorporate CASQA's comment?
EPA should develop PRZM modeling scenario to quantitatively assess risks to aquatic life from antimicrobials used in building materials preservation EPA should adapt its existing standard surface water quality modeling approach by modifying the Residential Scenario running under PRZM/PWC to enable risk assessment for antimicrobial pesticides, such as carbendazim, that are used outdoors for protection of building materials.	No response.	EPA did not respond to this comment.

DPR Draft Strategic Plan Comment Letter Outcome Summary Table

Pesticide-related issue:	**California Department of Pesticide Regulation (DPR) Draft 2024-2028 Strategic Plan**
Why we care:	The Strategic Plan, updated every 5 years by DPR, sets the priorities for pesticide-related work for the State of California.
Actions taken:	CASQA submitted a comment letter to DPR on November 10, 2023.
Status:	DPR released a final 2024-2028 Strategic Plan in December 2024.
Next steps:	No action needed at this time. The next strategic plan update is expected in 2028.

CASQA 11/10/2023 Comments to DPR	Did DPR incorporate CASQA's comment?
CASQA SUPPORTS DPR'S PLAN FOR GREATER ENGAGEMENT, COLLABORATION, AND TRANSPARENCY. CASQA appreciates that collaboration is a core value in the Draft Strategic Plan. Collaboration is demonstrated throughout the document, with goals for greater engagement and transparency. Similarly, CASQA has identified potential partners, including DPR, whose missions are complementary to achieving CASQA's Vision. As a collaborative partner, CASQA can provide stormwater-sector expertise and perspective, especially as it relates to the development of a SPM advisory group (Goal 1.1). Furthermore, we are also encouraged by Goal 1.1 to "enhance and modernize the collection of information and data to improve program policies, procedures, and priorities" as doing so provides transparency to the pesticide regulatory process. Transparency is further established through the development of a SPM Certification program (Goal 1.1) and the issuance of timeline projections for scientific data evaluations (Goal 1.2). We support increased outreach to local urban communities outlined in Goal 3, including: • Goal 3.1: Broaden opportunities for regular, transparent, and meaningful access to DPR.	DPR kept all the goals and details on engagement, collaboration, and transparency from the draft plan in the final plan.

CASQA 11/10/2023 Comments to DPR	Did DPR incorporate CASQA's comment?
• Goal 3.2: Improve information access and data sharing. • Goal 3.3: Launch a statewide restricted material pesticide application notification system. • Goal 3.4: Expand language access throughout California in collaboration with federal, state and local partners. CASQA hopes that this greater engagement, collaboration, and transparency will specifically include stormwater agencies since stormwater agencies may have primary responsibility for the adverse environmental impacts of pesticides in waterways.	
CASQA SUPPORTS DPR'S COMMITMENT TO DIVERSITY, EQUITY, AND INCLUSION (DEI). CASQA supports DPR's commitment to (DEI), especially as it relates to Goal 2.1 to increase access to information and data collection. DPR's support of sustainable pest management in disadvantaged communities has the dual effect of reducing pesticide-related health impacts within vulnerable populations and reducing the burden of pesticide run-off on aquatic life. CASQA encourages outreach to occur through local partners, who have established trust and understand community-specific needs, in collaboration with governmental agencies and County Agricultural Commissioners.	The final plan has a large section on DPR's commitment to DEI.
REVISE GOAL1.3 TO REFLECT A GROUP-BASED PESTICIDE PRIORITIZATION PROCESS RATHER THAN BY ACTIVE INGREDIENT. CASQA recommends that DPR focus on categories of pesticides by use, rather than individual pesticide active ingredient. CASQA encourages DPR to move forward with a use group-based analysis for pesticide prioritization, rather than an individual analysis by active ingredient. As a result, CASQA recommends that Goal 1.3, 2nd, 3rd and 4th Bullets be revised to state: • By 202_, establish a use group-based pesticide prioritization process, informed by a diverse, cross-sector SPM advisory group and	DPR revised Goal 1.3 in the final plan: Goal 1.3: Develop and implement a science-based prioritization process for reviewing, identifying and evaluating high-risk pesticides, their alternatives and related mitigation measures. • By 2025, annually release a report that includes a list of pesticide risk assessments, reevaluations and mitigation efforts, and progress toward meeting their identified target completion dates.

CASQA 11/10/2023 Comments to DPR	Did DPR incorporate CASQA's comment?
consultation, external engagement, and public input, to take expeditious action on risk determinations and to identify and evaluate the availability of alternatives. • By 202_, begin an annual process of initiating formal mitigation for at least two identified priority pesticide~~s~~ uses. • By 202_, begin an annual process of completing formal mitigation for at least two identified priority pesticide~~s~~ uses.	• By 2025, establish a science-based pesticide prioritization process, informed by a diverse, cross-sector advisory committee, external engagement, and public input, to prioritize pesticide use risks, identify and evaluate the availability and feasibility of alternatives, and take expeditious action for completing mitigation. • By 2025, initiate reevaluation for at least one pesticide each year, increasing to at least two pesticides each year in 2029. • By 2025, where DPR has identified potential adverse effects through a reevaluation, adopt any necessary mitigation measures within two years.

GSA Regulations.Gov Comment Letter Outcome Summary Table

Pesticide-related issue:	**Problems with Regulations.gov (website managed by the U.S. General Services Administration ("GSA")** The 2021 version of Regulations.gov limits public access and impaired CASQA's ability to access data and provide comments.
Why we care:	The federal government's Regulations.gov website is where almost all the pesticide-related information is released by the EPA.
Actions taken:	CASQA submitted a comment letter to GSA on issues with the regulations.gov website on July 29, 2021.
Status:	GSA updated the regulations.gov website in late 2024.
Next steps:	No action needed at this time.

CASQA 7/29/2021 Comments to GSA	GSA Response
Docket subscription service termination. The subscription services feature formerly available on Regulations.gov is essential to CASQA, as it undoubtedly is to countless interested parties attempting to track changes in federal rules and regulations. Subscribing to a docket is the only reasonably efficient way to know when USEPA posts something on the docket, such as a comment period extension notice…The subscription feature is not currently functioning—no new subscriptions can be added. Subscriptions that CASQA enrolled in several years ago are still functioning, but there is no ability to add new subscriptions.	GSA docket subscription services resumed operations in 2022.
Search non-functional. The new Regulations.Gov docket's search engine is essentially non-functional. CASQA has attempted many searches, including trying to look up historical comment letters on a pesticide docket. While the previous version of the Regulations.Gov site was easy to search, the new version's search engine does not provide any results. We request that the search function be revised to provide meaningful search results	GSA fixed the search function in 2022.
Search cannot handle standard dash formats. In the prior version of Regulations.Gov, CASQA could easily cut and paste a docket number from the	GSA updated the system so that standard dash formats could be used in late 2024.

CASQA 7/29/2021 Comments to GSA	GSA Response
Federal Register to the Regulations.Gov site to search for that docket. The current Regulations.Gov site does not allow this easy cut and paste search, as it does not recognize the long dashes used in the Federal Register. This means that we must alter each and every long dash to a short dash to search just one docket number. Given that we monitor over 100 dockets, this can add a lot of extra time just to complete a simple search. We request that the search function be revised to correctly find dockets when either long or short dashes are used in the docket name.	
User Interface Hides Prior Comments and Obfuscates Access to All Documents in Dockets: The previous version of the Regulations.Gov docket had a straightforward user interface that allowed CASQA to quickly sort and view all files. The new version of the Regulations.Gov site has a confusing user interface where items like public comment letters and USEPA's multiple scientific analyses are essentially hidden in different tabs. In the new design the file organization structure is not easy to navigate and is not searchable. We have found that files that were previously available appear to be missing from the site, including historical public comments.	GSA updated the system so that previous comments and all documents can be accessed in 2024.

ALAMEDA COUNTYWIDE
cleanwater
PROGRAM

MEMBER AGENCIES:

Alameda

Albany

Berkeley

Dublin

Emeryville

Fremont

Hayward

Livermore

Newark

Oakland

Piedmont

Pleasanton

San Leandro

Union City

County of Alameda

Alameda County Flood Control and Water Conservation District

Zone 7 Water Agency

PESTICIDES AND TOXICITY MONITORING

SUMMARY OF MUNICIPAL REGIONAL STORMWATER PERMIT MONITORING CONDUCTED WY 2019 THROUGH WY 2024

FINAL

AUGUST 2025

ACKNOWLEDGEMENTS

ACCWP acknowledges the contributions of staff of Applied Marine Sciences, Inc. in preparation of this report.

Preface

This report was prepared by ACCWP to fulfill reporting requirements for MRP 3 Provision C.9.g (Evaluate Implementation of Pesticides Source Control Actions) and summarizes monitoring data collected through implementation of MRP 2 and MRP 3 Provision C.8.g monitoring conducted during WYs 2019 through 2024 (October 1, 2018 through September 30, 2024). The reader should review annual ACCWP UCMR reports for additional detail on results presented herein. This report is an Appendix to the Annual Report submitted by ACCWP on behalf of the following Permittees:

- The cities of Alameda, Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Oakland, Piedmont, Pleasanton, San Leandro, and Union City; Alameda County;
- Alameda County Flood Control and Water Conservation District; and
- Zone 7 of the Alameda County Flood Control and Water Conservation District.

During the period covered by this report, the Bay Area Stormwater Management Agencies Association (BASMAA) and Bay Area Municipal Stormwater Collaborative (BAMSC) Regional Monitoring Coalition (RMC) participants, including ACCWP, collected data by implementing BASMAA RMC Standard Operating Procedures (SOPs, BASMAA 2016) in accordance with the BASMAA RMC Quality Assurance Project Plan (QAPP; BASMAA 2016a, 2020). Analytical laboratory analyses were also coordinated among all RMC participants. All data described herein was also submitted to the California Environmental Data Exchange Network (CEDEN) and San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) in electronic format.

LIST OF ACRONYMNS

AMS	Applied Marine Sciences, Inc.
ACCWP	Alameda Countywide Clean Water Program
BAMSC	Bay Area Municipal Stormwater Collaborative
BASMAA	Bay Area Stormwater Management Agencies Association
DPR	California Department of Pesticide Regulation
DW	Dry Weight
EPA	Environmental Protection Agency
IMR	Integrated Monitoring Report
LC50	Lethal Concentration 50%
MDL	Method Detection Limit
MRP 1	Municipal Regional Stormwater Permit (2009)
MRP 2	Reissued Municipal Regional Stormwater Permit (2015)
MRP 3	Reissued Municipal Regional Stormwater Permit (2022)
ND	Non-detect
NPDES	National Pollutant Discharge Elimination System
OPP	EPA Office of Pesticide Programs
PAH	Polycyclic Aromatic Hydrocarbon
PEC	Probable Effects Concentrations
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
RL	Reporting Limit
RMC	Regional Monitoring Coalition
RMP	Regional Monitoring Program for Water Quality in San Francisco Bay
RWQCB	Regional Water Quality Control Board
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board (also Water Board)
SFEI	San Francisco Estuary Institute
SOP	Standard Operating Procedure
SSID	Stressor Source Identification
SWAMP	Surface Water Ambient Monitoring Program
TEC	Threshold Effect Concentrations
TOC	Total Organic Carbon
TU	Toxic Unit
UCMR	Urban Creeks Monitoring Report
WQO	Water Quality Objective
WY	Water Year

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Executive Summary

ACCWP has conducted wet and dry season Pesticides and Toxicity Monitoring consistent with Municipal Regional Stormwater Permit (MRP) C.8.g. provisions since WY 2012. Per MRP 3 Provision C.9.g. requirements, this report summarizes results of Pesticides and Toxicity Monitoring conducted by ACCWP from WY 2019[1] (beginning October 1, 2018) through WY 2024 (ending September 30, 2024) with a focus on assessing trends in aquatic and sediment toxicity testing and sediment and water quality data.

Results for the current reporting period cover two permit terms, MRP 2 and MRP 3, but monitoring requirements and interpretive techniques were largely unchanged between the two permit terms.[2] Standard monitoring conducted under Provision C.8.g annually includes sampling and analysis of aquatic toxicity, sediment toxicity, and sediment chemistry at two locations within Alameda County during the dry season. In addition, ACCWP achieved wet season aquatic toxicity and pesticides monitoring requirements (MRP 3 Provision C.8.g.iii) for the MRP 3 permit term through a collaborative regional effort managed through the Bay Area Municipal Stormwater Collaborative (BAMSC) during WY 2023.

In this report, monitoring results for the current reporting period (WY 2019 through WY 2024) are presented and compared with those generated through the prior study period. (WY 2012 through WY 2018). Results are discussed separately for each Pesticides and Toxicity Monitoring component:

Dry Weather Aquatic Toxicity – Aquatic toxicity testing results were similar between the two reporting periods, with periodic test failures observed, but typically at a percent effect below the identified MRP threshold of 50%.

Dry Weather Sediment Chemistry and Toxicity – Sediment toxicity testing results were similar between the two reporting periods, with periodic test failures observed, but typically at a percent effect below the identified MRP threshold of 50%. Sediment chemistry parameters were measured against relevant metrics (Probable Effect Concentrations for trace elements and polycyclic aromatic hydrocarbons (PAHs), Toxic Unit equivalents (TUs) for pyrethroid pesticides, and sediment LC50 values for fipronil products) and largely fell on the lower end of the scale, indicating low or uncertain

[1] The previous summary report prepared by ACCWP covered the period WY 2012 through WY 2018 (ACCWP 2019).
[2] Carbaryl was analyzed in sediment in the MRP 2 permit term, but is not included in MRP 3 requirements.

likelihood of toxic effects at the concentrations reported. Results were similar between the two study periods.

Wet Weather Aquatic Toxicity – Aquatic chemistry results were the one area of Pesticides and Toxicity Monitoring conducted where significant differences were observable between the current and previous monitoring periods; one constituent group, pyrethroids, exhibited order of magnitude increases in concentrations while another, fipronils, experienced order of magnitude decreases from the prior to the current reporting period. However, aquatic toxicity testing results were similar between the two reporting periods, with periodic test failures observed, but typically at a percent effect below the identified MRP threshold of 50%.

1 Introduction

Since adoption of the original Municipal Regional Stormwater Permit (MRP 1) in 2009 (SFBRWQCB 2009) and continuing through implementation of MRP 2 (SFBRWQCB 2015) and MRP 3 (SFBRWQCB 2022), ACCWP has conducted and collaborated on a variety of toxicity- and pesticide-related monitoring projects. Per the monitoring requirements identified in MRP 1 permit provision C.8.c Status Monitoring / Rotating Watersheds, ACCWP conducted aquatic toxicity sampling between WY 2012 and WY 2015 at three locations twice per year (one dry season and one storm event), sediment toxicity monitoring at three locations once per year, and analyzed pesticides in sediment concurrent with sediment toxicity monitoring.

With adoption of MRP 2 in 2015, ACCWP altered annual monitoring requirements to conform to revised permit provisions. ACCWP continued dry season aquatic and sediment toxicity monitoring at two targeted locations per MRP 2 Provision C.8.g. MRP 2 also included provisions outlining an optional collaborative wet season sampling effort, which ACCWP completed through implementation of a regionally-coordinated effort during a one-time sampling event. Outcomes of this effort included tests of aquatic toxicity and analysis of select pesticides at three Alameda County locations sampled during a single storm event. MRP 2 Pesticides and Toxicity Monitoring Provisions largely carried over into MRP 3.

The remainder of this report further describes each of these lines of inquiry (dry season aquatic toxicity, dry season sediment chemistry and toxicity, and wet season aquatic toxicity and aquatic chemistry) as assessed during the period covered by this report (WY 2019 – WY 2024). This report also compares results from this reporting period to those from the prior reporting period (WY 2012 – WY 2018), which were summarized in ACCWP (2019), as a means of understanding potential trends in monitoring. Discussions are broken out by the monitoring components in the sections that follow.

2 Aquatic Toxicity, Dry Season

Since initiation of Creek Status Monitoring under MRP 1, ACCWP has conducted aquatic toxicity monitoring during the dry season of each water year. Pesticides and Toxicity Monitoring conducted under MRP 1 (WY 2012 through WY 2015) included monitoring of three probabilistic sites each dry season using the EPA three-species toxicity tests with lethal and sublethal endpoints and the *H. azteca* survival test. Under MRP 2 permit requirements (WY 2016 through WY 2018), the level of effort dropped to two targeted sites sampled per year and the *C. dilutus* survival test was added as a testing requirement. WY 2019 through WY 2024 monitoring efforts were identical to those of MRP 2.

2.1 Monitoring Results, WY 2019 – WY 2024

For WYs 2019 through 2024, ACCWP selected sampling sites that had either exhibited statistically significant toxicity during a prior sampling event or represented a geographic area with potential land uses or other indicators of water quality concern (e.g., auto dismantlers, golf courses, commercial nurseries). The toxicity tests employed and criteria for assessment remained consistent between the years covered by MRP 2 and MRP 3. As part of monitoring, 14 aquatic toxicity endpoints were derived through testing of five species at two sites county-wide during one dry season event conducted annually. A cumulative list of the 12 sampling sites monitored during the dry season since WY 2019 is shown in Figure 2-1 and summarized in Table 2-1.

Through dry season aquatic toxicity monitoring conducted between WY 2019 and WY 2024, there were a total of 84 possible toxicity test endpoints measured at the twelve study sites. Of these, nine endpoints (11%) were reported as test failures. Of these nine test failures, only one (site 204ALP180 on Arroyo las Positas collected in July 2020) met the MRP 2 trigger of a 50% effect that required a follow-on test to be repeated at the site. The results of this follow-on test did not exhibit toxicity, however.

2.2 Trends Analysis

In comparing the results from the current reporting period to those of the prior reporting period (WY 2012 through WY 2018), the findings are similar. For the prior reporting period, sampling sites were selected from a probabilistic draw for the early portion of the reporting period (WY 2012 through WY 2015) and a targeted scheme for the latter portion of the period (WY 2016 through WY 2018). Targeted sites sampled under MRP 2 and MRP 3 were selected at locations where toxicity had previously been observed or previously unsampled sites exhibiting conditions where toxicity might be deemed likely. This change in sample design might be expected to increase the likelihood of observing toxicity at monitoring sites.

For the prior reporting period approximately 9% of toxicity tests run exhibited a test failure, and only one of the test failures was of the magnitude to require a re-test (the *C. dilutus* survival test at site 204LME100 with an associated 50% effect). In examining the possible effect of the sampling scheme upon toxicity results during the prior reporting period, probabilistic sites exhibited toxicity test failures for approximately 6% of endpoints measured. Targeted sites sampled during the same reporting period experienced failures at a rate of 12%, on par with the 11% test failure rate observed in toxicity endpoints during the current reporting period.

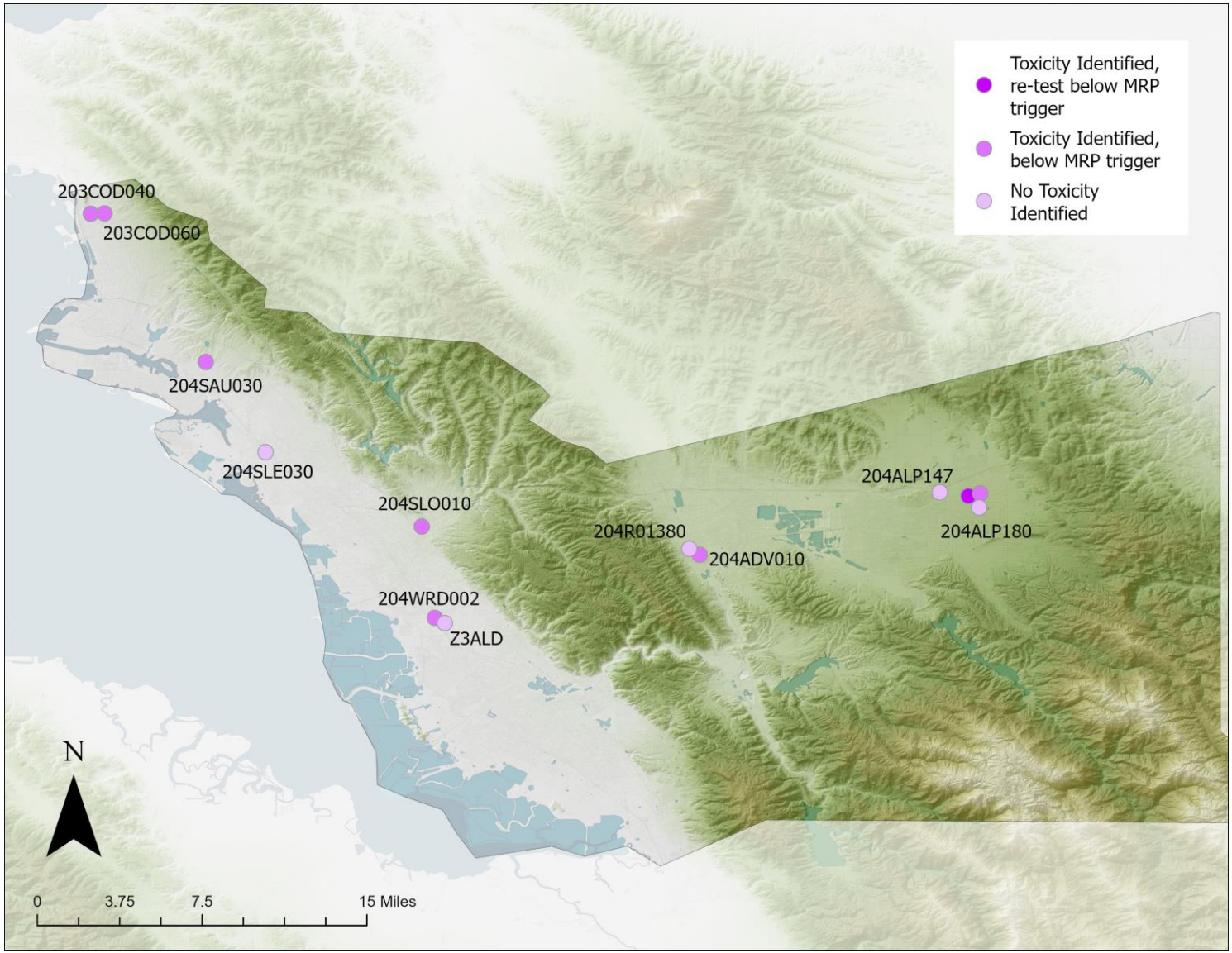


Figure 2-1. ACCWP dry season aquatic toxicity monitoring sites, WY 2019-2024. Icons for site 204ALP180 indicate results of an initial test, re-test, and temporal variation test.

Table 2-1. Results of ACCWP dry season aquatic toxicity monitoring, WY 2019 through WY 2024.

WY	Site ID	Waterway	Test Species with Statistically Significant Toxic Endpoint (% effect)	Re-test indicated	Re-test Result	MRP Trigger Met for Follow-up
2019	203COD040	Codornices Cr.	*C. dubia* reproduction (33%)	N	-	-
2019	203COD060	Codornices Cr.	*C. dubia* reproduction (49%)	N	-	-
2020	204ALP147	Arroyo las Positas	None	N	-	-
2020	204ALP180	Arroyo las Positas	*C. dubia* reproduction (50%)	Y	Pass	N
2021	204SLE030	San Leandro Cr.	None	N	-	-
2021	204SLO010	San Lorenzo Cr.	*C. dubia* reproduction (31%)	N	-	-
2022	204R01380	Arroyo de la Laguna	None	N	-	-
2022	204ADV010	Arroyo del Valle	*P. promelas* survival (34%) *P. promelas* growth (20%)	N N	- -	- -
2023	204WRD002	Ward Cr.	*C. dubia* reproduction (33%)	N	-	-
2023	204SAU030	Sausal Cr.	*C. dilutus* survival (15%)	N	-	-
2024	204ALP180	Arroyo las Positas	*C. dubia* reproduction (18%)	N	-	-
2024	Z3ALD	Zone 3A Line D	None	N	-	-

3 Sediment Toxicity and Chemistry, Dry Season

Since initiation of Creek Status Monitoring under MRP 1, ACCWP has conducted sediment toxicity and chemistry monitoring during the dry season annually. Pesticides and Toxicity Monitoring conducted under MRP 1 (WY 2012 through WY 2015) included monitoring of three probabilistic sites per year. Under MRP 2 permit requirements (WY 2016 through WY 2018), the level of effort dropped to two targeted sites sampled per year and the analytes were adjusted to add analysis of carbaryl and fipronil products and to remove analysis of organochlorine pesticides. MRP 3 monitoring efforts largely matched those of the MRP 2 permit, except for the removal of carbaryl from the sediment chemistry analyte list.

For the current reporting period (WY 2019 through WY 2024), sediment toxicity was assessed using the *H. azteca* and *C. dilutus* acute survival tests. Where relevant, sediment chemistry results were evaluated against Threshold Effects Concentrations (TECs) and Probable Effects Concentrations (PECs) to estimate potential for negative effects.

MRP 3 permit language tends to use the terms TECs and PECs as calculated by MacDonald et al. (2000) somewhat interchangeably when in fact they are different indicators. Per MacDonald et al. (2000), the two terms are defined as "*threshold effect concentration (TEC, below which adverse effects are not expected to occur) and a probable effect concentration (PEC, above which adverse effects are expected to occur more often than not).*" The use of PEC has merit as a potential indicator of effects. However, the use of the TEC as an equivalent indicator is problematic, as concentrations between the calculated TEC and PEC values are difficult to interpret as to their likelihood of causing adverse effects.

When examining pyrethroids concentrations, a similar degree of uncertainty exists. Monitored pyrethroid concentrations were assessed through use of Toxic Unit equivalents (TUs), where the measured concentrations for individual analytes were divided by their associated Lethal Concentration 50% (LC50) values as a predictor of potential negative effects.[3] Weston et al. (2005) reported that predictions of sediment toxicity to *H. azteca* were supported by observed results for sites with TUs below one (little or no mortality) and above four (high or full mortality). For TUs between one and four, however, the predictive ability of the TU is less certain. This situation was encountered periodically at sites sampled by ACCWP over the course of the investigations discussed herein.

[3] Because organic carbon mitigates the toxicity of pyrethroid pesticides in sediments, the LC50 values referenced within the MRPs were derived on the basis of Total Organic Carbon (TOC)-normalized pyrethroid concentrations. All concentrations reported for pyrethroids pesticides are therefore normalized to TOC content within calculation of TU ratios for comparison purposes in the sections that follow.

In reviewing fipronil-related data, Anderson et al. (2015) identified the midge *C. dilutus* as being the most sensitive species to presence of fipronil and degradates. To assess the potential toxicity of fipronil, monitoring results are compared against sediment LC50 concentrations for each analyte for which one is identified (Anderson et al. 2015).

For the portion of the reporting period conducted under MRP 2 (WY 2019 through WY 2022), toxicity results from a failed test and subsequent re-test at a given site (with 50% percent effect in both cases) or sediment chemistry results exceeding designated TEC or PEC concentrations indicated the study site for consideration of a potential Stressor Source Identification (SSID) project. For the portion of the reporting period conducted under MRP 3 (WY 2023 and WY 2024), results meeting the above criteria are compiled and reported in annual UCMRs and Integrated Monitoring Reports (IMRs).

3.1 Monitoring Results, WY 2019 – WY 2024

Twelve sites were sampled by ACCWP for dry season sediment toxicity and sediment chemistry during the current reporting period. Results for sediment toxicity testing are shown graphically in Figure 3-1 and summarized in Table 3-1. Sediment chemistry results relative to relevant TEC, PEC, TU, and LC50 metrics discussed previously are presented in Tables 3-2 through 3-5.

Results for each metric are summarized by site in Table 3-6. In each case, sampling sites align with those discussed previously under dry season aquatic toxicity monitoring (Section 2). Where possible, results of sediment toxicity and chemistry are discussed together in the context of understanding possible relationships between the two lines of inquiry.

While five of twelve sites sampled generated at least one sediment toxicity test failure in the current reporting period, only one of these sites exhibited a magnitude greater than the 50% effect threshold (204SLE030 for both *H. azteca* and *C. dilutus* test species). There is some uncertainty associated with the results from site 204SLE030 because the laboratory identified that the sample media contained a large degree of decaying organic matter; an insufficient amount of depositional sediments at the site prevented immediate follow-up. ACCWP will attempt to locate depositional sediment at sites tributary to 204SLE030 during the MRP 3 term to follow up on these results.

During this reporting period, all 12 sites sampled generated at least one TEC quotient > 1 (Table 3-2). The site with the greatest number of TEC quotients >1 was site Z3ALD, which exhibited 13 TEC quotients >1. However, no sediment toxicity was observed at this site.

During the current reporting period, most of the calculated mean PEC quotients were below 0.5 (Table 3-3). Six of twelve sites sampled by ACCWP generated an individual PEC quotient >1. At five sites, this finding was associated with analysis of nickel, which is typical of prior ACCWP sampling. The one exception to this was at site 204SLE030, where the sole PEC >1

was associated with analysis of chromium. There were no PEC quotients for any organic parameter that exceeded 1.

Pyrethroid pesticides have been a suspected toxic agent in various regional studies (e.g., Weston et al. 2004, Amweg et al. 2006). During the current reporting period, ACCWP encountered no sites with TUs above the identified 4.0 threshold that is predictive of high mortality to *H. azteca*. However, there is some uncertainty with three of the sampled sites that had TUs between 1.0 and 4.0. Of these, one site (204SLO010) did not elicit a toxic response in *H. azteca;* one site (204ADV110) exhibited a toxic response below the 50% effect threshold; and one site (204SLE030) exhibited toxicity above the 50% threshold.[4]

Analyses of fipronil and its degradates generated mostly non-detects. Sites that were reported above method detection limits (MDLs) fell below associated test reporting limits. While analyses at site 204SLE030 were also reported as non-detects, no comparison can be made to the associated LC50 values due to the sample dilutions that were performed as part of the testing procedure.

Given the higher analyte concentrations and uncertainty associated with toxicity tests and analytical results at site 204SLE030, ACCWP has identified the area around this site as worthy of additional investigation. ACCWP will attempt to identify viable sampling sites associated with site 204SLE030 (i.e., with both sufficient depth to collect water samples and presence of a sufficient volume of depositional sediments to support sediment chemistry and toxicity testing). For this sampling, ACCWP will target the two stream branches that meet at the confluence represented by site 204SLE030, Stonehurst Creek and upstream San Leandro Creek.

[4] As detailed in the WY 2021 UCMR, toxicity laboratory attributed test failures at site 204SLE030 to physical nature of sediment (flocculent in nature, decaying organic matter). Given limited volume of surficial sediment available during first sampling event, this site was not selected for re-test at the time, but alternative sampling locations proximate to the sample site will be attempted during MRP 3 permit term if depositional areas can be identified.

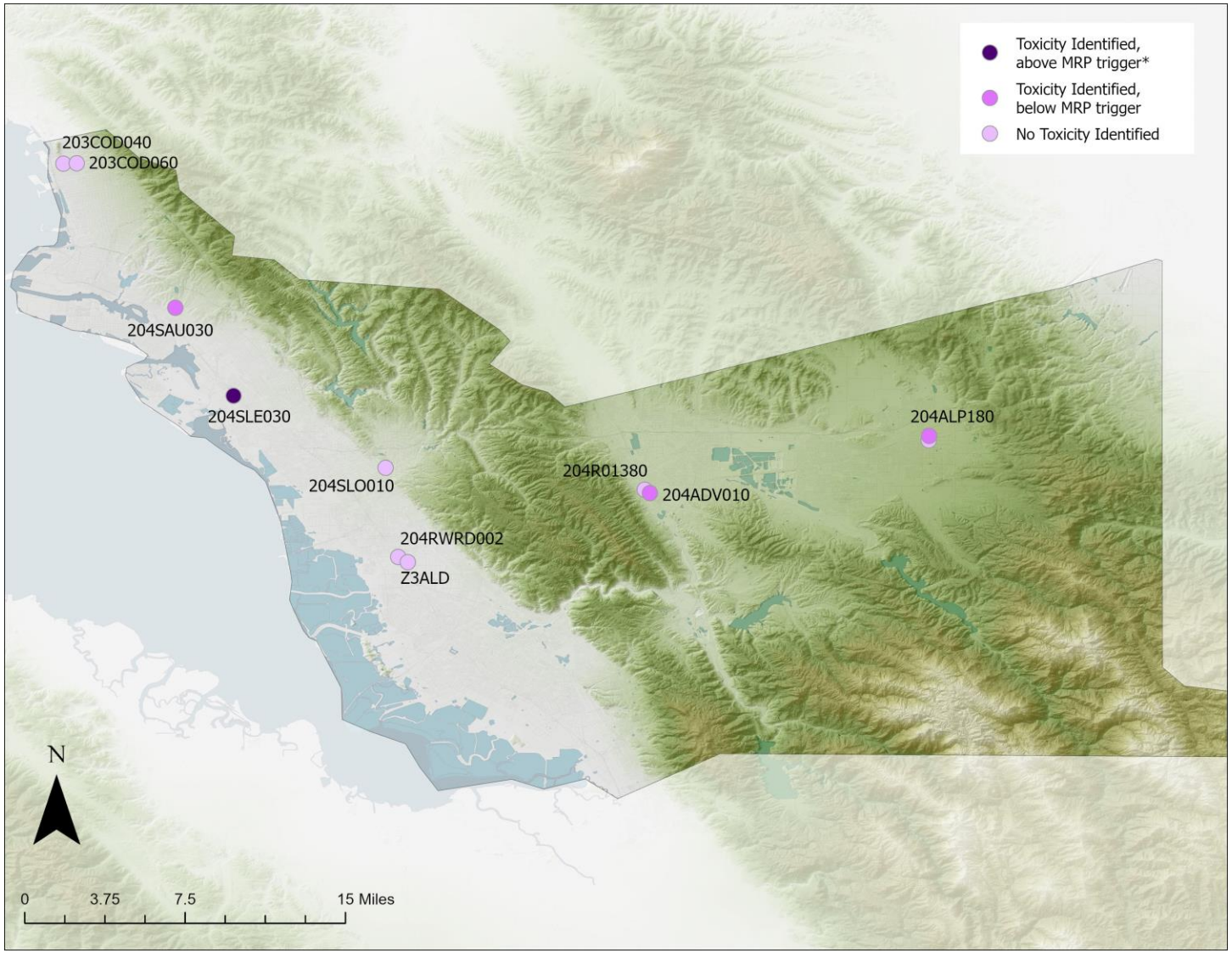


Figure 3-1. ACCWP sediment toxicity results, WY 2019 - WY 2024. See report text for discussion of 204SLE030 results.

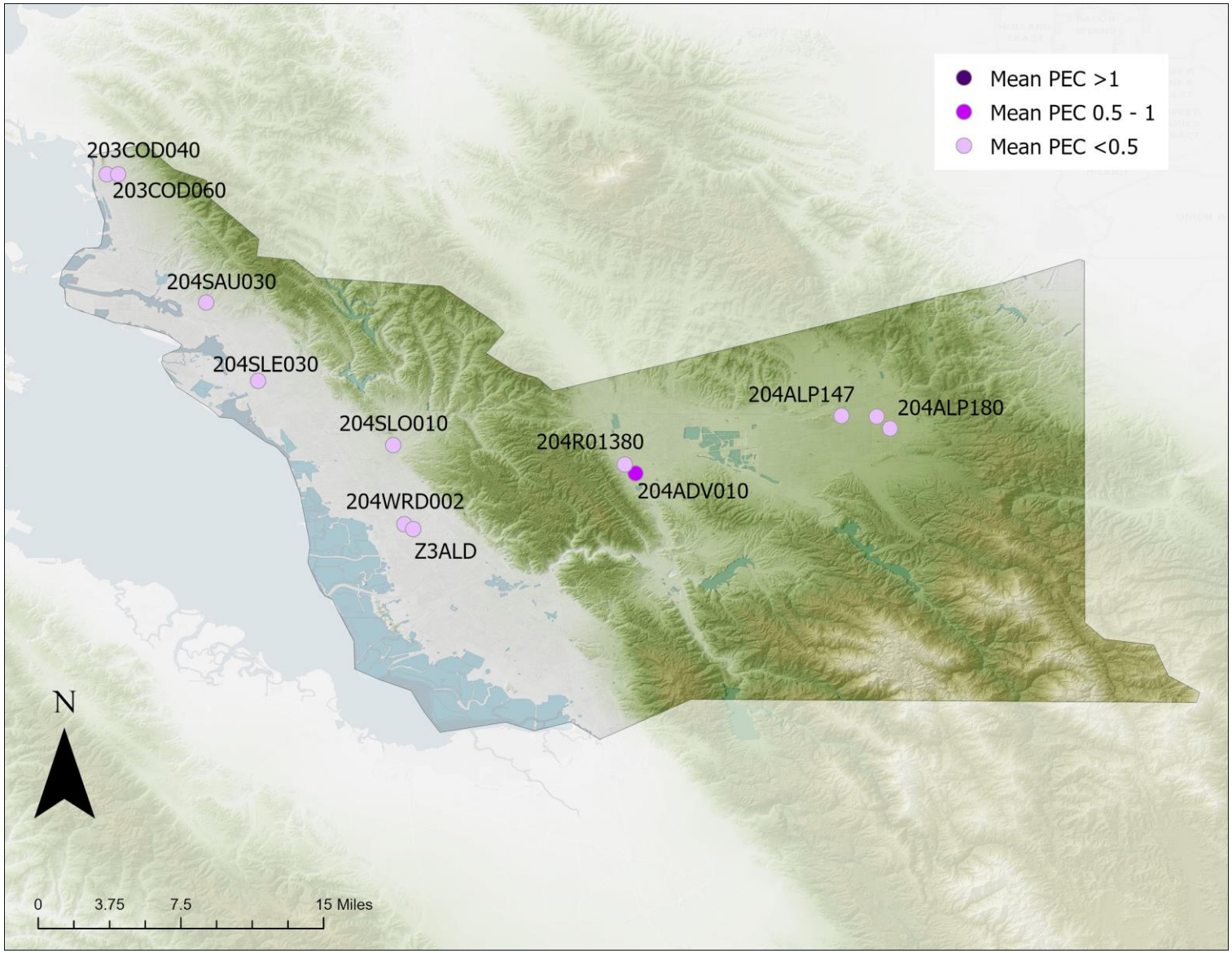


Figure 3-2. ACCWP sediment chemistry PEC results, WY2019 – WY 2024.

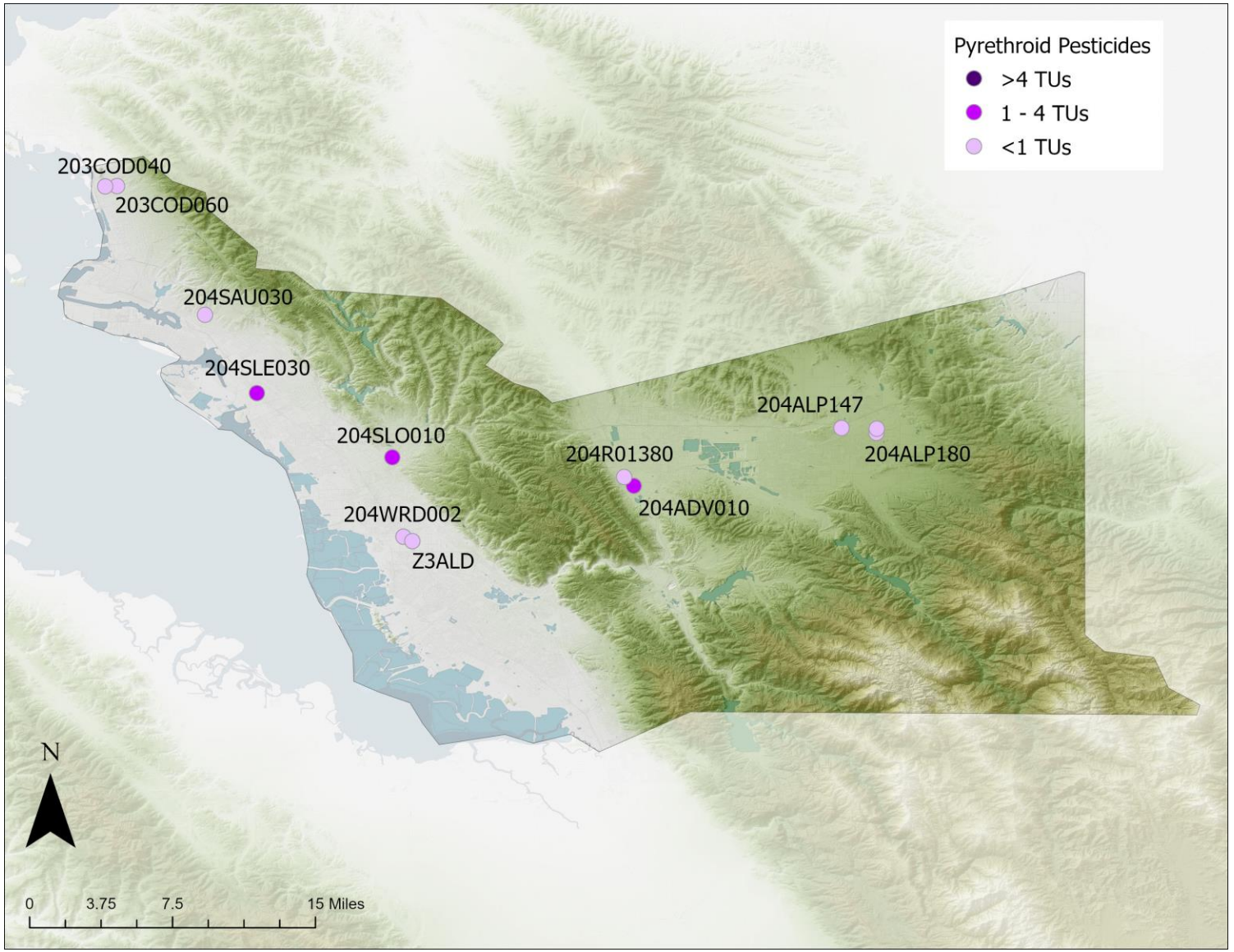


Figure 3-3. ACCWP sediment chemistry results for pyrethroid pesticides, WY 2019 – WY 2024.

Table 3-1. Results of ACCWP Sediment Toxicity Monitoring, WY 2019 – WY 2024.

WY	Site ID	Waterway	Test Species with Statistically Significant Toxic Endpoint (% effect)	Re-test indicated
2019	203COD040	Codornices Cr.	None	N
2019	203COD060	Codornices Cr.	None	N
2020	204ALP147	Arroyo las Positas	None	N
2020	204ALP180	Arroyo las Positas	None	N
2021	204SLE030	San Leandro Cr.	*H. azteca* survival (100%) *C. dilutus* survival (56%)	N[1]
2021	204SLO010	San Lorenzo Cr.	None	N
2022	204R01380	Arroyo de la Laguna	None	N
2022	204ADV010	Arroyo del Valle	*C. dilutus* survival (48%)	N
2023	204WRD002	Ward Cr.	*C. dilutus* survival (45%)	N
2023	204SAU030	Sausal Cr.	*C. dilutus* survival (15%)	N
2024	204ALP180	Arroyo las Positas	*C. dubia* reproduction (18%)	N
2024	Z3ALD	Zone 3A Line D	None	N

Notes:

[1]As detailed above, toxicity laboratory attributed test failures to physical characteristics of the sample media. Given the limited volume of surficial sediment available during first sampling event, this site was not selected for re-test at the time, but follow-up will be attempted during MRP 3 term if depositional areas can be identified.

Table 3-2. Sediment chemistry TEC quotients, WY 2019 – WY 2024.

Site ID	203COD040 (2019)	203COD060 (2019)	204ALP147 (2020)	204ALP180 (2020)	204SLE030 (2021)	204SLO010 (2021)	204ADV010 (2022)	204R01380 (2022)	204SAU030 (2023)	204WRD002 (2023)	204ALP180 (2024)	Z3ALD (2024)
Metals (mg/kg dw)												
Arsenic	0.61	0.65	0.22	0.42	0.36	0.37	0.85	0.41	0.64	0.58	0.33	0.41
Cadmium	0.15	0.23	0.06	0.14	0.62	0.16	0.24	0.17	0.22	0.27	0.24	0.78
Chromium	**1.20**	**1.36**	**1.13**	0.85	**6.45**	0.65	**1.54**	0.76	**1.59**	0.85	**1.36**	**1.04**
Copper	0.66	**1.20**	0.6	0.92	**1.93**	0.54	**1.55**	0.7	0.76	**1.20**	0.79	**1.61**
Lead	0.67	**1.09**	0.2	0.2	**1.7**	0.34	0.53	0.26	**2.21**	0.89	0.34	**1.45**
Nickel	**2.95**	**3.26**	**3.08**	**1.32**	**1.45**	**1.23**	**4.36**	**1.94**	**4.32**	**1.59**	**1.37**	**2.03**
Zinc	0.99	**1.16**	0.5	0.79	**2.4**	0.7	**1.16**	0.44	0.81	**1.12**	**1.76**	**3.21**
PAHs (µg/kg dw)												
Anthracene	0.03	0.03	0.14	0.14	**1.92**	0.13	0.08	0.01	0.09	0.10	0.26	**1.35**
Benz(a)anthracene	0.01	0.02	0.07	0.07	**2.04**	0.47	0.01	0.02	0.31	0.16	0.45	**4.29**
Benzo(a)pyrene	0.05	0.11	0.05	0.05	0.09	0.05	0.01	0	0.21	0.12	0.02	**2.27**
Chrysene	0.05	0.20	0.05	0.05	**3.25**	0.37	0.01	0.02	0.40	0.19	0.54	**4.34**
Dibenz[a,h]anthracene	0.24	0.50	0.24	0.24	0.40	0.22	0.03	0.01	0.07	0.07	0.07	0.18
Fluoranthene	0.00	0.05	0.02	0.08	**1.8**	0.24	0.08	0	0.23	0.01	0.35	**2.93**
Fluorene	0.02	0.02	0.1	0.1	0.17	0.1	0.01	0.01	0.04	0.04	0.04	0.07
Naphthalene	0.01	0.01	0.05	0.05	0.31	0.04	0.01	0.01	0.02	0.02	0.02	0.13
Phenanthrene	0.11	0.11	0.04	0.1	**3.73**	0.25	0.1	0	0.21	0.15	0.40	**2.17**
Pyrene	0.01	0.11	0.04	0.16	**3.33**	0.51	0.16	0.04	0.50	0.21	0.70	**5.79**
Total PAHs	0.03	0.09	0.13	0.16	**2.06**	0.32	0.07	0.02	0.03	0.03	0.36	**3.78**
Number of constituents with TEC quotient > 1.0	2	5	2	1	12	1	4	1	3	3	3	13

Notes:
Quotients above 1.0 are indicated in **bold**.

Table 3-3. Sediment chemistry PEC quotients, WY 2019 – WY 2021.

Site ID	203COD040 (2019)	203COD060 (2019)	204ALP147 (2020)	204ALP180 (2020)	204SLE030 (2021)	204SLO010 (2021)	204ADV010 (2022)	204R01380 (2022)	204SAU030 (2023)	204WRD002 (2023)	204ALP180 (2024)	Z3ALD (2024)
Metals (mg/kg dw)												
Arsenic	0.18	0.19	0.07	0.12	0.11	0.11	0.25	0.12	0.19	0.17	0.10	0.12
Cadmium	0.03	0.05	0.01	0.03	0.12	0.03	0.05	0.03	0.04	0.05	0.05	0.15
Chromium	0.47	0.53	0.44	0.33	**2.52**	0.25	0.6	0.3	0.62	0.33	0.53	0.41
Copper	0.14	0.26	0.13	0.19	0.41	0.11	0.33	0.15	0.16	0.26	0.17	0.34
Lead	0.19	0.30	0.06	0.05	0.48	0.09	0.15	0.07	0.62	0.25	0.09	0.41
Nickel	**1.38**	**1.52**	**1.44**	0.62	0.68	0.58	**2.04**	0.91	**2.02**	0.74	0.64	0.95
Zinc	0.26	0.31	0.13	0.21	0.63	0.19	0.31	0.12	0.21	0.30	0.46	0.85
PAHs (µg/kg dw)												
Anthracene	0.00	0.00	0.01	0.01	0.13	0.01	0.01	0.00	0.01	0.01	0.02	0.09
Benz(a)anthracene	0.00	0.00	0.01	0.01	0.21	0.05	0.00	0.00	0.03	0.02	0.05	0.44
Benzo(a)pyrene	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.02	0.01	0.00	0.18
Chrysene	0.01	0.03	0.01	0.01	0.42	0.05	0.00	0.00	0.05	0.02	0.07	0.56
Dibenz[a,h]anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	0.00	0.01	0.00	0.01	0.34	0.04	0.01	0.00	0.04	0.00	0.07	0.56
Fluorene	0.00	0.00	0.01	0.01	0.02	0.01	0.00	0.00	0.01	0.01	0.01	0.01
Naphthalene	0.00	0.00	0.01	0.01	0.1	0.01	0.00	0.00	0.01	0.01	0.01	0.04
Phenanthrene	0.02	0.02	0.01	0.02	0.65	0.04	0.02	0.00	0.04	0.03	0.07	0.38
Pyrene	0.00	0.01	0.01	0.02	0.43	0.07	0.02	0.00	0.06	0.03	0.09	0.74
Total PAHs	0.00	0.01	0.01	0.01	0.15	0.02	0.00	0.00	0.00	0.00	0.03	0.27
Number of constituents with PEC quotient > 1.0	1	1	1	0	1	0	1	0	1	0	0	0

Notes:
Quotients above 1.0 are indicated in **bold**.
NA = Not applicable - McDonald et al (2000) offers no published PEC concentration for Dibenz[a,h]anthracene.

Table 3-4. Sediment chemistry pyrethroid pesticides calculated TUs, WY 2019 – WY 2024.

Analyte	Pyrethroid TUs											
	203COD040 (2019)	203COD060 (2019)	204ALP147 (2020)	204ALP1480 (2020)	204SLE030 (2021)	204SLE010 (2021)	204ADV010 (2022)	204R01380 (2022)	204SAU030 (2023)	204WRD002 (2023)	Z3ALD (2024)	204ALP180 (2024)
Bifenthrin	0.1	0.18	0.52	0.42	1.04	0.88	0.67	0.35	0.19	0.32	0.40	0.42
Cyfluthrin, total	0.02	0.02	0.03	0.13	0.17	0.09	0.04	0.01	0.03	0.05	0.05	0.13
Cyhalothrin, Total lambda-	0.02	0.03	0.04	0.09	0.22	0.03	0.08	0.01	0.03	0.04	0.14	0.00
Cypermethrin, total	0.05	0.06	0.09	0.00	0.44	0.16	0.08	0.02	0.06	0.08	0.07	0.00
Deltamethrin/Tralomethrin	0.31	0.32	0.05	0.00	0.24	0.10	0.17	0.02	0.01	0.01	0.00	0.00
Esfenvalerate/Fenvalerate, total	0.02	0.02	0.03	0.00	0.14	0.02	0.00	0.01	0.01	0.01	0.01	0.00
Permethrin, Total	0	0	0.01	0.00	0.02	0.03	0.01	0.00	0.01	0.01	0.02	0.00

Table 3-5. Sediment chemistry results for fipronil and its degradates, WY 2019 – WY 2024.

Analyte	LCt0	203COD040 (2019)	203COD060 (2019)	204ALP147 (2020)	204ALP1480 (2020)	204SLE030 (2021)	204SLE010 (2021)	204ADV010 (2022)	204R01380 (2022)	204SAU030 (2023)	204WRD002 (2023)	Z3ALD (2024)	204ALP180 (2024)
Fipronil	0.9	<0.54	<0.55	<0.41	<0.42	<8.7[1]	<0.41	<0.1	<0.1	<0.12	<0.12	<0.12	<0.13
Fipronil Desulfinyl	NA	<0.54	<0.55	<0.41	<0.42	<8.7[1]	<0.41	0.19[2]	<0.2	<0.16	<0.17	<0.16	<0.17
Fipronil Sulfide	1.11	<0.54	<0.55	<0.41	<0.42	<8.7[1]	<0.41	<0.2	<0.2	<0.16	<0.17	<0.16	<0.17
Fipronil Sulfone	0.83	<0.54	<0.55	<0.41	<0.42	<8.7[1]	0.43[2]	1[2]	<0.4	<0.41	<0.42	<0.41	<0.42

Notes:
[1]Laboratory dilution
[2]Estimated value between MDL and reporting limit

Table 3-6. Summary of ACCWP Dry Season Sediment Toxicity Monitoring, WY 2019 – WY 2024.

WY	Site ID	Waterway	Toxic Response	# TEC Quotients > 1	# PEC Quotients > 1	Sum Pyrethroid TUs	# Fipronil detections > LC50
2019	203COD040	Codornices Cr.	None	2	1	0.53	0
2019	203COD060	Codornices Cr.	None	5	1	0.62	0
2020	204ALP147	Arroyo las Positas	None	2	1	0.77	0
2020	204ALP180	Arroyo las Positas	None	1	0	0.16	0
2021	204SLE030	San Leandro Cr.	*H. azteca* survival (100%) *C. dilutus* survival (56%)	12	1	2.26	NC[1]
2021	204SLO010	San Lorenzo Cr.	None	1	0	1.32	0
2022	204R01380	Arroyo de la Laguna	None	4	1	0.43	0
2022	204ADV010	Arroyo del Valle	*C. dilutus* survival (48%)	1	0	1.04	0
2023	204WRD002	Ward Cr.	*C. dilutus* survival (45%)	3	1	0.51	0
2023	204SAU030	Sausal Cr.	*C. dilutus* survival (15%)	3	0	0.34	0
2024	204ALP180	Arroyo las Positas	*C. dubia* reproduction (18%)	3	0	0.56	0
2024	Z3ALD	Zone 3A Line D	None	13	0	0.68	0

Notes:
[1]Not calculated, MDL greater than LC50s due to laboratory dilutions

3.2 Trends Analysis

As discussed in section 2, comparison of sediment toxicity and chemistry monitoring results between the two reporting periods is complicated to some extent by use of the probabilistic sampling scheme for the early portion of the initial reporting period (WY 2012 – WY 2015) and targeted scheme for the latter portion (WY 2016 – WY 2018) of the previous reporting period and all of the current reporting period (WY 2019 – WY 2024). During the initial reporting period, just over 20% of sites sampled exhibited sediment toxicity for one or both test species. Breaking the prior reporting period down by probabilistic vs. targeted schemes, only one of twelve of probabilistic sites (8%) exhibited sediment toxicity test failures while three of six (50%) of targeted sites exhibited at least one toxicity test failure. Tests at two sites during this period, each selected through the targeted scheme, exhibited percent effects >50%.

For the current reporting period, overall rate of test failures increased from the prior reporting period. Five of twelve sampling sites (42%) exhibited at least one sediment toxicity test failure. Of these test failures, only one was of a magnitude > 50% percent effect. In general, the results from the two study periods do not appear dissimilar when comparing test failures amongst sampling sites selected through the targeted sampling design.

In examining differences in analytical chemistry between the two reporting periods, available metrics are generally similar between the two reporting periods, even including sites that were selected from the two different sampling designs. Average TUs calculated for pyrethroid pesticides are unchanged between the two periods (Table 3-7), with minor differences in individual pyrethroid TUs.

Analyzing just under 200 sediment samples collected throughout the Northern California urban landscape, Budd et al. (2020) observed potential decreasing trends in concentrations of bifenthrin and cypermethrin and an increasing trend in deltamethrin that corresponded to changing usage patterns. It is not possible to draw the same conclusions from ACCWP data given the relatively small number of datapoints, but may be worth reviewing in a regional context at a future point in time.

Table 3-7. Comparison of average TUs calculated for current and prior reporting periods.

Analyte	Avg TU 2012-2018	Avg TU 2019 - 2024	Delta
Bifenthrin TU	0.48	0.46	-0.02
Cyfluthrin TU	0.22	0.06	-0.15
Cyhalothrin, total lambda- TU	0.02	0.06	0.04
Cypermethrin TU	0.05	0.09	0.04
Deltamethrin TU	0.03	0.10	0.07
Esfenvalerate / Fenvalerate TU	0.01	0.02	0.02
Permethrin TU	0.01	0.01	0.00
Avg sum TU	0.81	0.81	0.00

Notes:
[1]A negative value in the Delta column indicates a decrease in average concentration between the two reporting periods.

Both TEC and PEC quotients decreased slightly for relevant analytes from the first to second reporting periods (Table 3-8). Fipronil and its degradates were almost exclusively reported below MDLs or reporting limits in both study periods.

Table 3-8. Comparison of average TEC and PEC quotients calculated for current and prior reporting periods.

Analyte	Units	Avg TEC quotient 2012-2018	Avg TEC quotient 2019-2024	Delta[1]	Avg PEC quotient 2012-2018	Avg PEC quotient 2019-2024	Delta[1]
Arsenic	Metals (mg/kg DW)	0.53	0.49	-0.04	0.16	0.22	0.06
Cadmium	Metals (mg/kg DW)	0.32	0.27	-0.05	0.06	0.08	0.02
Chromium	Metals (mg/kg DW)	0.79	1.57	0.77	0.31	0.73	0.42
Copper	Metals (mg/kg DW)	0.98	1.04	0.06	0.21	0.37	0.16
Lead	Metals (mg/kg DW)	0.82	0.82	0.01	0.23	0.28	0.05
Nickel	Metals (mg/kg DW)	1.97	2.41	0.44	0.92	1.41	0.49
Zinc	Metals (mg/kg DW)	1.44	1.25	-0.18	0.38	0.43	0.05
Anthracene	PAHs (µg/kg DW)	0.98	0.36	-0.62	0.07	0.03	-0.04
Benz(a)anthracene	PAHs (µg/kg DW)	0.80	0.66	-0.14	0.08	0.07	-0.01
Benzo(a)pyrene	PAHs (µg/kg DW)	0.54	0.25	-0.29	0.05	0.02	-0.03
Chrysene	PAHs (µg/kg DW)	1.61	0.79	-0.82	0.21	0.12	-0.09
Fluoranthene	PAHs (µg/kg DW)	0.97	0.48	-0.49	0.18	0.10	-0.09
Fluorene	PAHs (µg/kg DW)	1.15	0.05	-1.09	0.17	0.01	-0.16
Naphthalene	PAHs (µg/kg DW)	0.16	0.05	-0.11	0.05	0.02	-0.03
Phenanthrene	PAHs (µg/kg DW)	1.46	0.61	-0.84	0.25	0.11	-0.14
Pyrene	PAHs (µg/kg DW)	1.77	0.96	-0.80	0.23	0.14	-0.09
Total PAHs	PAHs (µg/kg DW)	1.45	0.36	-1.09	0.10	0.04	-0.07

Notes:
[1]A negative value in the Delta column indicates a decrease in average concentration between the two reporting periods.

4 Aquatic Toxicity and Chemistry, Wet Season

MRP 1 Provision C.8.c required monitoring of three sites per year during storm events. Beginning with the adoption of MRP 2 in 2015 and continuing into MRP 3, implementation of C.8.g.iii monitoring could be achieved through a collaborative regional monitoring effort. As with MRP 2, ACCWP joined BAMSC member agencies from the Contra Costa Clean Water Program (CCCWP), San Mateo County Water Pollution Prevention Program (SMCWPPP), and Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) during the current reporting period to collaborate on a regional study that would sample ten sites synoptically using a targeted sampling design.

4.1 Monitoring Results, WY 2019 – WY 2024

For the current reporting period, this collaborative effort was conducted in WY 2023. As part of this effort, ACCWP sampled three locations in Alameda County. Two sites (SANLORCRKUP on San Leandro Creek and 204ACA200 on Alamo Canal) were selected in collaboration with the California Department of Pesticides Regulation (DPR), while the third site (Z4LA on Zone 4 Line A) sampled a site that had been monitored previously by the San Francisco Estuary Institute (SFEI) through the Small Tributaries Loading Strategy (STLS) project.

In total, 21 aquatic toxicity endpoints were derived through testing of five species at three Alameda County sites during one wet season storm event. Of these endpoints, three organism / test combinations exhibited toxicity test failures as defined in MRP 3. No samples, however, exhibited toxicity at or above the MRP 3 threshold of 50% effect that would indicate a follow-up effort (Table 4-1).

Cumulative results for aquatic toxicity monitoring conducted by ACCWP during WY 2023 are summarized in Figure 4-1. Icons for each sampling site indicate whether the sample was identified as toxic to at least one test species and, if so, whether the result was of sufficient magnitude to require re-test.

Table 4-1. Summary of WY 2023 ACCWP wet season aquatic toxicity monitoring results.

Wet and Dry Weather Water Samples		Pass or fail in the initial sampling, and percent effect if toxic						
Station	Collection Date	*S. capricornutum*	*C. dubia*		*H. azteca*	*P. Promelas*		*C. dilutus*
		Growth (% Effect)	Survival (% Effect)	Reprod. (% Effect)	Survival (% Effect)	Survival (% Effect)	Growth (% Effect)	Survival (% Effect)
Z4LA	11/8/2022	Pass (-156%)	Pass[1] (0%)	Pass (11.7%)	Pass (6.2%)	Pass (15.4%)	**Fail (17.9%)**	Pass (0%)
204ACA200	11/8/2022	Pass (-227%)	Pass[1] (0%)	**Fail (18.2%)**	Pass (19.7%)	Pass (2.6%)	Pass (5.0%)	Pass (5%)
SANLORCRKUP	11/8/2022	Pass (-204%)	Pass[1] (10%)	**Fail (28.2%)**	Pass (15.9%)	Pass (0.3%)	Pass (5.1%)	Pass (0%)

Concurrent with the aquatic toxicity monitoring, ACCWP collected water samples for analysis of pyrethroid pesticides, imidacloprid, and fipronil and its degradates. To assess these data, analytical results were compared with the EPA Office of Pesticide Programs' (OPP) chronic and acute aquatic life benchmarks for freshwater vertebrates, invertebrates, and vascular and nonvascular plants (Table 4-2).

Table 4-2. EPA Office of Pesticide Programs aquatic life benchmarks for fipronil and its degradates, imidacloprid, and pyrethroid pesticides.

Analyte	Freshwater Vertebrates		Freshwater Invertebrates		Nonvascular Plants	Vascular Plants
	Acute (ug/L)	Chronic (ug/L)	Acute (ug/L)	Chronic (ug/L)		
Fipronil	41.5	6.6	0.11	0.011	76	>100
Fipronil Desulfinyl	10	0.53	177.5	41	76	>100
Fipronil Sulfone	12.5	0.67	14.5	<0.22	76	>100
Imidacloprid	114500	9000	0.385	0.01	-	-
Bifenthrin	0.075	0.004	0.0002465	0.00005	> 290	> 330
Cyfluthrin	0.034	0.0042	0.0125	0.00012	> 2	
Cypermethrin	0.195	0.051	0.00028	< 0.00005	25000	> 1.62
Cyhalothrin, Lambda-	0.0145	0.031	0.00004	0.00022	> 310	> 0.508
Deltamethrin	0.075	0.017	0.0001	0.000026	> 3.1	> 779
Esfenvalerate	0.071	0.017	0.000424	0.0000309	> 5.6	> 8.6
Permethrin	0.395	0.052	0.0033	0.0042	> 4.4	0.65

The results of the aquatic chemistry monitoring conducted during wet season WY 2023 are summarized in Table 4-3 for imidacloprid and fipronil and its metabolites and in Table 4-4 for pyrethroid pesticides.

Table 4-3. Summary of water quality monitoring results for WY 2023 wet season analysis of imidacloprid, fipronil, and fipronil metabolites.

Station	Fipronil (ug/L)	Fipronil Desulfinyl (ug/L)	Fipronil Sulfide (ug/L)	Fipronil Sulfone (ug/L)	Imidacloprid (ug/L)
Z4LA	0.0062	0.0016	0.0002	<0.0008	<0.004
204ACA200	0.0089	0.0041	0.0009	0.0094	<0.004
SANLORCRKUP	0.011	0.0020	0.0006	0.0060	<0.004

Table 4-4. Summary of water quality monitoring results for WY 2023 wet season pyrethroids monitoring.

Station	Bifenthrin (ug/L)	Cyfluthrin, total (ug/L)	Cyhalothrin, Total lambda- (ug/L)	Cypermethrin, total (ug/L)	Deltamethrin/ Tralomethrin (ug/L)	Esfenvalerate /Fenvalerate, total (ug/L)	Permethrin, total (ug/L)
Z4LA	**0.0022**	<0.0004	<0.0003	**0.0032**	<0.0006	<0.0004	<0.002
204ACA200	**0.0042**	**0.0016**	<0.0003	**0.0009**	**0.0009**	<0.0004	<0.002
SANLORCRKUP	**0.0051**	**0.0008**	**0.0022**	**0.0008**	**0.0019**	<0.0004	<0.002

Notes:
All datapoints above the associated acute or chronic OPP Aquatic Life Benchmark are indicated in **bold**.

Measurements of fipronil observed at site SANLORCRKUP in the November 2022 monitoring event exhibited a concentration that equaled the chronic criterion for freshwater invertebrates. No other analytical results for fipronils or imidacloprid at any of the three sites met or exceeded OPP benchmarks.

In contrast to the situation for fipronils and imidacloprid, multiple pyrethroid pesticides exceeded one or more of the published OPP Aquatic Life Benchmarks:

- Bifenthrin concentrations at all three sites were above both the acute and chronic criteria for freshwater invertebrates.
- The cyfluthrin concentrations for two sites were above the chronic criterion for freshwater invertebrates.
- The concentration of cyhalothrin, lambda- at one site was above both the acute and chronic criteria for freshwater invertebrates.
- Cypermethrin concentrations at all three sites were above both the acute and chronic criteria for freshwater invertebrates.
- Deltamethrin concentrations from two sites were above both the acute and chronic criteria for freshwater invertebrates.
- None of the concentrations were above relevant criteria for esfenvalerate / fenvalerate or permethrin.

It should be noted that while reporting limits for analyses of pyrethroid pesticides achieved SWAMP targets, in several cases current tests do not have the sensitivity to measure pyrethroid concentrations at the level of the benchmarks. For example, in the case of esfenvalerate / fenvalerate, the analytical MDL (0.0004 ug/L) is an order of magnitude greater than the listed chronic aquatic life benchmark for freshwater invertebrates (0.0000309 ug/L).

4.2 Trends Analysis

In comparing results of WY 2023 wet season monitoring with those of the prior reporting period (WY 2012 through WY 2018), results appear similar. While the frequency of wet season monitoring events has decreased during the current reporting period and the sampling scheme for site selection varied to some extent between reporting periods, periodic test failures occurred within each reporting period. During the current reporting period, 3 of 21 measured endpoints (14%) assessed resulted in toxicity test failures. During the prior reporting period, 9 of 93 (10%) measured endpoints resulted in test failures, with approximately equivalent failure rates observed during times probabilistic (WY 2012 through WY 2015) and targeted (WY 2018) sampling schemes were employed. During WY 2023, none of the test failures were of sufficient magnitude to require re-test per permit conditions. Toxicity test failures during the prior study period triggered follow-on testing at three locations (20% of sites), and none of these follow-on tests were of sufficient magnitude to trigger an SSID study.

When comparing aquatic chemistry results from the two reporting periods, it is important to recognize the differences inherent in the two small datasets (three sites sampled once under MRP 2 and three different sites sampled once under MRP 3). While sites for each effort were identified through a targeted sampling scheme, there is no overlap in sites between the two periods. Also, while the analytical method employed for each effort was consistent, the analytical laboratory employed changed between the sampling events (Physis in WY 2018 and Caltest in WY 2023). The following discussion should be viewed within this context.

Two areas in which pesticide concentrations differed to a large degree between the two reporting periods was in analysis of fipronil products and imidacloprid. When comparing results of samples collected in WY 2023 to those collected during WY 2018, concentrations are generally one or more orders of magnitude lower in WY 2023 sampling.

Table 4-5. Analytical results for fipronil and imidacloprid during current and prior reporting periods.

Year	Station	Fipronil (ug/L)	Fipronil Desulfinyl (ug/L)	Fipronil Sulfide (ug/L)	Fipronil Sulfone (ug/L)	Imidacloprid (ug/L)
WY 2018	204CVY010	0.382	0.0044	0.0155	0.063	0.237
WY 2018	204SAU030	0.054	0.0023	0.0035	0.0103	0.0366
WY 2018	205R01198	0.015	0.0037	0.001	0.0057	0.0337
WY 2023	Z4LA	0.0062	0.0016	0.0002	<0.0008	<0.004
WY 2023	204ACA200	0.0089	0.0041	0.0009	0.0094	<0.004
WY 2023	SANLORCRKUP	0.011	0.0020	0.0006	0.0060	<0.004

Notes:
Shaded rows are for the current reporting period.

In contrast to the case for fipronil and imidacloprid, concentrations of pyrethroid pesticides observed generally increased between the previous and current reporting periods. The average concentration measured for five of the pyrethroids pesticides measured (cyfluthrin; cyhalothrin, lambda; cypermethrin; deltamethrin; and permethrin) increased by an order of magnitude between WY 2018 and WY 2023 sampling events, while two remaining pesticides remained stable (bifenthrin and esfenvalerate / fenvalerate). Fifteen of 21 pyrethroid concentrations (71%) measured in WY 2023 fell above the lowest published aquatic life benchmark (Table 4-2).[5] For the prior reporting period, approximately 10% of results fell above these same benchmarks.

