

Appendix H-1

Mercury and PCBs Watershed/Management Areas Control Measures

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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

MERCURY AND PCBS WATERSHED/MANAGEMENT AREAS AND CONTROL MEASURES

Report prepared by

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Submitted to:

California Regional Water Quality
Control Board, San Francisco Bay
Region

FINAL

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Preface

This *Mercury and PCBs Watershed/Management Areas and Control Measures Implementation Report* was prepared by the Alameda Countywide Clean Water Program (ACCWP) per the Municipal Regional Permit (MRP NPDES Permit No. CAS612008; Order No. R2-2015-0049) 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.(2) and C.12.a.iii.(2) for reporting a list of the watershed/management areas where mercury and PCBs control measures are currently being implemented and those in which new control measures will be implemented during the term of this permit, along with the specific control measures and an implementation schedule.

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; and
- Zone 7 of the Alameda County Flood Control and Water Conservation District (Zone 7 Water Agency).

List of Acronyms

Acronym	Definition
ACCWP	Alameda Countywide Clean Water Program (also Program)
BASMAA	Bay Area Stormwater Management Agencies Association
BMP	Best Management Practice
DTSC	California Department of Toxic Substances Control
FY	Fiscal Year
GI	Green Infrastructure
GIS	Geographic Information System
mg/kg	milligram per kilogram
MPC	BASMAA Monitoring and Pollutants of Concern Committee
MRP	Municipal Regional Stormwater Permit
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
PCBs	Polychlorinated Biphenyls
POC	Pollutants of Concern
POTW	Publicly Owned Treatment Works
ROW	Right-of-Way
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board (also Regional Water Board)
SFEI	San Francisco Estuary Institute
TMDL	Total Maximum Daily Load
W/MA	Watershed / Management Area
WY	Water Year

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1 Introduction

1.1 Purpose and Report Organization

This *Mercury and PCBs Watershed/Management Areas and Control Measures* report was prepared by the Alameda Countywide Clean Water Program (ACCWP) per the Municipal Regional Stormwater Permit (MRP) issued by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB; Order No. R2-2015-0049). This report fulfills the requirements of MRP Provisions C.11.a.iii. (2) and C.12.a.iii. (2) for reporting a list of the watershed/management areas (W/MAs) where mercury and PCBs control measures are currently being implemented and those in which new control measures will be or have the potential to be implemented during the term of this permit, along with the specific control measures and an implementation schedule.

The following MRP reporting requirements are addressed within this report:

- The list of W/MAs where control measures are currently being implemented or will be implemented during the term of the Permit;
- The number, type, and locations and/or frequency (if applicable) of control measures;
- A cumulative listing of all potentially PCB-contaminated sites Permittees have referred to the SFBRWQCB to date, with a brief summary description of each site and where to obtain further information;
- The description, scope, and start date of PCBs control measures;
- For each structural control and non-structural best management practice (BMP), interim implementation progress milestones (e.g., construction milestones for structural controls or other relevant implementation milestones for structural controls and non-structural BMPs) and a schedule for milestone achievement; and
- Clear statements of the roles and responsibilities of each participating Permittee for implementation of identified control measures.

This report is organized into the following sections:

1. **Introduction and Background** – This section describes requirements for managing mercury and PCBs per the TMDLs and the MRP, followed by the management approach that will be implemented by ACCWP Permittees. This approach includes delineation of W/MAs based on screening of priority parcels in Old Industrial land

classification for likelihood of ongoing PCB discharge and implementation of control measures. Roles and responsibilities are also described in this section.

2. **Control Measures Overview** – This section provides a general description of the types of control measures that are currently being implemented or will be implemented by the Permittees during this and future permit terms to control PCBs and mercury.
3. **Watersheds/Management Areas, Control Measures, and Schedule for each Permittee** – These sections describe the Permittee-specific W/MAs and control measures identified by the Permittee that are currently being implemented or will be implemented in each W/MA during this permit term. At least one figure is provided for each Permittee. These figures show W/MA boundaries that contain priority land uses for PCB management (Old Industrial and Old Urban, as well as “Categorical” overlays described in Section 1.3.2); classification of Old Industrial parcels in these W/MAs resulting from partial screening through 2015 (i.e., High, Moderate or Low/No Likelihood of ongoing PCB discharge); other land use areas (e.g., New Urban/Other and Open Space); and locations of trash capture devices as examples of treatment controls or sites for enhanced sediment removal.

1.2 Background

1.2.1 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 mercury and PCBs. In response, the SFBRWQCB developed Total Maximum Daily Load (TMDL) water quality restoration programs targeting PCBs and mercury in the Bay. The general goals of the TMDLs are to identify sources of PCBs and mercury to the Bay and implement actions to control the sources and restore water quality¹.

Municipal separate storm sewer systems (MS4s) are one of the PCBs and mercury source/pathways identified in the TMDLs. Local public agencies (i.e., Permittees) subject to

¹ See: http://www.swrcb.ca.gov/rwqcb2/water_issues/programs/TMDLs/sfbaypcbstdl.shtml and http://www.swrcb.ca.gov/rwqcb2/water_issues/programs/TMDLs/sfbaypcbstdl.shtml.

requirements via National Pollutant Discharge Elimination System (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.

1.2.2 Municipal Regional Permit

NPDES permit requirements associated with Phase I municipal stormwater programs and Permittees in the Bay Area are included in the MRP, which was issued to 76 cities, counties and flood control districts in 2009² and reissued in revised form in 2015. Consistent with the TMDLs, Provisions C.11.a. and C.12.a. of the MRP require the implementation of source and treatment control measures and pollution prevention strategies to reduce mercury and PCBs in urban stormwater runoff to achieve specified load reductions throughout the permit area. Although many of the control measures may be selected primarily for the purpose of achieving PCBs load reductions during this MRP permit term, substantial mercury load reductions may result as a tangential benefit and will be accounted for in tracking mercury load reductions. Specifically, the MRP requires the Permittees to:

1. Identify the watersheds or portions of watersheds (management areas) in which PCBs control measures are currently being implemented and those in which new control measures will be implemented during the term of this permit;
2. Identify the control measures that are currently being implemented and those that will be implemented in each watershed/management area;
3. Submit a schedule of control measure implementation; and
4. Implement sufficient control measures to achieve the mercury and PCBs load reductions stated in the permit³.

² The MRP replaced previous permits issued to permittees grouped by county, but recognizes that many compliance activities are conducted or facilitated by ACCWP and other countywide stormwater consortia. ACCWP and other Bay Area stormwater programs collaborate regionally through membership in the Bay Area Stormwater Management Agencies Association (BASMAA).

³ Table 12.1 of the MRP lists interim PCB load reduction performance criteria that Permittees should achieve during the current permit term. Provision C.11 does not list interim mercury load reduction performance criteria, except for green infrastructure implementation.

1.3 Approach

1.3.1 Control Measures

The urban stormwater runoff wasteload allocation for PCBs represents a 90 percent reduction from the estimated existing load. The TMDL implementation plans set roughly 20-year timelines for achieving the reductions but also incorporate an adaptive implementation planning approach. The adaptive approach consists of the development of a plan that includes early implementation actions based on existing knowledge that have a reasonable probability of success and an overview of options for future actions. For PCBs and mercury in the Bay, the immediate or early implementation actions are not expected to completely eliminate the Bay impairment. Therefore, future actions must be evaluated based on continued monitoring and response to the early implementation actions, as well as based on well-designed studies used for model refinement.

The MRP Fact Sheet notes that the initial focus of Provisions C.11/12 is on measures designed to reduce PCBs, while also evaluating opportunities for mercury reduction. Implementation actions may fall into four categories depending on the available knowledge and confidence in a control measure's effectiveness (listed in decreasing order of confidence):

- Full-scale implementation throughout the region.
- Focused implementation in areas where benefits are most likely to occur.
- Pilot-testing in a few specific locations.
- Other: This may refer to experimental control measures, research and development, desktop analysis, laboratory studies, and/or literature review.

During the previous MRP term, Permittee effort was largely focused on gathering necessary information about control measure effectiveness through pilot projects and some focused implementation of the most effective control measures. In this term of the MRP, the emphasis has shifted towards focused and some full-scale implementation of the most effective control measures. Progress will be measured through accounting for specific load reductions as described in the regionally-produced report: *Interim Accounting Methodology for TMDL Loads Reduced*, which is to be submitted by September 30, 2016 as required in Provisions C.11/12.b. (BASMAA, 2016).

After impacts to the Bay were identified, the Permittees, countywide stormwater programs, Bay Area Stormwater Management Agencies Association (BASMAA), and the SFBRWQCB began gathering data and developing an understanding of the sources and pathways for mercury and

PCBs runoff to the Bay (e.g., AMS et al., 2001; AMS, 2002; EOA, 2002; Kleinfelder, 2006). These same parties developed a framework to address these pollutants throughout the following decade, as described in the MRP Fact Sheet⁴. The remainder of this section summarizes key regional initiatives to evaluate mercury and PCB control measures and ACCWP efforts to identify priority areas within Permittee jurisdictions for implementing control measures.

The Regional Stormwater Monitoring and Urban BMP Evaluation: A Stakeholder-Driven Partnership to Reduce Contaminant Loadings (Proposition 13) project funded by a State of California Proposition 13 grant to the San Francisco Estuary Institute (SFEI) defined conceptual models of sources and pathways of mercury and PCBs in Bay Area urban watersheds (McKee et al., 2006). The Proposition 13 project compiled PCB and mercury chemical analysis results from sites predominantly in older industrial areas developed prior to the 1979 ban on PCBs production and open uses. The combined dataset contained about 600 sediment samples collected at over 360 locations throughout the Bay Area from roadways and stormwater drainage infrastructure (e.g., storm drain inlets, pump house wet wells, piping beneath manholes, and open channels) (Yee and McKee, 2010). These data supported the general hypothesis that concentrations of PCBs and mercury are elevated in specific parts of the urban landscape and showed that:

- Pollutant concentrations are highly patchy, even at moderate to small spatial (sub-kilometer) and temporal (approximately annual) scales. This patchiness reflects the episodic nature of many release and transport events and processes.
- Concentrations at sites within three kilometers of one another showed similarities in concentration, which may be due to similarities in land use, activities, or transport of shared pollutant sources.
- Individual sites and areas most contaminated with PCBs are often not those with high mercury, which is a logical finding given the different use histories and original pollutant sources.

Another outcome of the Proposition 13 project was a desktop evaluation of control measures for potential regionwide PCBs and mercury load reductions (Mangarella et al., 2010).

Building upon the efforts of the Proposition 13 project, BASMAA conducted an EPA grant-funded project called Clean Watersheds for a Clean Bay (CW4CB). The CW4CB project, which began in May 2010 and will be complete in May 2017, is a collaboration among the MRP Permittees designed to evaluate the effectiveness of stormwater controls for PCBs and mercury. The CW4CB

⁴ General Strategy for Sediment-Bound Pollutants (Mercury and PCBs), MRP Attachment A-82.

Project implemented a number of pilot projects for various control measures called for by the Bay PCBs and mercury TMDLs and the first-term MRP. The CW4CB work products included:

- Selecting five subwatersheds with relatively high levels of PCBs indicated by Proposition 13 project samples and other data sources for pilot investigations ;
- Identifying PCBs and mercury source areas within the project subwatersheds and referring these sites to regulatory agencies for cleanup and abatement;
- Developing methods to enhance removal of sediment with PCBs and other pollutants during Permittee sediment management activities;
- Retrofitting 8 to 10 urban sites with different types of stormwater treatment facilities;
- Facilitating development and implementation of a regional risk communication and exposure reduction program that focuses on educating the public about the health risks of consuming certain species of Bay fish that contain high levels of PCBs and mercury; and
- Creating public education outreach materials, a project web portal, guidance manual, and technical workshops.

The Permittees are using the information gathered and lessons learned through the CW4CB project and the earlier projects as the basis to identify the W/MAs and control measures listed in this report.

In Fiscal Year (FY) 2015/16, ACCWP began a countywide Geographic Information System (GIS) project focused on maintaining, analyzing, interpreting, displaying, and reporting relevant municipal stormwater program data and information to address requirements in the following MRP Provisions:

- C.3.j Green Infrastructure (GI) Planning and Implementation,
- C.10 Trash Load Reduction,
- C.11 Mercury Controls, and
- C.12 PCBs Controls.

This project is critical to the Permittees' ongoing work to identify watersheds and management areas where multiple-benefit control measure implementation opportunities will be identified and prioritized for implementation during this permit term and over the coming decades. Additionally, this GIS database will be used to track and map existing and future C.3 new and redevelopment projects, allow ease of ongoing review of opportunities for incorporating GI into

existing and planned Capital Improvement Projects (CIPs), and assist in the development of GI plans.

The Program's stormwater GIS platform will feature web maps and applications created using ESRI's ArcGIS Online for Organizations environment. This platform can access GIS data, custom web services, and reports that will be hosted within an Amazon cloud service running ESRI's ArcGIS Server technology. The Program anticipates that the stormwater GIS platform will be an important tool for maintaining relevant stormwater data; reviewing, analyzing and displaying data geography; accounting for and assessing compliance with load reduction performance goals; and reporting.

1.3.2 Watershed /Management Area Delineation

Each municipal Permittee has created a list of W/MAs and control measures (i.e., a control measure plan that describes what, where, and when control measures will be implemented) for PCBs and mercury, provided in sections 3 through 19 below.⁵ The ultimate goal for the listed control measures is to achieve the Alameda countywide PCBs load reductions listed in MRP Tables 12.1 and Table 12.2 during this MRP term:

- 160 g/yr PCBs by 6/30/18,
- 940 g/yr PCBs by 6/30/2020, and
- 37 g/yr PCBs using green infrastructure by 6/30/2020.

A W/MA is an area where load reduction credit will be sought for PCBs or mercury control measures. The W/MAs identified in this report are based on ACCWP's ongoing source area identification screening program described in the Mercury and PCBs Control Measures Implementation Status Report (ACCWP, 2016).The W/MAs cover all Old Industrial and Old Urban areas, but may also include some New Urban areas where appropriate. W/MAs were delineated through review by Program and Permittee staff of updated maps showing:

- the results of 2015 PCBs source property screening categorizing Old Industrial parcels as high, moderate, or low/no likelihood of ongoing PCB discharge;

⁵ Because Alameda County watersheds generally comprise widely varying land uses with differing potentials for load reductions, W/MAs for ACCWP Permittees are generally based on land use groupings or existing planning zones relevant to implementation and tracking of control measures, rather than hydrological boundaries.

- known past or ongoing PCB source properties from the CW4CB Task 3 referrals and state environmental databases: Department of Toxic Substances Control EnviroStor, and the State Water Resources Control Board (State Water Board) Geotracker; and
- land use classifications (i.e., Old Industrial, Old Urban, New Urban, and Open Space) originally defined and mapped for the Integrated Monitoring Report (ACCWP, 2014) and updated in ACCWP (2016).

These factors were used to create approximate delineations based on the geography within each Permittee’s jurisdiction using best professional judgement and Permittee input. If applicable, W/MA boundaries were aligned with existing delineations in a city’s General Plan, Specific Plans, and/or Redevelopment Plans. Categorical W/MAs were also created for the non-municipally owned electrical utility (i.e., PG&E) and railroad properties (note, the categorical W/MAs can exist within or create “holes” in the other geographically-based WM/As).

Details of the W/MAs and identified control measures will evolve over time as the Permittees learn more about these areas through implementation of the control measures. The Permittees will be developing Green Infrastructure Plans per MRP Provision C.3.j and the delineations of W/MAs in this report may also be revised as part of that planning process. Additionally, the Permittees may use results from the CW4CB project (which will be available at the end of 2016) to adjust preliminary control measure selections in the coming year.

The two flood control Permittees (ACFCWCD and Zone 7 Water Agency) own and manage specific storm drainage conveyances and related facilities, which may include creeks, channels, levees, pump stations, dams and reservoirs. Report sections 18 and 19 show the general locations of key facilities for each of these Permittees, with descriptions of potential opportunities for load reductions that may occur in conjunction with capital projects or maintenance activities. Any documented load reductions from such control measures would be credited to the municipal permittee(s) having jurisdiction over the associated drainage area.

1.3.3 Roles and Responsibilities for Implementation of Control Measures

Table 1-1 below summarizes, for each control measure, the roles and responsibilities of the Permittees, ACCWP, and BASMAA. In a general sense, screening/sampling will primarily be conducted by ACCWP, establishment of regional frameworks will be conducted by BASMAA, and adoption and implementation of control measures will be conducted by the Permittees.

Table 1-1: Control Measure Roles and Responsibilities

Control Measure Category	Roles and Responsibility		
	Permittee	Program	BASMAA
Source Property Identification and Abatement	<ul style="list-style-type: none"> • Work with Program to design monitoring program. • Prepare referral forms, including identification of enhanced O&M. • Implement enhanced O&M for referred properties. 	<ul style="list-style-type: none"> • Design and conduct Pollutants of Concern monitoring. • Compile and submit referrals to SFBRWQCB. • Coordinate with BASMAA on ongoing control measure adaptive management. 	<ul style="list-style-type: none"> • Discuss ongoing control measure implementation and adaptive management at Monitoring / Pollutants of Concern (MPC) Committee.
Green Infrastructure / Treatment Control Measures	<ul style="list-style-type: none"> • Prepare a GI Plan. • Implement GI projects. • Gather data on C.3 projects. 	<ul style="list-style-type: none"> • Support GI planning. • Compile data on C.3 projects. 	<ul style="list-style-type: none"> • Coordinate GI planning at Development Committee. • Discuss control measure implementation and adaptive management at MPC Committee.
Managing PCBs in Building Materials	<ul style="list-style-type: none"> • Participate in BASMAA Regional Project. • Adopt Framework. 	<ul style="list-style-type: none"> • Assist BASMAA Regional Project. 	<ul style="list-style-type: none"> • Develop Framework through Regional Project.
Managing PCBs in Infrastructure	<ul style="list-style-type: none"> • Participate in BASMAA Regional Project. 	<ul style="list-style-type: none"> • Assist BASMAA Regional Project. • Conduct monitoring. 	<ul style="list-style-type: none"> • Develop monitoring plan and report monitoring results via Regional Project.
Enhanced O&M	<ul style="list-style-type: none"> • Implement enhanced O&M where identified. 	<ul style="list-style-type: none"> • Coordinate with BASMAA on ongoing control measure adaptive management. 	<ul style="list-style-type: none"> • Discuss ongoing control measure implementation and adaptive management at MPC Committee.
Diversion to POTW	<ul style="list-style-type: none"> • Implement diversion where identified. 	<ul style="list-style-type: none"> • Coordinate with BASMAA on ongoing control measure adaptive management. 	<ul style="list-style-type: none"> • Discuss ongoing control measure implementation and adaptive management at MPC Committee.
Mercury Load Avoidance and Reduction	<ul style="list-style-type: none"> • Conduct collection events. 	<ul style="list-style-type: none"> • Compile and track data. 	<ul style="list-style-type: none"> • Discuss ongoing control measure implementation and adaptive management at MPC Committee.
Illegal Dumping Cleanup	<ul style="list-style-type: none"> • Identify illegal dumping sites. • Conduct/coordinate cleanup. 	<ul style="list-style-type: none"> • Compile and track data. 	<ul style="list-style-type: none"> • Discuss ongoing control measure implementation and adaptive management at MPC Committee.
Stockpiles, Spills, and Disposal of PCBs	<ul style="list-style-type: none"> • Identify facilities through routine inspections. • Conduct/coordinate cleanup. 	<ul style="list-style-type: none"> • Compile and track data. 	<ul style="list-style-type: none"> • Discuss ongoing control measure implementation and adaptive management at MPC Committee.

In addition, the Permittees will be tracking control measure implementation and reporting load reductions using the Interim Accounting Tool developed by a BASMAA regional project. ACCWP

will compile and report the county-wide list of site referrals and overall load reductions. BASMAA will compile and report the MRP permit area-wide list of site referrals and overall load reductions.

Although each Permittee’s administrative structure is unique, Table 1-2 summarizes, in general, the roles and responsibilities of the main city or county departments that may be related to implementation of selected control measures. For some Permittees, additional departments may share responsibilities for some implementation activities.

Table 1-2: Permittee Department Roles and Responsibilities

Department	Typical Role / Responsibility
Public Works	<ul style="list-style-type: none"> • Creeks, watersheds, and stormwater management • Public facility services and maintenance • Engineering and construction services • Capital improvement projects
Community Development / Planning Department	<ul style="list-style-type: none"> • Planning/zoning/General Plan development • Development project review & approvals • Construction and building inspections

2 Description of Control Measures

This section provides a general description of the types of control measures that are currently being implemented or will be implemented by the Permittees during this and future permit terms to control PCBs and mercury. Each Permittee has identified the control measures that are currently being implemented or will be implemented in each watershed/management area in the Permittee-specific sections begin with Section 3.

2.1 Source Property Identification and Abatement

Source property identification and abatement involves 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 begins with performing investigations of these “High Likelihood” areas to identify PCBs sources to the municipal storm drain system. Once a source property is identified, the source of PCBs on the property may be abated or caused to be abated directly by the Permittee or the Permittee may choose to refer the source property to the SFBRWQCB for investigation and abatement by the SFBRWQCB or another appropriate regulatory agency with investigation and cleanup authority. Source properties may include sites that were previously remediated or are currently being remediated but have PCBs soils cleanup levels that are elevated above urban background levels or may be newly identified source properties.

The Permittees will validate 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 suggest that a specific property is a potential source of significantly elevated PCBs concentrations. Where data confirm 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) are present in soil/sediment from a potential source property or in stormwater samples, the Permittees will take actions to cause the property to be abated or will refer that property to the SFBRWQCB to facilitate the issuance of orders for further investigation and remediation of the subject property.

For each confirmed source property, the Permittee will implement or cause to be implemented, where appropriate, one or a combination of interim enhanced operation and maintenance (O&M) measures in the street or storm drain infrastructure adjacent to the source property during the source property abatement process to remove historically deposited sediment and/or to prevent further contaminated sediment from entering the storm drain. These enhanced O&M measures will be described in the source property referral that is sent to the SFBRWQCB. If the Permittee finds that enhanced O&M measures are not justified based on the results of the

soil/sediment investigation, the Permittee must discuss these findings with the SFBRWQCB prior to submitting the source property referral. The SFBRWQCB will review the source property referral and provide comments to the Permittee within 30 days (if needed).

ACCWP, in collaboration with the Permittees, is conducting ongoing targeted investigation and monitoring for known or suspected source properties. Source identification is one of five priority Pollutants of Concern (POC) management information needs to be addressed by monitoring required under MRP provision C.8.f. The allocation of sampling effort for POC monitoring will be described in the ACCWP POC Monitoring Report, due October 15 of each year, as required by MRP provision C.8.h.iv. Additionally, future source property investigations may be conducted by the Program and/or Permittees as a result of new information (e.g., as a result of industrial inspections, spill reporting, or development activities).

The properties that have been referred to the SFBRWQCB as of September 2016 are listed in Table 2-1 below. These referrals were developed as an outcome of efforts conducted in Task 3 of the CW4CB Project in 2015. Descriptions of the referral properties are provided in the report section for Oakland.

Table 2-1: Contaminated Sites Referred to the SFBRWQCB

SITE NAME	LOCATION	YEAR REFERRED
Asbestos Management Group (AMG)	3438 Helen Street, Oakland	2015
Custom Alloy Scrap Sales (CASS)	2730 Peralta Street, Oakland	2015
Former Giampolini Painting	2838 Hannah Street, Oakland	2015

2.2 Green Infrastructure / Treatment Control Measures

This control measure includes new development and redevelopment projects on private and public properties regulated by Provision C.3, as well as retrofit of existing infrastructure in public ROW areas and on public properties not subject to Provision C.3. Retrofit includes the installation of full trash capture devices (i.e., hydrodynamic separators (HDS) units) for the purposes of compliance with MRP Provision C.10, which capture sediment in addition to trash and therefore remove PCBs and mercury.

