



CITY OF OAKLAND MUNICIPAL REGIONAL PERMIT 2021-2022 ANNUAL REPORT



September 30,
2022

NPDES Stormwater Permit #CAS612008

Prepared by: City of Oakland Public Works (OPW)
Bureau of Design and Construction
Watershed and Stormwater Management Division

City of Oakland Contributors: Planning and Building Department,
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Table of Contents

Section	Page
Section 1 – Permittee Information.....	1-1
Section 2 – Provision C.2 Municipal Operations	2-1
Section 3 – Provision C.3 New Development and Redevelopment.....	3-1
Section 4 – Provision C.4 Industrial and Commercial Site Controls.....	4-1
Section 5 – Provision C.5 Illicit Discharge Detection and Elimination	5-1
Section 6 – Provision C.6 Construction Site Controls.....	6-1
Section 7 – Provision C.7 Public Information and Outreach	7-1
Section 9 – Provision C.9 Pesticides Toxicity Controls	9-1
Section 10 – Provision C.10 Trash Load Reduction.....	10-1
Section 11 – Provision C.11 Mercury Controls	11-1
Section 12 – Provision C.12 PCBs Controls	12-1
Section 13 – Provision C.13 Copper Controls.....	13-1
Section 15 – Provision C.15 Exempted and Conditionally Exempted Discharges	15-1

Section 1 – Permittee Information

Background Information					
Permittee Name:	City of Oakland				
Population:	424,464 – 2022 estimate from California Department of Finance – from https://dof.ca.gov/forecasting/Demographics/estimates-e1/ - See current Excel: E-1 Cities, Counties, and the State Population Estimates with Annual Percent Change.				
NPDES Permit No.:	CAS612008				
Order Number:	R2-2015-0049				
Reporting Time Period (month/year):	July 2021 through June 2022				
Name of the Responsible Authority:	G. Harold Duffey			Title:	Director of Public Works
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City:		Zip Code:	94612	County:	Alameda
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Name of the Designated Stormwater Management Program Contact (if different from above):	Terri Fashing			Title:	Acting Watershed and Stormwater Management Division Manager
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Section 2 - Provision C.2 Reporting Municipal Operations

Program Highlights and Evaluation

Highlight/summarize activities for reporting year:

Summary:

The City of Oakland conducted municipal operations in accordance and in compliance with the Provision C.2 Municipal Operations section of the Municipal Regional Stormwater Permit (MRP). Staffing and equipment resources remain at equivalent levels, and processes and methods for protecting water quality continue to be implemented.

City staff conducting daily municipal operations implement stormwater pollution prevention Best Management Practices (BMPs) available from the Alameda Countywide Clean Water Program (ACCWP), California Stormwater Quality Association (CASQA), Bay Area Stormwater Management Agencies Association (BASMAA), California Regional Water Quality Control Board (RWQCB), and other entities. During FY 2021-2022, City staff participated in the Municipal Maintenance/Operations Subcommittee, associated workgroups, and trainings.

See the Provision C.2 Municipal Operations section of the ACCWP FY 2020-2021 Annual Report for a description and summary of activities implemented at the countywide and/or regional level.

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

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

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

Comments:

The City's Street & Sidewalk Maintenance Division of the Oakland Department of Transportation (DOT) conducts limited work on streets and sidewalks. Operations include preventative maintenance (such as minor asphalt and pothole repairs) and minor street repairs (including street milling and placement of new asphalt on streets and sidewalks in the City). Staff implements typical stormwater BMPs such as storm drain protection and scheduling construction work to avoid rainy weather.

Street milling involves the removal of approximately 2-4 inches of the roadway surface using an asphalt grinder/milling machine. The milling

machine is self-contained with a holding box that loads the ground asphalt onto a conveyer belt that transfers materials into a waiting dump truck. Work crews use a guide person to avoid spillage from and between the milling machine, conveyor belt, and truck. Additionally, a skip loader follows behind the equipment to ensure remnant pieces of asphalt are picked up. Final cleanup with a box hopper prior to placement of new asphalt includes the use of mechanical broom sweeper vehicles and manual sweeping by City staff.

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

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

Y	Control of wash water from pavement washing, mobile cleaning, pressure wash operations at parking lots, garages, trash areas, gas station fueling areas, and sidewalk and plaza cleaning activities from polluting stormwater
Y	Implementation of the BASMAA Mobile Surface Cleaner Program BMPs

Comments:

Plaza maintenance and pavement washing is conducted in the City Hall Plaza located at Frank H. Ogawa Plaza in Oakland, California.

Staff is trained to pressure wash materials towards the permeable pavement located in the plaza so that wash water will infiltrate into the substrate. Use of soaps and/or sanitizers is minimized to eliminate potential impacts to water quality. If wash waters containing soaps, sanitizers and/or sediment/particulate matter is generated in plaza maintenance and pavement washing activities, they are vacuumed up using an on-site mini-street sweeper and disposed of in nearby sanitary sewer maintenance holes. These operations are conducted routinely monthly and as-needed.

City staff that conduct sidewalk/plaza maintenance and pavement washing receive both an initial training and continuous on-the-job training.

City staff use a water reclamation unit and/or water flow barriers to reclaim and/or contain pressure wash water from homeless encampment cleanings.

Bi-weekly safety meetings are also conducted with staff. These tailgate meetings may include discussions regarding stormwater issues that have arisen on the job or from complaints.

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

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

Y	Control of discharges from bridge and structural maintenance activities directly over water or into storm drains
Y	Control of discharges from graffiti removal activities
Y	Proper disposal for wastes generated from bridge and structure maintenance and graffiti removal activities
Y	Implementation of the BASMAA Mobile Surface Cleaner Program BMPs for graffiti removal
Y	Employee training on proper capture and disposal methods for wastes generated from bridge and structural maintenance and graffiti removal activities.
Y	Contract specifications requiring proper capture and disposal methods for wastes generated from bridge and structural maintenance and graffiti removal activities.

Comments:

City staff does not conduct bridge and/or structural maintenance activities directly over a waterbody. City staff may conduct work on portions of a bridge (such as abutments) that fall within the City's jurisdiction from adjacent accessible on-land areas. BMPs are implemented to ensure there are no water quality impacts to nearby storm drain inlets from the work.

If there is a need to conduct bridge and/or maintenance activities over a waterbody, the work is contracted out, and the implementation of BMPs is required in contractual language, the scope of work, and project specifications to avoid impacts to the waterbody.

The City's Public Works (OPW) Department – Keep Oakland Clean and Beautiful (KOCB), Graffiti Abatement, uses the following graffiti abatement methods:

1. Paint over (spray on or roll over)
2. Chemical removal of graffiti (wipe on)
3. Power washing structures with a pressure washer and water reclamation unit

Many structures such as electrical boxes, signs, and bridge structures located within Oakland are not City property or responsibility. Some structures belong to utility companies, such as East Bay Municipal Utility District (EBMUD), Pacific Gas and Electric (PG&E), etc., and the bridge structures may fall under the responsibilities of the California Department of Transportation (Cal-Trans). Maintenance for these non-Oakland owned structures is referred by City staff to the responsible agency for response.

C.2.e. ► Rural Public Works Construction and Maintenance			
Does your municipality own/maintain rural ¹ roads:		<input type="checkbox"/>	Yes
		<input checked="" type="checkbox"/>	No
If your answer is No then skip to C.2.f.			
Place a Y in the boxes next to activities where applicable BMPs were implemented. If not applicable, type NA in the box and provide an explanation in the comments section below. Place an N in the boxes next to activities where applicable BMPs were not implemented for one or more of these activities during the reporting fiscal year, then in the comments section below provide an explanation of when BMPs were not implemented and the corrective actions taken.			
<input type="checkbox"/>	Control of road-related erosion and sediment transport from road design, construction, maintenance, and repairs in rural areas		
<input type="checkbox"/>	Identification and prioritization of rural road maintenance based on soil erosion potential, slope steepness, and stream habitat resources		
<input type="checkbox"/>	No impact to creek functions including migratory fish passage during construction of roads and culverts		
<input type="checkbox"/>	Inspection of rural roads for structural integrity and prevention of impact on water quality		
<input type="checkbox"/>	Maintenance of rural roads adjacent to streams and riparian habitat to reduce erosion, replace damaging shotgun culverts and excessive erosion		
<input type="checkbox"/>	Re-grading of unpaved rural roads to slope outward where consistent with road engineering safety standards, and installation of water bars as appropriate		
<input type="checkbox"/>	Inclusion of measures to reduce erosion, provide fish passage, and maintain natural stream geomorphology when replacing culverts or design of new culverts or bridge crossings		
Comments including listing increased maintenance in priority areas:			

¹Rural means any watershed or portion thereof that is developed with large lot home-sites, such as one acre or larger, or with primarily agricultural, grazing or open space uses.

C.2.f. ► Corporation Yard BMP Implementation

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

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

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

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

Comments:
 Municipal Stormwater Pollution Protection Plans from 2017 and 2018 were updated in April 2022 for the City of Oakland's three corporation yards. Inspections were performed on July 19, 2021 and June 1, 2022. Follow-up items identified in the inspections have been completed and/or are in process.