Table 4-6. Wet season pyrethroid concentrations observed in WY 2018 and WY 2023.

Year	Station	Bifenthrin, Total	Cyfluthrin, Total	Cyhalothrin, lambda-, Total	Cypermethrin, Total	Deltamethrin, Total	Esfenvalerate/ Fenvalerate, Total	Permethrin, Total
WY 2018	204CVY010	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.0001
WY 2018	204SAU030	0.00358	0.00003	0.00003	0.00003	0.00003	0.00149	0.0001
WY 2018	205R01198	0.01160	0.00003	0.00003	0.00003	0.00003	0.00003	0.0001
WY 2023	Z4LA	0.0022	0.0002	0.00015	0.00320	0.00030	0.0002	0.001
WY 2023	204ACA200	0.0051	0.0008	0.0022	0.00080	0.00190	0.0002	0.001
WY 2023	SANLORCRKUP	0.00420	0.00160	0.00015	0.00090	0.00090	0.0002	0.001

Notes:
Shaded rows are for the current reporting period.

[5] Approximately 19% of results above benchmarks were associated with laboratory non-detects and substitution techniques used to quantify them for comparison with benchmarks. At the time of monitoring, more sensitive laboratory methods were not available on a commercial basis.

Figure 4-1. ACCWP Wet Season Aquatic Toxicity and Pesticide and Toxicity Monitoring Sites, WY 2019-2024.

5 Summary and Conclusions

Through the transition from a probabilistic sampling design employed through most of the prior reporting period to a targeted design in the current reporting period, sampling results might be expected to exhibit higher pesticide concentrations in sample media and more frequent toxicity test failures or greater percent effect observed in more recent data collection efforts. However, this does not appear to be the case. Findings associated with each Pesticides and Toxicity Monitoring component is discussed below.

5.1 Dry Season Aquatic Toxicity

Results from dry season aquatic toxicity testing conducted during the current reporting period show that 11% of toxicity endpoints tested resulted in test failures with one test of sufficient magnitude (> 50% effect) to require a re-test. This compares with the prior reporting period test failure rate of 9% of all toxicity endpoints tested with one test of sufficient magnitude to trigger a re-test. Breaking the prior reporting period down further, results show that test failures occurred at double the frequency under the targeted design (12%) when compared with the probabilistic design (6%).

5.2 Sediment Chemistry and Toxicity

Sediment chemistry analyses identified that six of twelve sites sampled by ACCWP during the current reporting period generated a PEC quotient >1. At five of these sites, this finding was associated with analysis of nickel, which is typical of prior ACCWP sampling. The only other PEC quotient >1 was associated with analysis of chromium. Overall, average PEC quotients declined slightly from those measured in the previous reporting period.

Of the twelve sediment chemistry stations sampled in the current reporting period, nine generated TUs < 1, predictive of little or no mortality to *H. azteca*. No samples generated TUs > 4, indicative of high or full mortality to the test species. Three samples fell within the uncertain area between 1 and 4 TUs; of these three sites, two elicited a toxic response to *H. azteca*, one of which at a magnitude of >50% effect. The average TU calculated for sites in the current reporting period was unchanged from the prior reporting period.

In the case of fipronil products in sediment, results are almost exclusively non-detects for both reporting periods. Any differences observed between the two reporting periods are therefore mainly attributable to differences in sampling locations and laboratory sensitivities (i.e., MDLs).

Given that sediment chemistry results are largely comparable between the two reporting periods, it is perhaps not surprising that sediment toxicity results are also similar. For the current

reporting period five of twelve sites sampled (42%) generated at least one sediment toxicity test failure; only one of these sites (8%) exhibited a magnitude greater than 50% effect. For the prior reporting period, while the overall percentage of sites that elicited at least one test failure was lower overall (8%), the proportion of sites that were selected through a targeted design through MRP 2 implementation and exhibited at least one test failure was actually higher (50%). Two of the sites sampled during the prior reporting period (11%) had a percent effect above the 50% trigger.

5.3 Wet Season Aquatic Toxicity and Chemistry

While sampling design differed for portions of the two reporting periods, wet season aquatic toxicity results were similar between the two periods. During the current reporting period, 14% of toxicity tests were associated with test failures; for the prior period the failure rate was slightly lower (10%). While no tests during the current reporting period were of sufficient magnitude to require a re-test as compared with 20% of sites that required follow-up activities during the prior reporting period.

While the wet season aquatic toxicity results were largely similar between the two study periods, the water quality samples collected in 2018 and 2023 exhibited noticeable differences. Pyrethroid pesticides concentrations were generally higher in WY 2023 compared with WY 2018, in several cases order of magnitude differences. Conversely, concentrations of fipronil products and imidacloprid in water decreased between WY 2018 and WY 2023, and again at order of magnitude levels.

5.4 Next Steps

ACCWP will continue to conduct Pesticides and Toxicity Monitoring consistent with permit conditions in-place at time of monitoring. WY 2025 monitoring activities will attempt to conduct additional sampling upstream of a previously-sampled location that exhibited sediment toxicity in hopes of locating sufficient volumes of depositional sediment to support required dry season monitoring efforts.

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Appendix D

Mercury and PCBs Control

Mercury and PC□s Control Measures □ □pdate □□□□

Fish Risk Reduction Program for Mercury and PC□s □ Fiscal □ear □□□□□□□ Status Summary Memorandum

ALAMEDA COUNTYWIDE CLEAN WATER PROGRAM

MERCURY AND PCBS CONTROL MEASURES – UPDATE 2025

Report prepared by:

Alameda Countywide Clean Water Program

Submitted to:

California Regional Water Quality Control Board, San Francisco Bay Region

September 2025

FINAL

MEMBER AGENCIES:

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Newark

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Alameda County Flood Control and Water Conservation District

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Protecting Alameda County Creeks, Wetlands & the Bay

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Geosyntec Consultants contributed substantially to the writing and preparation of this report.

Preface

This *Mercury and PCBs Control Measures – Update 2025* report was prepared by the Alameda Countywide Clean Water Program (ACCWP) per the Municipal Regional Stormwater National Pollutant Discharge Elimination (NPDES) Permit (MRP; NPDES Permit No. CAS612008; Order No. R2-2022-0018) for urban stormwater issued by the San Francisco Bay Regional Water Quality Control Board. This report fulfills the requirements of MRP Provisions C.11.a.iii.(1), C.11.b.iii.(1), C.11.b.iii.(2), C.11.c.iii.(2), C.11.d.iii.(1), C.12.a.iii.(1), C.12.b.iii.(1), C.12.b.iii.(2), C.12.c.iii.(2), C.12.e.iii.(1), C.12.e.iii.(2), C.12.e.iii.(4), and C.12.g.iii.(3) for reporting on the mercury and polychlorinated biphenyls (PCBs) control measure implementation.

This report is submitted by ACCWP on behalf of the following Permittees:

- The cities of Alameda, Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Oakland, Piedmont, Pleasanton, San Leandro, and Union City
- Alameda County
- Alameda County Flood Control and Water Conservation District
- Zone 7 of the Alameda County Flood Control and Water Conservation District (Zone 7 Water Agency).

List of Acronyms

Acronym	Definition
ac	acre
ACCWP	Alameda Countywide Clean Water Program (also Program)
AMP	Alameda Municipal Power
BASMAA	Bay Area Stormwater Management Agencies Association
Bay	San Francisco Bay
BPJ	Best Professional Judgement
CMP	Control Measure Plan
EBMUD	East Bay Municipal Utility District
FCS	Full Capture System
FY	Fiscal Year
GIS	Geographic Information System
GSI	Green Stormwater Infrastructure
g/yr	grams per year
HHW	Household Hazardous Waste
kg	kilogram
mgd	million gallons per day
µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MRP	Municipal Regional Stormwater Permit
MS4	Municipal Separate Storm Sewer System
ng/L	nanograms per liter
NPDES	National Pollutant Discharge Elimination System
OFEE	Oil Filled Electrical Equipment
O&M	Operations and Maintenance
PCBs	Polychlorinated Biphenyls
POC	Pollutants of Concern
POTW	Publicly Owned Treatment Works
ppm	parts per million
ROW	Right-of-Way
SPCC	Spill Prevention, Control, and Countermeasure
SVP	Silicon Valley Power
TMDL	Total Maximum Daily Load
UCMR	Urban Creeks Monitoring Report
URDP	Urban Runoff Diversion Project
WY	Water Year

Table of Contents

Appendices

List of Tables

List of Figures

1 Introduction

1.1 Purpose and Report Organization

1.2 Purpose

This *Mercury and PCBs Control Measures – Update 2025* report was prepared by the Alameda Countywide Clean Water Program (ACCWP or Program) per the Municipal Regional Stormwater Permit issued by the San Francisco Bay Regional Water Quality Control Board (Regional Water Board; Order No. R2-2022-0018). This report fulfills the requirements of MRP Provisions C.11.a.iii.(1), C.11.b.iii.(1), C.11.b.iii.(2), C.11.c.iii.(2), C.11.d.iii.(1), C.12.a.iii.(1), C.12.b.iii.(1), C.12.b.iii.(2), C.12.c.iii.(2), C.12.e.iii.(1), C.12.e.iii.(2), C.12.e.iii.(4), and C.12.g.iii.(3) for reporting on the mercury and polychlorinated biphenyls (PCBs) control measure implementation.

The following MRP reporting requirements are addressed within this report:

- In each Annual Report, Permittees shall submit documentation confirming that all control measures implemented during the previous Permit term (i.e., MRP 2.0) for which load reduction credit was recognized continue to be implemented at an intensity sufficient to maintain the credited load reduction. (C.11.a/C.12.a)
- In each of the 2022 through 2026 Annual Reports, Permittees shall report progress on the acreage of land areas investigated, including progress toward investigation of 100 percent of the old industrial land use area listed in the MRP. The reporting shall indicate what action was taken for the parcels investigated (e.g., abatement, referral, enforcement, etc.). Permittees shall submit all supporting data and information including referral reports. (C.11.b/C.12.b)
- Permittees shall report annually on ongoing enhanced operations and maintenance (O&M) activities associated with all past contaminated property referrals. (C.11.b/C.12.b)
- Beginning in 2023, in each Annual Report Permittees shall submit an account of control measure implementation consistent with the Old Industrial Control Measure 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. (C.11.c/C.12.c)
- Permittees shall submit in every Annual Report, beginning with the 2023 report, 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. (C.12.e)

- Beginning with their 2023 Annual Report, the Permittees shall provide each of the following items (C.12.g):
    - The number of applicable structures that applied for a demolition permit during the reporting year.
    - 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.
    - For each applicable structure, with PCBs concentrations of 50 mg/kg or greater, include the following: the project address, the demolition date, and a brief description of the PCBs-containing materials.
    - 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.
- In each of the 2023 through 2026 Annual Reports, Permittees shall report on efforts to promote recycling of mercury-containing products and efforts to increase effectiveness of these recycling efforts. Permittees shall also report on the mass of mercury-containing material collected throughout the region along with an estimate of the mass of mercury contained in recycled material using the methodology contained in the load reduction accounting system. (C.11.d)

This report is organized as follows:

1. Introduction – Section 1 describes the purpose of the report and provides background on the PCBs and mercury Total Maximum Daily Loads (TMDLs) and the current municipal regional stormwater permit (i.e., MRP 3.0).
2. Assess Load Reductions from MRP 2.0 - Section 2 provides documentation confirming that the control measures implemented during MRP 2.0 for which load reduction credit was recognized continue to be implemented at an intensity sufficient to maintain the credited load reduction.
3. Control Measures – A section is provided for each of the control measures that are being implemented by the Permittees during this permit term to control PCBs and mercury.

1.3 Background

1.3.1 Mercury and PCBs Total Maximum Daily Loads

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

Municipal separate storm sewer systems (MS4s) are one of the PCBs and mercury source/pathways identified in the TMDL plans. Local public agencies (i.e., Permittees) subject to requirements via NPDES permits are required to implement control measures in an attempt to reduce PCBs and mercury from entering stormwater runoff and the Bay. These control measures, also referred to as Best Management Practices (BMPs), are the tools that Permittees can use to assist in restoring water quality in the Bay.

1.3.2 Municipal Regional Permit

NPDES permit requirements for Phase I municipal stormwater programs and Permittees in the Bay Area are included in the MRP, which was issued to 70 cities, counties, and flood control districts in 2009 and initially reissued in 2015. The current MRP (i.e., MRP 3.0; Order No. R2-2022-0018) became effective on July 1, 2022. MRP 3.0 was amended in October 2023 (Order No. R2-2023-0019); this amendment did not affect Provisions C.11 and C.12.

Consistent with the TMDL plans, Provisions C.11 and C.12 of the MRP require the implementation of control programs, including source and treatment control measures and pollution prevention strategies, to reduce mercury and PCBs in urban stormwater runoff. The following sections describe the elements of the control programs and report on their implementation by the Alameda County Permittees.

2 Assess Load Reductions from Stormwater (C.11.a/C.12.a)

2.1 Description

The Permittees must implement an assessment methodology and data collection program to quantify, in a technically sound manner, mercury and PCBs loads reduced through implementation of pollution prevention, source control, and treatment control; green stormwater infrastructure; and other measures taken as part of the mercury and PCBs control programs. The load reduction accounting system is described in the *Source Control Load Reduction Accounting for Reasonable Assurance Analysis* report (Bay Area Stormwater Management Agencies Association (BASMAA) 2022). This accounting system describes calculation methodologies, data requirements, and model parameters used to quantify the load reduction for each type of control measure. The Permittees will use the assessment methodology to demonstrate the load reductions achieved during MRP 3.0 as well as progress toward achieving the mercury and PCBs TMDL wasteload allocations. The loads reduced during the permit term will be reported in the 2026 Annual Report.

This annual report provides documentation confirming that the control measures implemented during MRP 2.0 for which load reduction credit was recognized continue to be implemented at an intensity sufficient to maintain the credited load reduction.

2.2 Control Measures Implemented during MRP 2.0 with Load Reductions

Table 2-1 lists the PCBs load reductions credited for each control measure implemented from Fiscal Year (FY) 2013/14 through FY 2021/22 (i.e., during MRP 2.0). Table 2-2 lists the mercury load reduction credited during MRP 2.0, as reported in the *ACCWP Mercury and PCBs Watershed/Management Areas, Control Measures, and Load Reduction – Update 2022 report* (ACCWP 2022).

Table 2-1: PCBs Loads Reduced Within Alameda County (FY 2013/14 through FY 2021/22)

Control Measure Category	PCBs Load Reduced (g/yr)
Source Property Identification and Abatement	234.91
Green Stormwater Infrastructure and Treatment	62.13
Full Trash Capture Devices	27.92
Enhanced O&M	8.70
Manage PCBs in Building Materials	626.67
Diversion to POTW	7.78
TOTAL - All Control Measures	**968.1**

Table 2-2: Mercury Loads Reduced Within Alameda County (FY 2013/14 through FY 2021/22)

Control Measure Category	Mercury Load Reduced (g/yr)
Source Property Identification and Abatement	63.17
Green Stormwater Infrastructure and Treatment	733.19
Large Full Trash Capture Devices	230.61
Enhanced O&M	76.47
Diversion to POTW	18.47
TOTAL - All Control Measures	**1,122.0**

The sections below discuss the control measures implemented during MRP 2.0 for which load reduction credit was recognized

2.2.1 Source Property Identification and Abatement

The source property identification and abatement program implemented during MRP 2.0 involved investigations of properties located in historically industrial land use or other land use areas where PCBs were used, released, and/or disposed of and where sediment concentrations have been found at levels significantly above urban background levels. The source property identification and abatement control measure began with performing investigations of these "High Likelihood" areas to identify PCBs sources to the municipal storm drain system. The Permittees validated the existence of significantly elevated PCBs concentrations through surface soil/sediment sampling in the right-of-way or stormwater sampling in the storm drain system where visual inspections and/or other information suggested that a specific property was a potential source of significantly elevated PCBs concentrations. Where data confirmed significantly elevated PCBs concentrations (e.g., a sediment concentration equal to or greater than 1.0 mg/kg or a concentration greater than 0.5 mg/kg plus other lines of evidence) were present in soil/sediment from a potential source property or in stormwater samples, the Permittees took actions to cause the property to be abated or referred that property to the Regional Water Board to facilitate the issuance of orders for further investigation and remediation of the subject property.

For each confirmed source property, the Permittee implemented or caused to be implemented one or a combination of interim enhanced O&M measures in the street or storm drain infrastructure adjacent to the source property during the source property abatement process to prevent further contaminated sediment from entering the storm drain. Documentation of the ongoing enhanced O&M measures at the referred properties that have not been abated is provided in Section 3.2.

For those source properties that were self-abated (i.e., by the Permittee or the property owner), the Permittee provided the Regional Water Board with sufficient documentation that source property abatement had effectively eliminated the transport of PCBs or mercury offsite and from

entering the MS4 infrastructure for all transport mechanisms that apply to the site (e.g., stormwater runoff, wind, vehicle tracking).

As required by MRP 3.0 Provisions C.11.b and C.12.b, the source property investigation program is ongoing. See Section 3.2 for further information.

2.2.2 Green Stormwater Infrastructure and Treatment

This control measure included new development and redevelopment projects on private and public properties regulated by MRP Provision C.3, as well as retrofit of existing infrastructure in public right-of-way (ROW) areas and on public properties that are not Provision C.3 Regulated Projects. Permittees tracked and accounted for implemented C.3. projects and public retrofit green stormwater infrastructure (GSI) projects over the MRP 2.0 permit term.

New development, redevelopment, and GSI retrofit projects continue to be tracked by the Alameda County Permittees in their ArcGIS Online database. Refer to the Provision C.3 section of the *ACCWP Fiscal Year 2024/25 Annual Report* for further information.

2.2.3 Large Full Trash Capture Systems

Permittees installed full capture systems (large and inlet-based) in response to the trash control requirements of MRP Provision C.10. These devices capture sediments that may be contaminated with mercury and PCBs. Permittees are continuing to install full capture systems during the current permit term. The existing and new devices are routinely maintained per the requirements of MRP Provision C.10. Refer to the Provision C.10 section of the *ACCWP Fiscal Year 2024/25 Annual Report* for further information.

2.2.4 Enhanced Operations and Maintenance

As stated above, many Permittees installed inlet-based full trash capture devices in response to the trash control requirements of MRP Provision C.10. These inlets are typically inspected and cleaned more frequently due to the installation of the full trash capture device. Therefore, the Permittees conducted an enhanced O&M activity for each of these inlets. New inlet-based devices continue to be installed to comply with MRP Provision C.10. The inlet-based full trash capture devices are routinely maintained per the requirements of MRP Provision C.10.

2.2.5 Manage PCBs in Building Materials

MRP 2.0 Provision C.12.g. required Permittees to develop and implement a protocol for managing materials with PCBs concentrations of 50 parts per million or greater in applicable structures at the time such structures undergo demolition, so that PCBs do not enter municipal storm drain systems. A Permittee was exempt from this requirement if it provided evidence in its

FY 2016/17 Annual Report that the only buildings that existed pre-1980 within its jurisdiction were single-family residential and/or wood-frame buildings.

Permittees were required to develop a protocol by June 30, 2019 that included each of the following components:

- The necessary authority to ensure that PCBs do not enter municipal storm drains from PCBs-containing materials in applicable structures at the time such structures undergo demolition,
- A method for identifying applicable structures prior to their demolition, and
- Method(s) for ensuring PCBs are not discharged to the municipal storm drain from demolition of applicable structures.

By July 1, 2019 and thereafter, Permittees were required to:

- Implement or cause to be implemented the PCBs management protocol for ensuring PCBs are not discharged to municipal storm drains from demolition of applicable structures via vehicle track-out, airborne releases, soil erosion, or stormwater runoff; and
- Develop an assessment methodology and data collection program to quantify in a technically sound manner PCBs loads reduced through implementation of the protocol for controlling PCBs during demolition of applicable structures.

BASMAA completed a regional project in March 2019 that developed a framework for local programs to manage PCBs-containing materials during building demolition. The assistance included model ordinance language, guidance materials, tools, training materials, and outreach. Permittees began implementing the program on July 1, 2019 (BASMAA 2019). Building demolition data from Permittees with applicable structures are reported annually in the ACCWP's Annual Report.

Implementation of the program to manage PCBs in building materials during demolition is ongoing, as required by MRP 3.0. See Section 6 for further information.

2.2.6 Diversion to POTW

This control measure consists of diverting dry weather and/or first flush events from MS4s to publicly owned treatment works (POTWs) as a method to reduce loads of PCBs and mercury in urban runoff.

The Alameda County Flood Control and Water Conservation District has executed an agreement with the East Bay Municipal Utility District (EBMUD) for the operation of an Urban Runoff Diversion Project (URDP) at the Ettie Street Pump Station to direct dry weather discharge to EBMUD's main wastewater treatment plant for treatment. The URDP is designed to divert up to 0.5 million gallons per day (mgd) of dry-weather flow during the dry season (i.e., approximately April 16th through November 30th). EBMUD completed the installation of its pump and control system and new 6-inch diameter conveyance pipe in 2016; implementation is ongoing. Alameda County Flood Control and Water Conservation District staff coordinate with EBMUD staff to ensure proper operation and maintenance of the diversion pump.

3 Program for Source Property Identification and Abatement (C.11.b/C.12.b)

3.1 Description

MRP Provisions C.11.b and C.12.b require the Permittees to investigate land areas that are likely to contribute mercury and PCBs to MS4s. These investigations focus on land areas where industrial activities occurred prior to 1980 and continue today (i.e., old industrial land use areas). Alameda County Permittees must investigate 2,620 acres during the MRP 3.0 permit term.

For those 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 mercury or PCBs sediment concentrations greater than 0.5 mg/kg), Permittees must take actions to abate the mercury or PCBs source property or refer the property to the Regional Water Board for follow-up measures. For each source property referred to the Regional Water Board, Permittees should implement interim enhanced O&M measures in the street or storm drain infrastructure adjacent to the referred source property or implement a stormwater treatment system downstream of the property. These enhanced O&M measures must intercept historically deposited contaminated sediment in the vicinity of the source property and prevent further contaminated sediment from being discharged to the storm drain system.

3.2 Implementation

3.2.1 Source Area Investigation

This section reports the progress towards investigating 2,620 acres of old industrial area this permit term and actions taken for identified source properties including supporting data and referral reports, if any.

Sediment/Soil Sampling

As described in the WY 2024 UCMR (ACCWP 2025) Appendix A.3, *Pollutants of Concern Monitoring Report*, prior to WY 2021, the Program's Pollutants of Concern (POCs)-related monitoring had largely relied upon a targeted sampling design that collected soils associated with individual parcels in the public ROW as a means of identifying potential source properties. This sampling design is limited in the number of samples that can be feasibly collected and analyzed each year, which limits the geographic scope of the assessment efforts. The ACCWP identified and tested a variety of catchment-scale sampling techniques to test out their utility for identifying important source properties in larger catchment areas beginning in WY 2021. The goal of these efforts was to allow segregation of catchment areas of interest into two categories: (1) those that are potentially important contributors of POCs and require additional characterization efforts, or (2) those that are unlikely to be important contributors and can be excluded from future

monitoring efforts. Comparison of compositing techniques employed in WY 2021 and WY 2022 indicated that use of a compositing scheme that incorporates targeted sampling at all identified potential source properties within a given area was the most effective design based upon the ability to differentiate between areas of lower and higher pollutant concentrations in a cost- and time-efficient manner.

The goals of the WY 2024 ROW sampling efforts were twofold: (1) to extend the composite sample design scheme initiated in WY 2021 to additional locations within industrialized areas of Oakland and Emeryville, and (2) to revisit locations in Berkeley, Emeryville, Oakland, San Leandro, and Hayward that were sampled in previous years and exhibited concentrations reflective of moderate levels of contamination at that time. The targeted sampling sites in WY 2024 (i.e., May, June, and September 2024) included 45 zone samples and 25 resample sites.

Prior to initiation of zone sampling efforts, the ACCWP performed a desktop analysis of potential source properties located within zones not previously sampled in Oakland and Emeryville and grouped these within distinct polygons to support generation of representative composite samples. For each identified zone, sampling personnel collected a composite sample of soils in the ROW adjacent to potential source properties within the zone with sufficient surficial sediments. Sampling personnel also included within the composites sample material from a few non-target parcels within the given zones that had the appearance of potential source properties (e.g., heavy industry, oily sidewalks / sediments, etc.).

For the resample sites, ROW locations that had been sampled in prior years and exhibited "moderate" PCBs concentrations, defined as between 0.2 mg/kg and 1 mg/kg (ppm) were resampled for Old Industrial Control Measure Plan implementation (see Section 4.2.1 below). In some cases, proximate parcels were grouped to generate composite samples representing a block of parcels of interest or portion thereof. In other cases, individual facilities were sampled in the adjacent ROW.

In May and June 2024 (FY 2023/24), field personnel successfully collected sediment samples at 15 target zones within the Emeryville Crescent drainage and 27 targeted zones within the San Leandro Bay drainage.

In September 2024 (FY 2024/25), monitoring efforts investigated the properties within the composites sampling zones from May and June 2024 (FY 2023/24) with the highest concentrations of mercury and PCBs to pinpoint potential sources. ACCWP targeted sample collection at each parcel represented within PCBs composites that exhibited concentrations above 1.0 mg/kg, along with each parcel from the zone exhibiting the highest concentration of mercury. Not all the parcels that were represented in May / June composites were able to be sampled due to lack of sufficient mass of sediment present to support analyses for an individual parcel, construction activity, or presence of homeless encampments at a target sampling area.

The area investigated in September 2024 is not counted towards the total old industrial area investigated, as it was included in the FY 2023/24 area investigated (Table 3-1).

In May and June 2025, the ACCWP conducted onsite inspections and monitoring of properties suspected to be sources of moderate or high concentrations of PCBs. A total of 18 sites were monitored for this effort. Most of the parcel areas inspected and monitored for this effort are also not counted towards the total old industrial area investigated, as the parcels were located within the composite sample zones from FY 2023/24. The exception is 7825 San Leandro Street, Oakland, which was inspected and monitored in June 2025.

New source properties identified in FY 2024/25 are listed in Table 3-2. Referrals for the new properties will be submitted during FY 2025/26. One mercury source property was also identified and will be referred to the Water Board during the coming fiscal year.

Total Area Investigated

Table 3-1 below summarizes the total old industrial area investigated during this permit term.

Table 3-1: Total Old Industrial Area Investigated

Fiscal Year	Old Industrial Area Investigated
FY 2022/23	483.3
FY 2023/24	1,139.2
FY 2024/25	13.87[1]
Required during Permit Term	2,620
Area Remaining to be Investigated in MRP 3.0	983.63

[1] Most of the old Industrial area investigated in FY 2024/25 was previously monitored in FY 2023/24.

Table 3-2: ACCWP PCBs Source Properties Identified in FY 2024/25

SITE NAME	LOCATION	Site Description	Notes
Prologis	3600 Alameda, Oakland 703 37th Ave., Oakland	Former Owens-Brockway Glass factory	This property will be redeveloped, so no referral but will be tracked through the demolition and redevelopment process
Yenlin Air Conditioning	1268 48th Ave (between International Blvd and E 12th St)	The Li Yenlin Air Conditioning Company has been in operation for approximately 34 years. It has also operated as Yenlin Li Refrigeration Company doing HVAC, sheet metal, and mechanical work. The "back" portion of the parcel extends south to 49th Ave.	Contamination may be limited to the back portion of the site.
Cole Brothers	1797 12th Street, Oakland	Site operations include auto dismantling and salvaging company. Dismantling is conducted on a concrete pad outdoors.	The property is inactive but stores materials outside. The property owners are planning on cleaning up the site and selling it.
One Stop	1530 Wood Street, Oakland	Site is no longer in use and is planned for redevelopment	This property will be redeveloped, so no referral but will be tracked through the demolition and redevelopment process

3.2.2 Ongoing Enhanced O&M Activities

This section reports ongoing enhanced O&M activities associated with source property referrals. The properties that were referred to the Regional Water Board during MRP 2.0, their abatement status, and enhanced O&M BMPs are listed in Table 3-3 below.

Table 3-3: ACCWP Contaminated Sites Referred to the Regional Water Board

SITE NAME	LOCATION	YEAR REFERRED	ABATEMENT STATUS	ENHANCED O&M
AMG	3438 Helen Street, Oakland	2018	Abated	Site is fully abated (per Regional Water Board letter dated, July 18, 2023).
Custom Alloy Scrap Sales	2601 Peralta St., Oakland	2018	Abated	Site is abated per Regional Water Board update Jan 2025. Note this business is moving to the Port of Oakland and the site will be closed.
Precision Cast Products	1549 32nd Street and 2868 Hannah Street, Oakland	2018	Abated	Site is fully abated (per Regional Water Board letter dated, July 18, 2023).
UPRR – Oakland Coliseum	700 73rd Avenue, Oakland	2018	Abated	Site has been capped as part of the ongoing remediation.
Schnitzer Steel	1101 Embarcadero West, Oakland	2020	Referred Investigation/ Design	Onsite controls, wheel wash at site entrance, enhanced street sweeping conducted by Schnitzer. Inlet protection on Embarcadero West at Market.
Brownfield Auto Auction (former Nor-Cal Rock)	768 46th Avenue, Oakland	2020	Referred Investigation/ Design	Direct discharge to creek; no opportunity for enhanced O&M.
Economy Lumber	750 High Street, Oakland	2020	Referred Investigation/ Design	Direct discharge to creek; no opportunity for enhanced O&M.

Enhanced O&M activities listed for the referred source properties that have not been abated are ongoing.

4 Control Measure Implementation in Old Industrial Areas (C.11.c/C.12.c)

4.1 Description

MRP Provisions C.11.c and C.12.c require the Permittees, within the permit term, to implement or cause to be implemented control measures (i.e., treatment controls, diversion to wastewater treatment plants, GSI implemented in compliance with Provision C.3.b, enhanced operation and maintenance controls, or other controls) to achieve mercury and PCBs load reductions. The Alameda County Permittees must implement control measures on 664 acres of old industrial land use areas that have not been redeveloped or treated with GSI or other treatment controls by June 30, 2027.

Implementation of treatment control measures on 664 acres would result in a total estimated load reduction of about 28 grams per year (g/yr) of mercury and 121 g/yr of PCBs (assuming a 70% pollutant removal efficiency). Implementation of control measures with a lower efficiency than 70 percent will result in reduced area credited (for those lower efficiency control measures) toward fulfillment of the total treatment area requirement. Permittees may comply with this provision either by implementing control measures on old industrial land use areas or by accounting for the load reduction of mercury and PCBs (28 g/yr and 121 g/yr, respectively). The area credited will be proportional to the ratio of the implemented control measure efficiency relative to the efficiency of treatment controls.

Implementation of control measures in PCBs-contaminated catchments not designated as old industrial may count toward fulfillment of the required treatment area. In choosing locations for control measures, implementation should focus on catchments containing known or suspected source areas or evidence of moderate to high mercury or PCBs soil concentrations (generally soil/sediment concentrations greater than 0.3 mg mercury/kg or 0.2 mg PCBs/kg).

Treatment control systems must be designed and sized consistent with MRP Provision C.3.d (Numeric Sizing Criteria for Stormwater Treatment Systems). The Regional Water Board will consider the use of conditionally approved treatment control system sizing criteria, per MRP Provision C.3.j.ii(3)(b), provided an analysis of the effectiveness of the facility sized according to these alternative criteria is acceptable to the Regional Water Board Executive Officer.

Permittees may choose to implement diversions to publicly owned treatment plants (POTWs). Because of the higher removal efficiency of wastewater treatment, each acre addressed by routing stormwater to a POTW will be credited as 1.3 acres toward satisfying the old industrial area treatment requirement, provided that the POTW captures and treats the stormwater design storm identified in MRP Provision C.3.d.

4.2 Implementation

The Program submitted the Alameda County Old Industrial Area Control Measure Plan (CMP) on March 31, 2023. The plan includes schedules for implementing control measures in old industrial areas to address mercury and PCBs load reduction requirements included in MRP Provisions C.11.c and C.12.c. and includes maps of the areas where control measures will be implemented, the size of the treated catchments, and a description of design and sizing features for the selected control measures. The ACCWP revised the March 2023 CMP to address Water Board comments received in August 2023. The Revised CMP, submitted to the Water Board on March 31, 2024, was accepted on October 10, 2024. The ACCWP also received comments from Water Board staff on the Revised CMP via email on October 10, 2024. Response to these comments is provided in **Appendix A**.

4.2.1 Process for Selecting and Implementing Specific Treatment Control Measures

Focus Areas

For the 2024 Old Industrial Area CMP, the ACCWP analyzed existing monitoring data to identify known or suspected areas with moderate or high concentrations of mercury or PCBs. These areas are located in the cities of Berkeley, Emeryville, Hayward, Oakland, and San Leandro. The Emeryville Crescent and San Leandro Bay watersheds are known areas of concern and also are targeted for investigation. Additional focus areas will be assessed for specific treatment control measures as monitoring conducted for C.11.b/C.12.b (see Section 3) identifies additional moderate areas.

The process used to select and implement specific control measures for each focus area consists of the following:

1. The ACCWP resampled within the focus areas in 2024 and 2025 to confirm the presence of moderate or elevated levels of mercury or PCBs. The result of the monitoring are provided in **Appendix B**.
2. Confirmed source properties (i.e., PCBs ≥ 1 mg/kg), will either be referred to the Water Board or the permittee will abate or cause the property to be abated directly. See Section 3 for the list of source properties identified to date. New source properties will be referred to the Water Board as they are identified throughout the permit term unless the property will be abated directly (e.g., through redevelopment).
3. For target areas where moderately elevated levels of PCBs are confirmed in the ROW, the ACCWP or permittee will conduct site visits to determine if there is a readily identifiable source. These site visits began in May 2025 and will continue throughout FY 2025/26 and FY 2026/27.

4. If a property that is a source of moderate contamination (i.e., PCBs ≥ 0.2 mg/kg) is located, the permittee will assess whether the property owner can implement actions on the property to contain or treat the source. The permittee will take action to cause the containment or treatment to be implemented by the property owner at or around the site. This process will begin in FY 2025/26 for the moderate properties that were identified in May and June 2025.
5. If no specific property is identified as a source of moderate contamination, the ACCWP and permittee will select and implement controls for the moderate area in the ROW (i.e., treatment or enhanced operations and maintenance) based on site constraints, local infrastructure, and drainage patterns. This step will begin in FY 2025/26 and will continue in subsequent fiscal years.

As described in Section 3.2.1, in September 2024, the ACCWP monitored ROW locations adjacent to old industrial properties within the composites sampling zones from May and June 2024, to pinpoint source properties.

To prepare for onsite inspections and sampling of sites suspected of generating moderate or high concentrations of PCBs, the ACCWP prepared a draft *Source Area Investigations of Mercury and PCBs Standard Operating Procedure* (SOP) document. The SOP describes the desktop evaluation, field preparation, field inspection and monitoring, and control measure steps for assessing potential properties. The SOP was then used to select sites in the Emeryville Crescent and San Leandro Bay watershed focus areas for an onsite inspection and monitoring pilot study.

In May and June, 2025, the ACCWP conducted onsite inspections and monitoring of properties at the selected sites in the Emeryville Crescent and San Leandro Bay watershed focus areas. A total of 17 sites were inspected and monitored for this effort. The results of these inspections and monitoring and maps showing the selected sites are provided in **Appendix B**. Results from May and June 2025 are considered preliminary at this time and will be reported and submitted with the Integrated Monitoring Report in March 2026.

4.2.2 Treatment Controls

This section describes the treatment control measures that were implemented during this permit term (i.e., since July 1, 2022) to control mercury and PCBs in urban runoff from old industrial areas, areas containing known or suspected source areas, or areas with evidence of moderate to high mercury or PCBs soil concentrations. Potential treatment control measures include retrofit with GSI or non-GSI treatment control, enhanced operation and maintenance (O&M) practices, redevelopment with GSI, full trash capture devices, and diversion to POTW. The process for selecting treatment control measures is described in the CMP.

Figures 1 through 15 (provided at the end of this report) show PCBs and mercury sample concentrations in monitoring data collected through WY 2024, untreated old industrial land use areas, and old industrial areas that were treated prior to FY 2020/21. These maps also show the locations and drainage catchments of old industrial area treatment measures installed in FY 2021/22 and treatment control measures installed during this permit term (i.e., since July 1, 2022). The old industrial area indicated on these maps is based on mapping conducted over the previous two permit terms. The maps will be updated throughout the permit term to improve the accuracy of the maps at the parcel scale and to add new monitoring data.

Retrofit with Treatment Controls or Green Stormwater Infrastructure

Retrofit projects provide treatment control for existing developed areas without redeveloping the tributary area. Treatment controls may include GSI or non-GSI treatment.

Retrofit treatment control measures will be designed and sized consistent with MRP Provision C.3.d (Numeric Sizing Criteria for Stormwater Treatment Systems). Non-regulated retrofit projects with significantly constrained area or other substantial constraints will size treatment control measures using the *Guidance for Sizing Green Infrastructure Facilities in Streets Projects* (BASMAA 2019) with companion analysis *Green Infrastructure Facility Sizing for Non-Regulated Street Projects* (BASMAA 2017). These projects will comply with the Regional Water Board's conditional approval of that sizing method providing qualifiers and conditions under which alternative sizing criteria may be used for Non-Regulated green streets projects (SFBRWQCB, 2019). Retrofit projects that use the conditionally approved sizing criteria in MRP Provision C.3.j.ii.(3)(b) will provide an analysis to the Regional Water Board that determines the reduced effectiveness of the facility sized according to these alternative criteria.

Since July 1, 2022, 0.76 acres of old industrial and moderate parcels and ROW area were retrofit. In addition, 2.7 acres of old industrial area was retrofit in FY 2021/22. A list of the retrofit projects is provided in Table 4-1 below. These projects are illustrated in Figures 1 through 15.

Table 4-1: Old Industrial and Moderate Area Treated by Retrofit Since July 1, 2022

Jurisdiction	Project Name	Catchment Area	Source Property Area Treated (acres)	Old Industrial or Moderate Area Treated (acres)
FY 2022/23				
Alameda	Mitchell Avenue Northside Improvements	0.67	0	0.67
FY 2024/25				
Alameda	Clement Ave Safety CIP	0.088	0	0.088

Notes: Control measure implementation data may be incomplete for FY2024/25 at the time this report was generated for the following Permittees: Emeryville, San Leandro, and Union City.

Enhanced Operations and Maintenance

Routine MS4 O&M activities conducted by Permittees include street sweeping and drain inlet cleaning. In addition, storm drains, culverts, and channels are maintained as needed (i.e., desilted when needed to remove excessive quantities of accumulated sediment that may be causing localized flooding issues). Infrequent capital improvement projects may also remove accumulated sediment from the MS4, such as storm drain repairs or channel stabilization projects. Each of these O&M activities removes PCBs and mercury that are present in the sediment that is removed.

FY 2024/25, the City of Oakland flushed approximately 7,571 feet (1.43 miles) of storm drain lines in old industrial areas.

Redevelopment with Green Stormwater Infrastructure

GSI is treatment control that uses vegetation, soils, and natural processes to manage water and create healthier urban environments. GSI is used to reduce runoff volumes, disperse runoff to vegetated areas, harvest and use runoff where feasible, promote infiltration and evapotranspiration, and use bioretention and other natural treatment control systems to detain and treat runoff before it reaches tributary creeks and, ultimately, San Francisco Bay. GSI treatment control measures include, for example, pervious pavement, infiltration basins, bioretention facilities, green roofs, and rainwater harvesting systems. Infiltration-based GSI treatment control measures are generally not recommended in areas with contaminated soils or groundwater.

Regulated redevelopment projects in old industrial and moderate areas are required to implement GSI by MRP Provision C.3. Redevelopment projects reduce mercury and PCBs loads both through the redevelopment activity (e.g., soil removal, capping, and addition or replacement of impervious surfaces) and the implementation of GSI treatment.

MRP Provision C.3.d includes numeric sizing criteria for GSI treatment measures for regulated redevelopment projects. The current 8th Edition of the *C.3 Technical Guidance Manual*, published in March 2023, provides guidance on the selection, sizing, and design of GSI treatment measures for redevelopment projects in Alameda County (ACCWP 2023b). MRP 3.0 includes several significant changes to Provision C.3, including changes to the types and sizes of projects regulated. Most of these changes go into effect on July 1, 2023. The redevelopment projects in old industrial and moderate areas listed in this plan will be sized and designed in accordance with this guidance.

Table 4-2 below lists the status of the applicable redevelopment projects listed in the 2024 Old Industrial Area Control Measure Plan Appendix E.

Table 4-2: Applicable Redevelopment Project Status

Jurisdiction	Project Name	Address	Old Industrial or Moderate Area Treated	Project Status
Alameda	Alameda Landing	Mitchell Avenue at Fifth Street	13.37	Project completed (see Table 4-3)
Alameda	Alameda Marina	The project site is bounded on the west by Alameda Marina Drive, on the north by the Oakland-Alameda Estuary, to the east by a northern extension of Willow Street, and to the south by Clement Avenue	26.9	This project has been determined to be not applicable based on likely direct discharge to the Bay and lack of onsite PCBs data
Alameda	Alameda Point	West of Main Street at the western end of Alameda, bounded by the Oakland-Alameda Estuary on the north, Main Street on the east, and the San Francisco Bay on the south and by the federal property to the west.	62.6	Multi-phase ongoing redevelopment project. Adaptive Re-Use Phase 1 has been completed (see Table 4-3)
Berkeley	Berkeley Commons	600 Addison St. / 91 Bolivar Dr. / 2222 Third Street	8.5	Project completed (see Table 4-3)
Oakland	Phoenix 800	801 Pine Street	5.5	Multi-phase redevelopment. The southern portion of the site is near completion. The northern portion will be redeveloped in the future.

Jurisdiction	Project Name	Address	Old Industrial or Moderate Area Treated	Project Status
Oakland	Former Brockway Glass	3600 Alameda Avenue	26.9	Project is in the demolition phase
Pleasanton	Villages at the Quarry	3300 Busch Road	49.0	Project is under permit review.

Since July 1, 2022, 76.12 acres of old industrial parcels and ROW area have been redeveloped. In addition, 47 acres of old industrial area was redeveloped in FY 2021/22. A list of the redevelopment projects since July 1, 2022 is provided in Table 4-3 below. These projects are illustrated in Figures 1 through 15.

Table 4-3: Old Industrial and Moderate Area Treated by Redevelopment Since 7/1/2022

Jurisdiction	Project Name	Project Address	Catchment Area	Source Property Area Treated (acres)	Old Industrial or Moderate Area Treated (acres)
FY2022/23					
Alameda	Alameda Landing Public Waterfront Improvements	Mitchell Avenue at Fifth Street, Alameda	3.88	0	3.88
Berkeley	Berkeley Commons	600 Addison Street, Berkeley	8.46	0	8.46
Oakland	1067 Calcot Place	1067 Calcot Place, Oakland	1.24	0	1.24
FY2023/24					
Alameda	Alameda Landing Northern Waterfront Improvements – Mitchell Avenue Greenway Phase 2	North of Mitchell Avenue, east from Avenue A, Alameda	0.77	0	0.77
Alameda	Alameda Point Adaptive Re-Use Phase 1	W Midway and W Tower Ave between Saratoga St and Pan Am Way, Oakland	4.49	0	4.49
Fremont	Scannell Properties	40517 Albrae Street, Fremont	20.29	0	20.29
Oakland	GE Oakland	5441 International Blvd, Oakland	23.07	23.07	0
FY 2024/25					
Alameda	Alameda Landing Waterfront Residential Phase 2 and 3	Mitchell and A Ave, Alameda	8.72	0	8.72
Alameda	Alameda City Parking Lot	W Ranger and Pan Am Way, Alameda	0.01	0	0.01
Oakland	2255 International Blvd	2255 International Blvd, Oakland	0.88	0	0.88
Oakland	1708 Wood Street	1708 Wood Street, Oakland	2.07	0	2.07
Oakland	1701 Campbell Street	1701 Campbell Street, Oakland	2.24	0	2.24

Notes: Control measure implementation data may be incomplete for FY24/25 at the time this report was generated for the following Permittees: Emeryville, San Leandro, and Union City.

Full Trash Capture Treatment Control Measures

MRP Provision C.10 requires Permittees to implement trash prevention and control actions, including full capture systems (FCS), to reduce trash generation. Full capture systems capture sediment along with trash that may be contaminated with PCBs and mercury. Permittees have installed both large and inlet-based full capture systems in response to Provision C.10. Large full trash capture devices, including hydrodynamic separators (HDS), gross solids removal devices (GSRDs), and baffle boxes, capture and treat urban runoff from large drainage areas, ranging from 10's to 100's of acres. Inlet-based devices in roadways enhance the capture of sediments that may be contaminated with PCBs and mercury from smaller, localized drainage areas. In addition, these inlets are typically cleaned more frequently as a result of the installation of the full trash capture device. Full capture system implementation is described in each Permittee's Trash Load Reduction Plan. Full trash capture devices are sized and designed in compliance with MRP Provision C.10.

Alameda County Permittees treated 549.5 acres of old industrial and moderate parcels and ROW areas with large and inlet-based full trash capture systems since July 1, 2022. Table 4-4 lists the area treated by large and inlet-based FCS since FY 2022/23. These projects are illustrated in Figures 1 through 15.

Table 4-4: Old Industrial and Moderate Area Treated by Full Capture Systems Since 7/1/2022

Full Trash Capture System Type	Old Industrial or Moderate Area Treated (acres)
Large Fill Capture Systems	250.3
Inlet-Based Full Capture Systems	299.2

Notes: Control measure implementation data may be incomplete for FY2024/25 at the time this report was generated for the following Permittees: San Leandro and Union City.

5 Program for Controlling PCBs from Electrical Utilities (C.12.e)

5.1 Description

Provision C.12.e requires Permittees to develop and implement a program to manage PCBs in oil-filled electrical equipment (OFEE[1]). Requirements include: (1) develop or improve and implement standard operating procedures (SOPs) to respond to, clean up, and report spills and releases from municipally owned OFEE; (2) develop and implement a plan to maintain and upgrade municipal owned OFEE; (3) document PCBs loads avoided through existing and ongoing OFEE removal and replacement programs; and (4) collaborate with the Regional Water Board to request information from non-municipally owned electrical utilities.

5.2 Implementation

5.2.1 Enhanced Spill Response and Reporting Requirements

To assist the Permittees with complying with Provision C.12.e, the Program and the City of Alameda participated in a BAMSC workgroup to collaboratively develop an Enhanced Spill Response and Reporting Requirements addendum. The addendum describes improved spill response and reporting practices that will be implemented by the municipally owned electrical utilities that currently operate within the MRP-area:

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

The improved spill response and reporting practices (provided in the Fiscal Year 2022-23 Annual Report) is being implemented in addition to the actions described in the spill response SOPs and Spill Prevention Control and Countermeasure (SPCC) Plans that each of the above municipally owned electrical utilities follow. In all cases, the actions described in the addendum are in addition to any local, state, and/or federal requirements described in existing SOPs/SPCCs.

[1] Oil-filled electrical equipment (OFEE) includes electrical equipment that has an oil storage container (or multiple containers) in which the oil is present solely to support the function of the apparatus or the device. Examples include transformers, circuit breakers, and electrical switches.

5.2.2 Plan to Maintain and Upgrade OFEE

AMP continues to maintain and upgrade its OFEE. AMPs' Stormwater Pollution Prevention Plan, updated July 3, 2023, was provided with the ACCWP 2024 Annual Report.

5.2.3 PCBs Loads Avoided

The Program assisted the City of Alameda with estimating PCBs loads avoided 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 (July 1, 2022), as well as actions undertaken during this permit term. Documentation of the loads avoided, details of the calculations, and assumptions used to estimate the load reduced are provided in **Appendix C**.

6 Manage PCBs-Containing Materials and Wastes During Building Demolition Activities

6.1 Description

Provision C.12.g requires that Permittees implement the established protocol for managing PCBs-containing building materials prior to issuing a demolition permit. Permittees shall enhance their construction site control program to minimize migration of PCBs into the MS4 from applicable structures containing building materials with PCBs concentrations of 50 ppm or greater during demolition activities. Permittees shall ensure construction sites are inspected during demolition during the rainy season and obtain verification that materials from demolished buildings are appropriately disposed. A Permittee is exempt from this requirement if it provided evidence acceptable to the Regional Water Board Executive Officer in its FY 2022/23 Annual Report that the only buildings that existed pre-1980 within its jurisdiction were single-family residential and/or wood-frame buildings.

6.2 Implementation

Appendix D (*PCBs in Building Materials Management Program – Fiscal Year 2024/25 Data Summary*) documents the following permit-required reporting:

- The number of applicable structures that applied for a demolition permit during the reporting year.
- 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.
- For each applicable structure with PCBs concentrations ≥ 50 ppm, provide the project address, the demolition date, and a brief description of the PCBs-containing materials.
- 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 address, the date building was constructed, and the date of demolition.

7 Mercury Collection and Recycling Implemented Throughout the Region

7.1 Description

Provision C.11.d requires Permittees to promote, facilitate, and/or participate in collection and recycling of mercury-containing consumer products, devices, and equipment and make efforts to increase effectiveness of recycling efforts throughout the region.

Mercury load avoidance and reduction includes a number of source control measures listed in the California Mercury Reduction Act adopted by the State of California in 2001. These source controls include material bans, reductions of the amount of mercury allowable for use in products, and mercury device recycling. The following source controls bans are included:

- Sale of cars that have light switches containing mercury;
- Sale or distribution of fever thermometers containing mercury without a prescription;
- Sale of mercury thermostats; and
- Manufacturing, sale, or distribution of mercury-added novelty items.

In addition, fluorescent lamps manufacturers continue to reduce the amount of mercury in lamps sold in the U.S. Manufacturers have significantly reduced the amount of mercury in fluorescent linear tube lamps.

Mercury Device Recycling Programs resulting in mercury load reduction generally include three types of programs that promote and facilitate the collection and recycling of mercury–containing devices and products:

- Permittee-managed household hazardous waste (HHW) drop-off facilities and curbside or door-to-door pickup;
- Private business take-back and recycling programs (e.g., Home Depot); and
- Private waste management services for small and large businesses.

7.2 Implementation

7.2.1 Promotion of Mercury Recycling

The Program coordinates with Permittees and local household hazardous waste (HHW) collection facilities to implement mercury collection and recycling in accordance with MRP Provision C.11.d. Alameda County offers multiple free, convenient options for Alameda County residents to

dispose of their HHW properly and safely, including mercury devices. Specialized services are also provided to qualifying small businesses and residential landlords.

Recycling services are promoted by StopWaste, a public agency governed by the Alameda County Waste Management Authority, the Alameda County Source Reduction and Recycling Board, and the Energy Council. StopWaste helps Alameda County's businesses, residents, and schools waste less, recycle properly, and use water, energy, and other resources efficiently (https://www.stopwaste.org/at-home/household-hazardous-waste). The StopWaste website provides information on how to properly dispose of mercury-containing wastes such as light bulbs and thermostats. The site also links to EPA guidance on how to cleanup spills from broken mercury-containing bulbs and thermometers. The StopWaste RE:source website provides guidance for reuse, repair, recycling, and safe disposal for Alameda County, Contra Costa County, and the City of Palo Alto (https://resource.stopwaste.org/). RE:source is also available as an application for smart phones.

7.2.2 Mass of Mercury Collected

The Program assisted the Permittees with estimating the mass of mercury-containing material collected in Alameda County and 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 MRP 3.0 Fact Sheet (provided in **Appendix E)**.

8 References

Alameda Clean Water Program (ACCWP), 2022. Mercury and PCBs Watershed/Management Areas, Control Measures, and Load Reduction – Update 2022. August 29, 2022.

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BASMAA, 2018. PCBs in Priority Building Materials: Model Screening Assessment Applicant Package. Managing PCBs-Containing Building Materials during Demolition: Guidance, Tools, Outreach and Training. August. Revised November 2109 and May 2023

BASMAA, 2019. Guidance for Sizing Green Infrastructure Facilities in Street Projects. Prepared by Dan Cloak Environmental Consulting and EOA, Inc. for BASMAA. June 2019.

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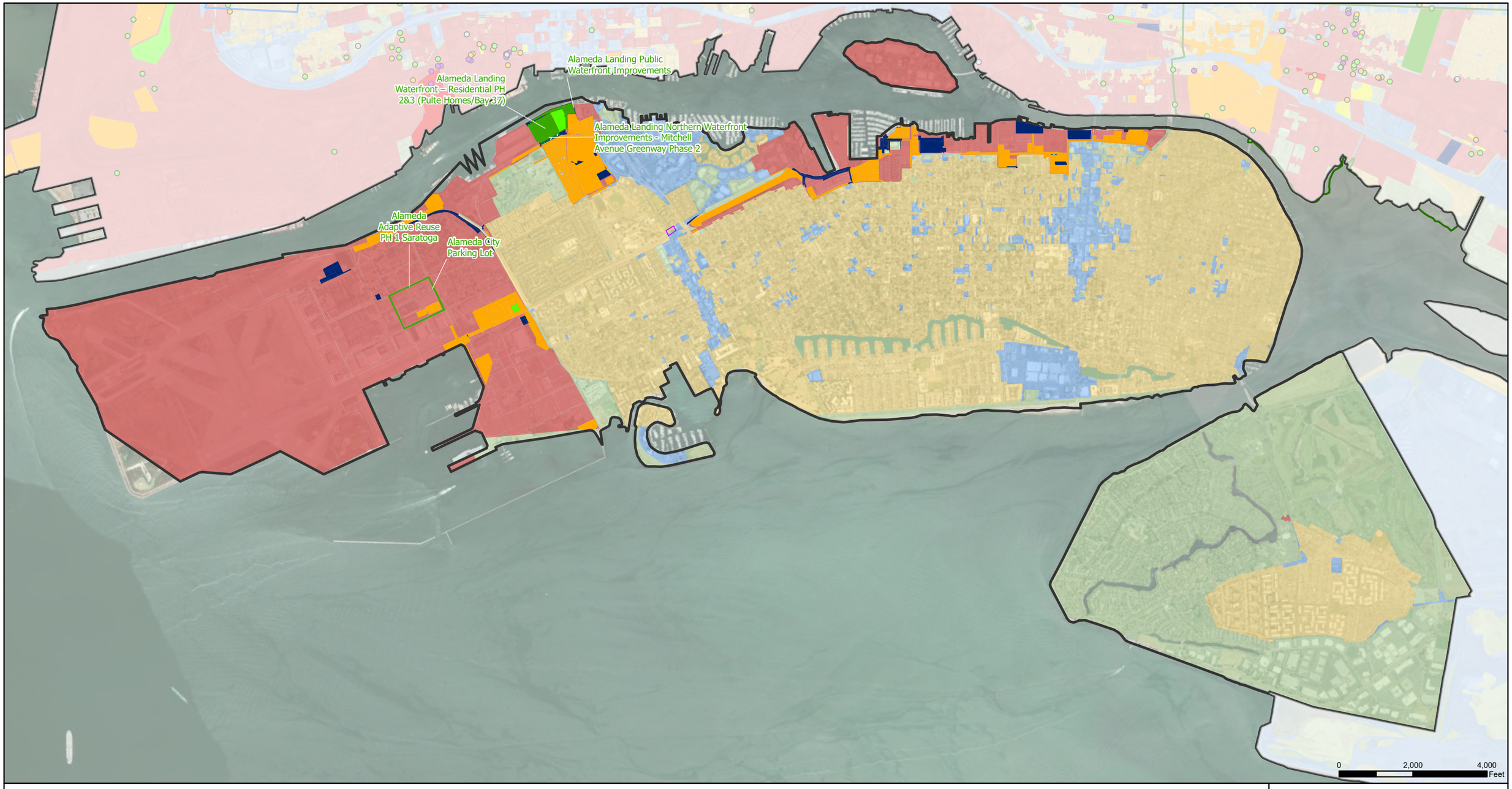
FIGURES



City Limits
Emeryville Crescent Watershed Investigation Area
San Leandro Bay Watershed Investigation Area

Baseline Category
Old Commercial & Old Transportation
Old Residential
New Urban & Open Space

Old Industrial Baseline (OIB)
Source Properties (Referred)
Untreated Old Industrial
Untreated Moderate Area (Non Old Industrial Areas with >=0.2 mg/kg)
Treated by GSI Or FTC Through 6/30/2021

GSI Projects within OIB
GSI Projects FY21-22 (7/1/2021-6/30/2022)
Redevelopment
Retrofit
GSI Projects After 6/30/2022
Redevelopment [a]
Retrofit

Large FTC within OIB[b]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022
Drainage Area Boundaries After 6/30/2022

Small FTC Projects within OIB[c]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022

Sediment Samples (through WY 2024)
<0.2 mg/kg PCBs & <0.3 mg/kg Hg
<0.2 mg/kg PCBs & >0.3 mg/kg Hg
0.2 - 1.0 mg/kg PCBs
>1.0 mg/kg PCBs

Notes:
a: Project labels indicate projects with moderate to high concentrations of PCBs.
b: Includes HDS and GSRD
c: Includes Basket, CPS, Inlet Filter

City of Alameda

Projects Treating Old Industrial and Moderate Area

Figure 1

September 2025

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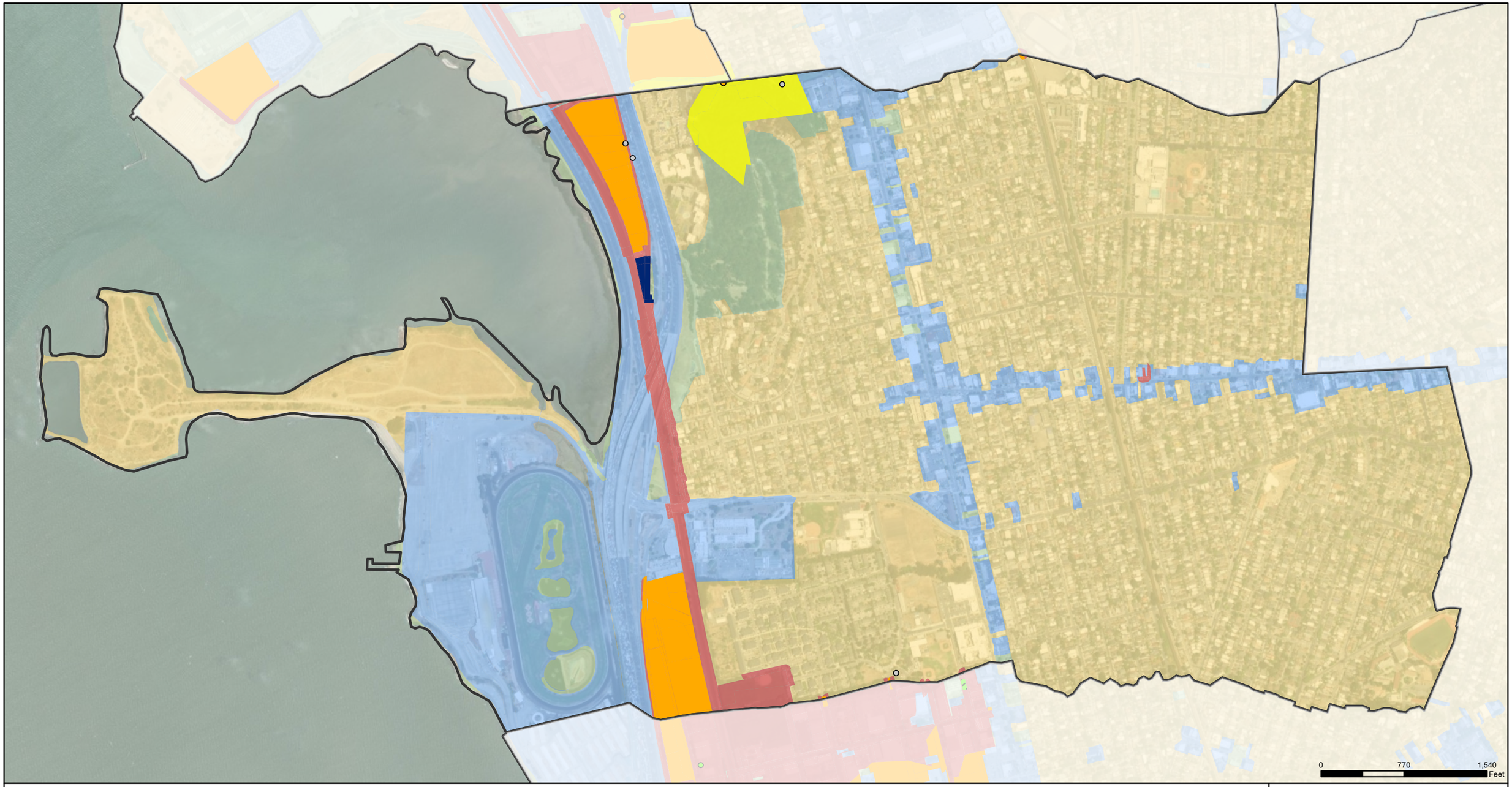

City Limits
Emeryville Crescent Watershed Investigation Area
San Leandro Bay Watershed Investigation Area

Baseline Category
Old Commercial & Old Transportation
Old Residential
New Urban & Open Space

Old Industrial Baseline (OIB)
Source Properties (Referred)
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GSI Projects within OIB
GSI Projects FY21-22 (7/1/2021-6/30/2022)
Redevelopment
Retrofit
GSI Projects After 6/30/2022
Redevelopment [a]
Retrofit

Large FTC within OIB[b]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022
Drainage Area Boundaries After 6/30/2022

Small FTC Projects within OIB[c]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022

Sediment Samples (through WY 2024)
<0.2 mg/kg PCBs & <0.3 mg/kg Hg
<0.2 mg/kg PCBs & >0.3 mg/kg Hg
0.2 - 1.0 mg/kg PCBs
>1.0 mg/kg PCBs

Notes:
a: Project labels indicate projects with moderate to high concentrations of PCBs.
b: Includes HDS and GSRD
c: Includes Basket, CPS, Inlet Filter

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City of Albany

Projects Treating Old Industrial and Moderate Area

Figure 2

September 2025

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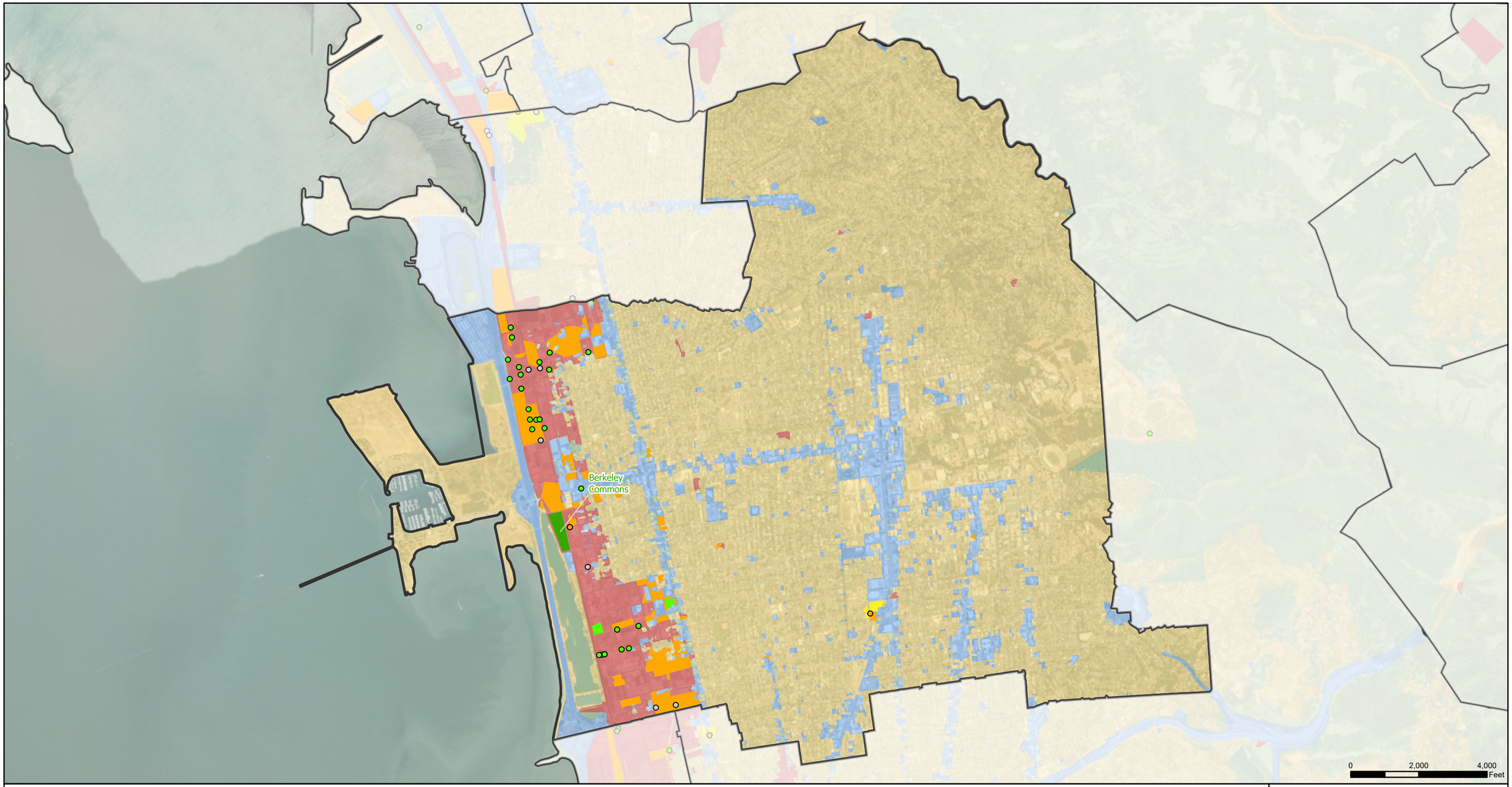

City Limits
Emeryville Crescent Watershed Investigation Area
San Leandro Bay Watershed Investigation Area

Baseline Category
Old Commercial & Old Transportation
Old Residential
New Urban & Open Space

Old Industrial Baseline (OIB)
Source Properties (Referred)
Untreated Old Industrial
Untreated Moderate Area (Non Old Industrial Areas with >=0.2 mg/kg)
Treated by GSI Or FTC Through 6/30/2021

GSI Projects within OIB
GSI Projects FY21-22 (7/1/2021-6/30/2022)
Redevelopment
Retrofit
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Redevelopment [a]
Retrofit

Large FTC within OIB[b]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022
Drainage Area Boundaries After 6/30/2022

Small FTC Projects within OIB[c]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022

Sediment Samples (through WY 2024)
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<0.2 mg/kg PCBs & >0.3 mg/kg Hg
0.2 - 1.0 mg/kg PCBs
>1.0 mg/kg PCBs

Notes:
a: Project labels indicate projects with moderate to high concentrations of PCBs.
b: Includes HDS and GSRD
c: Includes Basket, CPS, Inlet Filter

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City of Berkeley

Projects Treating Old Industrial and Moderate Area

Figure 3

September 2025

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0 2,500 5,000 Feet

City Limits
Emeryville Crescent Watershed Investigation Area
San Leandro Bay Watershed Investigation Area

Baseline Category
Old Commercial & Old Transportation
Old Residential
New Urban & Open Space

Old Industrial Baseline (OIB)
Source Properties (Referred)
Untreated Old Industrial
Untreated Moderate Area (Non Old Industrial Areas with >=0.2 mg/kg)
Treated by GSI Or FTC Through 6/30/2021

GSI Projects within OIB
GSI Projects FY21-22 (7/1/2021-6/30/2022)
Redevelopment
Retrofit
GSI Projects After 6/30/2022
Redevelopment [a]
Retrofit

Large FTC within OIB[b]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022
Drainage Area Boundaries After 6/30/2022

Small FTC Projects within OIB[c]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022

Sediment Samples (through WY 2024)
<0.2 mg/kg PCBs & <0.3 mg/kg Hg
<0.2 mg/kg PCBs & >0.3 mg/kg Hg
0.2 - 1.0 mg/kg PCBs
>1.0 mg/kg PCBs

Notes:
a: Project labels indicate projects with moderate to high concentrations of PCBs.
b: Includes HDS and GSRD
c: Includes Basket, CPS, Inlet Filter