Permittees will account for implemented C.3. projects and may implement green infrastructure (GI) projects over this permit term to achieve the PCBs load reductions shown in MRP Table 12.2 and mercury load reductions shown in MRP Table 11.1. Permittees may also choose to include potential GI projects that may be implemented over this permit term. As an example, these may

include a project that has been planned or identified; however, funding sources for implementation have not been secured at the time of this report.

Permittees will be identifying existing C.3 projects as part of this control measure and, in compliance with the requirement of MRP Provision C.3.b.i.(2), will be tracking development projects that are subject to C.3. over this permit term.

In addition, the Permittees will be conducting an ongoing review of opportunities for incorporating GI into existing and planned capital improvement projects over this permit term (a.k.a., no missed opportunities) and developing a GI Plan for the inclusion of low impact development drainage design into storm drain infrastructure on public and private lands, including streets, roads, storm drains, parking lots, building roofs, and other storm drain infrastructure elements, in compliance with MRP Provision C.3.j.

In future reports, Permittees will be providing information on C.3 and GI projects in a table format such as the following:

WMA ID	PROJECT ID	DATE OF COMPLETION OR OTHER MILESTONE	ACRES TREATED	SITE ADDRESS/ LOCATION
XX	XX	XX/XX/XX	XX	XYZ Street

2.3 Managing PCBs In Building Materials and Infrastructure

2.3.1 PCBs in Building Materials

During the first three years of the permit term, the Permittees will develop and implement (or cause to be developed and implemented) an effective protocol for managing materials with PCBs concentrations of 50 ppm or greater in applicable structures at the time such structures undergo demolition, so that PCBs do not enter the MS4. PCBs from these structures can enter storm drains during and/or after demolition through vehicle track-out, airborne releases, soil erosion, stormwater runoff, or improper waste disposal. For MRP compliance, applicable structures will include, at a minimum, commercial, public, institutional and industrial structures constructed or remodeled between the years 1950 and 1980 and with building materials with PCBs concentrations of 50 ppm or greater. Single-family residential and wood frame structures are exempt. A Permittee is exempt from this requirement if it provides evidence acceptable to the Executive Officer in its 2016/17 Annual Report that the only structures that existed pre-1980 within its jurisdiction were single-family residential and/or wood-frame structures. The PCBs management framework will be implemented by the start of the fourth year of the permit term (i.e., July 1, 2019).

Permittees are required to develop a protocol by June 30, 2019 that includes each of the following components, at a minimum:

1. 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;
2. A method for identifying applicable structures prior to their demolition; and
3. 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 are 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.
- 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. This should be reported on in the 2020 Annual Reports at the regional level on behalf of all Permittees.
- In their 2016, 2017, and 2018 Annual Reports, Permittees are required to summarize the steps they have taken to begin implementing this requirement. In their 2020 Annual Reports and thereafter, Permittees are required to provide documentation of each of the number of applicable structures that applied for a demolition permit during the reporting year and a running list of the applicable structures that applied for a demolition permit (since the date the PCBs control protocol was implemented) that had material(s) with PCBs at 50 ppm or greater, with the address, demolition date, and brief description of PCBs control method(s) used.

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials. This Regional Project will develop an implementation framework, guidance materials, and tools for local agencies to ensure that PCBs-containing materials and wastes are properly managed during building demolition. This Regional Project will also include developing training materials and conducting trainings for municipal staff and outreach workshops for the industry on implementing the framework/protocols developed via the project. The tools and materials developed as part of the project will build upon materials and outputs

developed in 2010-2011 by the PCBs in Caulk Project⁶ conducted by the San Francisco Estuary Partnership in partnership with BASMAA, as well as subsequent and parallel activities by BASMAA.

2.3.2 PCBs in Infrastructure

PCBs may also be found in storm drain or roadway infrastructure in public rights-of-way, from use of materials such as caulk and sealants in storm drains and between concrete curbs and street pavement. The Program and Permittees will conduct a study to investigate whether PCBs are present locally in such materials and in what concentrations. These results will be reported no later than the 2018 Annual Report. The results of these investigations will inform further investigations of PCBs in infrastructure and the development of Permittees' GI Plans.

The Program and Permittees will be participating in a BASMAA Regional Project to develop a Quality Assurance Project Plan (QAPP) and Sampling and Analysis Plan (SAP) to characterize the levels of PCBs in caulks/sealants used in storm drains and roadway infrastructure and attempt to quantify the potential PCBs load reduction benefits that may result from abatement in conjunction with public infrastructure improvement projects. The monitoring program and laboratory analysis per the QAPP and SAP may be conducted by the Program in coordination with other BASMAA agencies or via a BASMAA Regional Project. A project report to be included in the 2018 Annual Report will either be prepared by the Program in coordination with BASMAA or via a BASMAA Regional Project.

2.4 Enhanced Operation and Maintenance

Routine MS4 O&M activities include street sweeping, drain inlet cleaning, and pump station maintenance. In addition, culverts and channels are also routinely maintained (i.e., desilted). Enhancements to routine operations and new actions such as storm drain line and street flushing may enhance the Permittees' ability to reduce PCBs and mercury in stormwater. PCBs load reductions achieved through implementation of enhanced O&M control measures, aside from enhanced O&M control measures associated with source property referrals, may be counted as part of the overall load reductions during this permit term.

⁶ Initially funded through a State Water Board Proposition 50 grant, and later completed with support from the State Revolving Fund under the American Recovery and Reinvestment Act of 2009.

2.5 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. A feasibility evaluation was prepared during the previous permit term (BASMAA, 2010) that developed selection criteria and information needs for evaluating potential diversion projects and identified candidate pilot projects in the five counties covered by the MRP. This report also reviewed POTW constraints and concerns regarding diversion projects that were presented in a draft white paper (BACWA, 2009), including:

- Capacity limits on POTWs and conveyance systems may require restricting diversion flows and limiting attainable load reduction benefits, especially since transport of PCBs loads in the MS4 predominantly occurs during higher flows in wet weather.
- Potential of stormwater pollutants to disrupt advanced treatment systems or to negatively affect the facility's compliance with NPDES numerical effluent limits or waste discharge requirements to control sanitary sewer overflows.
- Not all POTWs own the collection and conveyance systems that serve them, which could require additional negotiations with the entity or entities that own the collection system.

The cost scenarios for conceptual examples of diversion projects presented in the feasibility evaluation varied depending on the details of physical diversion and operations. Ongoing costs of diversion may be high in relation to load reduction benefits unless the receiving POTW agrees to waive treatment fees.

2.6 Source Controls and Other Control Measures

2.6.1 Mercury Load Avoidance and Reduction

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.

2.6.2 Illegal Dumping Clean-Up

This source control measure entails clean-up of construction and demolition debris from illegal dumping areas. This control measure will apply to construction and demolition illegal dumping only during this permit term, but may be expanded to other types of illegally dumped trash if supported by monitoring data.

2.6.3 Stockpile, Spills, and Disposal of PCBs

This control measure includes the proper clean-up and disposal of stockpiles, spills, and/or improperly disposed quantities of PCBs. The measure would involve, for instance, a concentrated source of PCBs (e.g., a barrel) that is found and cleaned-up or properly disposed and the clean-up of transformer spills by PG&E.

3 City of Alameda

3.1 List of Watersheds / Management Areas and Control Measures

The watersheds / management areas (W/MAs) within the City of Alameda are shown on Figure 3-1 and are listed below:

1. Alameda Beltline
2. Northern Waterfront Planning Area
3. Alameda Point
4. Northern Waterfront – East
5. Northern Waterfront – West
6. Alameda Old Urban
7. Categorical Railroad

3.2 Scope and Schedule of PCBs Control Measures

A summary of the control measures that are currently being implemented or will be implemented during the term of the permit in each of the W/MAs is provided in Table 3-1 and are discussed in the sections below.

3.2.1 Source Property Identification and Abatement

PCBs-Contaminated Properties Referred to the Regional Water Board

No properties within the City of Alameda have been referred to the SFBRWQCB as a result of implementation of the Source Property Identification and Abatement control measure to date.

Ongoing Investigations

Ongoing investigations may result in a property referral in the future.

3.2.2 Green Infrastructure / Treatment Control Measures

The City of Alameda has recently purchased some former railroad properties within the City's jurisdiction. Formal redevelopment planning and civil improvement design is underway for a 22-acre property to create the Jean Sweeney Open Space Park. And, at a separate location, a one-half-acre site is being redeveloped as a new municipal fire station and emergency operations center.

Any development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

3.2.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

3.2.4 Enhanced Operation and Maintenance Control Measures

Enhanced inlet cleaning will be implemented for all inlet-based full trash capture devices (i.e., CPS units).

3.2.5 Diversion to POTW

No diversion to POTW control measures are proposed.

3.2.6 Source Controls and Other Control Measures

Mercury Load Avoidance and Reduction

The Permittees are actively implementing mercury recycling programs in all W/MAs in order to reduce mercury loading to the Bay.

Illegal Dumping Cleanup

The Permittees will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs.

Stockpiles, Spills, and Disposal of PCBs

Stockpiles and spills of PCBs will be addressed as they are identified through industrial facility inspection and spill notification programs.

Table 3-1. City of Alameda Watershed/Management Areas & Summary of Control Measures

Control Measure Category	Watershed/Management Area						
	Alameda Beltline	Northern Waterfront Planning Area	Alameda Point	Northern Waterfront – East	Northern Waterfront – West	Alameda Old Urban	Categorical Railroad
Source Property Identification and Abatement							
Initial Source Property Investigation ¹	O	O	O	O	O		
Referral of Source Property							
Direct Abatement of Source Property							
Categorical Source Property Referral							P
Green Infrastructure / Treatment Control Measures							
Redevelopment Subject to C.3	O	O	O	O	O	O	O
GI/Treatment Measures Not Subject to C.3							
Full Trash Capture Devices							
Managing PCBs in Building Materials and Infrastructure							
Managing PCBs in Building Materials							
Managing PCBs in Infrastructure							
Enhanced O&M							
Street Sweeping							
Storm Drain Inlet Cleaning				O		C	
Pump Station Maintenance							
Desilting of Channels and Culverts							
Street Flushing							
Storm Drain Line Cleaning							
Diversion to POTW							
Diversion to POTW							
Source Controls and Other Control Measures							
Mercury Load Avoidance and Reduction	O	O	O	O	O	O	
Illegal Dumping Cleanup	O	O	O	O	O	O	
Stockpiles, Spills, and Disposal of PCBs	O	O	O	O	O	O	

Key: Completed (C) – this control measure has been completed, Ongoing (O) – implementation of this control measure implementation is ongoing, Planned (P) – implementation of this control measure is planned during this permit term within this W/MA.

Notes: 1. Support activity for the control measure (referral and abatement).



Legend		Other Land Classifications		Other Full Trash Capture Devices
Categorical Management Areas	Other Management Areas	Old Industrial Screening Results		City / County Limits
☒ Railroads	Alameda Beltline	High Likelihood	Open / New Urban	☒ City / County Limits
	Northern Waterfront Planning Area	Moderate Likelihood	Redeveloped Areas	
	Alameda Point	Low No Likelihood		
	Northern Waterfront - East			
	Northern Waterfront - West			
	Alameda Old Urban			

**Potential Watershed/Management Areas
Alameda**

Alameda Countywide Clean Water Program

Geosyntec
consultants

Oakland September 2016

**Figure
3-1**

4 City of Albany

4.1 List of Watersheds / Management Areas and Control Measures

The watersheds / management areas (W/MAs) within the City of Albany are shown on Figure 4-1 and are listed below:

1. Albany Old Industrial
2. Albany Old Urban
3. Categorical Railroad
4. Categorical PG&E

4.2 Scope and Schedule of PCBs Control Measures

A summary of the control measures that are currently being implemented or will be implemented during the term of the permit in each of the W/MAs is provided in Table 4-1 and are discussed in the sections below.

4.2.1 Source Property Identification and Abatement

PCBs-Contaminated Properties Referred to the Regional Water Board

No properties within the City of Albany have been referred to the SFBRWQCB as a result of implementation of the Source Property Identification and Abatement control measure to date.

Ongoing Investigations

Ongoing investigations may result in a property referral in the future.

4.2.2 Green Infrastructure / Treatment Control Measures

The San Pablo Avenue Green Stormwater Spine project has been developed by the San Francisco Estuary Partnership and will be implementing two rain gardens in the City of Albany near 1051 San Pablo Avenue.

The University Village is a major private development project that is under construction. This project is C.3 compliant. It is located at the corner of San Pablo Avenue and Monroe Street.

The Brighton Avenue Pilot Green Street Project is currently under construction. This project will construct a rain garden in front of Albany Middle School. It is located in a residential area so will not impact the Old Urban or Old Industrial areas of the City of Albany.

Any development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

4.2.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

4.2.4 Enhanced Operation and Maintenance Control Measures

Enhanced inlet cleaning will be implemented for all inlet-based full trash capture devices (i.e., CPS units).

4.2.5 Diversion to POTW

No diversion to POTW control measures are proposed.

4.2.6 Source Controls and Other Control Measures

Mercury Load Avoidance and Reduction

The Permittees are actively implementing mercury recycling programs in all W/MAs in order to reduce mercury loading to the Bay.

Illegal Dumping Cleanup

The Permittees will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs.

Stockpiles, Spills, and Disposal of PCBs

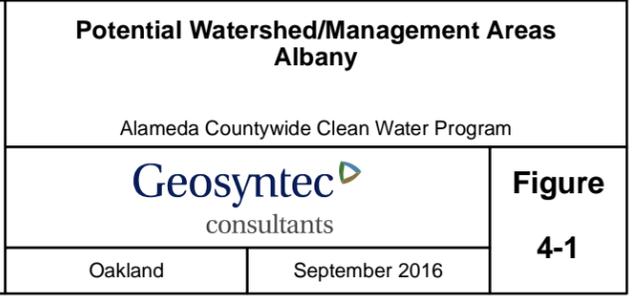
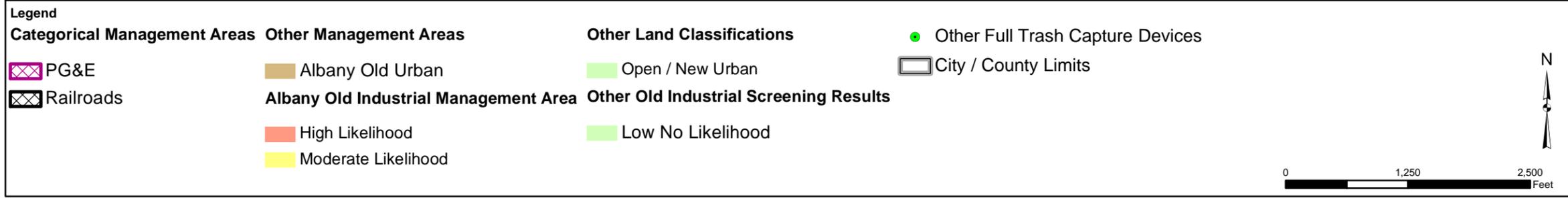
Stockpiles and spills of PCBs will be addressed as they are identified through industrial facility inspection and spill notification programs.

Table 4-1. City of Albany Watershed/Management Areas & Summary of Control Measures

Control Measure Category	Watershed/Management Area			
	Albany Old Industrial	Albany Old Urban	Categorical Railroad	Categorical PG&E
Source Property Identification and Abatement				
Initial Source Property Investigation ¹	C			
Referral of Source Property				
Direct Abatement of Source Property				
Categorical Source Property Referral			P	P
Green Infrastructure / Treatment Control Measures				
Redevelopment Subject to C.3	O	O		
GI/Treatment Measures Not Subject to C.3		P		
Full Trash Capture Devices (HDS)				
Managing PCBs in Building Materials and Infrastructure				
Managing PCBs in Building Materials				
Managing PCBs in Infrastructure				
Enhanced O&M				
Street Sweeping				
Storm Drain Inlet Cleaning	O	O		
Pump Station Maintenance				
Desilting of Channels and Culverts				
Street Flushing				
Storm Drain Line Cleaning				
Diversion to POTW				
Diversion to POTW				
Source Controls and Other Control Measures				
Mercury Load Avoidance and Reduction	O	O		
Illegal Dumping Cleanup	O	O		
Stockpiles, Spills, and Disposal of PCBs	O	O		

Key: Completed (C) – this control measure has been completed, Ongoing (O) – implementation of this control measure implementation is ongoing, Planned (P) – implementation of this control measure is planned during this permit term within this W/MA.

Notes: 1. Support activity for the control measure (referral and abatement).



5 City of Berkeley

5.1 List of Watersheds / Management Areas and Control Measures

The watersheds / management areas (W/MAs) within the City of Berkeley are shown on Figure 5-1 and are listed below:

1. West Berkeley
2. Berkeley Old Urban
3. Categorical Railroad
4. Categorical PG&E

5.2 Scope and Schedule of PCBs Control Measures

A summary of the control measures that are currently being implemented or will be implemented during the term of the permit in each of the W/MAs is provided in Table 5-1 and are discussed in the sections below.

5.2.1 Source Property Identification and Abatement

PCBs-Contaminated Properties Referred to the Regional Water Board

No properties within the City of Berkeley have been referred to the SFBRWQCB as a result of implementation of the Source Property Identification and Abatement control measure to date.

Ongoing Investigations

Ongoing investigations may result in a property referral in the future.

5.2.2 Green Infrastructure / Treatment Control Measures

Any development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

Several private and public green infrastructure projects have been installed in the City of Berkeley since 2015. For a summary of Planned GI Projects, please refer to the City of Berkeley FY 2015-2016 Annual Report. Below is a summary of GI Projects installed in 2015.

- Eunice Flow Detention and Permeable Pavement Project at Eunice Street between Milvia Street and Henry Street.
- Milvia Tree Wells and Permeable Pavement Project at Milvia Street and Hopkins Street.

- Bioswale Traffic Circle at intersection of Spruce Street and Vine Street.
- Presentation Park Bioswale at California Street and Allston Way.

5.2.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

5.2.4 Enhanced Operation and Maintenance Control Measures

Enhanced inlet cleaning will be implemented for all inlet-based full trash capture devices (i.e., CPS units).

5.2.5 Diversion to POTW

No diversion to POTW control measures are proposed.

5.2.6 Source Controls and Other Control Measures

Mercury Load Avoidance and Reduction

The Permittees are actively implementing mercury recycling programs in all W/MAs in order to reduce mercury loading to the Bay.

Illegal Dumping Cleanup

The Permittees will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs.

Stockpiles, Spills, and Disposal of PCBs

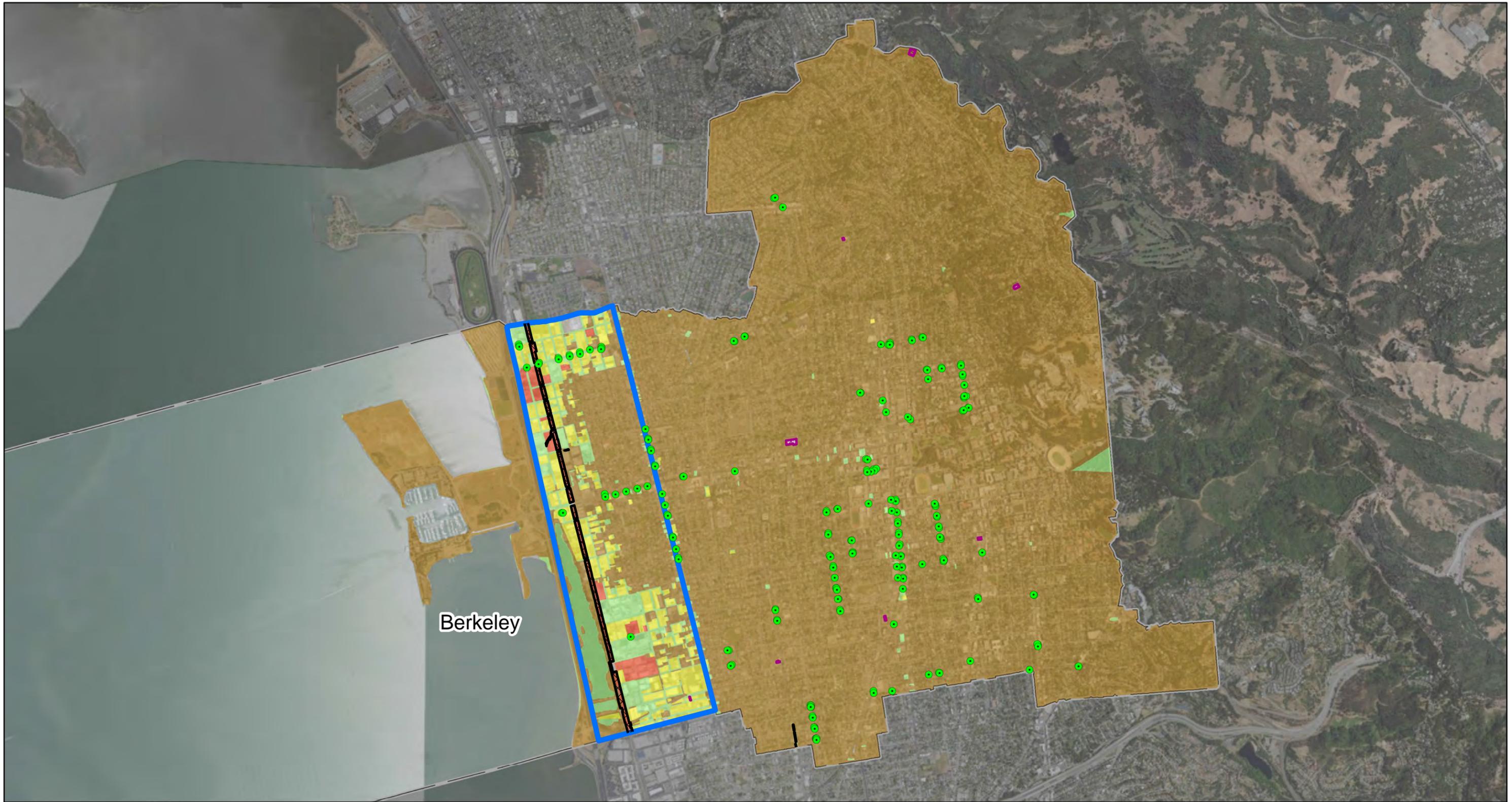
Stockpiles and spills of PCBs will be addressed as they are identified through industrial facility inspection and spill notification programs.

Table 5-1. City of Berkeley Watershed/Management Areas & Summary of Control Measures

Control Measure Category	Watershed/Management Area			
	West Berkeley	Berkeley Old Urban	Categorical Railroad	Categorical PG&E
Source Property Identification and Abatement				
Initial Source Property Investigation ¹	O	O		
Referral of Source Property				
Direct Abatement of Source Property				
Categorical Source Property Referral			P	P
Green Infrastructure / Treatment Control Measures				
Redevelopment Subject to C.3	O	O		
GI/Treatment Measures Not Subject to C.3				
Full Trash Capture Devices (HDS)				
Managing PCBs in Building Materials and Infrastructure				
Managing PCBs in Building Materials				
Managing PCBs in Infrastructure				
Enhanced O&M				
Street Sweeping				
Storm Drain Inlet Cleaning	O	O	O	
Pump Station Maintenance				
Desilting of Channels and Culverts				
Street Flushing				
Storm Drain Line Cleaning				
Diversion to POTW				
Diversion to POTW				
Source Controls and Other Control Measures				
Mercury Load Avoidance and Reduction	O	O		
Illegal Dumping Cleanup	O	O		
Stockpiles, Spills, and Disposal of PCBs	O	O		

Key: Completed (C) – this control measure has been completed, Ongoing (O) – implementation of this control measure implementation is ongoing, Planned (P) – implementation of this control measure is planned during this permit term within this W/MA.