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

Corporation Yard Name	Corp Yard Activities w/ site-specific SWPPP BMPs	Inspection Date ²	Inspection Findings/Results	Date and Description of Follow-up and/or Corrective Actions
5050 Coliseum Way	<ul style="list-style-type: none"> • General Housekeeping • Vehicle/Equipment Washing • Vehicle/Equipment Maintenance & Repair • Outdoor Material Storage • Outdoor Waste/Recycling storage • Municipal Vehicle/Heavy Equipment Parking • Employee Parking 	7/20/2021	BMPS mostly implemented effectively (except for findings noted below). A clogged stormwater drain was observed with standing water covered by an oily sheen. The clogged drain is located approximately 100 feet east of the vehicle maintenance building in the vehicle parking lot. This drain should be further inspected and if needed hydro-vacuumed to clear the obstruction.	9/28/2021: The stormwater drain was cleared.
		6/1/2022	Repair vehicle wash. Discharge small pressure washer to large drain. Cover trash bins and remove litter from site.	6/8/2022: Vehicle wash operational. Protocol updated to discharge large pressure wash to large drain. Protocol updated to cover trash bins when not in use.
			Clean up spills and contain leaks of automotive fluids.	Housekeeping performed in target areas. Protocol updated for weekly junked vehicles inspection, covered during rains, and oil leaks cleaned/contained.

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

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

Fill in attached table **C.3.b.iv.(2)** or attach your own table including the same information.
See table C.3.b.iv.(2) in this Section C.3 of the report (below)

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

Is your agency choosing to require 100% LID treatment onsite for all Regulated Projects and not allow alternative compliance under Provision C.3.e.?	X	Yes		No
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Comments (optional): The City requires project proponents to implement all C.3 compliance BMPS on-site and encourages developers to maximize incorporation of Low Impact Development design on Special Projects. This approach is working well for the City, and given the complexity and cost associated with developing a comprehensive alternative compliance program, the City has not pursued it. Such a program would require formal regulations, clearly defined procedures, review methods, assigned staffing, review fees per the City's Master Fee Schedule, potential legal issues to be addressed with CEQA, and regulatory forms/legal agreements to implement off-site compliance that would encumber subject properties indefinitely. Such a program would also require a new City Ordinance and City Council approval.

C.3.e.v ► Special Projects Reporting -

1. In FY 2021-22, has your agency received, but not yet granted final discretionary approval of, a development permit application for a project that has been identified as a potential Special Project based on criteria listed in MRP Provision C.3.e.ii(2) for any of the three categories of Special Projects (Categories A, B or C)?	X	Yes		No
2. In FY 2021-22, has your agency granted final discretionary approval to a Special Project? If yes, include the project in both the C.3.b.iv.(2) Table, and the C.3.e.v. Table.	X	Yes		No

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

See Table C.3.e.v. and narrative discussion below. Each Special Project is included in Table C.3.b.iv.(2) below as well.

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

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

See attached Table C.3.h.v.(2) for list of newly installed Stormwater Treatment Systems/HM Controls.

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

Site Inspections Data	Number/Percentage
Total number of Regulated Projects (including offsite projects, and Regional Projects) in your agency's database or tabular format at the end of the previous fiscal year (FY 20-21)	121
Total number of Regulated Projects (including offsite projects, and Regional Projects) in your agency's database or tabular format at the end of the reporting period (FY 21-22)	133
Total number of Regulated Projects (including offsite projects, and Regional Projects) for which O&M verification inspections were conducted during the reporting period (FY 21-22)	33
Percentage of the total number of Regulated Projects (including offsite projects, and Regional Projects) inspected during the reporting period (FY 21-22)	27.3% ³

³ Based on the number of Regulated Projects in the database or tabular format at the end of the previous fiscal year, per MRP Provision C.3.h.ii.(6)(b).

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

Site Inspections Data	Number/Percentage
Total number of Regulated Projects (including offsite projects, and Regional Projects) in your agency's database or tabular format at the end of the previous fiscal year (FY 20-21)	8
Total number of Regulated Projects (including offsite projects, and Regional Projects) in your agency's database or tabular format at the end of the reporting period (FY 21-22)	10
Total number of Regulated Projects (including offsite projects, and Regional Projects) for which O&M verification inspections were conducted during the reporting period (FY 21-22)	1
Percentage of the total number of Regulated Projects (including offsite projects, and Regional Projects) inspected during the reporting period (FY 21-22)	12.5% ⁴

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

Provide a discussion of the inspection findings for the year and any common problems encountered with various types of treatment systems and/or HM controls. This discussion should include a general comparison to the inspection findings from the previous year.
<p>Summary:</p> <p>Private Projects: We noted and required correction of the following types of compliance issues at five projects:</p> <ol style="list-style-type: none"> 1. Landscaping watering system overflowing at 2820 Broadway due to a broken pipe. 2. Trash accumulation at Mountain View Cemetery. 3. Sediment problems. <p>Public Projects: Main issues continue to be trash. Sometimes plant survival is an issue.</p>

⁴ Based on the number of Regulated Projects in the database or tabular format at the end of the previous fiscal year, per MRP Provision C.3.h.ii.(6)(b).

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

Summary:

Private Projects: For some development projects, City staff noted that new owners were not provided with the C.3 O&M plan information and instructions from the sellers. In the future, O&M maintenance agreements will be changed to ensure proper transfer of the requirements to new owners. Bureau of Building will implement a new program to meet with the owner/operator on C.3 O&M prior to property transfer to ensure C.3 O&M information is communicated with responsible party.

Public Projects: In FY 2021-2022, the City discovered that two older public Regulated Projects were not on the list of completed projects requiring O&M inspections (Tassafaronga Village Kinsell Commons and Tassafaronga Village 81st Avenue). These areas are maintained and will receive O&M verification inspections in FY 2022-2023. The City is developing a consultant scope of work to conduct O&M verification inspections at nine of the 10 public Regulated Projects in FY 2022-2023. The 10th project is described below. Due to staff availability issues, the City was not able to incorporate public stormwater treatment facilities into a City asset management system to help track and schedule maintenance and O&M verification inspections in the future. This project will be pursued in FY 2022-2023.

In FY 2021-2022, the City's landscape maintenance contractor maintained the Oakland Army Base City Infrastructure Public Regulated Project's 29 bioretention areas. O&M verification inspections of these facilities were conducted by a separate contractor. In FY 2021-2022, O&M verification inspections found that trash accumulation and illegal dumping continue to be an ongoing issue at the facilities. Inspections also found that all 29 facilities require mulch replacement and vegetation maintenance. At 19 of the facilities, other maintenance activities are recommended, such as clearing outlet drains, repositioning rocks around inlets, adjusting soil levels, and/or clearing sediment from inlets. The City's landscape maintenance contractor addressed these issues in June 2022.

Parks Maintenance staff continued to maintain the City's landscaped stormwater treatment facilities by routinely removing litter and maintaining facility drainage to ensure proper water flow. Plant health at all public Regulated Projects is maintained without the use of chemical fertilizers or herbicides.

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

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

Summary:

We have modified local ordinances/policies/procedures and forms/checklists to require that all applicable projects approved after December 1, 2012 implement at least one of the site design measures listed in Provision C.3.i.

We use the following products for C.3.i implementation:

- BASMAA's site standard design specifications fact sheets
 - [Landscape Dispersion Fact Sheet – fold and print](#)
 - [Pervious Paving Fact Sheet – fold and print](#)
 - [Rain Barrel Fact Sheet – fold and print](#)
 - [Rain Garden Fact Sheet – fold and print](#)
- The Alameda Countywide Clean Water Program (ACCWP) C.3 Technical Guidance Manual Appendix L: [Site Design Requirements for Small Projects](#)
- BASMAA was dissolved in FY 2020-2021, but Bay Area permittees are maintaining the BASMAA website to provide access to BASMAA materials. Permittees are continuing to collaborate on MRP permit compliance and stormwater pollution prevention projects of regional benefit through the Bay Area Municipal Stormwater Collaborative (BAMSC).

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

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

Summary:

Please refer to the ACCWP's FY 2021-2022 Annual Report for a summary of outreach efforts implemented at the Countywide level.

Locally the City of Oakland has conducted the following outreach and education activities pertaining to Green Infrastructure planning and implementation:

1. Oakland Public Works (OPW) Watershed and Stormwater Management Division (Watershed Division) staff communicated via email with OPW and Department of Transportation Capital Improvement Program (CIP) project management staff to review MRP Provision C.3.j Green Infrastructure requirements and to coordinate "No Missed Opportunities" reporting. This communication provides an opportunity for project managers to ask technical, design, and regulatory questions about green stormwater infrastructure (GSI) and reminds project managers to evaluate GSI potential at the earliest stages of CIP project planning.
2. The Watershed Division participates in the City's efforts to develop the Oakland Urban Forest Master Plan (UFMP). This plan will provide vision and direction for managing our City's urban forest over the next 50 years. The Watershed Division's role is to coordinate urban forestry goals with GSI opportunities.
3. In FY 2020-2021, the San Francisco Estuary Institute (SFEI) and project partners, including the City of Oakland, began implementing the "Next Generation Urban Greening: Integrating Water Quality, Biodiversity and Resilience" project, funded by the Environmental Protection Agency's San Francisco Bay Water Quality Improvement Fund (SFBWQIF). This project endeavors to help cities achieve more benefits through green infrastructure. SFEI, with support and input from project partners, is working to "develop, disseminate, and implement new information and tools that municipalities, regulators, NGOs, and other stakeholders need to simultaneously improve water quality

(including capture of microplastics), flood risk reduction, habitat, and resiliency." The City plans to use project tools to update and implement the City's Green Stormwater Infrastructure Plan, with the goal of improved environmental outcomes.