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City of Dublin

Projects Treating Old Industrial and Moderate Area

Figure 4

September 2025

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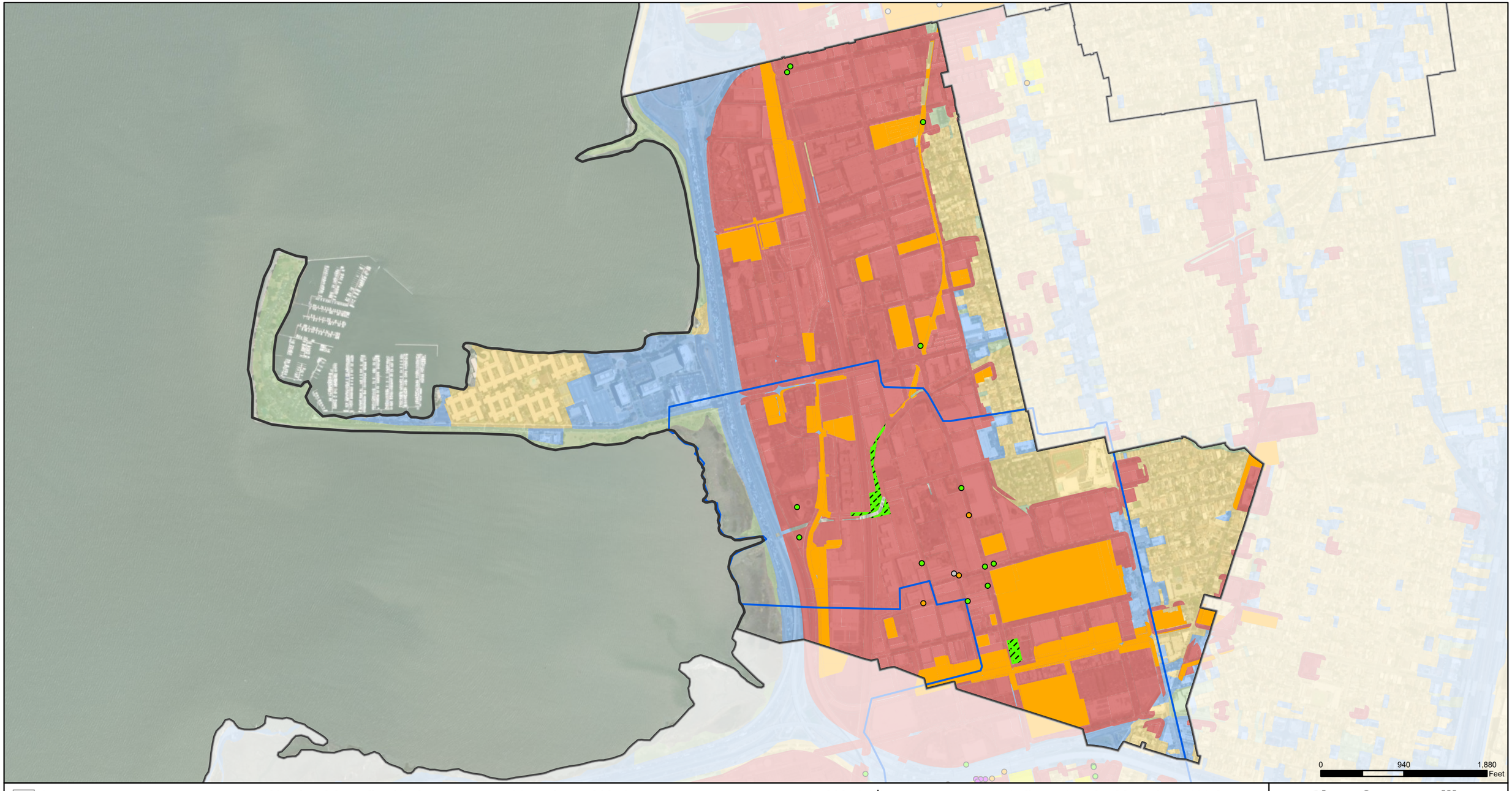

City Limits

Emeryville Crescent Watershed Investigation Area

San Leandro Bay Watershed Investigation Area

Baseline Category

Old Commercial & Old Transportation

Old Residential

New Urban & Open Space

Old Industrial Baseline (OIB)

Source Properties (Referred)

Untreated Old Industrial

Untreated Moderate Area (Non Old Industrial Areas with >=0.2 mg/kg)

Treated by GSI Or FTC Through 6/30/2021

GSI Projects within OIB

GSI Projects FY21-22 (7/1/2021-6/30/2022)

Redevelopment

Retrofit

GSI Projects After 6/30/2022

Redevelopment [a]

Retrofit

Large FTC within OIB[b]

FTC Install Date

FY21-22 (7/1/2021-6/30/2022)

After 6/30/2022

Drainage Area Boundaries After 6/30/2022

Small FTC Projects within OIB[c]

FTC Install Date

FY21-22 (7/1/2021-6/30/2022)

After 6/30/2022

Sediment Samples (through WY 2024)

<0.2 mg/kg PCBs & <0.3 mg/kg Hg

<0.2 mg/kg PCBs & >0.3 mg/kg Hg

0.2 - 1.0 mg/kg PCBs

>1.0 mg/kg PCBs

N

Notes:

a: Project labels indicate projects with moderate to high concentrations of PCBs.

b: Includes HDS and GSRD

c: Includes Basket, CPS, Inlet Filter

City of Emeryville

Projects Treating Old Industrial and Moderate Area

Figure 5

September 2025

Geosyntec consultants

cleanwater PROGRAM alameda county

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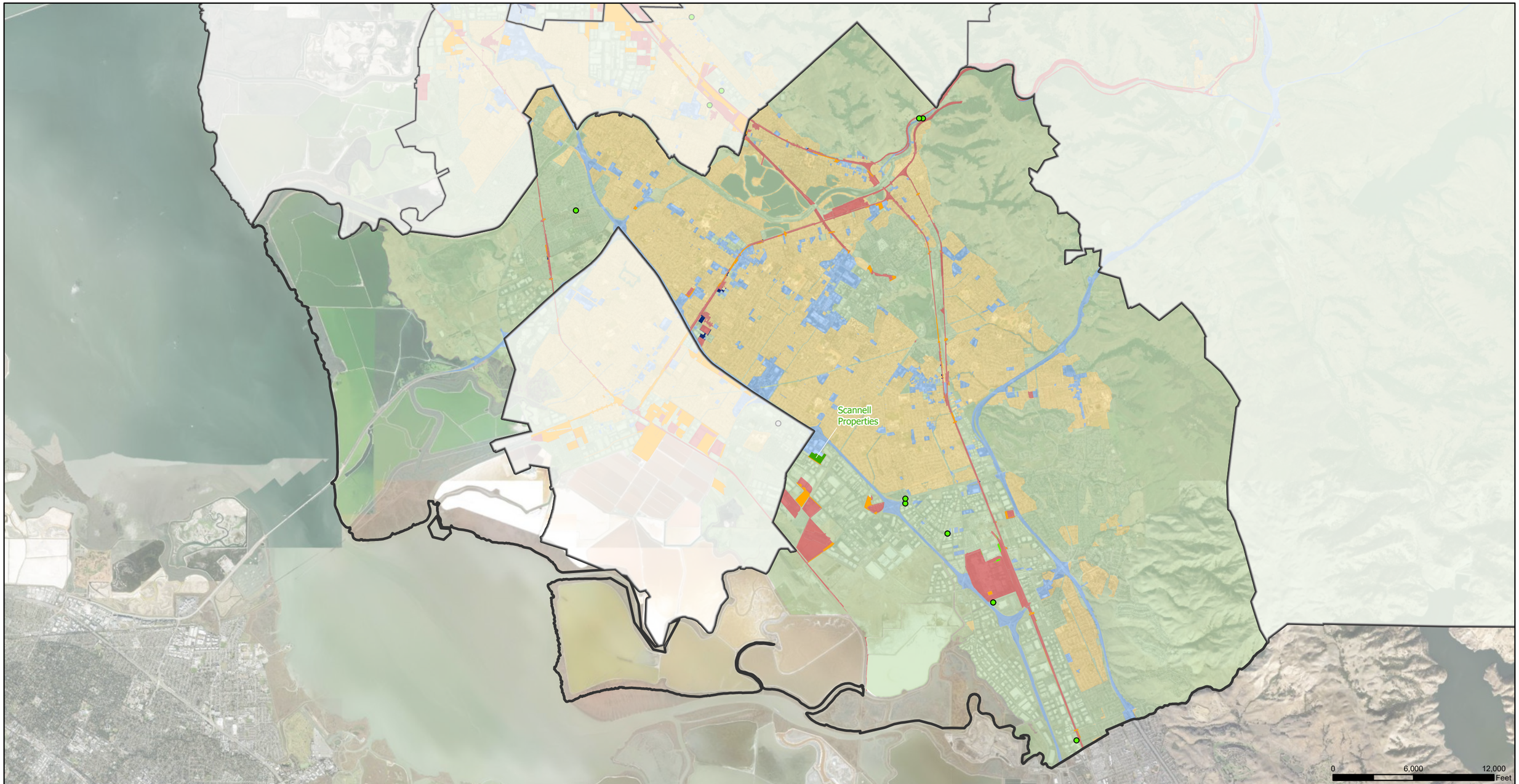

City Limits
Emeryville Crescent Watershed Investigation Area
San Leandro Bay Watershed Investigation Area

Baseline Category
Old Commercial & Old Transportation
Old Residential
New Urban & Open Space

Old Industrial Baseline (OIB)
Source Properties (Referred)
Untreated Old Industrial
Untreated Moderate Area (Non Old Industrial Areas with >=0.2 mg/kg)
Treated by GSI Or FTC Through 6/30/2021

GSI Projects within OIB
GSI Projects FY21-22 (7/1/2021-6/30/2022)
Redevelopment
Retrofit
GSI Projects After 6/30/2022
Redevelopment [a]
Retrofit

Large FTC within OIB[b]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022
Drainage Area Boundaries After 6/30/2022

Small FTC Projects within OIB[c]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022

Sediment Samples (through WY 2024)
<0.2 mg/kg PCBs & <0.3 mg/kg Hg
<0.2 mg/kg PCBs & >0.3 mg/kg Hg
0.2 - 1.0 mg/kg PCBs
>1.0 mg/kg PCBs

N

Notes:
a: Project labels indicate projects with moderate to high concentrations of PCBs.
b: Includes HDS and GSRD
c: Includes Basket, CPS, Inlet Filter

City of Fremont

Projects Treating Old Industrial and Moderate Area

Figure 6

September 2025

Geosyntec consultants

cleanwater PROGRAM alameda county

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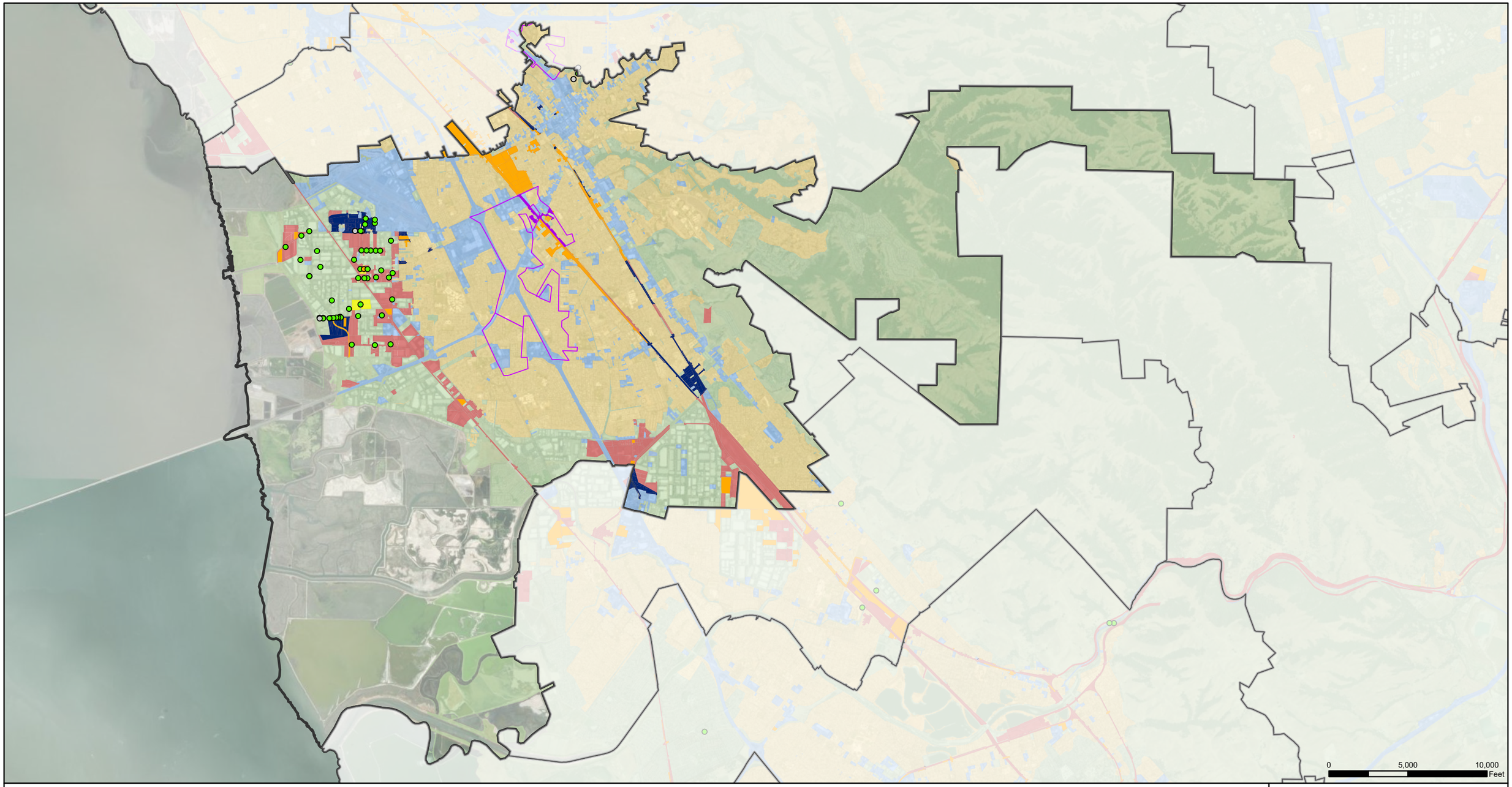

City Limits
Emeryville Crescent Watershed Investigation Area
San Leandro Bay Watershed Investigation Area

Baseline Category
Old Commercial & Old Transportation
Old Residential
New Urban & Open Space

Old Industrial Baseline (OIB)
Source Properties (Referred)
Untreated Old Industrial
Untreated Moderate Area (Non Old Industrial Areas with >=0.2 mg/kg)
Treated by GSI Or FTC Through 6/30/2021

GSI Projects within OIB
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Redevelopment
Retrofit
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Redevelopment [a]
Retrofit

Large FTC within OIB[b]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022
Drainage Area Boundaries After 6/30/2022

Small FTC Projects within OIB[c]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022

Sediment Samples (through WY 2024)
<0.2 mg/kg PCBs & <0.3 mg/kg Hg
<0.2 mg/kg PCBs & >0.3 mg/kg Hg
0.2 - 1.0 mg/kg PCBs
>1.0 mg/kg PCBs

N

Notes:
a: Project labels indicate projects with moderate to high concentrations of PCBs.
b: Includes HDS and GSRD
c: Includes Basket, CPS, Inlet Filter

City of Hayward

Projects Treating Old Industrial and Moderate Area

Figure 7

September 2025

Geosyntec consultants

cleanwater PROGRAM alameda county

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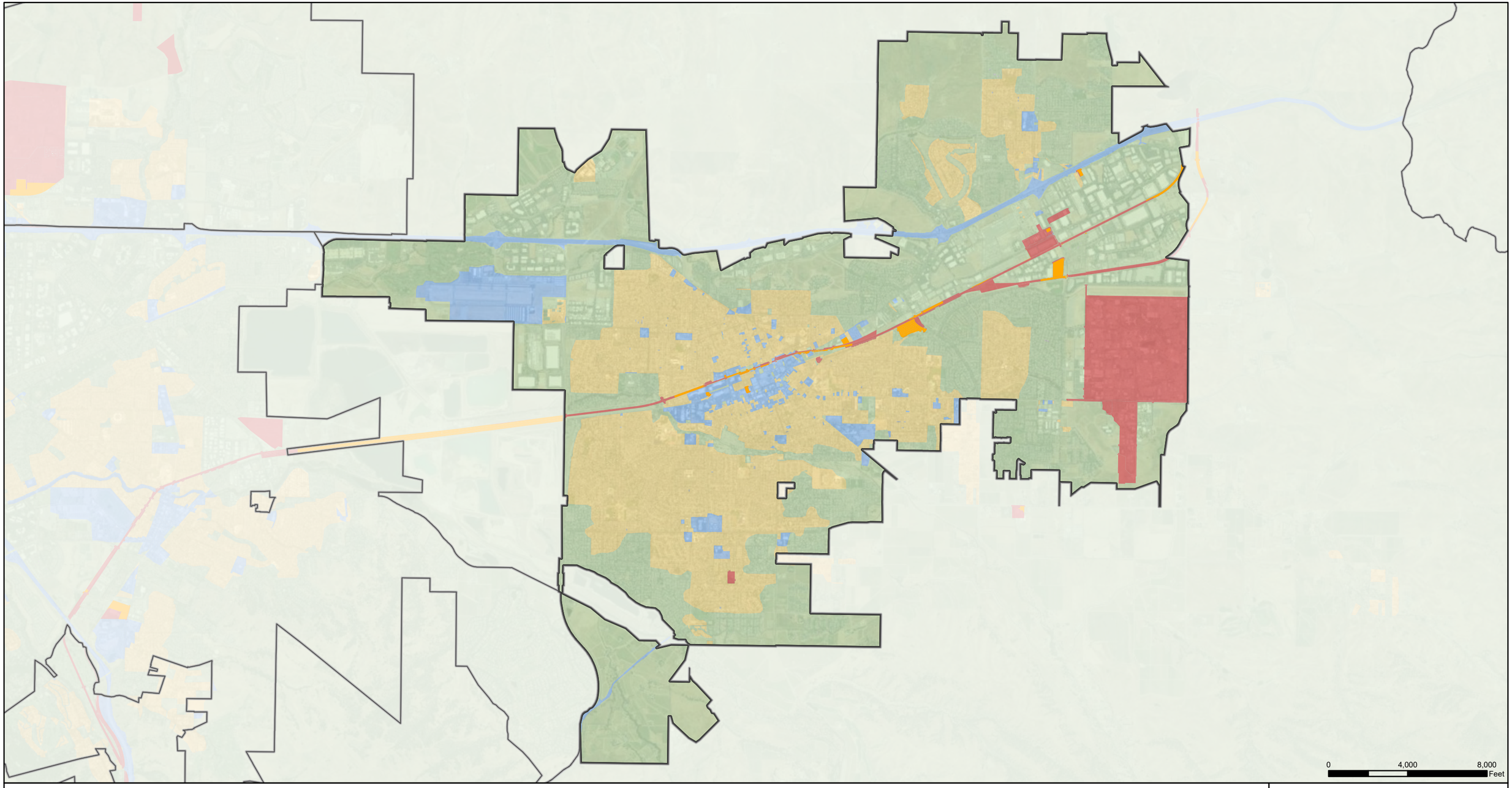

City Limits

Emeryville Crescent Watershed Investigation Area

San Leandro Bay Watershed Investigation Area

Baseline Category

Old Commercial & Old Transportation

Old Residential

New Urban & Open Space

Old Industrial Baseline (OIB)

Source Properties (Referred)

Untreated Old Industrial

Untreated Moderate Area (Non Old Industrial Areas with >=0.2 mg/kg)

Treated by GSI Or FTC Through 6/30/2021

GSI Projects within OIB

GSI Projects FY21-22 (7/1/2021-6/30/2022)

Redevelopment

Retrofit

GSI Projects After 6/30/2022

Redevelopment [a]

Retrofit

Large FTC within OIB[b]

FTC Install Date

FY21-22 (7/1/2021-6/30/2022)

After 6/30/2022

Drainage Area Boundaries After 6/30/2022

Small FTC Projects within OIB[c]

FTC Install Date

FY21-22 (7/1/2021-6/30/2022)

After 6/30/2022

Sediment Samples (through WY 2024)

<0.2 mg/kg PCBs & <0.3 mg/kg Hg

<0.2 mg/kg PCBs & >0.3 mg/kg Hg

0.2 - 1.0 mg/kg PCBs

>1.0 mg/kg PCBs

N

Notes:

a: Project labels indicate projects with moderate to high concentrations of PCBs.

b: Includes HDS and GSRD

c: Includes Basket, CPS, Inlet Filter

City of Livermore

Projects Treating Old Industrial and Moderate Area

Figure 8

September 2025

Geosyntec consultants

cleanwater PROGRAM alameda county

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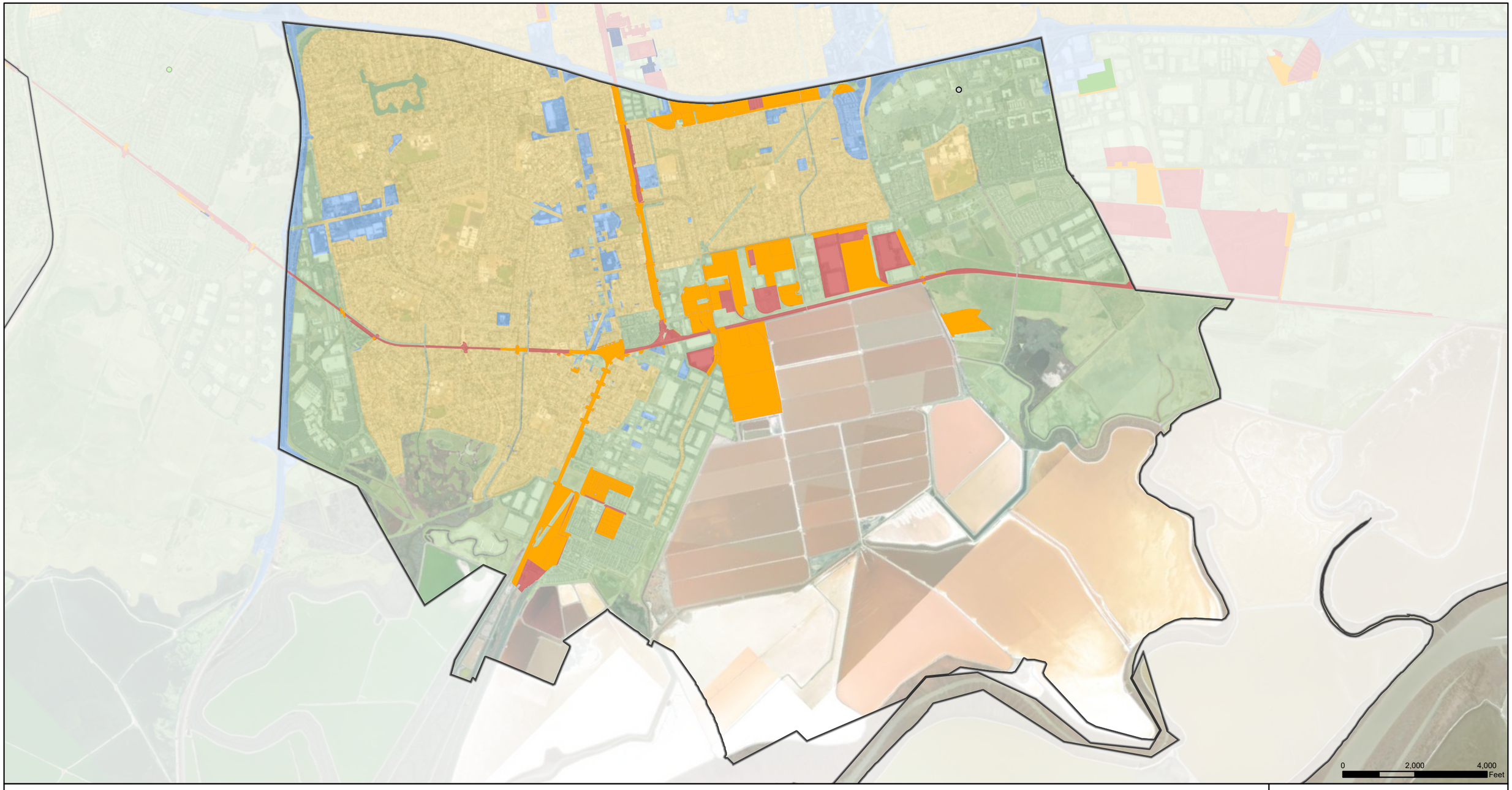

City Limits
Emeryville Crescent Watershed Investigation Area
San Leandro Bay Watershed Investigation Area

Baseline Category
Old Commercial & Old Transportation
Old Residential
New Urban & Open Space

Old Industrial Baseline (OIB)
Source Properties (Referred)
Untreated Old Industrial
Untreated Moderate Area (Non Old Industrial Areas with >=0.2 mg/kg)
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Redevelopment
Retrofit
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Redevelopment [a]
Retrofit

Large FTC within OIB[b]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022
Drainage Area Boundaries After 6/30/2022

Small FTC Projects within OIB[c]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022

Sediment Samples (through WY 2024)
<0.2 mg/kg PCBs & <0.3 mg/kg Hg
<0.2 mg/kg PCBs & >0.3 mg/kg Hg
0.2 - 1.0 mg/kg PCBs
>1.0 mg/kg PCBs

Notes:
a: Project labels indicate projects with moderate to high concentrations of PCBs.
b: Includes HDS and GSRD
c: Includes Basket, CPS, Inlet Filter

City of Newark

Projects Treating Old Industrial and Moderate Area

Figure 9

September 2025

Geosyntec consultants

cleanwater PROGRAM alameda county

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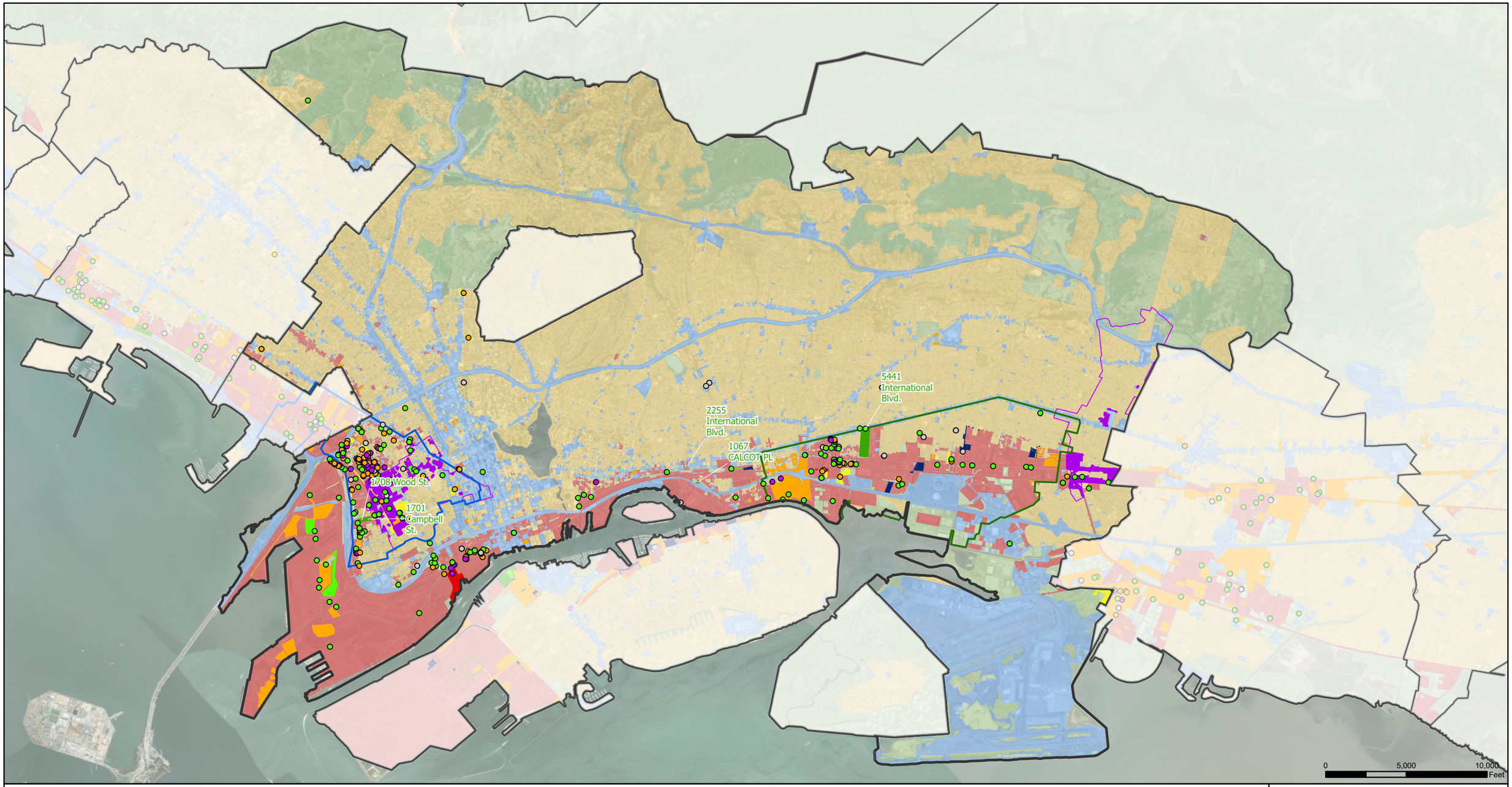

City Limits
Emeryville Crescent Watershed Investigation Area
San Leandro Bay Watershed Investigation Area

Baseline Category
Old Commercial & Old Transportation
Old Residential
New Urban & Open Space

Old Industrial Baseline (OIB)
Source Properties (Referred)
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Untreated Moderate Area (Non Old Industrial Areas with >=0.2 mg/kg)
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Large FTC within OIB[b]
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Small FTC Projects within OIB[c]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022

Sediment Samples (through WY 2024)
<0.2 mg/kg PCBs & <0.3 mg/kg Hg
<0.2 mg/kg PCBs & >0.3 mg/kg Hg
0.2 - 1.0 mg/kg PCBs
>1.0 mg/kg PCBs

Notes:
a: Project labels indicate projects with moderate to high concentrations of PCBs.
b: Includes HDS and GSRD
c: Includes Basket, CPS, Inlet Filter

City of Oakland

Projects Treating Old Industrial and Moderate Area

Figure 10

September 2025

Geosyntec consultants

cleanwater PROGRAM alameda county

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0 690 1,380 Feet

City Limits
Emeryville Crescent Watershed Investigation Area
San Leandro Bay Watershed Investigation Area

Baseline Category
Old Commercial & Old Transportation
Old Residential
New Urban & Open Space

Old Industrial Baseline (OIB)
Source Properties (Referred)
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GSI Projects within OIB
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Redevelopment
Retrofit
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Redevelopment [a]
Retrofit

Large FTC within OIB[b]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022
Drainage Area Boundaries After 6/30/2022

Small FTC Projects within OIB[c]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022

Sediment Samples (through WY 2024)
<0.2 mg/kg PCBs & <0.3 mg/kg Hg
<0.2 mg/kg PCBs & >0.3 mg/kg Hg
0.2 - 1.0 mg/kg PCBs
>1.0 mg/kg PCBs

Notes:
a: Project labels indicate projects with moderate to high concentrations of PCBs.
b: Includes HDS and GSRD
c: Includes Basket, CPS, Inlet Filter

City of Piedmont

Projects Treating Old Industrial and Moderate Area

Figure 11

September 2025

Geosyntec consultants

cleanwater PROGRAM alameda county

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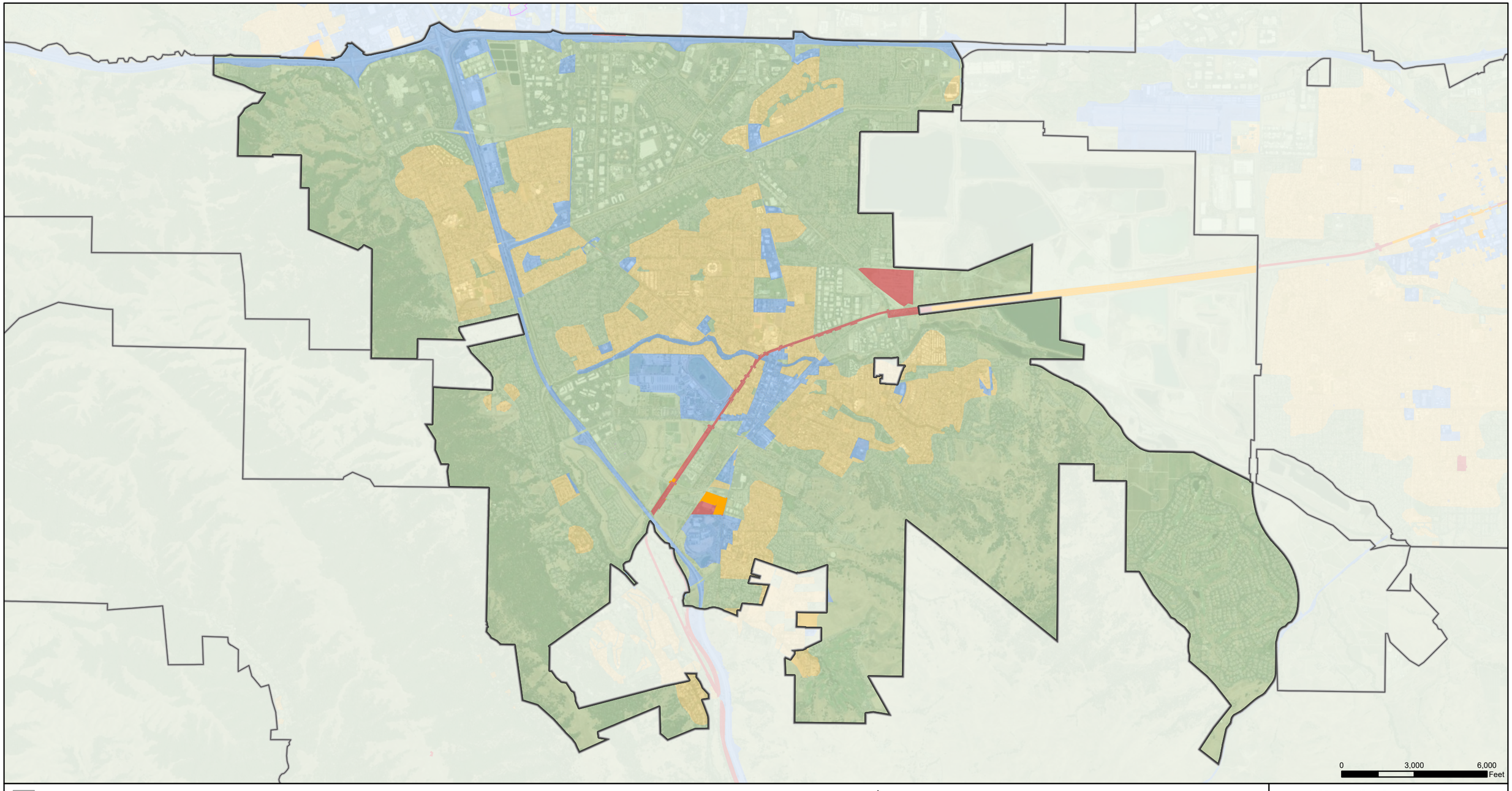

City Limits
Emeryville Crescent Watershed Investigation Area
San Leandro Bay Watershed Investigation Area

Baseline Category
Old Commercial & Old Transportation
Old Residential
New Urban & Open Space

Old Industrial Baseline (OIB)
Source Properties (Referred)
Untreated Old Industrial
Untreated Moderate Area (Non Old Industrial Areas with >=0.2 mg/kg)
Treated by GSI Or FTC Through 6/30/2021

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Redevelopment
Retrofit
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Redevelopment [a]
Retrofit

Large FTC within OIB[b]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022
Drainage Area Boundaries After 6/30/2022

Small FTC Projects within OIB[c]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022

Sediment Samples (through WY 2024)
<0.2 mg/kg PCBs & <0.3 mg/kg Hg
<0.2 mg/kg PCBs & >0.3 mg/kg Hg
0.2 - 1.0 mg/kg PCBs
>1.0 mg/kg PCBs

N

Notes:
a: Project labels indicate projects with moderate to high concentrations of PCBs.
b: Includes HDS and GSRD
c: Includes Basket, CPS, Inlet Filter

City of Pleasanton

Projects Treating Old Industrial and Moderate Area

Figure 12

September 2025

Geosyntec consultants

cleanwater PROGRAM alameda county

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0 2,500 5,000 Feet

City Limits
Emeryville Crescent Watershed Investigation Area
San Leandro Bay Watershed Investigation Area

Baseline Category
Old Commercial & Old Transportation
Old Residential
New Urban & Open Space

Old Industrial Baseline (OIB)
Source Properties (Referred)
Untreated Old Industrial
Untreated Moderate Area (Non Old Industrial Areas with >=0.2 mg/kg)
Treated by GSI Or FTC Through 6/30/2021

GSI Projects within OIB
GSI Projects FY21-22 (7/1/2021-6/30/2022)
Redevelopment
Retrofit
GSI Projects After 6/30/2022
Redevelopment [a]
Retrofit

Large FTC within OIB[b]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022
Drainage Area Boundaries After 6/30/2022

Small FTC Projects within OIB[c]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022

Sediment Samples (through WY 2024)
<0.2 mg/kg PCBs & <0.3 mg/kg Hg
<0.2 mg/kg PCBs & >0.3 mg/kg Hg
0.2 - 1.0 mg/kg PCBs
>1.0 mg/kg PCBs

Notes:
a: Project labels indicate projects with moderate to high concentrations of PCBs
b: Includes HDS and GSRD
c: Includes Basket, CPS, Inlet Filter

N

City of San Leandro

Projects Treating Old Industrial and Moderate Area

Figure 13

September 2025

Geosyntec consultants

cleanwater PROGRAM alameda county

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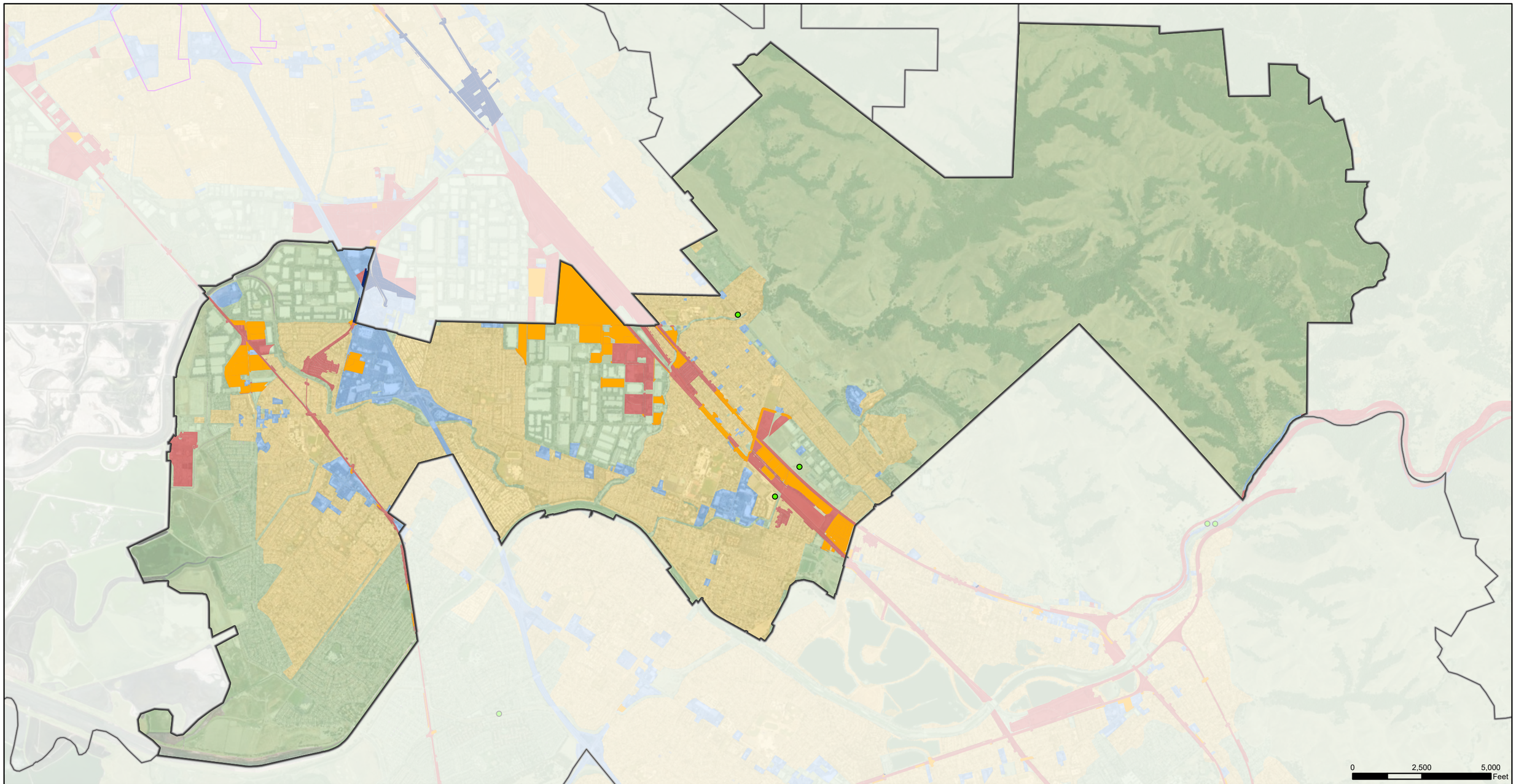

City Limits
Emeryville Crescent Watershed Investigation Area
San Leandro Bay Watershed Investigation Area

Baseline Category
Old Commercial & Old Transportation
Old Residential
New Urban & Open Space

Old Industrial Baseline (OIB)
Source Properties (Referred)
Untreated Old Industrial
Untreated Moderate Area (Non Old Industrial Areas with >=0.2 mg/kg)
Treated by GSI Or FTC Through 6/30/2021

GSI Projects within OIB
GSI Projects FY21-22 (7/1/2021-6/30/2022)
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Retrofit
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Redevelopment [a]
Retrofit

Large FTC within OIB[b]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022
Drainage Area Boundaries After 6/30/2022

Small FTC Projects within OIB[c]
FTC Install Date
FY21-22 (7/1/2021-6/30/2022)
After 6/30/2022

Sediment Samples (through WY 2024)
<0.2 mg/kg PCBs & <0.3 mg/kg Hg
<0.2 mg/kg PCBs & >0.3 mg/kg Hg
0.2 - 1.0 mg/kg PCBs
>1.0 mg/kg PCBs

N

Notes:
a: Project labels indicate projects with moderate to high concentrations of PCBs.
b: Includes HDS and GSRD
c: Includes Basket, CPS, Inlet Filter

City of Union City

Projects Treating Old Industrial and Moderate Area

Figure 14

September 2025

Geosyntec consultants

cleanwater PROGRAM alameda county

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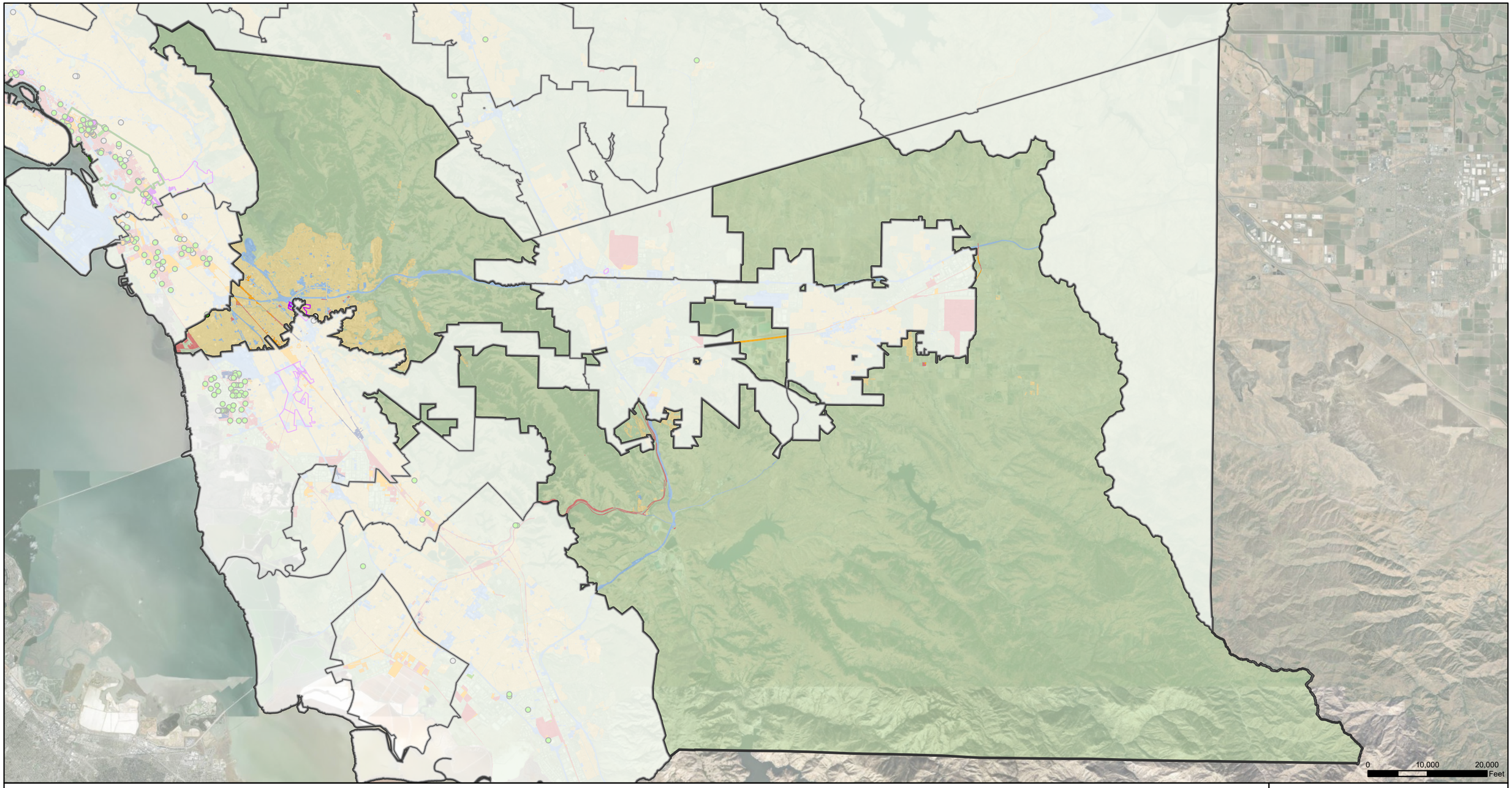

City Limits

Emeryville Crescent Watershed Investigation Area

San Leandro Bay Watershed Investigation Area

Baseline Category

Old Commercial & Old Transportation

Old Residential

New Urban & Open Space

Old Industrial Baseline (OIB)

Source Properties (Referred)

Untreated Old Industrial

Untreated Moderate Area (Non Old Industrial Areas with >=0.2 mg/kg)

Treated by GSI Or FTC Through 6/30/2021

GSI Projects within OIB

GSI Projects FY21-22 (7/1/2021-6/30/2022)

Redevelopment

Retrofit

GSI Projects After 6/30/2022

Redevelopment [a]

Retrofit

Large FTC within OIB[b]

FTC Install Date

FY21-22 (7/1/2021-6/30/2022)

After 6/30/2022

Drainage Area Boundaries After 6/30/2022

Small FTC Projects within OIB[c]

FTC Install Date

FY21-22 (7/1/2021-6/30/2022)

After 6/30/2022

Sediment Samples (through WY 2024)

<0.2 mg/kg PCBs & <0.3 mg/kg Hg

<0.2 mg/kg PCBs & >0.3 mg/kg Hg

0.2 - 1.0 mg/kg PCBs

>1.0 mg/kg PCBs

N

Notes:

a: Project labels indicate projects with moderate to high concentrations of PCBs.

b: Includes HDS and GSRD

c: Includes Basket, CPS, Inlet Filter

Unincorporated Alameda County

Projects Treating Old Industrial and Moderate Area

Figure 15

September 2025

Geosyntec consultants

cleanwater PROGRAM alameda county

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APPENDIX A

Response to Comments on the Revised ACCWP Old Industrial Area Control Measure Plan

Comment #	Location	RWB Comment	ACCWP Response	Future Change/Action
1	Appendix E	Thanks for the redevelopment summary in appendix E. That is a good way communicate what is known regarding the redeveloped parcels for which load reduction credit is sought	Comment noted.	Update table each annual report.
2	Appendix B	I do like quite a lot the FS material in Appendix B. This is an effective way to communicate the information about the focus areas. Thanks for this information presented efficiently.	Comment noted.	Update maps and tables in each annual report.
3	Appendix B	In Appendix B Brush and 2nd, and Embarcadero & MLK, missing PCBs and Hg concentrations from the table. I wonder if this happens when there is a long list. I think the list is getting truncated. Please fix in future reporting	For Bush and 2nd St, the table and fact sheet lists all moderate concentrations. For Embarcadero and MLK, only listed moderate sample concentrations in FS except for sample AC-ROW_20-05 and PORT7, which are a part of Bush and 2nd St FS.	For Embarcadero and MLK, remove FS image label for AC-ROW_20-05 and PORT7 and add PCBs and HG concentrations for the high PCBs samples to the FS.
4	Appendix D	Appendix D analysis to support acreage conversion/mass removal from line cleanout: approach seems sound. Please report on actual length of line cleaned to confirm it happened. The range is 19-52 estimated. I assume Alameda will report actual line cleaning details and the actual claimed acreage equivalent?	Yes, we will report on the length of line cleaned in each annual report. We will report the equivalent area treated and load reduced in the 2026 Annual Report.	Report on actual length of line cleanout and actual acreage equivalent claimed.
5	App B	We had communicated a 1.3 ppm hit (arochlor 1260) at 53 rd Ave. and San Leandro St. It is not mentioned in table B.1 as a focus area. Was there follow up there?	This location was included in composite area sample SLB-17 in May 2024. Three follow-up samples were collected in September 2024 around a suspected source property on 53rd Ave. and E. 8th Street (one block west of San Leandro St.). Two of the data points were moderate (SLB-17c and SLB-GE-53rd) and one was high (SLB-17-B). This sampling is described in the 2025 UCMR. The suspect property, San Mateo Precision Iron Works, was inspected in June 2025. Monitoring conducted on the property found low PCBs (0.041 mg/kg PCBs). The ACCWP will continue to assess this area for potential sources.	Further investigation in the vicinity of the elevated ROW data.
6	NA	Please confirm that you have located all scrap metal operations in Alameda County and that these are being considered as focus areas based on frequent high PCBs concentrations in vicinity of such facilities	The ACCWP has mapped scrap metal recycling facilities. These facilities are priority sites for future inspections.	Include metal recyclers in ongoing source property investigation monitoring.
7	NA	Resources are now available through U.S. EPA funding, the program is strongly encouraged to secure the necessary resources to locate and act on moderately contaminated areas within the OI landuse.	The ACCWP has prepared a workplan for the PCBs Special Studies grant project that includes funding for the OICMP implementation.	The project participants, including the ACCWP, will share the grant workplan with RWB staff at a future C.11/C.12 Workgroup meeting.
8	Plan Section 3.3.1	The 100ish acre regional retrofit project in Oakland sounds promising but this is not a sure thing given there is no commitment for it and the city is simply pursuing funding. Has anything happened to make this more likely? The report mentions a decision in June 2023.	Project was included in FY 2023-2025 CIP unfunding project list (https://cao-94612.s3.amazonaws.com/documents/FY23-25-Adopted-CIP_08.31.2023.pdf). The ACCWP is supporting the City of Oakland with investigating the tributary catchment to Raimondi Park to help decide how best to treat this area. This portion of the Emeryville Crescent focus area was prioritized for inspection and monitoring in 2024 and 2025.	Follow the OICMP process for determining the best treatment options for the Raimondi Park drainage catchment in the ESPS watershed. Options include source property referral, moderate property onsite controls, storm drain maintenance, distributed treatment, and regional treatment.
9	NA	We appreciate increasing the proportion of acres addressed through treatment retrofits and winnowing the acres addressed via redevelopment (and the info provided in Table B.1 about those areas).	Comment noted.	None required
10	NA	I reviewed and appreciated the write up in the POCs portion of the UCMR (Appendix A.3) where Alameda County describes its monitoring efforts to id source areas (for C.12.b) and relatedly id moderately contaminated OI areas for attention under C.12.c. Again, the intensity of these efforts needs to go up. We expect annual updates under C.12.c reporting about how the POC monitoring is leading to additional focus areas to add to Tbl B-1 so that the performance metric is achieved.	The ACCWP intents to use the EPA funding to increase efforts in this area. The Annual Report will include updates on the source property area investigated (C.11/C.12.b) and the moderate properties inspected/monitored (C.11/C.12.c).	Document inspection and monitoring efforts in the Annual Report.
11	Appendix E	Alameda Marina has a statement as to the likelihood of PCBs presence but no supporting data.	Appendix E Table 2 explains PCBs detection limits in the online reports were sometimes greater than 1 mg/kg in non-detect samples. Therefore, we are unable to identify moderate-level PCBs from this data.	This property can be removed from the redevelopment list.
12	Appendix E	For the Alameda projects, I cannot tell how the acreage numbers in Table 1 were determined since they are a smaller portion of the overall site. I did not see information in Table 2 that explained how the acreages in Table 1 were derived.	Acreage is the green area shown in the Appendix A maps. These areas are the previously untreated OI areas within the applicable parcels.	Will describe how areas were determined in future reporting. Will ensure only area on PCBs suspected portions of sites are reported.
13	Appendix E	Am I missing something or is the information for 3600 Alameda Ave in Oakland missing from Table 2 and also the information for the Pleasanton site. I think Table 2 ends at the 801 Pine Street property. Is this intentional? My last page is E-5. Is this a glitch?	This error was corrected in October 2024.	

Comment #	Location	RWB Comment	ACCWP Response	Future Change/Action
14	Appendix E	For the properties in Table 1, please indicate whether drainage is to MS4 or directly to Bay. For properties draining to Bay, strongly urge reporting PCBs data to make the case that the redevelopment really will have PCBs benefit. For example, there are no supporting data for Alameda Marina. The letter indicated that there would be a higher bar for the direct draining redevelopment projects. It makes me nervous to have to allow credit for redevelopment draining to the Bay when there are no data to support PCBs presence given that I have specified a higher level of documentation "but convincing evidence of PCBs contamination must be provided" for such cases.	Comment noted. The ACCWP will conduct monitoring and inspections of moderate sites in the City of Alameda in FY 2025/26. The program will map site that drain directly to the Bay to the extent practicable.	Will indicate whether projects drain to MS4 or directly to Bay in future reporting.

APPENDIX B

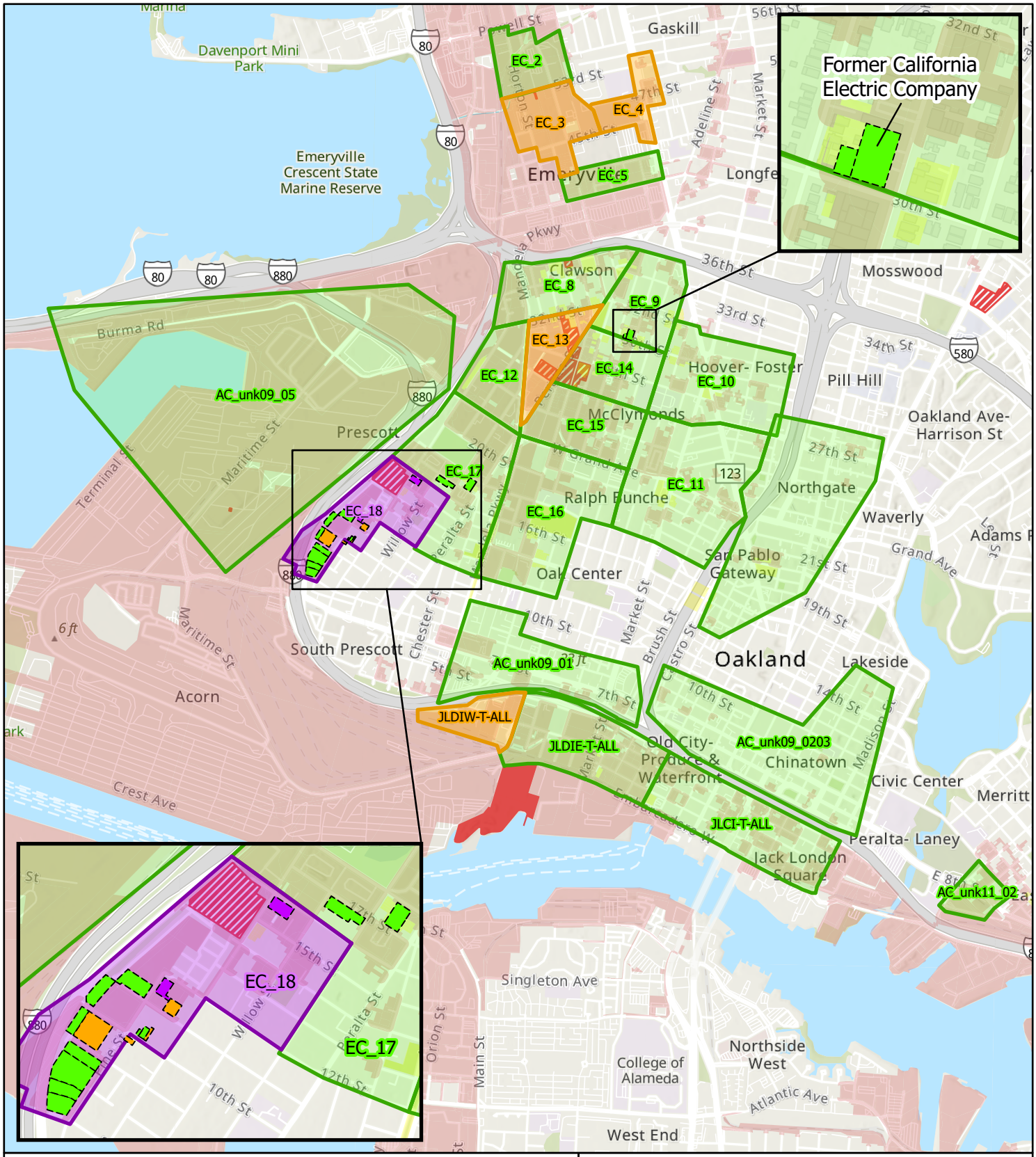
Focus Area Investigation Update

Appendix B

Focus Area Investigation Update

Source Type	Site Name	Site Address	Station Code	Composite Zone	Sample Date	Total PCBs* (mg/kg dw)	Total Hg* (mg/kg)	Lat	Long	PCBs Rank	Hg Rank
Potential Source Area	Batavia Property (former Harsco Corporation)	1819 10TH ST OAKLAND 94607	BATAV-S-01	EC_18	5/15/2025	0.353	0.233	37.81103	-122.30236	Moderate	Low
Potential Source Area	Batavia Property (former Harsco Corporation)	CEDAR ST OAKLAND 94607	BATAV-S-02	EC_18	5/15/2025	0.031	0.15	37.81123	-122.30293	Low	Low
Potential Source Area	Bonnelli Enterprises	1111 PINE ST OAKLAND 94607	BONN-S-01	EC_18	5/15/2025	0.143	0.22	37.81198	-122.30105	Low	Low
Potential Source Area	Bonnelli Enterprises	1111 PINE ST OAKLAND 94607	BONN-S-02	EC_18	5/15/2025	0.027	0.106	37.81222	-122.30156	Low	Low
Potential Source Area	California Waste Solutions (Globe Metals)	1820 10TH ST OAKLAND 94607	CWS-S-01	EC_18	5/15/2025	0.022	0.25	37.81181	-122.30239	Low	Low
Potential Source Area	California Waste Solutions (Globe Metals)	10TH ST OAKLAND 94607	CWS-S-02	EC_18	5/15/2025	0.013	0.127	37.81234	-122.30219	Low	Low
Potential Source Area	Cole Brothers Auto Wreckers	1797 12TH ST OAKLAND 94607	COLE-S-01	EC_18	5/15/2025	8.776	0.427	37.81230	-122.30000	High	High
Potential Source Area	Nautical Engineering	1776 11TH ST OAKLAND 94607	NAUT-S-01	EC_18	5/15/2025	0.452	0.109	37.81161	-122.29988	Moderate	Low
Potential Source Area	Nautical Engineering	1790 11TH ST OAKLAND 94607	NAUT-S-02	EC_18	5/15/2025	0.482	0.185	37.81157	-122.30000	Moderate	Low
To Be Redeveloped	Phoenix 800 Property (ROW North)	800 CEDAR ST OAKLAND 94607	EC-18A-1	EC_18	5/15/2025	0.021	NS	37.80941	-122.30281	Low	NA
Redeveloped	Phoenix 800 Property (ROW South)	800 CEDAR ST OAKLAND 94607	EC-18A-2	EC_18	5/15/2025	0.006	NS	37.80878	-122.30331	Low	NA
To Be Redeveloped	Phoenix 800 Property (Parcel North Front)	800 CEDAR ST OAKLAND 94607	PHX-S-01	EC_18	5/15/2025	0.095	0.405	37.81011	-122.30258	Low	Low
Redeveloped	Phoenix 800 Property (Parcel North Back)	800 CEDAR ST OAKLAND 94607	PHX-S-02	EC_18	5/15/2025	0.1	0.045	37.81037	-122.30338	Low	Moderate
Potential Source Area	Radomsky Property	942 PINE ST OAKLAND 94607	RADOM-S-01	EC_18	5/15/2025	0.255	0.155	37.81077	-122.30131	Moderate	Low
Potential Source Area	Labric/Sunset Smelting and Refining	1639 18TH ST OAKLAND 94607	LABRIC-S-01	EC_18	5/22/2025	0.047	0.064	37.81422	-122.29254	Low	Low
Potential Source Area	Labric/Sunset Smelting and Refining	1639 18TH ST OAKLAND 94607	LABRIC-S-02	EC_18	5/22/2025	0.131	0.193	37.81376	-122.29279	Low	Low
Potential Source Area	Acme Galvanizing	1655 17TH ST OAKLAND 94607	ACME-S-01	EC_16	6/9/2025	0.053	0.288	37.81444	-122.29489	Low	Low
Potential Source Area	Acme Galvanizing	1655 17TH ST OAKLAND 94607	ACME-S-02	EC_16	6/9/2025	0.062	0.423	37.81392	-122.294	Low	Moderate
Potential Source Area	Jenkins Auto Wreckers	1778 10TH ST OAKLAND 94607	JENK2-S-01	EC_18	6/9/2025	0.101	0.456	37.81107	-122.30066	Low	Moderate
Potential Source Area	Jenkins Auto Wreckers	10TH ST OAKLAND 94607	JENK2-S-02	EC_18	6/9/2025	0.031	0.046	37.81098	-122.30079	Low	Low
Potential Source Area	Jenkins Auto Wreckers	1778 10TH ST OAKLAND 94607	JENK2-S-03	EC_18	6/9/2025	0.639	0.345	37.81081	-122.30077	Moderate	Moderate
Potential Source Area	Jenkins Auto Wreckers	1790 10TH ST OAKLAND 94607	JENK-S-01	EC_18	6/9/2025	0.152	0.606	37.81095	-122.30109	Moderate	Moderate
Potential Source Area	Jenkins Auto Wreckers	1790 10TH ST OAKLAND 94607	JENK-S-02	EC_18	6/9/2025	0.137	0.394	37.81091	-122.30107	Moderate	Moderate
Potential Source Area	One Stop Collison Repair Center (Utility Truck Bodies)	1530 WOOD ST OAKLAND 94607	1STOP-S-01	EC_18	6/9/2025	1.025	NS	37.8145	-122.29657	High	NA
Potential Source Property	Advanced Grinding	800 49TH AVE OAKLAND 94601	ADGRIND-S-01	SLB_17	6/9/2025	0.017	0.052	37.76619	-122.21405	Low	Low
Potential Source Property	Former California Electric Company	3015 ADELINE ST OAKLAND 94608	CALEL-S-01	EC_14	6/9/2025	0.151	0.313	37.82243	-122.28168	Low	Moderate
Potential Source Property	Former California Electric Company	3015 ADELINE ST OAKLAND 94608	CALEL-S-02	EC_14	6/9/2025	0.061	0.107	37.82246	-122.28225	Low	Low
Potential Source Property	Leon's Powder Coating	826 49TH AVE OAKLAND 94601	LEON-S-01	SLB_17	6/9/2025	0.307	0.057	37.76657	-122.21348	Moderate	Low
Potential Source Property	San Mateo Precision Iron Works	801 53RD AVE OAKLAND 94601	SMIRON-S-01	SLB_17	6/9/2025	0.041	0.222	37.76459	-122.21104	Low	Low
Potential Source Property	Yenlin Air Conditioning	1309 49TH AVE OAKLAND 94601	YENLIN-S-01	SLB_9	6/9/2025	1.231	0.047	37.76938	-122.21016	High	Low
To Be Redeveloped	7825 San Leandro St	7825 San Leandro St	7825SL-S-01	SLB_20	6/23/2025	TBD	TBD	37.75128	-122.19458	TBD	TBD
To Be Redeveloped	7825 San Leandro St	7825 San Leandro St	7825SL-S-02	SLB_20	6/23/2025	TBD	TBD	37.75097	-122.19594	TBD	TBD
To Be Redeveloped	7825 San Leandro St	7825 San Leandro St	7825SL-S-03	SLB_20	6/23/2025	TBD	TBD	37.75037	-122.19559	TBD	TBD
To Be Redeveloped	7825 San Leandro St	7825 San Leandro St	7825SL-S-04	SLB_20	6/23/2025	TBD	TBD	37.75049	-122.19509	TBD	TBD
To Be Redeveloped	7825 San Leandro St	7825 San Leandro St	7825SL-S-05	SLB_20	6/23/2025	TBD	TBD	37.75001	-122.19487	TBD	TBD
To Be Redeveloped	7825 San Leandro St	7825 San Leandro St	7825SL-S-06	SLB_20	6/23/2025	TBD	TBD	37.74976	-122.19308	TBD	TBD

*Data collected in May and June 2025 are considered preliminary and will be reported and submitted with the Integrated Monitoring Report in March 2026.