Notes: 1. Support activity for the control measure (referral and abatement).



Legend

Categorical Management Areas	Old Industrial Screening Results	Other Land Classifications	Other Full Trash Capture Devices
PG&E	High Likelihood	Open / New Urban	Other Full Trash Capture Devices
Railroads	Moderate Likelihood	Berkeley City Limits	
Other Management Areas	Low No Likelihood		
West Berkeley			
Berkeley Old Urban			

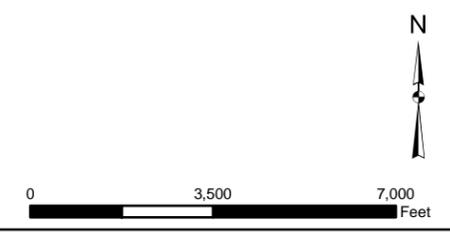
**Potential Watershed/Management Areas
Berkeley**

Alameda Countywide Clean Water Program

Geosyntec
consultants

Oakland September 2016

**Figure
5-1**



6 City of Dublin

6.1 List of Watersheds / Management Areas and Control Measures

The watersheds / management areas (W/MAs) within the City of Dublin are shown on Figure 6-1 and are listed below:

1. Dublin Old Urban

6.2 Scope and Schedule of PCBs Control Measures

A summary of the control measures that are currently being implemented or will be implemented during the term of the permit in each of the W/MAs is provided in Table 6-1 and are discussed in the sections below.

6.2.1 Source Property Identification and Abatement

PCBs-Contaminated Properties Referred to the Regional Water Board

No properties within the City of Dublin have been referred to the SFBRWQCB as a result of implementation of the Source Property Identification and Abatement control measure to date.

Ongoing Investigations

Ongoing investigations may result in a property referral in the future.

6.2.2 Green Infrastructure / Treatment Control Measures

A portion of Camp Parks U.S. Army Reserve Military Base is currently under development. The project, The Boulevard/Dublin Crossings, is a 187 acre multi-phased development comprised of up to 1,995 residential units, up to 200,000 SF of commercial uses, 35 acres of public parkland, a 12 acre elementary school site, and related infrastructure. The entire development will include stormwater treatment sized according to Provision C.3.d, will meet the hydromodification management standard and will include full trash capture. The project is located north of Dublin Boulevard between Scarlett Drive and Arnold Road.

The City of Dublin will evaluate which GI projects it will implement as part of its GI Work Plan. Any development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

6.2.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

6.2.4 Enhanced Operation and Maintenance Control Measures

Enhanced inlet cleaning will be implemented for all inlet-based full trash capture devices (i.e., CPS units).

6.2.5 Diversion to POTW

No diversion to POTW control measures are proposed.

6.2.6 Source Controls and Other Control Measures

Mercury Load Avoidance and Reduction

The Permittees are actively implementing mercury recycling programs in all W/MAs in order to reduce mercury loading to the Bay.

Illegal Dumping Cleanup

The Permittees will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs.

Stockpiles, Spills, and Disposal of PCBs

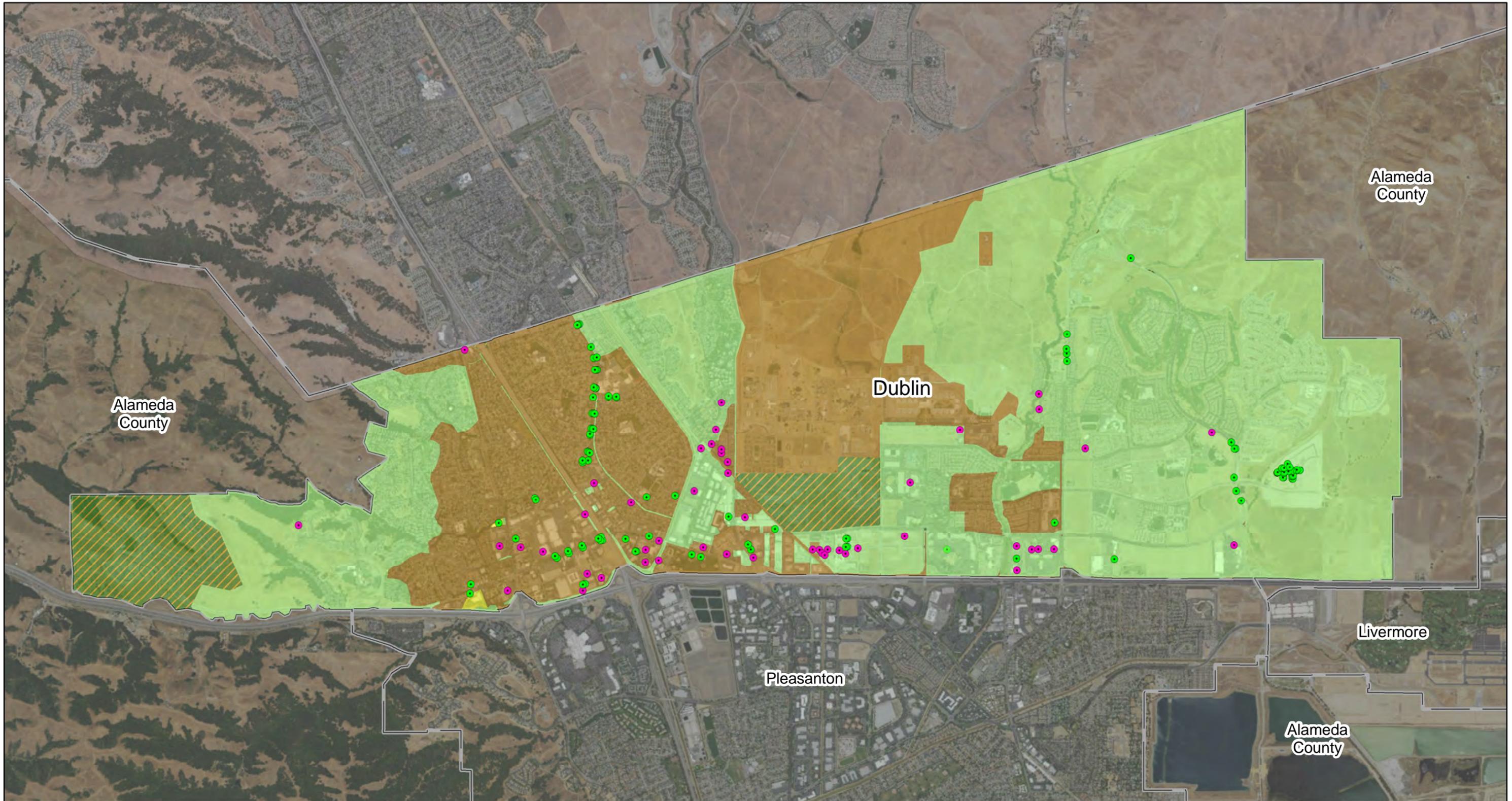
Stockpiles and spills of PCBs will be addressed as they are identified through industrial facility inspection and spill notification programs.

Table 6-1. City of Dublin Watershed/Management Areas & Summary of Control Measures

Control Measure Category	Watershed/ Management Area
	Dublin Old Urban
Source Property Identification and Abatement	
Initial Source Property Investigation ¹	C
Referral of Source Property	O
Direct Abatement of Source Property	
Categorical Source Property Referral	
Green Infrastructure / Treatment Control Measures	
Redevelopment Subject to C.3	O
GI/Treatment Measures Not Subject to C.3	
Full Trash Capture Devices (HDS)	C, P
Managing PCBs in Building Materials and Infrastructure	
Managing PCBs in Building Materials	
Managing PCBs in Infrastructure	
Enhanced O&M	
Street Sweeping	
Storm Drain Inlet Cleaning	O, P
Pump Station Maintenance	
Desilting of Channels and Culverts	
Street Flushing	
Storm Drain Line Cleaning	
Diversion to POTW	
Diversion to POTW	
Source Controls and Other Control Measures	
Mercury Load Avoidance and Reduction	O
Illegal Dumping Cleanup	O
Stockpiles, Spills, and Disposal of PCBs	O

Key: Completed (C) – this control measure has been completed, Ongoing (O) – implementation of this control measure implementation is ongoing, Planned (P) – implementation of this control measure is planned during this permit term within this W/MA.

Notes: 1. Support activity for the control measure (referral and abatement).



Legend

Management Area	Old Industrial Screening Results	● HDS Devices
■ Dublin Old Urban	■ Moderate Likelihood	● Other Full Trash Capture Devices
Other Land Classifications		□ City/County Limits
■ Open / New Urban		
■ Classification to be Confirmed		

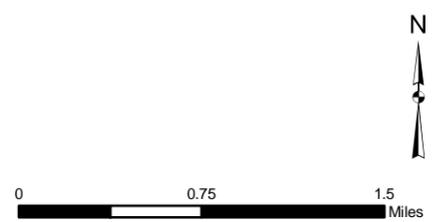
**Potential Watershed/Management Areas
Dublin**

Alameda Countywide Clean Water Program

Geosyntec
consultants

Oakland September 2016

**Figure
6-1**



7 City of Emeryville

7.1 List of Watersheds / Management Areas and Control Measures

The watersheds / management areas (W/MAs) within the City of Emeryville are shown on Figure 7-1 and are listed below:

1. Emeryville Old Industrial
2. Emeryville Old Urban
3. Categorical Railroad
4. Categorical PG&E

7.2 Scope and Schedule of PCBs Control Measures

A summary of the control measures that are currently being implemented or will be implemented during the term of the permit in each of the W/MAs is provided in Table 7-1 and are discussed in the sections below.

7.2.1 Source Property Identification and Abatement

PCBs-Contaminated Properties Referred to the Regional Water Board

No properties within the City of Emeryville have been referred to the SFBRWQCB as a result of implementation of the Source Property Identification and Abatement control measure to date.

Ongoing Investigations

Ongoing investigations may result in a property referral in the future.

7.2.2 Green Infrastructure / Treatment Control Measures

Any development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

7.2.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

7.2.4 Enhanced Operation and Maintenance Control Measures

Enhanced inlet cleaning will be implemented for all inlet-based full trash capture devices (i.e., CPS units).

7.2.5 Diversion to POTW

No diversion to POTW control measures are proposed.

7.2.6 Source Controls and Other Control Measures

Mercury Load Avoidance and Reduction

The Permittees are actively implementing mercury recycling programs in all W/MAs in order to reduce mercury loading to the Bay.

Illegal Dumping Cleanup

The Permittees will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs.

Stockpiles, Spills, and Disposal of PCBs

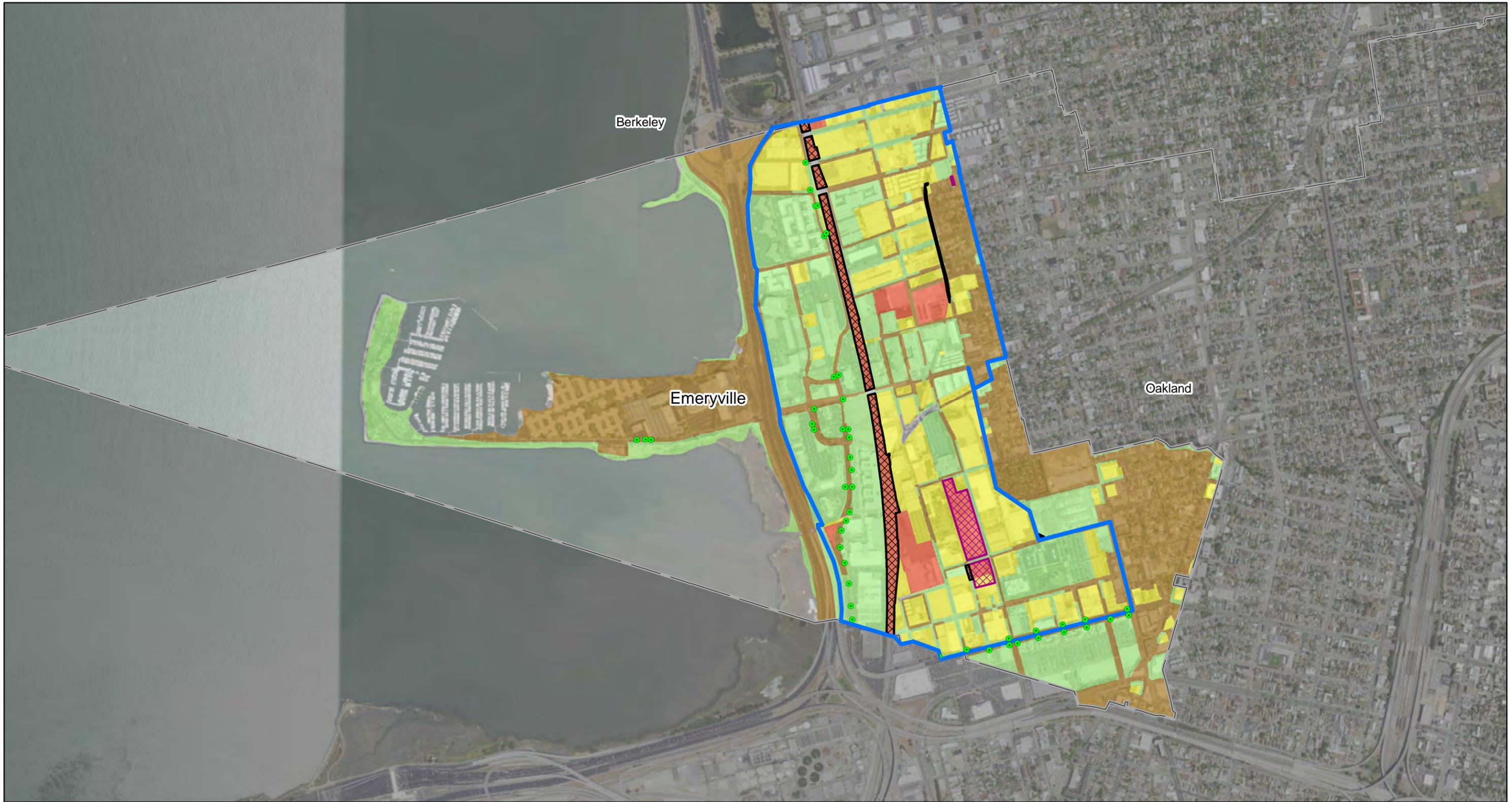
Stockpiles and spills of PCBs will be addressed as they are identified through industrial facility inspection and spill notification programs.

Table 7-1. City of Emeryville Watershed/Management Areas & Summary of Control Measures

Control Measure Category	Watershed/Management Area			
	Emeryville Old Industrial	Emeryville Old Urban	Categorical Railroad	Categorical PG&E
Source Property Identification and Abatement				
Initial Source Property Investigation ¹	O	O		
Referral of Source Property				
Direct Abatement of Source Property				
Categorical Source Property Referral			P	P
Green Infrastructure / Treatment Control Measures				
Redevelopment Subject to C.3	O	O		
GI/Treatment Measures Not Subject to C.3				
Full Trash Capture Devices (HDS)				
Managing PCBs in Building Materials and Infrastructure				
Managing PCBs in Building Materials				
Managing PCBs in Infrastructure				
Enhanced O&M				
Street Sweeping				
Storm Drain Inlet Cleaning	O	O		
Pump Station Maintenance				
Desilting of Channels and Culverts				
Street Flushing				
Storm Drain Line Cleaning				
Diversion to POTW				
Diversion to POTW				
Source Controls and Other Control Measures				
Mercury Load Avoidance and Reduction	O	O		
Illegal Dumping Cleanup	O	O		
Stockpiles, Spills, and Disposal of PCBs	O	O		

Key: Completed (C) – this control measure has been completed, Ongoing (O) – implementation of this control measure implementation is ongoing, Planned (P) – implementation of this control measure is planned during this permit term within this W/MA.

Notes: 1. Support activity for the control measure (referral and abatement).



Legend

Categorical Management Areas	Other Management Areas	Old Industrial Screening Results	Other Full Trash Capture Devices
PG&E	Emeryville Old Industrial	High Likelihood	Other Full Trash Capture Devices
Railroads	Emeryville Old Urban	Moderate Likelihood	City Limits
		Low No Likelihood	
		Other Land Classifications	
		Open / New Urban	

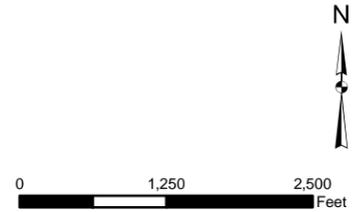
**Potential Watershed/Management Areas
Emeryville**

Alameda Countywide Clean Water Program

Geosyntec
consultants

Oakland September 2016

**Figure
7-1**



8 City of Fremont

8.1 List of Watersheds / Management Areas and Control Measures

The watersheds / management areas (W/MAs) within the City of Fremont are shown on Figure 8-1 and are listed below:

1. Fremont Old Urban/ Old Industrial
2. Categorical Railroad
3. Categorical PG&E

8.2 Scope and Schedule of PCBs Control Measures

A summary of the control measures that are currently being implemented or will be implemented during the term of the permit in each of the W/MAs is provided in Table 8-1 and are discussed in the sections below.

8.2.1 Source Property Identification and Abatement

PCBs-Contaminated Properties Referred to the Regional Water Board

No properties within the City of Fremont have been referred to the SFBRWQCB as a result of implementation of the Source Property Identification and Abatement control measure to date.

Ongoing Investigations

Ongoing investigations may result in a property referral in the future.

8.2.2 Green Infrastructure / Treatment Control Measures

Any development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

8.2.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

8.2.4 Enhanced Operation and Maintenance Control Measures

Enhanced inspection and maintenance is being conducted for all CPS trash capture devices. Along with year-round routine drain inlet cleaning, the City established a drain inlet cleaning program in 2012 for drain inlet vaults equipped with connector pipe screen (CPS) full trash capture devices in the City right-of-way. In addition to routine cleaning, CPS devices are inspected prior to the rainy season, and, depending on the amount of debris (generally 90 – 95% organic material) found, are prioritized for cleaning. Vaults containing ~50% of debris or trash devices with mesh coated with organic material are cleaned as soon as possible to minimize the risk of flooding or bypass. The remaining CPS drain inlet vaults are cleaned by the end of the calendar year. Trash capture devices located in high trash areas receive a second round of inspection and prioritized cleaning in the spring or summer.

8.2.5 Diversion to POTW

No diversion to POTW control measures are proposed.

8.2.6 Source Controls and Other Control Measures

Mercury Load Avoidance and Reduction

The Permittees are actively implementing mercury recycling programs in all W/MAs in order to reduce mercury loading to the Bay.

Illegal Dumping Cleanup

The Permittees will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs.

Stockpiles, Spills, and Disposal of PCBs

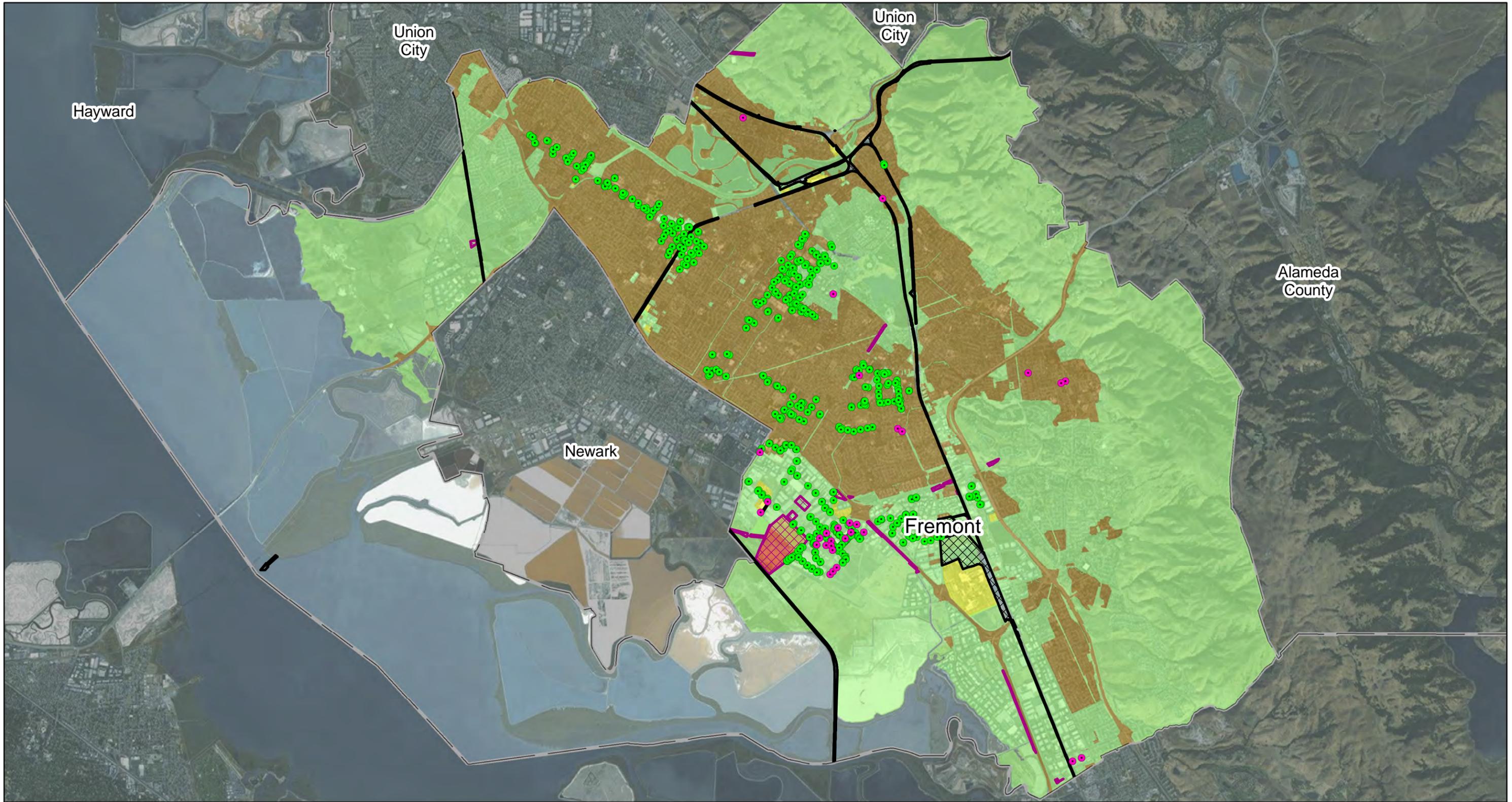
Stockpiles and spills of PCBs will be addressed as they are identified through industrial facility inspection and spill notification programs.