As noted in last year's report, two City Watershed Division staff attended a two-hour virtual workshop hosted by SFEI's Next Generation Urban Greening project management staff on June 15, 2021. SFEI staff shared their initial plans for the project and sought input from participants into what is most needed to support multifunctional green infrastructure in our cities. For questions or to learn more about this project, visit the project webpage:

<https://www.sfei.org/projects/next-generation-urban-greening-integrating-water-quality-biodiversity-and-resilience>

In FY 2021-2022, SFEI staff worked on analysis and methods development and are planning to hold their second regional forum in FY 2022-2023 to share their initial results and their synthesis from the first regional forum with the larger team. City Watershed Division staff will participate.

4. In FY 2021-2022, the City's green stormwater infrastructure resources were promoted on the City's website: <https://www.oaklandca.gov/resources/green-streets-raingardens>. Due to being short-staffed in FY 2021-2022 the City did not update this webpage but will work to complete this task in FY 2022-2023.
5. The City is a dues-paying member of the Green Infrastructure Leadership Exchange, an association of cities from around the U.S. and Canada that work collectively to advance GSI research, share ideas, and support the advancement of GSI projects in towns and cities.
6. In FY 2021-2022, City Watershed Division staff reviewed more than 10 public project plan sets to provide comments on GSI where it was incorporated and to encourage project managers to incorporate GSI where feasible.

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

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

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

Background Information:

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

green infrastructure, if applicable.

In FY 2021-2022, CIP project managers included GSI measures in CIP projects with GSI potential to the maximum extent practicable. Where GSI was not practicable on a given CIP project, CIP project managers submitted a brief description of the project and the reason GSI measures were impracticable.

In addition, Watershed Division staff continued to guide project management staff and division managers through the GSI potential evaluation and provided GSI technical design guidance and tools to assist the City to comply with MRP Provision C.3.j Early Implementation of Green Infrastructure. Oakland continued to follow guidance developed by BASMAA and ACCWP for identifying, reviewing, and tracking potential green infrastructure projects and the potential for green infrastructure in public projects. Information from these guidance documents is included in a checklist developed by the Watershed Division and used by City project managers to determine C.3 applicability on CIP projects.

Summary of Planning or Implementation Status of Identified Projects:

See Attachment C.3.1, Public Projects Reviewed for Green Stormwater Infrastructure and Planned and/or Completed Green Stormwater Infrastructure Projects (C.3.j.ii.(2) Tables A and B), for the required information.

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

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

Please refer to the ACCWP's FY 2021-2022 Annual Report for a summary of efforts conducted to help regional, State, and federal agencies plan, design and fund incorporation of green infrastructure measures into local infrastructure projects, including transportation projects.

Also, see Attachment C.3.2 - MRP 21-22 Regional Supplement GSI. This Regional Supplement was prepared to report on regionally implemented activities complying with portions of the MRP. The Regional Supplement covers new development and redevelopment activities related to MRP 2.0 provision C.3.j.iii. Participate in Processes to Promote Green Infrastructure.

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

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

Please refer to the ACCWP's FY 2021-2022 Annual Report for a summary of methods being developed to track and report implementation of green infrastructure measures.

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

Project Name Project No.	Project Location ⁵ , Street Address	Name of Developer	Project Phase No. ⁶	Project Type & Description ⁷	Project Watershed ⁸	Total Site Area (Acres)	Total Area of Land Disturbed (Acres)	Total New Impervious Surface Area (ff ²) ⁹	Total Replaced Impervious Surface Area (ff ²) ¹⁰	Total Pre- Project Impervious Surface Area ¹¹ (ff ²)	Total Post- Project Impervious Surface Area ¹² (ff ²)
Private Projects											
347 E 18th Street	347 E 18th Street	Arris Studio Architects	N/A	4-story building with 27 affordable residential units above 2,235 sf of ground commercial space and a parking garage with 28 spaces	Oakland Estuary	0.229	0.229	10,714	4,200	12,178	14,914
3135 San Pablo	3135 San Pablo Ave/ 967 32nd Street	Luk and Associates	N/A	6-story building with 73 units	West Oakland	0.291	0.285	10,454	7,262	7,262	3,192
685 9th Street	685 9th Street	Michael Bradley	N/A	5-story building with 117 residential units	Oakland Estuary	0.35	0.35	13,833	10,010	10,010	3,823
1510 Webster St	1510 Webster St	oWOW	N/A	19-story mixed-use development consisting of 182 market-rate and affordable residential units with 10,000 square feet of office space, and 3,588 square feet of retail space	Oakland Estuary	0.33	0.33	11,544	11,544	14,231	0
Starbucks Durant Market Place	International Blvd and Tucker St	Bahareh Sehatzadeh / Greenberg Farrow	N/A	Starbucks Coffee Shop with drive-through, outdoor seating areas, on-site parking, trash enclosure, and landscaping	San Leandro Creek	0.46	0.46	12,700	11,300	14,630	0

⁵Include cross streets

⁶If a project is being constructed in phases, indicate the phase number and use a separate row entry for each phase. If not, enter "NA".

⁷Project Type is the type of development (i.e., new and/or redevelopment). Example descriptions of development are: 5-story office building, residential with 160 single-family homes with five 4-story buildings to contain 200 condominiums, 100 unit 2-story shopping mall, mixed use retail and residential development (apartments), industrial warehouse.

⁸State the watershed(s) in which the Regulated Project is located. Downstream watershed(s) may be included, but this is optional.

⁹All impervious surfaces added to any area of the site that was previously existing pervious surface.

¹⁰All impervious surfaces added to any area of the site that was previously existing impervious surface.

¹¹For redevelopment projects, state the pre-project impervious surface area.

¹²For redevelopment projects, state the post-project impervious surface area.

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

Project Name Project No.	Project Location ⁵ , Street Address	Name of Developer	Project Phase No. ⁶	Project Type & Description ⁷	Project Watershed ⁸	Total Site Area (Acres)	Total Area of Land Disturbed (Acres)	Total New Impervious Surface Area (ff ²) ⁹	Total Replaced Impervious Surface Area (ff ²) ¹⁰	Total Pre- Project Impervious Surface Area ¹¹ (ff ²)	Total Post- Project Impervious Surface Area ¹² (ff ²)
Oak Knoll Joint Venture – Parcel 6	8750 Mountain Blvd	Oak Knoll Venture Acquisitions, LLC	N/A	35 residential condominium units with private streets	Arroyo Viejo	183.8	4.6	150,688	0	0	150,688
Oak Knoll Joint Venture – Parcel 9	8750 Mountain Blvd	Oak Knoll Venture Acquisitions, LLC	N/A	35 residential condominium units with private streets	Arroyo Viejo	183.8	2.7	77,940	0	0	77,940
Oak Knoll Joint Venture – Parcel 10	8750 Mountain Blvd	Oak Knoll Venture Acquisitions, LLC	N/A	23 residential condominium units with private streets	Arroyo Viejo	183.8	1.9	51,130	0	0	51,130
Oak Knoll Joint Venture – Parcel 12	8750 Mountain Blvd	Oak Knoll Venture Acquisitions, LLC	N/A	35 residential condominium units with private streets	Arroyo Viejo	183.8	2.7	74,580	0	0	74,580
West Oakland BART – Lot 1 (BLDG T1)	7th St and Chester St	Strategic Urban Development Alliance	N/A	High-rise tower at site T- 1 (522-residential units, 14,207 sf retail and 320' tall). Includes 125 parking spaces	Oakland Estuary	0.736	0.736	6,359	25,695	25,695	32,054
West Oakland BART – Lot 2 (BLDG T4)	7th St and Chester St	Strategic Urban Development Alliance	N/A	High-rise tower at site T- 1 (522-residential units, 14,207 sf retail and 320' tall). Includes 125 parking spaces	Oakland Estuary	1.05	1.05	5,422	40,238	40,238	45,660
West Oakland BART – Lot 3 (BLDG T3)	7th St and Chester St	Strategic Urban Development Alliance	N/A	Affordable housing project with 240 affordable residential units, 15,957 sf of retail, and 50 parking spaces.	Oakland Estuary	1.23	1.23	7,637	46,015	46,015	53,652
West Oakland BART – Horizontal FDP	7th St and Chester St	Strategic Urban Development Alliance	N/A	Horizontal Improvements for entire West Oakland Station site. Includes three public plazas and CGS improvements	Oakland Estuary	2.52	1.59	4,511	61,639	61,639	66,150
2901 Broadway	2901 Broadway	MBO Developer	N/A	7-story mixed use building containing 220 dwelling units over	San Antonio Creek	0.93	0.93	38,236	38,142	39,943	94