Legend

Old Industrial (OI) Baseline
- Untreated Old Industrial
- Untreated Moderate Area (Non Old Industrial Areas with >=0.2 mg/kg)

Source Property
- Source Property (Referred)
- Source Property (Abated)

OI On-Site Investigation Results
- <0.2 mg/kg
- 0.2 - 1.0 mg/kg
- > 1.0 mg/kg

OI Source Property Investigation Composite Sampling Results
- <0.2 mg/kg
- 0.2 - 1.0 mg/kg
- >1.0 mg/kg

N

0 2,000 Feet

Focus Areas Investigation & Monitoring

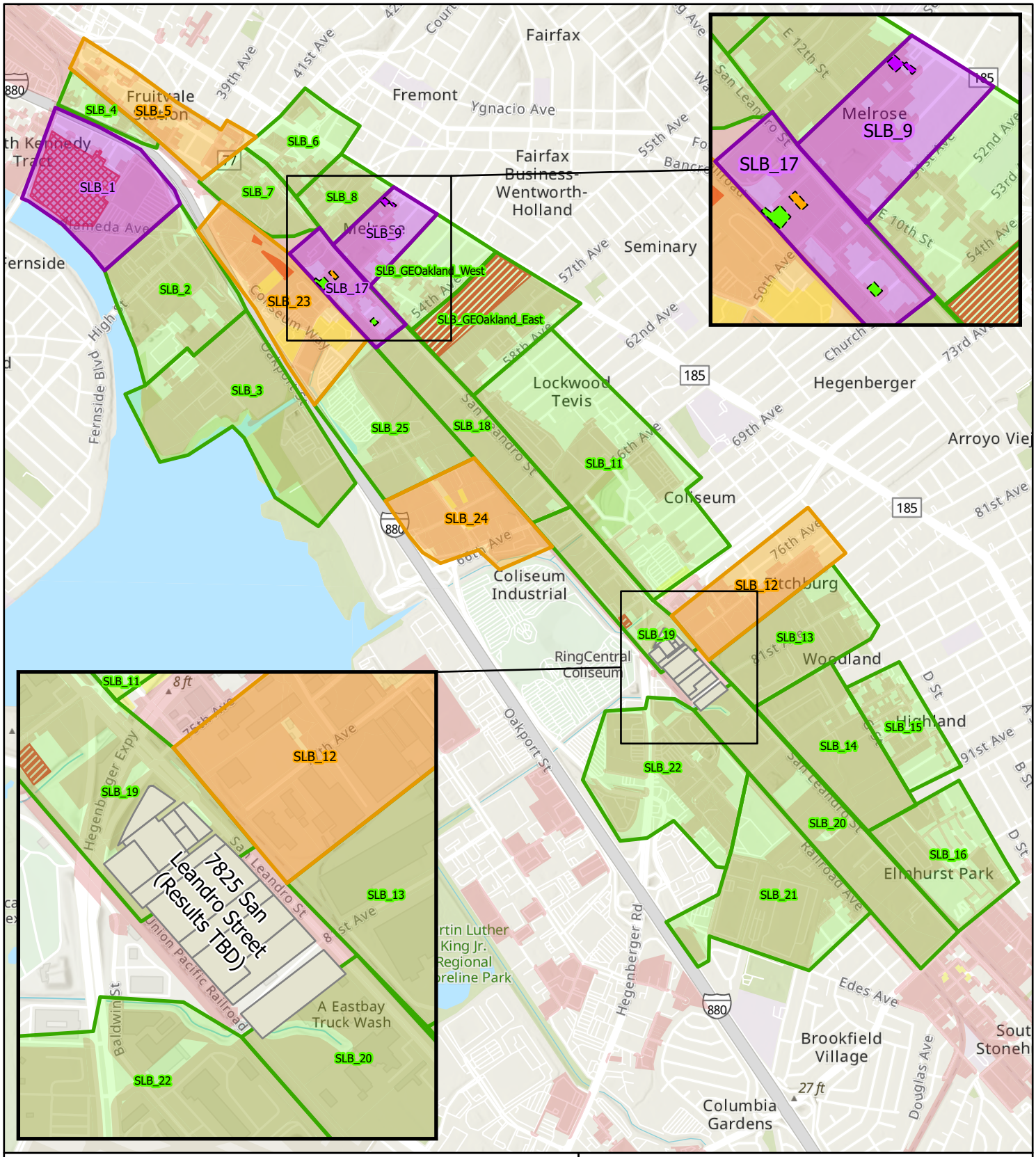
Emeryville Crescent Watershed
West Oakland

Geosyntec consultants

CWR1031	Sept 2025

Figure B-1

P:\GIS\Alameda Countywide Clean Water Program (ACCWP)\POC_2025 Annual Report\Oakland OI Investigation Results_2025\Oakland OI Investigation Results_2025.aprx\OISP_Investigation_West Oakland 7/23/2025 7:45 AM (GYao)



Legend

Old Industrial (OI) Baseline
- Untreated Old Industrial
- Untreated Moderate Area (Non Old Industrial Areas with >=0.2 mg/kg)

Source Property
- Source Proerty (In progress)
- Source Property (Referred)
- Source Property (Abated)

OI On-Site Investigation Results
- <0.2 mg/kg
- 0.2 - 1.0 mg/kg
- > 1.0 mg/kg

OI Source Property Investigation Composite Sampling Results
- <0.2 mg/kg
- 0.2 - 1.0 mg/kg
- >1.0 mg/kg

N

0 2,000 Feet

Focus Areas Investigation & Monitoring

San Leandro Bay Watershed
East Oakland

Geosyntec consultants

CWR1031 | Sept 2025

Figure B-2

P:\GIS\Alameda Countywide Clean Water Program (ACCWP)\POC_2025 Annual Report\Oakland OI Investigation Results_2025\Oakland OI Investigation Results_2025.aprx\OISP_Investigation_East Oakland 8/30/2025 5:04 PM (LWelsh)

APPENDIX C

PCBs Loads Avoided Resulting from the Removal of Municipally Owned PCBs-Containing OFEE

Geosyntec consultants

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Memorandum

Date:	September 2, 2025
To:	Sandy Mathews, Alameda County Clean Water Program
From:	Lisa Austin, Senior Principal; Lisa Welsh, Senior Scientist; and Emily Meyers, Professional
Subject:	PCBs in Electrical Utilities Management Program – FY2024/25 Alameda Municipal Power Load Reductions Geosyntec Project Number: CWR1031

1. BACKGROUND

Municipal Regional Stormwater Permit (MRP; Order No. R2-2022-0018) Provision C.12.e requires Permittees to manage polychlorinated biphenyls (PCBs) in oil-filled electrical equipment (OFEE) for municipally owned electrical utilities in the MRP program area. Alameda Municipal Power (AMP) is the only municipally owned electrical utility in Alameda County.

This technical memorandum documents the following item for AMP, as required by MRP Provision C.12.e.iii.(4): a summary of the actions undertaken during the reporting year that removed municipally owned PCBs-containing OFEE along with the loads avoided and the details of the calculations and assumptions used to estimate the load reduced.

2. PCBS LOAD REDUCTION CALCULATION METHOD

On behalf of the MRP Permittees, the Bay Area Stormwater Management Agencies Association (BASMAA) conducted a regional Stressor/Source Identification Project (SSID) for PCBs from electrical utilities in the San Francisco Bay Area.[1] While AMP was not one of the three municipally owned electrical utilities in the MRP area that participated in the project, AMP's OFEE PCBs load reductions are calculated using the methods and assumptions presented in Section 4.0 of this BASMAA report. In accordance with the BASMAA analysis, all equipment that was installed or purchased prior to 1985 (i.e., pre-1985 OFEE) were assumed to potentially contain PCBs.

[1] Located here: https://basmaa.org/wp-content/uploads/2021/04/basmaa-elec-utility-ssid-report-final_8-20-20.pdf

3. OFEE REMOVED AND LOADS AVOIDED

In Fiscal Year (FY) 2024/25, AMP removed six transformers and one air switch from service. AMP also revised the purchase date for one transformer, removing it from the PCBs load reduction analysis, and found lab results for three transformers and one capacitor that are in service and had PCBs concentrations >1 ppm. These four OFEE were previously reported as containing PCBs at <1 ppm. The FY 2024/25 status changes of AMP OFEE are summarized in Table 1. The updated AMP inventory of PCBs-containing OFEE is provided in Attachment 1.

Table 1: Status of AMP OFEE at the End of FY 2024/25 and Updated PCBs Concentrations

CO ID. or MFG Serial No.	Purchase Date	Removal Year	OFEE Type	Oil (gals)	PCBs (ppm)
OFEE Removed from Analysis in FY 2024/25					
6400[1]	2020	-	XFMR Pad mt. 500KVA 3PH 208/120V	188	<1
Removed or Scrapped OFEE in FY 2024/25					
1489	1979	2024	XFMR Pad mt. 75KVA 3PH 208/120V	60	<1
3042	1968	2025	XFMR Pole mt. 25KVA 1PH 120/240V	15	<1
811137713	1981	2025	Air Switch 12KV 800A 3POL	15	<1
811137714	1981	2025	XFMR Pole mt. 75KVA 1PH 120/240V	15	<1
811137715	1981	2025	XFMR Pole mt. 25KVA 1PH 120/240V	15	<1
1488	1979	-	XFMR Pad mt. 50KVA 1PH 240/120V	40	<1
1507	1979	-	XFMR Pad mt. 37.5KVA 1PH 240/120V	60	<1
Updated OFEE PCBs Concentrations					
1059	1974	-	XFMR Pad mt. 167/25KVA 3PH DULPLEX 240Y/120Y V	100	4
1115	1980	-	XFMR Pad mt. 50KVA 1PH 240/120V	40	3
2768	1963	-	XFMR Pole mt. 37.5KVA 1PH 120/240V	20	6
3057	1959	-	Capacitor Pole mt. 200KVAR 1PH 7200KV	40	2

[1] Purchase date was corrected in the 2025 AMP OFEE Inventory from 1920 to 2020, meaning the OFEE was purchased after 1985 and likely does not contain PCBs.

OFEE PCBs load reductions were calculated using the methods and assumptions presented in the *Mercury and PCBs Control Measures - 2023 Update* and the BASMAA study. AMP OFEE inventory included the following equipment types: single-phase and three-phase padmount transformers, poletop transformers, switches, and capacitors. AMP provided the purchase year, installation date, removal date, measured PCBs concentrations and oil capacity for most of their active and removed OFEE (Attachment 1). The oil volume and PCBs concentrations were used in the load reduction calculations whenever available. The following additional assumptions and approaches were made based on AMP inventory data:

- PCBs concentrations labeled "<1 ppm" were assumed to equal 1 ppm.

- Unknown oil volume for individual OFEE was assumed equal to the oil volume of similar OFEE in the AMP inventory (similar meaning same equipment type, kVA (1,000 volt-amps) rating, secondary voltage, and manufacturer).
- OFEE brought back into service are re-categorized as active instead of removed.
- "Stock" or "reserved" equipment without a purchase year are not included in the analysis, assuming that they were more likely purchased after 1985.
- OFEE that did not have a COID or Manufacturer Serial Number are not included in the analysis.
- OFEE that do not have PCBs result and do not have mineral oil, are not included in the analysis.

The potential mass of PCBs in pre-1985 OFEE was calculated from the mass of oil in these OFEE multiplied by the OFEE's measured PCBs concentration or range of assumed PCBs concentrations when the concentration was unknown (see Section 4.2.1 of the BASMAA report for assumed ranges).

Table 2 below summarizes the estimated loads avoided resulting from the removal of PCBs-containing OFEE through maintenance programs and system upgrades prior to 2002, for the period 2002 to June 30, 2022, and for each of the subsequent fiscal years. The low end of the mass range for an OFEE category is the sum using the minimum values for assumed PCBs. The high end of the range is the sum using the maximum values for assumed PCBs. During FY 2024/25, seven pre-1985 OFEE were removed from AMP's system resulting in a 0.7-gram PCBs reduction in AMP's inventory.

Table 2: Estimated Potential Mass of PCBs in Alameda Municipal Power's OFEE Inventory

OFEE Category	No. of Pre-1985 OFEE	PCBs (kg)
All Active	**533**	**0.13**
All Removed	**224**	**0.097 - 0.151**
Removed prior to 2002	7	0.0001
Removed 2002 to June 2022	192	0.091 - 0.145
Removed FY 2022/23	12	0.0036
Removed FY 2023/24	3	0.0005
Removed FY 2024/25	7	0.0007
Removal year not provided	3	0.0010
Unknown oil age	**110**	**0.07 - 0.45**
Total	**867**	**0.295 - 0.729**

Table 3 below summarizes the estimated loads to stormwater avoided. This calculation assumes 0.05% of PCBs mass leaks from OFEE each year and 99% of the materials leaked are cleaned up

such that only 1% remain on erodible surface and are available for wash off, in accordance with the BASMAA report.

Table 3: Estimated PCBs Loads to Stormwater from Alameda Municipal Power's OFEE Inventory

OFEE Category	PCBs Stormwater Loads (mg/yr)		
All Active OFEE	**0.66**		
All Active OFEE (includes active "Unknown oil age" OFEE)	**0.91**	**-**	**1.94**
All Removed OFEE	**0.49**	**-**	**0.75**
Removed Prior to 2002	0.001		
Removed 2002 to June 2022	0.46	-	0.72
Removed FY 2022/23	0.02		
Removed FY 2023/24	0.002		
Removed FY 2024/25	0.004		
Removal Year Not Provided	0.005		
All Removed OFEE (includes removed "Unknown oil age" OFEE)	**0.56**	**-**	**1.7**
Unknown Oil Age (includes known active and removed status)	**0.33**	**-**	**2.2**
Total	**1.47**	**-**	**3.64**

* * * * *

Attachment 1
Alameda Municipal Power Oil-Filled Electrical Equipment Inventory through June 2025

ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
TRANSFORMER	0484	77J549226	150	WH	208/120	3	PAD	<1	MINERAL OIL	150	1977	IN SERVICE	4/11/1979	SERVICE MAP SHOWS T-185 AND DATA BASE /SINGLE LINE SHOWS L-185 NEED FIELD VERIFICATION
TRANSFORMER	0486	PAJ1387	300	STD	208/120	3	PAD	<1	MINERAL OIL	225	1969	IN SERVICE	12/16/1985	
TRANSFORMER	0487	J935037T72A	112.5	GE	208/120	3	PAD	<1	MINERAL OIL	75	1972	IN SERVICE	12/30/1974	
TRANSFORMER	0491	PAJ1386	300	STD	208/120	3	PAD	1	MINERAL OIL	225	1969	SCRAPPED OR SOLD	1/7/2014	LIVE FRONT
TRANSFORMER	0492	78JH787081	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1978	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	0506	80JC175270	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	40	1980	IN SERVICE	11/13/1980	ENGG V/S DISPATCH DATABASE OK
TRANSFORMER	0507	79JL088061	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	IN SERVICE	11/13/1980	ENGG V/S DISPATCH DATABASE OK
TRANSFORMER	0517	L851017YFLA	50	GE	120/240	1	PAD	<1	MINERAL OIL	60	1975	IN SERVICE	8/11/1976	
TRANSFORMER	0530	836002718	75	RTE	208/120	3	PAD	<1	MINERAL OIL	100	1983	IN SERVICE	10/10/1983	
TRANSFORMER	0535	80JC171050	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1980	IN SERVICE	11/13/1980	ENGG V/S DISPATCH DATABASE OK
TRANSFORMER	0581	L445043T73A	500	GE	480/277	3	PAD	<1	MINERAL OIL	250	1974	IN SERVICE	11/24/1993	
TRANSFORMER	1006	H891125M69A	25	GE	120/240	1	PAD	<1	MINERAL OIL	40	1969	SCRAPPED OR SOLD	3/27/2013	LIVE FRONT FROM LT 520. DRAINED & READY FOR SCRAP. OLD XFMR FROM BUREAU OF ELECT. THAT'S FADED SO BAD THAT IT LOOKS YELLOW
TRANSFORMER	1007	L191896T73	50	GE	120/240	1	PAD	<1	MINERAL OIL	60	1973	IN SERVICE	4/10/1975	
CAPACITOR	1008	3067622083	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	2/12/1985	
TRANSFORMER	1010	78JH789284	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	25	1978	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	1012	78JH789267	37.5	WH	120/240	1	PAD	<1	MINERAL OIL	40	1978	IN SERVICE	5/7/1979	
AIR SWITCH	1023	M592776TBRA	75	GE	480/277	3	PAD	<1	MINERAL OIL	100	1979	IN SERVICE	10/31/1979	
TRANSFORMER	1032	N180925YLSA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1979	IN SERVICE		NEED FIELD VERIFY. MISSING SERIAL NUMBER. WE FIND S/N FROM SOLD FOR JUNK LIST
TRANSFORMER	1035	H896814M70A	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	40	1970	SCRAPPED OR SOLD	3/27/2013	DRAINED & READY FOR SCRAP. LT-525 WORKING BUT ITS REALLY OLD, FAED AND PAINT CHIPS ALL OVER (DIRT YARD
TRANSFORMER	1036	J820142M71A	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	10	1971	IN SERVICE		
TRANSFORMER	1042	L851015YFLA	50	GE	120/240	1	PAD	<1	MINERAL OIL	60	1975	SCRAPPED OR SOLD	12/9/2020	ENGG V/S DISPATCH DATABASE OK
TRANSFORMER	1044	H891126M69A	25	GE	120/240	1	PAD	<1	MINERAL OIL	40	1969	SCRAPPED OR SOLD	3/27/2013	DRAINED & READY FOR SCRAP. LIVE FRONT FROM LT-523. OLD XFMR FROM BUREAU OF ELECT. STARTING TO TURN YELLOW.
TRANSFORMER	1046	H42143467M	150	GE	208/120	3	PAD	<1	MINERAL OIL	150	1968	IN SERVICE	5/6/1971	ENGG V/S DISPATCH DATABASE OK
TRANSFORMER	1051	K852423T72A	50	GE	120/240	1	PAD	<1	MINERAL OIL	60	1973	IN SERVICE	2/7/1974	
TRANSFORMER	1052	K807475Y72A	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	10	1972	IN SERVICE	10/11/1973	
TRANSFORMER	1056	K852420T72A	50	GE	120/240	1	PAD	8	MINERAL OIL	60	1973	SCRAPPED OR SOLD	2/5/2016	8 PPM PCB. FROM LT-539 3458 CAPELLA
TRANSFORMER	1057	K531907M71A	50	GE	120/240	1	PAD	<1	MINERAL OIL	60	1971	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	1058	K786083Y72A	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	40	1972	SCRAPPED OR SOLD	12/9/2020	
TRANSFORMER	1059	L456360T74A	75	GE	208/120	3	PAD	4	MINERAL OIL	100	1974	IN SERVICE	6/10/1975	ENGG V/S DISPATCH DATABASE OK
TRANSFORMER	1065	74F758123	225	WH	208/120	3	PAD	19	MINERAL OIL	175	1974	SCRAPPED OR SOLD	12/1/2016	
TRANSFORMER	1073	79JB914048	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	IN SERVICE	5/12/1993	
AIR SWITCH	1077	79143A	2WAY	TRA		3	PAD	<1	MINERAL OIL	280	1980	SCRAPPED OR SOLD	11/4/2020	
TRANSFORMER	1078	77K576323	25	WH	120/240	1	PAD	<1	MINERAL OIL	40	1977	IN SERVICE	10/23/1979	
TRANSFORMER	1079	J815621M70A	75	GE	208/120	3	PAD	4	MINERAL OIL	100	1970	IN SERVICE	12/15/1992	
TRANSFORMER	1081	K786082Y72A	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	40	1972	SCRAPPED OR SOLD	6/24/2020	
TRANSFORMER	1082	M599188TFRA	150	GE	208/120	3	PAD	<1	MINERAL OIL	150	1979	IN SERVICE	8/29/1996	
TRANSFORMER	1083	K852421T72A	50	GE	120/240	1	PAD	<1	MINERAL OIL	60	1973	REMOVED	8/19/2020	

Note: Red text are assumptions made by Geosyntec Consultants, Inc. for the purpose of completing load reduction calculations.

ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
TRANSFORMER	1084	H896785M70A	25	GE	120/240	1	PAD	<1	MINERAL OIL	40	1970	SCRAPPED OR SOLD	3/27/2013	DRAINED & READY FOR SCRAP. BOE LT-526 REALLY OLD XFMR BUT STILL WORKING FADED TO MULTI-COLOR
TRANSFORMER	1086	83VG533003	25	ME	120/240	1	PAD	3	MINERAL OIL	40	1983	IN SERVICE	6/27/1985	
TRANSFORMER	1087	61SD816	100	WH	120/240	1	POLE	<1	MINERAL OIL	40	1961	OK TO SCRAP	11/3/2017	ACCOUNTING REPORTING
SWITCH	1089	8067A	3WAY	TRA		3	PAD	<1	MINERAL OIL	280	1980	IN SERVICE	5/14/1984	
TRANSFORMER	1093	83JE947131	37.5	WH	120/240	1	PAD	<1	MINERAL OIL	40	1983	IN SERVICE	1/21/1988	
TRANSFORMER	1094	77M616051	25	WH	120/240	1	PAD	<1	MINERAL OIL	40	1978	IN SERVICE	5/29/1981	
SWITCH	1095	79145B	3WAY	TRA		3	PAD	<1	MINERAL OIL	280	1980	IN SERVICE	2/13/1980	
TRANSFORMER	1095	79145B	3WAY	TRA		3	PAD	<1	MINERAL OIL	280	1980	REMOVED	5/22/2020	
TRANSFORMER	1099	80JC189181	112.5	WH	208/120	3	PAD	<1	MINERAL OIL	150	1980	IN SERVICE	8/25/1981	
TRANSFORMER	1107	3067620183	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	2/12/1985	
TRANSFORMER	1110	79JK083082	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	IN SERVICE		
TRANSFORMER	1111	K852422T72A	50	GE	120/240	1	PAD	25	MINERAL OIL	60	1973	SCRAPPED OR SOLD	1/8/2014	RECE'D DOWN CARD ON 12/23/2013. 25 PPM DID NOT TEST - JUNK
TRANSFORMER	1112	83JE950024	25	WH	120/240	1	PAD	<1		40	1983	IN SERVICE	10/9/1986	
TRANSFORMER	1115	80JC175268	37.5	GE	120/240	1	PAD	3		40	1980	IN SERVICE	2/5/1982	
TRANSFORMER	1118	73VB005002	50	ME	120/240	1	PAD	<1		60	1973	SCRAP	9/27/2023	IN SERVICE 2/7/1974, REMOVED 2/1/2023
TRANSFORMER	1125	79JK085126	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	IN SERVICE	6/30/1981	
TRANSFORMER	1126	N003766TMRA	150	GE	480/277	3	PAD	<1	MINERAL OIL	150	1979	REMOVED	3/21/2023	RETURNED 2/23/2023 (ORGINAL INSTALL 4/7/2023) EBMUD JOB
TRANSFORMER	1127	79JK083053	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	IN SERVICE	1/2/1981	
TRANSFORMER	1128	L169883T73	75	GE	208/120	3	PAD	<1	MINERAL OIL	100	1973	IN SERVICE	11/7/1978	
TRANSFORMER	1129	80JC171010	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1980	IN SERVICE	12/16/2009	
TRANSFORMER	1130	J820141M71A	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	10	1971	REMOVED	3/12/2019	
TRANSFORMER	1132	J820908M71A	50	GE	120/240	1	PAD	<1	MINERAL OIL	60	1971	IN SERVICE	8/11/1971	
TRANSFORMER	1137	73VB005001	50	ME	120/240	1	PAD	<1	MINERAL OIL	60	1973	SCRAPPED OR SOLD	10/17/2017	
TRANSFORMER	1138	816002055	225	RTE	480/277	3	PAD	<1	MINERAL OIL	175	1981	IN SERVICE		
TRANSFORMER	1139	H896786M70A	25	GE	120/240	1	PAD	<1	MINERAL OIL	40	1970	IN SERVICE	10/23/1970	
TRANSFORMER	1140	80JC171075	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1980	IN SERVICE	5/5/1983	
TRANSFORMER	1141	K856331T73A	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	40	1973	IN SERVICE	1/31/1983	
TRANSFORMER	1144	L191897T73	50	GE	120/240	1	PAD	<1		60	1973	IN SERVICE	3/8/1976	
TRANSFORMER	1145	L443683T73A	75	GE	208/120	3	PAD	<1	MINERAL OIL	100	1973	IN SERVICE	10/26/1984	
SWITCH	1146	79143C	2WAY	TRA		3	PAD	<1	MINERAL OIL	280	1980	SCRAPPED OR SOLD	2/5/2016	AS PER JIM MCANALLY
TRANSFORMER	1149	G740774-67	75	GE	120/240	1	PAD	<1	MINERAL OIL	40	1967	REMOVED	3/14/2019	
TRANSFORMER	1152	J820907M71A	50	GE	120/240	1	PAD	<1		60	1971	IN SERVICE	4/12/1971	
TRANSFORMER	1153	H896813M70A	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	40	1970	SCRAPPED OR SOLD	3/27/2013	DRAINED & READY FOR SCRAP. LT-524 WORKING, BUT ITS REALLY OLD. FADED WITH PAINT CHIPS & SCRATCHES. (DIRT YARD)
TRANSFORMER	1155	673154679	45	HOW	208/120	3	PAD	<1	MINERAL OIL	60	1980	IN SERVICE		
TRANSFORMER	1160	J935038T72A	112.5	GE	208/120	3	PAD	<1	MINERAL OIL	75	1972	SCRAPPED OR SOLD	3/27/2013	10-CA OIL L-97. SEVERE RUST ON THE BOTTOM OF XFMR. A BIG CHUNK MISSING FROM THE CORNOR DURE TO RUST. SHOULD BE SCRAPPED SINCE WE DO NOT CARRY THIS SIZE.
TRANSFORMER	1163	836006297!	150	RTE	208/120	3	PAD	<1	MINERAL OIL	150	1983	IN SERVICE	7/24/1984	
TRANSFORMER	1164	N003729TLRA	75	GE	208/120	3	PAD	<1	MINERAL OIL	100	1979	IN SERVICE	6/21/1982	BLDG. 43 & 45 (SEWAGE AND CHIEFS HUT)
TRANSFORMER	1165	L453287T74A	225	GE	208/120	3	PAD	<1	MINERAL OIL	175	1974	IN SERVICE	7/2/1994	ENGG V/S DISPATCH DATABASE OK
TRANSFORMER	1169	79JL088118	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	SCRAPPED OR SOLD	12/17/2013	LT-550 LEAKING FROM BUSHING. SCRAP
AIR SWITCH	1173	821000921	50	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1982	REMOVED	7/31/2021	UEL-99965 (ALAMEDA MARINA)

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
TRANSFORMER	1174	H858878K69A	75	GE	120/240	1	POLE	<1	MINERAL OIL	30	1969	SCRAPPED OR SOLD	6/24/2020	ACCOUNTING REPORTING
TRANSFORMER	1175	L453638T74A	300	GE	208/120	3	PAD	<1	MINERAL OIL	225	1974	IN SERVICE	5/23/2001	FIELD VERIFY BY JIM MCRORY ON 11/20/2006.
TRANSFORMER	1176	80JC189157	112.5	WH	208/120	3	PAD	<1	MINERAL OIL	150	1980	IN SERVICE	4/17/1981	
TRANSFORMER	1179	H858879K69A	75	GE	120/240	1	POLE	<1	MINERAL OIL	30	1969	SCRAPPED OR SOLD	6/24/2020	ACCOUNTING REPORTING
TRANSFORMER	1186	3048000383	37.5	KUH	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	9/28/1982	
TRANSFORMER	1188	K860156T72A	500	GE	480/277	3	PAD	<1	MINERAL OIL	240	1972	IN SERVICE	10/7/1998	
TRANSFORMER	1192	81JK561008	75	WH	120/240	1	PAD	<1	MINERAL OIL	40	1981	IN SERVICE	12/3/1982	
TRANSFORMER	1195	79JK085119	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	IN SERVICE	5/11/1993	
TRANSFORMER	1197	3088070384	50	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1984	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	1198	3067630883	37.5	KUH	120/240	1	POLE	<1	MINERAL OIL	20	1983	IN SERVICE	2/11/2002	ADD IN SINGLE LINE
AIR SWITCH	1235	L722140TFNA	1000	GE	480/277	3	PAD	<1	MINERAL OIL	500	1977	SCRAPPED OR SOLD	6/24/2020	ACCOUNTING REPORTING
TRANSFORMER	1242	3067620483	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	9/28/1984	
TRANSFORMER	1255	H839414K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	IN SERVICE	3/10/1969	
TRANSFORMER	1256	6206424	10	LM	120/240	1	POLE	<1	MINERAL OIL	10	1964	IN SERVICE		NEED FIELD VERIFY. MISSING SERIAL NUMBER
TRANSFORMER	1265	67AK6368	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1968	IN SERVICE	9/5/1968	ADD IN SINGLE LINE
TRANSFORMER	1269	80JG26618	225	WH	480/277	3	PAD	<1	MINERAL OIL	175	1980	IN SERVICE	7/14/1999	ENGG V/S DISPATCH IS NOT MATCH SERIAL NUMBER. (ENGG. DATABASE S/N 80JG26618 V/S DISPATCH DATABASE S/N A11E510KPT) NEED FIELD VERIFY
TRANSFORMER	1270	72J310134	75	WH	208/120	3	PAD	2.2	MINERAL OIL	100	1972	SCRAPPED OR SOLD	1/7/2014	MOTEL CANNOT GET SW 'B'
TRANSFORMER	1273	L169882T73A	75	GE	208/120	3	PAD	<1	MINERAL OIL	100	1973	IN SERVICE	5/23/1974	
TRANSFORMER	1274	J815622M70A	75	GE	208/120	3	PAD	<1	MINERAL OIL	100	1970	IN SERVICE	10/13/1970	
TRANSFORMER	1278	8066B	2WAY	TRA		3	PAD	<1	MINERAL OIL	280	1980	IN SERVICE	3/20/1989	
TRANSFORMER	1291	79143B	2WAY	TRA			PAD		MINERAL OIL	355		SCRAPPED OR SOLD	11/30/2012	
TRANSFORMER	1296	68AA7279	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1969	IN SERVICE	12/6/1969	
TRANSFORMER	1297	3067622483	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	SCRAPPED OR SOLD	10/17/2017	
TRANSFORMER	1298	78K824233	150	WH	480/277	3	PAD	<1	MINERAL OIL	150	1978	IN SERVICE	9/15/1999	
AIR SWITCH	1301	B406001	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1951	IN SERVICE	5/2/1994	ADD IN SINGLE LINE
TRANSFORMER	1307	H858551K69A	15	GE	120/240	1	POLE	<1	MINERAL OIL	10	1969	IN SERVICE	5/6/1998	
TRANSFORMER	1308	H858553K69	15	GE	120/240	1	POLE	<1	MINERAL OIL	10	1969	IN SERVICE	4/28/2014	XFMR REMOVE DUE TO RELOCATION ELECTRICAL FACILITIES AT POGGI ST
TRANSFORMER	1309	69VJ003039	10	MCG CP	120/240	1	PAD	<1	MINERAL OIL	10	1969	IN SERVICE	8/27/1996	FIELD VERIFY BY JIM MCRORY ON 11/20/2006.
TRANSFORMER	1311	H858556K69A	15	GE	120/240	1	POLE	<1	MINERAL OIL	10	1969	SCRAPPED OR SOLD	6/24/2020	ACCOUNTING REPORTING
TRANSFORMER	1313	811153149	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1982	IN SERVICE	5/7/2014	XFMR REMOVE DUE TO RELOCATION ELECTRICAL FACILITIES AT POGGI ST
SWITCH	1316	77A142303	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1979	IN SERVICE	6/13/1991	
TRANSFORMER	1324	76A354102	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1976	IN SERVICE	6/13/1991	
TRANSFORMER	1325	76A354100	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1976	IN SERVICE	6/13/1991	
AIR SWITCH	1332	82VL022008	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	8/16/1988	
TRANSFORMER	1333	77VC505004	37.5	ME	120/240	1	POLE	<1		20	1977	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	1337	67L7797	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1967	IN SERVICE		ADD IN SINGLE LINE
CAPACITOR	1344	64SJ313	100	WH	120/240	1	POLE	<1	MINERAL OIL	40	1964	SCRAPPED OR SOLD	3/27/2013	LEAKING OIL FORM TOP COVER SEAL TOP SEAL GASKET IRREPAIRABLE.
TRANSFORMER	1347	58SB42	167	WH	120/240	1	POLE	<1	MINERAL OIL	70	1958	SCRAPPED OR SOLD	6/24/2020	ACCOUNTING REPORTING
TRANSFORMER	1348	58SF0456	167	WH	120/240	1	POLE	<1	MINERAL OIL	70	1958	IN SERVICE	3/9/2005	
TRANSFORMER	1350	59SJ1738	100	WH	120/240	1	POLE	<1	MINERAL OIL	40	1959	IN SERVICE	12/29/2000	ADD IN SINGLE LINE.
TRANSFORMER	1352	74AK17139	25	WH	120/240	1	PAD	<1	MINERAL OIL	15	1974	IN SERVICE	8/27/1996	FIELD VERIFY BY JIM MCRORY ON 11/20/2006.

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
TRANSFORMER	1357	74AC11123	250	WH	120/240	1	POLE	<1	MINERAL OIL	75	1974	SCRAPPED OR SOLD	6/6/2014	ESNA PRIMARY BUSHINGS RECOMMENDED FOR SCRAP
TRANSFORMER	1391	81JJ535201	25	WH	120/240	1	PAD	<1	MINERAL OIL	40	1984	SCRAPPED OR SOLD	1/7/2014	FOR DISPOSAL
TRANSFORMER	1392	821080451	25	RTE	120/240	1	PAD	<1	MINERAL OIL	40	1982	SCRAPPED OR SOLD	1/7/2014	TESTED BY GOW ON 8/25/2011 - FAIL, SCRAP SEC SW INOP
TRANSFORMER	1393	81JJ535159	25	WH	120/240	1	PAD	<1	MINERAL OIL	40	1984	IN SERVICE	3/20/1998	
AIR SWITCH	1394	821080450	25	RTE	120/240	1	PAD	<1	MINERAL OIL	40	1982	IN SERVICE	12/8/1999	
TRANSFORMER	1400	82A212906	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1984	IN SERVICE	8/30/1986	
TRANSFORMER	1401	83A442495	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1983	IN SERVICE	8/29/1986	
CAPACITOR	1402	83A442496	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1983	IN SERVICE	1/21/1986	
TRANSFORMER	1411	H894999M69A	75	GE	208/120	3	PAD	<1	MINERAL OIL	100	1970	SCRAPPED OR SOLD	10/17/2017	AS PER MICHAEL RU EMAIL ON 12/16/2016REMOVE T-255 AND IN SERVICE L-255 120/208 XFMR
TRANSFORMER	1416	81D2158401	75	HDD	208/120	3	PAD	<1	MINERAL OIL	60	1981	REMOVED	5/16/2024	IN SERVICE 12/12/2002, 2NDARY FED FROM L-1431
TRANSFORMER	1419	74E741033	150	WH	208/120	3	PAD	<1	MINERAL OIL	150	1974	IN SERVICE	8/28/1988	
TRANSFORMER	1420	82A212910	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE		
TRANSFORMER	1421	64SL119	100	STD	120/240	1	POLE	<1	MINERAL OIL	40	1964	IN SERVICE	3/29/2005	
AIR SWITCH	1422	82VL022007	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	9/4/1985	
TRANSFORMER	1423	3067622683	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	4/24/1985	
TRANSFORMER	1425	3067620683	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	4/1/1985	
AIR SWITCH	1426	82A212908	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1984	IN SERVICE	2/11/1986	
TRANSFORMER	1427	J747807K70A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1970	IN SERVICE	2/11/1986	
TRANSFORMER	1428	74E726033	150	WH	208/120	3	PAD	<1	MINERAL OIL	150	1974	IN SERVICE	1/2/1990	
TRANSFORMER	1430	851062A-2	150	SQD	480/277	3	PAD	8.59	MINERAL OIL	150	1986	REMOVED	2/23/2021	
TRANSFORMER	1438	84JH246124	167/10	WH	240/120	3	PAD	<1	MINERAL OIL	150	1984	IN SERVICE	8/15/1995	
TRANSFORMER	1440	84JH246200	167/10	WH	240/120	3	PAD	<1	MINERAL OIL	150	1984	IN SERVICE	9/30/1995	
TRANSFORMER	1441	83JF964016	167/10	WH	240/120	3	PAD	<1	MINERAL OIL	150	1983	IN SERVICE	9/30/1995	
TRANSFORMER	1442	76E230003	167	WH	120/240	1	PAD	<1	MINERAL OIL	90	1976	IN SERVICE	4/10/2007	ENGG V/S DISPATCH DATABASE OK
SWITCH	1451	84JH239220	500	WH	480/277	3	PAD	<1	MINERAL OIL	250	1984	IN SERVICE	9/17/2000	
TRANSFORMER	1461	S-55F1561	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1955	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	1462	83VG533002	25	ME	120/240	1	PAD	<1	MINERAL OIL	40	1983	IN SERVICE	9/28/1988	
TRANSFORMER	1465	83VG533001	25	ME	120/240	1	PAD	<1	MINERAL OIL	40	1983	IN SERVICE	7/21/1987	
TRANSFORMER	1467	K467014K71A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1971	REMOVED	11/6/2019	
TRANSFORMER	1469	81JD435037	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1981	IN SERVICE	2/28/1984	
TRANSFORMER	1472	69F012420	37.5	WH	120/240	1	PAD	<1	MINERAL OIL	40	1969	SCRAPPED OR SOLD	3/27/2013	DRAINED & READY FOR SCRAP. LIVE FRONT FROM LT 519 OLD XFMR FROM BOE WITH PAINT TURNING YELLOW
TRANSFORMER	1473	83VH507001	50	ME	120/240	1	PAD	<1	MINERAL OIL	60	1983	SCRAPPED OR SOLD	3/27/2013	DRAINED & READY FOR SCRAP.
TRANSFORMER	1476	83VG534002	37.5	ME	120/240	1	PAD	<1	MINERAL OIL	40	1984	IN SERVICE	12/4/1985	
TRANSFORMER	1477	83VG534005	37.5	ME	120/240	1	PAD	<1		40	1983	IN SERVICE	4/1/1992	
TRANSFORMER	1478	79144B	3WAY	TRA			PAD		MINERAL OIL	355		SCRAPPED OR SOLD	11/30/2012	
TRANSFORMER	1480	79C932078	75	WH	480/277	3	PAD	<1	MINERAL OIL	100	1979	IN SERVICE	2/13/1980	
SWITCH	1481	L851016YFLA	50	GE	120/240	1	PAD	<1	MINERAL OIL	60	1975	IN SERVICE	5/16/2001	ENGG V/S DISPATCH DATABASE OK
TRANSFORMER	1488	79JK081156	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	40	1979	STOCK	5/18/2025	WAS IN SVC 5/21/1980 - REFURBISH 5/18/2025
TRANSFORMER	1489	79JL088075	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	REMOVED	8/12/2024	Note: in service 6/21/2011 - 8/12/2024 LBM REMOVED due to fault
TRANSFORMER	1490	79JK081135	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	40	1979	SCRAPPED OR SOLD	6/6/2014	
TRANSFORMER	1491	78JH787035	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1978	IN SERVICE	11/17/1979	

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
TRANSFORMER	1492	79JL088049	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1980	REMOVED	6/21/1995	Oil leak seondary service, targeted for refurbishment IN SERVICE 6/21/1995,
SWITCH	1494	L457309T74A	500	GE	480/277	3	PAD	<1	MINERAL OIL	250	1974	IN SERVICE	10/12/2001	
TRANSFORMER	1496	L460480T74A	225	GE	208/120	3	PAD	<1	MINERAL OIL	175	1974	IN SERVICE	11/8/1978	
TRANSFORMER	1498	L833067YDLA	50	GE	120/240	1	PAD	<1	MINERAL OIL	60	1975	IN SERVICE		
TRANSFORMER	1499	77M616023	25	WH	120/240	1	PAD	<1	MINERAL OIL	40	1978	IN SERVICE	1/26/1995	DISPATCH DATA SHOWS 77H616023, ENG. DATA & AS400 SHOWS S/N 77M616023
TRANSFORMER	1500	L833068YDLA	50	GE	120/240	1	PAD	<1	MINERAL OIL	60	1975	IN SERVICE	11/10/1978	
TRANSFORMER	1501	L833069YDLA	50	GE	120/240	1	PAD	<1	MINERAL OIL	60	1975	IN SERVICE	10/10/2001	
TRANSFORMER	1502	78JH789275	37.5	WH	120/240	1	PAD	<1	MINERAL OIL	40	1978	IN SERVICE	7/5/1979	
TRANSFORMER	1503	78JH787106	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1978	IN SERVICE	6/4/2009	
SWITCH	1505	L-464088P	2WAY	GE		3	PAD	<1	MINERAL OIL	280	1978	IN SERVICE	2/1/1980	FIELD VERIFY BY JIM MCRORY ON 10/31/2006.
TRANSFORMER	1506	79JK083095	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	IN SERVICE	3/25/1980	
TRANSFORMER	1507	79JK083067	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	STOCK	5/6/2025	IN SVC 3/25/1980 - REFURBISHED 5/6/2025
TRANSFORMER	1508	79JK081112	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	40	1979	STOCK	5/18/2025	IN SERVICE 3/25/1980 - REMOVED FOR OIL LEAK / SNT REFURB 10/16/2023 / RECVD 5/6/2025
TRANSFORMER	1510	78JH789255	37.5	WH	120/240	1	PAD	<1	MINERAL OIL	40	1978	IN SERVICE	3/25/1980	
TRANSFORMER	1513	83JE948018	37.5	WH	120/240	1	PAD	<1	MINERAL OIL	40	1983	IN SERVICE	3/6/1985	
TRANSFORMER	1514	83VG534004	37.5	ME	120/240	1	PAD	<1	MINERAL OIL	40	1983	IN SERVICE	3/28/1985	
TRANSFORMER	1516	83VH507003	50	ME	120/240	1	PAD	<1	MINERAL OIL	60	1983	IN SERVICE	8/13/1985	
TRANSFORMER	1517	79JK085142	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	1518	79JK085135	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	IN SERVICE	3/1/1980	
TRANSFORMER	1519	83VG534001	37.5	ME	120/240	1	PAD	<1	MINERAL OIL	40	1983	IN SERVICE	3/29/1984	
CAPACITOR	1520	84JM331207	75	WH	208/120	3	PAD	<1	MINERAL OIL	100	1984	IN SERVICE	7/1/1985	
TRANSFORMER	1521	84JM331066	75	WH	208/120	3	PAD	<1	MINERAL OIL	100	1984	IN SERVICE	7/1/1985	
TRANSFORMER	1522	81D2158501	75	WH	208/120	3	PAD	<1	MINERAL OIL	60	1981	IN SERVICE	12/18/1984	
TRANSFORMER	1523	83VH507004	50	ME	120/240	1	PAD	<1	MINERAL OIL	60	1983	IN SERVICE	3/25/1985	
TRANSFORMER	1524	7945A	2WAY	TRA		3	PAD	<1	MINERAL OIL	280	1979	IN SERVICE	10/14/2000	
TRANSFORMER	1525	77K577075	25	WH	120/240	1	PAD	<1	MINERAL OIL	40	1977	IN SERVICE	8/8/1979	
TRANSFORMER	1526	84JM331264	75	WH	208/120	3	PAD	<1	MINERAL OIL	100	1984	IN SERVICE	7/12/1985	
SWITCH	1527	78H777332	225	WH	208/120	3	PAD	<1	MINERAL OIL	175	1978	IN SERVICE	8/3/1979	
TRANSFORMER	1533	79JL088108	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	SCRAPPED OR SOLD	10/30/2020	
TRANSFORMER	1534	80JC175263	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	40	1980	SPARE	8/1/2006	THIS XFMR IS NOT IN USE, JUST COVER PAD FOR SAFETY ISSUED. (SPARE)
TRANSFORMER	1535	79JA088090	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	IN SERVICE	7/7/1980	
TRANSFORMER	1536	80JC175265	37.5	WH	120/240	1	PAD	<1	MINERAL OIL	40	1980	REMOVED	7/9/2020	
TRANSFORMER	1537	81JJ535188	25	WH	120/240	1	PAD	<1	MINERAL OIL	40	1984	IN SERVICE	5/1/2014	
TRANSFORMER	1542	83JE948049	37.5	WH	120/240	1	PAD	<1	MINERAL OIL	40	1983	IN SERVICE	12/14/1983	
TRANSFORMER	1544	83VH508001	75	ME	120/240	1	PAD	<1	MINERAL OIL	60	1984	IN SERVICE	10/4/1985	
TRANSFORMER	1545	83VH507002	50	ME	120/240	1	PAD	<1	MINERAL OIL	60	1983	IN SERVICE	12/17/1984	
TRANSFORMER	1549	83VG534003	37.5	ME	120/240	1	PAD	<1	MINERAL OIL	40	1983	IN SERVICE	1/14/1988	
TRANSFORMER	1550	83VG534006	37.5	ME	120/240	1	PAD	<1	MINERAL OIL	40	1983	IN SERVICE	8/20/1987	
TRANSFORMER	1553	L-464089P	3WAY	GE		3	PAD	<1	MINERAL OIL	280	1978	IN SERVICE	10/29/2007	RESERVED FOR AC
TRANSFORMER	1555	673164679	45	HOW	208/120	3	PAD	<1	MINERAL OIL	60	1980	IN SERVICE	3/13/1980	
TRANSFORMER	1561	84VC508001	75	ME	120/240	1	PAD	<1	MINERAL OIL	60	1984	IN SERVICE	4/2/1990	
TRANSFORMER	1562	836006296	150	RTE	208/120	3	PAD	<1	MINERAL OIL	150	1983	IN SERVICE	5/31/1984	
TRANSFORMER	1563	84JH240241	500	WH	480/277	3	PAD	<1	MINERAL OIL	250	1984	IN SERVICE	11/9/1984	
SWITCH	1565	84ZC901003	750	ME	480/277	3	PAD	<1	MINERAL OIL	400	1984	REMOVED	5/25/2017	

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
SWITCH	1566	831116045	2WAY	RTE		3	PAD	<1	MINERAL OIL	280	1983	IN SERVICE	2/13/1983	
SWITCH	1567	84ZC901002	750	ME	480/277	3	PAD	<1	MINERAL OIL	400	1984	SCRAPPED OR SOLD	2/5/2016	UP/DOWN CARD ONE COPY TO DISPATCH ON 12/20/2013
TRANSFORMER	1568	84ZC901001	750	ME	480/277	3	PAD	<1	MINERAL OIL	400	1984	IN SERVICE	2/17/2021	UP/DOWN CARD ONE COPY TO DISPATCH ON 12/20/2013
AIR SWITCH	1569	826007024	45	RTE	208/120	3	PAD	<1	MINERAL OIL	60	1982	SCRAPPED OR SOLD	2/24/2012	
TRANSFORMER	1571	831115337	2WAY	RTE		3	PAD	<1	MINERAL OIL	280	1983	IN SERVICE	10/13/2004	ENGG V/S DISPATCH DATABASE OK
TRANSFORMER	1584	84ZK704001	750	ME	480/277	3	PAD	<1	MINERAL OIL	400	1984	IN SERVICE	5/8/2020	
TRANSFORMER	1585	841137915	2WAY	RTE		3	PAD	<1	MINERAL OIL	280	1984	IN SERVICE	1/15/1985	
CAPACITOR	1586	80D1957502	500	HDD	480/277	3	PAD	<1	MINERAL OIL	250	1980	IN SERVICE	7/27/1984	
TRANSFORMER	1587	836005708	500	RTE	480/277	3	PAD	<1	MINERAL OIL	250	1983	IN SERVICE	10/1/2001	
TRANSFORMER	1588	826006969	300	RTE	480/277	3	PAD	<1	MINERAL OIL	225	1982	IN SERVICE	8/14/2000	
TRANSFORMER	1589	L453986T74A	500	GE	480/277	3	PAD	<1	MINERAL OIL	250	1974	IN SERVICE	11/21/1996	
TRANSFORMER	1590	L460355T74AA	300	GE	208/120	3	PAD	1	MINERAL OIL	180	1974	SCRAPPED OR SOLD	1/7/2014	BROKEN PRI SW
TRANSFORMER	1591	L453637T74AA	300	GE	208/120	3	PAD	1	MINERAL OIL	180	1974	SCRAPPED OR SOLD	1/7/2014	BROKEN PRI SW
TRANSFORMER	1592	846003342	150	RTE	208/120	3	PAD	1	MINERAL OIL	190	1984	SCRAPPED OR SOLD	1/7/2014	MISSING HV SW HANDLE
TRANSFORMER	1593	74E731055	75	WH	208/120	3	PAD	<1	MINERAL OIL	60	1974	IN SERVICE	12/13/2006	
TRANSFORMER	1594	L457311T74A	500	GE	480/277	3	PAD	<1		250	1974	IN SERVICE	9/19/2007	
TRANSFORMER	1604	831115336	2WAY	RTE		3	PAD	<1	MINERAL OIL	280	1984	IN SERVICE	10/27/2004	ENGG V/S DISPATCH DATABASE OK
TRANSFORMER	1605	816007380	150	RTE	480/277	3	PAD	<1	MINERAL OIL	150	1982	IN SERVICE	12/10/1982	
TRANSFORMER	1607	830658-1	45	SQD	208/120	3	PAD	<1	MINERAL OIL	60	1984	IN SERVICE	5/8/1984	
TRANSFORMER	1609	79JK083108	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	SCRAPPED OR SOLD	1/7/2014	
TRANSFORMER	1615	L450057T74A	225	GE	208/120	3	PAD	<1	MINERAL OIL	175	1974	IN SERVICE	5/20/1974	
TRANSFORMER	1621	3067622383	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	2/24/2009	
TRANSFORMER	1623	3067621283	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	SCRAPPED OR SOLD	10/17/2017	
TRANSFORMER	1624	79JK081090	37.5	WH	120/240	1	PAD	<1	MINERAL OIL	40	1979	SCRAPPED OR SOLD	2/5/2016	ENGG V/S DISPATCH DATABASE OK
TRANSFORMER	1626	830656-1	112.5	SQD	208/120	3	PAD	<1	MINERAL OIL	75	1984	IN SERVICE	5/18/1984	
CAPACITOR	1631	L457310T74AA	500	GE	480/277	3	PAD	<1	MINERAL OIL	240	1974	SCRAPPED OR SOLD	6/6/2014	EMT TESTED ON 8/28/2011 - FAIL
TRANSFORMER	1632	82A212909	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1984	IN SERVICE	10/15/1992	
TRANSFORMER	1637	69VJ003034	10	ME	120/240	1	POLE	<1	MINERAL OIL	10	1969	REMOVED	1/1/2000	
CAPACITOR	1651	H858343K69A	50	GE	120/240	1	POLE	<1	MINERAL OIL	25	1969	SCRAPPED OR SOLD	10/17/2017	
TRANSFORMER	1652	83JM081065	150	WH	480/277	3	PAD	<1	MINERAL OIL	150	1984	IN SERVICE	12/9/1985	
TRANSFORMER	1657	841137184	2WAY	RTE		3	PAD	<1	MINERAL OIL	280	1984	IN SERVICE	1/30/1988	
SWITCH	1658	72A5046	150	WH	208/120	3	PAD	<1	MINERAL OIL	150	1972	IN SERVICE	6/9/2001	
TRANSFORMER	1661	L456361T74A	75	GE	208/120	3	PAD	<1	MINERAL OIL	100	1974	IN SERVICE	5/8/1984	
TRANSFORMER	1671	L456123T74A	75	GE	208/120	3	PAD	<1	MINERAL OIL	100	1974	IN SERVICE	10/23/1984	
TRANSFORMER	1676	831115338	2WAY	RTE		3	PAD	<1	MINERAL OIL	280	1983	IN SERVICE	4/22/1986	
TRANSFORMER	1692	70ZL65502	150	ME	208/120	3	PAD	<1	MINERAL OIL	150	1970	IN SERVICE	7/27/2001	
TRANSFORMER	1699	82A212905	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1984	IN SERVICE	3/21/1984	
TRANSFORMER	1703	81JC425255	1WAY	WH		3	PAD	<1	MINERAL OIL	110	1981	IN SERVICE	6/12/1981	
TRANSFORMER	1704	845109A-1	75	SQD	208/120	3	PAD	<1	MINERAL OIL	100	1984	IN SERVICE	11/12/1985	
TRANSFORMER	1706	76E235024	112.5	WH	208/120	3	PAD	<1	MINERAL OIL	75	1976	SCRAPPED OR SOLD	2/28/2012	
TRANSFORMER	1707	83JF963056	167/10	WH	240/120	3	PAD	<1	MINERAL OIL	225	1983	IN SERVICE	12/29/1983	ENGG V/S DISPATCH DATABASE OK
TRANSFORMER	1708	81JK559036	167	WH	120/240	1	PAD	<1	MINERAL OIL	90	1981	IN SERVICE	8/27/2013	
TRANSFORMER	1710	L952819YFMA	75	GE	120/240	1	PAD	<1	MINERAL OIL	40	1976	IN SERVICE	12/17/1976	ENGG V/S DISPATCH DATABASE OK
TRANSFORMER	1712	PAJ1384	300	STD	208/120	3	PAD	1	MINERAL OIL	225	1969	SCRAPPED OR SOLD	1/7/2014	LIVE FRONT REMOVED 4/20/2012
TRANSFORMER	1714	84JH240169	500	WH	480/277	3	PAD	<1	MINERAL OIL	250	1984	IN SERVICE	11/9/1984	
TRANSFORMER	1718	78H777294	300	WH	208/120	3	PAD	<1	MINERAL OIL	225	1978	IN SERVICE	6/21/2000	FIELD VERIFY BY JIM MCRORY ON 11/14/2006.
TRANSFORMER	1720	J935965T72A	300	GE	208/120	3	PAD	<1	MINERAL OIL	225	1972	IN SERVICE	8/29/2002	FIELD VERIFY BY JIM MCRORY ON 11/20/2006.

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
SWITCH	1721	J932446T71A	500	GE	480/277	3	PAD	<1	MINERAL OIL	250	1972	IN SERVICE	1/31/1972	
TRANSFORMER	1722	J935039T72A	112.5	GE	208/120	3	PAD	<1	MINERAL OIL	75	1972	IN SERVICE	1/14/1974	
TRANSFORMER	1723	74H799038	225	WH	208/120	3	PAD	<1	MINERAL OIL	175	1974	IN SERVICE	9/24/1974	
FUSE	1725		25							280		IN SERVICE		FUSE SWITCH SMALL PADESTALL
TRANSFORMER	1725	81JC425254	2WAY	WH		3	PAD	<1	MINERAL OIL	280	1981	IN SERVICE	9/1/1998	FUSE SWITCH SMALL PADESTALL
TRANSFORMER	1726	J935040T72A	112.5	GE	208/120	3	PAD	<1	MINERAL OIL	75	1972	IN SERVICE	12/2/1975	
TRANSFORMER	1728	816007379	150	RTE	208/120	3	PAD	<1	MINERAL OIL	150	1981	IN SERVICE	4/8/1998	
TRANSFORMER	1732	79C935321	150	WH	208/120	3	PAD	<1	MINERAL OIL	100	1979	IN SERVICE	6/21/1982	FEEDING BLDG. 10 (MSSI)
TRANSFORMER	1734	846003343	150	RTE	208/120	3	PAD	<1	MINERAL OIL	150	1984	IN SERVICE	6/12/1985	FEEDING BLDG. 50 COMMAND CENTER
TRANSFORMER	1735	81D2047001	225	HDD	208/120	3	PAD	<1	MINERAL OIL	175	1981	IN SERVICE	12/30/1982	FEEDING BUILDINGS 51 & 52 (COMMAND CENTER/COMMANDER'S HEADQUARTERS
TRANSFORMER	1736	85JE439226	300	WH	208/120	3	PAD	<1	MINERAL OIL	225	1984	IN SERVICE	6/4/1987	
TRANSFORMER	1741	M596699TERA	225	GE	208/120	3	PAD	<1	MINERAL OIL	175	1979	IN SERVICE	12/30/1980	
TRANSFORMER	1742	836002717	75	RTE	208/120	3	PAD	<1	MINERAL OIL	100	1983	IN SERVICE	11/15/1983	FIELD VERIFY BY JIM MCRORY ON 11/20/2006.
TRANSFORMER	1745	PAJ1388	300	STD	208/120	3	PAD	<1	MINERAL OIL	225		REMOVED	12/28/2024	IN SERVICE 6/18/1998
TRANSFORMER	1746	830654-1	45	SQD	480/277	3	PAD	<1	MINERAL OIL	60	1984	IN SERVICE	3/19/1985	
TRANSFORMER	1750	79JK081173	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	40	1979	IN SERVICE	12/5/1979	
TRANSFORMER	1751	H889617M68A	150	GE	208/120	3	PAD	<1	MINERAL OIL	50	1968	IN SERVICE	9/2/1969	
CAPACITOR	1752	866004983	300	RTE	208/120	3	PAD	2	MINERAL OIL	225	1986	IN SERVICE	4/8/1987	FIELD VERIFY BY JIM MCRORY ON 11/20/2006.
TRANSFORMER	1753	PAJ1385	300	STD	208/120	3	PAD	<1	MINERAL OIL	225	1969	IN SERVICE	8/28/1970	
CAPACITOR	1754	H895222M69A	225	GE	208/120	3	PAD	<1	MINERAL OIL	175	1969	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	1758	79JB913269	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	IN SERVICE	7/3/1980	ENGG V/S DISPATCH DATABASE OK
TRANSFORMER	1759	73VB005003	50	WH	120/240	1	PAD	1	MINERAL OIL	60	1973	SCRAPPED OR SOLD	1/7/2014	
TRANSFORMER	1760	81JK561124	25	WH	120/240	1	PAD	<1	MINERAL OIL	40	1981	SCRAPPED OR SOLD	2/5/2016	XFMR LEAKING LOC-146
TRANSFORMER	1761	81JK561115	25	WH	120/240	1	PAD	<1	MINERAL OIL	40	1981	STOCK	5/18/2025	IN SERVICE 1/12/83, REMOVED / REFURB 5/6/2025
TRANSFORMER	1762	83VG533004	25	ME	120/240	1	PAD	<1	MINERAL OIL	40	1984	IN SERVICE	6/24/1986	
TRANSFORMER	1763	63SG1260	300	WH	208/120	3	PAD	<1	MINERAL OIL	225	1963	SCRAPPED OR SOLD	12/1/2016	
TRANSFORMER	1765	73H550076	75	WH	208/120	3	PAD	<1	MINERAL OIL	100	1974	IN SERVICE	5/8/1987	
TRANSFORMER	1766	77D446116	112.5	WH	208/120	3	PAD	<1	MINERAL OIL	75	1977	IN SERVICE	9/21/1977	
TRANSFORMER	1770	84JE187246	150	WH	480/277	3	PAD	<1	MINERAL OIL	150	1984	SCRAPPED	1/26/2023	IN SERCVICE 12/14/1985
TRANSFORMER	1771	83JM083084	150	WH	208/120	3	PAD	<1	MINERAL OIL	150	1983	IN SERVICE	1/14/1991	
SWITCH	1773	836002624	112.5	RTE	480/277	3	PAD	<1	MINERAL OIL	75	1983	IN SERVICE	9/22/1983	
SWITCH	1779	841137185	2WAY	RTE		3	PAD	<1	MINERAL OIL	280	1984	IN SERVICE	9/1/1987	
SWITCH	1781	836005709	500	RTE	480/277	3	PAD	<1	MINERAL OIL	250	1983	REMOVED	9/10/2016	
TRANSFORMER	1782	84JH240300	500	WH	480/277	3	PAD	<1	MINERAL OIL	250	1984	IN SERVICE	10/2/1986	
TRANSFORMER	1785	77J554067	150	WH	480/277	3	PAD	<1	MINERAL OIL	150	1977	SCRAPPED OR SOLD	10/17/2017	
TRANSFORMER	1786	84JH240271	500	WH	480/277	3	PAD	<1	MINERAL OIL	250	1984	IN SERVICE	8/20/1987	
TRANSFORMER	1787	846003344	150	RTE	208/120	3	PAD	<1	MINERAL OIL	150	1984	IN SERVICE	8/24/1984	
TRANSFORMER	1788	846003340	150	RTE	208/120	3	PAD	<1	MINERAL OIL	150	1984	IN SERVICE	3/14/1996	FIELD VERIFY BY JIM MCRORY ON 10/31/2006.
TRANSFORMER	1790	826007061	75	RTE	480/277	3	PAD	<1	MINERAL OIL	100	1983	REMOVED	2/12/2020	
TRANSFORMER	1792	87ZK556-002	500	ME	480/277	3	PAD	<1	MINERAL OIL	250		IN SERVICE	6/30/2001	
TRANSFORMER	1795	84JM332057	75	WH	208/120	3	PAD	<1	MINERAL OIL	100	1984	IN SERVICE	7/22/1986	
CAPACITOR	1800	M332550YJNA	50	GE	120/240	1	POLE	<1	MINERAL OIL	25	1977	SCRAPPED OR SOLD	6/24/2020	
TRANSFORMER	1801	M273755YHNA	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1977	IN SERVICE	9/8/1981	NEED VERIFY XFMR INFO. MISSING SERIAL NUMBER
AIR SWITCH	1802	77A142380	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1978	IN SERVICE	7/29/1981	
TRANSFORMER	1803	77A142387	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1977	IN SERVICE		ENGG V/S DISPATCH DATABASE OK

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
AIR SWITCH	1804	M338234YJNA	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1977	IN SERVICE	8/14/1981	
TRANSFORMER	1805	67AF13950	75	WH	120/240	1	POLE	<1	MINERAL OIL	15	1967	IN SERVICE	1/3/1984	ADD IN SINGLE LINE
TRANSFORMER	1817	M332548YJNA	50	GE	120/240	1	POLE	<1	MINERAL OIL	25	1977	IN SERVICE	12/20/1977	ADD IN SINGLE LINE
TRANSFORMER	1821	77A142385	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1978	IN SERVICE	7/29/1981	
TRANSFORMER	1823	M273758YNHA	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1977	IN SERVICE	6/2/1981	
RECLOSER	1824	19857-978	37.5	HOW	120/240	1	POLE	<1	MINERAL OIL	20	1979	IN SERVICE	9/23/1980	
TRANSFORMER	1825	M530043YFPA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1978	IN SERVICE	3/17/1981	
TRANSFORMER	1827	L647647K74A	25	GE	240/480	1	POLE	<1	MINERAL OIL	15	1974	SCRAPPED OR SOLD	3/27/2013	DRAINED & READY FOR SCRAP
TRANSFORMER	1830	M273752YHNA	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1977	IN SERVICE	7/14/1981	
TRANSFORMER	1831	C52039	37.5	KUH	240/480	1	POLE	<1	MINERAL OIL	20	1956	SCRAPPED OR SOLD	3/27/2013	DRAINED READY FOR SCRAP. TAGGED FOR SCRAP IN 2009
TRANSFORMER	1832	C50238	37.5	KUH	240/480	1	POLE	<1	MINERAL OIL	20	1956	SCRAPPED OR SOLD	3/27/2013	DRAINED READY FOR DISPOSAL. TAGGED FOR SCRAP IN 2009
TRANSFORMER	1838	M273753YHNA	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1977	IN SERVICE	3/24/1981	
TRANSFORMER	1839	175804K73A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1973	REMOVED	9/17/2019	
CAPACITOR	1842	79A044405	50	WH	240/480	1	POLE	<1	MINERAL OIL	10	1979	REMOVED	2/17/2022	(IN SERVICE FROM 3/31/2003) UEL-99965 - OH TO UG CONVERSION (POLE ABANDONMENT)
CAPACITOR	1843	79A044404	50	WH	240/480	1	POLE	<1	MINERAL OIL	10	1979	REMOVED	2/17/2022	(IN SERVICE FROM 3/31/2003) UEL-99965 - OH TO UG CONVERSION (POLE ABANDONMENT)
TRANSFORMER	1845	K508712K72A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1973	REMOVED	3/5/2021	REMOVE BY MIKE SHERMAN
TRANSFORMER	1846	J783677K71A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1971	IN SERVICE	10/28/1971	
TRANSFORMER	1851	79A044403	50	WH	240/480	1	POLE	<1	MINERAL OIL	10	1979	SCRAPPED OR SOLD	3/27/2013	DRAINED READY FOR SCRAP. BLACK BURNT MARKED AREA ON SECONDARY BUSHING.
TRANSFORMER	1853	J785917K71A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1971	IN SERVICE		
TRANSFORMER	1853	J785917K71A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1971	IN SERVICE	9/30/1993	
TRANSFORMER	1855	72AB1950	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1972	IN SERVICE	4/4/1972	
TRANSFORMER	1856	58SL1774	50	WH	120/240	1	POLE	<1	MINERAL OIL	25	1959	IN SERVICE	10/6/1980	
TRANSFORMER	1857	175803K73A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1973	IN SERVICE	7/14/1981	
TRANSFORMER	1858	K467738K71A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1971	IN SERVICE	2/28/1972	
TRANSFORMER	1860	J784925K71A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1971	IN SERVICE	10/28/1971	
TRANSFORMER	1861	58SF90	100	WH	120/240	1	POLE	<1	MINERAL OIL	40	1958	OK TO SCRAP	11/3/2017	ACCOUNTING REPORTING
TRANSFORMER	1862	J786176K71A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1971	IN SERVICE	10/26/1971	
TRANSFORMER	1864	73AL22042	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1974	SCRAPPED OR SOLD	2/5/2016	
CAPACITOR	1865	J786179K71A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1971	SCRAPPED OR SOLD	3/27/2013	DRAINED. READY FOR SCRAP. BUSHING LEAKING UNDER LOAD. CSP STYLE. MINOR SCRATCHES & CHIPS W/RUST. RECOMMENDED FOR SCRAP.
TRANSFORMER	1870	J786180K71A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1971	SCRAPPED OR SOLD	2/28/2012	
TRANSFORMER	1871	503192378	50	HOW	120/240	1	POLE	<1	MINERAL OIL	25	1979	IN SERVICE	10/21/1981	
TRANSFORMER	1872	71AK15337	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1972	IN SERVICE	4/4/1972	
TRANSFORMER	1873	J768459K70A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1971	IN SERVICE	10/26/1992	
TRANSFORMER	1874	83A523383	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1984	IN SERVICE	1/16/1985	
TRANSFORMER	1875	J784925K71A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1971	IN SERVICE		NEED FIELD VERIFY. MISSING SERIAL NUMBER
TRANSFORMER	1877	3067621983	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	3/21/1985	
TRANSFORMER	1878	77A020750	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1977	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	1880	J785916K71A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1971	IN SERVICE	8/21/1989	Leak UEL 1266 used for replacing with 37.5kVA

Note: Red text are assumptions made by Geosyntec Consultants, Inc. for the purpose of completing load reduction calculations.

ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
TRANSFORMER	1883	2109102	15	AC	120/240	1	POLE	<1	MINERAL OIL	10	1948	SCRAPPED OR SOLD	2/5/2016	
AIR SWITCH	1885	3067621083	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	7/22/1983	
AIR SWITCH	1887	3067621383	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	7/22/1983	
AIR SWITCH	1889	3067621783	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	7/25/1983	
TRANSFORMER	1893	811153142	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1982	IN SERVICE	6/11/2014	
TRANSFORMER	1894	811153146	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1982	SCRAPPED	1/26/2023	IN SERVICE 12/22/2000
TRANSFORMER	1895	811153147	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1982	SCRAPPED OR SOLD	3/27/2013	DRAINED & READY FOR SCRAP. CAME BACK IN NON-WORKING CONDITION. ELECTRICALLY BAD WITH PAINT CRACKS ON THE TOP WHERE IT MEET ONE OF THE BUSHING
TRANSFORMER	1896	77A142379	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1977	IN SERVICE	6/3/1981	
CAPACITOR	1898	811153154	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1982	IN SERVICE	12/2/1982	
SWITCH	1902	M265525YGNA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1977	IN SERVICE	12/6/1977	
TRANSFORMER	1911	M338240YJNA	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1977	IN SERVICE	2/24/1978	
TRANSFORMER	1912	831117855	50	RTE	120/240	1	POLE	<1	MINERAL OIL	25	1983	IN SERVICE	7/1/1985	
TRANSFORMER	1919	128720	37.5	FPE	120/240	1	POLE	<1	MINERAL OIL	20	1966	IN SERVICE	6/16/1966	
CAPACITOR	1928	K511865K73A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1973	IN SERVICE	8/31/1976	
SWITCH	1931	S-55D092	25	WH	120/240	1	POLE	2	MINERAL OIL	15	1955	IN SERVICE		DISPATCH HAVE NO RECORD
TRANSFORMER	1933	77VC505001	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1977	IN SERVICE	4/15/1977	ADD IN SINGLE LINE.
TRANSFORMER	1935	M332552YJNA	50	GE	120/240	1	POLE	<1	MINERAL OIL	25	1977	IN SERVICE	10/11/1978	ADD IN SINGLE LINE
TRANSFORMER	1936	73AL22048	37.5	WH	120/240	1	POLE	<1		20	1974	IN SERVICE	9/21/1976	
TRANSFORMER	1937	77VC505006	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1977	SCRAPPED OR SOLD	2/5/2016	ADD IN SINGLE LINE
TRANSFORMER	1941	77A142386	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1978	IN SERVICE	11/22/1982	ADD IN SINGLE LINE
TRANSFORMER	1942	84AA033211	50	WH	120/240	1	POLE	<1	MINERAL OIL	25	1984	IN SERVICE	1/16/1985	ADD IN SINGLE LINE
TRANSFORMER	1945	68AB15845	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1968	IN SERVICE	4/8/1993	
TRANSFORMER	1951	77VD509005	50	ME	120/240	1	POLE	<1	MINERAL OIL	10	1977	IN SERVICE	8/19/1977	ADD IN SINGLE LINE
TRANSFORMER	1952	170156	167	STD	120/240	1	PAD	<1	MINERAL OIL	70	1962	IN SERVICE	12/29/1983	
AIR SWITCH	1958	M332440YJNA	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1977	IN SERVICE	2/22/1978	ADD IN SINGLE LINE
AIR SWITCH	1960	K466255K71A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1971	IN SERVICE	7/23/1986	
TRANSFORMER	1964	68AB6168	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1968	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	1966	73AC16688	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1973	IN SERVICE	8/27/1973	
TRANSFORMER	1967	73AC16727	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1973	IN SERVICE	8/27/1973	
TRANSFORMER	1975	5442184	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1950	IN SERVICE	7/1/1982	
TRANSFORMER	1978	M573832YHNA	50	GE	120/240	1	POLE	<1	MINERAL OIL	25	1977	IN SERVICE	4/15/1990	
TRANSFORMER	1980	70AD14856	50	WH	120/240	1	POLE	<1	MINERAL OIL	25	1970	IN SERVICE	4/15/1990	
TRANSFORMER	1982	N180930YLSA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1980	IN SERVICE	7/1/1982	
TRANSFORMER	1983	811153150	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1982	IN SERVICE	12/22/2000	IN SERVICE 12/22/2000
TRANSFORMER	2002	N9178N25CC1	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1967	IN SERVICE	3/15/2001	
TRANSFORMER	2006	L456122T74A	75	GE	208/120	3	PAD	<1	MINERAL OIL	100	1974	IN SERVICE	2/20/1991	FEEDING BLDG. 2 (CHILD DEVELOPMENT CENTER)
TRANSFORMER	2007	L-464091P	2WAY	GE		3	PAD	<1	MINERAL OIL	280	1979	REMOVED	5/15/2023	IN SERVICE 4/23/1986 REPLACED DUE TO RUSTING
TRANSFORMER	2022	67AB127	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1969	IN SERVICE	12/6/1969	
TRANSFORMER	2034	80D1957501	500	HDD	480/277	3	PAD	<1	MINERAL OIL	250	1980	IN SERVICE	7/30/1982	
TRANSFORMER	2038	M592829TCRA	150	GE	208/120	3	PAD	<1	MINERAL OIL	150	1979	IN SERVICE	6/21/1982	
TRANSFORMER	2040	81D2158701	300	HDD	480/277	3	PAD	<1	MINERAL OIL	225	1981	IN SERVICE	1/14/2012	
TRANSFORMER	2044	881156150	3WAY	RTE		3	PAD	<1		270		IN SERVICE	4/21/2001	
TRANSFORMER	2045	H858342K69A	50	GE	120/240	1	POLE	<1	MINERAL OIL	25	1969	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	2046	N003728TLRA	75	GE	208/120	3	PAD	<1	MINERAL OIL	100	1979	REMOVED	5/19/2016	IN SERVICE 75 KVA XFMR DUE TO MAINTENANCE.