Table 8-1. City of Fremont Watershed/Management Areas & Summary of Control Measures

Control Measure Category	Watershed/Management Area		
	Fremont Old Urban/ Old Industrial	Categorical Railroad	Categorical PG&E
Source Property Identification and Abatement			
Initial Source Property Investigation ¹	C		
Referral of Source Property			
Direct Abatement of Source Property			
Categorical Source Property Referral		P	P
Green Infrastructure / Treatment Control Measures			
Redevelopment Subject to C.3	O		
GI/Treatment Measures Not Subject to C.3			
Full Trash Capture Devices (HDS)			
Managing PCBs in Building Materials and Infrastructure			
Managing PCBs in Building Materials			
Managing PCBs in Infrastructure			
Enhanced O&M			
Street Sweeping			
Storm Drain Inlet Cleaning	O	O	O
Pump Station Maintenance			
Desilting of Channels and Culverts			
Street Flushing			
Storm Drain Line Cleaning			
Diversion to POTW			
Diversion to POTW			
Source Controls and Other Control Measures			
Mercury Load Avoidance and Reduction	O		
Illegal Dumping Cleanup	O		
Stockpiles, Spills, and Disposal of PCBs	O		

Key: Completed (C) – this control measure has been completed, Ongoing (O) – implementation of this control measure implementation is ongoing, Planned (P) – implementation of this control measure is planned during this permit term within this W/MA.

Notes: 1. Support activity for the control measure (referral and abatement).



Legend

Categorical Management Areas	Other Management Areas	Other Land Classifications	Other Old Industrial Screening Results	HDS Devices	Other Full Trash Capture Devices	City / County Limits
PG&E	Fremont Old Urban	Open / New Urban	High Likelihood	●	●	
Railroads	Fremont Old Industrial Management Area	Low No Likelihood	Moderate Likelihood			

**Potential Watershed/Management Areas
Fremont**

Alameda Countywide Clean Water Program

Geosyntec
consultants

Oakland September 2016

**Figure
8-1**

9 City of Hayward

9.1 List of Watersheds / Management Areas and Control Measures

The watersheds / management areas (W/MAs) within the City of Hayward are shown on Figure 9-1 and are listed below:

1. West Hayward
2. East Hayward
3. Categorical Railroad
4. Categorical PG&E

9.2 Scope and Schedule of PCBs Control Measures

A summary of the control measures that are currently being implemented or will be implemented during the term of the permit in each of the W/MAs is provided in Table 9-1 and are discussed in the sections below.

9.2.1 Source Property Identification and Abatement

PCBs-Contaminated Properties Referred to the Regional Water Board

No properties within the City of Hayward have been referred to the SFBRWQCB as a result of implementation of the Source Property Identification and Abatement control measure to date.

Ongoing Investigations

Ongoing investigations may result in a property referral in the future.

9.2.2 Green Infrastructure / Treatment Control Measures

The City of Hayward is currently expanding and redeveloping Whitesell Road to connect from Highway 92 to Clawiter Street, a large project within the City's Old Industrial area that includes C.3 implementation throughout the project. The City of Hayward is also planning to install three large CDS units in spring of 2017 for trash reduction.

Any development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

9.2.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

9.2.4 Enhanced Operation and Maintenance Control Measures

Enhanced inlet cleaning will be implemented for all inlet-based full trash capture devices (i.e., CPS units).

9.2.5 Diversion to POTW

No diversion to POTW control measures are proposed.

9.2.6 Source Controls and Other Control Measures

Mercury Load Avoidance and Reduction

The Permittees are actively implementing mercury recycling programs in all W/MAs in order to reduce mercury loading to the Bay.

Illegal Dumping Cleanup

The Permittees will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs.

Stockpiles, Spills, and Disposal of PCBs

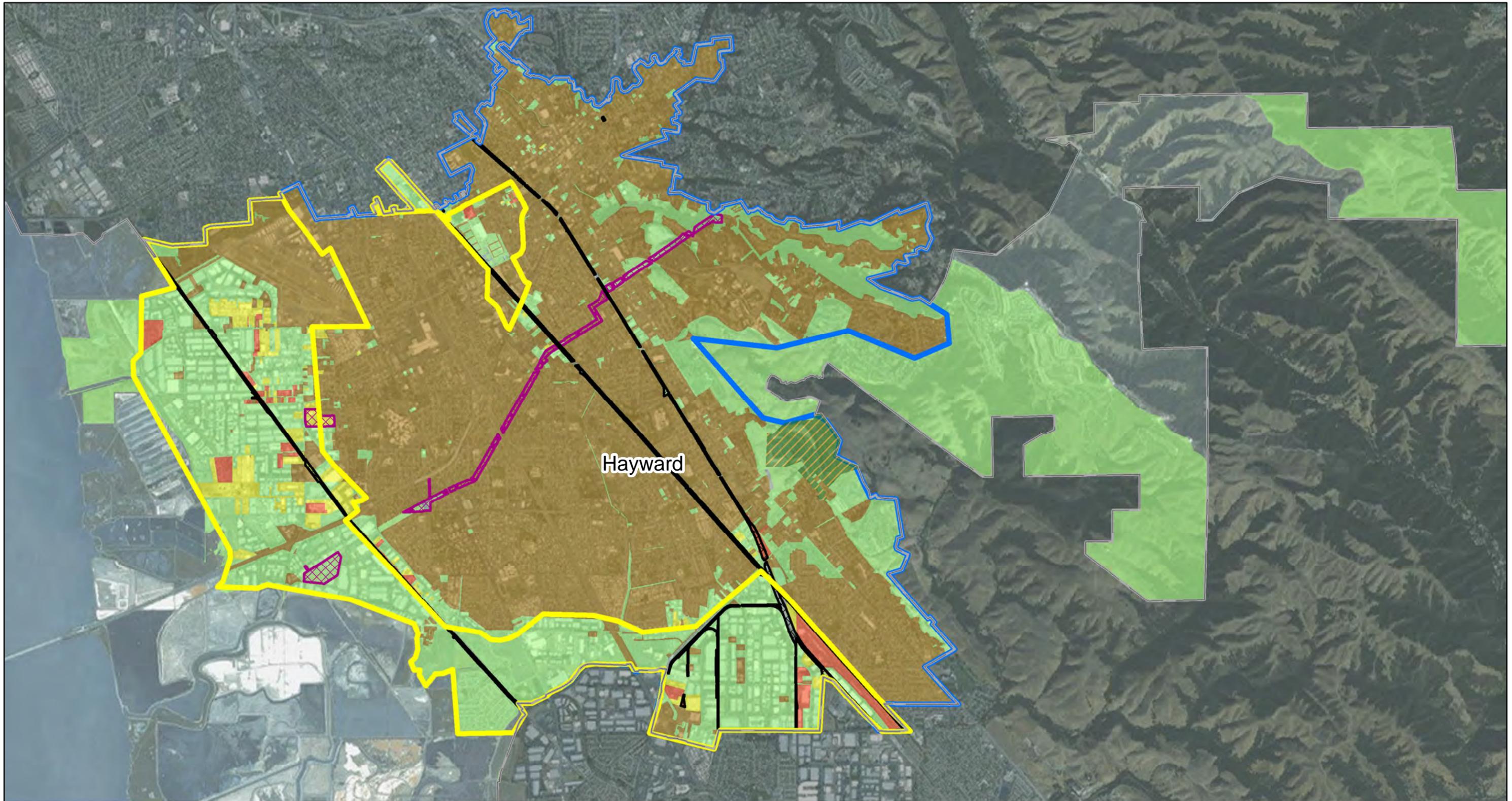
Stockpiles and spills of PCBs will be addressed as they are identified through industrial facility inspection and spill notification programs.

Table 9-1. City of Hayward Watershed/Management Areas & Summary of Control Measures

Control Measure Category	Watershed/Management Area			
	West Hayward	East Hayward	Categorical Railroad	Categorical PG&E
Source Property Identification and Abatement				
Initial Source Property Investigation ¹	O	O		
Referral of Source Property				
Direct Abatement of Source Property				
Categorical Source Property Referral			P	P
Green Infrastructure / Treatment Control Measures				
Redevelopment Subject to C.3	O	O		
GI/Treatment Measures Not Subject to C.3				
Full Trash Capture Devices (HDS)		O		
Managing PCBs in Building Materials and Infrastructure				
Managing PCBs in Building Materials				
Managing PCBs in Infrastructure				
Enhanced O&M				
Street Sweeping				
Storm Drain Inlet Cleaning	O	O	O	
Pump Station Maintenance				
Desilting of Channels and Culverts				
Street Flushing				
Storm Drain Line Cleaning				
Diversion to POTW				
Diversion to POTW				
Source Controls and Other Control Measures				
Mercury Load Avoidance and Reduction	O	O		
Illegal Dumping Cleanup	O	O		
Stockpiles, Spills, and Disposal of PCBs	O	O		

Key: Completed (C) – this control measure has been completed, Ongoing (O) – implementation of this control measure implementation is ongoing, Planned (P) – implementation of this control measure is planned during this permit term within this W/MA.

Notes: 1. Support activity for the control measure (referral and abatement).



Legend Categorical Management Areas PG&E Railroads Other Management Areas West Hayward East Hayward		Old Industrial Screening Results High Likelihood Moderate Likelihood Low No Likelihood	Other Land Classifications Open / New Urban Old Urban / Other Classification to be Confirmed	HDS Devices Other Trash Capture Devices City / County Limits	N 0 5,000 10,000 Feet	Potential Watershed/Management Areas Hayward Alameda Countywide Clean Water Program	
				 consultants		Figure 9-1	Oakland

10 City of Livermore

10.1 List of Watersheds / Management Areas and Control Measures

The watersheds / management areas (W/MAs) within the City of Livermore are shown on Figure 10-1 and are listed below:

1. East Livermore
2. Livermore Old Urban
3. Categorical Railroad
4. Categorical PG&E

10.2 Scope and Schedule of PCBs Control Measures

A summary of the control measures that are currently being implemented or will be implemented during the term of the permit in each of the W/MAs is provided in Table 10-1 and are discussed in the sections below.

10.2.1 Source Property Identification and Abatement

PCBs-Contaminated Properties Referred to the Regional Water Board

No properties within the City of Livermore have been referred to the SFBRWQCB as a result of implementation of the Source Property Identification and Abatement control measure to date.

Ongoing Investigations

Ongoing investigations may result in a property referral in the future.

10.2.2 Green Infrastructure / Treatment Control Measures

Any development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

10.2.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

10.2.4 Enhanced Operation and Maintenance Control Measures

Enhanced inlet cleaning will be implemented for all inlet-based full trash capture devices (i.e., CPS units).

10.2.5 Diversion to POTW

No diversion to POTW control measures are proposed.

10.2.6 Source Controls and Other Control Measures

Mercury Load Avoidance and Reduction

The Permittees are actively implementing mercury recycling programs in all W/MAs in order to reduce mercury loading to the Bay.

Illegal Dumping Cleanup

The Permittees will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs.

Stockpiles, Spills, and Disposal of PCBs

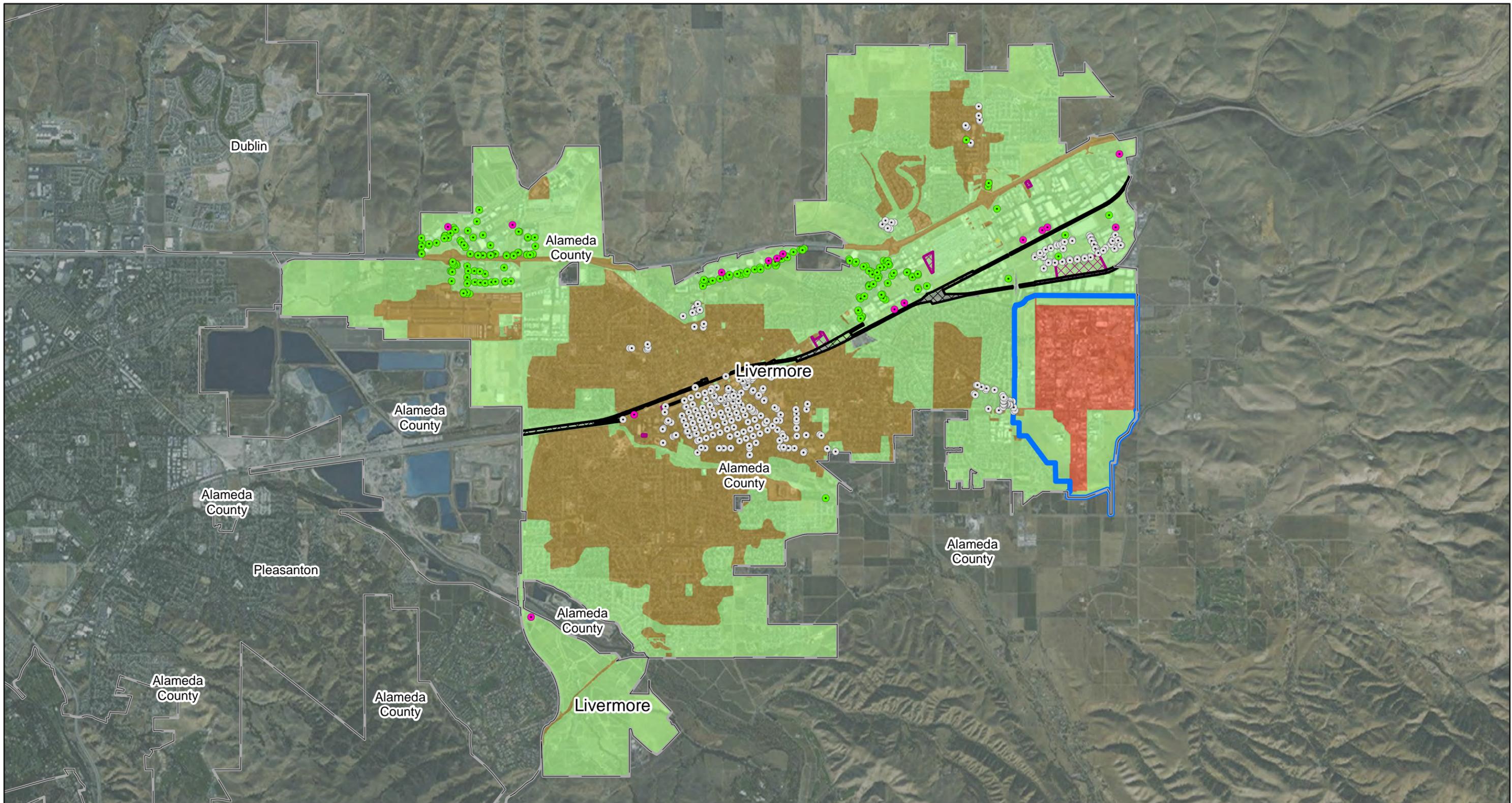
Stockpiles and spills of PCBs will be addressed as they are identified through industrial facility inspection and spill notification programs.

Table 10-1. City of Livermore Watershed/Management Areas & Summary of Control Measures

Control Measure Category	Watershed/Management Area			
	East Livermore	Livermore Old Urban	Categorical Railroad	Categorical PG&E
Source Property Identification and Abatement				
Initial Source Property Investigation ¹	C	C		
Referral of Source Property				
Direct Abatement of Source Property				
Categorical Source Property Referral			P	P
Green Infrastructure / Treatment Control Measures				
Redevelopment Subject to C.3	O	O		
GI/Treatment Measures Not Subject to C.3				
Full Trash Capture Devices (HDS)		O		
Managing PCBs in Building Materials and Infrastructure				
Managing PCBs in Building Materials				
Managing PCBs in Infrastructure				
Enhanced O&M				
Street Sweeping				
Storm Drain Inlet Cleaning	P	O, P	P	P
Pump Station Maintenance				
Desilting of Channels and Culverts				
Street Flushing				
Storm Drain Line Cleaning				
Diversion to POTW				
Diversion to POTW				
Source Controls and Other Control Measures				
Mercury Load Avoidance and Reduction	O	O		
Illegal Dumping Cleanup	O	O		
Stockpiles, Spills, and Disposal of PCBs	O	O		

Key: Completed (C) – this control measure has been completed, Ongoing (O) – implementation of this control measure implementation is ongoing, Planned (P) – implementation of this control measure is planned during this permit term within this W/MA.

Notes: 1. Support activity for the control measure (referral and abatement).



Legend

Categorical Management Areas	Other Management Areas	Old Industrial Screening Results	Other Land Classifications	HDS Devices
PG&E	East Livermore	High Likelihood	Open / New Urban	Other Full Trash Capture Devices
Railroads	Livermore Old Urban	Moderate Likelihood		Proposed Other Full Capture Trash Devices
		Low No Likelihood		City / County Limits

**Potential Watershed/Management Areas
Livermore**

Alameda Countywide Clean Water Program

Geosyntec
consultants

Oakland September 2016

**Figure
10-1**



11 City of Newark

11.1 List of Watersheds / Management Areas and Control Measures

The watersheds / management areas (W/MAs) within the City of Newark are shown on Figure 11-1 and are listed below:

1. Newark Industrial Area
2. Newark Old Urban
3. Categorical Railroad
4. Categorical PG&E

11.2 Scope and Schedule of PCBs Control Measures

A summary of the control measures that are currently being implemented or will be implemented during the term of the permit in each of the W/MAs is provided in Table 11-1 and are discussed in the sections below.

11.2.1 Source Property Identification and Abatement

PCBs-Contaminated Properties Referred to the Regional Water Board

No properties within the City of Newark have been referred to the SFBRWQCB as a result of implementation of the Source Property Identification and Abatement control measure to date.

Ongoing Investigations

Ongoing investigations may result in a property referral in the future.

11.2.2 Green Infrastructure / Treatment Control Measures

Any development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

11.2.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

11.2.4 Enhanced Operation and Maintenance Control Measures

Enhanced inlet cleaning will be implemented for all inlet-based full trash capture devices (i.e., CPS units).

11.2.5 Diversion to POTW

No diversion to POTW control measures are proposed.

11.2.6 Source Controls and Other Control Measures

Mercury Load Avoidance and Reduction

The Permittees are actively implementing mercury recycling programs in all W/MAs in order to reduce mercury loading to the Bay.

Illegal Dumping Cleanup

The Permittees will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs.

Stockpiles, Spills, and Disposal of PCBs

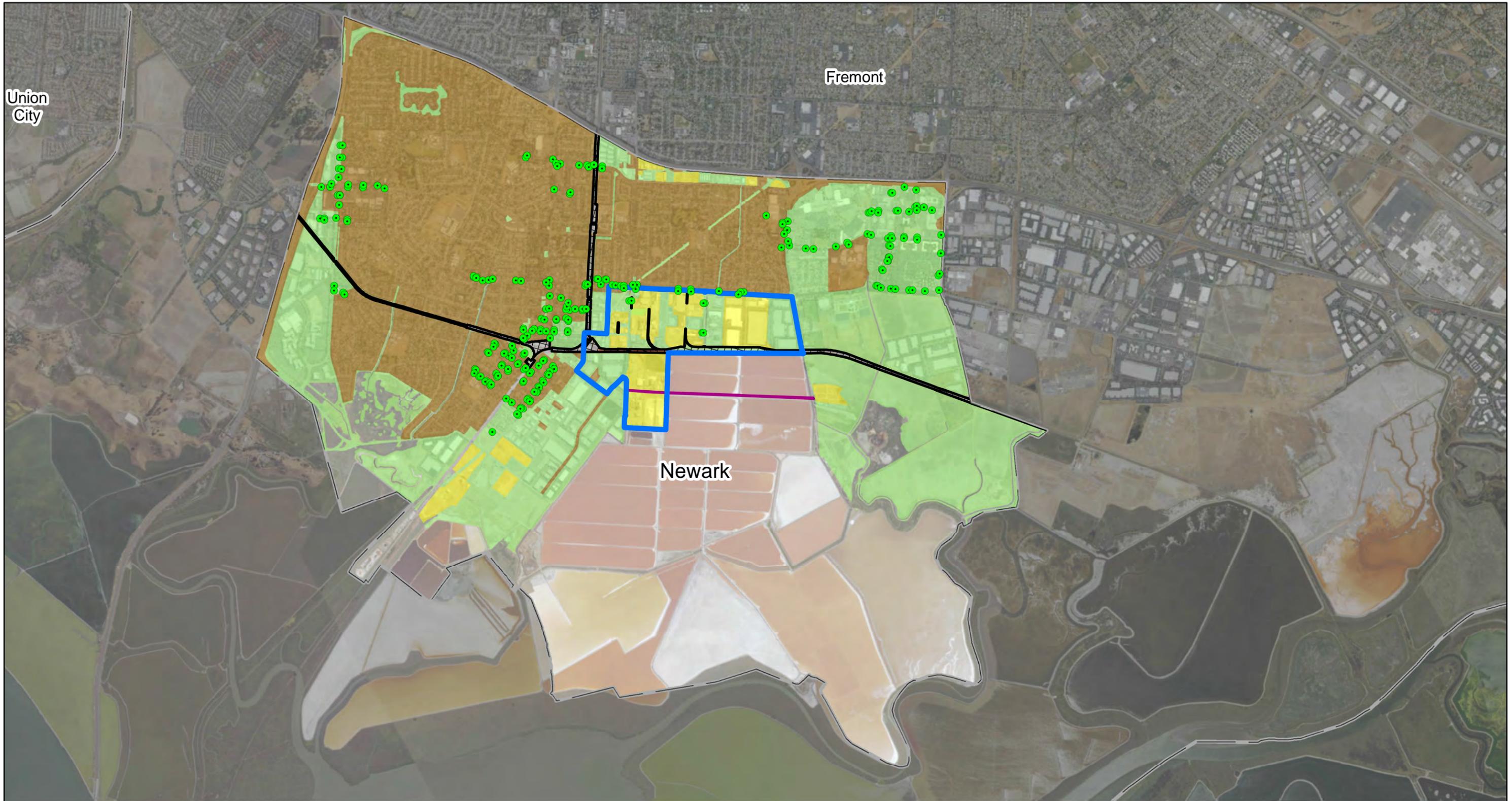
Stockpiles and spills of PCBs will be addressed as they are identified through industrial facility inspection and spill notification programs.

Table 11-1. City of Newark Watershed/Management Areas & Summary of Control Measures

Control Measure Category	Watershed/Management Area			
	Newark Industrial Area	Newark Old Urban	Categorical Railroad	Categorical PG&E
Source Property Identification and Abatement				
Initial Source Property Investigation ¹	C	C		
Referral of Source Property				
Direct Abatement of Source Property				
Categorical Source Property Referral			P	P
Green Infrastructure / Treatment Control Measures				
Redevelopment Subject to C.3	O	O		
GI/Treatment Measures Not Subject to C.3				
Full Trash Capture Devices (HDS)				
Managing PCBs in Building Materials and Infrastructure				
Managing PCBs in Building Materials				
Managing PCBs in Infrastructure				
Enhanced O&M				
Street Sweeping				
Storm Drain Inlet Cleaning	O	O	O	
Pump Station Maintenance				
Desilting of Channels and Culverts				
Street Flushing				
Storm Drain Line Cleaning				
Diversion to POTW				
Diversion to POTW				
Source Controls and Other Control Measures				
Mercury Load Avoidance and Reduction	O	O		
Illegal Dumping Cleanup	O	O		
Stockpiles, Spills, and Disposal of PCBs	O	O		

Key: Completed (C) – this control measure has been completed, Ongoing (O) – implementation of this control measure implementation is ongoing, Planned (P) – implementation of this control measure is planned during this permit term within this W/MA.

Notes: 1. Support activity for the control measure (referral and abatement).