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

Project Name Project No.	Project Location ⁵ , Street Address	Name of Developer	Project Phase No. ⁶	Project Type & Description ⁷	Project Watershed ⁸	Total Site Area (Acres)	Total Area of Land Disturbed (Acres)	Total New Impervious Surface Area (ff ²) ⁹	Total Replaced Impervious Surface Area (ff ²) ¹⁰	Total Pre- Project Impervious Surface Area ¹¹ (ff ²)	Total Post- Project Impervious Surface Area ¹² (ff ²)
				ground floor commercial							
Foothill Blvd Mixed Use	6733 Foothill Blvd	AMG & Associates	N/A	6-story building with 529 affordable residential units and 4 manager units, 11,516-sf of ground floor retail at grade parking garage for 185 parking spaces	Arroyo Viejo	2.4	2.4	99,080	99,080	115,419	0

Public Projects – No public Regulated Projects were approved in FY 2021-2022

Comments:

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

Project Name Project No.	Application Deemed Complete Date ¹³	Application Final Approval Date ¹⁴	Source Control Measures ¹⁵	Site Design Measures ¹⁶	Treatment Systems Approved ¹⁷	Type of Operation & Maintenance Responsibility Mechanism ¹⁸	Hydraulic Sizing Criteria ¹⁹	Alternative Compliance Measures ^{20/21}	Alternative Certification ²²	HM Controls ^{23/24}
Private Projects										
347 E 18th Street	8/3/2021	9/30/2021	Plumb floor, garage drains to sanitary sewer; incorporate sustainable practices; fire sprinkler test water to landscaping or sanitary; inlet stenciling	Minimize impervious surfaces		Maintenance Agreement with Owner	2c	Not Applicable	Not Applicable	Not required; not located in susceptible area.
3135 San Pablo Ave	3/23/2022	3/23/2022	Plumb floor, garage drains to sanitary sewer; cover trash; fire sprinkler test water, direct air conditioning to landscaping or sanitary sewer; incorporate sustainable practices; discharge architectural copper to sewer; inlet stenciling	Minimize land disturbance and impervious surfaces; cluster development; use micro-detention; use self-treating areas; direct roof and sidewalk runoff to vegetated areas	Bioretention /Flow through planters (100%)	Maintenance Agreement with Owner	2c	Not Applicable	Not Applicable	Not required; not located in susceptible area.
685 9th Street	5/10/2021	7/8/2021	Plumb floor drains to sanitary sewer; cover trash; fire sprinkler test water, direct air conditioning to landscaping or sanitary sewer; incorporate sustainable practices; inlet stenciling	Minimize land disturbance and impervious surfaces; cluster development; use micro-detention; use self-treating areas; direct roof and sidewalk runoff to vegetated areas; sidewalks with permeable surfaces	Bioretention /Flow through planters (6%) OldCastle Perk Filter (94%)	Maintenance Agreement with Owner	2c	Not Applicable	Not Applicable	Not required; not located in susceptible area.

¹³For private projects, state project application deemed complete date. If the project did not go through discretionary review, report the building permit issuance date.

¹⁴For private projects, state project application final discretionary approval date. If the project did not go through discretionary review, report the building permit issuance date.

¹⁵List source control measures approved for the project. Examples include: properly designed trash storage areas; storm drain stenciling or signage; efficient landscape irrigation systems; etc.

¹⁶List site design measures approved for the project. Examples include: minimize impervious surfaces; conserve natural areas, including existing trees or other vegetation, and soils; construct sidewalks, walkways, and/or patios with permeable surfaces, etc.

¹⁷List all approved stormwater treatment system(s) to be installed onsite or at a joint stormwater treatment facility (e.g., flow through planter, bioretention facility, infiltration basin, etc.).

¹⁸List the legal mechanism(s) (e.g., O&M agreement with private landowner; O&M agreement with homeowners' association; O&M by public entity, etc...) that have been or will be used to assign responsibility for the maintenance of the post-construction stormwater treatment systems.

¹⁹See Provision C.3.d.i. "Numeric Sizing Criteria for Stormwater Treatment Systems" for list of hydraulic sizing design criteria. Enter the corresponding provision number of the appropriate criterion (i.e., 1.a., 1.b., 2.a., 2.b., 2.c., or 3).

²⁰For Alternative Compliance at an offsite location in accordance with Provision C.3.e.i.(1), on a separate page, give a discussion of the alternative compliance site including the information specified in Provision C.3.b.iv.(2)(m)(i) for the offsite project.

²¹For Alternative Compliance by paying in-lieu fees in accordance with Provision C.3.e.i.(2), on a separate page, provide the information specified in Provision C.3.b.iv.(2)(m)(ii) for the Regional Project.

²²Note whether a third party was used to certify the project design complies with Provision C.3.d.

²³If HM control is not required, state why not.

²⁴If HM control is required, state control method used (e.g., method to design and size device(s) or method(s) used to meet the HM Standard, and description of device(s) or method(s) used, such as detention basin(s), bioretention unit(s), regional detention basin, or in-stream control).

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

Project Name Project No.	Application Deemed Complete Date ¹³	Application Final Approval Date ¹⁴	Source Control Measures ¹⁵	Site Design Measures ¹⁶	Treatment Systems Approved ¹⁷	Type of Operation & Maintenance Responsibility Mechanism ¹⁸	Hydraulic Sizing Criteria ¹⁹	Alternative Compliance Measures ^{20/21}	Alternative Certification ²²	HM Controls ^{23/24}
1510 Webster St	8/18/2021	9/24/2021	Plumb floor drains to sanitary sewer; fire sprinkler test water, direct air conditioning to landscaping or sanitary sewer; inlet stenciling	Direct roof runoff to vegetated areas	Contech Stormfilter and Manhole (100%)	Maintenance Agreement with Owner	3	Not Applicable	Not Applicable	Not required; not located in susceptible area.
Starbucks Durant Market Place	7/6/2020	10/20/2021	Plumb floor drains to sanitary sewer; cover trash; direct air conditioning to landscaping or sanitary sewer; discharge architectural copper to sewer; incorporate sustainable practices; inlet stenciling;	Minimize land disturbance and impervious surfaces; cluster development; protect riparian areas; use self-treating areas; plant receptor trees; construct sidewalks with permeable surfaces	Bioretention /Flow through planters (100%)	Maintenance Agreement with Owner	1b	Not Applicable	Not Applicable	Not required; not located in susceptible area.
Oak Knoll Joint Venture – Parcel 6	9/22/2020	11/.29/2021	Plumb floor drains to sanitary sewer; fire sprinkler test water, direct air conditioning to landscaping or sanitary sewer; incorporate sustainable practices; inlet stenciling	Minimize land disturbance and impervious surfaces; cluster development; use micro-detention; protect riparian areas; use self-treating areas; plant receptor trees; direct roof, sidewalk and parking lot runoff to vegetated areas	Bioretention/ Self-retain/ Self-treatment (100%)	Maintenance Agreement with Owner	2c	Not Applicable	Not Applicable	Not required; not located in susceptible area.
Oak Knoll Joint Venture – Parcel 9	9/22/2020	4/6/2022	Plumb floor drains to sanitary sewer; fire sprinkler test water, direct air conditioning to landscaping or sanitary sewer; incorporate sustainable practices; inlet stenciling	Minimize land disturbance and impervious surfaces; cluster development; use micro-detention; protect riparian areas; use self-treating areas; plant receptor trees; direct roof, sidewalk and parking lot runoff to vegetated areas	Bioretention/ Self-retain/ Self-treatment (100%)	Maintenance Agreement with Owner	2c	Not Applicable	Not Applicable	Not required; not located in susceptible area.
Oak Knoll Joint Venture – Parcel 10	9/22/2020	4/6/2022	Plumb floor drains to sanitary sewer; fire sprinkler test water, direct air conditioning to landscaping or sanitary sewer; incorporate sustainable practices; inlet stenciling	Minimize land disturbance and impervious surfaces; cluster development; use micro-detention; protect riparian areas; use self-treating areas; plant receptor trees; direct roof,	Bioretention/ Self-retain/ Self-treatment (100%)	Maintenance Agreement with Owner	2c	Not Applicable	Not Applicable	Not required; not located in susceptible area.