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
TRANSFORMER	2056	H858557K69A	15	GE	120/240	1	POLE	<1	MINERAL OIL	10	1969	IN SERVICE	11/17/2008	
TRANSFORMER	2058	68AA1883	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1969	IN SERVICE	12/6/1969	
TRANSFORMER	2059	3048000483	37.5	KUH	120/240	1	POLE	<1	MINERAL OIL	20	1982	REMOVED	9/15/2020	
TRANSFORMER	2061	83A442500	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1983	IN SERVICE	12/6/1983	
TRANSFORMER	2064	811153148	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1982	IN SERVICE	8/3/1982	
TRANSFORMER	2070	3067620283	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	10/19/1983	
AIR SWITCH	2071	82VL022001	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	1/27/1986	
TRANSFORMER	2072	3067630583	37.5	KUH	120/240	1	POLE	<1	MINERAL OIL	20	1983	IN SERVICE	10/1/1983	
TRANSFORMER	2073	82VL022004	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	10/1/1983	
AIR SWITCH	2075	82VL022009	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	1/17/1983	
TRANSFORMER	2076	68AA2819	75	WH	120/240	1	POLE	<1		30	1968	IN SERVICE	11/17/2008	
TRANSFORMER	2077	82VL022002	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	4/15/2013	
TRANSFORMER	2078	82VL022015	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	1/17/1983	
TRANSFORMER	2079	82VL022006	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	1/17/1983	
TRANSFORMER	2080	3048000182	37.5	KUH	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	9/28/1982	
TRANSFORMER	2081	82VL022012	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	1/17/1983	
TRANSFORMER	2083	3048000283	37.5	KUH	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	9/28/1982	
TRANSFORMER	2122	84JM331140	75	WH	208/120	3	PAD	<1	MINERAL OIL	100	1984	IN SERVICE	5/12/1985	
TRANSFORMER	2123	836007992	300	RTE	480/277	3	PAD	<1	MINERAL OIL	225	1984	IN SERVICE	5/28/1987	
TRANSFORMER	2141	64SB1641	37.5	WH	240/480	1	POLE	<1	MINERAL OIL	20	1967	SCRAPPED OR SOLD	3/27/2013	DRAINED & READY FOR SCRAP
TRANSFORMER	2142	64SB1650	37.5	WH	240/480	1	POLE	<1	MINERAL OIL	20	1967	SCRAPPED OR SOLD	3/27/2013	DRAINED & READY FOR SCRAP
TRANSFORMER	2144	N003730TLRA	75	GE	208/120	3	PAD	<1	MINERAL OIL	60	1979	IN SERVICE	1/22/1991	FEEDING BLDGS 13, 14, 18, 19 & 20 MSB/MOTORPOOL/FBI/AMMO SHED/HEADQUARTERS
TRANSFORMER	2178	881156150	3WAY	RTE		3	PAD	<1	MINERAL OIL	270		IN SERVICE	9/15/2014	
TRANSFORMER	2187	89C36265	750	PAU	480/277	3	PAD	25	MINERAL OIL	237	1989	IN SERVICE	1/2/2021	
AIR SWITCH	2192	89C36261	225	PAU	208/120	3	PAD	<1	MINERAL OIL	114	1972	IN SERVICE	8/20/1990	
TRANSFORMER	2200	M600937TFRA	150	GE	208/120	3	PAD	<1	MINERAL OIL	150	1979	IN SERVICE	6/16/2010	
TRANSFORMER	2204	820252-1	1000	SQD	480/277	3	PAD	<1		342		IN SERVICE	8/6/1998	
TRANSFORMER	2205	M096216TKMA	50	GE	240/480	1	PAD	<1		25	1976	IN SERVICE	9/15/1986	
TRANSFORMER	2206	M096217YLMA	50	GE	240/480	1	PAD	<1		25	1976	IN SERVICE	9/15/1986	
TRANSFORMER	2207	M096215YLMA	50	GE	240/480	1	PAD	<1		25	1976	IN SERVICE	9/15/1986	
TRANSFORMER	2213	L461223T74A	225	GE	208/120	3	PAD	<1	MINERAL OIL	175	1974	IN SERVICE	2/23/1978	
TRANSFORMER	2214	H858805K69A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1969	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2216	L457308T74A	500	GE	480/277	3	PAD	<1	MINERAL OIL	250	1974	IN SERVICE	4/21/1976	
TRANSFORMER	2217	77K578307	100	WH	120/240	1	PAD	<1	MINERAL OIL	75	1977	STOCK	10/17/2017	
TRANSFORMER	2218	74H798058	300	WH	208/120	3	PAD	<1	MINERAL OIL	225	1974	IN SERVICE	8/25/1977	FIELD VERIFIED BY JIM M.
TRANSFORMER	2221	82D2198201	300	HDD	480/277	3	PAD	<1	MINERAL OIL	225	1982	IN SERVICE	5/7/1996	
TRANSFORMER	2230	71AM3844	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1972	IN SERVICE	2/17/1988	
TRANSFORMER	2231	71AM3837	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1972	IN SERVICE	2/17/1988	
TRANSFORMER	2232	71AM3848	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1972	IN SERVICE	2/17/1988	
TRANSFORMER	2235	3067622583	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	11/10/1986	
TRANSFORMER	2236	3067622883	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	11/12/1986	
TRANSFORMER	2245	3067621583	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	7/25/1983	
TRANSFORMER	2246	82A430864	50	WH	120/240	1	POLE	<1	MINERAL OIL	25	1982	IN SERVICE	1/12/1984	
TRANSFORMER	2247	58SF819	75	WH	120/240	1	POLE	<1	MINERAL OIL	30	1958	SCRAPPED OR SOLD	12/17/2013	FROM ST. CHARLESH/LINCOLN. LEAKING SELF PROTECTING AND RECOMMEND SCRAPING.
TRANSFORMER	2257	82A430862	50	WH	120/240	1	POLE	<1	MINERAL OIL	25	1982	IN SERVICE	10/5/2012	
TRANSFORMER	2260	831117857	50	RTE	120/240	1	POLE	<1	MINERAL OIL	25	1984	IN SERVICE	12/11/1987	
TRANSFORMER	2261	82VL022010	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	12/11/1987	

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
TRANSFORMER	2263	64SF936	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1964	IN SERVICE	1/18/1988	
TRANSFORMER	2264	3067620783	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	10/26/1987	
SWITCH	2272	82VL022013	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	7/26/2011	REPLACE AMP#1865 LOC#724 3257 CENTRAL AVE
TRANSFORMER	2273	82VL022011	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	11/2/2012	
TRANSFORMER	2274	811153153	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1982	IN SERVICE	4/2/1986	
TRANSFORMER	2275	811153151	25	RTE	120/240	1	PAD	<1	MINERAL OIL	15	1982	IN SERVICE	11/8/2000	
CAPACITOR	2279	N180929YLSA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1980	IN SERVICE	4/2/1986	
TRANSFORMER	2284	M352547YJNA	50	GE	120/240	1	POLE	<1	MINERAL OIL	25		IN SERVICE		NEED FIELD VERIFY. MISSING BOE # & SERIAL NUMBER
TRANSFORMER	2285	3067630983	37.5	KUH	120/240	1	POLE	<1	MINERAL OIL	20	1983	IN SERVICE	2/26/1986	
TRANSFORMER	2286	M265524YGNA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1977	IN SERVICE	2/27/1986	
TRANSFORMER	2287	59SG1421	100	WH	120/240	1	POLE	<1	MINERAL OIL	40	1959	IN SERVICE	7/23/1986	
TRANSFORMER	2293	503182378	50	HOW	120/240	1	POLE	<1	MINERAL OIL	25	1979	IN SERVICE	7/6/1982	
TRANSFORMER	2294	83VG035001	50	ME	240/480	1	POLE	<1	MINERAL OIL	10	1983	STOCK	10/17/2017	
TRANSFORMER	2295	83VG035002	50	ME	240/480	1	POLE	<1	MINERAL OIL	10	1983	STOCK	10/17/2017	
TRANSFORMER	2296	3067620883	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	2/3/1984	NEED FIELD VERIFY. MISSING SERIAL NUMBER
TRANSFORMER	2298	H867455K69A	10	GE	120/240	1	POLE	1	MINERAL OIL	10	1969	IN SERVICE	1/15/2013	EMAIL RECEIVED FROM JIM MCANALLY FOR NEW CODES FOR THE 10 & 15 KVA 120/240V XFMR
TRANSFORMER	2299	73AL5738	10	WESCO	120/240	1	POLE		MINERAL OIL	10	1973	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2306	J747792K70A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1970	IN SERVICE	7/11/1990	
TRANSFORMER	2316	3067621483	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	2/3/1984	
TRANSFORMER	2317	K486955K72A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1972	IN SERVICE	8/8/1991	
TRANSFORMER	2318	K486969K72A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1972	IN SERVICE	10/19/1972	
AIR SWITCH	2319	K475074K72A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1972	IN SERVICE	5/15/1972	
TRANSFORMER	2320	K507412K72A	25	GE	120/240	1	POLE	<1	MINERAL OIL	25	1972	SCRAPPED OR SOLD	12/11/2020	
TRANSFORMER	2321	77VC505005	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1977	SCRAPPED OR SOLD	11/4/2020	
TRANSFORMER	2322	73AL22052	37.5	WH	120/240	1	POLE	1	MINERAL OIL	20	1973	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2323	73AC16632	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1974	SCRAPPED OR SOLD	3/27/2013	SELF PROTECTED STYLE. AMP IS NO MORE USING THIS STYLE OF XFMR
TRANSFORMER	2326	72AB1138	25	WH	120/240	1	POLE	16	MINERAL OIL	15	1972	SCRAPPED OR SOLD	2/5/2016	SELF PROTECTING. CAME DOWN FROM 3250 FERNSIDE WITH 16 PPM PCB.
TRANSFORMER	2327	72AB1983	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1972	IN SERVICE	5/1/1972	
TRANSFORMER	2328	K486959K72A	37.5	GE	120/240	1	POLE	17	MINERAL OIL	20	1972	SCRAPPED OR SOLD	2/5/2016	SELF PROTECTING. CAME DOWN FROM 870 WALNUT WITH 17 PPM PCB.
TRANSFORMER	2329	K475078K72A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1972	IN SERVICE	5/1/1972	
TRANSFORMER	2332	K514480K73A	37.5	GE	120/240	1	POLE	<1		20	1973	IN SERVICE	3/5/1973	
TRANSFORMER	2333	K511875K73A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1973	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	2334	3067630283	37.5	KUH	120/240	1	POLE	<1	MINERAL OIL	20	1983	IN SERVICE	10/18/1983	
TRANSFORMER	2340	73AL21055	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1974	IN SERVICE	2/22/1977	ADD IN SINGLE LINE
TRANSFORMER	2341	811153145	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1982	IN SERVICE	8/3/1982	
AIR SWITCH	2342	3067622983	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	1/27/1986	
TRANSFORMER	2348	K502902K72A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1972	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2353	H858880K69A	75	GE	120/240	1	POLE	<1	MINERAL OIL	30	1969	IN SERVICE	6/25/1982	
TRANSFORMER	2354	76A353574	15	WH	120/240	1	POLE	<1	MINERAL OIL	10	1976	IN SERVICE	8/23/1977	ADD IN SINGLE LINE
TRANSFORMER	2355	69AL5615622	37.5	WH	120/240	1	POLE	12.98	MINERAL OIL	20	1970	REMOVED	12/22/2019	
TRANSFORMER	2356	N180927YLSA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1980	IN SERVICE	12/10/1982	
TRANSFORMER	2357	82VL022003	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	8/24/1993	
TRANSFORMER	2358	3067631083	37.5	KUH	120/240	1	POLE	<1	MINERAL OIL	20	1983	IN SERVICE	10/1/1983	

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
TRANSFORMER	2360	82A430861	50	WH	120/240	1	POLE	<1	MINERAL OIL	25	1982	IN SERVICE	10/1/1983	
AIR SWITCH	2364	K511869K73A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1973	IN SERVICE	4/27/1973	
TRANSFORMER	2365	M265526YGNA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1977	IN SERVICE	8/23/1977	ADD IN SINGLE LINE
TRANSFORMER	2367	73AL2113	15	WH	120/240	1	POLE	<1	MINERAL OIL	10	1973	IN SERVICE	8/23/1977	ADD IN SINGLE LINE
TRANSFORMER	2370	3067630383	37.5	KUH	120/240	1	POLE	<1	MINERAL OIL	20	1983	IN SERVICE	10/24/1983	ADD IN SINGLE LINE
TRANSFORMER	2371	83A523385	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1984	SCRAPPED OR SOLD	2/5/2016	
AIR SWITCH	2373	K503904K72A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1972	SCRAPPED OR SOLD	2/11/1980	IN SERVICE 2/11/1980
TRANSFORMER	2381	K499103K72A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1973	SCRAPPED OR SOLD	10/17/2017	
TRANSFORMER	2383	73AE10916	50	WH	120/240	1	POLE	<1	MINERAL OIL	25	1973	IN SERVICE	2/22/1977	ADD IN SINGLE LINE
TRANSFORMER	2384	76A353576	15	WH	120/240	1	POLE	<1	MINERAL OIL	10	1976	IN SERVICE	8/23/1977	ADD IN SINGLE LINE
TRANSFORMER	2385	36169-1778	37.5	HOW	120/240	1	POLE	<1	MINERAL OIL	20	1979	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2386	68AB15847	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1968	IN SERVICE	3/4/1969	
TRANSFORMER	2388	73AK22614	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1973	SCRAPPED OR SOLD	2/5/2016	AMP IS NO MORE USING THIS STYLE OF XFMR. REMOVE XFMR ON LOC#4835 ON 1/29/2014.
CAPACITOR	2391	M265528YGNA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1977	IN SERVICE	12/6/1977	
TRANSFORMER	2395	M265527YGNA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1977	IN SERVICE	10/17/1977	
TRANSFORMER	2405	1203667	25	RTE	240/480	1	POLE	<1	MINERAL OIL	15	1961	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2406	5Y59155	167	WAG	240/480	1	POLE	<1	MINERAL OIL	70	1968	SCRAPPED OR SOLD	3/27/2013	DRAINED READY FOR SCRAP. TAGGED FOR SCRAP IN 2009
AIR SWITCH	2410	8102081702	50	KUH	240/480	1	POLE	<1	MINERAL OIL	10	1981	IN SERVICE		
AIR SWITCH	2411	8102081701	50	KUH	240/480	1	POLE	<1	MINERAL OIL	10	1981	IN SERVICE		
TRANSFORMER	2412	1203665	25	RTE	240/480	1	POLE	<1	MINERAL OIL	15	1961	SCRAPPED OR SOLD	3/27/2013	DRAINED & READY FOR SCRAP
TRANSFORMER	2413	1203666	25	RTE	240/480	1	POLE	<1	MINERAL OIL	15	1961	SCRAPPED OR SOLD	3/27/2013	DRAINED & READY FOR SCRAP
TRANSFORMER	2419	811007105	50	RTE	240/480	1	POLE	<1	MINERAL OIL	25	1981	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2427	3059080382	100	KUH	240/480	1	POLE	<1	MINERAL OIL	40	1982	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2428	3059060262	100	KUH	240/480	1	POLE	<1	MINERAL OIL	40	1982	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2429	3059080182	100	KUH	240/480	1	POLE	<1	MINERAL OIL	40	1982	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2432	5Y59157	167	WAG	240/480	1	POLE	<1	MINERAL OIL	70	1968	SCRAPPED OR SOLD	3/27/2013	DRAINED READY FOR SCRAP
TRANSFORMER	2433	5Y60013	167	WAG	240/480	1	POLE	<1	MINERAL OIL	70	1968	SCRAPPED OR SOLD	3/27/2013	DRAINED READY FOR SCRAP. TAGGED FOR SCRAP IN 2009
TRANSFORMER	2443	M530049YFPA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1978	SCRAPPED OR SOLD	3/27/2013	DRAINED READY FOR SCRAP. SELF PROTECTING XFMR. SEVERE PAINT CRACKING AT THE BOTTOM OF BOTH BUSHING & STARTING RUST. THE STRAP THAT HOLDS THE LID TIGHT ALSO HAS PAINT CHIP
TRANSFORMER	2444	K475601K72A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1972	SCRAPPED OR SOLD	12/9/2020	
TRANSFORMER	2500	H858552K69A	15	GE	120/240	1	POLE	<1	MINERAL OIL	10	1969	SCRAPPED OR SOLD	6/24/2020	ACCOUNTING REPORTING
TRANSFORMER	2501	H858558K69A	15	GE	120/240	1	POLE	<1	MINERAL OIL	10	1969	IN SERVICE	6/20/1990	
CAPACITOR	2504	J785895K71A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1971	SCRAPPED OR SOLD	6/6/2014	
TRANSFORMER	2505	GV592935	37.5	LM	120/240	1	POLE	3	MINERAL OIL	20	1968	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2508	175802K73A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1973	IN SERVICE	10/17/1990	
TRANSFORMER	2514	J761473K70A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1970	SCRAPPED OR SOLD	11/4/2020	
TRANSFORMER	2515	J762623K70A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1970	SCRAPPED OR SOLD	11/4/2020	
TRANSFORMER	2516	J754880K70A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1970	SCRAPPED OR SOLD	6/6/2014	
TRANSFORMER	2517	J773401K71A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1971	SCRAPPED OR SOLD	10/17/2017	
TRANSFORMER	2520	H863589K69A	75	GE	120/240	1	POLE	<1	MINERAL OIL	30	1969	IN SERVICE	11/2/1979	
TRANSFORMER	2522	64SB828	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1964	SCRAPPED OR SOLD	3/27/2013	DRAIN & READY FOR SCRAP. BAD SECONDARY WINDINGS
TRANSFORMER	2529	M530041YFPA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1978	IN SERVICE	3/17/1981	

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
TRANSFORMER	2532	73AK22626	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1973	IN SERVICE	4/18/1994	
TRANSFORMER	2533	229051178	37.5	HOW	120/240	1	POLE	<1	MINERAL OIL	20	1979	SCRAPPED	1/26/2023	IN SERVICE 4/6/1993
TRANSFORMER	2536	36167-1778	37.5	HOW	120/240	1	POLE	<1	MINERAL OIL	20	1979	IN SERVICE	8/20/1992	
TRANSFORMER	2537	H555530K68A	50	GE	120/240	1	POLE	<1	MINERAL OIL	25	1968	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	2539	M332434YJNA	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1977	SCRAPPED OR SOLD	6/6/2014	
TRANSFORMER	2540	H838964K68A	50	GE	120/240	1	POLE	<1	MINERAL OIL	25	1968	IN SERVICE	5/7/1971	
AIR SWITCH	2543	73AK10796	10	WH	120/240	1	POLE	<1	MINERAL OIL	10	1973	IN SERVICE	12/10/1991	
TRANSFORMER	2545	H877830K70A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1970	IN SERVICE	4/1/1970	
TRANSFORMER	2546	811153143	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1982	SCRAPPED OR SOLD	10/17/2017	
TRANSFORMER	2547	71A141698	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1978	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2548	77A302011	37.5	WH	120/240	1	POLE	1	MINERAL OIL	20	1978	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2549	H877831K70A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1970	IN SERVICE	4/1/1970	
TRANSFORMER	2552	69AD3878	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1969	IN SERVICE	11/25/1969	
TRANSFORMER	2553	J738350K70A	10	GE	120/240	1	PAD	<1	MINERAL OIL	10	1969	IN SERVICE	4/28/1970	
TRANSFORMER	2555	19854-978	37.5	HOW	120/240	1	POLE	<1	MINERAL OIL	20	1979	IN SERVICE	5/28/1992	
TRANSFORMER	2558	229041178	37.5	HOW	120/240	1	POLE	<1	MINERAL OIL	20	1979	IN SERVICE	2/28/1980	
AIR SWITCH	2559	361711778	37.5	HOW	120/240	1	POLE	<1	MINERAL OIL	20	1979	IN SERVICE	2/28/1980	
TRANSFORMER	2560	3091510578	37.5	HOW	120/240	1	POLE	<1	MINERAL OIL	20	1979	IN SERVICE	2/28/1980	
TRANSFORMER	2565	F691046-63	100	GE	120/240	1	PAD	<1	MINERAL OIL	40	1963	IN SERVICE	12/3/1963	
TRANSFORMER	2568	76E228009	100	WH	120/240	1	PAD	<1	MINERAL OIL	75	1976	IN SERVICE	8/24/1976	ENGG V/S DISPATCH DATABASE OK
TRANSFORMER	2576	K534989M71A	50	GE	120/240	1	PAD	<1	MINERAL OIL	60	1971	IN SERVICE	8/16/1972	
TRANSFORMER	2578	68AA2815	75	WH	120/240	1	POLE	<1	MINERAL OIL	30	1968	IN SERVICE	12/22/2000	
TRANSFORMER	2579	J820140M71A	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	10	1971	IN SERVICE	8/16/1972	
TRANSFORMER	2580	J738353K70A	10	GE	120/240	1	PAD	<1	MINERAL OIL	10	1969	IN SERVICE	4/28/1970	
TRANSFORMER	2585	391952579	50	HOW	120/240	1	POLE	<1	MINERAL OIL	25	1979	REMOVED	2/6/2023	Replaced with (#6455) 20A140908 9/7/2021
TRANSFORMER	2586	73AC16731	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1973	IN SERVICE	11/14/1973	FIELD VERIFY BY KARL ON 6/20/2008
TRANSFORMER	2587	3067630483	37.5	KUH	120/240	1	POLE	<1	MINERAL OIL	20	1983	IN SERVICE	10/8/1992	
TRANSFORMER	2590	659263278	50	HOW	120/240	1	POLE	<1	MINERAL OIL	25	1979	REMOVED	2/6/2023	Replaced with (#6454) 20A160607 9/7/2021
AIR SWITCH	2591	77VC505008	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1977	IN SERVICE	8/8/1977	XFMR AMP # 2591 IS OK
TRANSFORMER	2593	391932579	50	HOW	120/240	1	POLE	<1	MINERAL OIL	25	1979	REMOVED	2/6/2023	Replaced with (#6495) 21A041543 9/7/2021
TRANSFORMER	2594	62SF2006	10	WH	120/240	1	POLE	<1	MINERAL OIL	10	1962	REMOVED	12/5/2019	NEED FIELD VERIFY. MISSING SERIAL NUMBER
TRANSFORMER	2596	L676749K74A	25	GE	240/480	1	POLE	<1	MINERAL OIL	15	1974	IN SERVICE	7/28/1974	
TRANSFORMER	2597	66AC13541	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1968	REMOVED	7/13/2016	
TRANSFORMER	2599	K514487K73A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1973	IN SERVICE	11/14/1973	FIELD VERIFY BY KARL ON 6/20/2008
PRIMARY METERING	2600	K502915K72A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1972	SCRAPPED OR SOLD	6/6/2014	10-CA OIL. PAINT CHIPS & RUST THROUGHOUT THE ENTIRE XFMR, ESPECIALLY ON THE LID & AROUND BUSHINGS. SELF PROTECTING & RECOMMENDED FOR SCRAP.
TRANSFORMER	2601	K486310K72A	10	WH	120/240	1	POLE	<1	MINERAL OIL	10	1972	SCRAPPED OR SOLD	6/6/2014	PAINT DISCOLORING FADED. RUSTED ALL ROUND (CSP) XFMR. RECOMMENDED TO BE SCRAPED.
SWITCH	2602	M530047YFPA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1978	IN SERVICE	4/8/1993	
TRANSFORMER	2603	G422464-65	100	GE	120/240	1	POLE	<1	MINERAL OIL	40	1965	IN SERVICE	10/12/1965	
CAPACITOR	2604	H533919-67K	50	GE	120/240	1	POLE	<1	MINERAL OIL	25	1967	IN SERVICE	2/1/1995	
TRANSFORMER	2607	L676748K74A	25	GE	240/480	1	POLE	<1	MINERAL OIL	15	1974	IN SERVICE	7/28/1974	
TRANSFORMER	2609	3067630185	37.5	KUH	120/240	1	POLE	<1	MINERAL OIL	20	1983	IN SERVICE	10/8/1992	

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
TRANSFORMER	2612	59SJ1564	100	WH	120/240	1	POLE	<1	MINERAL OIL	40	1959	IN SERVICE	6/30/1965	
TRANSFORMER	2613	G421123	10	GE	120/240	1	POLE	<1	MINERAL OIL	10	1965	IN SERVICE	10/12/1965	
TRANSFORMER	2615	H877826K70A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1970	IN SERVICE	4/1/1970	
TRANSFORMER	2616	58SB1191	15	WH	120/240	1	POLE	<1	MINERAL OIL	10	1958	SCRAPPED OR SOLD	6/6/2014	AS PER JIM MCANALLY EMAIL ON 2/24/2012 11:59AM. DAMAGED INSULATOR AND AGE
TRANSFORMER	2619	811153152	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1982	IN SERVICE	6/14/1983	
TRANSFORMER	2621	73AK1849	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1973	SCRAPPED OR SOLD	10/17/2017	
AIR SWITCH	2622	3088070284	50	KUH	120/240	1	POLE	<1	MINERAL OIL	50	1984	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	2623	7032940	10	LM	120/240	1	POLE	<1	MINERAL OIL	10	1964	IN SERVICE	6/30/1965	
TRANSFORMER	2624	9812441	37.5	GE	120/240	1	POLE	1.54	MINERAL OIL	20	1954	IN SERVICE	4/24/1962	
TRANSFORMER	2626	3067622783	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	10/8/1999	
TRANSFORMER	2627	811153140	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1982	IN SERVICE	6/14/1983	
TRANSFORMER	2628	811153141	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1982	IN SERVICE	6/14/1983	
TRANSFORMER	2629	H858833K69A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1969	IN SERVICE	11/14/1973	FIELD VERIFY BY KARL ON 6/20/2008
AIR SWITCH	2637	3067620583	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	10/8/1999	
TRANSFORMER	2638	3067622283	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	10/8/1999	
TRANSFORMER	2641	84AA033210	50	WH	120/240	1	POLE	<1	MINERAL OIL	25	1984	IN SERVICE	9/4/1987	
TRANSFORMER	2642	J757422K70A	50	GE	120/240	1	POLE	<1	MINERAL OIL	10	1970	IN SERVICE	7/23/1996	
TRANSFORMER	2646	73AK6015	15	WH	120/240	1	POLE	<1	MINERAL OIL	10	1973	IN SERVICE	12/13/1974	
TRANSFORMER	2649	73AK14752	15	WH	120/240	1	POLE	<1	MINERAL OIL	10	1973	IN SERVICE	3/1/1984	
TRANSFORMER	2651	4646478	50	AC	120/240	1	PAD	<1	MINERAL OIL	25	1967	IN SERVICE		FIELD VERIFY BY JIM MCRORY ON 11/20/2006.
TRANSFORMER	2653	73AK14759	15	WH	120/240	1	POLE	<1	MINERAL OIL	10	1973	IN SERVICE	3/1/1984	
TRANSFORMER	2659	150682	50	HIL	120/240	1	POLE	<1	MINERAL OIL	60	1959	SCRAPPED OR SOLD	3/27/2013	DRAINED READY FOR SCRAP. TAGGED BAD. INTERNAL SHORT.
TRANSFORMER	2660	61SJ2717	50	WH	120/240	1	POLE	<1	MINERAL OIL	25	1962	IN SERVICE	9/1/1983	
TRANSFORMER	2661	J781770K71A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1971	IN SERVICE	7/9/1987	
TRANSFORMER	2667	H531109-67	25	GE	120/240	1	POLE	21	MINERAL OIL	15	1967	SCRAPPED OR SOLD	2/29/2012	
SWITCH	2685	82VL022005	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1982	REMOVED	3/21/2023	REMOVED 2/23/2023
TRANSFORMER	2686	82A431274	50	WH	120/240	1	POLE	<1	MINERAL OIL	25	1982	IN SERVICE	5/13/1996	
TRANSFORMER	2688	3088070183	50	KUH	120/240	1	POLE	<1	MINERAL OIL	15	1984	IN SERVICE	3/2/1984	
TRANSFORMER	2693	3067621183	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	9/13/1983	
TRANSFORMER	2694	73AE10893	50	WH	120/240	1	POLE	<1	MINERAL OIL	25	1973	IN SERVICE	5/20/1975	
SWITCH	2696	3067630683	37.5	KUH	120/240	1	POLE	<1	MINERAL OIL	20	1983	IN SERVICE	9/13/1933	
TRANSFORMER	2701	H839413K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	IN SERVICE	2/3/1970	
TRANSFORMER	2703	H839412K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	IN SERVICE	2/3/1970	
TRANSFORMER	2707	66AD7977	15	WH	120/240	1	POLE	4	MINERAL OIL	10	1966	IN SERVICE	12/11/1999	
TRANSFORMER	2710	60SJ1541	10	WH	120/240	1	POLE	68	MINERAL OIL	10	1961	SCRAPPED OR SOLD	12/11/2013	
TRANSFORMER	2711	58SB45	167	WH	120/240	1	POLE	<1	MINERAL OIL	70	1958	SCRAPPED OR SOLD	6/6/2014	
TRANSFORMER	2715	H839415K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	IN SERVICE	2/3/1970	
TRANSFORMER	2720	77A142391	37.5	WH	120/240	1	POLE	1	MINERAL OIL	20	1978	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2740	69AK6241	10	WH	120/240	1	POLE	<1	MINERAL OIL	10	1969	IN SERVICE	3/1/1984	
CAPACITOR	2742	60SK1111	10	GE	120/240	1	POLE	2.03	MINERAL OIL	10	1960	REMOVED	1/21/2020	
TRANSFORMER	2745	M191131YDNA	100	GE	240/480	1	POLE	<1	MINERAL OIL	40	1977	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2746	83A523384	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1984	IN SERVICE	3/1/1984	
TRANSFORMER	2749	M191130YDNA	100	GE	240/480	1	POLE	<1	MINERAL OIL	40	1977	SCRAPPED OR SOLD	2/29/2012	
TRANSFORMER	2755	77A152359	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1978	IN SERVICE	9/27/1978	
TRANSFORMER	2757	F95303364K	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1965	IN SERVICE	4/1/1984	
TRANSFORMER	2763	77A141697	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1978	IN SERVICE	9/13/1978	
TRANSFORMER	2764	G421119	10	GE	120/240	1	POLE	<1	MINERAL OIL	10	1965	IN SERVICE	10/12/1965	

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
TRANSFORMER	2765	7032938	10	LM	120/240	1	POLE	<1	MINERAL OIL	10	1964	IN SERVICE	6/30/1965	
TRANSFORMER	2768	63SC1354	37.5	WH	120/240	1	POLE	6	MINERAL OIL	20	1963	IN SERVICE	4/3/1963	
TRANSFORMER	2769	4639332	167	GE	120/240	1	POLE	<1	MINERAL OIL	70		REMOVED	6/30/2021	DEL MONTE - OVHD TO UG
TRANSFORMER	2770	836002655	150	RTE	208/120	3	PAD	<1	MINERAL OIL	150	1983	IN SERVICE	4/10/1985	
TRANSFORMER	2772	59SC676	100	STD	120/240	1	PAD	<1	MINERAL OIL	40	1959	IN SERVICE	1/13/1965	
TRANSFORMER	2774	3067620983	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	9/19/1984	
TRANSFORMER	2776	459932178	50	HOW	120/240	1	POLE	<1	MINERAL OIL	25	1979	SCRAPPED OR SOLD	11/9/2021	DEL MONTE - OVHD TO UG
TRANSFORMER	2780	62SJ62	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1962	IN SERVICE	9/28/1962	
TRANSFORMER	2781	63SC1166	10	WH	120/240	1	PAD	<1	MINERAL OIL	10	1963	IN SERVICE	12/3/1963	
TRANSFORMER	2786	F69104963	100	GE	120/240	1	PAD	<1	MINERAL OIL	40	1963	IN SERVICE	11/6/1963	
TRANSFORMER	2787	58SF820	75	WH	120/240	1	POLE	<1	MINERAL OIL	30	1958	IN SERVICE	4/1/1985	
AIR SWITCH	2794	83A442497	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1983	IN SERVICE	3/7/1990	
TRANSFORMER	2806	73K605042	150	WH	208/120	3	PAD	<1	MINERAL OIL	150	1973	SCRAPPED OR SOLD	8/9/2022	ORIGINAL REMOVED 8/14/2019
TRANSFORMER	2807	L722286TFNA	150	GE	208/120	3	PAD	<1	MINERAL OIL	150	1977	IN SERVICE	7/17/1978	
SWITCH	2903	K467739K71A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1971	IN SERVICE	6/8/1990	
CAPACITOR	2911	58SF1075	50	WH	120/240	1	POLE	<1	MINERAL OIL	25	1958	IN SERVICE	7/13/1987	
TRANSFORMER	2913	4879320	15	WH	120/240	1	POLE	<1	MINERAL OIL	10	1948	IN SERVICE	8/18/1987	
TRANSFORMER	3007	61SH1552	10	GE	120/240	1	PAD	5.85	MINERAL OIL	10	1961	REMOVED	9/24/2019	FIELD VERIFY BY JIM MCRORY ON 11/6/2006
TRANSFORMER	3012	L119310Y73A	50	GE	120/240	1	PAD	<1		25	1973	REMOVED	9/24/2019	FIELD VERIFY BY JIM MCRORY ON 11/6/2006
TRANSFORMER	3025	59SJ1563	100	STD	120/240	1	POLE	<1		40	1959	IN SERVICE	6/30/1965	
AIR SWITCH	3035	L679740K74A	100	GE	240/480	1	POLE	<1	MINERAL OIL	40	1974	SCRAPPED OR SOLD	2/5/2016	
AIR SWITCH	3037	L679741K74A	100	GE	240/480	1	POLE	<1	MINERAL OIL	40	1974	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	3040	H840264K68A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1968	IN SERVICE	1/22/2001	
TRANSFORMER	3042	H840265K68A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1968	REMOVED	1/22/2025	REPLACED WITH #6507 37.5 KVA
TRANSFORMER	3046	L679742K74A	100	GE	240/480	1	POLE	<1	MINERAL OIL	40	1974	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	3050	H868274K70A	10	GE	120/240	1	POLE	<1	MINERAL OIL	10	1970	SCRAPPED OR SOLD	6/6/2014	EMAIL RECEIVED FROM JIM MCANALLY FOR NEW CODES FOR THE 10 & 15 KVA 120/240V XFMR
TRANSFORMER	3051	72AA8729	250	WH	120/240	1	POLE	<1	MINERAL OIL	75	1972	SCRAPPED OR SOLD	6/6/2014	ESNA PRIMARY BUSHINGS RECOMMENDED FOR SCRAP
TRANSFORMER	3053	3103238	167	KUH	120/240	1	PAD	<1	MINERAL OIL	70	1967	IN SERVICE	12/14/1967	
TRANSFORMER	3056	58SA337	167	WH	120/240	1	PAD	<1	MINERAL OIL	70	1958	IN SERVICE	1/13/1965	
CAPACITOR	3057	E236727-59	100	GE	120/240	1	POLE	2	MINERAL OIL	40	1959	IN SERVICE	12/11/1961	ADD IN SINGLE LINE
TRANSFORMER	3061	L229692K73A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1974	IN SERVICE	11/17/2014	
TRANSFORMER	3067	67AD8124	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1967	IN SERVICE	12/11/1999	
TRANSFORMER	3068	AV114305	75	LM	120/240	1	POLE	<1	MINERAL OIL	30	1962	IN SERVICE	10/25/1989	
TRANSFORMER	3075	82VL022014	37.5	ME	120/240	1	POLE	<1	MINERAL OIL	20	1982	IN SERVICE	4/4/1983	
TRANSFORMER	3076	L229687K73A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1974	SCRAPPED OR SOLD	6/6/2014	
TRANSFORMER	3077	N180928YLSA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1980	IN SERVICE	10/25/1989	
TRANSFORMER	3078	G422465-65	100	GE	120/240	1	POLE	<1	MINERAL OIL	40	1965	IN SERVICE	10/12/1965	
TRANSFORMER	3080	62SJ61	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1962	IN SERVICE	11/13/1989	
TRANSFORMER	3081	3273236	50	WH	120/240	1	POLE	<1	MINERAL OIL	15	1944	SCRAPPED OR SOLD	10/17/2017	ADD IN SINGLE LINE
TRANSFORMER	3082	58SF1073	50	WH	120/240	1	PAD	<1	MINERAL OIL	25	1958	IN SERVICE	3/8/1966	FIELD VERIFY BY JIM MCRORY ON 11/20/2006.
TRANSFORMER	3084	J747808K70A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1970	IN SERVICE	4/1/1985	
TRANSFORMER	3091	63SD821	100	STD	120/240	1	POLE	<1	MINERAL OIL	40	1963	IN SERVICE	8/12/1977	ADD IN SINGLE LINE. 8/12/1977 in service. 9/26/2022 Returned from the field.
TRANSFORMER	3094	3067621683	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	SCRAPPED OR SOLD	2/5/2016	
AIR SWITCH	3097	J784924K71A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1971	IN SERVICE	8/30/1971	

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
SWITCH	3099	H863585K69A	75	GE	120/240	1	POLE	<1	MINERAL OIL	30	1969	IN SERVICE	8/11/1974	
TRANSFORMER	3100	PAJ1391	300	STD	208/120	3	PAD	<1	MINERAL OIL	210	1969	IN SERVICE	12/1/1970	
TRANSFORMER	3113	K856629T73A	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	40	1973	IN SERVICE	8/11/1976	
TRANSFORMER	3116	L191970T73	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	40	1973	IN SERVICE	10/7/1979	
TRANSFORMER	3117	58SF1068	50	WH	120/240	1	POLE	<1	MINERAL OIL	25	1958	IN SERVICE	4/15/1990	
TRANSFORMER	3118	62SF2008	10	WH	120/240	1	PAD	<1	MINERAL OIL	10	1962	IN SERVICE	11/6/1963	
TRANSFORMER	3119	L191969T73	37.5	GE	120/240	1	PAD	<1	MINERAL OIL	40	1973	IN SERVICE	8/11/1976	
TRANSFORMER	3123	J815823M70A	75	GE	208/120	3	PAD	<1	MINERAL OIL	100	1970	IN SERVICE	3/10/1971	
TRANSFORMER	3124	83JD932083	225	WH	208/120	3	PAD	<1	MINERAL OIL	175	1983	IN SERVICE	7/18/1984	
TRANSFORMER	3134	361781778	50	HOW	120/240	1	POLE	<1	MINERAL OIL	25	1979	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	3138	J762624K70A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1970	REMOVED	3/11/2021	
TRANSFORMER	3140	M530048YFPA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1978	SCRAPPED OR SOLD	2/5/2016	ADD IN SINGLE LINE
TRANSFORMER	3144	L229684K73A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1974	IN SERVICE	12/10/1985	
TRANSFORMER	3149	150679	50	HIL	120/240	1	POLE	<1	MINERAL OIL	60	1959	IN SERVICE	1/7/1964	
TRANSFORMER	3150	63SC1164	10	WH	120/240	1	POLE	<1	MINERAL OIL	10	1963	IN SERVICE	1/7/1964	
CAPACITOR	3151	150681	50	HIL	120/240	1	POLE	<1	MINERAL OIL	60	1959	IN SERVICE	1/7/1964	
TRANSFORMER	3162	150678	50	HIL	120/240	1	POLE	<1	MINERAL OIL	60	1959	IN SERVICE	1/7/1964	
TRANSFORMER	3166	6943136	25	WH	120/240	1	POLE	<1	MINERAL OIL	15	1964	SCRAPPED OR SOLD	2/5/2016	
SWITCH	3169	841137183	2WAY	ABC		3	PAD	<1	MINERAL OIL	280	1984	IN SERVICE	3/20/1989	
CAPACITOR	3171	8066A	2WAY	TRA		3	PAD	<1	MINERAL OIL	280	1980	IN SERVICE	1/13/1989	
TRANSFORMER	3172	M265529YGNA	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1977	IN SERVICE	4/17/1979	
TRANSFORMER	3173	M338238YJNA	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1977	IN SERVICE	4/17/1979	
FUSE	3236	83VG035003	50	ME	240/480	1	POLE	<1	MINERAL OIL	10	1983	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	3374	67K17977	25	WH	120/240	1	POLE	120.13	MINERAL OIL	15	1967	REMOVED	2/20/2017	WE FOUND THIS XFMR IS NOT IN OUR DATABASE INCLUDES AS400
TRANSFORMER	3392	63SC1362	37.5	WH	120/240	1	POLE	<1	MINERAL OIL	20	1963	SCRAPPED OR SOLD	2/5/2016	
TRANSFORMER	3398	3067620383	25	KUM	120/240	1	POLE	<1	MINERAL OIL	15	1983	IN SERVICE	2/3/1984	
TRANSFORMER	3567	4Q9011073	2WAY	CP		3	PAD	<1		280		IN SERVICE	3/11/1992	FIELD VERIFY BY JIM MCRORY ON 10/31/2006.
TRANSFORMER	3638	73J588702	500	WH	480/277	3	PAD	<1	MINERAL OIL	250	1973	SCARP	9/27/2023	Installed 8/20/2020, removed 2/1/2023
TRANSFORMER	3646	3067630783	37.5	KUM	120/240	1	POLE	<1	MINERAL OIL	20	1983	IN SERVICE	2/11/2002	
TRANSFORMER	3828	3173313498	167	HOW	120/240	1	PAD	29	MINERAL OIL	138	1998	STOCK	10/17/2017	
TRANSFORMER	3829	3173333498	167	HOW	120/240	1	PAD	7	MINERAL OIL	138	1998	SCRAPPED OR SOLD	12/11/2020	ACCOUNTING REPORTING
TRANSFORMER	4014	98J76456	150	PAU	480/277	3	PAD	<1	MINERAL OIL	125	1968	SCRAPPED OR SOLD	6/24/2020	ACCOUNTING REPORTING
TRANSFORMER	4187	81JJ535174	25	WH	120/240	1	PAD	<1	MINERAL OIL	40	1984	IN SERVICE	8/16/2012	EMT TESTED ON 8/22/2011 - PASS
TRANSFORMER	4193	SPMD31521-22		SHL		3	PAD	<1	MINERAL OIL	2.2		IN SERVICE	3/11/1991	
TRANSFORMER	4195	5455144	75	GE	120/240	1	PAD	<1	MINERAL OIL	40	1965	IN SERVICE	7/22/1965	
SWITCH	4210	4Q0027173	2WAY	CP		3	PAD	<1	MINERAL OIL	280		IN SERVICE		
TRANSFORMER	4430	80JK330124	75	WH	208/120	3	PAD	<1	MINERAL OIL	100	1980	SCRAPPED OR SOLD	2/5/2016	REMOVE 4 KV TRANSFORMER
TRANSFORMER	4453	CP570901766	2WAY	CP		3	PAD	<1		126		IN SERVICE		
TRANSFORMER	4454	CP570901764	2WAY	CP		3	PAD	<1		126		IN SERVICE		
TRANSFORMER	4462	BF0526001	300	ME	208/120	3	PAD	<1	MINERAL OIL	225	1952	OK TO SCRAP	11/3/2017	ACCOUNTING REPORTING
CAPACITOR	4485	CP0755153524	50	GE	120/240	1	POLE	<1	MINERAL OIL	25	1977	IN SERVICE	6/24/2020	
TRANSFORMER	4716	H843100K68A	50	GE	120/240	1	POLE		MINERAL OIL	25	1968	REMOVED	7/2/2019	
TRANSFORMER	4719	H841842K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	IN SERVICE	7/2/2019	
TRANSFORMER	4720	H840036K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	IN SERVICE	7/2/2019	
TRANSFORMER	4721	H843102K68A	50	GE	120/240	1	POLE	<1	MINERAL OIL	25	1968	REMOVED	7/2/2019	
TRANSFORMER	4722	H841234K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	REMOVED	7/2/2019	
TRANSFORMER	4723	H540295K67	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1967	REMOVED	7/2/2019	
TRANSFORMER	4724	H841236K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	REMOVED	7/2/2019	
TRANSFORMER	4725	H840030K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	REMOVED	7/2/2019	

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TRANSFORMER	4726	L212264K73A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1974	REMOVED	7/2/2019	
PRIMARY METERING	4731	H840035K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	REMOVED	7/2/2019	
TRANSFORMER	4732	H841235K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	REMOVED	7/2/2019	
TRANSFORMER	4736	H840033K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	REMOVED	7/2/2019	
TRANSFORMER	4736	H840032K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	REMOVED	7/2/2019	
TRANSFORMER	4737	H841753K68A	25	GE	120/240	1	POLE	<1	MINERAL OIL	15	1968	REMOVED	7/2/2019	
TRANSFORMER	4738	H843104K68A	50	GE	120/240	1	POLE	<1	MINERAL OIL	25	1968	REMOVED	7/2/2019	
TRANSFORMER	4739	H842421K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	REMOVED	7/2/2019	
TRANSFORMER	4740	H840031K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	REMOVED	7/2/2019	
TRANSFORMER	4742	H845799K68A	50	GE	120/240	1	POLE	<1	MINERAL OIL	25	1968	IN SERVICE		
TRANSFORMER	4744	H845800K68A	50	GE	120/240	1	POLE	<1	MINERAL OIL	25	1968	IN SERVICE		
TRANSFORMER	4746	H841845K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	IN SERVICE		
TRANSFORMER	4752	H841239K68A	37.5	GE	120/240	1	POLE	<1	MINERAL OIL	20	1968	IN SERVICE		
TRANSFORMER	4760	22294-7	10	JER	120/240	1	POLE	<1	MINERAL OIL	10		IN SERVICE		
AIR SWITCH	6002	U083233	200	GE			POLE	<1	MINERAL OIL	2.9	1982	IN SERVICE	3/22/1982	FIELD VISIT BY DANIEL GRACIA ON 8/23/2011
AIR SWITCH	6003	U083234	200	GE			POLE	<1	MINERAL OIL	2.9	1982	IN SERVICE	3/22/1982	FIELD VISIT BY DANIEL GRACIA ON 8/23/2011
CAPACITOR	6004	U083240	200	GE			POLE	<1	MINERAL OIL	2.9	1982	IN SERVICE	3/22/1982	FIELD VISIT BY DANIEL GRACIA ON 8/23/2011
TRANSFORMER	6020	79JB913252	50	WH	120/240	1	PAD	<1	MINERAL OIL	60	1979	IN SERVICE	7/3/1980	
CAPACITOR	6169	M332553YJNA	50	GE	120/240	1	POLE	<1	MINERAL OIL	25	1977	IN SERVICE	10/11/1978	NO AMP # BEFORE, SER. MAP POLE#3697 DUPLICATE, SO THIS LOC POLE #3857 309 BRUSH ST. NEW AMP#6169
TRANSFORMER	6178	X461149	100	GE		1	POLE	<1	MINERAL OIL	2.2		REMOVED	7/1/2011	
TRANSFORMER	6251	82050474	100	SANGAMO			POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	3/25/1982	FIELD VISIT BY DANIEL GRACIA ON 8/15/2011
TRANSFORMER	6252	82030362	100	SANGAMO			POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	3/25/1982	FIELD VISIT BY DANIEL GRACIA ON 8/15/2011
CAPACITOR	6253	82030475	100	SANGAMO			POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	3/25/1982	FIELD VISIT BY DANIEL GRACIA ON 8/15/2011
TRANSFORMER	6254	82030368	100	SANGAMO			POLE	<1	MINERAL OIL	2.2	1982	OFF LINE	3/24/1982	FIELD VISIT BY DANIEL GRACIA ON 8/15/2011
TRANSFORMER	6255	82030370	100	SANGAMO			POLE	<1	MINERAL OIL	2.2	1982	OFF LINE	3/24/1982	FIELD VISIT BY DANIEL GRACIA ON 8/15/2011
CAPACITOR	6256	82030371	100	SANGAMO			POLE	<1	MINERAL OIL	2.2	1982	OFF LINE	3/24/1982	FIELD VISIT BY DANIEL GRACIA ON 8/15/2011
CAPACITOR	6257	82080813	100	SANGAMO			POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	3/23/1982	FIELD VISIT BY DANIEL GRACIA ON 8/16/2011
TRANSFORMER	6258	82080845	100	SANGAMO			POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	3/23/1982	FIELD VISIT BY DANIEL GRACIA ON 8/16/2011
TRANSFORMER	6259	82080844	100	SANGAMO			POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	3/23/1982	FIELD VISIT BY DANIEL GRACIA ON 8/16/2011
AIR SWITCH	6272	U094037	100	GE		1	POLE	<1	MINERAL OIL	1.5	1982	IN SERVICE	7/19/1982	FIELD VISIT BY DANIEL GRACIA ON 8/18/2011
CAPACITOR	6273	U094036	100	GE		1	POLE	<1	MINERAL OIL	1.5	1982	IN SERVICE	7/19/1982	FIELD VISIT BY DANIEL GRACIA ON 8/18/2011
TRANSFORMER	6274	U094030	100	GE		1	POLE	<1	MINERAL OIL	1.5	1982	IN SERVICE	7/19/1982	FIELD VISIT BY DANIEL GRACIA ON 8/18/2011

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
CAPACITOR	6281	82080555	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1981	IN SERVICE	4/1/1982	FIELD VISIT BY DANIEL GRACIA ON 8/23/2011
CAPACITOR	6282	82080560	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1981	IN SERVICE	4/1/1982	FIELD VISIT BY DANIEL GRACIA ON 8/23/2011
CAPACITOR	6283	82080558	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1981	IN SERVICE	4/1/1982	FIELD VISIT BY DANIEL GRACIA ON 8/23/2011
TRANSFORMER	6284	U094031	100	GE		1	POLE	<1	MINERAL OIL	1.5	1982	IN SERVICE	7/19/1982	FIELD VISIT BY DANIEL GRACIA ON 8/22/2011
CAPACITOR	6285	U094036	100	GE		1	POLE	<1	MINERAL OIL	1.5	1982	IN SERVICE	7/19/1982	FIELD VISIT BY DANIEL GRACIA ON 8/22/2011
TRANSFORMER	6286	U094029	100	GE		1	POLE	<1	MINERAL OIL	1.5	1982	IN SERVICE	7/19/1982	FIELD VISIT BY DANIEL GRACIA ON 8/22/2011
CAPACITOR	6287	U094034	100	GE		1	POLE	<1	MINERAL OIL	1.5	1982	IN SERVICE	7/19/1982	FIELD VISIT BY DANIEL GRACIA ON 8/23/2011
CAPACITOR	6288	U094025	100	GE		1	POLE	<1	MINERAL OIL	1.5	1982	IN SERVICE	7/19/1982	FIELD VISIT BY DANIEL GRACIA ON 8/23/2011
CAPACITOR	6289	U094028	100	GE		1	POLE	<1	MINERAL OIL	1.5	1982	SCRAPPED OR SOLD	2/5/2016	FIELD VISIT BY DANIEL GRACIA ON 8/23/2011
TRANSFORMER	6293	81460205	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1981	IN SERVICE	3/26/1982	FIELD VISIT BY DANIEL GRACIA ON 8/22/2011
TRANSFORMER	6294	81460296	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1981	IN SERVICE	3/26/1982	FIELD VISIT BY DANIEL GRACIA ON 8/22/2011
CAPACITOR	6295	81460294	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1981	IN SERVICE	3/26/1982	FIELD VISIT BY DANIEL GRACIA ON 8/22/2011
TRANSFORMER	6296	82080559	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1981	IN SERVICE	12/11/1989	FIELD VISIT BY DANIEL GRACIA ON 8/22/2011
TRANSFORMER	6297	82080864	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1981	IN SERVICE	12/11/1989	FIELD VISIT BY DANIEL GRACIA ON 8/22/2011
CAPACITOR	6298	82080866	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1981	IN SERVICE	12/11/1989	FIELD VISIT BY DANIEL GRACIA ON 8/22/2011
TRANSFORMER	6311	82080825	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	4/22/1982	
AIR SWITCH	6312	82080853	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	4/22/1982	
CAPACITOR	6313	82080812	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	4/22/1982	
TRANSFORMER	6320	8280831	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	4/22/1982	FIELD VISIT BY DANIEL GRACIA ON 8/26/2011
CAPACITOR	6322	82050448	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	4/22/1982	FIELD VISIT BY DANIEL GRACIA ON 8/26/2011
TRANSFORMER	6335	82030485	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	9/30/1986	
TRANSFORMER	6336	82030499	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	9/30/1986	
CAPACITOR	6337	82030715	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	9/30/1986	
CAPACITOR	6338	U094026	100	GE		1	POLE	<1	MINERAL OIL	1.5	1982	IN SERVICE	10/27/1992	FIELD VISIT BY DANIEL GRACIA ON 9/1/2011
AIR SWITCH	6339	U094062	100	GE		1	POLE	<1	MINERAL OIL	1.5	1982	IN SERVICE	10/27/1992	FIELD VISIT BY DANIEL GRACIA ON 9/1/2011
TRANSFORMER	6340	U094027	100	GE		1	POLE	<1	MINERAL OIL	1.5	1982	IN SERVICE	10/27/1992	FIELD VISIT BY DANIEL GRACIA ON 9/1/2011
TRANSFORMER	6344	82030738	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	OFF LINE	12/8/1989	
TRANSFORMER	6345	82050460	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	OFF LINE	12/8/1989	
CAPACITOR	6346		100			1	POLE	<1	MINERAL OIL	2.2		OFF LINE	12/8/1989	
CAPACITOR	6347	82D90907	100	GRAW EDISON		1	POLE	<1	MINERAL OIL	1.65	1982	IN SERVICE	12/8/1989	

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
TRANSFORMER	6350	81460114	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	3/23/1982	FIELD VISIT BY DANIEL GRACIA ON 8/30/2011
TRANSFORMER	6351	81460055	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	3/23/1982	FIELD VISIT BY DANIEL GRACIA ON 8/30/2011
CAPACITOR	6352	81460164	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	3/23/1982	FIELD VISIT BY DANIEL GRACIA ON 8/30/2011
CAPACITOR	6353	82050487	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	4/22/1982	FIELD VISIT BY DANIEL GRACIA ON 9/2/2011
TRANSFORMER	6354	82052464	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	4/22/1982	FIELD VISIT BY DANIEL GRACIA ON 9/2/2011
TRANSFORMER	6355	82030486	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2	1982	IN SERVICE	4/22/1982	FIELD VISIT BY DANIEL GRACIA ON 9/2/2011
CAPACITOR	6376	82030378	100	SANGAMO		1	POLE	<1	MINERAL OIL	2.2		IN SERVICE	2/16/2016	
CAPACITOR	6383	S321546	200	GE		3	POLE	<1	MINERAL OIL	2.9		IN SERVICE	7/23/2015	
TRANSFORMER	9005	32386-5	1500	ZINSCO	480/277	3	PAD	<1	MINERAL OIL	270		IN SERVICE	10/29/2007	RESERVED FOR AC
TRANSFORMER	9016					3	PAD	<1	MINERAL OIL	280		IN SERVICE		
SWITCH	9017					3	PAD	<1	MINERAL OIL	280		IN SERVICE		
TRANSFORMER	9018		5WAY			3	PAD	<1	MINERAL OIL	300		IN SERVICE		
TRANSFORMER	9019								MINERAL OIL	280		REMOVED	2/8/2021	
SWITCH	9020		3WAY			3	PAD	<1	MINERAL OIL	300		IN SERVICE		
SWITCH	9030	609-78-0076	3WAY	G&W		3	PAD	<1	MINERAL OIL	300		IN SERVICE		
SWITCH	9031	93030	3WAY	TRAYER		3	PAD	<1	MINERAL OIL	300		IN SERVICE		
TRANSFORMER	9032	81113B	4WAY	TRAYER		3	PAD	<1	MINERAL OIL	300		IN SERVICE		
TRANSFORMER	9034	81113F	4WAY	TRAYER		3	PAD	<1	MINERAL OIL	300		IN SERVICE		
SWITCH	9035		4WAY						MINERAL OIL	300		IN SERVICE		
SWITCH	9036		4WAY	TRAYER		3	PAD	<1	MINERAL OIL	300		IN SERVICE		
TRANSFORMER	9037	SC-506-5000-1	3WAY	GS		3	PAD	<1	MINERAL OIL	300		REMOVED	10/17/2017	
TRANSFORMER	9040	M156381	3000	GE	480/277	3	PAD	<1		400		IN SERVICE		
TRANSFORMER	9042	225U502-4968B	225	VIR	208/120	3	PAD			140		IN SERVICE		
TRANSFORMER	9047	PLA-0141	750	BAL	480/277	3	PAD	<1	MINERAL OIL	294		IN SERVICE		
TRANSFORMER	9048	PJK-5008	750	STD	480/277	3	PAD	<1		294		IN SERVICE		
TRANSFORMER	9050	826000806	75	RTE	208/120	3	PAD	<1	MINERAL OIL	100		REMOVE	6/4/2024	Removed/replaced from REUSE project UEL 99960 by L-1173
SWITCH	9051	821014938	167	RTE	120/240	1	PAD	<1	MINERAL OIL	70	1982	IN SERVICE		
TRANSFORMER	9054	821014395	100	RTE	120/240	1	PAD	<1		40	1982	IN SERVICE		
TRANSFORMER	9055	821014394	100	RTE	120/240	1	PAD	<1		40	1982	IN SERVICE		
TRANSFORMER	9056	821005702	50	RTE	120/240	1	PAD	<1		60	1982	IN SERVICE		
TRANSFORMER	9057	821006257	75	RTE	120/240	1	PAD	<1		40	1982	IN SERVICE		
TRANSFORMER	9058	826000807	75	RTE	208/120	3	PAD	<1		100	1982	IN SERVICE		
TRANSFORMER	9060	79G016164	225	WH	208/120	3	PAD	<1	MINERAL OIL	175	1979	IN SERVICE		ALAMEDA POINT SITE A - DEMOLITION WORK
TRANSFORMER	9061	821006255	37.5	RTE	120/240	1	PAD	<1	MINERAL OIL	40	1982	IN SERVICE		FIELD VERIFIED BY JIM M. NO BOE #
TRANSFORMER	9062	821005701	25	RTE	120/240	1	PAD	<1	MINERAL OIL	13		IN SERVICE		
TRANSFORMER	9063	821005700	25	RTE	120/240	1	PAD	<1	MINERAL OIL	13		IN SERVICE		
TRANSFORMER	9064	821006256	37.5	RTE	120/240	1	PAD	<1	MINERAL OIL	40	1982	IN SERVICE		
TRANSFORMER	9066	19081-001	300	FP	208/120	3	PAD	<1	MINERAL OIL	205		IN SERVICE		ALAMEDA POINT SITE A - DEMOLITION WORK
TRANSFORMER	9067	EF06294387	75	ATL	120/240	1	PAD	<1	MINERAL OIL	60		IN SERVICE		
TRANSFORMER	9100	58SF311	100	STD	120/240	1	PAD	<1	MINERAL OIL	40	1958	IN SERVICE	10/12/1989	
TRANSFORMER	A0325								MINERAL OIL	2.2		IN SERVICE		
TRANSFORMER	A0337						POLE		MINERAL OIL	2.2		IN SERVICE		

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
CAPACITOR	A0513						POLE		MINERAL OIL	2.2		IN SERVICE		ADD IN SINGLE LINE
AIR SWITCH	A0731						POLE		MINERAL OIL	1.5		IN SERVICE		
TRANSFORMER	A0735						POLE		MINERAL OIL	2.2		IN SERVICE		
AIR SWITCH		811138177	50	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1981	IN SERVICE		
AIR SWITCH		2654777	5	ALLIS	120/240	1	POLE	<1	MINERAL OIL	10		SCRAPPED OR SOLD	10/17/2017	FIELD VERIFY BY JOE ON 12/10/2010
AIR SWITCH		2961	1500	SIEMENS	480/277	3	PAD	<1	MINERAL OIL	250		IN SERVICE		1500/2000 DRY XFMR
AIR SWITCH		886010481	1000	RTE	480/277	3	PAD	<1	MINERAL OIL	33		IN SERVICE		
AIR SWITCH		8991079997	15		120/240	1	POLE	<1		10		SCRAPPED OR SOLD	12/1/2016	
AIR SWITCH		891092085	75	RTE	120/240	1	POLE	<1	MINERAL OIL	33		SCRAPPED OR SOLD	3/27/2013	ALAMEDA POINT, 4KV TRANSFORMER
AIR SWITCH		811137713	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1981	REMOVED	3/30/2025	FIELD VERIFY BY JOE ON 12/10/2010; IN SERVICE 12/10/2010, UEL-1330 RESHAP REMOVED
AIR SWITCH		811148844	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1981	IN SERVICE	12/10/2010	FIELD VERIFY BY JOE ON 12/10/2010
CAPACITOR		21495-5	5	JERRY	120/240	1	POLE	<1	MINERAL OIL	10		SCRAPPED OR SOLD	3/27/2013	4 KV XFMR AT ALAMEDA POINT
CAPACITOR		21495-6	50	JERRY	120/240	1	POLE	<1	MINERAL OIL	10		SCRAPPED OR SOLD	3/27/2013	4 KV XFMR AT ALAMEDA POINT
RECLOSER CONTROLLER		271690	5	LM	120/240	1	POLE		MINERAL OIL	10		SCRAPPED OR SOLD	3/27/2013	ALAMEDA POINT, 4KV TRANSFORMER
SWITCH		8552B	3WAY	TRAYER		3	PAD	<1	MINERAL OIL	270		SCRAPPED OR SOLD	3/27/2013	ALAMEDA POINT, L-1207 SCRAP DRAINED B-162
SWITCH		2882159	2000	ALLIS	480/277	3	PAD	<1	MINERAL OIL	453		SCRAPPED OR SOLD	6/6/2014	WE REPLACED T-8468 TO T-1216. WE DID NOT HAVE ANY INFO.
SWITCH		901112357	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		
TRANSFORMER		901112906	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		
TRANSFORMER		901109297	75	CP	120/240	1	PAD	<1	MINERAL OIL	55		IN SERVICE		
TRANSFORMER		901112355	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		
TRANSFORMER		901111513	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		
TRANSFORMER		8991079995	15		120/240	1	POLE	<1		10		SCRAPPED OR SOLD	12/1/2016	
TRANSFORMER		8991079996	15		120/240	1	POLE	<1		10		SCRAPPED OR SOLD	12/1/2016	
TRANSFORMER		87-51107	2000		480/277	3	PAD			33		IN SERVICE		
TRANSFORMER		13633	1000	INTEL	480/277	3	PAD	<1		450		IN SERVICE		
TRANSFORMER		M122014	12000	GE	4160/240	3	PAD	<1		500		REMOVED		
TRANSFORMER		PGG-1388	10000	STD	4160/240	3	PAD	<1		500		REMOVED		
TRANSFORMER		8550798	2000	MGM	4160/240	3	PAD	<1	MINERAL OIL	200	1953	REMOVED		ALAMEDA POINT SITE A - DEMOLITION WORK
TRANSFORMER		891083142	37.5	RTE	120/240	1	POLE		MINERAL OIL	20		SCRAPPED OR SOLD	3/27/2013	ALAMEDA POINT, 4KV TRANSFORMER
TRANSFORMER		F68895063K	15	GE	120/240	1	POLE		MINERAL OIL	10		SCRAPPED OR SOLD	3/27/2013	ALAMEDA POINT, 4KV TRANSFORMER
TRANSFORMER		22395-10	75	JERRY	120/240	1	POLE	<1	MINERAL OIL	30		SCRAPPED OR SOLD	3/27/2013	4 KV XFMR AT ALAMEDA POINT
TRANSFORMER		PAB03820001	1500	ABB	480/277	3	PAD	<1	MINERAL OIL	250		IN SERVICE		
TRANSFORMER		901112907	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		
TRANSFORMER		86ZE669001	75	MCG	120/240	1	POLE	<1	MINERAL OIL	250		IN SERVICE	12/10/2010	FIELD VERIFY BY JOE ON 12/10/2010
TRANSFORMER		32386-1	1000	ZINSCO	480/277	3	PAD	<1	MINERAL OIL	450		IN SERVICE		
TRANSFORMER		901112356	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		
TRANSFORMER		HH13728	37.5	MAG	120/240	1	POLE	<1	MINERAL OIL	250		IN SERVICE	12/10/2010	FIELD VERIFY BY JOE ON 12/10/2010
TRANSFORMER		32386-2	1500	ZINSCO	480/277	3	PAD	<1	MINERAL OIL	250		IN SERVICE		
TRANSFORMER		32386-9	1500	ZINSCO	480/277	3	PAD	<1	MINERAL OIL	270		IN SERVICE		
TRANSFORMER		901108200	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		
TRANSFORMER		870277-A	500	SD	480/277	3	PAD		MINERAL OIL	250		IN SERVICE		
TRANSFORMER		901108201	100	CP	120/240	1	PAD	<1	MINERAL OIL	40		IN SERVICE		
TRANSFORMER		901111512	167	CP	120/240	1	PAD	<1	MINERAL OIL	250		IN SERVICE		
TRANSFORMER		901112908	167	CP	120/240	1	PAD	<1	MINERAL OIL	250		IN SERVICE		
TRANSFORMER		901112359	167	CP	120/240	1	PAD	<1	MINERAL OIL	250		IN SERVICE		
TRANSFORMER		76H297020	500	WH	208/120	3	PAD	<1	MINERAL OIL	250		IN SERVICE		

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ITEM	CO ID.	MFG SERIAL NO	SIZE	MFG	SEC VOLT	PHASE	TYPE	PCBs PPM	TYPE OF OIL	OIL GALLONS	PURCHASE YEAR	STATUS	DATE	COMMENTS
TRANSFORMER		901112904	167	CP	120/240	1	PAD	<1	MINERAL OIL	250		IN SERVICE		
TRANSFORMER		12892	750	T&R	480/277	3	PAD	3	MINERAL OIL	250		IN SERVICE		ALAMEDA POINT SITE A - DEMOLITION WORK
TRANSFORMER		6886-1	2WAY	CP		3	PAD	<1	MINERAL OIL	250		IN SERVICE		
TRANSFORMER		870277-A	500		480/277	3	PAD		MINERAL OIL	250		IN SERVICE		
TRANSFORMER		901108202	167	CP	120/240	1	PAD	<1	MINERAL OIL	250		IN SERVICE		
TRANSFORMER		901111510	167	CP	120/240	1	PAD	<1	MINERAL OIL	250		IN SERVICE		
TRANSFORMER		PAB03822	1500	ABB	480/277	3	PAD	<1	MINERAL OIL	250		IN SERVICE		
TRANSFORMER		32386-3	1000	ZINSCO	480/277	3	PAD	<1		250		IN SERVICE		
TRANSFORMER		P173815	45	GE	208/120	3	PAD	<1		250		IN SERVICE		
TRANSFORMER		900385-A1	75	STD	208/120	3	PAD	<1		250		IN SERVICE		
TRANSFORMER		891092084	75	RTE	120/240	1	POLE		MINERAL OIL	33		SCRAPPED OR SOLD	3/27/2013	ALAMEDA POINT, 4KV TRANSFORMER
TRANSFORMER		891092087	75	RTE	120/240	1	POLE	<1	MINERAL OIL	33		REMOVED	10/17/2017	ALAMEDA POINT, 4KV TRANSFORMER
TRANSFORMER		891092086	75	RTE	120/240	1	POLE	<1	MINERAL OIL	33		SCRAPPED OR SOLD	3/27/2013	ALAMEDA POINT, 4KV TRANSFORMER
TRANSFORMER		7937782	1000	GE	480/277	3	PAD	<1	MINERAL OIL	450		SCRAPPED OR SOLD	6/6/2014	
TRANSFORMER		3550793	2000	MGM	480/277	3	PAD	<1	MINERAL OIL	453		SCRAPPED OR SOLD	6/6/2014	WE REPLACED T-8468 TO T-1216. WE DID NOT HAVE ANY INFO.
TRANSFORMER		901111514	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		
TRANSFORMER		901110961	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		
TRANSFORMER		901110960	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		
TRANSFORMER		901110964	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		SER.MAP SHOWS 100KVA, SINGLE LINE & DATABASE SHOWS 167KVA. NEED FIELD VERIFICATION
TRANSFORMER		901110963	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		
TRANSFORMER		901111511	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		
TRANSFORMER		901110962	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		
TRANSFORMER		901112905	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		
TRANSFORMER		901112358	167	CP	120/240	1	PAD	<1	MINERAL OIL	70		IN SERVICE		
TRANSFORMER		811137714	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1981	REMOVED	3/30/2025	FIELD VERIFY BY JOE ON 12/10/2010; IN SERVICE 12/10/2010, UEL-1330 RESHAP REMOVED
TRANSFORMER		811137715	25	RTE	120/240	1	POLE	<1	MINERAL OIL	15	1981	REMOVED	3/30/2025	FIELD VERIFY BY JOE ON 12/10/2010; IN SERVICE 12/10/2010, UEL-1330 RESHAP REMOVED
TRANSFORMER		811138171	37.5	RTE	120/240	1	POLE	<1	MINERAL OIL	21	1981	IN SERVICE	12/10/2010	FIELD VERIFY BY JOE ON 12/10/2010
TRANSFORMER		811138176	50	RTE	120/240	1	POLE	<1	MINERAL OIL	28	1981	IN SERVICE	12/10/2010	FIELD VERIFY BY JOE ON 12/10/2010

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APPENDIX D

PCBs in Building Materials Management Program – Fiscal Year 2024/25 Data Summary

Geosyntec consultants

1111 Broadway, 6th Floor
Oakland, California 94607
PH 510.836.3034
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Memorandum

Date:	September 2, 2025
To:	Sandy Mathews, Alameda Countywide Clean Water Program
From:	Lisa Austin, Senior Principal, Lisa Welsh, Senior Scientist, Grace Yao, Professional, and Kiki Jin, Staff Engineer
Subject:	PCBs in Building Materials Management Program – Fiscal Year 2024/25 Data Summary Geosyntec Project Number: CWR1031

1. BACKGROUND

Municipal Regional Stormwater Permit (MRP; Order No. R2-2022-0018) Provision C.12.g requires Permittees to manage polychlorinated biphenyls (PCBs) containing materials and wastes during building demolition so that PCBs do not enter municipal storm drain systems. Provision C.12.g. applies to applicable structures containing building materials with PCBs concentrations of 50 ppm or greater at the time such structures undergo demolition. PCBs from these structures can enter storm drains during and/or after demolition through vehicle track-out, airborne releases, soil erosion, or stormwater runoff. Applicable structures include commercial, public, institutional, and industrial buildings constructed or remodeled between 1950 and 1980 undergoing full-building demolition. Single-family residential and wood frame structures are exempt.