Legend

Categorical Management Areas	Other Management Areas	Old Industrial Screening Results	Other Land Classifications	Other Full Trash Capture Devices
PG&E	Newark Industrial Area	High Likelihood	Open / New Urban	City / County Limits
Railroads	Newark Old Urban	Moderate Likelihood		
		Low No Likelihood		

Potential Watershed/Management Areas Newark

Alameda Countywide Clean Water Program

Geosyntec
consultants

Oakland | September 2016

Figure 11-1

12 City of Oakland

12.1 List of Watersheds / Management Areas and Control Measures

The watersheds / management areas (W/MAs) within the City of Oakland are shown on Figure 12-1 and are listed below. Details for each W/MA are shown on Figures 12-2 through 12-7. The detail maps show land uses (i.e., Old Urban (brown); New Urban and Open (pale green)); non-municipally owned electrical utility parcels (i.e., PG&E, purple crosshatch); railroad parcels (black crosshatch); classification to be confirmed (green crosshatch); and the 2015 PCBs source property screening results (i.e., high (orange), moderate (yellow), and low/no likelihood (green)). The detail map for the West Oakland Management Area (Figure 12-5) also shows known properties referred for PCBs (blue); other PCB source properties (from the CW4CB Task 3 referrals, DTSC EnviroStor, and the State Water Board Geotracker, in red or brown crosshatching); and monitoring data (blue, yellow, and fuchsia triangles).

1. Port-Related (Figures 12-2 (Seaport) and 12-3 (Airport))
2. Oakland Army Base (Figure 12-4)
3. West Oakland (Figure 12-5, includes the Ettie Street Pump Station (ESPS) Watershed)
4. Planned Redevelopment Areas (Figure 12-6, includes Lake Merritt BART Station Area, Brooklyn Basin, International Boulevard TOD Plan, Central Estuary Area Plan, and Coliseum Area Specific Plan)
5. Old Industrial (Figure 12-7)
6. Old Urban (Figure 12-7)
7. Categorical Railroad
8. Categorical PG&E

12.2 Scope and Schedule of PCBs Control Measures

A summary of the control measures that are currently being implemented or will be implemented during the term of the permit in each of the W/MAs is provided in Table 12-2 and are discussed in the sections below.

12.2.1 Source Property Identification and Abatement

PCBs-Contaminated Properties Referred to the Regional Water Board

Three properties within the City of Oakland have been referred to the SFBRWQCB as a result of the inspection and monitoring activities conducted within the ESPS Watershed as part of the Clean Watersheds for a Clean Bay project: AMG, CASS, and Giampolini (see Table 12-1 below). The location of these three properties is shown on Figure 12-5 in bright blue.

Table 12-1: Property Referrals

NO.	SITE	LOCATION	GENERAL USES OF SOURCE PROPERTY	TOTAL AREA OF PROPERTY (ACRES)
1	AMG	3428-3434 Helen Street	Appliance recycling	0.3
2	CASS	2711 Peralta	Foundry, scrap metal	7.9
3	Giampolini	2838 Hannah Street	Paint contractor	1.9

AMG provides general construction services (abatement services) to remove hazardous materials (lead, asbestos, PCBs) from buildings that will be or have been demolished. AMG conducts both interior demolition and exterior demolition. AMG removes caulk and tiles (containing asbestos and PCBs) using hand tools, contains it in plastic, and stores it in an enclosed container onsite.

CASS is a large scrap metal recycling facility operating on four adjacent city blocks. The central facility is the main receiving and sorting area where individuals and small wholesalers deliver metal scrap loads. The eastern facility is where aluminum is taken to be melted down to ingots. The western facility is where large scrap is cut down to manageable sizes and bailed scrap is stored. The northern facility is their parking, machine shop, and community work space.

The former Giampolini property is an irregularly-shaped property bordered by Hannah Street on the west; Peralta Street to the south and Helen Street to the east. Residential and industrial properties border the site to the north. A paint facility was present on the south half of the Site from at least 1939 until the mid-1960s. The paint factory included a varnish kitchen operation. During this time period, the covered storage building on the northwest side of the site was occupied by a reinforcing steel (rebar) bending and storage facility. Foreign Auto Wreckers operated an automobile dismantling business at the Site from the 1980s until 2000.

A large PCBs-contaminated property, the Oakland Army Base, is being self-abated as a part of the property's redevelopment process. A transformer oil spill containing 17 mg/kg of PCBs was cleaned-up at the site in October 2014, as described in section 12.2.6. A description of the Oakland Army Base redevelopment project is provided under Green Infrastructure/Treatment Controls below.

Ongoing Investigations

Ongoing investigations may result in a property referral in the future.

12.2.2 Green Infrastructure / Treatment Control Measures

Any development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

C.3/Redevelopment

Any development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

A W/MA has been designated for the Oakland Army Base and one W/MA has been designated for the other planned redevelopment areas combined, based on existing Specific Plan and/or Redevelopment Plan boundaries. The planned redevelopment in these W/MAs is described below.

Oakland Army Base

The Oakland Army Base is a 360-acre area bounded by Interstate 80, East Bay Municipal Utility District wastewater treatment plant, Oakland Inner, Middle and Outer Harbor (Port of Oakland), Interstate 880, and 7th Street (see Figure 12-4). The Army Base served as a U.S. Army facility until it closed in 1999. In 2000, the Oakland City Council designated the Base and surrounding properties as a Redevelopment Project Area. The 1,800-acre Army Base Project Area was divided into three major sub-districts: 16th and Wood, Maritime, and Oakland Army Base (OARB). The OARB was further divided into two areas: the Gateway Development Area owned by the Oakland Redevelopment Agency and the Port Development Area owned by the Port of Oakland. Following the dissolution of the Redevelopment Agency in 2012, the Gateway Development Area was transferred to the City by deed and the City assumed all of the environmental obligations attached to the entire former OARB sub-district, and all of the redevelopment obligations for the Gateway Development Area.

On July 3, 2012, the Oakland City Council approved a master plan for the development of a mixed-use project of commercial, maritime, rail, and open space uses on the former Army Base and

adjacent Port property (the "Oakland Army Base Project"). Since then, the City has accomplished the following major milestones:

- On October 23, 2012, the City executed a Lease Disposition and Development Agreement (LDDA) with Prologis CCIG Oakland Global to develop the public infrastructure and approximately 120 acres of the former Army Base. The LDDA spells out the financial terms, the scope of development, and other considerations for developing the Army Base. Construction of the public infrastructure, the first phase of the multi-phased project, began November 1, 2013. In this redevelopment phase, the City, with the support of the Port and CCIG, is delivering public improvements, which include:
 - Soil stabilization;
 - Remediation of hazardous substances; and
 - Construction of all new public infrastructure, including roadways, utilities, rail improvements, and environmentally supportive bioswales and landscaping.
- On May 7, 2013, the California Transportation Commission (CTC) executed a grant agreement to provide the City with approximately \$176.3 million from the Trade Corridor Improvement Fund (TCIF) for the construction of public improvements.
- On May 7, 2013, and again on April 2, 2014, the City extended the Exclusive Negotiation Agreement (ENA) with California Waste Solutions (CWS) and Custom Alloy Scrap Sales (CASS) for the development of approximately 22 acres in the North Gateway Area of the Army Base. The ENA expired in December 2014.
- On July 30, 2014, the City executed a Lease Disposition and Development Agreement (LDDA) with OMSS, LLC to develop approximately 17 acres of the Army Base for Ancillary Maritime Support (AMS) services. The LDDA spells out the financial terms, scope of development, and other considerations for developing the AMS project. Construction of the project is anticipated to begin in the fourth quarter of 2016.

Lake Merritt BART Station Area

The Lake Merritt Station Area Plan, a Specific Plan for the area around the Lake Merritt BART Station in Downtown Oakland, was adopted in December 2014. The Plan envisions a high-intensity neighborhood around a rejuvenated Lake Merritt BART station. It seeks to reinforce and integrate the cultural and recreational resources that make the area around the transit station unique. The Plan identifies ways in which streets, open spaces, and other infrastructure in the

area can be enhanced and establishes regulations for development projects that further the area's vibrancy.

Brooklyn Basin

The Brooklyn Basin (formerly "Oak to Ninth Mixed Use Development") project was approved by the Oakland City Council on July 18, 2006. The project site is approximately 64 acres of waterfront property bounded by Embarcadero Road, Fallon Street, Tenth Avenue and the Estuary. The project includes up to 3,100 residential units including 465 affordable housing units, 200,000 square feet of ground-floor commercial space, a minimum of 3,950 parking spaces, approximately 32 acres of parks and public open space, two renovated marinas (total 170 boat slips), and an existing wetlands restoration area. The existing buildings on the site will be demolished with the exception of the Jack London Aquatic Center, a portion of the Ninth Avenue Terminal shed building, and a portion of the Ninth Avenue Terminal wharf structure. The project does not include approximately six acres of privately-held property along the east of Fifth Avenue that contain a mix of commercial and industrial uses, as well as a small community of work/live facilities. The project will be constructed in four phases over a seventeen-year period.

The City of Oakland approved the Phase 1 Streets & Infrastructure Final Development Permit in March 2015 and roadway construction activities got underway. Construction activities included site remediation for hazardous materials. Currently, ZOHP, the developer for Brooklyn Basin, has begun to improve Embarcadero Road from the Embarcadero Bridge southeast to 10th Avenue.

International Boulevard Transit Oriented Development Plan

The International Boulevard Transit Oriented Development (TOD) Plan explores opportunities for developing TODs at select locations along International Boulevard. The impetus for the International Boulevard TOD Plan is to leverage a planned Bus Rapid Transit (BRT) system – which would extend across multiple cities and run along the full length of International Boulevard on its route, with multiple stops along the corridor – to improve conditions along the street itself and in surrounding neighborhoods. Construction of the BRT system is expected to bring millions of dollars of new investment in infrastructure to the corridor and result in significant physical improvements to the street. The TOD Plan assesses opportunities for developing TOD projects along International Boulevard, identifies possible strategies for realizing TOD projects in these areas, and develops a menu of options for implementing the strategies. The TOD Plan also supports the City's current land use framework that encourages higher-density developments near transit hubs and along major commercial corridors, promotes high-quality urban design in

the city's neighborhoods, and encourages economic development within targeted neighborhoods.

Central Estuary Area Plan

The City of Oakland adopted the Central Estuary Area Plan (CEAP) in 2013 to guide future development in the Central Estuary Area which encompasses 19th Ave. to 54th Ave and I-880 to the Estuary. The Plan focuses on ten sub-districts where the intensification of commercial/industrial uses is anticipated. The CEAP includes design guidelines and zoning regulations for the various sub-districts. The development contemplated as part of the CEAP would allow for an increase of 390 residential units, 30 live/work units, 370,000 square feet of industrial area, 700,000 square feet of commercial area, and 10 acres of new park space. Additionally, transportation and infrastructure improvements are recommended to address infrastructure deficiencies.

Coliseum Area Specific Plan

The Coliseum Area Specific Plan, which was adopted in March 2015, will guide the future development of the Oakland-Alameda County Coliseum site and the area across I-880 (Oakland Airport Edgewater Business Park). The Plan seeks to transform the underutilized land around the Oakland-Alameda County Coliseum and Arena into a world-class sport, entertainment, and science & technology district that boasts a dynamic and active urban setting with retail, entertainment, arts, culture, live and work uses. The Plan provides both a short-term development plan for the accommodation of up to three new venues for the City's professional sports teams, and a longer term, 25-year planning document providing a roadmap for land use policy, regulatory requirements and public and private investment that coordinates future development in the Coliseum Area. The Plan covers approximately 800 acres, bounded by 66th Avenue to the north, San Leandro Street on the east, Hegenberger Road on the south, and San Leandro Bay and the Oakland International Airport to the west.

Green Infrastructure Projects

A few of Oakland's implemented or planned green infrastructure projects are summarized below.

Latham Square

The approximately ¼ acre Latham Square project was completed in July 2016. The project reconstructed the Latham Square Plaza and neighboring roadways and intersections. The Project area is Telegraph Avenue from Broadway to 17th Street, Broadway from 14th Street to 17th

Street, and 16th Street from Telegraph to San Pablo Avenue. The improvements include expansion of the Latham Square Plaza, improved intersections, traffic signal upgrades, new roadway surfacing, bulb-outs, restoration of the historic Latham fountain, informational panels, landscaping, and pedestrian and decorative lighting. Green infrastructure components include raingardens along Broadway.

San Pablo Avenue Green Stormwater Spine

The San Pablo Avenue Green Stormwater Spine is a San Francisco Estuary Partnership pilot project and model for Bay Area municipalities implementing green infrastructure projects as part of their stormwater management efforts. The Spine Project will design, build, and monitor an array of low impact development (LID) projects distributed along 12.5 miles of San Pablo Avenue, in partnership with a number of East Bay cities. Within the City of Oakland, the project includes:

- Installation of a rain garden, new bike lane, and wider sidewalk on one acre between 16th and 17th. Construction is anticipated to start in November 2016.
- Installation of a rain garden on one acre at West Macarthur. Construction is anticipated to start in November 2016.

Lakeside Green Street Project

The intersection of 20th Street, Lakeside Drive, and Harrison Street adjacent to Snow Park will be reconfigured to calm traffic, create safer pedestrian crossings, add bike lanes, and increase park space. The project includes rain gardens and swales to treat roadway runoff.

Municipal Sailboat House Shoreline

The Lake Merritt Sailboat House Shoreline project, funded by voter-approved Measure DD, continued the water quality, wildlife habitat, pedestrian and cycling improvements that have transformed the lake in recent years. The project added new intertidal and marsh habitat, improved water quality, and increased public access and nature education opportunities. Specific stormwater-related improvements included moving the existing parking lot away from the Lake, reducing the area of pavement, and re-grading the parking lot so that stormwater runoff drains into a vegetated bioswale to improve water quality. The project was completed in 2016.

Market Street/Adeline Street Improvements

Planned improvements at the intersection of Market and Adeline include installation of a raingarden.

Broadway/Keith Avenue to Golden Gate Way Bike/Pedestrian Project

This project will incorporate two bioretention areas to treat roadway runoff.

7th Street Streetscape

Phase I of this streetscape improvement project is currently under construction and extends on 7th Street from Peralta to Union. Phase II, which is in design and extends from Wood to Peralta, includes the installation of widened sidewalks, corner bulb-outs, planted medians, reduced traffic lanes, new lighting, trees, and bicycle lanes. In addition, the project contains several art features, including a gateway element, dancing lights, and sidewalk medallions as part of a Blues Walk of Fame.

12.2.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

Oakland implements its Construction and Demolition Debris Waste Reduction and Recycling Ordinance by assigning an access code to each building permit application for online reporting and tracking of debris recycling and disposal via Green Halo Systems (project proponents who opt for paper reporting must pay additional fees). Oakland was the initial adopter of the Green Halo tool and staff use the data to work closely with clients on compliance with the city's ordinance, including advising projects with older buildings that PCB-containing materials may be present. City and Program staff have explored the feasibility of Green Halo upgrades for reporting on abatement and disposal of such materials that could potentially be contracted via the Alameda County Waste Management. The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

12.2.4 Enhanced Operation and Maintenance Control Measures

Enhanced inlet cleaning will be implemented for all inlet-based full trash capture devices (i.e., CPS units) as well as a few inlets in the West Oakland/ESPS Watershed W/MA.

12.2.5 Diversion to POTW

No diversion to POTW control measures are proposed by the City of Oakland, but the ESPS Watershed area would be treated via a diversion from the ESPS.

12.2.6 Source Controls and Other Control Measures

Mercury Load Avoidance and Reduction

The Permittees are actively implementing mercury recycling programs in all W/MAs in order to reduce mercury loading to the Bay.

Illegal Dumping Cleanup

The City of Oakland has an extensive illegal dumping program and devotes significant resources to abating dump sites. Oakland gives priority to all sites within 250 feet of an open waterway. In fiscal year 2015/2016, Oakland responded to over 18,000 service requests for illegal dumping and removed over 36,000 cubic yards of debris. Oakland will continue to identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs.

Stockpiles, Spills, and Disposal of PCBs

In October 2014, a pole-mounted transformer that had been removed from a utility pole at the Oakland Army Base tipped over and spilled transformer oil. The concentration of PCBs in the spilled oil was measured to be 17 mg/kg. The impacted asphalt and soils were excavated and removed from the site (Terraphase Engineering, 2014).

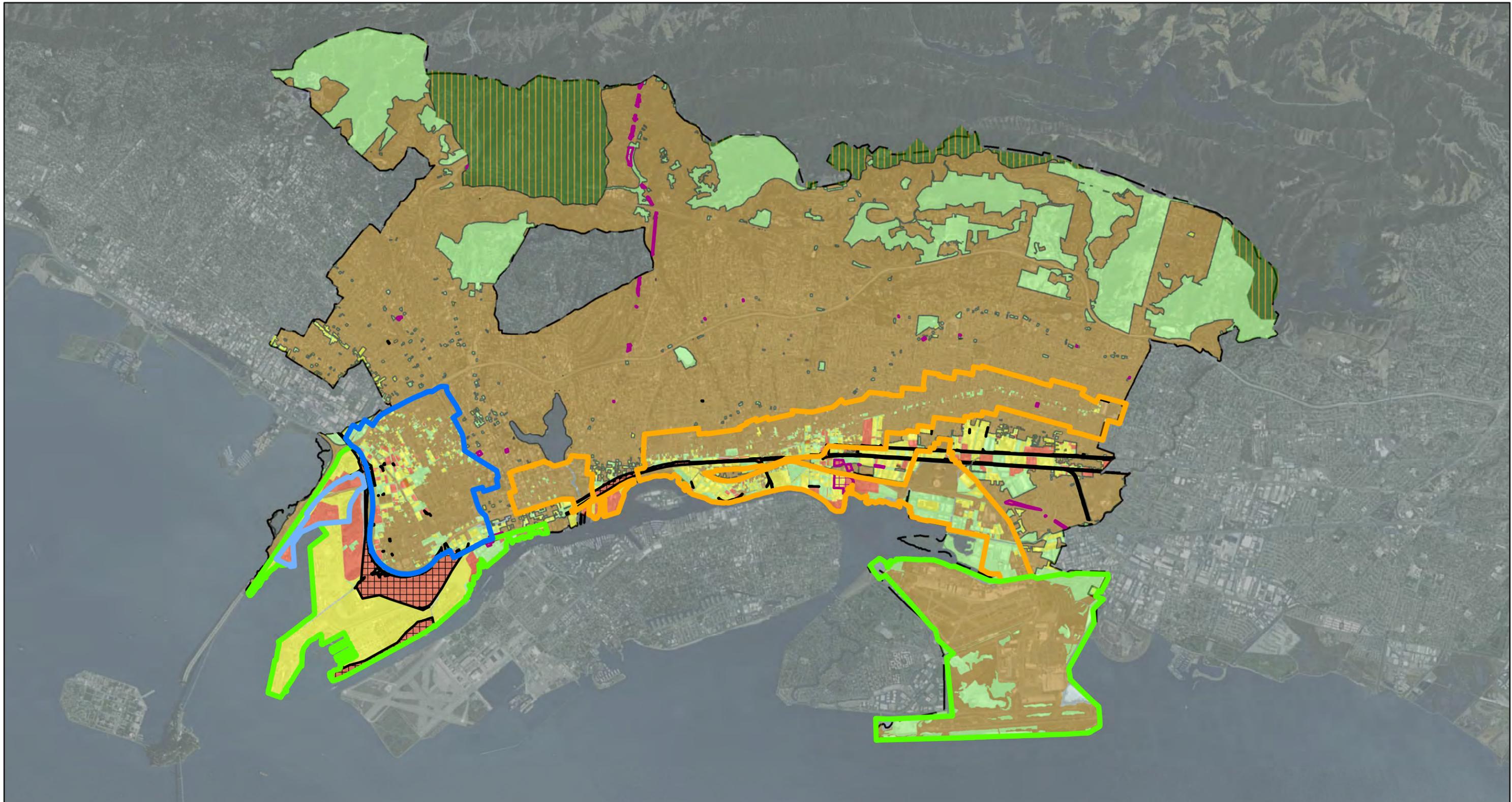
Stockpiles and spills of PCBs will be addressed as they are identified through industrial facility inspection and spill notification programs.

Table 12-2. City of Oakland Watershed/Management Areas & Summary of Control Measures

Control Measure Category	Watershed/Management Area							
	Port-Related	Oakland Army Base	West Oakland/ESPS Watershed	Planned Redevelopment	Other Old Industrial	Old Urban	Categorical Railroad	Categorical PG&E
Source Property Identification and Abatement								
Initial Source Property Investigation ¹	O	O	O		O			
Referral of Source Property			C					
Direct Abatement of Source Property		O		O				
Categorical Source Property Referral							P	P
Green Infrastructure / Treatment Control Measures								
Redevelopment Subject to C.3	O	O	O	O	O	O		
GI/Treatment Measures Not Subject to C.3	O	P	O	O	O	O		
Full Trash Capture Devices (HDS)			C	C		C		
Managing PCBs in Building Materials and Infrastructure								
Managing PCBs in Building Materials								
Managing PCBs in Infrastructure								
Enhanced O&M								
Street Sweeping		P						
Storm Drain Inlet Cleaning	O	O	O	O	O	O		
Pump Station Maintenance								
Desilting of Channels and Culverts								
Street Flushing								
Storm Drain Line Cleaning								
Diversion to POTW								
Diversion to POTW								
Source Controls and Other Control Measures								
Mercury Load Avoidance and Reduction	O	O	O	O	O	O		
Illegal Dumping Cleanup	O	O	O	O	O	O		
Stockpiles, Spills, and Disposal of PCBs	O	O	O	O	O	O		

Key: Completed (C) – this control measure has been completed, Ongoing (O) – implementation of this control measure implementation is ongoing, Planned (P) – implementation of this control measure is planned during this permit term within this W/MA.

Notes: 1. Support activity for the control measure (referral and abatement).