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

Project Name Project No.	Application Deemed Complete Date ¹³	Application Final Approval Date ¹⁴	Source Control Measures ¹⁵	Site Design Measures ¹⁶	Treatment Systems Approved ¹⁷	Type of Operation & Maintenance Responsibility Mechanism ¹⁸	Hydraulic Sizing Criteria ¹⁹	Alternative Compliance Measures ^{20/21}	Alternative Certification ²²	HM Controls ^{23/24}
				sidewalk and parking lot runoff to vegetated areas						
Oak Knoll Joint Venture – Parcel 12	9/21/2020	11/29/2021	Plumb floor drains to sanitary sewer; fire sprinkler test water, direct air conditioning to landscaping or sanitary sewer; incorporate sustainable practices; inlet stenciling	Minimize land disturbance and impervious surfaces; cluster development; use micro-detention; protect riparian areas; use self-treating areas; plant receptor trees; direct roof, sidewalk and parking lot runoff to vegetated areas	Bioretention/ Self-retain/ Self-treatment (100%)	Maintenance Agreement with Owner	2c	Not Applicable	Not Applicable	Not required; not located in susceptible area.
West Oakland BART – Lot 1 (BLDG T1)	3/30/2020	5/18/2021	Covered trash areas and restaurant drains to sanitary sewer; fire sprinkler test water, incorporate sustainable practices, irrigation; inlet stenciling	Minimize disturbance to natural water bodies, drainages and impervious surfaces; direct sidewalk runoff to vegetated areas; construct sidewalks with permeable surfaces	Media Filter Vault (100%)	Maintenance Agreement with Owner	2c	Not Applicable	Not Applicable	Not required; not located in susceptible area.
West Oakland BART – Lot 2 (BLDG T4)	3/30/2020	5/18/2021	Covered trash areas and restaurant drains to sanitary sewer; fire sprinkler test water, incorporate sustainable practices, irrigation; inlet stenciling	Minimize disturbance to natural water bodies, drainages, and impervious surfaces; direct sidewalk runoff to vegetated areas; construct sidewalks with permeable surfaces	Media Filter Vault (100%)	Maintenance Agreement with Owner	2c	Not Applicable	Not Applicable	Not required; not located in susceptible area.
West Oakland BART – Lot 3 (BLDG T3)	3/30/2020	5/18/2021	Covered trash areas and restaurant drains to sanitary sewer; fire sprinkler test water, incorporate sustainable practices, irrigation; inlet stenciling	Minimize disturbance to natural water bodies, drainages, and impervious surfaces; direct sidewalk runoff to vegetated areas; construct sidewalks with permeable surfaces	Media Filter Vault (100%)	Maintenance Agreement with Owner	2c	Not Applicable	Not Applicable	Not required; not located in susceptible area.
West Oakland BART – Horizontal FDP	3/30/2020	5/18/2021	Covered trash areas and restaurant drains to sanitary sewer; fire sprinkler test water, incorporate sustainable practices, irrigation;	Direct roof runoff and sidewalks parking lots to vegetated areas	Media Filter Vault (100%)	Maintenance Agreement with Owner	3	Not Applicable	Not Applicable	Not required; not located in susceptible

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

Project Name Project No.	Application Deemed Complete Date ¹³	Application Final Approval Date ¹⁴	Source Control Measures ¹⁵	Site Design Measures ¹⁶	Treatment Systems Approved ¹⁷	Type of Operation & Maintenance Responsibility Mechanism ¹⁸	Hydraulic Sizing Criteria ¹⁹	Alternative Compliance Measures ^{20/21}	Alternative Certification ²²	HM Controls ^{23/24}
			inlet stenciling							area.
Foothill Blvd Mixed Use	4/29/2022	4/29/2022	Plumb floor, garage drains to sanitary sewer; cover trash, outdoor equipment; grease trap for food service; fire sprinkler test water, direct air conditioning to landscaping or sanitary sewer, incorporate sustainable practices; inlet stenciling	Minimize impervious surfaces; use self-treating areas; plant receptor trees; direct roof runoff and sidewalks parking lots to vegetated areas; construct sidewalks with permeable surfaces	Storm Filters (100%)	Maintenance Agreement with Owner	2c	Not Applicable	Not Applicable	Not required; not located in susceptible area.
2901 Broadway	9/16/2021	5/31/2022	Plumb floor, garage drains to sanitary sewer; fire sprinkler test water; incorporate sustainable practices; inlet stenciling	Minimize impervious surfaces; direct sidewalk runoff to vegetated areas; construct sidewalks with permeable surfaces	Media Filter (94.2%)	Maintenance Agreement with Owner	2c	Not Applicable	Not Applicable	Not required; not located in susceptible area.

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

Project Name	Approval Date ²⁵	Date Construction Scheduled to Begin	Source Control Measures ²⁶	Site Design Measures ²⁷	Treatment Systems Approved ²⁸	Operation & Maintenance Responsibility Mechanism ²⁹	Hydraulic Sizing Criteria ³⁰	Alternative Compliance Measures ^{31/32}	Alternative Certification ³³	HM Controls ^{34/35}
Public Projects - No public Regulated Projects were approved in FY 2021-2022										
Comments:										

²⁵For public projects, enter the plans and specifications approval date.

²⁶List source control measures approved for the project. Examples include: properly designed trash storage areas; storm drain stenciling or signage; efficient landscape irrigation systems; etc.

²⁷List site design measures approved for the project. Examples include: minimize impervious surfaces; conserve natural areas, including existing trees or other vegetation, and soils; construct sidewalks, walkways, and/or patios with permeable surfaces, etc.

²⁸List all approved stormwater treatment system(s) to be installed onsite or at a joint stormwater treatment facility (e.g., flow through planter, bioretention facility, infiltration basin, etc.).

²⁹List the legal mechanism(s) (e.g., maintenance plan for O&M by public entity, etc.) that have been or will be used to assign responsibility for the maintenance of the post-construction stormwater treatment systems.

³⁰See Provision C.3.d.i. "Numeric Sizing Criteria for Stormwater Treatment Systems" for list of hydraulic sizing design criteria. Enter the corresponding provision number of the appropriate criterion (i.e., 1.a., 1.b., 2.a., 2.b., 2.c., or 3).

³¹For Alternative Compliance at an offsite location in accordance with Provision C.3.e.i.(1), on a separate page, give a discussion of the alternative compliance site including the information specified in Provision C.3.b.iv.(2)(m)(i) for the offsite project.

³²For Alternative Compliance by paying in-lieu fees in accordance with Provision C.3.e.i.(2), on a separate page, provide the information specified in Provision C.3.b.iv.(2)(m)(ii) for the Regional Project.

³³Note whether a third party was used to certify the project design complies with Provision C.3.d.

³⁴If HM control is not required, state why not.

³⁵If HM control is required, state control method used (e.g., method to design and size device(s) or method(s) used to meet the HM Standard, and description of device(s) or method(s) used, such as detention basin(s), bioretention unit(s), regional detention basin, or in-stream control).

C.3.h.v.(2). ► Table of Newly Installed³⁶ Stormwater Treatment Systems and Hydromodification Management (HM) Controls (NOT Optional)

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

Name of Facility (aka Project)	Address of Facility (aka Project)	Party Responsible ³⁷ For Maintenance	Type of Treatment/HM Control(s)
19GM00029	3300 HAWLEY ST	RCD - Jake Rosen	Bioretention Area
19GM00018	1940 WEBSTER ST	David Fiore	Bioretention Area
17GM00026	2850 HANNAH ST	Jun Lu	Bioretention Area
17GM00022	2820 BROADWAY	Marco Vakili	Bioretention Area
17GM00021	2855 BROADWAY	Marco Vakili	Media Perk Filter with basin
17GM00064	1100 WEBSTER ST	Justin Osler	Bioretention Area
18GM00001	40 HARRISON ST	Pat Bickmann	Bioretention Area
18GM00006	1150 CLAY ST	William Goodman	2 media filters
20GM00017	5110 TELEGRAPH AVE	Amanda Velez	Bioretention Area
19GM00007	657 W MACARTHUR BLVD	Shashank Agrawal	Bioretention Area
19GM00031	2001 MARITIME ST	Tomas Chavez	Bioretention Area
18GM00026	1919 MARKET ST	Colin Nelson	Bioretention Area

³⁶ "Newly Installed" includes those facilities for which the final installation inspection was performed during this reporting year.

³⁷ State the responsible operator for installed stormwater treatment systems and HM controls.

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
Lake Merritt BART Vertical FDP	City of Oakland	51 9th Street	1/20/2022	Approved	Lake Merritt TOD - Block 1 will remove existing lots and subdivide into 3 new lots and remainder parcel. Redevelopment into housing and commercial space. Vertical FDP for Building B - 97 units of 100% affordable, deed restricted, Senior housing	0.267	> 100 units/acre	> 6.0	Category A N/A Category B N/A Category C Location: Within ¼ mile of transit hub Non auto related project Over minimum density	Category A N/A Category B N/A Category C Total Credit = 100% Within ¼ mile of transit hub = 50% Density:>100 units/acre FAR= 30% No surface parking = 20%	N/A	OldCastle Perk Filter and Manholes (100%)

³⁸Date that a planning application for the Special Project was submitted.

³⁹ Indicate whether final discretionary approval is still pending or has been granted, and provide the date or version of the project plans upon which reporting is based.

⁴⁰Type of project (commercial, mixed-use, residential), number of floors, number of units, type of parking, and other relevant information.

⁴¹ For each applicable Special Project Category, list the specific criteria applied to determine applicability. For each non-applicable Special Project Category, indicate n/a.

⁴²For each applicable Special Project Category, state the maximum total LID Treatment Reduction Credit available. For Category C Special Projects also list the individual Location, Density, and Minimized Surface Parking Credits available.