The MRP Permittees developed and implemented a process, beginning in July 2019, for managing materials with PCBs concentrations of 50 ppm or greater in applicable structures when they undergo demolition. This technical memorandum documents the following items for the Alameda County Permittees, as required by MRP Provision C.12.g.iii.(3):

a. The number of applicable structures that applied for a demolition permit during the reporting year.

b. 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 the PCBs in each sample.

c. For each applicable structure with PCBs concentrations of 50 mg/kg or greater, include the following: the project address, demolition date, and a brief description of the PCBs-containing materials.

d. For each structure that was constructed or remodeled between 1950 and 1980 and requires emergency demolition to protect public health and/or safety, provide the following: address, date the building was constructed, and date of demolition.

2. NUMBER OF APPLICABLE STRUCTURES

Table 1 below lists the number of applicable structures that applied for a demolition permit within Alameda County during Fiscal Year (FY) 2024/25 (i.e., from July 1, 2024, to June 30, 2025) and the number of samples in those buildings that were equal to or greater than 50 ppm.

Table 1: Number of Applicable Structures that Applied for a Demolition Permit in FY 2024/25

Permittee	# Applicable Structures	# Applicable Structures With At Least One Sample ≥ 50 ppm PCBs	# Samples ≥ 50 ppm PCBs
Alameda	1	0	0
Albany	0	0	0
Berkeley	2	0	0
Dublin	0	0	0
Emeryville	1	0	0
Fremont	0	0	0
Hayward	0	0	0
Livermore	0	0	0
Newark	0	0	0
Oakland	5	0	0
Piedmont	0	0	0
Pleasanton	0	0	0
San Leandro	0	0	0
Union City	-	-	-
Alameda County	0	0	0
Alameda County Total	**9**	**0**	**0**

Notes: Information for Union City was not available at the time this memorandum was prepared.

3. LIST OF APPLICABLE STRUCTURES

A running list of the applicable structures that applied for a demolition permit since July 1, 2019, the number of samples each structure collected, the concentration of PCBs in each sample with the address, estimated demolition date, and a brief description of the PCBs-containing materials, is provided in Attachment 1. No emergency demolition projects occurred in FY 2024/25.

4. DESCRIPTION OF PCBS CONTROL METHOD

On behalf of the MRP Permittees, the Bay Area Stormwater Management Agencies Association (BASMAA) conducted a regional project that developed an implementation framework, guidance materials, and tools for local agencies to ensure PCBs-containing materials and wastes are appropriately managed during building demolition. The Regional Project also provided training materials and a workshop for municipal staff, and an outreach workshop for the industry on implementing the framework/protocols developed via the project. The *PCBs in Priority Materials: Model Screening Assessment Applicant Package* document[1] was updated to include additional requirements in MRP 3.0 Provision C.12.g in May 2023.

Permittees implement 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 its countywide program. The countywide program compiles the forms and works with the other MRP countywide programs to manage and evaluate the data and assist Permittees with associated MRP reporting requirements.

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[1] BASMAA 2018. PCBs in Priority Building Materials: Model Screening Assessment Applicant Package. Managing PCBs-Containing Building Materials during Demolition: Guidance, Tools, Outreach and Training. August. Revised November 2019 and May 2023.

Attachment 1
Running List of Applicable Structures for Alameda County Permittees

Reporting Year	Permittee	Building ID	Project Address	Project Zip Code	Project APN	Project Demolition Date	Sample ID	Sample Description	Reported Concentration (mg/kg)	Concentration ≥ 50 mg/kg (Y/N)
FY24-25	Alameda	459	101 West Tower	94501	n/a	12/1/2024	PCB02_1	Yellow pipe insulation	ND	N
FY24-25	Alameda	459	101 West Tower	94501	n/a	12/1/2024	PCB02_2	White Wall insulation	ND	N
FY24-25	Alameda	459	101 West Tower	94501	n/a	12/1/2024	PCB01	Black Foam Pipe insulation	ND	N
FY24-25	Berkeley	Building A	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	1.6	white window caulking	ND	N
FY24-25	Berkeley	Building A	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	1.13	white window putty for multi paneled windows	ND	N
FY24-25	Berkeley	Building A	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	1.14	white window putty for multi paneled windows	ND	N
FY24-25	Berkeley	Building A	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	1.15	window putty for medium single pane windows	ND	N
FY24-25	Berkeley	Building A	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	1.16	window putty for large single pane windows	ND	N
FY24-25	Berkeley	Building A	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	1.1	yellow mastic for flooring materials	ND	N
FY24-25	Berkeley	Building A	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	1.2	yellow mastic for flooring materials	ND	N
FY24-25	Berkeley	Building A	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	1.3	yellow mastic for flooring materials	ND	N
FY24-25	Berkeley	Building A	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	1.4	yellow mastic for flooring materials	ND	N
FY24-25	Berkeley	Building A	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	1.5	yellow mastic for flooring materials	ND	N
FY24-25	Berkeley	Building A	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	1.8	yellow adhesive for carpet	ND	N
FY24-25	Berkeley	Building A	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	1.9	yellow adhesive for carpet	ND	N
FY24-25	Berkeley	Building A	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	1.1	yellow adhesive for carpet	ND	N
FY24-25	Berkeley	Building A	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	1.11	gray gasket material	ND	N
FY24-25	Berkeley	Building A	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	1.12	black gasket material	ND	N
FY24-25	Berkeley	Building D	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	4.1	Window Putty for Small Single Pane Windows	ND	N
FY24-25	Berkeley	Building D	2403 & 2407 San Pablo Avenue, Berkeley, CA	94702	056-192800-100	10/1/2024	4.2	Window Putty for Large Single Pane Windows	ND	N
FY24-25	Emeryville	EM - 1	1601-1607 63rd St, Emeryville, CA	94608	49-1488-1-1	7/1/2024	Mastic - 1	First Floor Open Area - Mastic under 12x12" Pink Vinyl Floor Tile (Sample No. COB2335-PCB02A)	ND	N
FY24-25	Emeryville	EM - 1	1601-1607 63rd St, Emeryville, CA	94608	49-1488-1-1	7/1/2024	Mastic - 2	First Floor Open Area - Mastic under 12x12" Pink Vinyl Floor Tile (Sample No. COB2335-PCB02B)	ND	N
FY24-25	Emeryville	EM - 1	1601-1607 63rd St, Emeryville, CA	94608	49-1488-1-1	7/1/2024	Gasket -1	Exterior - Entry Door Door Gasket (Sample No. COB23350PCB01A)	ND	N
FY24-25	Emeryville	EM - 1	1601-1607 63rd St, Emeryville, CA	94608	49-1488-1-1	7/1/2024	Gasket - 2	Exterior - Entry Door Door Gasket (Sample No. COB23350PCB01B)	ND	N
FY24-25	Oakland	OAK-1	2502 West 14th, Oakland, CA	94612	018 050700108	Mid 2025	CAULK-208	Gray caulk along the connection of sheetmetal panels in the previous restrooms	ND	N
FY24-25	Oakland	OAK-1	2502 West 14th, Oakland, CA	94612	018 050700108	Mid 2025	RFMAS-102	Gray roofing patch mastics located on Main roof and Canopy roofs	ND	N
FY24-25	Oakland	OAK-1	2502 West 14th, Oakland, CA	94612	018 050700108	Mid 2025	FLVCT-106	12" square blue vinyl floor tiles w/white streaks with yellow glue on concrete,	ND	N
FY24-25	Oakland	OAK-1	2502 West 14th, Oakland, CA	94612	018 050700108	Mid 2025	FLVCT-107	12" square offwhite vinyl floor tiles w/white streaks with yellow glue on FLVCT-106 or concrete	ND	N
FY24-25	Oakland	OAK-1	2502 West 14th, Oakland, CA	94612	018 050700108	Mid 2025	FLVCT-112	Remnants of re/brown vinyl sheet flooring with related yellow glue over BRICK-113	ND	N
FY24-25	Oakland	OAK-1	2502 West 14th, Oakland, CA	94612	018 050700108	Mid 2025	FLVCT-209	12"x12" black with white streaks vinyl floor tiles with yellow mastic on concrete	ND	N
FY24-25	Oakland	OAK-1	2502 West 14th, Oakland, CA	94612	018 050700108	Mid 2025	PUTTY-105	White interior window glazing putty located on the East façade	ND	N
FY24-25	Oakland	OAK-1	2502 West 14th, Oakland, CA	94612	018 050700108	Mid 2025	GASKET-NNN	Gray rubber window gaskets located on thr roll-up Garage doors on the South façade	ND	N
FY24-25	Oakland	OAK-1	2502 West 14th, Oakland, CA	94612	018 050700108	Mid 2025	GASKET-202	Tan gasket between covers on top of transformer fluid tank	ND	N
FY24-25	Oakland	OAK-1	2502 West 14th, Oakland, CA	94612	018 050700108	Mid 2025	FLUID	Dielectric fluid in transformer fluid tank (Label indicated the dielectric fluid was tested to contain less than 5 PPM PCBs)	ND	N
FY24-25	Oakland	OAK-2	2441 W. 14th Street - Building 838	94612	018 050700108	Mid 2025	C838: CAULK-3	Gray interior/exterior caulking around window frames	ND	N
FY24-25	Oakland	OAK-3	2441 W. 14th Street - Building 830	94612	018 050700108	Mid 2025	B830: CAULK-107	Gray caulking on the fan unit duct on upper roof	ND	N
FY24-25	Oakland	OAK-3	2441 W. 14th Street - Building 830	94612	018 050700108	Mid 2025	B830: RFAG-104	Tar, felt and gravel roofing over metal substrate	ND	N
FY24-25	Oakland	OAK-3	2441 W. 14th Street - Building 830	94612	018 050700108	Mid 2025	B830: RFFLSH-105	Black rolled roofing flashing located at lower roof field edge and fan unit platform	ND	N

Reporting Year	Permittee	Building ID	Project Address	Project Zip Code	Project APN	Project Demolition Date	Sample ID	Sample Description	Reported Concentration (mg/kg)	Concentration ≥ 50 mg/kg (Y/N)
FY24-25	Oakland	OAK-3	2441 W. 14th Street - Building 830	94612	018 050700108	Mid 2025	B830: PUTTY-504	Hard gray interior window glazing putties	ND	N
FY24-25	Oakland	OAK-4	2441 W. 14th Street - Building 834	94612	018 050700108	Mid 2025	B834: DRCAULK-103	Gray exterior door caulking on West Building	ND	N
FY24-25	Oakland	OAK-4	2441 W. 14th Street - Building 834	94612	018 050700108	Mid 2025	B834: CLGL-203	12-inch square acoustical glued-on ceiling tiles with brown mastics over unpainted concrete decking	ND	N
FY24-25	Oakland	OAK-4	2441 W. 14th Street - Building 834	94612	018 050700108	Mid 2025	B834: RFAG-106	RFAG-106 - Built-up tar and gravel roofing over decking	ND	N
FY24-25	Oakland	OAK-4	2441 W. 14th Street - Building 834	94612	018 050700108	Mid 2025	B834: PUTTY-206	Gray and white interior window glazing putties	ND	N
FY24-25	Oakland	OAK-5	500 Lake Park Ave	94610	011 837-87-1	Late 2024	PCB-A1	Grey Elastic Window Caulking	ND	N
FY24-25	Oakland	OAK-5	500 Lake Park Ave	94610	011 837-87-1	Late 2024	PCB-A2	Grey Elastic Window Caulking	ND	N
FY24-25	Oakland	OAK-5	500 Lake Park Ave	94610	011 837-87-1	Late 2024	PCB-A3	Grey Elastic Window Caulking	ND	N
FY24-25	Oakland	OAK-5	500 Lake Park Ave	94610	011 837-87-1	Late 2024	PCB-B1	Black Roof Mastic	ND	N
FY24-25	Oakland	OAK-5	500 Lake Park Ave	94610	011 837-87-1	Late 2024	PCB-B2	Black Roof Mastic	ND	N
FY24-25	Oakland	OAK-5	500 Lake Park Ave	94610	011 837-87-1	Late 2024	PCB-B3	Black Roof Mastic	ND	N
FY24-25	Oakland	OAK-5	500 Lake Park Ave	94610	011 837-87-1	Late 2024	PCB-C1	Brown Wall Mastic	ND	N
FY24-25	Oakland	OAK-5	500 Lake Park Ave	94610	011 837-87-1	Late 2024	PCB-C2	Brown Wall Mastic	ND	N
FY24-25	Oakland	OAK-5	500 Lake Park Ave	94610	011 837-87-1	Late 2024	PCB-C3	Brown Wall Mastic	ND	N
FY24-25	Oakland	OAK-5	500 Lake Park Ave	94610	011 837-87-1	Late 2024	PCB-D1	Brown Hard Joint Caulking	ND	N
FY24-25	Oakland	OAK-5	500 Lake Park Ave	94610	011 837-87-1	Late 2024	PCB-D2	Brown Hard Joint Caulking	ND	N
FY24-25	Oakland	OAK-5	500 Lake Park Ave	94610	011 837-87-1	Late 2024	PCB-D3	Brown Hard Joint Caulking	ND	N
FY23-24	Berkeley	1	2538 Durant Avenue Berkeley, CA	94710	055-1876-021-01	N/A	P-1	Window Caulk	ND	N
FY23-24	Berkeley	1	2538 Durant Avenue Berkeley, CA	94710	055-1876-021-01	N/A	P-2	Roof mastic	ND	N
FY23-24	Berkeley	1	2538 Durant Avenue Berkeley, CA	94710	055-1876-021-01	N/A	P-3	Door caulk	ND	N
FY23-24	Berkeley	2	3030 Telegraph Avenue Berkeley, CA	94705	052-1576-027-01	N/A	112922-PCB-1a	Window Caulking	ND	N
FY23-24	Berkeley	2	3030 Telegraph Avenue Berkeley, CA	94705	052-1576-027-01	N/A	112922-PCB-1b	Concrete/Building Base Caulking	ND	N
FY23-24	Berkeley	2	3030 Telegraph Avenue Berkeley, CA	94705	052-1576-027-01	N/A	112922-PCB-2a	Concrete/Building Base Caulking	ND	N
FY23-24	Berkeley	2	3030 Telegraph Avenue Berkeley, CA	94705	052-1576-027-01	N/A	112922-PCB-2b	Concrete/Building Base Caulking	ND	N
FY23-24	Berkeley	2	3030 Telegraph Avenue Berkeley, CA	94705	052-1576-027-01	N/A	112922-PCB-3a	Rubber Window Gasket	ND	N
FY23-24	Berkeley	2	3030 Telegraph Avenue Berkeley, CA	94705	052-1576-027-01	N/A	112922-PCB-3b	Rubber Window Gasket	ND	N
FY23-24	Berkeley	2	3030 Telegraph Avenue Berkeley, CA	94705	052-1576-027-01	N/A	112922-PCB-3c	Rubber Window Gasket	ND	N
FY23-24	Berkeley	3	2555 College Avenue Berkeley, CA	94704	055-1847-020-00	N/A	PCB-2555-1	White Window Putty	ND	N
FY23-24	Berkeley	4	2720 Hillegass Avenue Berkeley, CA	94705	054-1711-027-00	N/A	COB2335-PCB02A	First Floor Open Area - Mastic under 12x12" Pink Vinyl Floor Tile	ND	N
FY23-24	Berkeley	4	2720 Hillegass Avenue Berkeley, CA	94705	054-1711-027-00	N/A	COB2335-PCB02B	First Floor Open Area - Mastic under 12x12" Pink Vinyl Floor Tile	ND	N
FY23-24	Berkeley	4	2720 Hillegass Avenue Berkeley, CA	94705	054-1711-027-00	N/A	COB2335-PCB01A	Exterior - Entry Door Door Gasket	ND	N
FY23-24	Berkeley	4	2720 Hillegass Avenue Berkeley, CA	94705	054-1711-027-00	N/A	COB2335-PCB01B	Exterior - Entry Door Door Gasket	ND	N
FY23-24	Emeryville	Em-01	1601-1607 63rd Street	94608	49-1488-1-1	N/A	COB2335-PCB02A	Mastic under 12x12 pink vinyl floor tile	ND	N
FY23-24	Emeryville	Em-01	1601-1607 63rd Street	94608	49-1488-1-1	N/A	COB2335-PCB02B	Mastic under 12x12 pink vinyl floor tile	ND	N
FY23-24	Emeryville	Em-01	1601-1607 63rd Street	94608	49-1488-1-1	N/A	COB2335-PCB01A	Exterior Entry Door Gasket	ND	N
FY23-24	Emeryville	Em-01	1601-1607 63rd Street	94608	49-1488-1-1	N/A	COB82335-PCB01B	Exterior Entry Door Gasket	ND	N
FY23-24	Newark	Newark-1	37660 Timber Street	94560	N/A	N/A	PCB-6		ND	N
FY23-24	Newark	Newark-1	37660 Timber Street	94560	N/A	N/A	PCB-7		ND	N
FY23-24	Newark	Newark-1	37660 Timber Street	94560	N/A	N/A	PCB-1		ND	N
FY23-24	Newark	Newark-1	37660 Timber Street	94560	N/A	N/A	PCB-2		ND	N
FY23-24	Newark	Newark-1	37660 Timber Street	94560	N/A	N/A	PCB-3		ND	N
FY23-24	Newark	Newark-1	37660 Timber Street	94560	N/A	N/A	PCB-4		ND	N
FY23-24	Newark	Newark-1	37660 Timber Street	94560	N/A	N/A	PCB-5		ND	N
FY23-24	Oakland	OAK-03	1904 Adeline St	94607	005-0406-032-00	8/16/2023	TSI-1-1	HVAC ductwork (2nd Floor)	ND	N
FY23-24	Oakland	OAK-03	1904 Adeline St	94607	005-0406-032-00	8/16/2023	TSI-1-2	HVAC ductwork (2nd Floor)	ND	N
FY23-24	Oakland	OAK-03	1904 Adeline St	94607	005-0406-032-00	8/16/2023	TSI-2-1	Fiberglass batting (1st Floor)	ND	N
FY23-24	Oakland	OAK-03	1904 Adeline St	94607	005-0406-032-00	8/16/2023	TSI-2-2	Fiberglass batting (1st Floor)	ND	N
FY23-24	Oakland	OAK-03	1904 Adeline St	94607	005-0406-032-00	8/16/2023	EDS-1	Exterior door sealant	ND	N
FY23-24	Oakland	OAK-03	1904 Adeline St	94607	005-0406-032-00	8/16/2023	EDS-2	Exterior door sealant	ND	N
FY23-24	Oakland	OAK-03	1904 Adeline St	94607	005-0406-032-00	8/16/2023	EWS-1	Exterior window sealant	ND	N
FY23-24	Oakland	OAK-03	1904 Adeline St	94607	005-0406-032-00	8/16/2023	EWS-2	Exterior window sealant	ND	N
FY23-24	Oakland	OAK-03	1904 Adeline St	94607	005-0406-032-00	8/16/2023	EWS-3	Exterior window sealant	ND	N
FY23-24	Oakland	OAK-03	1904 Adeline St	94607	005-0406-032-00	8/16/2023	RM-1	Roof Mastic 1	ND	N
FY23-24	Oakland	OAK-03	1904 Adeline St	94607	005-0406-032-00	8/16/2023	RM-2	Roof Mastic 2	ND	N

Reporting Year	Permittee	Building ID	Project Address	Project Zip Code	Project APN	Project Demolition Date	Sample ID	Sample Description	Reported Concentration (mg/kg)	Concentration ≥ 50 mg/kg (Y/N)
FY23-24	Oakland	OAK-03	1904 Adeline St	94607	005-0406-032-00	8/16/2023	RM-3	Roof Mastic 3	ND	N
FY23-24	Oakland	OAK-10	7825 San Leandro Street	94621	041-0417500302	8/14/2023	Oak10_1	Caulking	ND	N
FY23-24	Oakland	OAK-10	7825 San Leandro Street	94621	041-0417500302	8/14/2023	Oak10_2	Mastic	ND	N
FY23-24	Oakland	OAK-10	7825 San Leandro Street	94621	041-0417500302	8/14/2023	Oak10_3	Fiberglass	ND	N
FY23-24	Oakland	OAK-10	7825 San Leandro Street	94621	041-0417500302	8/14/2023	Oak10_4	Pattern shop window	21	N
FY23-24	Oakland	OAK-10	7825 San Leandro Street	94621	041-0417500302	8/14/2023	Oak10_5	Paint	ND	N
FY23-24	Oakland	OAK-11	8301 MacArthur Blvd	94605	43-4621-1	2/4/2024	Oak11_1	Caulk Sample 1	320	Y
FY23-24	Oakland	OAK-11	8301 MacArthur Blvd	94605	43-4621-1	2/4/2024	Oak11_2	Fiberglass Insulation Sample 1	78	Y
FY23-24	Oakland	OAK-11	8301 MacArthur Blvd	94605	43-4621-1	2/4/2024	Oak11_3	Thermal Insulation Sample 1	20	N
FY23-24	Oakland	OAK-11	8301 MacArthur Blvd	94605	43-4621-1	2/4/2024	Oak11_4	Adhesive Mastic Sample 1	87.4	Y
FY23-24	Oakland	OAK-11	8301 MacArthur Blvd	94605	43-4621-1	2/4/2024	Oak11_5	Window Gasket Sample 1	70	Y
FY23-24	Oakland	OAK-11	8301 MacArthur Blvd	94605	43-4621-1	2/4/2024	Oak11_6	Wall Paint Sample 1	228	Y
FY22-23	Berkeley	B2021-04997	2527 San Pablo Ave	94702	054-1781-015-01	4/1/2023	1	White Window Putty at 4'x3' Windows	ND	N
FY22-23	Berkeley	B2021-04997	2527 San Pablo Ave	94702	054-1781-015-01	4/1/2023	2	Storage Attic: Ceilings	ND	N
FY22-23	Berkeley	B2021-04997	2527 San Pablo Ave	94702	054-1781-015-01	4/1/2023	3	Office: Floors	ND	N
FY22-23	Berkeley	B2022-00683	747 Bancroft Way	94710	056-1957-007-01	6/1/2022	1	Roof Mastic	ND	N
FY22-23	Berkeley	B2022-00683	747 Bancroft Way	94710	056-1957-007-01	6/1/2022	2	Roof Mastic	ND	N
FY22-23	Berkeley	B2022-00683	747 Bancroft Way	94710	056-1957-007-01	6/1/2022	3	Roof Mastic	ND	N
FY22-23	Berkeley	B2022-00683	747 Bancroft Way	94710	056-1957-007-01	6/1/2022	4	Roof Mastic	ND	N
FY22-23	Berkeley	B2022-00683	747 Bancroft Way	94710	056-1957-007-01	6/1/2022	5	Roof Mastic	ND	N
FY22-23	Berkeley	B2022-00683	747 Bancroft Way	94710	056-1957-007-01	6/1/2022	6	VFT Mastic	550	Y
FY22-23	Berkeley	B2022-00683	747 Bancroft Way	94710	056-1957-007-01	6/1/2022	7	VFT Mastic	450	Y
FY22-23	Berkeley	B2022-00683	747 Bancroft Way	94710	056-1957-007-01	6/1/2022	8	VFT Mastic	250	Y
FY22-23	Berkeley	B2022-00697	2099 MLK Jr Way	94704	057-20240130	7/6/2022	1	Black Window Sealant	ND	N
FY22-23	Berkeley	B2022-00697	2099 MLK Jr Way	94704	057-20240130	7/6/2022	2	Door Frames	ND	N
FY22-23	Berkeley	B2022-00697	2099 MLK Jr Way	94704	057-20240130	7/6/2022	3	Black Expansion Joint Caulking @ Floors	ND	N
FY22-23	Berkeley	B2022-00697	2099 MLK Jr Way	94704	057-20240130	7/6/2022	4	Beige Caulking at Roof Parapet	ND	N
FY22-23	Berkeley	B2022-03254	2070 Allston Way, 2065 Kittredge St	94704	057-2027-006, 057-2027-007	2/1/2023	1	Ceiling tile	6.5	N
FY22-23	Berkeley	B2022-03254	2070 Allston Way, 2065 Kittredge St	94704	057-2027-006, 057-2027-007	2/1/2023	2	yellow carpet pad adhesive	ND	N
FY22-23	Berkeley	B2022-03254	2070 Allston Way, 2065 Kittredge St	94704	057-2027-006, 057-2027-007	2/1/2023	3	pink fibergladd above ceiling	0.82	N
FY22-23	Berkeley	B2022-03254	2070 Allston Way, 2065 Kittredge St	94704	057-2027-006, 057-2027-007	2/1/2023	4	yellow fiberglass inside flex duct	0.76	N
FY22-23	Berkeley	B2022-03254	2070 Allston Way, 2065 Kittredge St	94704	057-2027-006, 057-2027-007	2/1/2023	5	inside widow frame to structural concrete	ND	N
FY22-23	Berkeley	B2022-03254	2070 Allston Way, 2065 Kittredge St	94704	057-2027-006, 057-2027-007	2/1/2023	6	inside widow frame to structural concrete	ND	N
FY22-23	Berkeley	B2022-03254	2070 Allston Way, 2065 Kittredge St	94704	057-2027-006, 057-2027-007	2/1/2023	7	adhesive gluing sheetrock to concrete on inside of window return	ND	N
FY22-23	Berkeley	B2022-03254	2070 Allston Way, 2065 Kittredge St	94704	057-2027-006, 057-2027-007	2/1/2023	8	structural concrete wall to concrete sidewalk caulk	ND	N
FY22-23	Berkeley	B2022-03254	2070 Allston Way, 2065 Kittredge St	94704	057-2027-006, 057-2027-007	2/1/2023	9	compression gasket window metal to glass	ND	N
FY22-23	Berkeley	B2022-03254	2070 Allston Way, 2065 Kittredge St	94704	057-2027-006, 057-2027-007	2/1/2023	10	caulk from storefront window frame to stucco	ND	N
FY22-23	Berkeley	B2022-03254	2070 Allston Way, 2065 Kittredge St	94704	057-2027-006, 057-2027-007	2/1/2023	11	metal door frame to structural concrete caulk	ND	N
FY22-23	Berkeley	B2022-03254	2070 Allston Way, 2065 Kittredge St	94704	057-2027-006, 057-2027-007	2/1/2023	12	glaziers putty	ND	N
FY22-23	Berkeley	B2022-03254	2070 Allston Way, 2065 Kittredge St	94704	057-2027-006, 057-2027-007	2/1/2023	13	metal window frame to structural concrete original window	0.41	N
FY22-23	Emeryville	EM-01	5801 Christie Ave, Emeryville, CA	94608	49-1494-4-8	8/12/2022	EM-01-A	Caulking	7000	Y
FY22-23	Emeryville	EM-01	5801 Christie Ave, Emeryville, CA	94608	49-1494-4-8	8/12/2022	EM-01-B	Fiberglass Insulation	ND	N
FY22-23	Emeryville	EM-01	5801 Christie Ave, Emeryville, CA	94608	49-1494-4-8	8/12/2022	EM-01-C	Adhesive Mastic	ND	N
FY22-23	Emeryville	EM-01	5801 Christie Ave, Emeryville, CA	94608	49-1494-4-8	8/12/2022	EM-01-D	Window Gasket	3500	Y
FY22-23	Emeryville	EM-01	5801 Christie Ave, Emeryville, CA	94608	49-1494-4-8	8/12/2022	EM-01-E	Wall Paint	ND	N
FY22-23	Fremont	FRE-01	46350 Mission Street	94539	519 124407905, 519 124407802	TBD	M-1	Floor tile mastic	ND	N
FY22-23	Fremont	FRE-01	46350 Mission Street	94539	519 124407905, 519 124407802	TBD	M-2	Floor tile mastic	ND	N
FY22-23	Fremont	FRE-01	46350 Mission Street	94539	519 124407905, 519 124407802	TBD	M-3	Floor tile mastic	ND	N
FY22-23	Fremont	FRE-01	46350 Mission Street	94539	519 124407905, 519 124407802	TBD	TSI-1	Insulation	ND	N
FY22-23	Fremont	FRE-02	46494 Mission Street	94539	519 124408202	TBD	WS-1	Window sealant	ND	N
FY22-23	Fremont	FRE-02	46494 Mission Street	94539	519 124408202	TBD	WS-2	Window sealant	ND	N
FY22-23	Fremont	FRE-02	46494 Mission Street	94539	519 124408202	TBD	WS-3	Window sealant	ND	N
FY22-23	Oakland	OAK-01	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	1-1-11	Admin Bldg, under original black floor tile	ND	N
FY22-23	Oakland	OAK-01	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	1-1-12	Admin Bldg, interior paint	ND	N
FY22-23	Oakland	OAK-01	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	1-1-7	Admin Bldg, main floor northeast	ND	N
FY22-23	Oakland	OAK-01	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	1-1-8	Admin Bldg, main floor northeast	ND	N

Reporting Year	Permittee	Building ID	Project Address	Project Zip Code	Project APN	Project Demolition Date	Sample ID	Sample Description	Reported Concentration (mg/kg)	Concentration ≥ 50 mg/kg (Y/N)
FY22-23	Oakland	OAK-01	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	1-1-9	Admin Bldg, lower room, northwest corner	ND	N
FY22-23	Oakland	OAK-01	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	1-B-6	Admin Bldg, basement	ND	N
FY22-23	Oakland	OAK-01	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	1-E-1	Admin Bldg, glass block east wall	ND	N
FY22-23	Oakland	OAK-01	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	1-E-2	Admin Bldg, window east wall	ND	N
FY22-23	Oakland	OAK-01	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	1-E-3	Admin Bldg, east wall	ND	N
FY22-23	Oakland	OAK-01	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	1-E-4	Admin Bldg, east wall foundation base	ND	N
FY22-23	Oakland	OAK-01	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	1-R-5	Admin Bldg, roof	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	10-2-2	Plant building, packaging area, second floor windows	1.1	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	10-2-3	Plant building, packaging area, second floor steel column	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	10-2-4	Plant building, packaging area, second floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	10-R-1	Plant building, packaging area, roof	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	10-R-6	Plant building, roof, lower edge of exterior siding	5500	Y
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	10-R-7	Plant building, roof, exterior corrogated siding	36000	Y
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	1-1-10	Admin Bldg, under white floor tile north end	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	11-1-1	Plant building north end of exterior warehouse, main floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	11-1-10	Plant building north end of warehouse floor, first floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	11-1-11	Plant building north end of warehouse, first floor	10	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	11-1-12	Plant building, interior steel column	7.6	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	11-1-2	Plant building north end of warehouse, main floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	11-1-3	Plant building north end of exterior warehouse, back shop	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	1-1-13	Admin Bldg, fiberglass ceiling tile	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	11-1-4	Plant building north end of warehouse, main floor back shop	1.2	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	1-1-14	Admin Bldg, above white floor tile, northeast corner	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	11-1-5	Plant building north end of warehouse, back shop	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	11-1-6	Plant building north end of warehouse, first floor tile	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	11-1-7	Plant building north end of warehouse, first floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	11-1-8	Plant building north end of warehouse, first floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-1-10	Plant building, offices on south side, first floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-1-4	Plant building, maintanance office north side, first floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-1-5	Plant building, offices on south side, first floor ceiling tile	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-1-6	Plant building, offices on south side, first floor tile	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-1-7	Plant building, offices on south side, first floor tile	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-1-8	Plant building, workshop on south side, first floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-1-9	Plant building, hallway floor on south side, first floor	1.2	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-2-11	Plant building, east side, second floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-2-12	Plant building, east side, second floor glass block windows	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-2-13	Plant building, west side, second floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-2-14	Plant building, west side upper walls, second floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-2-15	Plant building, center, second floor ceilings/trusses	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-2-17	Plant building, office on east side	1.4	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-2-17	Plan building, second floor steel truss	140	Y
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-2-18	B12 horizontal support at NW part of building	5.5	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-2-19	B12 roof support at NE part of building	0.82	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-2-20	B12 vertical "L' support at SW part of building	4.2	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-2-21	B12 column I beam north center of building	11	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-2-22	B12 column I beam east wall	15	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-2-23	B12 steel support at south end of building	25	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-R-1	Plant building, exterior on east side, upper bay windows	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-R-16	Plant building, south side, skylight corrogated siding	25000	Y
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	12-R-3	Plant building, office on east side, roof	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	13-1-5	Plant building warehousing, first floor wall under mezzanine	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	13-2-1	Plant building warehousing, second floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	13-2-2	Plant building warehousing, second floor	2.9	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	13-R-3	Plant building warehousing, roof	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	13-R-4	Plant building warehousing, roof skylight	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	6-1-1	Steel truss	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	6-1-2	interior concrete pad	3	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	6-E-3	exterior perimeter concrete foundation	270	Y
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-1-1	Batch House, interior east side locker room	1.2	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	8-1-10	Plant building, steel structural I-beam	3100	Y
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	8-1-11	Plant building, steel stair rail	100	Y
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	8-1-6	Plant building, furnace area office, first floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	8-1-9	Plant Building, steel buckstay column	39	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	8-2-1	Plant building, furnace area, second floor steel column	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	8-2-2	Plant building, west electric area, second floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	8-2-3	Plant building, west electric area, second floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	8-2-4	Plant building, west electric area, second floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	8-2-5	Plant building, south wall furnace area, second floor	1.4	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	8-B-12	Plant building, basement buckstay support	1.8	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	8-B-13	Plant building, basement structural steel column	5.3	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	8-B-7	Plant building, furnace area, basement steel columns	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	8-E-14	Plant building, exterior concrete perimeter foundation	3.9	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	8-E-15	Plant building,exterior south column	3.3	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	8-E-8	Plant Building, west steel column	0.41	N

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FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	9-1-7	Plant Building Lehr area, first floor steel beams	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	9-1-8	Plant Building Lehr area, first floor	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	9-2-1	Plant Building Lehr area, second floor on brick wall	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	9-2-11	Plant Building Lehr area, second floor tile	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	9-2-2	Plant Building Lehr area, second floor on brick wall	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	9-2-3	Plant Building Lehr area, second floor exterior window	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	9-2-9	Plant Building Lehr area, second floor bathrooms	0.9	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	9-R-4	Plant Building Lehr area, roof	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	9-R-5	Plant Building Lehr area, exterior corrogated siding	ND	N
FY22-23	Oakland	OAK-06	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	9-R-6	Plant Building Lehr area, exterior large upper windows	ND	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-1-17	Batch house, paint on west wall	ND	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-1-2	Batch House, interior east side control room	ND	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-1-12	Batch House, east side interior	7000	Y
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-1-5	Batch House, interior on northeast side	5400	Y
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-1-6	Batch House, interior on northeast side	11000	Y
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-2-3	Batch House, south wall on east side	53	Y
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-2-4	Batch House, steel I-beams on east side	27000	Y
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-4-9	Batch House, interior central area	ND	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-2-8	Batch House, interior eastern part	31000	Y
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-3-18	Batch house, interior truss in center ob building	93000	Y
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-14	Batch house window, first floor west	ND	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-15	Batch House., on concrete, southwest corner	ND	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-16	Batch house, canopy on south side steel	ND	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-B-10	Batch House, basement stairs	8300	Y
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-11	Batch House exterior on concrete foundation	240	Y
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-21	Batch House, canopy north steel column	2.5	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-22	Batch House, new conveyor steel truss	0.9	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-23	Batch House, canopy steel truss	5.2	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-24	Batch House, north west corrogated siding	2.3	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-25	Batch House, bucket elevator	0.45	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-26	Batch House, bucket elevator support	ND	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-27	Batch house, south east concrete foundation	4.6	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-28	Batch house, south east corrogated siding	2.8	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-29	Batch House, northwest concrete foundation	5.5	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-30	Batch House, northwest glass storage concrete wall	2.5	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-7	Batch House, corragated side on east side	ND	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-EXT-13	Concrete containment bin, east of batch house	ND	N
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-19	Batch House, Steel catwalk	38000	Y
FY22-23	Oakland	OAK-07	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	7-E-20	Batch House, canopy I-beam	51	Y
FY22-23	Oakland	OAK-20	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	20-R-1	Warehouse, roof	ND	N
FY22-23	Oakland	OAK-41	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	41-1-1	Warehouse 41, northeast side of plant, office main floor	ND	N
FY22-23	Oakland	OAK-41	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	41-1-2	Warehouse 41, northeast side of plant, office main floor	ND	N
FY22-23	Oakland	OAK-41	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	41-M-3	Warehouse 41, northeast side of plant, office mezzanine	1.6	N
FY22-23	Oakland	OAK-41	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	41-R-4	Warehouse 41, northeast side of plant, roof flashing	ND	N
FY22-23	Oakland	OAK-41	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	41-R-5	Warehouse 41, northeast side of plant, corrogated roof	ND	N
FY22-23	Oakland	OAK-42	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	42-2-1	Warehouse 42 north side of plant steel beams, second floor	1.6	N
FY22-23	Oakland	OAK-42	3600 Alameda Avenue	94601	33-2250-11-4	1/1/2023	42-2-2	Warehouse 42 north side of plant, second floor	ND	N
FY22-23	Pleasanton	SW Building	3300 Busch Rd	94566	946-1251-7-4	Jan. 2023	Caulking at NE Window	Caulking at NE Window	ND	N
FY22-23	Pleasanton	SW Building	3300 Busch Rd	94566	946-1251-7-4	Jan. 2023	Fiberglass Insulation Sample 1	Fiberglass Insulation Sample 1	ND	N
FY22-23	Pleasanton	SW Building	3300 Busch Rd	94566	946-1251-7-4	Jan. 2023	Fiberglass Insulation Sample 2	Fiberglass Insulation Sample 2	ND	N
FY22-23	Pleasanton	SW Building	3300 Busch Rd	94566	946-1251-7-4	Jan. 2023	Fiberglass Insulation Sample 3	Fiberglass Insulation Sample 3	ND	N
FY22-23	Pleasanton	SW Building	3300 Busch Rd	94566	946-1251-7-4	Jan. 2023	Black Roof Mastic Sample1	Black Roof Mastic Sample 1	ND	N
FY22-23	Pleasanton	SW Building	3300 Busch Rd	94566	946-1251-7-4	Jan. 2023	Black Roof Mastic Sample2	Black Roof Mastic Sample 2	ND	N
FY22-23	Pleasanton	SW Building	3300 Busch Rd	94566	946-1251-7-4	Jan. 2023	Black Roof Mastic Sample3	Black Roof Mastic Sample 3	ND	N
FY22-23	Pleasanton	SW Building	3300 Busch Rd	94566	946-1251-7-4	Jan. 2023	Black Roof Mastic Sample4	Black Roof Mastic Sample 4	ND	N
FY22-23	Pleasanton	SW Building	3300 Busch Rd	94566	946-1251-7-4	Jan. 2023	Gray/Black Roof Vent Mastic Sample 1	Gray/Black Roof Vent Mastic Sample 1	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-6A,B,C	East wing of building	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-7A,B,C	East wing of building	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-8A	Above Ceiling throughout Building	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-9A	Above Ceiling throughout Building	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-10A	Building Exterior	10	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-11A,B,C,D,E,F,G	Exterior Warehouse	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-12A	Exterior of framed panels - north wing	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-13A,B,C	Exterior of framed panels - north wing	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-14A	Exterior of building	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-15A,B,C,D,E	East and North wings of Building	ND	N

Reporting Year	Permittee	Building ID	Project Address	Project Zip Code	Project APN	Project Demolition Date	Sample ID	Sample Description	Reported Concentration (mg/kg)	Concentration ≥ 50 mg/kg (Y/N)
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-16A	Warehouse Walls	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-17A	Warehouse Walls	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-18A	Warehouse Walls	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-19A,B,C,D,E,F,G	Throughout roof of building	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-20A	Roof - North Wing	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-21A,B,C	Throughout roof of building	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-22A,B,C	Throughout roof of building	ND	N
FY22-23	San Leandro	1919 Williams	1919 Williams Street	94577	77A-700-009-06	TBD	PCB-23A,B,C	Throughout roof of building	ND	N
FY22-23	San Leandro	2194 Edison	2194 Edison Ave.	94577	0	2/1/2023	PCB-1	Door caulking	0.473	N
FY22-23	San Leandro	2194 Edison	2194 Edison Ave.	94577	0	2/1/2023	PCB-2	Window caulking	2.18	N
FY22-23	San Leandro	2194 Edison	2194 Edison Ave.	94577	0	2/1/2023	PCB-3	Window caulking	1.37	N
FY22-23	San Leandro	2194 Edison	2194 Edison Ave.	94577	0	2/1/2023	PCB-4	Window caulking	2.22	N
FY22-23	San Leandro	2194 Edison	2194 Edison Ave.	94577	0	2/1/2023	PCB-5	Window caulking	0.468	N
FY22-23	San Leandro	2194 Edison	2194 Edison Ave.	94577	0	2/1/2023	PCB-6	Window gasket	0.461	N
FY22-23	San Leandro	2194 Edison	2194 Edison Ave.	94577	0	2/1/2023	PCB-7	Window gasket	0.471	N
FY22-23	San Leandro	2194 Edison	2194 Edison Ave.	94577	0	2/1/2023	PCB-8	Window gasket	0.471	N
FY22-23	San Leandro	2194 Edison	2194 Edison Ave.	94577	0	2/1/2023	PCB-9	Window gasket	0.462	N
FY22-23	San Leandro	2194 Edison	2194 Edison Ave.	94577	0	2/1/2023	PCB-10	Window gasket	3.12	N
FY22-23	San Leandro	2194 Edison	2194 Edison Ave.	94577	0	2/1/2023	PCB-11	paint on concrete	0.481	N
FY22-23	San Leandro	2194 Edison	2194 Edison Ave.	94577	0	2/1/2023	PCB-12	paint on concrete	0.473	N
FY22-23	San Leandro	2194 Edison	2194 Edison Ave.	94577	0	2/1/2023	PCB-13	paint on concrete	0.47	N
FY22-23	San Leandro	2194 Edison	2194 Edison Ave.	94577	0	2/1/2023	PCB-14	paint on concrete	0.479	N
FY22-23	San Leandro	2194 Edison	2194 Edison Ave.	94577	0	2/1/2023	PCB-15	paint on concrete	0.479	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 1	Gray window putty - interior window frames	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 2	Gray window putty - interior window frames	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 3	Gray window putty - interior window frames	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 4	Gray window putty - interior window frames	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 5	Gray window putty - interior window frames	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 6	Gray window putty - interior window frames	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 7	Gray window putty - interior window frames	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 8	Gray window putty - interior window frames	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 9	Gray window putty - interior window frames	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 10	Yellow fiberglass pipe insultation	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 11	Yellow fiberglass pipe insultation	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 12	Yellow fiberglass pipe insultation	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 13	Black and gray roof patching/mastic - roofs	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 14	Black and gray roof patching/mastic - roofs	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 15	Black and gray roof patching/mastic - roofs	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 16	Black and yellow floor tile adhesive - floors	ND	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 17	Black and yellow floor tile adhesive - floors	2.9	N
FY22-23	Unincorporated County	AC-01	20478 Mission Blvd	94541	414 004605802	6/16/2022	PCB 18	Black and yellow floor tile adhesive - floors	2.8	N
FY22-23	Unincorporated County	AC-02	10570 Skyline Blvd	94546	085 000100201	5/5/2022	10570-RR-1EXT-C.7/1.3-P3	Tan window glazeirs putty	ND	N
FY22-23	Unincorporated County	AC-03	10570 Skyline Blvd	94546	085 000100201	5/5/2022	10570-POOL-P1	Gray caulk between concrete patio control joints	ND	N
FY22-23	Unincorporated County	AC-03	10570 Skyline Blvd	94546	085 000100201	5/5/2022	10570-POOL-P2	Gray caulk between pool clay tile coping and concrete patio	ND	N
FY22-23	Unincorporated County	AC-04	21195 CENTER ST	94546	084C065000103	2/27/2023	PCB1	White window putty, south window	ND	N
FY22-23	Unincorporated County	AC-04	21195 CENTER ST	94546	084C065000103	2/27/2023	PCB2	Black mastic, west lower wall	ND	N
FY22-23	Unincorporated County	AC-04	21195 CENTER ST	94546	084C065000103	2/27/2023	PCB5	White caulking, roof exhause	ND	N
FY22-23	Unincorporated County	AC-05	21195 CENTER ST	94546	084C065000103	2/27/2023	PCB3	Rubber window caulking, south window	ND	N
FY22-23	Unincorporated County	AC-05	21195 CENTER ST	94546	084C065000103	2/27/2023	PCB4	White window putty, south window	ND	N
FY22-23	Unincorporated County	AC-06	21195 CENTER ST	94546	084C065000103	2/27/2023	PCB6	White window putty, south window	ND	N
FY22-23	Unincorporated County	AC-06	21195 CENTER ST	94546	084C065000103	2/27/2023	PCB7	Yellow fiberglass insulation, south A/C	ND	N
FY22-23	Unincorporated County	AC-07	21195 CENTER ST	94546	084C065000103	2/27/2023	PCB8	Yellow fiberglass insulation, house plenum	ND	N
FY22-23	Unincorporated County	AC-08	16060 E 14TH ST	94578	080 005704100	3/9/2023	01-A	exterior front window	ND	N
FY22-23	Unincorporated County	AC-08	16060 E 14TH ST	94578	080 005704100	3/9/2023	01-B	exterior front window	ND	N
FY22-23	Unincorporated County	AC-08	16060 E 14TH ST	94578	080 005704100	3/9/2023	01-C	exterior front window	ND	N
FY22-23	Unincorporated County	AC-08	16060 E 14TH ST	94578	080 005704100	3/9/2023	02-A	VSA	ND	N
FY22-23	Unincorporated County	AC-08	16060 E 14TH ST	94578	080 005704100	3/9/2023	03-A	front door	ND	N
FY22-23	Unincorporated County	AC-08	16060 E 14TH ST	94578	080 005704100	3/9/2023	04-A	parapet roof	ND	N
FY22-23	Unincorporated County	AC-08	16060 E 14TH ST	94578	080 005704100	3/9/2023	04-B	parapet roof	ND	N
FY22-23	Unincorporated County	AC-08	16060 E 14TH ST	94578	080 005704100	3/9/2023	04-C	parapet roof	ND	N
FY21-22	Berkeley	BER-1	1951-1975 Shattuck Ave.	94704	057-2046-001	2/15/2022	1971-3	Exterior Window Glazing	0.317	N
FY21-22	Berkeley	BER-1	1951-1975 Shattuck Ave.	94704	057-2046-001	2/15/2022	1971-4	Exterior Window Glazing	0.324	N
FY21-22	Berkeley	BER-1	1951-1975 Shattuck Ave.	94704	057-2046-001	2/15/2022	1971-11	Interior Window Glazing	0.322	N
FY21-22	Berkeley	BER-1	1951-1975 Shattuck Ave.	94704	057-2046-001	2/15/2022	1971-12	Interior Window Glazing	0.328	N
FY21-22	Berkeley	BER-1	1951-1975 Shattuck Ave.	94704	057-2046-001	2/15/2022	1971-1	Exterior Window Gasket	0.319	N
FY21-22	Berkeley	BER-1	1951-1975 Shattuck Ave.	94704	057-2046-001	2/15/2022	1971-2	Exterior Window Gasket	0.325	N
FY21-22	Berkeley	BER-1	1951-1975 Shattuck Ave.	94704	057-2046-001	2/15/2022	1971-3	Exterior Window Gasket	0.317	N
FY21-22	Berkeley	BER-1	1951-1975 Shattuck Ave.	94704	057-2046-001	2/15/2022	1971-5	Exterior Brown Paint on Bldg.	0.333	N
FY21-22	Berkeley	BER-1	1951-1975 Shattuck Ave.	94704	057-2046-001	2/15/2022	1957-6	Exterior Blue Paint on Bldg.	0.326	N
FY21-22	Berkeley	BER-1	1951-1975 Shattuck Ave.	94704	057-2046-001	2/15/2022	1959-7	Exterior White Paint on Bldg.	0.318	N
FY21-22	Berkeley	BER-1	1951-1975 Shattuck Ave.	94704	057-2046-001	2/15/2022	1951-8	Exterior Brown Paint on Bldg.	0.327	N
FY21-22	Berkeley	BER-1	1951-1975 Shattuck Ave.	94704	057-2046-001	2/15/2022	1951-29	Exterior Brown Paint on Bldg.	0.329	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2116A-16	Exterior Window Caulking	3.33	N

Reporting Year	Permittee	Building ID	Project Address	Project Zip Code	Project APN	Project Demolition Date	Sample ID	Sample Description	Reported Concentration (mg/kg)	Concentration ≥ 50 mg/kg (Y/N)
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2116A-17	Exterior Window Caulking	0.313	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2116A-21	Exterior Window Caulking	3.17	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2116A-23	Entry Door Caulking	3.21	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2116B-24	Entry Door Caulking	3.28	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2116A-13	Exterior Window Glazing	0.313	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2116A-14	Exterior Window Glazing	0.317	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2116B-25	Exterior Window Glazing	0.318	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2112-26	Side Window Glazing	0.322	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2112-27	Side Window Glazing	0.322	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2112-28	Back of Shop Window Glazing	0.32	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2116A-18	Exterior Window Gasket	0.314	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2116A-19	Exterior Window Gasket	0.332	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2116A-22	Exterior Window Gasket	0.324	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2108-9	Exterior Red Paint on Wood	0.331	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2112-10	Exterior Purple Paint on Bldg.	0.331	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2116A-15	Exterior Yellow Paint on CMU	0.331	N
FY21-22	Berkeley	BER-2	2109-2116 Berkeley Way	94704	057-2046-001	2/15/2022	2116A-20	Exterior Yellow Paint on CMU	0.331	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-01	Tan/Brown 3"x 6" Brick, 2 Inches from Exterior Sealant Seam	9	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-02	Brick Material Immediately Adjacent to Exterior Gray Seam Sealant (and 2 inches in)	3400	Y
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-03	Exterior Gray Seam Sealant (adjacent to outer boundary of exterior brick walkway)	170000	Y
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-04	Concrete Adjacent to Sealant Seam	2.6	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-05	Concrete Two Inches From Sealant Seam	1.2	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-06	Gray Window Frame Sealant on Concrete	1700	Y
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-07	Black Sealant (Window Frame to Window)	9.5	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-08	Black/Gray Window Frame Sealant (Window Frame to Concrete)	80000	Y
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-09	Black Window Sealant/ Window Frame to Window)	84	Y
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-10	Gray Paint on basement conference room wall	17	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-11	Cream Paint on basement conference room wall	4.3	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-12	Yellow Mastic associated with 12-inch vinyl floor tile (VFT)	ND	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-13	Cove Base Mastic	ND	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-14	Brown mastic associated 9-inch acoustic ceiling tile	ND	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-15	Cove base mastic	ND	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-16	Black Window Seal/Soft Window Sealant (Window Frame to Window)	61	Y
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-17	Black Soft Window Seal	19	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-18	Black Soft Window Seal	210	Y
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-19	Mastic associated with 2-foot VFT	ND	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-20	Black Rubber Window Seal	240	Y
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	PCB-21	Cove Base Mastic	ND	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	1112-01	Wood Wall	ND	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	1112-02	Wood Wall	ND	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	1112-03	Concrete	5.4	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	1112-04	Concrete	1.7	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	1112-05	Concrete	61	Y
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	1112-06	Concrete	1	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	1112-07	Concrete	7.2	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	1112-08	Concrete	1.3	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	1112-09	Concrete	150	Y
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	1112-10	Concrete	1.3	N
FY21-22	Berkeley	BER-3	2001 Ashby Ave.	94703	053-1591-018-03	2/4/2022	1112-11	Wood Wall	ND	N
FY21-22	Berkeley	BER-4	2345 Channing Way	94704	055-1884-001	4/14/2022	PCB-01	2nd Floor west stairs landing mastic	ND	N
FY21-22	Berkeley	BER-4	2345 Channing Way	94704	055-1884-001	4/14/2022	PCB-02	2nd Floor SW window caulking	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 8	Fiberglass Roof Deck Ins.	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 9	Fiberglass Roof Deck Ins.	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 10	Fiberglass Roof Deck Ins.	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 11	Fiberglass Roof Deck Ins.	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 12	Fiberglass Roof Deck Ins.	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 13	Fiberglass Ceiling Insulation	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 14	Fiberglass Ceiling Insulation	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 15	Fiberglass Ceiling Insulation	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 16	Carpet Mastic	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 17	Carpet Mastic	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 18	Carpet Mastic	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 19	Floor Tile Mastic	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 20	Floor Tile Mastic	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 21	Floor Tile Mastic	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 22	Baseboard Mastic	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 23	Baseboard Mastic	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 24	Baseboard Mastic	ND	N

Reporting Year	Permittee	Building ID	Project Address	Project Zip Code	Project APN	Project Demolition Date	Sample ID	Sample Description	Reported Concentration (mg/kg)	Concentration ≥ 50 mg/kg (Y/N)
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 25	Foam Pipe Insulation	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 26	Foam Pipe Insulation	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 27	Roof Mastic	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 28	Roof Mastic	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 29	HVAC Duct Insulation	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 30	HVAC Duct Insulation	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 1	Int. Window Gasket	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 2	Ext. Window Gasket	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 3	Ext. Window Caulk	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 4	Ext. Window Caulk	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 5	Ext. Door Gasket	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 6	Ext. Window Gasket	ND	N
FY21-22	Fremont	FRE-4	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-4 7	Ext. Window Gasket	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 10	Wall Insulation	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 11	Wall Insulation	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 12	Wall Insulation	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 13	Ceiling Insulation	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 14	Ceiling Insulation	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 15	Ceiling Insulation	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 4	Floor Tile Mastic	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 5	Floor Tile Mastic	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 6	Floor Tile Mastic	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 7	Wall Panel Mastic	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 8	Wall Panel Mastic	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 9	Wall Panel Mastic	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 16	Carpet Mastic	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 17	Carpet Mastic	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 18	Carpet Mastic	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 19	Roof Mastic	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 20	Roof Mastic	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 1	Window Gasket	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 2	Window Gasket	ND	N
FY21-22	Fremont	FRE-5	6700 Stevenson Blvd	94538	531 016503804	3/30/2022	FRE-5 3	Window Gasket	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-1	Black roof penetration	3.7	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-2	Black roof penetration	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-3	Black roof penetration	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-4	Black roof	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-5	Black roof	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-6	Black roof	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-7	Black roof	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-8	Black roof	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-9	Black roof	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-10	Black roof	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-21	Black adhered to tile floor	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-22	Black adhered to tile floor	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-23	Black adhered to tile floor	13.3	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-24	Black adhered to tile floor	13.86	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-25	Black adhered to tile floor	52	Y
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-26	Yellow adhered to tile floor	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-27	Yellow adhered to tile floor	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-28	Yellow adhered to tile floor	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-29	Yellow adhered to tile floor	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-30	Yellow adhered to tile floor	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-31	Yellow adhered to tile floor	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-32	Brown adhered to tile floor	3.89	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-33	Brown adhered to tile floor	2.6	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-34	Brown adhered to tile floor	2.77	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-35	Black adhered to tile floor	8	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-36	Black adhered to tile floor	12.53	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-37	Black adhered to tile floor	10.38	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-38	Gray adhered to tile floor	11.4	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-39	Gray adhered to tile floor	2.31	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-40	Gray adhered to tile floor	5.87	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-41	Yellow/brown adhered to tile floor	7.2	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-42	Yellow/brown adhered to tile floor	3.08	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-43	Yellow/brown adhered to tile floor	25	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-44	Gray	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-45	Gray	0.7	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-46	Gray	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-47	Gray	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-48	Gray	330	Y
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-49	Dark gray	0.75	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-55	White	ND	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-56	Pipe	0.97	N

Reporting Year	Permittee	Building ID	Project Address	Project Zip Code	Project APN	Project Demolition Date	Sample ID	Sample Description	Reported Concentration (mg/kg)	Concentration ≥ 50 mg/kg (Y/N)
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-57	Duct	15	N
FY21-22	Hayward	Hay-01 Bldg 1	24493 Clawiter Rd	94545	0	11/15/2021	PCB-58	Pipe	4.4	N
FY21-22	Hayward	Hay-01 Bldg 2	24493 Clawiter Rd	94545	0	11/15/2021	PCB-11	Black roof penetration	ND	N
FY21-22	Hayward	Hay-01 Bldg 2	24493 Clawiter Rd	94545	0	11/15/2021	PCB-12	Black roof penetration	ND	N
FY21-22	Hayward	Hay-01 Bldg 2	24493 Clawiter Rd	94545	0	11/15/2021	PCB-13	Black roof penetration	ND	N
FY21-22	Hayward	Hay-01 Bldg 2	24493 Clawiter Rd	94545	0	11/15/2021	PCB-14	Black roof	ND	N
FY21-22	Hayward	Hay-01 Bldg 2	24493 Clawiter Rd	94545	0	11/15/2021	PCB-15	Black roof	ND	N
FY21-22	Hayward	Hay-01 Bldg 2	24493 Clawiter Rd	94545	0	11/15/2021	PCB-16	Black roof	ND	N
FY21-22	Hayward	Hay-01 Bldg 2	24493 Clawiter Rd	94545	0	11/15/2021	PCB-17	Black roof	ND	N
FY21-22	Hayward	Hay-01 Bldg 2	24493 Clawiter Rd	94545	0	11/15/2021	PCB-18	Black roof	ND	N
FY21-22	Hayward	Hay-01 Bldg 2	24493 Clawiter Rd	94545	0	11/15/2021	PCB-19	Black roof	ND	N
FY21-22	Hayward	Hay-01 Bldg 2	24493 Clawiter Rd	94545	0	11/15/2021	PCB-20	Black roof	ND	N
FY21-22	Hayward	Hay-01 Bldg 2	24493 Clawiter Rd	94545	0	11/15/2021	PCB-50	White	ND	N
FY21-22	Hayward	Hay-01 Bldg 2	24493 Clawiter Rd	94545	0	11/15/2021	PCB-51	White	ND	N
FY21-22	Hayward	Hay-01 Bldg 2	24493 Clawiter Rd	94545	0	11/15/2021	PCB-52	White	ND	N
FY21-22	Hayward	Hay-01 Bldg 2	24493 Clawiter Rd	94545	0	11/15/2021	PCB-53	White	ND	N
FY21-22	Hayward	Hay-01 Bldg 2	24493 Clawiter Rd	94545	0	11/15/2021	PCB-54	White	ND	N
FY21-22	Hayward	Hay-1	411 Industrial Parkway and Mission 29827/29857 Mission Blvd.	94544	0	8/11/2020	caulk-1	window gasket	1300	Y
FY21-22	Hayward	Hay-2	603 A Street	94541	431-0004-090-00	8/31/2021	PCB-C1	PCB-C1	76	Y
FY21-22	Hayward	Hay-2	603 A Street	94541	431-0004-090-00	8/31/2021	PCB-C2	PCB-C2	88	Y
FY21-22	Hayward	Hay-2	603 A Street	94541	431-0004-090-00	8/31/2021	PCB-C3	PCB-C3	140	Y
FY21-22	Oakland	B2104293	4675 Tidewater Ave	94601	034 230001304	9/15/2021	B2104293-1	Gray caulk	ND	N
FY21-22	Oakland	B2104526	1701 Maritime St	94607	000O032000102	10/1/2021	B2104526-1	Gray caulking on Door frame B317-01PCB	3.2	N
FY21-22	Oakland	B2104526	1701 Maritime St	94607	000O032000102	10/1/2021	B2104526-2	Gray caulking on Door frame B317-02PCB	8.8	N
FY21-22	Oakland	B2104526	1701 Maritime St	94607	000O032000102	10/1/2021	B2104526-3	Grey window putty on roof skylights B317-18PCB	6.3	N
FY21-22	Oakland	B2104526	1701 Maritime St	94607	000O032000102	10/1/2021	B2104526-4	Brown mastic on 1'x1' ACT interlocking B317-14PCB	0.52	N
FY21-22	Oakland	B2104526	1701 Maritime St	94607	000O032000102	10/1/2021	B2104526-5	Brown mastic on 1'x1' ACT interlocking B317-15PCB	0.43	N
FY21-22	Oakland	B2104526	1701 Maritime St	94607	000O032000102	10/1/2021	B2104526-6	Brown mastic on 1'x1' ACT interlocking B317-16PCB	2.2	N
FY21-22	Oakland	B2104526	1701 Maritime St	94607	000O032000102	10/1/2021	B2104526-7	Teal vinyl floor tile 12"x12" black mastic B317-04PCB	0.64	N
FY21-22	Oakland	B2104526	1701 Maritime St	94607	000O032000102	10/1/2021	B2104526-8	Teal vinyl floor tile 12"x12" black mastic B317-05PCB	0.63	N
FY21-22	Oakland	B2104526	1701 Maritime St	94607	000O032000102	10/1/2021	B2104526-9	Brown mastic on brown 4" covebase interior walls B317-10PCB	0.64	N
FY21-22	Oakland	B2105059	2400 Engineer Rd	94612	018 030500316	3/1/2022	B2105059-1	Beige caulking 1	56	Y
FY21-22	Oakland	B2105059	2400 Engineer Rd	94612	018 030500316	3/1/2022	B2105059-2	Gray caulking on CMU	21.7	N
FY21-22	Oakland	B2105316	347 E 18th St	94606	021 022300301	3/2/2022	B2105316-1	various	ND	N
FY21-22	Oakland	RB2103586	2434 Chestnut St - Office	94607	005 043501801 and 005 043500004	3/15/2022	RB2103586-1	Gray Caulking sample PCB29	0.94	N
FY21-22	Oakland	RB2103586	2434 Chestnut St - Office	94607	005 043501801 and 005 043500004	3/15/2022	RB2103586-2	Gray Caulking sample PCB30	0.62	N
FY21-22	Oakland	RB2103586	2434 Chestnut St - Office	94607	005 043501801 and 005 043500004	3/15/2022	RB2103586-3	Black Wall mastic sample PCB07	4.8	N
FY21-22	Oakland	RB2103586	2434 Chestnut St - Office	94607	005 043501801 and 005 043500004	3/15/2022	RB2103586-4	Tan wall mastic sample PCB08	2.1	N
FY21-22	Oakland	RB2103586	2434 Chestnut St - Office	94607	005 043501801 and 005 043500004	3/15/2022	RB2103586-5	Tan wall mastic sample PCB09	3.8	N
FY21-22	Oakland	RB2103586	2434 Chestnut St - Office	94607	005 043501801 and 005 043500004	3/15/2022	RB2103586-6	Brown ceiling tile mastic sample PCB13	3.5	N
FY21-22	Oakland	RB2103586	2434 Chestnut St - Office	94607	005 043501801 and 005 043500004	3/15/2022	RB2103586-7	Brown ceiling tile mastic sample PCB15	0.82	N
FY21-22	Oakland	RB2103586	2434 Chestnut St - Office	94607	005 043501801 and 005 043500004	3/15/2022	RB2103586-8	Black floor tile mastic sample PCB16	28	N
FY21-22	Oakland	RB2103586	2434 Chestnut St - Office	94607	005 043501801 and 005 043500004	3/15/2022	RB2103586-9	Black floor tile mastic sample PCB17	49	N
FY21-22	Oakland	RB2103586	2434 Chestnut St - Office	94607	005 043501801 and 005 043500004	3/15/2022	RB2103586-10	Black floor tile mastic sample PCB18	14	N
FY21-22	Oakland	RB2200719	1970 Seminary	94621	38-3211-1-4	7/1/2022	RB2200719-1	No suspect material present at site	ND	N
FY21-22	San Leandro	AC-1	1188 E. 14th Street	94577	077-0447-014-06	8/6/2022	PCB1	Window Sealant(gladd frame interface) East windows	50	Y
FY21-22	San Leandro	AC-1	1188 E. 14th Street	94577	077-0447-014-06	8/6/2022	PCB2	Window Sealant(gladd frame interface) Southwest windows	57	Y
FY21-22	San Leandro	AC-1	1188 E. 14th Street	94577	077-0447-014-06	8/6/2022	PCB3	2-foot by 4-foot fiberglass ceiling Center	ND	N
FY21-22	San Leandro	AC-1	1188 E. 14th Street	94577	077-0447-014-06	8/6/2022	PCB4	Yellow VFT mastic Center	23	N
FY21-22	San Leandro	AC-1	1188 E. 14th Street	94577	077-0447-014-06	8/6/2022	PCB5	Pink fiberglass insulation Center ceiling	ND	N
FY21-22	San Leandro	AC-1	1188 E. 14th Street	94577	077-0447-014-06	8/6/2022	PCB6	Black puck mastic South Wall	3.4	N
FY21-22	San Leandro	AC-1	1188 E. 14th Street	94577	077-0447-014-06	8/6/2022	PCB7	Wainscot mastic Restroom	ND	N
FY21-22	San Leandro	AC-1	1188 E. 14th Street	94577	077-0447-014-06	8/6/2022	PCB8	Yellow/orange paint North wall	14	N
FY21-22	San Leandro	AC-1	1188 E. 14th Street	94577	077-0447-014-06	8/6/2022	PCB9	Blue/purple paint Southeast wall	75	Y
FY21-22	San Leandro	AC-1	1188 E. 14th Street	94577	077-0447-014-06	8/6/2022	PCB10-EXT	Beige Paint on CMU Northwest wall	1.9	N
FY21-22	San Leandro	AC-2	1120 & 1124 Callan Street	94577	077-0447-015-06	8/6/2022	PCB100	Yellow baseboard mastic Suite A	1.8	N
FY21-22	San Leandro	AC-2	1120 & 1124 Callan Street	94577	077-0447-015-06	8/6/2022	PCB101	Yellow fiberglass insulation Lecture hall	0.6	N
FY21-22	San Leandro	AC-2	1120 & 1124 Callan Street	94577	077-0447-015-06	8/6/2022	PCB102	Black floor mastic Lecture hall	ND	N
FY21-22	San Leandro	AC-2	1120 & 1124 Callan Street	94577	077-0447-015-06	8/6/2022	PCB103	White paint 1st floor salon	ND	N
FY21-22	San Leandro	AC-2	1120 & 1124 Callan Street	94577	077-0447-015-06	8/6/2022	PCB104	Aluminum door sealant Northern doors	ND	N
FY21-22	San Leandro	AC-2	1120 & 1124 Callan Street	94577	077-0447-015-06	8/6/2022	PCB105	Skylight sealant Roof near HVAC system	ND	N
FY20-21	Alameda	COA-17	2015 Grand Street	94501	72-381-1	8/24/2020	COA-17-52	Gasket from access point to storage tank (sample 52)	ND	N
FY20-21	Alameda	COA-17	2015 Grand Street	94501	72-381-1	8/24/2020	COA-17-53	Gasket from access point to storage tank (sample 53)	ND	N
FY20-21	Alameda	COA-17	2015 Grand Street	94501	72-381-1	8/24/2020	COA-17-54	Gasket from access point to storage tank (sample 54)	ND	N
FY20-21	Alameda	COA-17	2015 Grand Street	94501	72-381-1	8/24/2020	COA-17-50	Orange paint on catwalk between storage tanks (sample 49)	ND	N
FY20-21	Alameda	COA-17	2015 Grand Street	94501	72-381-1	8/24/2020	COA-17-51	Orange paint on catwalk between storage tanks (sample 50)	ND	N
FY20-21	Alameda	COA-17	2015 Grand Street	94501	72-381-1	8/24/2020	COA-17-55	Orange paint on catwalk between storage tanks (sample 51)	ND	N
FY20-21	Alameda	COA-17	2015 Grand Street	94501	72-381-1	8/24/2020	COA-17-56	Grey paint on storage tanks (sample 55)	ND	N
FY20-21	Alameda	COA-17	2015 Grand Street	94501	72-381-1	8/24/2020	COA-17-57	Grey paint on storage tanks (sample 56)	ND	N
FY20-21	Alameda	COA-17	2015 Grand Street	94501	72-381-1	8/24/2020	COA-17-58	White paint on storage tanks (sample 57)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-27	Interior 12" pipe insulation in Compounding Room (sample 27)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-28	Interior 12" pipe insulation in Compounding Room (sample 28)	ND	N