Legend

Management Areas

-  Oakland Army Base
-  Port-Related
-  Planned Redevelopment Areas
-  West Oakland
-  Old Urban

Categorical Management Areas

-  PG&E
-  Railroads

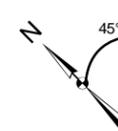
Old Industrial Management Area Screening

-  High Likelihood
-  Moderate Likelihood
-  Low No Likelihood

Other Land Classifications

-  Old Urban / Other
-  Open / New Urban
-  Classification to be Confirmed

 Oakland City Limits



**City of Oakland
Overview Map**

Alameda Countywide Clean Water Program

Geosyntec
consultants

Figure

12-1

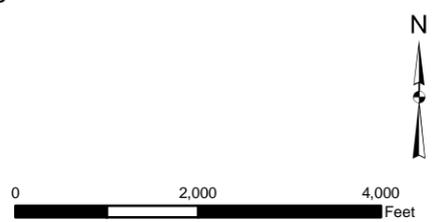
Oakland

September 2016



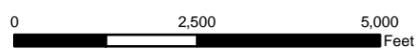
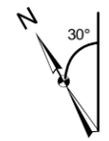
Legend		Old Industrial Screening Results		Other Land Classifications		Oakland City Limits
Management Areas		Categorical Management Areas				
Port-Related	PG&E	High Likelihood	Open / New Urban			
Oakland Army Base	Railroads	Moderate Likelihood	Old Urban / Other			
Planned Redevelopment Areas		Low No Likelihood				
West Oakland						

City of Oakland Port-Related Management Area (Seaport Region)	
Alameda Countywide Clean Water Program	
Geosyntec consultants	
Oakland	September 2016
Figure 12-2	





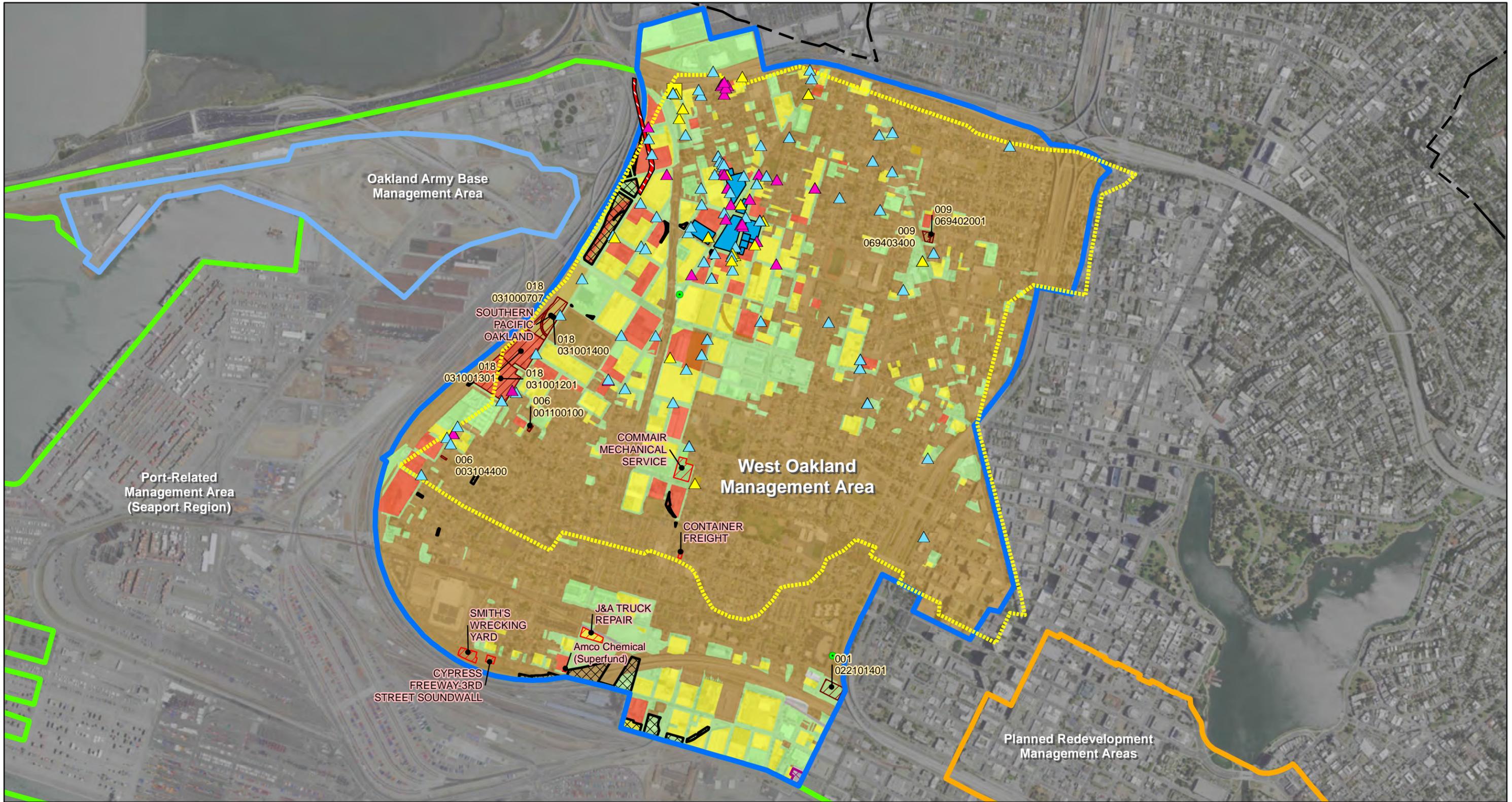
Legend		Management Areas		Old Industrial Screening Results		Other Land Classifications		Oakland City Limits
	Port-Related		Planned Redevelopment Areas		High Likelihood		Open / New Urban	
					Moderate Likelihood		Old Urban / Other	
					Low No Likelihood			



City of Oakland Port-Related Management Area (Airport Region) Alameda Countywide Clean Water Program	
	Figure 12-3
Oakland	September 2016

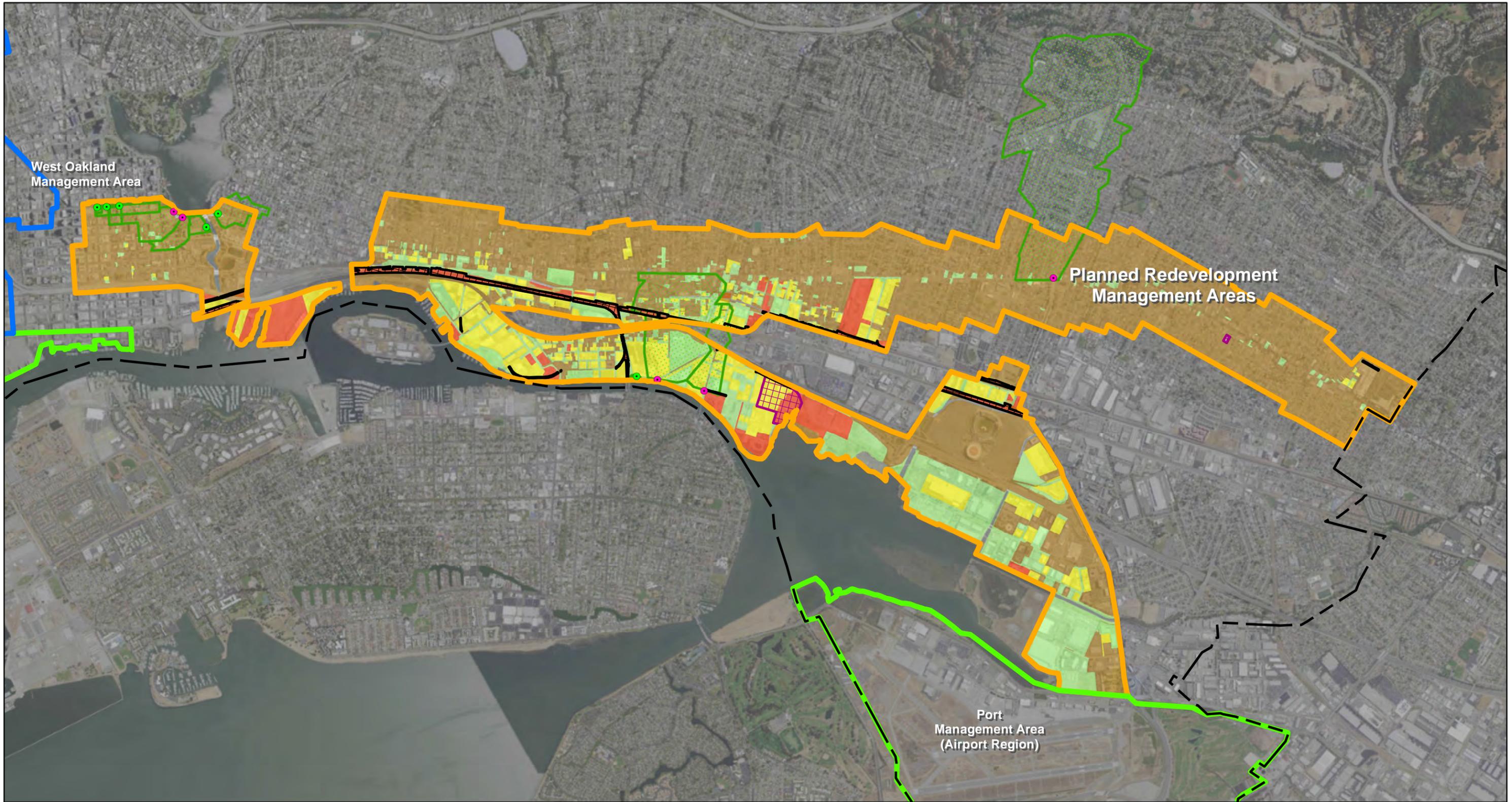


Legend Management Areas Oakland Army Base West Oakland Port (Seaport Region)			Old Industrial Screening Results High Likelihood Moderate Likelihood Low No Likelihood		Other Land Classifications Open / New Urban Old Urban / Other		 Oakland City Limits	
								
City of Oakland Oakland Army Base Management Area Alameda Countywide Clean Water Program						Geosyntec consultants		
Oakland				September 2016		Figure 12-4		



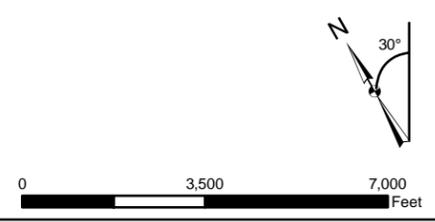
Legend		Old Industrial Screening Results		PCB Sample Results		Other Land Classifications	
Management Areas	Categorical Management Areas	High Likelihood	Moderate Likelihood	< 0.5 mg/kg	0.5 - 1.0 mg/kg	Open / New Urban	Old Urban / Other
West Oakland	PG&E	Low No Likelihood	Low No Likelihood	> 1.0 mg/kg	Envirostor / GeoTracker / EPA Sites	Open / New Urban	
Oakland Army Base	Railroads			Priority Brownfield Sites (Provisional)	Referred Properties	Open / New Urban	
Port-Related					Ettie Street Pump Station	Open / New Urban	
Planned Redevelopment Areas					Illegal Dumping	Old Urban / Other	
					Oakland City Limits		
					Ettie Street Pump Station Watershed		

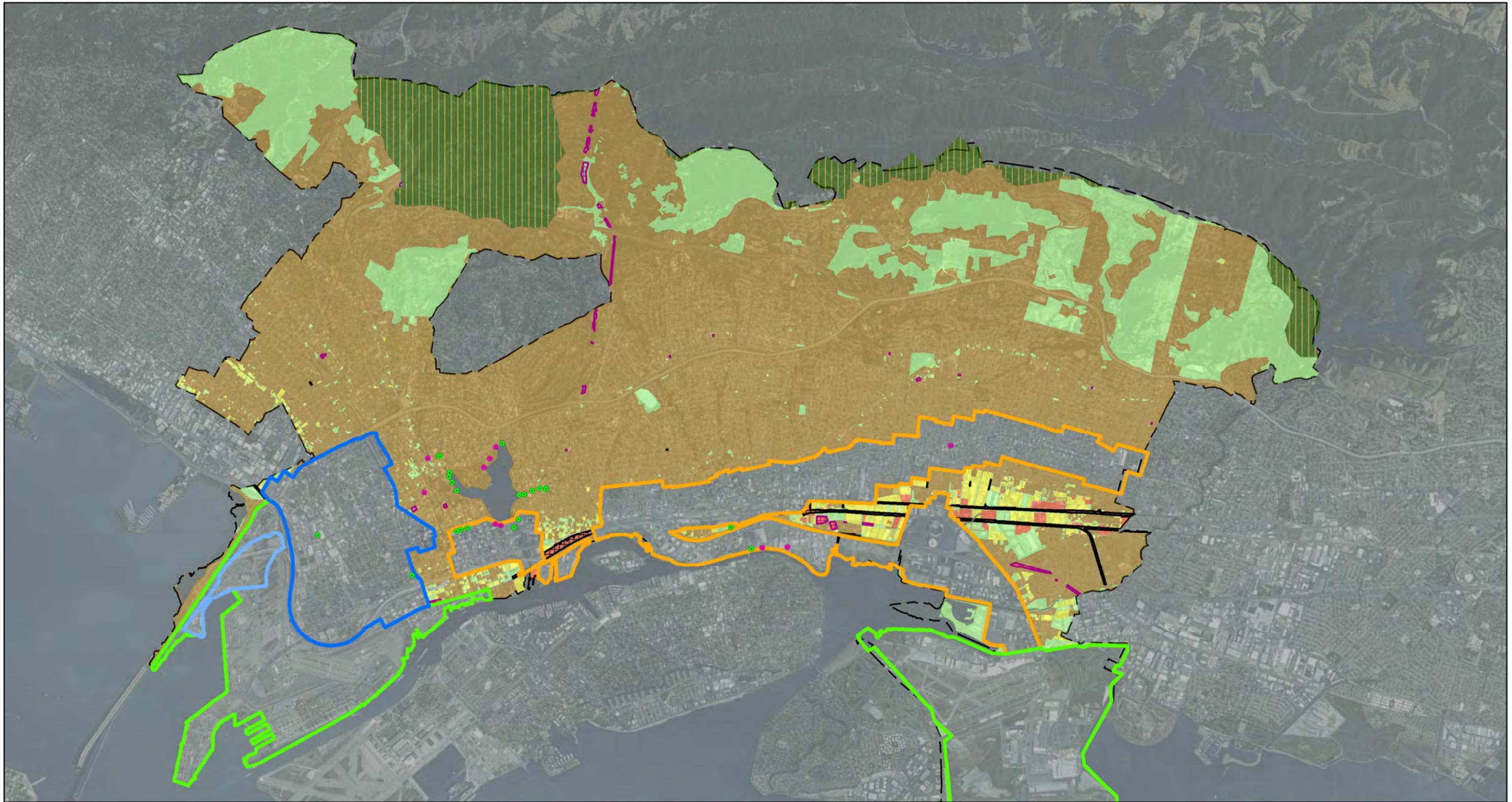
City of Oakland West Oakland Management Area Alameda Countywide Clean Water Program	
Oakland	September 2016
Figure 12-5	



Legend		Other Land Classifications		Old Industrial Screening Results		Oakland City Limits	
Management Areas	Categorical Management Areas	Open / New Urban	High Likelihood	Trash Capture Catchments	Oakland City Limits	HDS Devices	Other Full Trash Capture Devices
Planned Redevelopment Areas	PG&E	Open / New Urban	High Likelihood	Trash Capture Catchments	Oakland City Limits	HDS Devices	Other Full Trash Capture Devices
Oakland Army Base	Railroads	Old Urban / Other	Moderate Likelihood				
Port-Related			Low No Likelihood				
West Oakland							

City of Oakland Planned Redevelopment Management Areas	
Alameda Countywide Clean Water Program	
Oakland	September 2016
Figure 12-6	





Legend		Old Industrial Management Area Screening Results		Other Land Classifications		Oakland City Limits	
Management Areas		Categorical Management Areas		High Likelihood		HDS Devices	
Oakland Old Urban	PG&E	High Likelihood		Open / New Urban		HDS Devices	
Oakland Army Base	Railroads	Moderate Likelihood		Other		Other Full Trash Capture Devices	
Port		Low No Likelihood		Classification to be Confirmed		Oakland City Limits	
Planned Redevelopment Areas						45°	
West Oakland						0 1 2 Miles	

City of Oakland	
Old Urban and Old Industrial Management Areas	
Alameda Countywide Clean Water Program	
Geosyntec consultants	
Oakland	September 2016
Figure 12-7	

13 City of Piedmont

13.1 List of Watersheds / Management Areas and Control Measures

The watersheds / management areas (W/MAs) within the City of Piedmont are shown on Figure 13-1 and are listed below:

1. Piedmont Old Urban
2. Categorical PG&E

13.2 Scope and Schedule of PCBs Control Measures

A summary of the control measures that are currently being implemented or will be implemented during the term of the permit in each of the W/MAs is provided in Table 13-1 and are discussed in the sections below.

13.2.1 Source Property Identification and Abatement

PCBs-Contaminated Properties Referred to the Regional Water Board

No properties within the City of Piedmont have been referred to the SFBRWQCB as a result of implementation of the Source Property Identification and Abatement control measure to date.

Ongoing Investigations

Ongoing investigations may result in a property referral in the future.

13.2.2 Green Infrastructure / Treatment Control Measures

Any development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

13.2.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

13.2.4 Enhanced Operation and Maintenance Control Measures

Enhanced inlet cleaning will be implemented for all inlet-based full trash capture devices (i.e., CPS units).

13.2.5 Diversion to POTW

No diversion to POTW control measures are proposed.

13.2.6 Source Controls and Other Control Measures

Mercury Load Avoidance and Reduction

The Permittees are actively implementing mercury recycling programs in all W/MAs in order to reduce mercury loading to the Bay.

Illegal Dumping Cleanup

The Permittees will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs.

Stockpiles, Spills, and Disposal of PCBs

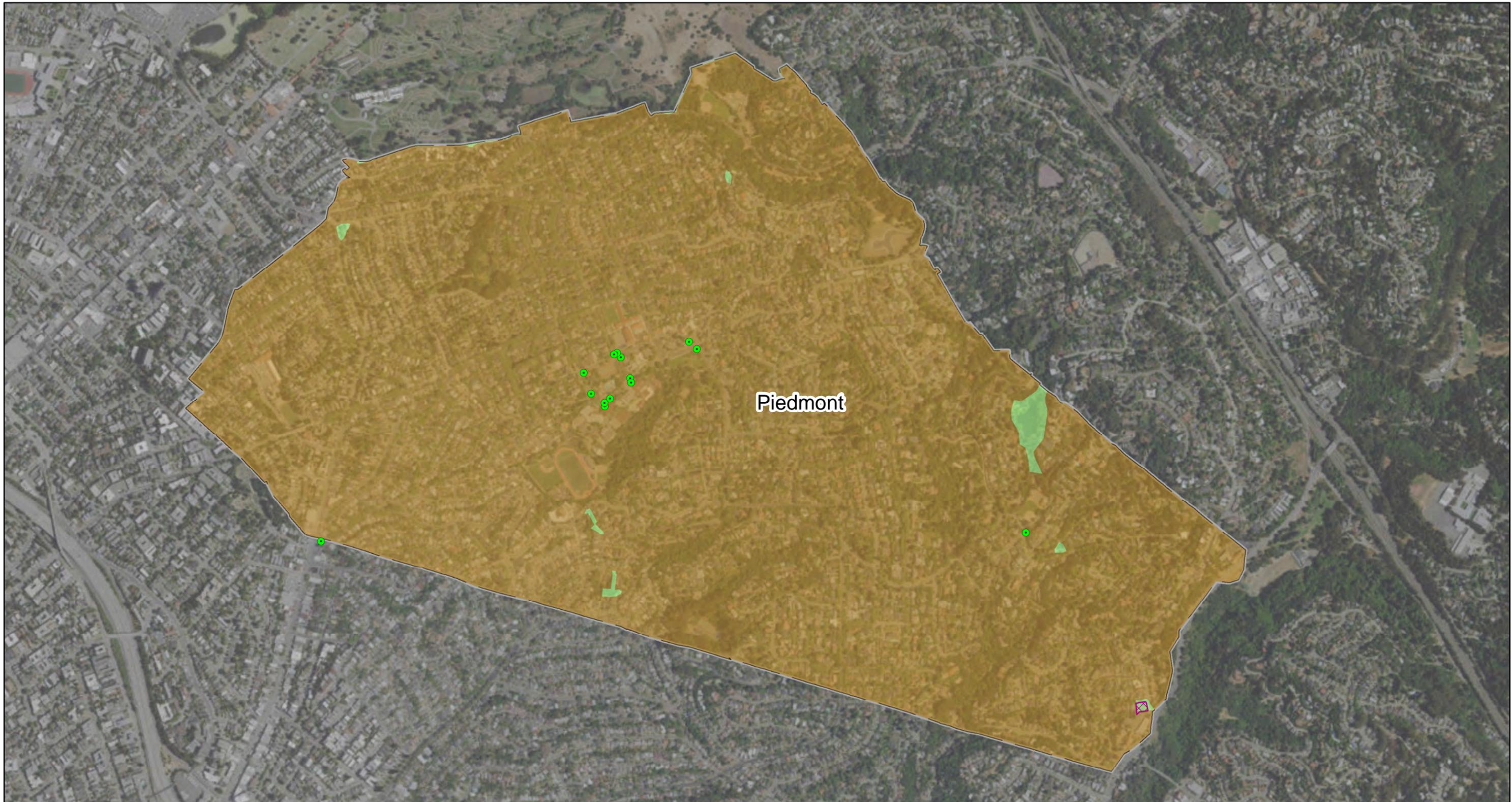
Stockpiles and spills of PCBs will be addressed as they are identified through industrial facility inspection and spill notification programs.

Table 13-1. City of Piedmont Watershed/Management Areas & Summary of Control Measures

Control Measure Category	Watershed/Management Area	
	Piedmont Old Urban	Categorical PG&E
Source Property Identification and Abatement		
Initial Source Property Investigation ¹	C	
Referral of Source Property		
Direct Abatement of Source Property		
Categorical Source Property Referral		P
Green Infrastructure / Treatment Control Measures		
Redevelopment Subject to C.3	O	
GI/Treatment Measures Not Subject to C.3		
Full Trash Capture Devices (HDS)		
Managing PCBs in Building Materials and Infrastructure		
Managing PCBs in Building Materials		
Managing PCBs in Infrastructure		
Enhanced O&M		
Street Sweeping		
Storm Drain Inlet Cleaning	O	
Pump Station Maintenance		
Desilting of Channels and Culverts		
Street Flushing		
Storm Drain Line Cleaning		
Diversion to POTW		
Diversion to POTW		
Source Controls and Other Control Measures		
Mercury Load Avoidance and Reduction	O	
Illegal Dumping Cleanup	O	
Stockpiles, Spills, and Disposal of PCBs	O	

Key: Completed (C) – this control measure has been completed, Ongoing (O) – implementation of this control measure implementation is ongoing, Planned (P) – implementation of this control measure is planned during this permit term within this W/MA.

Notes: 1. Support activity for the control measure (referral and abatement).



Legend

Categorical Management Areas	Other Management Areas	Other Land Classifications	Other Full Trash Capture Devices
PG&E	Piedmont Old Urban	Open / New Urban	Piedmont City Limits



**Potential Watershed/Management Areas
Piedmont**

Alameda Countywide Clean Water Program



Figure

13-1

Oakland

September 2016

14 City of Pleasanton

14.1 List of Watersheds / Management Areas and Control Measures

The watersheds / management areas (W/MAs) within the City of Pleasanton are shown on Figure 14-1 and are listed below:

1. Pleasanton Old Urban
2. Categorical Railroad
3. Categorical PG&E

14.2 Scope and Schedule of PCBs Control Measures

A summary of the control measures that are currently being implemented or will be implemented during the term of the permit in each of the W/MAs is provided in Table 14-1 and are discussed in the sections below.

14.2.1 Source Property Identification and Abatement

PCBs-Contaminated Properties Referred to the Regional Water Board

No properties within the City of Pleasanton have been referred to the SFBRWQCB as a result of implementation of the Source Property Identification and Abatement control measure to date.

Ongoing Investigations

Ongoing investigations may result in a property referral in the future.

14.2.2 Green Infrastructure / Treatment Control Measures

Any development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

14.2.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

14.2.4 Enhanced Operation and Maintenance Control Measures

Enhanced inlet cleaning will be implemented for all inlet-based full trash capture devices (i.e., CPS units).

14.2.5 Diversion to POTW

No diversion to POTW control measures are proposed.

14.2.6 Source Controls and Other Control Measures

Mercury Load Avoidance and Reduction

The Permittees are actively implementing mercury recycling programs in all W/MAs in order to reduce mercury loading to the Bay.

Illegal Dumping Cleanup

The Permittees will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs.