⁴³: List all LID stormwater treatment systems proposed. For each type, indicate the percentage of the total amount of runoff identified in Provision C.3.d. for the Special Project's drainage area.

⁴⁴List all non-LID stormwater treatment systems proposed. For each type of non-LID treatment system, indicate: (1) the percentage of the total amount of runoff identified in Provision C.3.d. for the Special Project's drainage area, and (2) whether the treatment system either meets minimum design criteria published by a government agency or received certification issued by a government agency, and reference the applicable criteria or certification.

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
Lake Merritt BART Horizontal FDP	City of Oakland	Block 1: 51 9th St Block 2: 101 8th St	2/2/2022	Approved	Lake Merritt TOD - Block 1 will remove 11 existing lots and subdivide into 3 new lots and 1 remainder parcel. Block 2 will subdivide the existing lot into 2 new lots. Redevelopment into housing and office	2.76	> 100 units/acre	> 6.0	Category A N/A Category B N/A Category C Within ¼ mile transit hub Non auto related project Over minimum density	Category A N/A Category B N/A Category C Total credit= 100% Location: Within ¼ mile of transit = 50% Density:>6 FAR= 30% No surface parking = 20%	N/A	OldCastle Perk Filter and Manholes (100%)
347 E 18th Street	City of Oakland	347 E 18th Street	6/2/2021	Approved – Pending Appeal	4-story building with 27 affordable residential units above 2,235 sf of ground commercial space and a parking garage with 28 spaces	0.229	N/A	3.18	Category A Location: Downtown Create/replace less than .5 acres Not auto related project 85% lot covered Category B N/A Category C N/A	Category A Total Credit = 100% Category B N/A Category C N/A	N/A	Mechanical treatment (100%)

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
3135 San Pablo	City of Oakland	3135 San Pablo Avenue / 967 32nd Street	3/1/2022	Approved	6-story building with 73 units	0.291	250 units/acre	N/A	Category A Location: Downtown Create/replace less than .5 acres Not auto related project 85% lot covered Category B N/A Category C N/A	Category A Total credit = 100% Category B N/A Category C N/A	Flow-through planter (100%)	N/A
685 9th Street	City of Oakland	685 9th Street	2/11/2021	Approved	5-story building with 117 residential units	0.35	334 units/acre	N/A	Category A Location: Downtown Create/replace less than .5 acres Not auto related project 85% lot covered Category B N/A Category C N/A	Category A Total credit = 100% Category B N/A Category C N/A	Bioretention Areas / flow through planters (6%)	OldCastle Perk Filter (94%)

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
1510 Webster St	City of Oakland	1510 Webster St	7/2/2021	Approved	19-story mixed-use development consisting of 222 market-rate and affordable residential units with 10,000 square feet of office space, and 3,588 square feet of retail space	0.33	667 units / acre	N/A	<u>Category A</u> Location: Downtown Create/replace less than .5 acres Not auto related project 85% lot covered <u>Category B</u> N/A <u>Category C</u> Location: Within ¼ of transit hub Non auto related project Over minimum density	<u>Category A</u> Total credit = 100% <u>Category B</u> N/A <u>Category C</u> N/A	N/A	Contech Stormfilter and Manhole (100%)
West Oakland BART – Lot 1 (BLDG T1)	City of Oakland	7th St and Chester St	6/24/2019	Approved	High-rise tower at site T-1 (522-residential units, 14,207 sf retail and 320' tall). Includes 140 parking	0.736	709 units/ acre	N/A	<u>Category A</u> N/A <u>Category B</u> N/A <u>Category C</u> Location:	<u>Category A</u> N/A <u>Category B</u> N/A <u>Category C</u> Total credit = 100% Within a ¼ of transit =	N/A	Media Filter Vault (100%)

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
					spaces				Within a ¼ of transit hub Non auto related project Over minimum density	50% Density:>100 units/acre = 30% No surface parking = 20%		
West Oakland BART – Lot 2 (BLDG T4)	City of Oakland	7th St and Chester St	6/24/2019	Approved	High-rise tower at site T-4 (300,000 sf office building and 30,800 sf retail and 100' tall). Includes 210 parking spaces	1.05	N/A	7.27	Category A N/A Category B N/A Category C Location: Within a ¼ of transit hub Non auto related project Over minimum density	Category A N/A Category B N/A Category C Total credit = 100% Within a ¼ of transit hub = 50% Density:>6.0 FAR = 30% No surface parking = 20%	N/A	Media Filter Vault (100%)
West Oakland BART – Lot 3 (BLDG T3)	City of Oakland	7th St and Chester St	6/24/2019	Approved	Mid-rise building at T3 site (Affordable housing project with 240 affordable residential units, 22	1.23	240 units/acre	N/A	Category A N/A Category B N/A Category C Location: Within a ¼	Category A N/A Category B N/A Category C Total credit = 100% Within a ¼ of transit hub = 50%	N/A	Media Filter Vault (100%)

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
					duplexes, 15,957 sf of retail, and 50 parking spaces)				of transit hub Non auto related project Over minimum density	Density:>100 units/acre = 30% No surface parking = 20%		
West Oakland BART – Horizontal FDP	City of Oakland	7th St and Chester St	6/24/2019	Approved	Horizontal Improvements for entire West Oakland Station site. Includes three public plazas and CGS improvements	2.52	N/A	N/A	Category A N/A Category B N/A Category C Location: Within a PDA Non auto related project Over minimum density	Category A N/A Category B N/A Category C Total credit = 100% Within a ¼ of transit hub = 50% Density:>100 units/acre FAR = 30% No surface parking = 20%	N/A	Media Filter Vault (100%)
550 27th St	City of Oakland	550 27th St	8/24/2022	Approved	4 story, 40-unit residential building development	0.331	127 units/acre	N/A	Category A Location: RU-5 Zone Create/replace less than .5 acres Not auto related project 85% lot	Category A Total credit = 100% Category B N/A Category C N/A	N/A	Media Filter (100%)

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
									covered Category B N/A Category C N/A			
Foothill Blvd Mixed Use	City of Oakland	6733 Foothill Blvd		Approved	6-story building with 529 affordable residential units and 4 manager units, 11,516-sf of ground floor retail at grade parking garage for 185 parking spaces	2.4	264 units/acre	N/A	Category A N/A Category B N/A Category C Within ¼ mile transit hub None auto related project Over minimum density	Category A N/A Category B N/A Total credit= 100% Location: Within ¼ mile of transit = 50% Density:>100 units/ acre = 30% No surface parking = 20%	N/A	Stormfilter (100%)
2901 Broadway	City of Oakland	2901-2929 Broadway	3/9/2021	Approved	7-story mixed use building containing 220 dwelling units over ground floor commercial	0.93	214.6 units / acre	N/A	Category A N/A Category B Location: Area of Secondary Importance Replace	Category A N/A Category B Total credit = 100% Category C N/A	N/A	Media Filter (100%)

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
									between 0.5- to 2 acres impervious surface Not auto related project 85% lot covered Over minimum density <u>Category C</u> N/A			
5786 & 5998 Telegraph	City of Oakland	5786 & 5998 Telegraph	10/25/2021	Assigned	4-story, townhome-style residential condominiums with 23 units	0.57	40.35 units/acre	N/A	<u>Category A</u> N/A <u>Category B</u> N/A <u>Category C</u> Location: Within a PDA Non auto related project Over minimum density	<u>Category A</u> N/A <u>Category B</u> N/A <u>Category C</u> Total credit = 55% Location in PDA= 25% Density: >30 units per acre = 10% No surface parking = 20%	Bioretention Areas / flow through planters (55%)	Manhole Stormfilter (45%)

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
7300 MacArthur Blvd	City of Oakland	7300 MacArthur Blvd	4/22/2022	Assigned	6 story, 200-unit multifamily residential building	1.27	157 units/acre	N/A	Category A N/A Category B N/A Category C Location: Within PDA Non auto related project Over minimum density	Category A N/A Category B N/A Category C Total credit = 55% Location: within a PDA = 25% Density:>100 units/acre = 30%	Bioretention Areas (47%)	Baysaver Bayfilter (53%)
SMU Oakland Campus	City of Oakland	525 12th Street /520 11th Street	12/17/2021	Assigned /Under Review	10-story, 226,289 square foot building with underground 21-space parking garage	0.555	N/A	9.1	Category A N/A Category B Location: Within a PDA Replace between 0.5- to 2 acres impervious surface Not auto related project 85% lot covered Over	Category A N/A Category B Total credit = 100% Category C N/A	N/A	Contech Storm Filter Media Filter (100%)