Reporting Year	Permittee	Building ID	Project Address	Project Zip Code	Project APN	Project Demolition Date	Sample ID	Sample Description	Reported Concentration (mg/kg)	Concentration ≥ 50 mg/kg (Y/N)
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-29	Interior 12" pipe insulation in Compounding Room (sample 29)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-30	Interior 8" pipe insulation in Compounding Room (sample 30)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-30	Interior 8" pipe insulation in Compounding Room (sample 30)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-31	Interior 8" pipe insulation in Compounding Room (sample 31)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-32	Interior 4" pipe insulation in Compounding Room (sample 32)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-33	Interior 4" pipe insulation in Compounding Room (sample 33)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-34	Interior 4" pipe insulation in Compounding Room (sample 34)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-13	Floor tile mastic in Compounding Room (sample 13)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-14	Floor tile mastic in Compounding Room (sample 14)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-15	Ceiling tile mastic in Compounding Room (sample 15)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-16	Ceiling tile mastic in Compounding Room (sample 16)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-36	Roof mastic on Compounding Room (sample 36)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-37	Roof mastic on Compounding Room (sample 37)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-38	Roof mastic on Compounding Room (sample 38)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-39	Roof mastic on Compounding Room (sample 39)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-40	Roof mastic on Compounding Room (sample 40)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-17	Window gasket in Compounding Room (sample 17)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-18	Window gasket in Compounding Room (sample 18)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-43	Office door gasket in Compounding Room (sample 43)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-19	Blue paint on wall in Compounding Room (sample 19)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-20	Blue paint on wall in Compounding Room (sample 20)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-21	Blue paint on interior pipes in Compounding Room (sample 21)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-22	Blue paint on interior pipes in Compounding Room (sample 22)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-23	Blue paint on interior pipes in Compounding Room (sample 23)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-24	Silver paint on interior tank in Compounding Room (sample 24)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-25	Silver paint on interior tank in Compounding Room (sample 25)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-26	Silver paint on interior tank in Compounding Room (sample 26)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-41	Dark blue trim in Compounding Room (sample 41)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-42	Dark blue trim in Compounding Room (sample 42)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-44	Exterior white paint at Compounding Room (sample 44)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-45	Exterior grey paint at Compounding Room (sample 45)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-46	Grey paint on exterior pipes at Compounding Room (sample 46)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-47	Grey paint on exterior pipes at Compounding Room (sample 47)	ND	N
FY20-21	Alameda	COA-18	2015 Grand Street	94501	72-381-1	8/24/2020	COA-18-48	Grey paint on exterior pipes at Compounding Room (sample 48)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-10	Window putty at 2nd Floor in Main Warehouse (sample 10)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-11	Window putty at 2nd Floor in Main Warehouse (sample 11)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-12	Window putty at 2nd Floor in Main Warehouse (sample 12)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-13	Window putty at 1st Floor Offices in Main Warehouse (sample 13)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-14	Window putty at 1st Floor Offices in Main Warehouse (sample 14)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-15	Window putty at 1st Floor Offices in Main Warehouse (sample 15)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-43	Fiberglass insulation at Office Ceilings in Main Warehouse (sample 43)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-44	Fiberglass insulation at Office Ceilings in Main Warehouse (sample 44)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-45	Fiberglass insulation at Office Ceilings in Main Warehouse (sample 45)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-49	Fiberglass pipe insulation at UW in Main Warehouse (sample 49)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-50	Fiberglass pipe insulation at UW in Main Warehouse (sample 50)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-51	Fiberglass pipe insulation at UW in Main Warehouse (sample 51)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-16	Insulation HVAC ducts in Main Warehouse (sample 16)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-17	Insulation HVAC ducts in Main Warehouse (sample 17)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-18	Insulation HVAC ducts in Main Warehouse (sample 18)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-01	Ceiling tile mastic at Janitor in Main Warehouse (sample 01)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-02	Ceiling tile mastic at Janitor in Main Warehouse (sample 02)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-03	Ceiling tile mastic at Janitor in Main Warehouse (sample 03)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-04	Ceiling tile mastic at 1st Floor Offices in Main Warehouse (sample 04)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-05	Ceiling tile mastic at 1st Floor Offices in Main Warehouse (sample 05)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-06	Ceiling tile mastic at 1st Floor Offices in Main Warehouse (sample 06)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-07	Ceiling tile mastic at 2nd Floor Offices in Main Warehouse (sample 07)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-08	Ceiling tile mastic at 2nd Floor Offices in Main Warehouse (sample 08)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-09	Ceiling tile mastic at 2nd Floor Offices in Main Warehouse (sample 09)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-19	Baseboard mastic at 1st Floor Offices in Main Warehouse (sample 19)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-20	Baseboard mastic at 1st Floor Offices in Main Warehouse (sample 20)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-21	Baseboard mastic at 1st Floor Offices in Main Warehouse (sample 21)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-22	Baseboard mastic at 2nd Floor Offices in Main Warehouse (sample 22)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-23	Baseboard mastic at 2nd Floor Offices in Main Warehouse (sample 23)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-24	Baseboard mastic at 2nd Floor Offices in Main Warehouse (sample 24)	ND	N

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FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-25	Floor mastic black at 2nd Floor Offices in Main Warehouse (sample 25	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-26	Floor mastic black at 2nd Floor Offices in Main Warehouse (sample 26)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-27	Floor mastic black at 2nd Floor Offices in Main Warehouse (sample 27)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-28	Floor mastic black at 1st Floor Offices in Main Warehouse (sample 28	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-29	Floor mastic black at 1st Floor Offices in Main Warehouse (sample 29)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-30	Floor mastic black at 1st Floor Offices in Main Warehouse (sample 30)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-31	Floor mastic black at LW Buildout in Main Warehouse (sample 31)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-32	Floor mastic black at LW Buildout in Main Warehouse (sample 32)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-33	Floor mastic black at L W Buildout in Main Warehouse (sample 33)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-37	Roof mastic at UW Overhang in Main Warehouse (sample 3 7)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-38	Roof mastic at UW Overhang in Main Warehouse (sample 38)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-39	Roof mastic at UW Overhang in Main Warehouse (sample 39)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-46	Window gasket at 1st Floor Offices in Main Warehouse (sample 46)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-47	Window gasket at 1st Floor Offices in Main Warehouse (sample 4 7)	ND	N
FY20-21	Alameda	COA-19	2015 Grand Street	94501	72-381-1	1/1/2021	COA-19-48	Window gasket at 1st Floor Offices in Main Warehouse (sample 48)	ND	N
FY20-21	Alameda	COA-21	2015 Grand Street	94501	72-381-1	1/3/2021	COA-19-34	Floor Mastic at UW Buildout in Taylor Warehouse (sample 34)	ND	N
FY20-21	Alameda	COA-21	2015 Grand Street	94501	72-381-1	1/3/2021	COA-19-35	Floor Mastic at UW Buildout in Taylor Warehouse (sample 35)	ND	N
FY20-21	Alameda	COA-21	2015 Grand Street	94501	72-381-1	1/3/2021	COA-19-36	Floor Mastic at UW Buildout in Taylor Warehouse (sample 36)	ND	N
FY20-21	Alameda	COA-22	2015 Grand Street	94501	72-381-1	1/3/2021	COA-22-40	Roof mastic at Cooperage in Warehouse (sample 40)	ND	N
FY20-21	Alameda	COA-22	2015 Grand Street	94501	72-381-1	1/3/2021	COA-22-41	Roof mastic at Cooperage in Warehouse (sample 41)	ND	N
FY20-21	Alameda	COA-22	2015 Grand Street	94501	72-381-1	1/3/2021	COA-22-42	Roof mastic at Cooperage in Warehouse (sample 42)	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB05A	Concrete Floor Caulking 1	42	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 061820 PCB05A	Concrete Floor Caulking 3	44	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 061820 PCB05B	Concrete floor caulking 4	51	Y
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB05B	Concrete Floor Caulking 2	52	Y
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB01C	Carpet Adhesive + Tice Mastic	53	Y
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 061820 PCB05C	Concrete floor caulking 5	180	Y
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB01A	carpet adhesive Lobby	440	Y
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 061820 PCB01C	VFT Mastic West Exit Lobby	740	Y
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 061820 PCB01A	Carpet Adhesive + Tice Mastic	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 061820 PCB07A	Concrete	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 061820 PCB07B	Concrete	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 061820 PCB07C	Concrete	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 061820 PCB07D	Concrete	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB01B	Carpet Adhesive + Tice Mastic	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB01D	Carpet Adhesive + Tice Mastic	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB02A	Pink Fiberglass insulation	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB02B	Yellow Fiberglass insulation	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB03A	Window Gasket	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB03B	Window Gasket	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB03C	Window Gasket	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB04A	Subfloor VFT Mastic	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB04B	VFT Black Mastic	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB04C	VFT Black Mastic	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB06A	Exterior Paint North	ND	N
FY20-21	Dublin	DUB-1	6700 Golden Gate Drive	94568	941-1500-0047-07	TBD	ABC2019 PCB06B	Exterior Paint West	ND	N
FY20-21	Fremont	FRE-1	3820 Peralta Blvd	94536	501 147504902	9/8/2020	E19-2028B-7-17-1B	door caulking	ND	N
FY20-21	Fremont	FRE-1	3820 Peralta Blvd	94536	501 147504902	9/8/2020	E19-2028B-7-17-2B	window gasket	ND	N
FY20-21	Fremont	FRE-1	3820 Peralta Blvd	94536	501 147504902	9/8/2020	E19-2028B-7-17-3B	window caulking	ND	N
FY20-21	Fremont	FRE-1	3820 Peralta Blvd	94536	501 147504902	9/8/2020	E19-2028B-7-17-4B	Ceiling Insulation	ND	N
FY20-21	Fremont	FRE-1	3820 Peralta Blvd	94536	501 147504902	9/8/2020	E19-2020B-7-17-5B	Thermals System Insulation	1800	Y
FY20-21	Fremont	FRE-2	37438 Fremont Blvd	94536	501 147503502	9/8/2020	E19-2028B-7-17-1B	Window caulking	ND	N
FY20-21	Fremont	FRE-2	37438 Fremont Blvd	94536	501 147503502	9/8/2020	E19-2028B-7-17-2B	bulk material	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-001A	bulk material	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-002A	bulk material	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-003A	bulk material	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-004A	insulation pipe (kettle)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-005A	insulation pipe (kettle)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-006A	insulation pipe (kettle)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-007A	insulation steam pipe	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-008A	insulation steam pipe	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-009A	insulation steam pipe	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-010A	insulation kiln box	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-011A	insulation kiln box	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-012A	insulation exhaust stack	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-013A	insulation exhaust stack	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-014A	insulation exhaust stack	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-015A	kettle insulation	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-016A	kettle insulation	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-017A	kettle insulation	ND	N

Reporting Year	Permittee	Building ID	Project Address	Project Zip Code	Project APN	Project Demolition Date	Sample ID	Sample Description	Reported Concentration (mg/kg)	Concentration ≥ 50 mg/kg (Y/N)
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-018A	kiln flue insulation	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-019A	kiln flue insulation	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-020A	kiln flue insulation	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-021A	floor mastic (lunch room)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-022A	floor mastic (lunch room)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-023A	Floor mastic (2nd fl, office)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-024A	Floor mastic (2nd fl, office)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-025A	floor mastic (control room)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-026A	floor mastic (control room)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-027A	window caulk/glaze	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-028A	window caulk/glaze	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-029A	window caulk/glaze	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-030A	window caulk/glaze	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-031A	window caulk/glaze	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-032A	roof deck insulation	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-033A	roof deck insulation	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-034A	roof deck insulation	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-035A	baseboard mastic	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-036A	baseboard mastic	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-037A	baseboard mastic	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-038A	window caulk/glaze (OF)	670	Y
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-039A	window caulk/glaze (OF)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-040A	window caulk/glaze (OF)	76	Y
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-041A	insulation pipes (OF)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-042A	insulation pipes (OF)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-043A	insulation pipes (OF)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-044A	baseboard mastic (OF)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-045A	baseboard mastic (OF)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-046A	baseboard mastic (OF)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-047A	carpet mastic (OF)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-048A	carpet mastic (OF)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-049A	carpet mastic (OF)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-050A	Roof mastic (PH)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-051A	Roof mastic (PH)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-052A	window caulk/glaze	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-053A	window caulk/glaze	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-054A	roof mastic (Sec)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-055A	roof mastic (Sec)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-056A	floor mastic (Sec)	ND	N
FY20-21	Fremont	FRE-3	37887 Shinn St	94536	507 037700301	3/15/2021	2008B80-057A	floor mastic (Sec)	ND	N
FY20-21	Fremont	FRE-4	37341 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-01	office; beneath carpet	ND	N
FY20-21	Fremont	FRE-4	37341 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-02	office; beneath tiles	13	N
FY20-21	Fremont	FRE-4	37341 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-03	office; baseboards	1	N
FY20-21	Fremont	FRE-4	37341 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-04	roof; penetrations	ND	N
FY20-21	Fremont	FRE-4	37341 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-05	roof; sky light	ND	N
FY20-21	Fremont	FRE-4	37341 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-06	Roof; all layers	ND	N
FY20-21	Fremont	FRE-5	37343 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-07	entry; floor	1.3	N
FY20-21	Fremont	FRE-5	37343 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-08	entry; door threshold	2.8	N
FY20-21	Fremont	FRE-5	37343 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-09	upstairs; beneath carpet	ND	N
FY20-21	Fremont	FRE-5	37343 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-10	downstairs; concrete wall	1.3	N
FY20-21	Fremont	FRE-5	37343 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-11	downstairs; wall (concrete) & ceiling	110	Y
FY20-21	Fremont	FRE-5	37343 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-12	downstairs; concrete expansion joint (SE Wall)	28000	Y
FY20-21	Fremont	FRE-5	37343 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-13	upstairs; baseboards	1.1	N
FY20-21	Fremont	FRE-5	37343 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-14	wall cavities	0.71	N
FY20-21	Fremont	FRE-5	37343 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-15	downstairs; HVAC unit	ND	N
FY20-21	Fremont	FRE-5	37343 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-16	HVAC ducts	0.41	N
FY20-21	Fremont	FRE-5	37343 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-17	exterior; front windows	1.8	N
FY20-21	Fremont	FRE-5	37343 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-18	roof; HVAC unit seams	ND	N
FY20-21	Fremont	FRE-5	37343 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-19	roof; sky light	1.2	N
FY20-21	Fremont	FRE-5	37343 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-20	roof; penetrations	0.98	N
FY20-21	Fremont	FRE-5	37343 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-21	roof; all layers	ND	N
FY20-21	Fremont	FRE-6	37347 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-22	bathroom; beneath tiles	12	N
FY20-21	Fremont	FRE-6	37347 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-23	bathroom; baseboards	0.5	N
FY20-21	Fremont	FRE-6	37347 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-24	bathroom; behind wall paneling	ND	N
FY20-21	Fremont	FRE-6	37347 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-25	upstairs; baseboards	ND	N
FY20-21	Fremont	FRE-6	37347 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-26	wall cavities	4.1	N
FY20-21	Fremont	FRE-6	37347 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-27	HVAC ducts	1.3	N
FY20-21	Fremont	FRE-6	37347 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-28	roof; sky light	ND	N
FY20-21	Fremont	FRE-6	37347 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-29	roof; penetrations	ND	N
FY20-21	Fremont	FRE-6	37347 Blacow Rd	94536	501-0350-015 and 501-0350-016	4/23/2021	48532-30	Roof; all layers	ND	N
FY20-21	Hayward	411 Industrial Pkwy	411 Industrial Pkwy	94544	0	8/11/2020		Gasket sampled	1300	Y
FY20-21	San Leandro	SL-1	887 Manor Blvd.	94577	080H-1541-036	Spring 2021	PCB-01	Expansion Caulk	ND	N
FY20-21	San Leandro	SL-1	887 Manor Blvd.	94577	080H-1541-036	Spring 2021	PCB-02	Window Caulk	ND	N
FY20-21	San Leandro	SL-1	887 Manor Blvd.	94577	080H-1541-036	Spring 2021	PCB-03	Door Caulk	ND	N

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FY20-21	San Leandro	SL-1	887 Manor Blvd.	94577	080H-1541-036	Spring 2021	PCB-04	Carpet Adhesive	ND	N
FY20-21	San Leandro	SL-1	887 Manor Blvd.	94577	080H-1541-036	Spring 2021	PCB-05	Carpet Adhesive	ND	N
FY20-21	San Leandro	SL-1	887 Manor Blvd.	94577	080H-1541-036	Spring 2021	PCB-06	Carpet Adhesive	ND	N
FY20-21	San Leandro	SL-1	887 Manor Blvd.	94577	080H-1541-036	Spring 2021	PCB-07	Carpet Adhesive	ND	N
FY20-21	San Leandro	SL-1	887 Manor Blvd.	94577	080H-1541-036	Spring 2021	PCB-08	Carpet Adhesive	ND	N
FY20-21	San Leandro	SL-1	887 Manor Blvd.	94577	080H-1541-036	Spring 2021	PCB-09	Fiberglass Insulation Type 1	ND	N
FY20-21	San Leandro	SL-1	887 Manor Blvd.	94577	080H-1541-036	Spring 2021	PCB-10	Fiberglass Insulation Type 2	ND	N
FY20-21	San Leandro	SL-1	887 Manor Blvd.	94577	080H-1541-036	Spring 2021	PCB-11	Fiberglass Insulation Type 3	ND	N
FY20-21	San Leandro	SL-2	2366 Davis Street	94577	77A-649-8-62	1/31/2021	ALCO-01	Parapet Mastic	0.527	N
FY20-21	San Leandro	SL-2	2366 Davis Street	94577	77A-649-8-62	1/31/2021	ALCO-02	Parapet Mastic	0.597	N
FY20-21	San Leandro	SL-2	2366 Davis Street	94577	77A-649-8-62	1/31/2021	ALCO-03	Parapet Mastic	0.861	N
FY20-21	San Leandro	SL-2	2366 Davis Street	94577	77A-649-8-62	1/31/2021	ALCO-4	Parapet Mastic	0.214	N
FY20-21	San Leandro	SL-2	2366 Davis Street	94577	77A-649-8-62	1/31/2021	ALCO-5	Parapet Mastic	0.351	N
FY20-21	San Leandro	SL-2	2366 Davis Street	94577	77A-649-8-62	1/31/2021	ALCO-06	HVAC Caulking	29.6	N
FY20-21	San Leandro	SL-2	2366 Davis Street	94577	77A-649-8-62	1/31/2021	ALCO-07	Pink Fiberglass Insulation	0.177	N
FY20-21	San Leandro	SL-2	2366 Davis Street	94577	77A-649-8-62	1/31/2021	ALCO-08	Yellow Fiberglass Insulation	0.371	N
FY20-21	San Leandro	SL-2	2366 Davis Street	94577	77A-649-8-62	1/31/2021	ALCO-09	Interior Window Caulking	1.96	N
FY19-20	Fremont	Fre-1	39150 Fremont Blvd	94539	501-1130-001801, 501-1130-004803	1/2/2020		Baseboard Mastic	50	Y
FY19-20	Fremont	Fre-2	4274 & 4300 Peralta Blvd, Fremont, CA	94536	501 052602200501 052602100	5/4/2020		Carpet Mastic	7.5	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-01	Residual floor	29.1	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-02	Black	17	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-03	Black	6.9	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-04	Residual floor	4.4	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-05	Window, black	7.8	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-06	Yellow	ND	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-07	Black	13.3	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-08	Black	8.8	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-09	Black	660	Y
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-10	Black	10.1	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-11	Black	4.3	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-12	White	ND	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-13	Black	10.4	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-14	Expansion joint, gray	6660	Y
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-15	Expansion joint, gray	9600	Y
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-16	Expansion joint, gray	114.1	Y
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-101	Black	265	Y
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-102	Black	14	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-103	Door Closer Tile and Oil	0.3	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-104	Black	ND	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-105	Window, black	135	Y
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-106	Black	806	Y
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-107	Window, black	28.9	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-108	Black	5.2	N
FY19-20	Hayward	22300 City Center Dr.	22300 City Center Drive, Hayward	94541	415-0250-112-00	4/1/2020	PCC-109	Residual floor	66	Y
FY19-20	Hayward	Station	1401 West Winton Ave	94545	0	TBD	HSD-09	Black	1.1	N
FY19-20	Hayward	Station	1401 West Winton Ave	94545	0	TBD	HSD-10	Black	ND	N
FY19-20	Hayward	Station	1401 West Winton Ave	94545	0	TBD	HSD-11	Exterior, gray/tan	ND	N
FY19-20	Hayward	Station	1401 West Winton Ave	94545	0	TBD	HSD-12	Exterior, gray/tan	ND	N

Reporting Year	Permittee	Building ID	Project Address	Project Zip Code	Project APN	Project Demolition Date	Sample ID	Sample Description	Reported Concentration (mg/kg)	Concentration ≥ 50 mg/kg (Y/N)
FY19-20	Hayward	Station	1401 West Winton Ave	94545	0	TBD	HSD-13	Exterior, gray/tan	ND	N
FY19-20	Hayward	Station	1401 West Winton Ave	94545	0	TBD	HSD-14	White	ND	N
FY19-20	Hayward	Station	1401 West Winton Ave	94545	0	TBD	HSD-15	Pink	ND	N
FY19-20	Hayward	Station	1401 West Winton Ave	94545	0	TBD	HSD-16	Floor, yellow	ND	N
FY19-20	Hayward	Station	1401 West Winton Ave	94545	0	TBD	HSD-17	Floor, yellow	ND	N
FY19-20	Hayward	Station	1401 West Winton Ave	94545	0	TBD	HSD-18	Floor, yellow	ND	N
FY19-20	Hayward	Storage	1401 West Winton Ave	94545	0	TBD	HSD-19	Floor, yellow	16	N
FY19-20	Hayward	Storage	1401 West Winton Ave	94545	0	TBD	HSD-20	Floor, yellow	ND	N
FY19-20	Hayward	Storage	1401 West Winton Ave	94545	0	TBD	HSD-21	Floor, yellow	ND	N
FY19-20	Hayward	Training Building	1401 West Winton Ave	94545	0	TBD	HSD-01	Black	0.3	N
FY19-20	Hayward	Training Building	1401 West Winton Ave	94545	0	TBD	HSD-02	Black	0.64	N
FY19-20	Hayward	Training Building	1401 West Winton Ave	94545	0	TBD	HSD-03	white	0.15	N
FY19-20	Hayward	Training Building	1401 West Winton Ave	94545	0	TBD	HSD-04	white	0.36	N
FY19-20	Hayward	Training Building	1401 West Winton Ave	94545	0	TBD	HSD-05	Foam, yellow	14	N
FY19-20	Hayward	Training Building	1401 West Winton Ave	94545	0	TBD	HSD-06	Foam, yellow	21	N
FY19-20	Hayward	Training Building	1401 West Winton Ave	94545	0	TBD	HSD-07	Foam, yellow	16	N
FY19-20	Hayward	Training Building	1401 West Winton Ave	94545	0	TBD	HSD-08	white	0.26	N
FY19-20	Oakland	320 6th	320 6th St	94607	1-189-13	6/1/2020	316-320-Mastic-1	Floor tile mastic	ND	N
FY19-20	Oakland	320 6th	320 6th St	94607	1-189-13	6/1/2020	316-320-Mastic-2	Floor tile mastic	ND	N
FY19-20	Oakland	320 6th	320 6th St	94607	1-189-13	6/1/2020	316-320-Mastic-3	Floor tile mastic	ND	N
FY19-20	Oakland	320 6th	320 6th St	94607	1-189-13	6/1/2020	316-320-F-1	Fiberglass ceiling insulation	ND	N
FY19-20	Oakland	325 7th	325 7th St	94607	1-189-5	6/1/2020	325-7-F-1	Fiberglass HVAC Insutation	ND	N
FY19-20	Oakland	325 7th	325 7th St	94607	1-189-5	6/1/2020	325-7-F-2	Fiberglass ceiling insulation	ND	N
FY19-20	Oakland	325 7th	325 7th St	94607	1-189-5	6/1/2020	325-7-Caulk-1-1	Exterior door caulking	ND	N
FY19-20	Oakland	325 7th	325 7th St	94607	1-189-5	6/1/2020	325-7-Caulk-1-2	Exterior door caulking	ND	N
FY19-20	Oakland	325 7th	325 7th St	94607	1-189-5	6/1/2020	325-7-Caulk-1-3	Exterior door caulking	ND	N
FY19-20	Oakland	325 7th	325 7th St	94607	1-189-5	6/1/2020	325-7-Caulk-2-1	Exterior window caulking	ND	N
FY19-20	Oakland	325 7th	325 7th St	94607	1-189-5	6/1/2020	325-7-Caulk-2-2	Exterior window caulking	ND	N
FY19-20	Oakland	325 7th	325 7th St	94607	1-189-5	6/1/2020	325-7-Caulk-2-3	Exterior window caulking	ND	N
FY19-20	Oakland	330 6th	330 6th St	94607	1-189-14-1	6/1/2020	330-332-Caulk-1	Exterior Door Caulking	ND	N
FY19-20	Oakland	330 6th	330 6th St	94607	1-189-14-1	6/1/2020	330-332-Caulk-2	Exterior Door Caulking	ND	N
FY19-20	Oakland	330 6th	330 6th St	94607	1-189-14-1	6/1/2020	330-332-Caulk-3	Exterior Door Caulking	ND	N
FY19-20	Oakland	330 6th	330 6th St	94607	1-189-14-1	6/1/2020	330-332-F-1	Fiberglass ceiling lot insulator	ND	N
FY19-20	Oakland	330 6th	330 6th St	94607	1-189-14-1	6/1/2020	330-332-F-2	Fiberglass ceiling lot insulator	ND	N
FY19-20	Oakland	330 6th	330 6th St	94607	1-189-14-1	6/1/2020	330-332-Mastic-1	Floor Mastic	ND	N
FY19-20	Oakland	330 6th	330 6th St	94607	1-189-14-1	6/1/2020	330-332-Mastic-2	Floor Mastic	ND	N
FY19-20	Oakland	330 6th	330 6th St	94607	1-189-14-1	6/1/2020	330-332-Mastic-3	Floor Mastic	ND	N
FY19-20	Oakland	625 Harrison St	625 Harrison St	94607	1-189-8	6/1/2020	625-H-F-1	Fiberglass duct workinsulation	ND	N
FY19-20	Oakland	GE Site - Pump House, North Window	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-PH-1B	Window glazing compound	5.9	N
FY19-20	Oakland	GE Site - Pump House, North Window	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-PH-2A	Sealant Around Window	9.2	N
FY19-20	Oakland	GE Site - Pump House, South Window	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-PH-1A	Window glazing compound	2.4	N
FY19-20	Oakland	GE Site - Slab A - Tank Saddle	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-A-1A	Sealant on Tank Saddle	39.4	N
FY19-20	Oakland	GE Site - Slab C	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-C-1A	Sealant around conduit	11	N
FY19-20	Oakland	GE Site - Slab G - Center	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-G-1A	Wooden expansion joint material	125	Y
FY19-20	Oakland	GE Site - Slab G - North End	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-G-1B	Wooden expansion joint material	25	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-1A	Interior window caulking	10.43	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-1B	Interior window caulking	26.4	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-1C	Interior window caulking	46	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-1D	Interior window caulking	8.3	N

Reporting Year	Permittee	Building ID	Project Address	Project Zip Code	Project APN	Project Demolition Date	Sample ID	Sample Description	Reported Concentration (mg/kg)	Concentration ≥ 50 mg/kg (Y/N)
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-1E	Interior window caulking	4.81	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-1F	Interior window caulking	82	Y
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-1G	Interior window caulking	11.6	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-1H	Interior window caulking	38.75	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-1I	Interior window caulking	89	Y
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-8A	Batt Insulation	3.3	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-8B	Batt Insulation	1.09	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-8C	Batt Insulation	0.6	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-9A	Ceiling	8.6	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-9B	Ceiling	6	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-9C	Ceiling	5.2	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-3A	HVAC Duct Sealant	ND	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-3B	HVAC Duct Sealant	ND	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-3C	HVAC Duct Sealant	ND	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-2A	Flooring adhesive	39	N
FY19-20	Oakland	GE Site BLD - 01	5441 International Boulevard	94601	041-3848-001-00	6/15/2020	B-B1-2B	Flooring adhesive	129	Y

APPENDIX E

Mass of Mercury Recycled in Alameda County

Geosyntec consultants

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Memorandum

Date:	September 2, 2025
To:	Sandy Mathews, Alameda Countywide Clean Water Program
From:	Lisa Austin, Senior Principal, Lisa Welsh, Senior Scientist, Grace Yao, Professional, and Kiki Jin, Staff Engineer
Subject:	C.11.d Mercury Collection and Recycling Program – Fiscal Year 2024/25 Data Summary Geosyntec Project Number: CWR1031

1. BACKGROUND

Municipal Regional Stormwater Permit (MRP; Order No. R2-2022-0018) Provision C.11.d requires Permittees to promote, facilitate, and/or participate in collection and recycling of mercury-containing consumer products, devices, and equipment.

The Alameda Countywide Clean Water Program's (ACCWP) Permittees collect household hazardous waste (HHW) at multiple locations via StopWaste, a public agency governed by the Alameda County Waste Management Authority, the Alameda County Source Reduction and Recycling Board, and the Energy Council. Data was also compiled from the Fremont HHW facility and the Dublin-operated Temporary Household Hazardous Waste Collection Facility (THHWCF) events.

This technical memorandum documents the following items for the Alameda County Permittees, as required by MRP Provision C.11.d.iii.(1):

a. The mass of mercury-containing material collected throughout the region; and
b. The estimate of the mass of mercury contained in the recycled material.

2. MERCURY-CONTAINING MATERIAL DEVICE TYPES

The following mercury-containing devices are collected and recycled by StopWaste on behalf of the ACCWP permittees. The estimated total mass and mercury mass of each device type are provided below. The estimated mercury mass is consistent with the Source Control Load Reduction Accounting for Reasonable Assurance Analysis report (BASMAA 2022).

1. **Fluorescent Lamps**.
    - Estimated Mass: Each 4-ft-long fluorescent lamp is assumed to weigh 0.227 kilograms (kg) (0.5 lbs) (MASS 2007). Using this value, the unit weight of a fluorescent lamp per foot is estimated to be 0.057 kg.
    - Estimated Mercury Mass: The average mercury content for a four-foot linear fluorescent lamp is 8.3 milligrams (mg). This is equal to 2.075 mg (2.075×10^{-6} kilograms (kg)) per linear foot. (NEMA 2005)
2. **Compact Fluorescent Lamps (CFLs)**.
    - Estimated Mass**:** The weight of a single CFL is assumed to be 0.1 kg (0.22 lbs) based on the product information found under general hardware stores. (Philips 2023a)
    - Estimated Mercury Mass: 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 (4.5×10^{-6} kg). New CFLs are also assumed to have 4.5 mg on average. (NEMA 2010)
3. **High Intensity Discharge Lamps (HID).**
    - Estimated Mass: The weight of a single HID lamp is assumed to be 0.32 kg (0.7 lbs). (Philips 2023b)
    - Estimated Mercury Mass: The average content of an HID bulb is 0.5 milligrams (mg) of mercury (0.5×10^{-6} kg). (NEMA 2004)
4. **Thermostats.**
    - Estimated Mass: The average weight of one thermostat is approximately 0.34 kg (0.75 lbs). (TRC 2008)
    - Estimated Mercury Mass: 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 about 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 (4×10^{-3} kg) of mercury. Every pound of thermostat collected is then estimated to contain around 5.3×10^{-3} kg of mercury. (TRC 2008)
5. **Thermometers**.
    - Estimated Mass: Each glass mercury fever thermometer is assumed to weigh 0.05 kg (0.11 lbs). (Walmart 2023)

- Estimated Mercury Mass: USEPA reports that glass mercury fever thermometers contain about 0.61 g (6.1×10^{-4} kg) of mercury. (USEPA 2012)

6. **Switches**. The Recycling Corporation reports that one mercury switch (from thermostats) contains 2.87 g (2.87×10^{-3} kg) of mercury[1]. (TRC 2010)
7. **Elemental Mercury.** Mercury collected in elemental form and measured in kg.

3. MASS OF MERCURY-CONTAINING MATERIAL RECYCLED

Table 1 lists the estimated total mass and mercury mass of mercury-containing material recycled within Alameda County during Fiscal Year (FY) 2024/25 (i.e., from July 1, 2024 – June 30, 2025) based on data available at the time this memorandum was prepared and for the device types listed above. Data reported is the estimated total mass of mercury-containing material shipped from Alameda County-operated HHW facilities and Alameda County-operated THHWCFs. Available data for FY 2024/25 is considered preliminary and the final numbers may change before data is reported to CalRecycle. Revised estimates will be reported in the 2026 annual report.

The mass of mercury recycled was estimated using the unit conversations listed above for total mass and mercury mass for each device type. The total estimated amount of mercury collected in Alameda County in FY 2024/25 was 41.9 kg, with the majority in the form of elemental mercury.

Table 1: Summary of Mercury Mass Collected in FY 2024/25

Mercury-containing Device/Equipment	Estimated Mass of Mercury-Containing Material Recycled (kg)[4]	Estimated Mass of Mercury Recycled (kg)
Fluorescent Lamps [1]	22,237	0.8
CFLs [2]	9,618	0.4
HID Headlamps	5,047	<0.01
Thermostats	20	0.2
Thermometers	118	1.4
Switches [3]	0	0.0
Elemental Mercury	39	39.0
Total Mass Recycled During FY 2024/25	**37,079**	**41.9**

[1] Only linear fluorescent lamps included.
[2] Only compact fluorescent lamps included.
[3] Only switches removed from thermostats should be included.
[4] Weights reported are net weight of waste article or container, not including the outer packaging (drum). In case of elemental mercury, a container such as a bottle may make up a significant portion of the weight of the waste.

[1] Mercury switches are also found in appliances, automobiles, homes, and industrial equipment. The mercury content varies from 1 to more than 200 grams each. For the purpose of this report, 2.87 g or mercury per switch is used for the calculation.

Based on a review of data reported to CalRecycle for FY 2022/23 and FY 2023/24 and as confirmed by the facilities, revisions were needed for FY 2022/23. A category for other mercury-containing waste was added and the total estimated amount of mercury collected in FY 2022/23 increased from 63.8 kg to 66.5 kg due to the update. The revised summary of mercury mass collected in FY 2022/23 is shown in Table 2. There are no revisions to data reported for FY 2023/24.

Table 2: Revised Summary of Mercury Mass Collected in FY 2022/23

Mercury-containing Device/Equipment	Estimated Mass of Mercury-Containing Material Recycled (kg)[5]	Estimated Mass of Mercury Recycled (kg)
Fluorescent Lamps [1]	27,874	1.0
CFLs [2]	8,950	0.4
HID Headlamps	617	<0.01
Thermostats	18	0.2
Thermometers [3]	38	0.5
Switches [4]	0	0.0
Elemental Mercury	64.4	64.4
Other Mercury Containing Waste	9	unknown
Total Mass Recycled During FY 2024/25	**37,570**	**66.5**

[1] Only linear fluorescent lamps included.
[2] Only compact fluorescent lamps included.
[3] Data from thermometers and switches are grouped together for Dublin's HHW events and are reported as thermometers herein.
[4] Only switches removed from thermostats should be included.
[5] Weights reported are net weight of waste article or container, not including the outer packaging (drum). In case of elemental mercury, a container such as a bottle may make up a significant portion of the weight of the waste.

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4. REFERENCES

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Memorandum

Date:	September 2, 2025
To:	Sandy Mathews, Alameda Countywide Clean Water Program
From:	Lisa Austin, Senior Principal, Lisa Welsh, Senior Scientist, and Kiki Jin, Staff Professional
Subject:	Fish Risk Reduction Program for Mercury and PCBs – Fiscal Year 2024/25 Status Summary
	Geosyntec Project Number: CWR1031/04/08

INTRODUCTION

MRP 3.0 Provision C.11.h and Provision C.12.j requires Permittees to implement a risk reduction program through ongoing public outreach to address human health risks associated with consuming fish contaminated with mercury and PCBs from the San Francisco Bay (Bay). To comply with these provisions, the Alameda Countywide Clean Water Program (Program) has been running a digital campaign over the last several years to promote awareness of fish consumption health advisories. The digital campaign reaches an estimated 30,000 readers interested in fishing in California.

In 2019, the Program conducted an additional in-person research component to promote Bay shoreline fishing advisory information. The objective of this initial observational research was to survey fishing sites, gather data on the fisher demographics, and observe any signage present. The 2019 survey found that nearly every site visited had some form of signage, but the signage was incomplete, not consistently branded, vandalized, or included links to a non-working website. Since 2019, the Program has continued to focus on the digital campaign. In FY 2024/25, the Program decided to update the 2019 report to identify opportunities and languages for posting current information. Sign assessments were conducted at the same locations from 2019 with additional sites added as requested by Permittees. This memo summarizes the approach and findings from the FY 2024/25 field investigations and prioritizes locations for posting updated information[1].

APPROACH

As part of FY 2024/25 fish risk outreach effort, a total of 12 sites were inspected in April 2025 (Dumbarton Pier in Fremont was inspected by City staff) and June 2025 (all other locations inspected by Geosyntec staff) along the Alameda County shoreline. Staff assessed the presence and condition of fish consumption advisory signage and identified locations where fishing activity

[1] Current fish advisories for San Francisco Bay are available at: https://oehha.ca.gov/fish/advisories/san-francisco-bay

occurs (Figure 1). The primary focus of the inspections was to assess whether fish advisory signs were posted and whether people were observed or reported. fishing in these locations. Informal interviews were conducted with anglers and park visitors to better understand local fishing habits, language needs, and typical site usage.

FINDINGS

Among the 12 inspected sites, seven had no fish advisory signs, four had outdated signs, and one displayed a partial version of the updated sign, as summarized in Table 1 below. Based on direct observations and community input, each location was assigned a signage priority level to guide future sign installation and replacement efforts.

Table 1: Prioritized FY 2024/25 Fish Advisory Sign Assessment Summary

Municipality	Location Site Name	2019 Sign Status	2025 Sign Status	2025 Priority
Alameda	Rockwall	Broken sign	No sign	1
Oakland	Port View Park	Not inspected	Outdated	1
Emeryville	Emeryville Marina Pier	Sign Present	Outdated	1
San Leandro	San Leandro Marina Park	Vandalized sign	No sign	1
Alameda	Veterans Pier	Not inspected	No sign	2
Oakland	Martin Luther King Jr. Regional Shoreline	Not inspected	Outdated	2
Oakland	Observation Pier	Not inspected	New sign (partial)	2
Oakland	San Antonio Fishing Pier	Not inspected	No sign	2
Fremont	Dumbarton Pier	Signs in various languages	Outdated	2
Alameda	Encinal Boat Ramp	Not inspected	No sign	3
Alameda	Bohol Circle Immigrant Park	Not inspected	No sign	3
Alameda	Grand Street Boat Ramp	Not inspected	No sign	3

Notes: 1 = high priority, 2 = medium priority, 3 = low priority

Based on the informal interviews, many anglers and shoreline visitors were pleased to hear about the sign assessment update. Several anglers mentioned they would like to see updated photos of the fish, and passersby expressed interest in learning about fish risks in the Bay.

High-priority sites include Rockwall, Port View Park, Emeryville Marina Pier, and San Leandro Marina Park, which are identified as popular fishing spots with high weekend activity and lack complete, up-to-date signage.

Medium-priority sites include Veterans Pier, Martin Luther King Jr. Regional Shoreline, Observation Pier, San Antonio Fishing Pier, and Dumbarton Pier, which show moderate or occasional fishing activity, either observed directly or reported through interviews.

Low-priority sites include Encinal Boat Ramp, Bohol Circle Immigrant Park, and Grand Street Boat Ramp, which have no observed or reported fishing activity and are less likely to be frequently used by anglers.

Below are detailed summaries of the inspections conducted at each location. A photo log is provided in Attachment 1.

High-Priority Sites

Rockwall, Alameda

The Rockwall is directly adjacent to the Encinal Boat Ramp and extends into the Bay via a narrow pathway. About seven anglers were observed fishing at the site during the inspection. Two anglers were interviewed; both said they fish regularly and noted that there were no fish consumption advisory signs present. They mentioned that they fish for both catch-and-release and for eating, usually keeping halibut and striped bass while releasing other species. They also said they usually purchase fishing gear online or at West Marine, a national retail chain with boating and fishing supplies. According to the anglers, the Rockwall is a well-known fishing spot in Alameda County and tends to be crowded on weekends. The fishing community includes individuals from English, Chinese, Vietnamese, and possibly Filipino backgrounds.

Port View Park, Oakland

Port View Park has a fishing pier accessible by a trail from the park entrance. Outdated fish consumption advisory signs were seen at both the park fence and the fishing pier, along with mussel warning signs. Although the printed advisory content is outdated, the QR codes on the signs work and links to the current fish advisory. One angler was seen fishing during the inspection and mentioned that this is a popular fishing spot that often gets crowded on weekends. He also mentioned that when the pier is too full, some people fish along the shoreline between the trail and the pier. The fishing community includes people from English, Spanish, and Chinese-speaking backgrounds. According to the angler, both catch-and-release and consumption are common here, with many Chinese fishers tending to keep their catch. He also said he buys fishing gear from Big 5 Sporting Goods.

Emeryville Marina Pier, Emeryville

The Emeryville Marina Pier is a newer, well-maintained structure with easy access, making it a popular spot for fishing, especially on weekends. During the inspection, about seven to eight individuals were observed fishing, and a few appeared to be selling or renting fishing equipment. An old fish consumption advisory sign was observed at the site. While its content was outdated, the QR code was working and linked to the updated advisory. Three anglers were interviewed and mentioned purchasing their fishing gear from West Marine and Bass Pro Shops. They do not typically catch a large number of fish at this pier, and they only occasionally keep halibut and striped bass, releasing other species. The fishing community at this pier mainly speaks English and Spanish.

One of the anglers mentioned that while many fishers do read the fish risk signs, certain individuals may interpret the fish list as an indication that those species are present at the site, which could unintentionally encourage fishing activity. At the same time, they emphasized that a sizable portion of people fish primarily for recreation rather than for consumption.

San Leandro Marina Park, San Leandro

Although the San Leandro Marina Pier was partially closed for construction at the time of inspection, some visitors reported observing anglers fishing at San Leandro Marina Park across Faro Point on a regular basis. Some individuals mentioned that many anglers prefer to fish facing the Bay, which is along Faro Point and faces Stryker Island, especially during high tide. The fishing community is diverse, including people from English, Chinese, Vietnamese, and Filipino backgrounds. Many, especially Asians, tended to keep and consume their catch. During the inspection, no anglers were observed, likely due to the low tide at the time of inspection.

Medium-Priority Sites

Veterans Pier, Alameda

Veterans Pier connects to Sea View Park via a trail that is accessible from multiple points from the adjacent residential neighborhoods. During the inspection, two anglers were observed fishing at the pier. They stated that this was their first time fishing at this location and that they always practice catch and release. At the time of inspection, they had not caught any fish. They mentioned that they usually purchase fishing supplies either online or from local stores such as Big 5 Sporting Goods. No fish consumption advisory signs were observed along the trail, at the pier, or within the park area. Aside from English speakers, it is unclear whether other cultural groups are present.

Martin Luther King Jr. Regional Shoreline, Oakland

The Martin Luther King Jr. Regional Shoreline (Shoreline) stretches about two miles, with four parking lots along it. Due to time constraints, only two parking lot areas and the adjacent shoreline were inspected, with one lot having an outdated fish consumption advisory sign and a mussel warning sign. During the inspection, no fishing activity was observed. However, a Shoreline staff member mentioned that people fish along the Shoreline and at a boat launch dock. Additionally, the Arrowhead Marsh Pier at one of the other two parking lots is frequently visited by anglers. The staff noted that the quality of fish in the area is generally poor, so most fish are released, although some are occasionally kept. Based on information provided by the staff, the fishing community includes individuals from English, Spanish, and Vietnamese backgrounds.

Observation Pier, Oakland

Observation Pier was recommended for inspection by an angler at the Emeryville Marina Pier. The pier is easily accessible, well-constructed, and partially equipped with a new fish consumption advisory sign. However, the sign is mounted on an unstable structure and lacks a QR code. During the inspection, two fishing groups, totaling about eight people, were seen. Interviews with members of both groups indicated that most fishers at this location practice catch and release. The observed language groups included English, Spanish, and an indiscernible Asian language.

San Antonio Fishing Pier, Oakland

During the inspection, no anglers were observed at San Antonio Fishing Pier. However, a mussel warning sign was posted, and a fish cleaning station was present, indicating that fishing activity likely occurs at this location. The pier is clean, well-maintained, and offers easy access, making it a likely site for fishing. The angler culture group is currently unknown.

Dumbarton Pier, Fremont

An outdated fish consumption advisory sign was observed at this location. During the inspection, two anglers were fishing there and mentioned that the site gets crowded during weekends. The angler culture group is currently unknown.

Low-Priority Sites

Grant Street Boat Ramp and Fortman Marina, Alameda

No anglers were seen at the Grant Street Boat Ramp during the inspection, and no fish consumption advisory signs were present. A nearby worker stated that he did not recall seeing people fishing at this location, although occasional fishing might still happen. He also mentioned that fishing is more likely at the nearby Fortman Marina. A follow-up visit to Fortman Marina confirmed there is a public fishing pier. However, no anglers were observed at that time, and no fish sign was observed.

Encinal Boat Ramp, Alameda

The Encinal Boat Ramp features a shoreline trail and is a popular spot for boat launching and water sports like sailing and paddleboarding. No anglers were seen during the inspection, and several people said they had not noticed fish consumption advisory signs in the area. While no fishing activity was reported, the shoreline is easily accessible and could serve as a potential fishing location.

Bohol Circle Immigrant Park, Alameda

Bohol Circle Immigrant Park is a newly constructed park that includes a small public pier and is located adjacent to a private pier where fishing is not allowed. The public pier serves as a ferry stop and a launch point for water sports, but it could also potentially be used for fishing. During the inspection, no fishing activity was seen, and there were no fish consumption advisory signs. A fish cleaning station is located near the public pier. According to a staff member from the nearby Mariner Square office, the station is open to the public but is most commonly used by fishers returning from the private pier. The staff member was unsure whether people fish at the public pier or if they use the cleaning station.

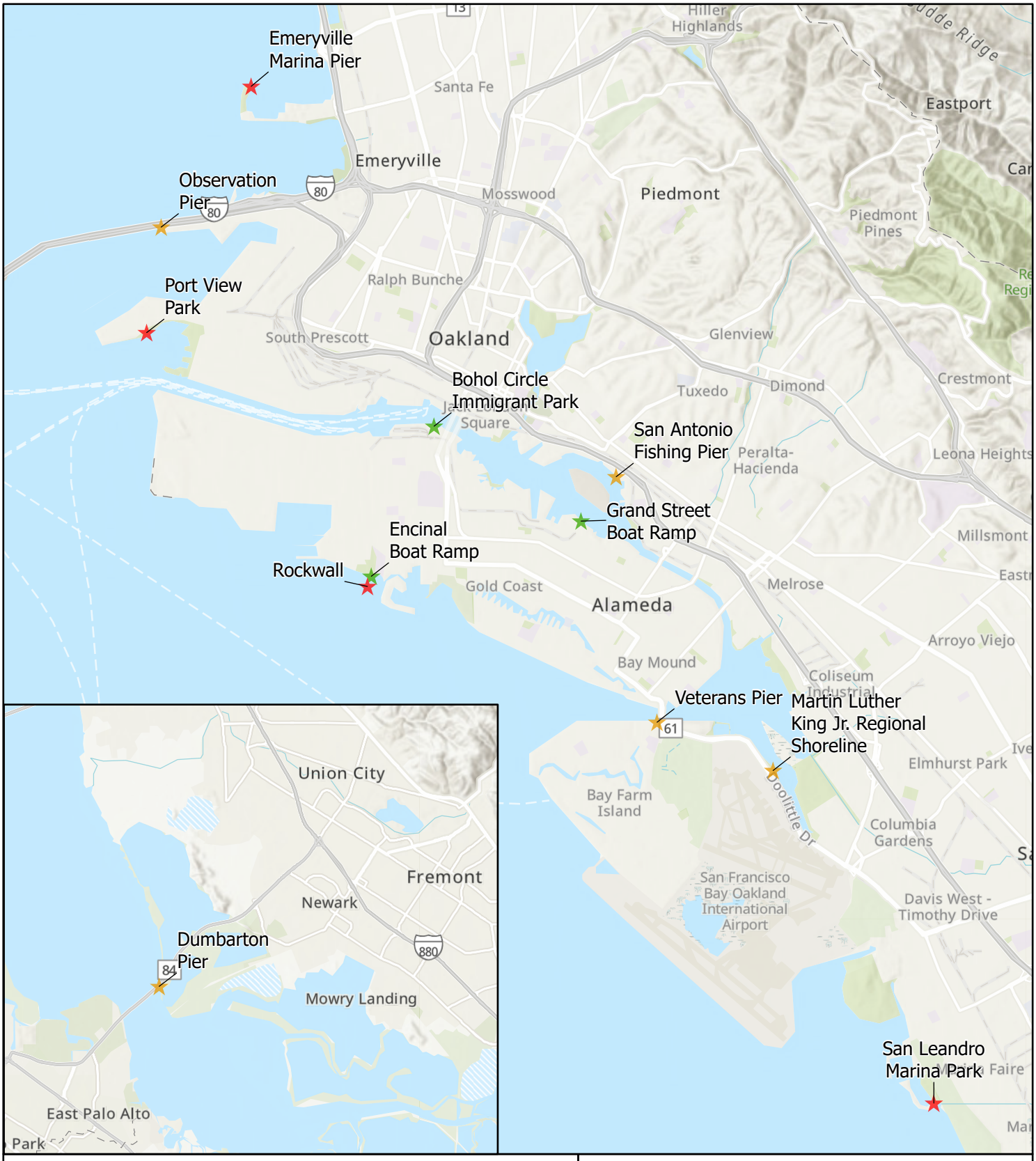
SUMMARY AND NEXT STEPS

The Program's fish advisory outreach efforts aim to reduce exposure of mercury and PCBs among high-risk populations, particularly those who frequently fish for consumption in San Francisco Bay. In FY 2024/25, the Program sought to supplement their digital campaign and increase the effectiveness of the on-the-ground distribution of fish advisory information. Based on the April and June 2025 site visits and interviews conducted at 12 shoreline locations in Alameda County,

fish advisory signs were either missing or outdated but updated information would be well received by the fishing community.

Potential next steps for the Program could be printing and hanging updated fish advisories at the four high priority shoreline locations in one or two of the primary languages spoken by anglers that frequent the site. For sites such as Port View Park and San Leandro Marina Park with a wider fishable area, multiple signs could be posted. The Program could also place QR codes at the high- and medium-priority locations where there is an existing sign and anglers were observed or known to fish. The Program could also choose to work with the local bait and tackle shops identified by the anglers to provide printed flyers of the OEHHA fish advisories. Implementation activities for FY 2025/26 will be reported in the Program's 2026 Annual Report along with an evaluation of the effectiveness of the risk reduction program.

* * * * *



Legend

Fish Risk Assessment Sites

- High Priority
- Mid Priority
- Low Priority

N

0 8,000 Feet

Fish Advisory Sign Assessment Location

Alameda County, CA

Geosyntec consultants

CWR1031 | September 2025

Figure 1

P:\GIS\Alameda Countywide Clean Water Program (ACCWP)\Fish Risk\Fish Risk Assessment_2025\Fish Risk Assessment_2025.aprx\Fish Risk Assessment Location 7/23/2025 11:21 AM (Yaxin.Jin)

Attachment 1
Fish Advisory Sign Assessment Photo Log

Geosyntec consultants

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Oakland, California 94607
PH 510.285.2700
www.geosyntec.com

Location: Rockwall, Alameda

Priority: High **2025 Fish Advisory Sign Status:** No sign

Summary: A new fish advisory sign could be installed at the entrance to the Rockwall, where all anglers must pass through (near P2). Based on the diversity of the local fishing community, the languages for the sign could include English, Spanish, Chinese, Vietnamese, and Filipino.

Grant Street Boat Ramp (to the right)

Fortman Marina (to the left)

Photo 1 (P1): Looking at Rockwall (red circle) from Alameda Point shoreline

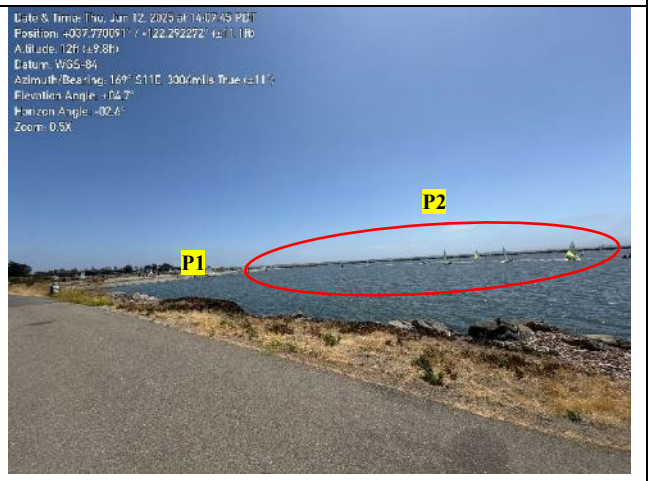


Photo 2 (P2): Rockwall

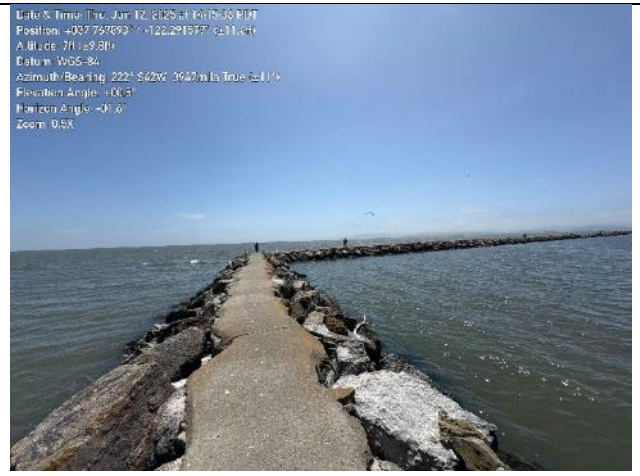


Photo 3 (P3): Entrance of Rockwall, looking at Alameda Point shoreline

Location: Port View Park, Oakland

Priority: High **2025 Fish Advisory Sign Status:** Outdated sign

Summary: The outdated advisory signs currently posted at the park fence (P1) and fishing pier (P2) with be replaced with updated versions. Additionally, a new sign can be considered near the gate entrance (P3) to the fishing pier, as some anglers fish along the shoreline in that area. The signage could be in English, Spanish, and Chinese to accommodate the cultural and language needs of the local fishing community. Additionally, QR codes could be placed on the existing signs.

Port View Park and its Fishing Pier

Photo 1 (P1): Port View Park outdated fish signage

Photo 2 (P2): Port View Park Fishing Pier outdated fish signage

Photo 3 (P3): Gate entrance to the Fishing Pier

Location: Emeryville Marina Pier, Emeryville

Priority: High **2025 Fish Advisory Sign Status:** Outdated sign

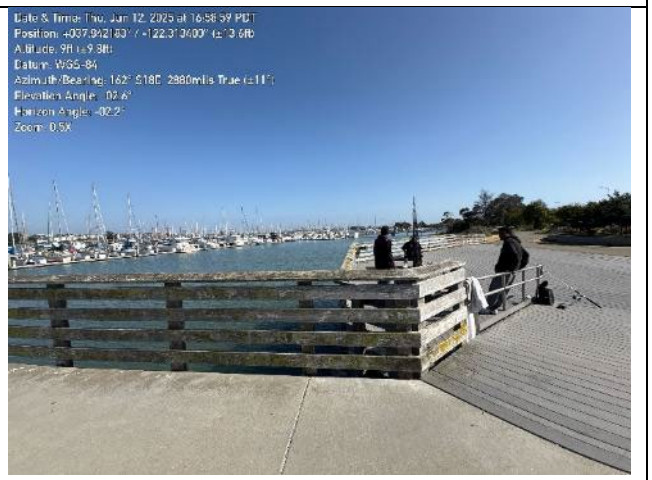
Summary: The existing outdated fish signs could be replaced with an updated version at the current location on the fence at the pier entrance. The sign placement is effective, and only the content requires updating. To reflect the local angler culture group, the updated signs should consider including English and Spanish. A QR code could be placed on the existing sign.

Emeryville Marina Pier

Photo 1 (P1): Emeryville Marina Pier outdated fish signage

Photo 2 (P2): Emeryville Marina Pier entrance with people fishing in the back

Photo 3 (P3): People with fishing gear at Emeryville Marina Pier entrance



Location: San Leandro Marina Park, San Leandro			
Priority: High **2025 Fish Advisory Sign Status:** No sign **Summary:** A good location for a fish sign poster is at Faro Point's entrance (P1), since most anglers prefer to fish facing San Francisco Bay and Stryker Island and need to pass this point to reach quality fishing spots. Although no existing poster structures are available, many open spaces are suitable for installing new signage structures. Signs could be provided in English, Chinese, Vietnamese, and/or possibly Filipino to accommodate local cultural needs.			
San Leandro Marina Park and Faro Point		**Photo 1 (P1):** At the entrance of Faro Point	
Photo 2 (P2): At the entrance of Faro Point looking at the San Francisco Bay		**Photo 3 (P3):** At the entrance of Faro Point Looking at the Small Boat Lagoon	

Location: Veterans Pier, Alameda

Priority: Mid **2025 Fish Advisory Sign Status:** No sign

Summary: Given the multiple access points along the trail from nearby residential areas, fish advisory signs could be considered at three locations: near Veterans Pier (P1), at Sea View Park (P3), and at a midpoint along the trail (around P2). No existing structures are available for posting signs, so new signposts will need to be installed. The culture composition is currently unknown. An English poster could be installed initially, with the potential to expand to other languages based on future input.

Veterans Pier (to the right)

Sea View Park (to the left)

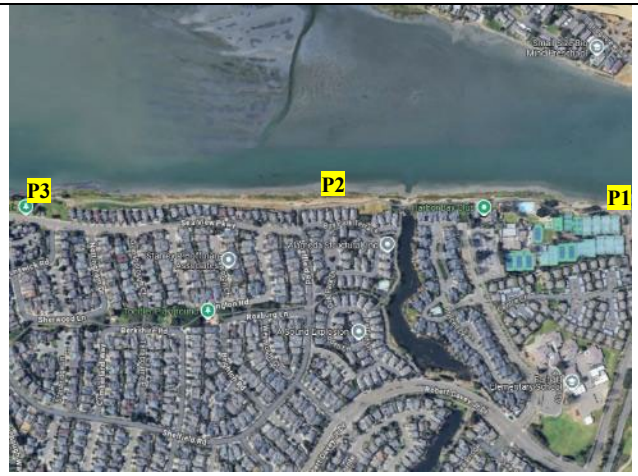


Photo 1 (P1): Veterans Pier

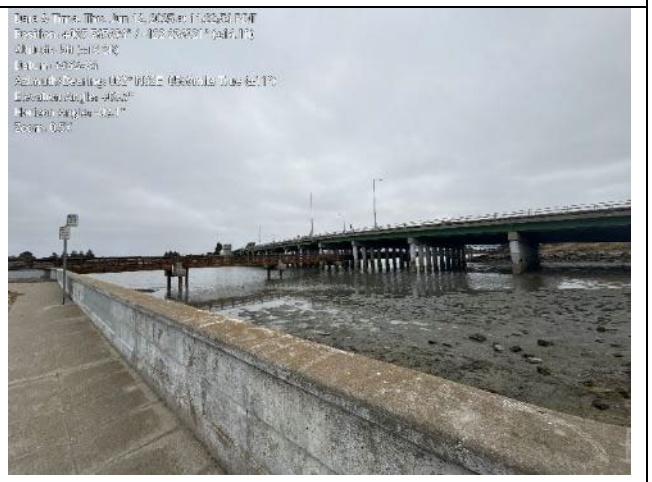


Photo 2 (P2): Shoreline view, with two anglers in the distance (red circles)

Photo 3 (P3): Sea View Park

Location: Martin Luther King Jr. Regional Shoreline, Oakland

Priority: Mid **2025 Fish Advisory Sign Status:** Outdated sign (at P1 and P2)

Summary: The outdated advisory sign at the inspected parking lot could be replaced on the existing structure (P1). Additional signage could be installed at the parking lots after further site inspection. Signs could be provided in English, Spanish, and/or Vietnamese to reflect the language needs of the local fishing community. A QR code could also be placed on the existing sign.

Martin Luther King Jr. Regional Shoreline

Photo 1 (P1): Existing outdated fish advisory and the boat launching dock (left side)

Photo 2 (P2): Mussel Warning sign (on same structure as the fish sign)

Photo 3 (P3): Shoreline view, the other side of water is Arrowhead Marsh Pier

Location: Observation Pier, Oakland			
Priority: Mid **2025 Fish Advisory Sign Status:** New sign, but partially missing information **Summary:** A fully updated fish advisory sign could be installed on a stabilized structure at the entrance of Observation Pier. There is an empty poster structure (P3) further away from the pier that could also be considered for installing a fish advisory sign. Initially, an English and Spanish sign could be posted. A QR could be posted on the existing sign.			
Observation Pier		**Photo 1 (P1):** Partially installed new sign on unstable structure	
Photo 2 (P2): Observation Pier with people fishing on the back		**Photo 3 (P3):** Available poster structure	

Location: San Antonio Fishing Pier, Oakland

Priority: High **2025 Fish Advisory Sign Status:** No sign

Summary: No fish consumption advisory sign was observed; only a mussel warning sign was present. An English sign could be installed at the entrance to the pier. The existing columns at the pier entrance (P1) and Fish Cleaning Station (P2) could serve as a suitable mounting location. The sign could also be installed on the pier fence near the mussel sign (P3). A QR code could be placed on the existing sign.

San Antonio Fishing Pier

Photo 1 (P1): San Antonio Fishing Pier entrance

Photo 2 (P2): Fish Cleaning Station

Photo 3 (P3): Mussel warning sign

Location: Dumbarton Pier, Fremont

Priority: Mid **2025 Fish Advisory Sign Status:** Outdated sign

Summary: An outdated fish consumption advisory sign was observed and could be replaced with an updated sign at the current location. As there is currently no information on the culture group in this area, an English sign is recommended initially. A QR code could be placed on the existing sign.

Dumbarton Pier

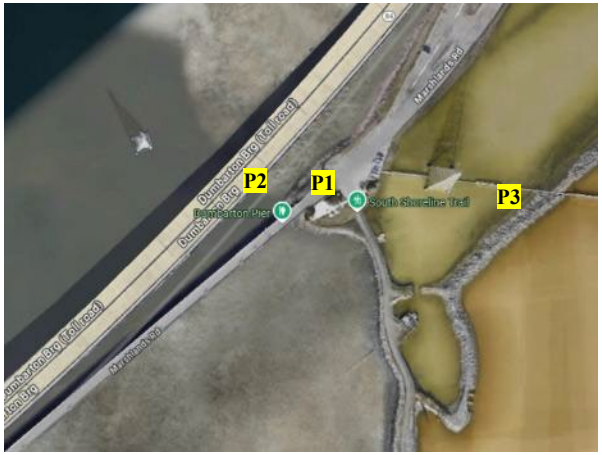
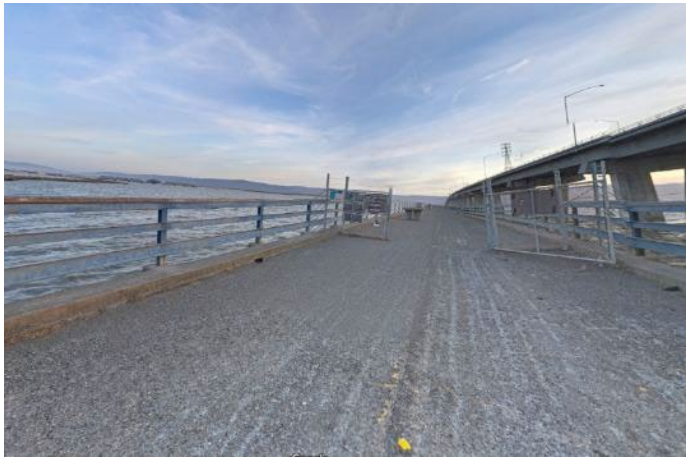


Photo 1 (P1): Outdated fish sign at Dumbarton Pier

Photo 2 (P2): Wooden rail where the fish sign can be installed

Photo 3 (P3): Google Map screenshot



Location: Encinal Boat Ramp

Priority: Low **2025 Fish Advisory Sign Status:** No sign

Summary: A signboard structure is present near the site, but all available space is currently occupied. If a sign is desired, a new sign structure next to the existing one (P1) or in the adjacent parking lot could be constructed. Since Encinal Boat Ramp and Rockwall are located within the same area and likely serve similar communities, the languages for the sign could include English, Spanish, Chinese, Vietnamese, and/or Filipino. A QR code could also be placed on the existing sign.

Encinal Boat Ramp

Photo 1 (P1): Existing signboard structure

Photo 2 (P2): Grant Street Boat Ramp

Photo 3 (P3): Alameda Point Shoreline

Location: Bohol Circle Immigrant Park, Alameda

Priority: Low **2025 Fish Advisory Sign Status:** No sign

Summary: Given the low visibility of fishing activity and multiuse of the single public dock, posting a fish advisory sign at this area may not be a high priority at this time. If a fish advisory sign is to be installed, the entrance point (around P1) to the public dock would likely be the most suitable location. As there is no existing structure to support signage, a new signpost would need to be constructed. As there is currently no information on the culture group in this area, an English sign is recommended initially.

Bohol Circle Immigrant Park

Photo 1 (P1): Public Dock

Photo 2 (P2): Fish Cleaning Station

Photo 3 (P3): Looking toward the Public Dock

Location: Grant Street Boat Ramp and Fortman Marina, Alameda

Priority: Low **2025 Fish Advisory Sign Status:** No sign

Summary: Given the low visibility of fishing activity and the uncertainty regarding angler use, posting a fish advisory sign at Grant Street Boat Ramp may not be a high priority at this time. However, if signs are to be installed, suitable locations include the side of the Grant Street Boat Ramp parking lot (P1) and the dock at Fortman Marina's fishing pier (P3). As there is currently no information on the culture group of anglers in this area, an English sign could be initially installed.

Grant Street Boat Ramp (to the right)

Fortman Marina (to the left)

Photo 1 (P1): Grant Street Boat Ramp

Photo 2 (P2): Grant Street Boat Ramp

Photo 3 (P3): Fortman Marina's fishing pier

Appendix E

Emergency Discharges of Firefighting Foam and Water

Final Regional Firefighting Emergency Discharges Work Group Report

Tips for Fire Restoration Contractors

Tips for Fire Prone Sites

BAY AREA MUNICIPAL
STORMWATER (BAMS) COLLABORATIVE

Regional Firefighting Emergency Discharges Report

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.15.b.iii.(2)

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, 2025

TABLE OF CONTENTS

List of Figures

List of Tables

1 INTRODUCTION

This Regional Firefighting Emergency Discharges Report (Regional Report) was prepared by the Bay Area Municipal Stormwater Collaborative (BAMS Collaborative) to address discharges associated with emergency firefighting activities. The Regional Report was developed in compliance with the Municipal Regional Permit (MRP) for urban stormwater, adopted on May 22, 2022, by the San Francisco Bay Regional Water Quality Control Board (Permit Order No. R2-2022-0018, MRP 3.0), Provision C.15.b.iii. Emergency Discharges of Firefighting Water and Foam. Overall, 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 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 Report in fulfillment of MRP Provision C.15.b.iii.