Stockpiles, Spills, and Disposal of PCBs

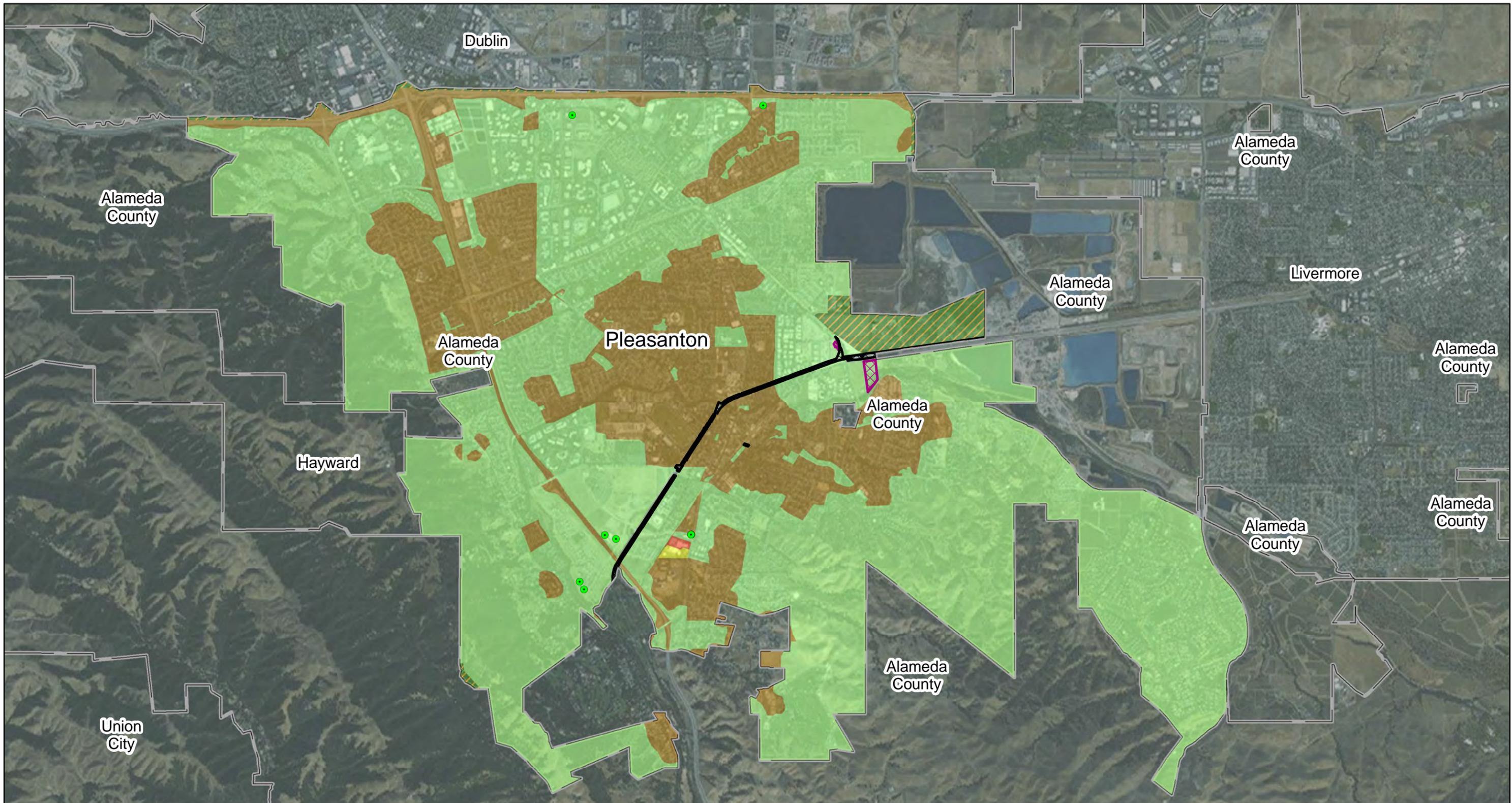
Stockpiles and spills of PCBs will be addressed as they are identified through industrial facility inspection and spill notification programs.

Table 14-1. City of Pleasanton Watershed/Management Areas & Summary of Control Measures

Control Measure Category	Watershed/Management Area		
	Pleasanton Old Urban	Categorical Railroad	Categorical PG&E
Source Property Identification and Abatement			
Initial Source Property Investigation ¹	C		
Referral of Source Property			
Direct Abatement of Source Property			
Categorical Source Property Referral		P	P
Green Infrastructure / Treatment Control Measures			
Redevelopment Subject to C.3	O		
GI/Treatment Measures Not Subject to C.3			
Full Trash Capture Devices (HDS)			
Managing PCBs in Building Materials and Infrastructure			
Managing PCBs in Building Materials			
Managing PCBs in Infrastructure			
Enhanced O&M			
Street Sweeping			
Storm Drain Inlet Cleaning	O		
Pump Station Maintenance			
Desilting of Channels and Culverts			
Street Flushing			
Storm Drain Line Cleaning			
Diversion to POTW			
Diversion to POTW			
Source Controls and Other Control Measures			
Mercury Load Avoidance and Reduction	O		
Illegal Dumping Cleanup	O		
Stockpiles, Spills, and Disposal of PCBs	O		

Key: Completed (C) – this control measure has been completed, Ongoing (O) – implementation of this control measure implementation is ongoing, Planned (P) – implementation of this control measure is planned during this permit term within this W/MA.

Notes: 1. Support activity for the control measure (referral and abatement).



Legend			
Categorical Management Areas	Old Industrial Screening Results	Other Land Classifications	Other Full Trash Capture Devices
PG&E	High Likelihood	Open / New Urban	Other Full Trash Capture Devices
Railroads	Moderate Likelihood	Classification to be Confirmed	City / County Limits
Other Management Areas	Low No Likelihood		
Pleasanton Old Urban			

Potential Watershed/Management Areas Pleasanton	
Alameda Countywide Clean Water Program	
Geosyntec consultants	
Oakland	September 2016
Figure 14-1	



15 City of San Leandro

15.1 List of Watersheds / Management Areas and Control Measures

The watersheds / management areas (W/MAs) within the City of San Leandro are shown on Figure 15-1 and are listed below:

1. Old Urban
2. Old Industrial
3. Categorical Railroad
4. Categorical PG&E

15.2 Scope and Schedule of PCBs Control Measures

A summary of the control measures that are currently being implemented or will be implemented during the term of the permit in each of the W/MAs is provided in Table 15-1 and are discussed in the sections below.

15.2.1 Source Property Identification and Abatement

PCBs-Contaminated Properties Referred to the Regional Water Board

No properties within the City of San Leandro have been referred to the SFBRWQCB as a result of implementation of the Source Property Identification and Abatement control measure to date.

Ongoing Investigations

Ongoing investigations may result in a property referral in the future.

15.2.2 Green Infrastructure / Treatment Control Measures

Any development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

15.2.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

15.2.4 Enhanced Operation and Maintenance Control Measures

Enhanced inlet cleaning will be implemented for all inlet-based full trash capture devices (i.e., CPS units).

15.2.5 Diversion to POTW

No diversion to POTW control measures are proposed.

15.2.6 Source Controls and Other Control Measures

Mercury Load Avoidance and Reduction

The Permittees are actively implementing mercury recycling programs in all W/MAs in order to reduce mercury loading to the Bay.

Illegal Dumping Cleanup

The Permittees will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs.

Stockpiles, Spills, and Disposal of PCBs

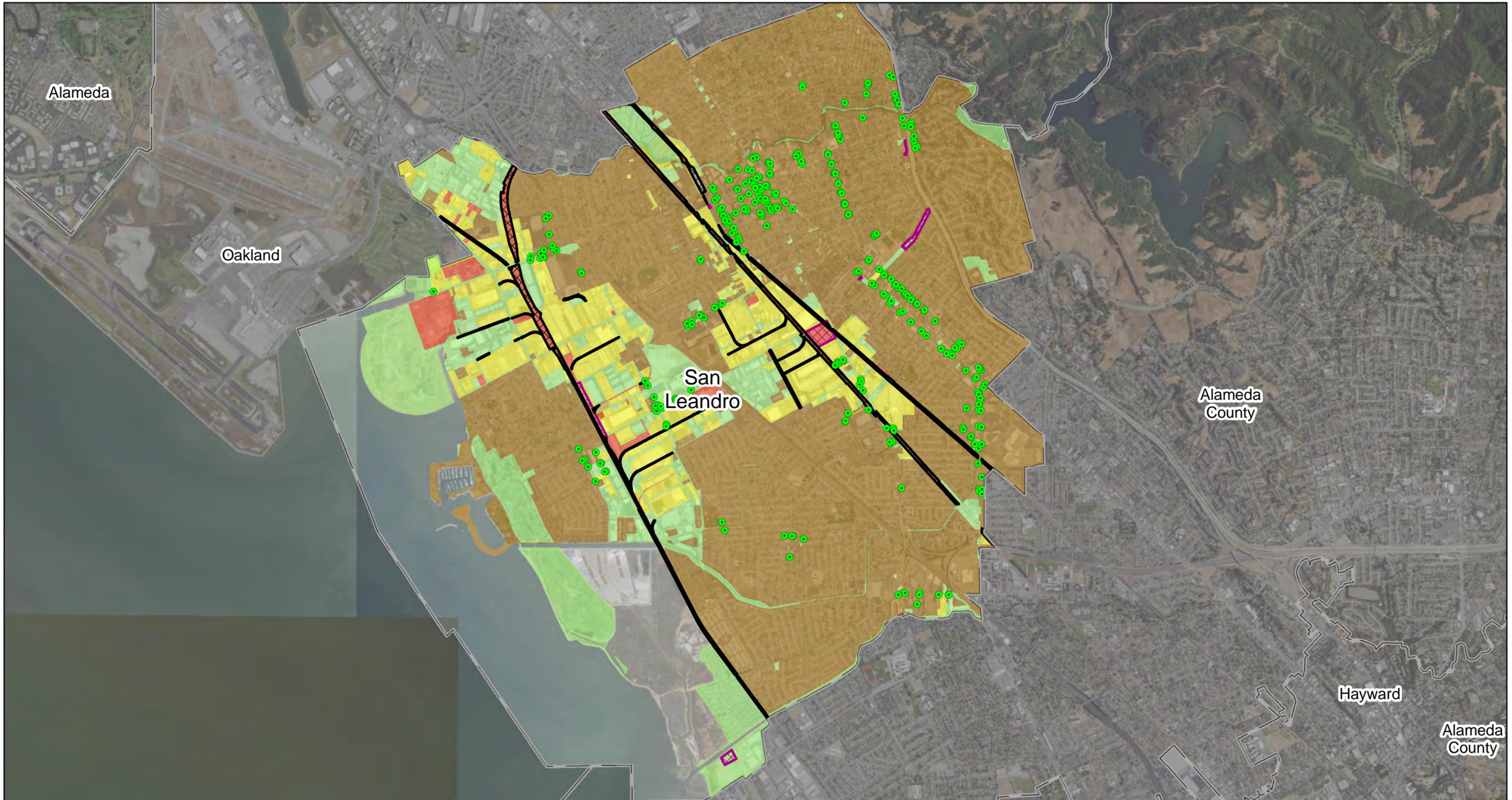
Stockpiles and spills of PCBs will be addressed as they are identified through industrial facility inspection and spill notification programs.

Table 15-1. City of San Leandro Watershed/Management Areas & Summary of Control Measures

Control Measure Category	Watershed/Management Area			
	Old Urban	Old Industrial	Categorical Railroad	Categorical PG&E
Source Property Identification and Abatement				
Initial Source Property Investigation ¹	O	O		
Referral of Source Property				
Direct Abatement of Source Property				
Categorical Source Property Referral			P	P
Green Infrastructure / Treatment Control Measures				
Redevelopment Subject to C.3	O	O		
GI/Treatment Measures Not Subject to C.3				
Full Trash Capture Devices (HDS)				
Managing PCBs in Building Materials and Infrastructure				
Managing PCBs in Building Materials				
Managing PCBs in Infrastructure				
Enhanced O&M				
Street Sweeping				
Storm Drain Inlet Cleaning	O	O	O	
Pump Station Maintenance				
Desilting of Channels and Culverts				
Street Flushing				
Storm Drain Line Cleaning				
Diversion to POTW				
Diversion to POTW				
Source Controls and Other Control Measures				
Mercury Load Avoidance and Reduction	O	O		
Illegal Dumping Cleanup	O	O		
Stockpiles, Spills, and Disposal of PCBs	O	O		

Key: Completed (C) – this control measure has been completed, Ongoing (O) – implementation of this control measure implementation is ongoing, Planned (P) – implementation of this control measure is planned during this permit term within this W/MA.

Notes: 1. Support activity for the control measure (referral and abatement).



Legend

Categorical Management Areas		Other Management Areas		Other Land Classifications		Other Full Trash Capture Devices	
 PG&E	 San Leandro Old Urban	 Open / New Urban	 Other Full Trash Capture Devices	 Railroads	 San Leandro Industrial Management Area	 Other Old Industrial Screening Results	 City / County Limits
	 High Likelihood	 Low No Likelihood			 Moderate Likelihood		

**Potential Watershed/Management Areas
San Leandro**

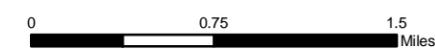
Alameda Countywide Clean Water Program



**Figure
15-1**

Oakland

September 2016



16 City of Union City

16.1 List of Watersheds / Management Areas and Control Measures

The watersheds / management areas (W/MAs) within the City of Union City are shown on Figure 16-1 and are listed below:

1. Alvarado Business Park
2. Union City Station District
3. Central Bay Industrial Park
4. Union City Old Urban
5. Categorical Railroad
6. Categorical PG&E

16.2 Scope and Schedule of PCBs Control Measures

A summary of the control measures that are currently being implemented or will be implemented during the term of the permit in each of the W/MAs is provided in Table 16-1 and are discussed in the sections below.

16.2.1 Source Property Identification and Abatement

PCBs-Contaminated Properties Referred to the Regional Water Board

No properties within the City of Union City have been referred to the SFBRWQCB as a result of implementation of the Source Property Identification and Abatement control measure to date.

Ongoing Investigations

Ongoing investigations may result in a property referral in the future.

16.2.2 Green Infrastructure / Treatment Control Measures

The City of Union City has invested significantly into Green Street projects having committed to construct three Green Street project with a total cost of just over \$9 million. The City received three grants totally \$6,720,000. The remainder was funded by the City. The first project is on C Street from 6th to 9th Street and consists of installing 11 rain garden and pervious pavers in the parking areas of the roadway. Project was completed in October 2015.

The second project spans an area that is four city blocks long by three city blocks wide. It installed 34 raingardens and pervious pavers in the street parking areas. This project is from F Street to I Street and from 12th to 15th Street. This project was completed in August 2016.

Our third project is on H Street which is a residential collector street. The project is for 10 city blocks and will be installing over 30 rain gardens and pervious pavers in the parking areas of the roadway. The project has just started construction and is expected to be completed in August 2017.

In addition, the former Cabello Elementary School Site was purchased by a private developer for a 45 lot single family home subdivision. The development installed over 15 raingardens in the public rights-of-way to help prevent pollution from the roadway entering into the storm drain system. The subdivision is nearing completion with track acceptance to occur within the next few months.

Any further development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

16.2.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The City of Union City recently conducted an investigation of the caulk in the existing curb and gutter at two locations along H Street as part of their design for the H Street Green Street project and the caulk was found to contain an insignificant amount of PCB's (part per billion). The City of Union City will also be participating in the BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

16.2.4 Enhanced Operation and Maintenance Control Measures

Enhanced inlet cleaning will be implemented for all inlet-based full trash capture devices (i.e., CPS units).

16.2.5 Diversion to POTW

No diversion to POTW control measures are proposed.

16.2.6 Source Controls and Other Control Measures

Mercury Load Avoidance and Reduction

The Permittees are actively implementing mercury recycling programs in all W/MAs in order to reduce mercury loading to the Bay.

Illegal Dumping Cleanup

The Permittees will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs.

Stockpiles, Spills, and Disposal of PCBs

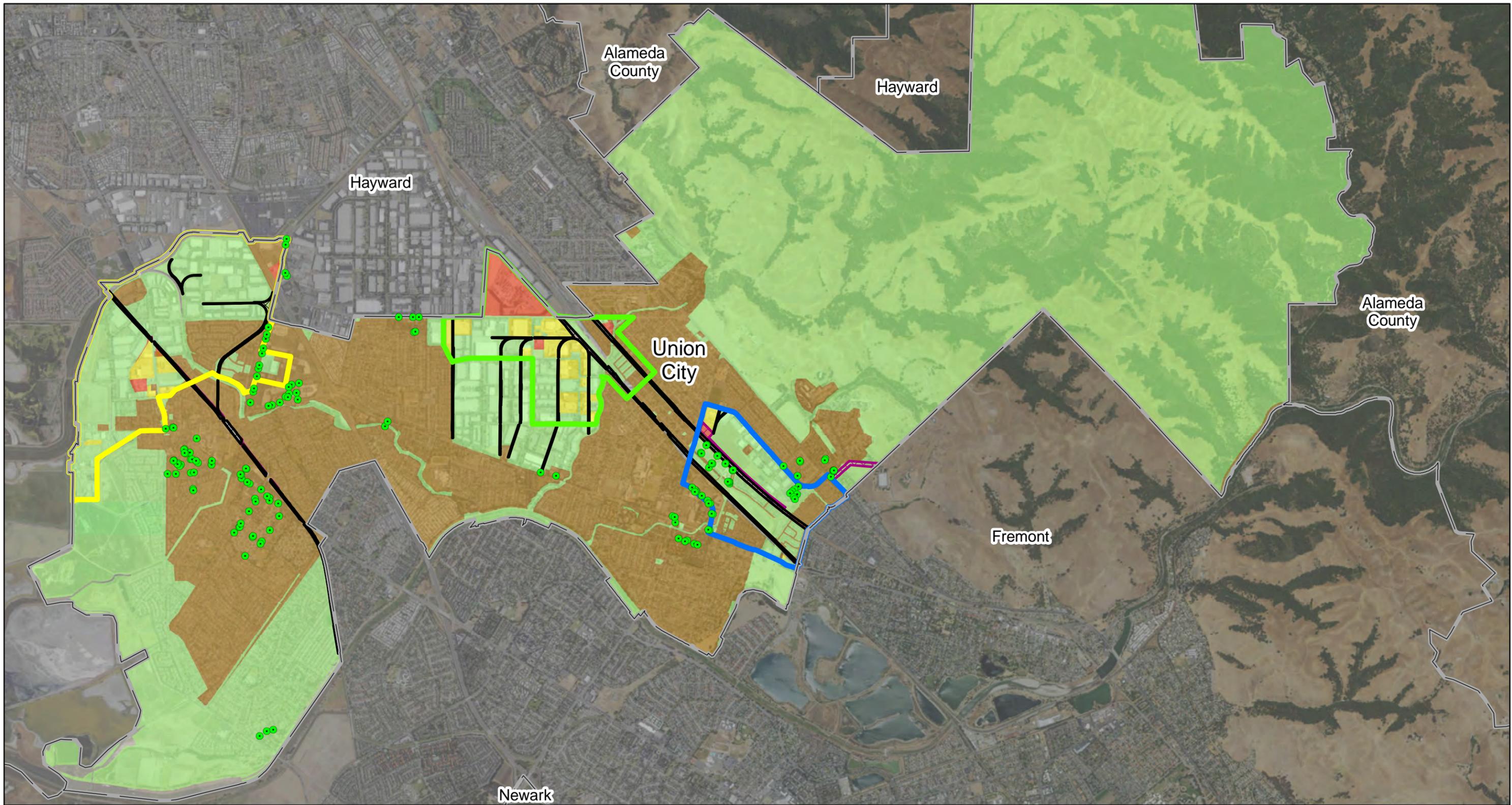
Stockpiles and spills of PCBs will be addressed as they are identified through industrial facility inspection and spill notification programs.

Table 16-1. City of Union City Watershed/Management Areas & Summary of Control Measures

Control Measure Category	Watershed/Management Area					
	Alvarado Business Park	Union City Station District	Central Bay Industrial Park	Union City Old Urban	Categorical Railroad	Categorical PG&E
Source Property Identification and Abatement						
Initial Source Property Investigation ¹	C	C	C	C		
Referral of Source Property						
Direct Abatement of Source Property						
Categorical Source Property Referral					P	P
Green Infrastructure / Treatment Control Measures						
Redevelopment Subject to C.3	O	O	O	O		
GI/Treatment Measures Not Subject to C.3						
Full Trash Capture Devices (HDS)						
Managing PCBs in Building Materials and Infrastructure						
Managing PCBs in Building Materials						
Managing PCBs in Infrastructure						
Enhanced O&M						
Street Sweeping						
Storm Drain Inlet Cleaning	O	O		O	O	O
Pump Station Maintenance						
Desilting of Channels and Culverts						
Street Flushing						
Storm Drain Line Cleaning						
Diversion to POTW						
Diversion to POTW						
Source Controls and Other Control Measures						
Mercury Load Avoidance and Reduction	O	O	O	O		
Illegal Dumping Cleanup	O	O	O	O		
Stockpiles, Spills, and Disposal of PCBs	O	O	O	O		

Key: Completed (C) – this control measure has been completed, Ongoing (O) – implementation of this control measure implementation is ongoing, Planned (P) – implementation of this control measure is planned during this permit term within this W/MA.

Notes: 1. Support activity for the control measure (referral and abatement).



Legend

Categorical Management Areas	Other Management Areas	Old Industrial Screening Results	Other Land Classifications	Other Full Trash Capture Devices
<ul style="list-style-type: none"> PG&E Railroads 	<ul style="list-style-type: none"> Alvarado Business Park Union City Station District Central Bay Industrial Park Union City Old Urban 	<ul style="list-style-type: none"> High Likelihood Moderate Likelihood Low No Likelihood 	<ul style="list-style-type: none"> Open / New Urban City / County Limits 	<ul style="list-style-type: none"> Other Full Trash Capture Devices

**Potential Watershed/Management Areas
Union City**

Alameda Countywide Clean Water Program

Geosyntec
consultants

Oakland September 2016

**Figure
16-1**

17 Unincorporated Alameda County

17.1 List of Watersheds / Management Areas and Control Measures

The watersheds / management areas (W/MAs) within Unincorporated Alameda County are shown on Figure 17-1 and are listed below:

1. Eden Area
2. Unincorporated Old Urban
3. Categorical Railroad
4. Categorical PG&E

17.2 Scope and Schedule of PCBs Control Measures

A summary of the control measures that are currently being implemented or will be implemented during the term of the permit in each of the W/MAs is provided in Table 17-1 and are discussed in the sections below.

17.2.1 Source Property Identification and Abatement

PCBs-Contaminated Properties Referred to the Regional Water Board

No properties within Unincorporated Alameda County have been referred to the SFBRWQCB as a result of implementation of the Source Property Identification and Abatement control measure to date.

Ongoing Investigations

Ongoing investigations may result in a property referral in the future.

17.2.2 Green Infrastructure / Treatment Control Measures

Any development, redevelopment, and infrastructure projects within each of the W/MAs will be subject to the development standards in effect at the time an application would be made, such as demolition standards and applicable provisions of section C.3.

17.2.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

17.2.4 Enhanced Operation and Maintenance Control Measures

Enhanced inlet cleaning will be implemented for all inlet-based full trash capture devices (i.e., CPS units).

17.2.5 Diversion to POTW

No diversion to POTW control measures are proposed.

17.2.6 Source Controls and Other Control Measures

Mercury Load Avoidance and Reduction

The Permittees are actively implementing mercury recycling programs in all W/MAs in order to reduce mercury loading to the Bay.

Illegal Dumping Cleanup

The Permittees will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs.