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
									minimum density Category C N/A			
Dr. Kenneth Anderson Senior Living	City of Oakland	1003 E 15th St	4/20/2022	Assigned/ Under Review	5-story residential building with 68 low income affordable units	0.56	121.4 units/acre	N/A	Category A N/A Category B Location: CN-3 Zone Replace between 0.5- to 2 acres impervious surface Not auto related project 85% lot covered Over minimum density Category C N/A	Category A N/A Category B Total credit = 100% Category C N/A	Flow through planters (25.6%)	Media Filter (74.4%)
1431 Franklin St - Office	City of Oakland	1431 Franklin St	8/17/2020	Assigned/ Under Review	27-story (425-foot tall) approx. 419,480 square feet office tower with a 95-space	0.48	N/A	20	Category A Location: Downtown Create/ replace less than .5 acres	Category A Total credit = 100% Category B N/A Category C Total credit = 100%	N/A	Storm filter (100%)

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
					parking garage above grade				Not auto related project 85% lot covered <u>Category B</u> N/A <u>Category C</u> Location: Within ¼ mile of transit hub Non auto related project Over minimum density	Within ¼ mile of transit hub = 50% Density:>6.0 FAR= 30% No surface parking = 20%		
1431 Franklin St – Residential	City of Oakland	1431 Franklin St	8/17/2020	Assigned/ Under Review	36-story (392.5-foot tall) 377,300 square feet residential tower with 194 space parking garage above grade	0.48	656 units/acre	N/A	<u>Category A</u> Location: Downtown Create/replace less than .5 acres Not auto related project 85% lot covered <u>Category B</u> N/A <u>Category</u>	<u>Category A</u> Total credit = 100% <u>Category B</u> N/A <u>Category C</u> Total credit = 100% Within ¼ mile of transit hub = 50% Density:>100 units/acre = 30% No surface parking =	N/A	Storm filter (100%)

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
									C Location: Within ¼ mile of transit hub Non auto related project Over minimum density	20%		
1919 Webster	City of Oakland	1919 Webster	1/25/2022	Under Review	26-story, 408-foot high, 520,335 sf commercial tower with a parking garage consisting of one level underground and three levels above ground	0.6	N/A	20	Category A N/A Category B Location: CBD-P and CBD-C Zones Replace between 0.5- to 2 acres impervious surface Not auto related project 85% lot covered Over minimum density Category C N/A	Category A N/A Category B Total credit = 100% Category C N/A	N/A	Media Filter (100%)

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
Villa Fruitvale	City of Oakland	3751 International Blvd / 1230 37th Ave	2/24/2022	Under Review	180-unit, mixed use development with approximately 118,000 square-feet of residential and 6,000 square-feet of commercial /retail.	0.88	210 units/acre	N/A	<p><u>Category A</u> N/A <u>Category B</u> Location: Within ¼ mile of existing transit hub Replace between 0.5- to 2 acres impervious surface Not auto related project 85% lot covered Over minimum density <u>Category C</u> Within ¼ mile of existing transit hub Non auto related project Over minimum density</p>	<p><u>Category A</u> N/A <u>Category B</u> Total credit = 100% <u>Category C</u> Total credit= 100% Location: within ¼ mile of existing transit hub = 50% Density:>100 units/acre = 30% No surface parking = 20%</p>	Flow through planters (100%)	N/A

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acre age	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
International Station Phase III	City of Oakland	10550 International Blvd 1544 105th Ave	10/28/2021	Assigned/ Under Review	Residential development comprised of a total of 207 dwelling units in two 5-story buildings	1.08	188 units/acre	N/A	Category A N/A Category B N/A Category C Location: Within a PDA Non auto related project Over minimum density	Category A N/A Category B N/A Category C Total credit = 75% Location: Within a PDA = 25% Density:>100 units/acre = 30% No surface parking = 20%	Bioretention areas (100%)	N/A
1901 Park Blvd	City of Oakland	1901 Park Blvd	9/6/2022	Assigned/ Under Review	Mixed Use building with 23 residential units on 4 levels of wood framed structure over 1 level of ground floor retail, lobby, and utility spaces over 1 level of basement for parking	0.18	128 units/acre	N/A	Category A Location: Downtown Create/replace less than .5 acres Not auto related project 85% lot covered Category B N/A Category C N/A	Category A Total credit = 100% Category B N/A Category C N/A	N/A	Tree/ planter well filters (100%)

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
Noodle Factory	City of Oakland	419 4th St	9/15/2020	Incomplete/ Under Review	7-story 69-unit residential mixed-use building with ground floor commercial uses	0.32	247 units/acre	N/A	Category A Location: Jack London Square Create/replace less than .5 acres Not auto related project 85% lot covered Category B N/A Category C N/A	Category A Total credit = 100% Category B N/A Category C N/A	Flow through planters (50%)	Mechanical treatment (50%)
Howard Terminal	City of Oakland	1 Market St	3/5/2020	Incomplete	New MLB ballpark for the Oakland Athletics with a capacity of approximately 35,000 individuals. The proposal also includes ancillary development that would include up to 1.77 million square feet	56.72	52 units/acre	N/A	Category A N/A Category B N/A Category C Within ¼ mile transit hub Non auto related project Over minimum	Category A N/A Category B N/A Category C Total credit = 45% Location: Within PDA = 25% Density:>30 units/ acre= 10% Surface parking = 10%	Bioretention areas/ flow through planters/ self-treating and self-retaining areas (55%)	Media Filter vault (45%)

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
					of commercial development (retail & office), up to 3,000 dwelling units, a new hotel with approximately 400 rooms, and a performance venue with a capacity for up to 3,500 individuals				density			
Sausage Factory Lofts	City of Oakland	2715 Adeline	2/14/2018	Revision	5-story building with 111 work live units	1.2	N/A	2	Category A N/A Category B N/A Category C Location: Within ¼ mile transit hub None auto related project Over minimum density	Category A N/A Category B N/A Category C Total credit= 45% Location in PDA= 25% Density: >2 FAR = 10% No surface parking:= 20%	Bioretention (65%)	Storm filters (45%)

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
465 25th Street	City of Oakland	465 25th; 24th Street and Valley Street	5/6/2019	Incomplete	6-story 99,080 sf with ground floor retail and office space at floors two thru six floors.	0.91	N/A	2.39	Category A N/A Category B N/A Category C Location: Within ¼ mile transit hub None auto related project Over minimum density	Category A N/A Category B N/A Category C Total credit= 80% Location: Within ¼ mile of transit = 50% Density:>2 FAR= 10% No surface parking = 20%	Flow through planters (20%)	Stormfilter Manholes (80%)
4207 Broadway	City of Oakland	4207 Broadway	12/10/2018	Assigned	Mixed Use building with 127 units and ground floor commercial	0.97	130 units/acre	N/A	Category A N/A Category B N/A Category C Location: Within ¼ mile transit hub None auto related project Over minimum density	Category A N/A Category B N/A Category C Total credit= 65% Location in PDA= 25% Density: >100 units per acre = 10% Surface parking occupies less than 10% = 10%	Bioretention and flow through planters (41%)	Bayfilters (59%)

C.3.e.v.Special Projects Reporting Table												
Reporting Period – July 1 2021 - June 30, 2022												
Project Name & No.	Permittee	Address	Application Submittal Date ³⁸	Status ³⁹	Description ⁴⁰	Site Total Acreage	Gross Density DU/Acre	Density FAR	Special Project Category ⁴¹	LID Treatment Reduction Credit Available ⁴²	List of LID Stormwater Treatment Systems ⁴³	List of Non-LID Stormwater Treatment Systems ⁴⁴
220 Alice St	City of Oakland	220 Alice St	6/28/2022	Filed	7-story mixed use multi-family residence with 210 residential units and 2,850 SF of retail	0.4	525 units/acre	N/A	Category A N/A Category B N/A Category C Within ¼ mile transit hub Non auto related project Over minimum density	Category A N/A Category B N/A Category C Total credit = 100% Location: Within ¼ mile of transit = 50% Density:>100 units/acre= 30% No surface parking = 20%	Raised bioretention planters (20%)	OldCastle Perk Filter (80%)

Special Projects Narrative

Lake Merritt BART Vertical FDP – Project is a Cat C project which allows a 100% LID reduction. Building and subsurface Bart tunnel takes up the entire site, minimal open space planters are inadequate size for the drainage area.

Lake Merritt BART Horizontal FDP – Project is a Cat C project which allows a 100% LID reduction. Building and subsurface Bart tunnel takes up the entire site, minimal open space planters are inadequate size for the drainage area.

347 E 18th Street – Project is a Cat A project which allows a 100% LID reduction. The building and garage cover the majority of the site, treating the additional areas using LID treatment would be cost prohibitive.

685 9th Street – Project is a Cat A project which allows a 100% LID reduction. The project has limited proposed landscape areas, minimal open space planters are inadequate size for the drainage area.