1.1 PURPOSE AND STRUCTURE OF THE REGIONAL REPORT

The purpose of the Regional Report is to describe progress on, and recommendations regarding the implementation of items in MRP Provision C.15.b.iii.(2), which is intended to address discharges of firefighting water and foam associated with emergency firefighting activities that may impact water quality as described in the next section.

This Regional Report does not address discharges of firefighting water and foam associated with non-emergency firefighting activities, such as training. These discharges are neither exempted nor conditionally exempted by Provision C.15. If there are discharges to storm drain systems or watercourses of firefighting water and/or foam (or other non-stormwater) associated with non-emergency (e.g., training) firefighting activities, then Permittees would address those illicit discharges under their Illicit Discharge Detection and Elimination (IDDE) programs as required in MRP Provision C.5.

The Regional Report summarizes key discussions from the Regional Firefighting Discharges Work Group (Regional Work Group) meetings (described in Section 1.3), along with insights gathered from separate meetings with local firefighting departments and post-fire restoration contractors. The sections and sub-sections of the Regional Report directly align with the best management practices (BMPs) outlined in C.15.b.iii.(2) and the MRP Fact Sheet. Specific scenarios discussed and important findings from the Regional Work Group are highlighted in text boxes for clarity.

1.1.1 Best Management Practices for Addressing Firefighting Discharges

Firefighting discharge BMPs described in the Regional Report can be broadly grouped into three categories:

- **Procedural BMPs**: These involve operational steps and communication protocols, such as incident notification procedures, and inter-agency coordination.
- **Administrative BMPs:** These BMPs guide operational choices during firefighting incidents, and include staff training on environmentally responsible foam use, procurement policies for eco-friendly foams, and recordkeeping and reporting systems for discharge events.
- **Structural BMPs**: These are physical or engineered solutions to prevent or mitigate water quality impacts, such as storage and disposal of unused foam, use of dechlorination tablets, and storm drain protection during post-fire cleanup.

Additionally, emergency firefighting operations can be categorized into pre-emergency operations, emergency operations, and post-emergency operations. Firefighting discharge BMPs differ based on the phase of the operation, as described in the below examples.

- **Pre-Emergency BMPs:** Staff training, communication and reporting procedures, Standard Operating Guidelines[1] (SOGs), and foam procurement.
- **Firefighting BMPs:** Using foam only when necessary and applying the minimum effective amount of foam.
- **Post-Fire BMPs:** Collecting and properly disposing of residual foam and water, following appropriate documentation and reporting procedures.

The BMPs implemented before, during, and after emergency firefighting activities all play a role in addressing water quality impacts from emergency discharges of firefighting foam and water as shown in Figure 1-1. Recommendations or suggested BMPs in this Report do not override the priorities of fire departments during an emergency, i.e., preservation of life and property before the environment. This effort is intended to support BMPs to limit the impact of fire-fighting related discharges, with an emphasis on containment and cleanup as well as appropriate communication/procedures to reduce water quality impacts.

[1] The MRP calls for Standard Operating Procedures (SOPs) to be developed, but this type of documentation is not common or recommended for firefighting activities. Given the unique and variable conditions presented with each fire event, SOGs are the more common and preferred approach for firefighting, not Standard Operating Procedures (SOPs).

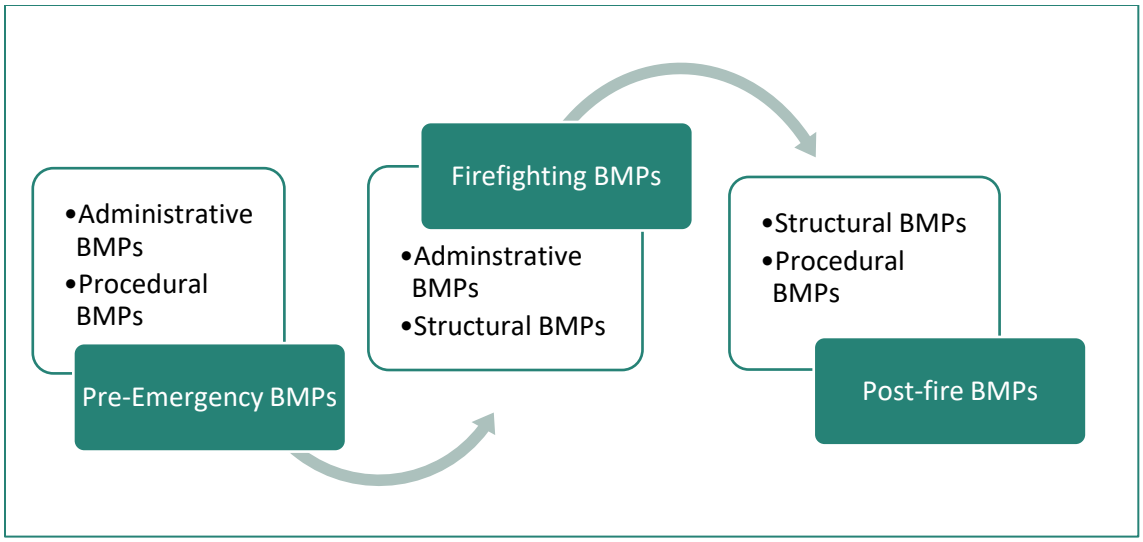


Figure 1-1 Interrelationship of Firefighting Emergency Discharge BMPs

The discussions of BMPs/SOGs and resulting recommendations are intended as examples for local municipalities and firefighting departments when evaluating strategies to mitigate the impact of emergency firefighting foam and water. These recommendations should not be regarded as standard practices for all municipalities or firefighting departments. The Regional Work Group plans to continue exploring this issue and will develop additional guidance as needed.

1.2 REGULATORY BACKGROUND

MRP Provision C.15.b.iii.(2) requires Permittees to collectively convene the Regional Work Group with Regional Water Board staff to identify and evaluate opportunities to reduce the impacts of emergency discharges to the MS4 associated with firefighting activity. It also requires the Regional Work Group to address the following:

- Assessment of existing BMPs to address the potential adverse water quality impacts of firefighting water and foam discharged during emergencies (e.g., containment and cleanup), including coordination within and between municipal departments, districts and jurisdictions, coordination between firefighting personnel and containment and cleanup crews, coordination with contracted staff, and coordination with relevant agencies (e.g., CalFire), as appropriate.
- Based on this assessment, identification of the adequacy of existing BMPs. If needed, suggest changes to those BMPs or develop new model BMPs. Types of BMPs referenced include:
    - Using least environmentally harmful firefighting foams.
    - Proper disposal of more environmentally harmful firefighting foams.
    - Reducing the use of firefighting foams during emergencies.

- Assessment of the adequacy of existing resources (e.g., MS4 maps and maps that identify environmentally sensitive areas) used to determine if and how firefighting water and foam discharged during emergencies will impact receiving waters.
- Investigation into which firefighting foams are the least environmentally harmful.
- Discussion on reporting on emergency discharges of firefighting water and foam.
- Development of outreach materials on containment and cleanup BMPs for contractors hired by private parties.
- Development of outreach materials with good housekeeping practices and preventive measures for sites that are prone to firefighting emergencies.

As required by the MRP, the Regional Work Group must develop this Regional Report and submit it to the Regional Water Board by September 30, 2025. The MRP also requires implementation of the Regional Report recommendations to begin following the submittal.

1.2.1 MRP Fact Sheet

The MRP Fact Sheet provides additional explanations, reasoning, and references to support the inclusion of provisions in the MRP. For Provision C.15.b.iii, the Fact Sheet references 40 CFR and 64 Fed. Reg., which states that discharges or flows from firefighting activities are excluded from the effective prohibition against non-stormwater and need only be addressed where they are identified as significant sources of pollutants to waters of the United States. The regulation indicates that significance is determined with reference to the category of discharges, not individual fires. Specifically, the 64 Fed. Reg. text states that if an MS4 is concerned that flows from firefighting are, as a category, contributing substantial amounts of pollutants to their system, they can develop a program to address those flows prospectively. While the Fact Sheet acknowledges the intent described in 40 CFR and 64 Fed. Reg., it deviates by asserting that water quality impacts from individual fires can illustrate the significance of the category of discharges. To support this, it lists 11 examples (not an exhaustive list) of potable water discharges from non-fire-related activities (e.g., water providers) over a 14-year period and cites one fire-related example, described further below.

The Fact Sheet presents a more proactive approach to addressing concerns with discharges or flows from firefighting activities and aligns with the US EPA's PFAS Strategic Roadmap (US EPA, 2021). Provision C.15.b.iii provides an opportunity for Permittees to collectively gain a better understanding of the significance of the discharge type and potential adverse water quality impacts of firefighting water and foam discharged during emergencies.

Berkeley Incident

In April 2019, Berkeley firefighters were called to an emergency involving a cardboard recycling truck that had caught fire on the 1600 Block of Rose Street near the intersection of McGee Avenue. Prior to arrival of firefighters, those present on the scene attempted to stop the fire by using a handheld extinguisher and then compressing the contents of the truck, neither of which were successful. Initially, firefighters attempted to extinguish the fire solely with water. However, because there were gas tanks in proximity to the fire, they made the decision to use foam due to the explosion hazard associated with the gas tanks. Approximately, 20 gallons of Class A firefighting foam was used to extinguish the fire safely.

Cleanup. Once the fire was extinguished, the City's Public Works crews used vactor trucks and street sweepers to clean up the foam remaining onsite. When it was discovered that foam reached the storm drain and reached Codornices Creek, firefighters from both Berkeley and Albany tried to remove the top layer of foam from the creek surface utilizing equipment such as absorbent booms.

Reporting. The Fire Department had reporting protocols already in place. As a result, more than 20 local, regional, state and federal agencies were contacted by the Berkeley Fire Department to notify them of the incident. The City of Berkeley also sent Environmental Health and Toxics Management staff to investigate the incident further.

1.3 REGIONAL WORK GROUP

As required by the MRP, the Regional Work Group was established to discuss the requirements in MRP and collectively develop this Regional Report. The Regional Work Group consists of:

1. Municipal stormwater staff from MRP Permittee agencies.
2. Countywide Stormwater Program 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.
3. Firefighting and Certified Unified Program Agencies (CUPA) agencies who provided additional insight and information on BMPs designed to address non-stormwater discharges associated with firefighting activities, including the use of foams.
4. Representatives from regulatory agencies including the Regional Water Board and U.S Environmental Protection Agency (EPA) Region 9.
5. Outside agencies and organizations[2] that were contacted to request information and/or invited to participate. Organizations that participated and contributed information

[2] Other organizations that were contacted to request information and/or invited to participate in the Regional Work Group include the following: California Department of Forestry and Fire Protection (Cal Fire), Fire Fighting Foam Coalition (FFFC), California Department of Toxic Substance Control (DTSC), National Fire Protection Association (NFPA), The Academy (South Bay Regional Public Safety Training), and Petro-Chemical Mutual Aid Organization (PMAO).

include Toxic-Free Future, Clean Production Action, and Texas A&M University-San Antonio Institute for Water Resources Science and Technology.

The Regional Work Group met twice in each of Fiscal Years (FY) 22-23, 23-24, and 24-25.[3] In addition, separate meetings were held with individual local firefighting departments and post-fire restoration contractors to obtain their input. The Regional Work Group will continue to meet annually after the submission of the Regional Report.

The intent of the Regional Work Group meetings was to:

- Inform firefighting staff about the requirements in the MRP;
- Learn about existing BMPs for preventing stormwater pollution from firefighting activities;
- Understand the use of firefighting foam applications, including proper storage and disposal; and
- Obtain information on post-fire cleanup operations.

The information gathered from the Regional Work Group meetings has informed Sections 3 and 4 of this report. The information gathered in the Regional Work Group meetings has been supplemented with additional communication and research by Regional Work Group members outside of meetings.

1.4 WATER QUALITY

The MRP identifies discharges of potable water disinfectants, such as chlorine or chloramines, and pollutants associated with firefighting foams as the primary concerns that Provision C.15.b.iii is intended to address. A summary of potential water quality impacts of these pollutants is described below.

Since PFAS-containing foams are banned in California, any mention of pollutants associated with firefighting foams in the Regional Report refers exclusively to non-PFAS foams.

1.4.1 Potable Water Discharge

Firefighting activities may result in discharges of potable water to the storm drain system and ultimately, into creeks or rivers. EPA requires all water suppliers to treat drinking water with disinfectants, such as chlorine and chloramine, to kill pathogenic organisms (EPA, 2023). Chloramine contains both chlorine and ammonia, produces significantly lower levels of disinfectant byproduct, and remains in the water for a longer period.

Chlorine may become toxic to aquatic life at or above certain concentrations in the receiving water. Chlorine can damage the cells of fish gills, thereby reducing their ability to absorb dissolved oxygen from the water. Chloramine does not directly impact the gills; however, it will chemically bind to iron in the hemoglobin of red blood cells, which reduces the ability for oxygen to attach to blood cells. Concentrations of chloramine as low as 0.07 mg/L have been shown to be lethal to coho salmon in 96-hour studies (SFPUC, 2010).

[3] Meetings were held on the following dates: March 14, 2023, June 1, 2023, March 26, 2024, June 17, 2024, January 14, 2025, and April 22, 2025.

In the environment, chlorine and chloramine are relatively unstable and neutralized upon reaction with air, sunlight, landscaping, paved surfaces, and the storm sewer. For example, small discharges of potable water will interact with the soil particles found in the flow path, removing residual chlorine or chloramine (a process called "chloramine demand") before it enters the waterway. In these cases, dechlorination can occur passively (with no chemical addition) (CA-NV AWWA, 2019). Larger volumes of potable water that are discharged in close proximity to a waterway may pose an acute health risk to aquatic life without BMPs in place.

1.4.2 Firefighting Foams

There are two classes of firefighting foam typically used by fire departments: Class A and Class B. Class A firefighting foams are generally used on -flammable non-liquid materials, such as wood, paper, brush, and vegetation (e.g., wildland) and are widely used by many fire departments for structure fires. Class B firefighting foams are typically used only for flammable liquid fires (e.g., gasoline, oil, and jet fuel). The properties of the two classes of foams are described below.

Class A Firefighting Foams. Class A foam is formulated from hydrocarbon-based surfactants and increases the wetting effectiveness, which allows for greater penetration into the fire. It also gives water a foaming ability, which allows water to remain and cling to surfaces without runoff and absorbs more heat. Class A foams are generally considered nontoxic when used in a diluted form and will biodegrade over time (National Wildfire Coordinating Group, 1993).

Class B Firefighting Foams. There are two types of Class B foams used for fires: protein-based and synthetic.

Protein-based firefighting foams have three forms: Regular Protein Foam (PF); Fluoroprotein Foam (FP); and Film-Forming Fluoroprotein Foam (FFFP). Protein-based foams are formulated from hydrolyzed proteins, typically derived from natural animal by-products or other protein-rich materials. The hydrolyzed protein acts as the primary foaming agent, forming a thick, cohesive, and heat-resistant foam blanket. Since they are derived from natural proteins they can decompose naturally. This makes them more environmentally benign, especially compared to synthetic foams, though fluorinated variants may still pose environmental concerns.

Synthetic foams fall into three general categories: Aqueous Film Forming Foams (AFFF); alcohol-resistant aqueous film-forming foams (AR-AFFF); and fluorine-free foams (FFF, also called F3). The AFFF type foams typically contain perfluorooctanesulfonic acid (PFOS) or perfluorooctanoic acid (PFOA), which are part of the broader family of Polyfluoroalkyl substances (PFAS). These chemicals are highly persistent in the environment and are termed 'forever chemicals.' PFAS are highly mobile in soil and water allowing them to spread easily through the environment and making them difficult to find and remediate (Clean Production Action, 2021). Many PFAS bioaccumulate, or increase in concentration, up the food chain. A recent study conducted by the U.S. Centers for Disease Control and Prevention (CDC) outlines a host of health effects associated with PFAS exposure, including cancer, liver damage, decreased fertility, and increased risk of asthma and thyroid disease (Clean Production Action, 2021). PFAS foams are no longer allowed to be used in California (see Section 1.4.3 below). Fluorine-free foams are mostly based on hydrocarbon surfactants and are free of any fluorosurfactant. Although the

fluorine free foams do not contain PFAS, they still contain other unknown proprietary chemicals. However, the toxic effects for both fluorine and non-fluorine foams are considered relatively low. Fluorine free foams also tend to be biodegradable and do not persist in the environment or bioaccumulate, thus making them more environmentally benign than PFAS containing foams (Clean Water Action, 2024).

REGIONAL WORK GROUP FINDING:
In the Bay Area, Type 1 fire engines typically carry Class A foams.
Class B foams are used infrequently by municipal firefighting agencies. Many fire department representatives present at the Regional Work Group stated they rely on mutual aid (i.e., assistance from other nearby fire departments) in the rare instances where Class B foams are required. Class B foams are required at refineries and airports due to the likelihood of flammable liquid fires presenting risk to human safety and property at these locations.

1.4.3 Senate Bill 1044: PFAS Ban

In September 2020, due to the highly toxic and persistent nature of PFOS and PFAS (found in Class B firefighting foams), California passed and signed Senate Bill 1044 into law. This legislation banned the manufacture, sale, and use of PFAS in Class B firefighting foams in most applications starting on January 1, 2022. As a result, chemical manufacturers have started to develop substitute foams that do not contain PFOS or PFAS. Many of these types of foams do not contain fluorine. The law provides exemptions with later deadlines for facilities that meet various criteria, including the following:

- Terminals and oil refineries may apply for exemptions until January 1, 2028, for use on flammable liquid storage tanks greater than 120 square meters in surface area or for use on fuel-in-depth pools. Further extensions may be issued for terminals and oil refineries in cases where no clear, effective substitute is available. These extensions may be granted in two-year terms until January 1, 2032.

This law additionally sets reporting procedures for the use of PFAS-containing Class B foams and identified requirements for minimizing discharges of PFAS-containing Class B foams to the environment. All uses of PFAS-containing Class B foams must be reported to the State Fire Marshal's office within five business days, and the report should include the following:

- Identity of the foam,
- Quantity used,
- Total PFAS concentration,
- Application for which the foam was used, and
- Duration of the fire.

In addition, the use of PFAS-containing Class B foam must not allow any release to the environment, contain all releases onsite, implement containment procedures such as berms and ponds, dispose of all wastes in a manner that prevents environmental discharge, and report if any wastes are discharged to the environment. Since the legislation banned the manufacture, sale, and use of PFAS in Class B firefighting foams, these requirements now apply only to exempt facilities.

REGIONAL WORK GROUP FINDING:
Foam is typically preloaded into fire engines but, in general, fire departments avoid excessive use. One reason is that foams are expensive. The actual use of foam during emergency firefighting operations is determined by the incident commander for a particular fire and can vary on the scene. For some common fire types, such as vehicle fires, foam application is not the default as certain materials cannot be penetrated. Foam is typically stored on fire engines in five-gallon containers of concentrate. Firefighters use a batch mixing process to mix foam with water.

1.5 COMPLEXITY OF ISSUE

The Regional Work Group recognizes the significant value of regional collaboration, knowledge sharing, and resource exchange on the topic of emergency firefighting discharges. During the development of the Regional Report, participants expressed concerns that the Regional Water Board's proposed strategies in the MRP Fact Sheet do not fully address the underlying complexities, emphasizing that the challenges are more intricate than they appear. This section highlights several key factors that influence the implementation of the recommendations in this Regional Report.

1.5.1 Prioritization and Urgency

Managing emergency firefighting discharges, including water and foam, is highly complex with multiple, often competing considerations. The urgency inherent in firefighting operations significantly limits the time and focus available for addressing water quality during emergencies. Firefighting personnel, including municipal staff and contractors, are tasked with controlling immediate threats from the fire, leaving little time or resources to focus on managing potential discharges from water and foam used during suppression efforts. As outlined in the MRP, the priorities for firefighting operations are the protection of life, property, and the environment (in that order). In an emergency, firefighters need to balance the urgency of rapid, effective firefighting with the unpredictable nature of each situation. While mitigating water quality impacts are an important operational consideration, effectively deploying stormwater pollution prevention BMPs during emergency activities is difficult and in some cases in opposition to fighting the fire or saving lives.

Furthermore, the unpredictable nature of firefighting operations poses additional logistical challenges that complicate the execution of stormwater BMPs. Firefighters are often required

to leave the scene for other emergencies before they could address the environmental impacts of fire-related discharges. Each firefighting incident is unique, and the actions and decisions made in the moment can vary significantly based on the specific circumstances at hand. While stormwater programs implement established BMPs and SOPs for stormwater quality management , fire departments rely more on guidelines for pollution prevention due to the unique nature of fires and the evolving nature of each situation.

1.5.2 Organizational and Structural Complexities

The diverse structure of firefighting agencies in the Bay Area adds another layer of complexity to managing firefighting discharges as shown in Table 1-1. Not all fire departments are municipal entities; many are organized within special districts or county-level services. For example, the City of Emeryville is served by the Alameda County Fire Department; areas like Livermore and Pleasanton are served by the Livermore-Pleasanton Fire Department, a Joint Powers Authority; the cities of Moraga and Orinda are served by the Moraga-Orinda Fire Department, a special fire district, and the City of Los Altos contracts with the Santa Clara County Fire Department. In some jurisdictions the fire department may be the CUPA agency, that performs stormwater inspections or responds to hazardous material spills. In these instances, there may be a better internal understanding of stormwater pollution prevention, whereas other fire departments may not have any ongoing interaction with stormwater programs. These structural differences result in varying levels of resource availability, operational coordination, and organizational approaches, which have the potential to complicate containment and cleanup efforts in the context of emergency firefighting operations.

In the Bay Area, where fires (both municipal and wildfires) can be frequent and mutual aid from multiple fire departments is common, staffing shortages can further limit the availability of personnel to assist with post-fire discharge cleanup, making BMP implementation even more difficult.

Table 1-1- Bay Area Fire Departments by Permittee

Fire Department	Permittee(s) Being Served
Alameda County	
Alameda Fire Department	City of Alameda
Albany Fire Department	Albany
Berkeley Fire Department	Berkeley
Alameda County Fire Department	Dublin, Emeryville, Newark, San Leandro, Union City, and Unincorporated Alameda County
Fremont Fire Department	Fremont
Hayward Fire Department	Hayward
Livermore-Pleasanton Fire Department	Livermore and Pleasanton
Oakland Fire Department	Oakland
Piedmont Fire Department	Piedmont
San Mateo County	
Menlo Park Fire Department	Atherton, East Palo Alto, and Menlo Park
San Mateo Consolidated Fire Department	Belmont, Foster City, and City of San Mateo
San Mateo County Fire Department	Unincorporated San Mateo County

Fire Department	Permittee(s) Being Served
Central County Fire Department	Burlingame, Hillsborough, and Millbrae
Coastside Fire Protection District	Half Moon Bay
Colma Fire Department	Colma
North County Fire Authority	Brisbane, Daly City, and Pacifica
Redwood City Fire Department	Redwood City and San Carlos
San Bruno Fire Department	San Bruno
South San Francisco Fire Department	South San Francisco
Woodside Fire Protection District	Portola Valley and Woodside
Santa Clara County	
Santa Clara County Fire Department	Campbell, Cupertino, Los Altos, Los Altos Hills, Los Gatos, Monte Sereno, Saratoga, and Unincorporated Santa Clara County
Milpitas Fire Department	Milpitas
City of Mountain View Fire Department	Mountain View
City of Palo Alto Fire Department	Palo Alto
San Jose Fire Department	San Jose
Santa Clara Fire Department	City of Santa Clara
City of Sunnyvale Fire Department	Sunnyvale
Contra Costa County	
Contra Costa County Fire Protection District	Antioch, Brentwood, Clayton, Concord, Lafayette, Martinez, Oakley, Pinole, Pittsburg, Pleasant Hill, San Pablo, Walnut Creek, and Unincorporated Contra Costa County.
El Cerrito Fire Department, Kensington Fire Protection District	El Cerrito
Richmond Fire Department	Richmond
Moraga/Orinda Fire District	Moraga and Orinda
Rodeo/Hercules Fire District	Hercules
San Ramon Valley Fire Protection District	Danville and San Ramon
Solano County	
Suisun City Fire Department	Suisun City
Fairfield Fire Department	Fairfield
Vallejo Fire Department	Vallejo

1.5.3 Funding Constraints

Another major challenge lies in funding and the financial constraints posed by laws such as Proposition 218, which limits local governments' ability to raise funds for stormwater management. This constraint means that the costs associated with developing and implementing new BMPs for managing emergency firefighting discharges will increase the financial burden on municipalities. This is especially problematic given the existing stormwater management expenses municipalities already face. As a result, BMPs must be feasible, effective, and cost-efficient to ensure they are realistic and sustainable in the long term.

2 FIREFIGHTING FOAM BMPs

Section 1.4 describes the two main types of firefighting foams, i.e., Class A and Class B. Section 2 discusses the BMPs outlined in the MRP.

2.1 DETERMINING LEAST ENVIRONMENTALLY HARMFUL FOAMS

The MRP required the Regional Work Group to investigate which firefighting foams are the least environmentally harmful (i.e., have the least adverse water quality and beneficial use effects, including those related to biodegradation, biomagnification, bioaccumulation, and acute and chronic toxicity), for both Class A foams and Class B foams. Based on this evaluation, the Regional Work Group was then required to develop BMPs that: (1) prioritize the use of the least environmentally harmful foams during emergency responses and provide guidance for their appropriate disposal; and (2) minimize the overall use of firefighting foams without compromising the protection of life or property.

2.1.1 Phase out PFAS containing foam

As described in Section 1.4, Senate Bill 1044 banned the use of PFAS in Class B firefighting foams in most applications starting January 1, 2022. In the Regional Work Group, municipal firefighting departments reported they had already discontinued the use of firefighting foams with PFAS. The transition for airports took a longer period because the Federal Aviation Administration (FAA) had to approve the use of alternative foams.

In December 2022, the FAA was directed to develop a Transition Plan (termed the Aircraft Firefighting Foam Transition Plan) to transition from PFAS firefighting foam to a replacement firefighting foam (FAA, 2023). The FAA considers foams that meet the Department of Defense (DoD) fluorine-free foam military specification published on January 6, 2023, and certified by DoD to be acceptable.[4] In addition to identifying acceptable replacement foam, the Transition Plan includes research on cleaning procedures for equipment and vehicles with residual PFAS.

Regional Work Group Example Scenario:

The City of San José is currently in the process of procuring fluorine-free foam (F3) for the San José Airport Fire Department based on FAA guidance. San José will be following the guidance on properly cleaning and disposing of the old Aqueous Film-Forming Foam (AFFF) as provided in the FAA Cert Alert (National Part 139 CertAlert May 8, 2024 Department of Defense's (DoD's) Memorandum on Rinsing Aircraft Rescue Firefighting (ARFF) Vehicles Transitioning from Aqueous Film Forming Foam (AFFF) to Fluorine-Free Foam (F3). The Cert Alert recommends draining AFFF and then rinsing equipment once with water. However, it does not provide guidance on disposal and refers airports to their local jurisdictions. The City of San José opted to engage with an existing consultant for support on developing an approach to remove/dispose of old AFFF, clean all impacted equipment, and transition to a new F3 product.

[4] The DoD certified F3 foams can be found in the Qualified Products Database.

2.1.2 Selecting Environmentally Friendly Firefighting Foam

During Regional Work Group discussions, some fire departments expressed that they are already using or intend to use or purchase environmentally friendly firefighting foams. Safety Data Sheets (SDS) provided by manufacturers are used to make this determination.

Another tool to assist with the selection of environmentally-friendly firefighting foam is the use of products recommended by GreenScreen® for Safer Chemicals. Representatives from Toxic-Free Future and Clean Production Action presented information on the selection criteria for GreenScreen Certified® at a Regional Work Group meeting. The GreenScreen® certification aims to prevent regrettable substitutions for PFAS-containing firefighting foams and guarantees the absence of PFAS chemicals. Additionally, manufacturers of GreenScreen Certified® products have disclosed their entire formulation to GreenScreen® for Safer Chemicals. All formulations for certified products have been checked for potentially harmful chemicals including organohalogens, siloxanes, alkyl phenols, and over 2000 other chemicals of high concern. GreenScreen Certified® products have also been examined for acute aquatic toxicity in concentrate form. GreenScreen® has identified several potential replacement chemicals that should be avoided due to their persistent, bioaccumulative, and toxic effects to aquatic organisms. These include organohalogens, Siloxanes (D4, D5, and D6), Alkyl Phenols & Alkylphenol Ethoxylates and over 2,000 other chemicals of high concern . (GreenScreen Certified® Firefighting Foam fact sheet). The list of GreenScreen Certified® foams is available at this link: https://www.greenscreenchemicals.org/certified/products/category/firefighting

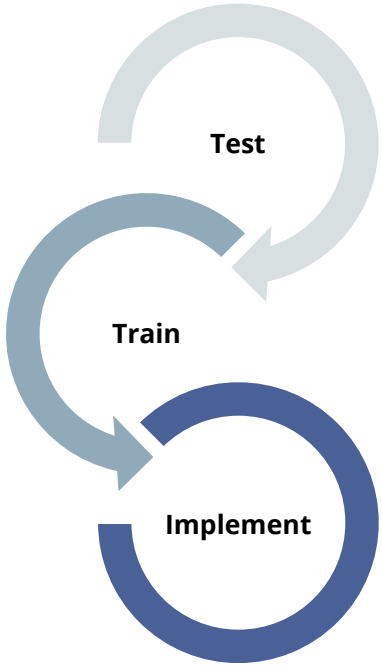


Figure 2-1 Process for Switching Foam Products

Discussions with a Firefighting Foam Coalition (FFFC) representative, a non-profit trade association representing foam manufacturers and distributors, stated that while some member manufacturers have opted into GreenScreen® certification, some manufacturers may be hesitant to disclose the entirety of their formulations to third party organizations. Discussions with both FFFC and GreenScreen® representatives illustrated that while presence on the GreenScreen Certified® products list may suggest lower potential for environmental harm, absence from the list does not suggest higher potential as there are many reasons that a product may be absent from the list unrelated to potential for environmental harm.

Making the switch to a new type of firefighting foam can be challenging. Decisions such as these have the potential to impact public and firefighter safety and, as such, cannot be made lightly. It is recommended that fire departments and their municipal partners thoroughly vet the SDS of potential foam products. To simplify the selection process, firefighting agencies may

consider choosing a GreenScreen® Certified product such as Micro Blaze-Out which has been implemented successfully in the Bay Area on several different fire types. Products such as this offer foam quality that can match Class A and B in most scenarios. The Alameda County Fire Department was one of the first in the Bay Area to switch to the Micro Blaze-Out foam. As shown in Figure 2-1, their approach can be broadly broken down into three phases, and may be used for other firefighting agencies looking to switch to environmentally-friendly foams:

Phase I: Test. Once a product is selected, obtain a small amount. Review the SDS and test the product with a qualified lab. Then, identify scenarios in which the product could be tested in the field. Start off slow and focus on small fires for testing. Obtain testimonials from firefighters on their experience.

Phase II: Train. Following testing of the product train firefighting staff on the new product. These trainings are generally provided by foam manufacturers. The method of application of the new product may be different and the way the foam looks on a fire may be different. The fluorine-free foam products are likely to look and act differently than the thick Class B foam that may be more familiar.

Phase III: Implement. Once the product demonstrates effectiveness through testing and training has been provided, plan for wider use and larger fires. Continue to collect testimonials to expand the understanding of effectiveness in different fires and incorporate processes for use.

2.2 PROPER DISPOSAL

Firefighting foam may need to be disposed of if it is deemed unsuitable (e.g., expired) or if it contains PFAS and can no longer be used. All types of firefighting foam should be properly stored with the appropriate BMPs in place to prevent contamination of stormwater runoff until they have been disposed. In preparation for disposal, coordination with solid and hazardous waste municipal departments can be an important first step. It is also typical to use private environmental contractors to remove and dispose of foam concentrates. In addition to stored foam, residue on equipment should be rinsed and disposed of properly. As mentioned earlier, guidance is available from the FAA regarding properly cleaning equipment and disposing of the rinsate and the foam.

As mentioned previously, the use of PFAS in firefighting foams in most applications was banned in California as of January 1, 2022. Any remaining PFAS containing firefighting foams need to be disposed. In 2024, the EPA developed interim guidance for destruction and disposal of PFAS containing materials. The guidance considers hazardous waste combustion facilities as an option for liquid PFAS. However, it notes that there are still uncertainties around the recommended disposal and destruction methods and their ability to prevent migration into the environment.

While most fire departments have disposed of PFAS-containing firefighting foam, there may be some remaining that have not. These departments could refer to the *Solutions for Firefighting Foam Transition* webinar, by CDM Smith, or the FAA Transition Plan research for guidance, and coordinate with the appropriate municipal staff handling solid and/or hazardous waste. If PFAS-

containing firefighting foam is determined to still be stored onsite, then proper labeling/signage must be provided and BMPs such as berms and covers must be implemented to avoid accidental use or spills.

REGIONAL WORK GROUP FINDING:
The majority of Bay Area fire departments have already disposed of all PFAS-containing Class B foams through enlistment of private environmental contractors or through Mutual Aid/Petrochemical Mutual Aid Association. They reported significant costs to dispose of the foams. Trade association representatives to the Regional Work Group noted that environmental waste disposal groups currently store hazardous PFAS-containing Class B foams in accordance with local regulations, but these organizations are currently awaiting further guidance from regulators about proper methods for disposal.

2.3 PROPER USE OF FIREFIGHTING FOAM

Foam can rapidly extinguish fires, has saved many lives, and has reduced the loss of property. Rapid fire extinguishment also reduces some environmental impacts, especially related to air quality. Use of foam can also reduce the amount of water needed to extinguish a fire. Firefighters are trained on foam application basics in the Firefighter I curricula. The use of foam during emergency firefighting operations is determined by the firefighter Incident Commander (IC). The person who assumes the role of IC varies based on the incident, department, and qualifications of personnel. While pre-planning foam usage prior to arriving at an emergency event is not always possible given the unpredictable nature of emergencies, there are some BMPs that can be incorporated generally into firefighting practices and applied as appropriate and feasible based on unique scenarios. These BMPs are described in Sections 2.3.1-2.3.4.

The MRP calls for SOPs to be developed, but it should be noted that this type of documentation is not common or recommended for firefighting activities. Given the unique and variable conditions presented with each fire event, SOGs are the more common and preferred approach for firefighting. These allow for incident command to have onsite flexibility to make decisions freely using best professional judgement based on the particular conditions and with an emphasis on securing the safety of life and property as quickly as appropriate.

2.3.1 Avoid the use of firefighting foam when it is not necessary

From discussions with the Regional Work Group and individual representatives it is understood that, generally, Bay Area fire engines are pre-loaded with Class A foams. Firefighters are trained on the use of the proper firefighting foam depending on the type of fire in the Firefighter I curricula.

Incident command and firefighters should consider incorporating the use of foam into adaptive management planning for emergencies if they do not already.

Some fire departments incorporate certain levels of pre-planning prior to arriving at the emergency scene and plan to use only water if the conditions are appropriate. For example, if

the type of fire can typically be extinguished with water alone and there is sufficient water supply then a water-only approach is implemented. Based on whether the water-only approach is effective or whether conditions change making it less optimal, a new approach that includes the use of foam may be necessary.

Fire departments are investigating and piloting alternative BMPs for extinguishing challenging fires (e.g., battery fires), such as fire blankets, submersion pits, and cutter extinguishers. These methods can help reduce the volume of firefighting foam and water used, thereby minimizing the potential for runoff containing toxic materials.

2.3.2 When firefighting foam is used, limit the amount used

From discussion with Regional Work Group members, it is understood that incident command can incorporate consideration of the amount of foam needed for extinguishing a fire as time allows. The preferred approach is that just enough foam be applied to accomplish the task and ideally, no more. The Regional Work Group found that fire departments typically avoid excessive use of foam primarily because they are expensive. However, environmental conditions should continue to be acknowledged and enhanced as an influencing factor for following training guidelines on the amount of foam to use.

Firefighters responsible for mixing the foam with water in the field and application of foam receive additional training.

2.3.3 Use the proper firefighting foam, depending on the type of fire

As described earlier, the two main types of firefighting foams are Class A and Class B. Class A generally poses a less significant impact on the environment and is generally prioritized when it is an option. Examples of when Class A foams can generally be prioritized, include, but are not limited to wildland fires, residential, and structural fires.

Class B foam is generally limited only to situations that pose a significant flammable liquid hazard to reduce environmental impacts. Examples of where significant flammable liquid hazards may be present include airport operations, storage tanks, terminals and petroleum/chemical processing, highway and rail transportation, marine and military applications, industrial facilities, and some power generating facilities. Class B foams may not be necessary for smaller flammable liquid threats such as automobile fires without a significant fuel spill, or electric vehicle fires caused by batteries, and these should be evaluated for water or Class A foam use by the incident command (Firefighting Foam Coalition, 2016).

REGIONAL WORK GROUP FINDING:
Some fire departments do not have Class B foam which makes the decision to use it more strategic as they would need to specifically call for mutual aid. In this case, the Class B foam is still limited based on incident command guidance.

Firefighters are trained on the selection and use of firefighting foam based on the type of fire in the Firefighter I curricula.

2.3.4 Discourage the use of firefighting foam where it may discharge to receiving waters.

Firefighting foam usage depends on the type of fire and material burning. In general, applying BMPs focused on avoiding, limiting, and proper use of firefighting foam is a robust approach supporting areas discharging to receiving waters, including those that may have sensitive habitat, such as habitat for special status species. To further avoid impacts on receiving waters, BMPs related to Emergency Firefighting Activities (Section 3) should be emphasized and training and/or outreach should be provided to inform firefighters on environmental considerations.

Regional Work Group Example Scenario:

The Alameda County Fire Department responded to a fire directly adjacent to the Bay at the San Leandro Marina. The firefighter in incident command had been informed of the environmental impacts of foam to receiving waters and implemented a water-only approach. It proved to be effective for the particular fire scenario and, as a result, prevented the likely discharge of Class A foam to the Bay.

Firefighting training on the use of foams is a standard for fire departments. If water quality considerations are not included in the training platforms or resources currently being used by the fire department, municipal staff could work with the fire departments to develop training or outreach materials. These materials would provide a connection between the training fire department personnel receive on the appropriate use of foam and how implementing that training also benefits water quality.

3 EMERGENCY FIREFIGHTING ACTIVITIES

As stated previously, and throughout this Regional Report hereafter, the focus of firefighters during an emergency fire response is on protecting life, property, and the environment (in that order). To address the protection of the environment, this section describes the coordination between municipal departments, firefighting agencies, and cleanup crews before, during, and after an emergency. This section also discusses the BMPs for managing stormwater pollution from emergency firefighting discharges.

3.1 COORDINATION AND COMMUNICATION

The MRP identifies communication and coordination between both municipal staff (e.g., fire, public works, environmental services) and external responding agencies (e.g., CalFire, special district fire departments) as a possible BMP. The Regional Work Group identified coordination and communication between responding fire departments and relevant municipal staff as a crucial BMP.

Coordination opportunities, processes, and level of effort may vary widely among municipal jurisdictions given the varied organizational structures of fire departments serving communities and size and resources of the municipality. For example, the City of Emeryville is served by the Alameda County Fire Department. In addition to coordinating with the Alameda County Fire Department, they may also need to coordinate with the cities of Dublin, Newark, San Leandro, and Union City, and Alameda County, who are also served by the Alameda County Fire Department, to ensure consistent objectives.

Regional Work Group discussions suggest that the first step for establishing coordination between municipalities and fire departments is to identify key contacts within each agency. As contacts are identified, their roles and responsibilities can be considered within the context of emergency fire discharges. From there, an organization or contact chart can be created, and updated as needed. Several agencies have established procedures for ongoing coordination (e.g., as-needed meetings or emailed updates) as changes to contacts, policies, and procedures occur. These meetings offer opportunities to debrief on lessons learned either via incident report sharing or other internal coordination (e.g., meetings).

Regional Work Group Example Coordination Scenario:

The City of San José Environmental Services Department has identified representatives from the City of San José Fire Department and City of San José Airport Fire Department to attend periodic meetings. The purpose of these meetings is to review implementation of the MRP requirements, review any recent CalOES reported discharges, and discuss lessons learned.

Based on conversations within the Regional Work Group and individual conversations with fire departments, there are instances when additional coordination beyond fire department and municipal staff is needed. There are many local, regional, state, and federal agencies that may need to be notified at different points during or following an emergency fire discharge event. These may include county health departments, California Department of Fish and Wildlife (CDFW), Regional Water Board, or the EPA. In Regional Work Group discussions, it was noted that fire response teams often initiate this external coordination.

Municipal staff can work with their fire departments to designate municipal points of contact and establish clear lines of communication. This collaboration can support the development of mutually agreed-upon policies or procedures that may be necessary during emergency firefighting responses (see Section 3.2).

Some general topics identified in emergency response policies or procedures may require regular review, maintenance, and updates at defined intervals. If not already incorporated into existing agency protocols, municipalities can develop a coordination strategy to document key components such as points of contact, roles and responsibilities, organizational structure, urgency thresholds, and coordination topics or meeting schedules. Where appropriate, municipal staff may be able to leverage or integrate existing procedures and contacts from their illicit discharge detection and elimination programs or Hazardous Materials Response Teams to support this effort.

3.2 CATEGORIZING FIRE TYPES AND ESTABLISHING BMP/SOG IMPLEMENTATION BASED ON CATEGORIZATION

To further support the process described in Section 2.3, municipal staff can work with fire departments to understand different types of fires at a high level and identify appropriate BMPs for each.

While each fire event will be different and present unique challenges, there may be an opportunity to establish general guidelines or BMPs for categories or types of fires. For example, fire departments could contact the identified municipal point-of-contact if foam is used in certain situations, and communicate other stormwater-relevant details, as determined in the coordination process.

Regional Work Group Example Scenario:

The City of Berkeley Department of Public Works has requested the Berkeley Fire Department contact them when foam is used in fighting fires.

Municipal staff are encouraged to coordinate with their local fire departments to define reasonable thresholds and categories of fire incidents that would warrant notifying the municipality. This could be done when developing policies and procedures (see Section 3.1). The determinations will differ based on variables such as the size of the jurisdiction, the frequency of firefighting emergencies, and the type of land uses/facilities/structures. Determinations of when fire departments communicate with municipal staff will also differ based on the established outcomes needed of municipal staff involvement (e.g., deploying staff or contractors to assist with BMPs for post-fire cleanup, making observations of potential receiving water impacts, being notified of additional fire department response activities, etc.).

3.3 RESOURCES AVAILABLE TO DETERMINE POTENTIAL RECEIVING WATER IMPACT

Municipalities maintain MS4 maps, which can be valuable tools for understanding the location of fire incidents in relation to creeks, stormwater infrastructure, and sensitive habitats. These maps may help determine appropriate BMPs to implement to protect nearby water bodies. For example, “proximity to a creek” could serve as a key incident category for selecting BMPs during emergency response efforts. MRP Provision C.5.f. requires permittees to review current MS4 maps, identify missing information and develop a plan and schedule for updating the maps. The plans are due with the September 2026 Annual Reports. Through this process permittees can ensure they have adequate MS4 maps to assist with their determination of appropriate BMPs based on the location of the fire (e.g., proximity to creek). Depending on the communication procedures established with local fire departments, these maps could be made available to dispatch personnel, fire department incident commanders, designated municipal contacts or other outside agencies that may be involved in illicit discharge responses (CDFW, California Office of Emergency Services (CalOES), etc.), as determined when coordinating the communication plan.

In accordance with MRP Provision C.5.c.ii.(5), municipalities are required to maintain and regularly update a spill, dumping, and complaint response system. This includes a phone

number and a response flowchart or phone tree that outlines the roles and contact information of various agencies responsible for responding to incidents that exceed the Permittee's immediate capabilities. Municipalities may consider sharing these tools with their fire departments to support more coordinated and informed responses to discharges of firefighting water and foam, particularly those with the potential to impact receiving waters.

Additional resources for responding to and mitigating impacts from emergency fire discharges include municipal staff in stormwater programs, county hazardous materials departments, and public works, police, and fire departments. Each of these entities can play a supporting role in identifying, preventing, and reducing pollutant discharges to creeks and the Bay during emergency firefighting activities.

3.4 DISCHARGE BMPS

The MRP requires the Regional Work Group to discuss BMPs for the containment and cleanup of discharges of firefighting water and foam associated with emergency firefighting activities. This section summarizes the discussions and Regional Work Group findings.

3.4.1 Plugging storm drain inlets

Plugging storm drain inlets is not always the preferred BMP during emergency activities for preventing discharges to the issues highlighted below:

- **Flooding and Safety Risks:** Blocking storm drain inlets can cause street flooding, which poses serious hazards for first responders. Flooded streets can impede victim evacuation, cause fall/slip hazards, disrupt emergency vehicle and firefighter movement, and compromise overall response effectiveness.
- **Limited Equipment Space**: Fire apparatus is designed to carry essential health and safety equipment. Due to space constraints, there is typically no room to store materials needed for blocking or plugging storm drains.
- **Operational Priorities**: Firefighters must remain focused on life-saving operations. Diverting attention to storm drain management without adequate personnel can interfere with critical emergency response duties.

REGIONAL WORK GROUP FINDING: *Firefighting and municipal personnel have expressed significant concerns regarding the impacts that plugging storm drains could have such as safety hazards, flooding, property damage, traffic and access issues. Therefore, implementation of BMPs such as plugging storm drain inlets to keep water and foam onsite are considered after emergency actions being taken by fire department personnel have ceased.*

Considering the challenges associated with fire personnel implementing BMPs related to storm drain protection, emphasis should be placed on improving coordination such that response times from cleanup crews that can implement BMPs after emergency activities are over is improved.

All firefighters receive the First Responder Awareness (FRA) training, which includes information on blocking storm drain inlets. Information on containment is also included in the hazardous materials training for firefighters (e.g., Fire Fighter 1B Course Plan). . In addition, several fire departments host or send staff to Firefighter Academy trainings. However, the Regional Work Group was not able to obtain copies of the training curriculum to review these trainings' stormwater protection BMPs.

As previously mentioned in Section 2.3.4, an emphasis should be placed on stormwater pollution prevention training or outreach for firefighters. As awareness of stormwater pollution prevention is improved, better decisions can be made during emergencies that could result in municipal staff and/or cleanup crews responding in an efficient and timely manner. Training or outreach to firefighters on important aspects like surveying onsite drainage patterns associated with firefighting activities could help minimize polluted discharges during fire response and abatement. This training can empower firefighters to direct containment or cleanup crews appropriately as they anticipate the need, based on the emergency location drainage.

3.4.2 Dechlorinating discharges

With emphasis on prioritizing the use of water only to extinguish fires, it is important to consider BMPs to address chlorinated or chloraminated water runoff. Some fire departments have considered the use of dechlorination tablets or mats, which take up minimal space on fire engines and can be placed in the flow path (e.g., curb and gutter) when emergencies occur near sensitive water bodies. However, in most cases, if large volumes of water are being discharged, during an active emergency, it is likely that fire department personnel will be focused on the protection of life and property. Therefore, practical implementation of active dechlorination during such events may be limited.

Passive dichlorination may occur when there is enough time and/or distance between the discharge and the receiving water. The effectiveness of passive dechlorination will be different for water disinfected with free chlorine than chloramine, which is more persistent in the environment.

3.4.3 Coordination with containment/cleanup crews

Based on discussions within the Regional Work Group and individual conversations with fire departments, there is general recognition of the importance of clearly identifying roles and responsibilities when emergency discharges of water or foam affect the public right of way. Effective coordination between firefighting crews and containment or cleanup personnel can help support timely and appropriate response actions.

Some agencies have found that response efficiency can be improved through clear workflows and thresholds for engaging internal or external cleanup support. This may be addressed through established guidance, emergency response plans, or informal coordination strategies.

In certain cases, making this information accessible to firefighters in the field, or automating response actions based on fire alarm levels[5], has proven useful.

Where staff capacity or equipment limitations exist, some municipalities have explored the use of contractors to assist with spill containment and cleanup. In these cases, administrative contracts, interagency agreements, or pre-qualified contractor lists have been used to help expedite response times of the contractors when needed. These tools generally support the administrative process and do not incur costs unless services are activated.

Existing emergency procedures developed by other departments, as well as stormwater programs, related to spills, illegal dumping, and complaints may offer useful models for establishing internal processes that enable timely response. Where used, response contracts may include scopes of work that provide access to best management practice expertise, equipment, and supplies (such as absorbent booms, berms, or storm drain inlet covers), along with required incident documentation and reporting deliverables.

4 REPORTING

In California, the Comprehensive Environmental Response, Compensations, and Liability Act (CERCLA) requires immediate reporting by the responsible person of any significant release or threatened release of a hazardous material to Cal OES State Warning Center (800) 852-7550.[6]

The Cal OES State Warning Center provides a standard Hazardous Materials Spill Report that is filled out and submitted by the person responsible, which may include fire personnel in the case of emergency firefighting discharges that include foam concentrate. The MRP fact sheet states for firefighting personnel, the reportable quantity of hazardous material released to the environment is five gallons and that five gallons of firefighting foam is the size of a typical concentrated foam container). . The form includes a section for a description of the incident, substance type, and amount discharged. This form also serves as a mechanism for triggering reporting for other agencies and includes a section for the contact information of the applicable agency representatives. As was exemplified in the Berkeley incident, the Fire Department had reporting protocols in place and, as a result, more than 20 local, regional, state and federal agencies were notified of the incident by the Berkeley Fire Department.

The Cal OES Spill Release Reporting Notification Guidance recommends notifying the appropriate Regional Water Board for significant waterway spills or releases. A review of Cal OES records from 2019-2024 show that firefighting water and foam discharges are routinely reported in Cal OES. The Cal OES State Warning Center provides a standard report that provides agencies (including the Regional Water Board) with a transparent source of information about the usage of firefighting water and foam when it reaches a creek. In previous years, Regional

[5] Fire alarm levels are used by fire departments to communicate the severity of a fire, the number of firefighters needed, and how long it will take to reach the fire. The levels range from one to five, with each level requiring more resources than the previous.

[6] https://www.caloes.ca.gov/office-of-the-director/operations/response-operations/fire-rescue/hazardous-materials/spill-release-reporting/

Water Board staff have followed up with municipal Permittees to request more information regarding emergency firefighting discharges reported through CalOES, demonstrating CalOES is a sufficient reporting method. The State's system and Spill Release Archive Files webpage serves as a tool that can be used for tracking incidents of foam discharge over time.

Senate Bill 1044, which banned the manufacture, sale, and use of PFAS in Class B firefighting foams in most applications, sets reporting procedures for use of PFAS-containing Class B foams and identifies requirements for minimizing discharges of PFAS-containing Class B foams to the environment. All uses of PFAS-containing Class B foams are to be reported to the State Fire Marshal's office within five business days, and the report should include the following:

- Identity of the foam,
- Quantity used,
- Total PFAS concentration,
- Application for which the foam was used, and
- Duration of the fire.

A public records request submitted to CalFire indicated that California firefighting agencies have not reported any use of PFAS-containing foam in 2022, 2023, and 2024. This indicates that the use of PFAS-containing firefighting foam has been phased out.

Regional Water Board and local municipalities receive CalOES reports that meet the intended purpose for reporting as described in the MRP, and discharges of PFAS foam are reported to the State Fire Marshal's office. Therefore, additional reporting through the MRP stormwater annual reports is not required.

5 OUTREACH MATERIALS

The MRP requires the development and distribution of the following outreach materials:

- Containment and cleanup BMPs for contractors that are hired by private parties to participate in the containment and cleanup of discharges of firefighting water and foam associated with firefighting activities.
- Good housekeeping practices and preventive measures for sites that are prone to firefighting emergencies.

Regional Work Group representatives met with two fire restoration contractors to obtain information on standard procedures for containment and cleanup operations. Based on this information, additional research, and knowledge of typical spill prevention and clean up BMPs, standard BMPs for these operations were developed. The standard BMPs were provided to Countywide Stormwater Program representatives for internal review. The BMPs were formatted according to each Program's standard fact sheet/brochure template and revised based on comments received from member agencies. Each Countywide Stormwater Program distributed the fact sheets/brochures to local fire restoration contractors in the summer of 2025. Some fire restoration contractors operate in multiple locations and have received fact sheets from more than one Countywide Stormwater Program. The Regional Work Group agreed that this duplication is appropriate, as it highlights the regional scope of the requirement and

ensures that contractors have access to contact information specific to each Countywide Stormwater Program.

Regional Work Group Countywide Program leads shared BMPs developed for good housekeeping practices and preventive measures for sites that are prone to firefighting emergencies, as identified by individual Permittee agencies and/or at the Countywide level. These BMPs focus on ongoing practices that minimize the flow of firefighting water, foam, and other debris into the storm drain system during emergency firefighting activities. The Countywide Stormwater Programs provided BMP fact sheets on this topic to their member agencies for internal review, and revised BMPs according to feedback received. Individual Permittees have distributed their corresponding countywide program fact sheets to facilities they identified within their jurisdictions through direct mailing or inspection programs.

6 CONCLUSIONS AND RECOMMENDATIONS

As required by the MRP, a Regional Work Group consisting of municipal staff, firefighting agency representatives, regulatory agency representatives, and other interested parties was formed to discuss emergency discharges (i.e., water and foam) associated with firefighting that impact water quality and develop recommendations for addressing these discharges. The Regional Work Group met a total of six times from FY 22-23 to FY 24-25. Based on the discussions at the Regional Work Group meetings and additional conversations with fire department representatives, it appears that discharges of foam and water during firefighting activities are being controlled to the extent possible, i.e., without hindering firefighting operations. PFAS containing foam was banned in 2022, foam is used only as needed, and several fire departments have reported using environmentally friendly firefighting foams. The Regional Work Group's information sharing identified BMPs, including programmatic improvements, that could be implemented by fire departments and municipal staff to reduce the impact on water bodies from emergency firefighting discharges. These recommendations are summarized below.

Recommendations for Managing Discharges from Emergency Firefighting Operations:
Information regarding storm drain protection BMPs and water quality impacts is included in the basic training received by all California firefighters. Deployment of stormwater management BMPs during an emergency firefighting situation depends on the conditions at the site and is not always recommended or feasible. The priorities for firefighting operations are the protection of life, property, and the environment (in that order). Therefore, as described previously, it is also essential to implement pre-emergency BMPs and post-fire BMPs. To address the protection of the environment, the Regional Report recommends the following:

- Municipal staff and firefighting agencies should consider reviewing their coordination and communication procedures for ensuring proper coordination between municipal departments, firefighting agencies, and cleanup crews to manage discharges to the MS4 that may impact water quality after the emergency is over.
- Municipal staff should maintain a spill, dumping, and complaint response flow chart, phone tree, or contact list that shows the various responsible agencies and their contacts, and who would be involved in illicit discharge incident response that goes

beyond the Permittee's immediate capabilities according to MRP Provision C.5.c.ii.(5). Municipalities can use this contact list or provide it to the fire department for use, as needed, for responding to discharges of firefighting water and foam that impact receiving water.

- Municipal staff and firefighting agencies should consider incorporating resource-sharing practices, such as providing access to drainage system maps and identifying critical drainage release points, where appropriate. This information can support, help prioritize, and potentially mitigate water quality impacts of firefighting activities.
- Passive dechlorination may be an acceptable BMP used to reduce chlorine in firefighting water discharges.
- Plugging/covering storm drain inlets is not recommended during active emergency firefighting activities due to the risk of flooding, street or traffic hazards, and potential infrastructure damage.
- If conditions allow, dechlorination tablets and storm drain covers/plugs may be considered during post-fire cleanup efforts in the public right of way as a tool to help prevent harmful discharges from reaching nearby waterways.
- Municipal staff and firefighting agencies should consider developing and delivering training materials or outreach on water quality impacts and applicable stormwater BMPs if not already available. These trainings or outreach should be made available to firefighters, municipal staff, and contractors involved in the containment and cleanup of discharges from firefighting emergencies.

Use of Foam during Emergency Firefighting Operations: PFAS containing foams are banned in California and all firefighting agencies that participated in the Regional Work Group confirmed that they have phased out the use of these foams. Foam is used because it can rapidly extinguish fires, has saved many lives, and has reduced the loss of property. Rapid fire extinguishment also reduces other environmental impacts, especially related to air quality. Use of foam can also reduce the amount of water needed to extinguish a fire. All firefighters receive training on foam application and are trained to use foam only when necessary. The Regional Report recommends the following for proper foam application guidelines to prevent water quality impacts:

- Firefighting agencies should continue to purchase and use the least environmentally harmful foams. Municipal staff can assist by making the resources identified in the Regional Report (e.g., Safety Data Sheets, GreenScreen Certified® products, example procedure for choosing the least environmentally harmful foams) available to their local fire departments.
- For those departments that have not yet disposed of PFAS-containing foams, it is recommended that they refer to *Solutions for Firefighting Foam Transition* webinar, by CDM Smith, or the FAA Transition Plan research for guidance, and coordinate with the appropriate municipal staff handling solid and/or hazardous waste.
- Fire departments should continue to ensure that personnel making decisions on the use of foam and overseeing deployment of foam are properly trained on the use of foam.

Reporting: In California, CERCLA requires immediate reporting of any significant release or threatened release of a hazardous material to the CalOES State Warning Center (800) 852-7550, and either UPA or 911. Senate Bill 1044, which banned the manufacture, sale, and use of PFAS in Class B firefighting foams in most applications, requires that all PFAS-containing Class B foams be reported to the State Fire Marshal's office within five business days. Therefore, additional reporting is not recommended. Municipal staff can work with their local fire departments to ensure the CalOES and State Fire Marshal's reporting systems are being utilized.

In conclusion, firefighting agencies recognize the importance of protecting water quality during emergency firefighting activities and are actively transitioning toward using environmentally friendly foams. In addition, programmatic improvements, such as increased coordination and communication with municipal agencies, and ongoing training will help address the water quality impacts from emergency firefighting activities. The combination of procedural, administrative and structural BMPs implemented pre-emergency (e.g., training), during emergency firefighting activities (e.g., appropriate use of foam) and post-fire cleanup (e.g., protection of storm drains) will address concerns with water quality impacts while ensuring fire department personnel prioritize the protection of life, property, and the environment(in that order).

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RESPONSIBILITIES FOR STORMWATER

Tips for Fire Restoration Contractors

Fire restoration involves cleaning, repairing, and restoring properties damaged by fire and smoke. These activities may involve removing firefighting water and foam used during emergency firefighting activities that remain on-site or in the public right-of-way. Fire restoration contractors are responsible for implementing best management practices (BMPs) to prevent pollutants from entering the street, gutter, or storm drain. The Clean Water Program's friendly and knowledgeable staff support businesses like yours in preventing water pollution and complying with stormwater regulations. The fact that you are reading this factsheet means you have already decided to take steps to do the right thing when you are conducting restoration activities after emergency firefighting activities. Thank you for keeping our water safe and healthy.

Help protect the Bay and local creeks by following these Best Management Practices (BMPs).

Plan and Prepare

- Avoid driving vehicles through the damaged site to prevent tracking out pollutants and contaminated soil.
- Locate storm drain inlets on and near the property, then protect those storm drain inlets during cleanup.
- Train staff on the BMPs in this fact sheet to prevent stormwater pollution and contain discharges.

Preventing Water Pollution

- Block or cover storm drain inlets to prevent materials from entering the storm drain system.
- Collect and remove any remaining firefighting water or foam. Do NOT allow the water or foam to enter the street, gutter, storm drain inlets, or nearby water bodies. If foam and/or other discharges enter storm drains or water bodies, contact your local stormwater agency for guidance (see below for contact information).

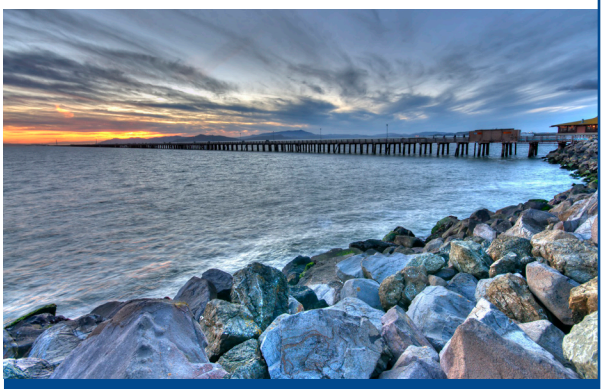
ALAMEDA COUNTYWIDE cleanwater PROGRAM

Protecting Alameda County Creeks, Wetlands & the Bay
cleanwaterprogram.org

Keep firefighting foam and water OUT of the storm drains.

Cleanup activities after use of emergency firefighting foam and water can result in the transport of pollutants such foam, water, wash water, and debris into the street or storm drains and can damage sensitive habitats and kill wildlife. Water flowing into storm drains travels directly to local creeks and then to **San Francisco Bay.** It does not go to a wastewater treatment plant.

Learn more about preventing water pollution and the Clean Water Program at **www.cleanwaterprogram.org**.



Preventing Water Pollution (Cont.)

- Clean outdoor areas with DRY cleaning methods such as sweeping, vacuuming, dry-mopping, and drying with absorbents or rags/towels.
- If water must be used, use berms or other protective barriers to isolate polluted areas from storm drain inlets. Use a wet-vac or a small pump and hose to collect and store wash water in designated containers or a holding tank for testing and proper disposal.

Proper Disposal

- Dispose of all debris, absorbent, and materials properly as hazardous waste or to the local landfill (if allowed). Learn more about disposing hazardous waste by contacting Alameda County Small Business Hazardous Waste (https://www.stopwaste.org/at-work/business-hazardous-waste/small-business-hazardous-waste-service) or calling 800-606-6606.
- Your local wastewater treatment plant may not allow these contained discharges, and need to be contacted for approval. If discharge to the sanitary sewer system is prohibited, haul off-site for proper disposal
- After the site is completely cleaned, remove storm drain inlet protection and ensure that storm drains are free of any contaminants or debris.

KEY DEFINITIONS

The ***Storm Drain System*** was built to collect and transport rain to prevent flooding in urban areas. Anything that flows or is discharged into the storm drain system goes directly into local creeks or San Francisco Bay without any treatment.

The ***Sanitary Sewer System*** collects and transports sanitary wastes from interior building plumbing systems to the wastewater treatment plant where the wastewater is treated.

ALAMEDA COUNTYWIDE cleanwater PROGRAM

ALAMEDA COUNTYWIDE CLEAN WATER PROGRAM

Simple changes to your operations and maintenance can help you comply with local regulations. The Clean Water Program makes it easy.

cleanwaterprogram.org

Local Stormwater Agencies

For advice on avoiding disposal to the storm drain system, contact:

Alameda	(510) 747-7930
Albany	(510) 528-5770
Berkeley	(510) 981-6400
Dublin	(925) 833-6630
Emeryville	(510) 596-3728
Fremont	(510) 494-4570
Hayward	(510) 881-7900
Livermore	(925) 960-8100
Newark	(510) 578-4286
Oakland	(510) 238-6600
Piedmont	(510) 420-3050
Pleasanton	(925) 931-5500
San Leandro	(510) 577-3401
Unincorp. Alameda County	(510) 567-5868
Union City	(510) 675-5308

For More Help

For advice and approval on wastewater disposal to the sanitary sewer system, contact:

Cities of Alameda, Albany, Berkeley, Emeryville, Oakland or Piedmont
East Bay Municipal Utility District (EBMUD) (510) 287-1651

Castro Valley
Castro Valley Sanitary District (510) 537-0757

City of Dublin
Dublin-San Ramon Services District (925) 828-0515

Cities of Fremont, Newark or Union City
Union Sanitary District (510) 477-7500

City of Hayward
City of Hayward (510) 881-7900

City of Livermore
City of Livermore (925) 960-8100

City of Pleasanton
City of Pleasanton (925) 931-5500

Cities of San Lorenzo, unincorporated portions of San Leandro and Hayward
Oro Loma Sanitary District (510) 481-6971

City of San Leandro
City of San Leandro (510) 577-3401

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RESPONSIBILITIES FOR STORMWATER

Tips for Sites Prone to Fires

Firefighting activities are essential for protecting life and property, but they can also pose significant risks to the environment if proper precautions aren't taken. Firefighting water, foam, ash, and other materials generated during emergency responses contain pollutants that, if not properly managed, may enter the street, gutter or storm drain. The Clean Water Program's friendly and knowledgeable staff support businesses like yours in preventing water pollution and complying with stormwater regulations. The fact that you are reading this factsheet means you have already decided to take steps to do the right thing when you are preparing to prevent stormwater pollution in the event of emergency fire fighting activities at your facility. Thank you for keeping our water safe and healthy.

Help protect the Bay and local creeks by following these Best Management Practices (BMPs).

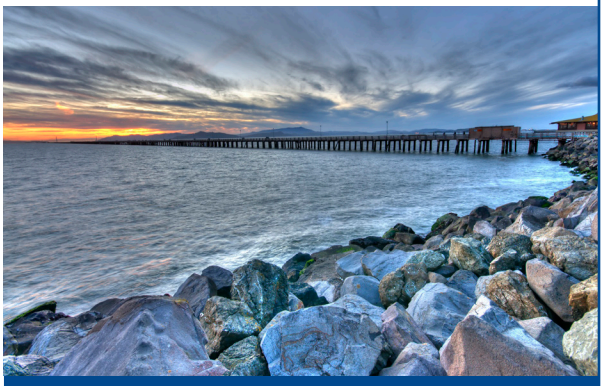
Plan and Prepare

- Ensure your facility has a plan for fire prevention, including regular inspections and maintenance.
- Ensure all staff members are trained in fire prevention practices, emergency response procedures and stormwater pollution BMPs.
- Store flammable materials chemicals in accordance with building and fire code requirements.
- Store materials like timber, pallets, and cardboard in designated areas away from the curb and storm drains. Cover small stockpiles of loose materials with tarps or other covers. Use perimeter controls around larger stockpiles to contain materials.
- Conduct a walk-through of the property and surrounding streets to identify locations of storm drain inlets so they can be protected during emergency response or clean up.
- Work with your local fire department to ensure compliance with fire prevention, and spill prevention and release regulations and establish procedures for stormwater pollution prevention and cleanup.

Keep firefighting foam and water OUT of the storm drains.

Cleanup activities after use of emergency firefighting foam and water can result in the transport of pollutants such foam, water, wash water, and debris into the street or storm drains and can damage sensitive habitats and kill wildlife. Water flowing into storm drains travels directly to local creeks and then to San Francisco Bay. It does not go to a wastewater treatment plant.

Learn more about preventing water pollution and the Clean Water Program at **www.cleanwaterprogram.org**.



ALAMEDA COUNTYWIDE cleanwater PROGRAM

Protecting Alameda County Creeks, Wetlands & the Bay

cleanwaterprogram.org

Plan and Prepare (Cont.)

- Have spill kits, absorbent mats, booms, and/or barriers on-site to contain firefighting runoff and prevent it from entering storm drains, streets, or water bodies.
- Plan a method for collecting and storing emergency firefighting water in designated bins for proper disposal.
- Have a pre-established contract with a fire restoration contractor and/or environmental remediation contractor for quick cleanup and proper disposal of firefighting runoff and materials.
- Ensure that emergency measures are in place to protect storm drains from discharges during firefighting events. These controls, such as mats to cover storm drain inlets, berms to block storm drain inlets, storm drain plugs, or installed storm drain inlet valves/locks, should be inspected regularly, maintained in good condition, and accessible for deployment when needed.

Post Fire Clean Up

- Clean outdoor areas with "dry" cleaning methods such as sweeping, vacuuming, dry-mopping, and drying with absorbents or rags/towels.
- If water must be used, then use berms or other protective barriers to isolate storm drain inlets. Use a wet-vac or a small pump and hose to collect and store wash water in designated containers or a holding tank for testing and proper disposal.
- Dispose of all debris, absorbent, and materials properly as hazardous waste or to the local landfill (if allowed).
- Your local wastewater treatment plant may not allow these contained discharges, and need to be contacted for approval . If discharge to the sanitary sewer system is prohibited, it must be hauled off-site for proper disposal.
- After the site is completely cleaned, remove storm drain inlet protection and ensure that storm drains are free of any contaminants or debris.

ALAMEDA COUNTYWIDE
cleanwater
PROGRAM

ALAMEDA COUNTYWIDE CLEAN WATER PROGRAM

Simple changes to your operations and maintenance can help you comply with local regulations. The Clean Water Program makes it easy.

cleanwaterprogram.org

Local Stormwater Agencies

For advice on avoiding disposal to the storm drain system, contact:

Alameda	(510) 747-7930
Albany	(510) 528-5770
Berkeley	(510) 981-6400
Dublin	(925) 833-6630
Emeryville	(510) 596-3728
Fremont	(510) 494-4570
Hayward	(510) 881-7900
Livermore	(925) 960-8100
Newark	(510) 578-4286
Oakland	(510) 238-6600
Piedmont	(510) 420-3050
Pleasanton	(925) 931-5500
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