Stockpiles, Spills, and Disposal of PCBs

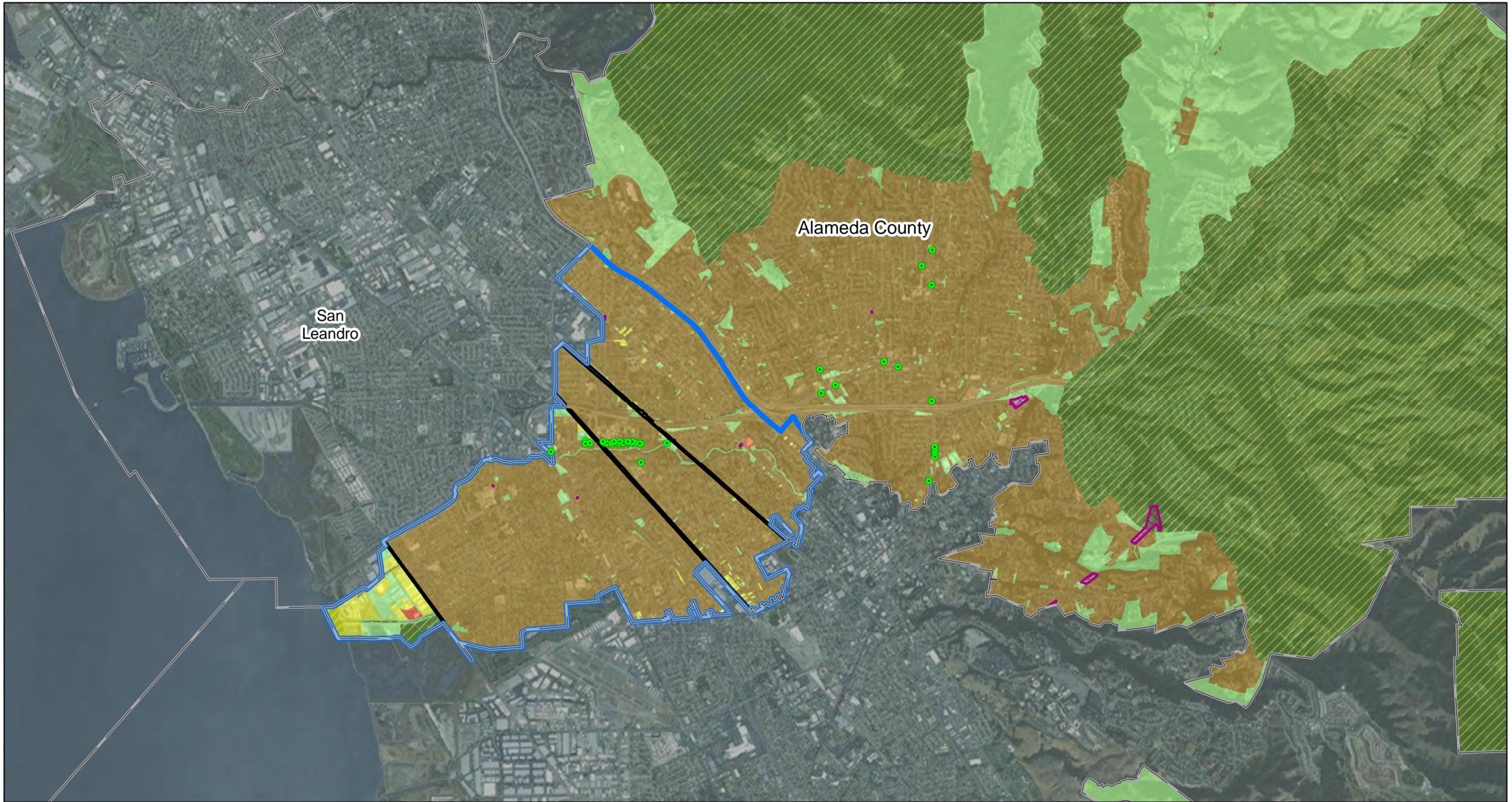
Stockpiles and spills of PCBs will be addressed as they are identified through industrial facility inspection and spill notification programs.

Table 17-1. Unincorporated Alameda County Watershed/Management Areas & Summary of Control Measures

Control Measure Category	Watershed/Management Area			
	Eden Area	Unincorporated Old Urban	Categorical Railroad	Categorical PG&E
Source Property Identification and Abatement				
Initial Source Property Investigation ¹	C	C		
Referral of Source Property				
Direct Abatement of Source Property				
Categorical Source Property Referral			P	P
Green Infrastructure / Treatment Control Measures				
Redevelopment Subject to C.3	O	O		
GI/Treatment Measures Not Subject to C.3				
Full Trash Capture Devices (HDS)				
Managing PCBs in Building Materials and Infrastructure				
Managing PCBs in Building Materials				
Managing PCBs in Infrastructure				
Enhanced O&M				
Street Sweeping				
Storm Drain Inlet Cleaning	O	O	O	
Pump Station Maintenance				
Desilting of Channels and Culverts				
Street Flushing				
Storm Drain Line Cleaning				
Diversion to POTW				
Diversion to POTW				
Source Controls and Other Control Measures				
Mercury Load Avoidance and Reduction	O	O		
Illegal Dumping Cleanup	O	O		
Stockpiles, Spills, and Disposal of PCBs	O	O		

Key: Completed (C) – this control measure has been completed, Ongoing (O) – implementation of this control measure implementation is ongoing, Planned (P) – implementation of this control measure is planned during this permit term within this W/MA.

Notes: 1. Support activity for the control measure (referral and abatement).



Legend

Categorical Areas	Other Management Areas	Old Industrial Screening Results	Other Land Classifications	Other Full Trash Capture Devices
PG&E	Eden Area	High Likelihood	Open / New Urban	Other Full Trash Capture Devices
Railroads		Moderate Likelihood	Old Urban / Other	City / County Limits
		Low No Likelihood	Classification to be Confirmed	

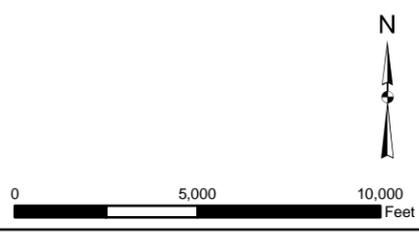
**Potential Watershed/Management Areas
Unincorporated Alameda County (Detail)**

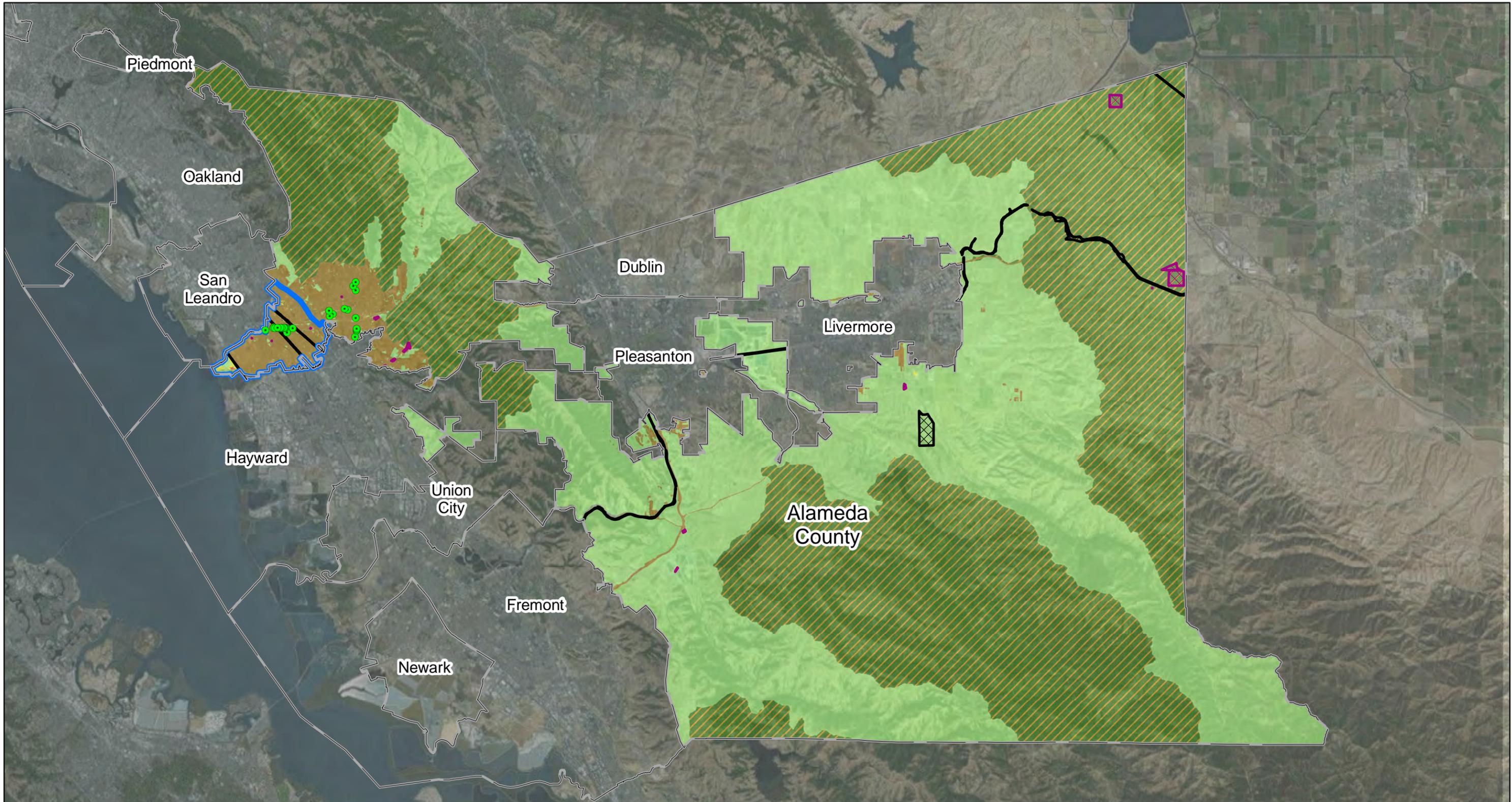
Alameda Countywide Clean Water Program

Geosyntec
consultants

Oakland | September 2016

Figure 17-1





Legend

- | | | | | |
|--------------------------|-------------------------------|---|-----------------------------------|---|
| Categorical Areas | Other Management Areas | Old Industrial Screening Results | Other Land Classifications | Other Full Trash Capture Devices |
| PG&E | Eden Area | High Likelihood | Open / New Urban | City / County Limits |
| Railroads | | Moderate Likelihood | Old Urban / Other | |
| | | Low No Likelihood | Classification to be Confirmed | |

**Potential Watershed/Management Areas
Unincorporated Alameda County (Full Extent)**

Alameda Countywide Clean Water Program



**Figure
17-2**

Oakland September 2016



18 Alameda County Flood Control and Water Conservation District

Alameda County Flood Control and Water Conservation District (District) manages flood control infrastructure for flood protection of most of the urbanized portions of Western Alameda County, which include the W/MAs described above for the following Permittees (See Figure 18-1):

- Emeryville
- Fremont
- Hayward
- Newark
- Oakland
- San Leandro
- Union City
- Parts of unincorporated Alameda County

The District is divided into "zones of benefit" which are based on major watershed areas and treated as separate financial entities for the purposes of maintaining and constructing facilities, and for the levying of assessments based on needs within that zone's watershed area. For nine District zones (shaded blue on Figure 18-1), the Alameda County Board of Supervisors is the governing body and the Alameda County Public Works Agency provides engineering, technical, and administrative staff for the District. Zone 7 of the District, located in eastern Alameda County and commonly known as Zone 7 Water Agency, has a separately elected Board of Directors and staffing and is a distinct Permittee under the MRP (see Section 19).

18.1 Scope and Schedule of PCBs Control Measures

Since the District is not a municipal government, a limited range of potential control measures are applicable to its facilities. The scope of control measures that are currently being implemented or may be implemented by the District during the term of the permit is discussed in the sections below.

18.1.1 Source Property Identification and Abatement

While some District-owned facilities lie within areas dominated by Old Industrial land use, none have been identified as source properties during initial screening. Site investigations may be initiated as a result of new information that may result in a property referral in the future.

18.1.2 Green Infrastructure / Treatment Control Measures

Through the CW4CB project, the District will construct a small pilot retrofit media filter in the Ettie Street Pump Station (ESPS) in West Oakland. The District will evaluate its capital projects for potential C.3 compliance and other opportunities to implement treatment.

18.1.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

18.1.4 Enhanced Operation and Maintenance Control Measures

In September 2014, the District conducted enhanced desilting of the ESPS wet wells, which have normally been cleaned on an “as needed” basis. CW4CB-funded monitoring estimated removal of mercury and PCBs through this activity, but listed issues and constraints to quantifying load reduction benefits. There has been large variation in annual sediment deposition and removal since the District acquired the ESPS from the city of Oakland in 1999. The District is also evaluating the PCB removal associated with recent channel desilting projects located in old industrial drainages, and will attempt to characterize a baseline level of effort and estimate load reduction benefits for future desilting activities.

18.1.5 Diversion to POTW

The District has executed an agreement with the East Bay Municipal Utility District (EBMUD) for operation of an Urban Runoff Diversion Project (URDP) at the ESPS 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 expects to complete the installation of its pump and control system and new 6 inch diameter conveyance pipe in fall 2016 and commence operation of the project by September 2017 after an initial operational testing phase.

EBMUD agreed to make provision in its piping design for possible future connection by the District to the URDP's new force main pipe which allows for a future project wherein stormwater flows could be detained and stored until after the end of peak flows when they could be diverted to the EBMUD plant for treatment. The District does not have available space for such detention at the ESPS and has no active plans to pursue this concept after initial conversations with state and city representatives about potential access to adjacent street and freeway right-of-way. .

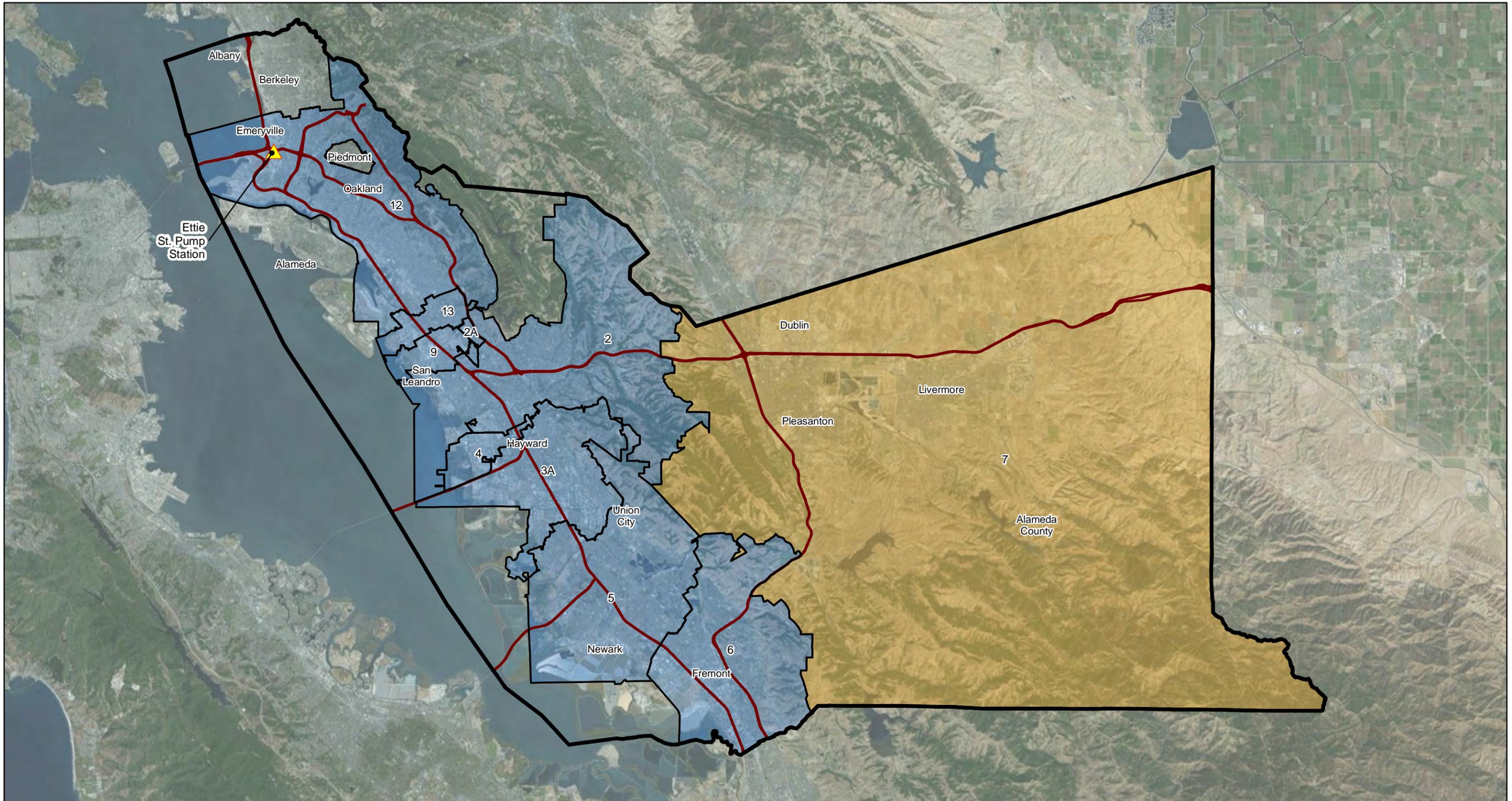
18.1.6 Source Controls and Other Control Measures

Illegal Dumping Cleanup

The District will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs on District property.

Stockpiles, Spills, and Disposal of PCBs

Stockpiles and spills of PCBs will be addressed if they are identified on District property.



Legend

- Zone 7 (See Figure 19-1)
- West County Zones (managed by ACFCWCD)
- Alameda County Limits
- Highways

N

0 5 10 Miles

Alameda County Flood Control and Water Conservation District Zones	
Alameda Countywide Clean Water Program	
Oakland	September 2016
Figure 18-1	

19 Zone 7 of the Alameda County Flood Control and Water Conservation District (Zone 7 Water Agency)

Zone 7 Water Agency owns and maintains 37 miles of flood-protection channels located within a 425-square-mile area in eastern Alameda County, which include the W/MAs described above for the following permittees (See Figure 19-1):

- Dublin
- Livermore
- Pleasanton

19.1 Scope and Schedule of PCBs Control Measures

Since the Zone 7 Water Agency is not a municipal government, a limited range of potential control measures are applicable to its facilities. The scope of control measures that are currently being implemented or may be implemented by Zone 7 during the term of the permit is discussed in the sections below.

19.1.1 Source Property Identification and Abatement

Flood control facilities owned by Zone 7 do not occur in significant areas of Old Industrial land use and offer little or no potential to be identified as PCB source properties.

19.1.2 Green Infrastructure / Treatment Control Measures

The District will evaluate its capital projects for potential C.3 compliance and other opportunities to implement treatment.

19.1.3 Managing PCBs in Building Materials and Infrastructure

Managing PCBs in Building Materials

The Program and Permittees are actively participating in a BASMAA Regional Project to address PCBs in building materials as described in section 2.3.1.

Managing PCBs in Infrastructure

The Program and Permittees will be participating in a BASMAA Regional Project to address PCBs in infrastructure as described in section 2.3.2.

19.1.4 Enhanced Operation and Maintenance Control Measures

No enhanced operation and maintenance control measures are proposed.

19.1.5 Diversion to POTW

No diversion to POTW control measures are proposed.

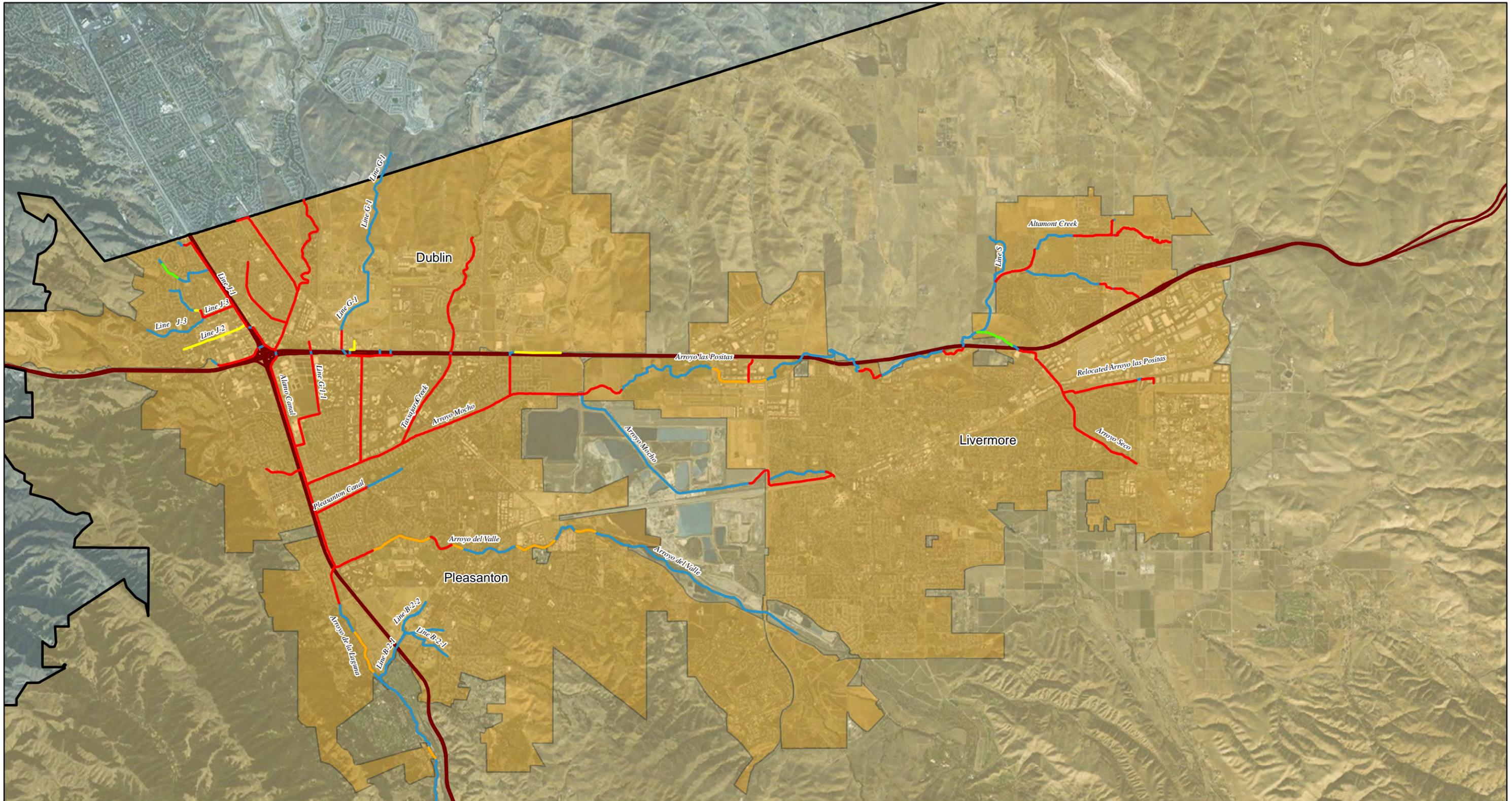
19.1.6 Source Controls and Other Control Measures

Illegal Dumping Cleanup

The District will identify and cleanup illegal dumping of construction and demolition debris where illegal dumping of construction and demolition debris occurs on District property.

Stockpiles, Spills, and Disposal of PCBs

Stockpiles and spills of PCBs will be addressed if they are identified on District property.



Legend

Zone 7 Channel Status

- Drainage Easement
- Full Ownership
- Partial Ownership
- Stormdrain Easement
- Not Owned/Maintained

- Zone 7 (Incorporated Cities)
- Zone 7 (Unincorporated)
- Highways

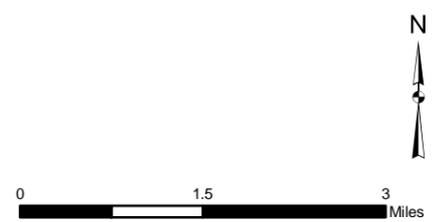
**Channels and Streams owned by
Zone 7 Water Agency**

Alameda Countywide Clean Water Program

Geosyntec
consultants

Oakland September 2016

**Figure
19-1**



20 References

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