SMU Oakland Campus – Project is a Cat B project which allows a 100% LID reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

1510 Webster St – Project is a Cat A project which allows the project to take a 100% reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

West Oakland BART – Lot 1 (BLDG T1) – Project is a Cat C project which allows the project to take a 100% reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

West Oakland BART – Lot 2 (BLDG T4) – Project is a Cat C project which allows the project to take a 100% reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

West Oakland BART – Lot 3 (BLDG T3) – Project is a Cat C project which allows the project to take a 100% reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

West Oakland BART – Horizontal FDP– Project is a Cat C project which allows the project to take a 100% reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

550 27th St – Project is a Cat A project which allows the project to take a 100% reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

5786 & 5998 Telegraph – Project is a Cat C project which allows the project to take a 55% reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

7300 MacArthur Blvd– Project is a Cat C project which allows the project to take a 55% reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

Dr. Kenneth Anderson Senior Living – Project is a Cat B project which allows the project to take a 100% reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

1431 Franklin St – Office – Project is a Cat C project which allows the project to take a 100% reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

1431 Franklin St – Residential – Project is a Cat C project which allows the project to take a 100% reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

1919 Webster – Project is a Cat B project which allows the project to take a 100% reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

1901 Park Blvd – Project is a Cat A project which allows the project to take a 100% reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

220 Alice St – Project is a Cat C project which allows the project to take a 100% reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

Foothill Blvd Mixed-Use - Project is a Cat C project which allows a 100% LID reduction. Building takes up most of the site, minimal open space planters are inadequate size for the drainage area, and high-water table in area available for treatment.

465 25th Street – Project is a Cat C project which allows an 80% LID reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area.

Noodle Factory – Project is a Cat B project which allows the project to take a 100% reduction. Building takes up the entire site, minimal open space planters are inadequate size for the drainage area. However, the project is going to try to incorporate up to 50% of bio-treatment, if possible.

4207 Broadway – Project is a Cat C project which allows a 65% LID reduction. The project is only asking for a 59% reduction. Building takes up most of the site, minimal open space planters are inadequate size for the drainage area, and high-water table in area available for treatment.

C.3.j.ii.(2) ► Table A - Public Projects Reviewed for Green Infrastructure

Project Name and Location ⁴⁵	Project Description	Status ⁴⁶	GI Included? ⁴⁷	Description of GI Measures Considered and/or Proposed or Why GI is Impracticable to Implement ⁴⁸
See Attachment C.3.1				

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

Project Name and Location ⁴⁹	Project Description	Planning or Implementation Status	Green Infrastructure Measures Included
See Attachment C.3.1			

⁴⁵ List each public project that is going through your agency’s process for identifying projects with green infrastructure potential.

⁴⁶ Indicate status of project, such as: beginning design, under design (or X% design), projected completion date, completed final design date, etc.

⁴⁷ Enter “Yes” if project will include GI measures, “No” if GI measures are impracticable to implement, or “TBD” if this has not yet been determined.

⁴⁸ Provide a summary of how each public infrastructure project with green infrastructure potential will include green infrastructure measures to the maximum extent practicable during the permit term. If review of the project indicates that implementation of green infrastructure measures is not practicable, provide the reasons why green infrastructure measures are impracticable to implement.

⁴⁹ List each planned (and expected to be funded) public and private green infrastructure project that is not also a Regulated Project as defined in Provision C.3.b.ii. Note that funding for green infrastructure components may be anticipated but is not guaranteed to be available or sufficient.

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

Program Highlights and Evaluation

Highlight/summarize activities for reporting year:

Summary:

See the Provision C.4 Industrial and Commercial Site Control section of the Alameda Countywide Clean Water Program (ACCWP) FY 2021-2022 Annual Report for a description and summary of countywide Program activities.

Summary:

1. The City of Oakland (City) updated its list of industrial and commercial businesses requiring stormwater inspections based on instructions described in the Business Inspection Plan (BIP). The updated list is included in Attachment C.4.1 of this report.
2. Inspections for each business were scheduled to occur once every two years for industrial businesses, and once every five years for commercial businesses. Additional inspections are scheduled as needed to follow-up on complaints or observed stormwater pollution prevention violations at past inspections. The inspections were planned geographically to sweep across the City and then reset upon completion.
3. The City launched a new business stormwater inspection application during December 2021. The new application runs on iPhones and iPads and connects to the City's Accela planning, permitting, invoicing, and inspection database. The new application sends inspection reports and violation follow-up instructions to business representatives immediately after an inspection is completed. The new inspection application provides real time client communications and improved invoicing functionality and inspection data access. Considerable staff and contractor time has and continues to be invested in developing, testing, and refining the application.
4. The City worked to implement program efficiencies, such as geographic route planning, remote research for each business's hours and status, improved program oversight and inspection evaluation, continual improvements to the inspection application, continual inspector training, and continual improvements to public facing program and stormwater pollution prevention information for inspected businesses.
5. The City updated its inspection fees and added additional business stormwater inspection invoice payment options for businesses.
6. The City updated its business stormwater inspection [website](#) and [brochures in English, Spanish, and Chinese](#). The updates more clearly explain the program and its requirements to affected business. The new website also includes a [new page that compiles Best Management Practices](#) in English and a variety of translations for stormwater pollution prevention for various business types.
7. Routine stormwater inspections are conducted annually by an environmental consultant (consultant) and Oakland Fire Department (OFD) Hazardous Materials Inspectors.
 - a. OFD inspectors are typically assigned to inspect industrial and automotive related businesses.
 - b. The consultant is typically assigned inspections of the remainder of the businesses, which are non-automobile related commercial businesses. The consultant assists with industrial and automobile-related business inspections on occasion when a rapid response to a complaint is necessary and City staff are not able to respond.
 - c. City of Oakland Public Works Watersheds Division staff conduct enforcement follow up actions and refer follow up inspections to the consultant or OFD inspector.

8. Each business stormwater inspection includes:
 - a. Review of the facility's Stormwater Pollution Prevention Plan (SWPPP), if applicable.
 - b. Evaluation of best management practices (BMPs) in use, and provision of BMP recommendations as needed.
 - c. Recommendations for additional or improved BMPs.
 - d. Provision of industry relevant BMP packets in English, Spanish, Chinese, and/or Vietnamese as needed.
 - e. Abatement of illicit discharge to the storm water system.
 - f. Documentation of observed violations, required corrective actions, and compliance deadlines and reporting requirements.
 - g. Evaluation of compliance with the City's recycling and trash management requirements.
 - h. Evaluation of polystyrene, plastic bag, and straw bans at restaurants, cafes, and food markets.
 - i. Assessment of the level of trash in the public right-of-way areas adjacent to each property.
9. When actual and potential discharges were observed, inspectors directed the business owner or manager to cease the actual discharges immediately and to improve BMPs to address potential discharges. The inspectors communicated inspection findings to City Watersheds Division staff when follow-up enforcement was needed. City Watersheds Division staff took appropriate enforcement action and referred violation re-inspections back to the consultant or OFD inspector as necessary.
10. City staff participated in the Alameda Countywide Clean Water Program (ACCWP) Industrial & Illicit Discharge Committee (covers MRP Provisions C.4 and C.5).
11. As noted in last year's report, the COVID-19 pandemic caused a months-long suspension of inspections and required development of additional inspector safety precautions. In FY 2021-2022, COVID-19 pandemic constraints and the City's transition to a new inspection-tracking database (Accela) prevented the City from starting inspections until January 2022. In addition, OFD's staffing shortages continued in FY 2021-2022. Therefore, in FY 2021-2022, the City was only able to complete 556/850 scheduled inspections. The City intends to complete 850 scheduled inspections in FY 2022-2023.

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

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

See Attachment C.4.1

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

Fill out the following table or attach a summary of the following information. Indicate your reporting methodology below.	
<input checked="" type="checkbox"/>	Permittee reports multiple discrete potential and actual discharges at a site as one enforcement action.
<input type="checkbox"/>	Permittee reports the total number of discrete potential and actual discharges on each site.
	Number
Total number of inspections conducted (C.4.d.iii.(2)(a))	556
Violations, enforcement actions, or discrete number of potential and actual discharges resolved within 10 working days or otherwise deemed resolved in a longer but still timely manner (C.4.d.iii.(2)(c))	41
<p>Comments:</p> <p>All actual discharges have been corrected. City staff are following up on an additional 14 enforcement actions for minor potential discharges such as minor amounts of litter outside of the business or are in the process of installing 2ndary hazardous materials containment. Each of the 14 businesses with minor potential non-stormwater discharge violations received an enforcement letter immediately after the inspection directing the business to implement required BMPs and comply with the City's stormwater ordinance. Staff have emailed and called each of these businesses with additional instructions for reporting compliance and additional information and recommendations for best management practices.</p> <p>In addition, staff have improved violation messaging with clearer printed and emailed instructions for required follow-up and messaging. These updates have already improved business follow-through and responsiveness to violation notices, resulting in quicker problem resolution with less follow-up required by staff.</p>	

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

Fill out the following table or attach a summary of the following information.		
	Enforcement Action (as listed in ERP) ⁵⁰	Number of Enforcement Actions Taken
Level 1	Verbal Warning	0
Level 2	Warning Notice	55
Level 3	Administrative Action w/ Monetary Fines	0
Level 4	Referral to the City and/or County District Attorney's Office	0
Total		55

⁵⁰Agencies to list specific enforcement actions as defined in their ERPs.

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

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

Business Category ⁵¹	Number of Actual Discharges	Number of Potential Discharges
Auto Repair	3	24
Bakery	0	1
Cannabis	0	1
Manufacturing	0	1
Market	1	1
Other	1	0
Recycling	0	1
Restaurant	3	18
Grand Total	8	47

C.4.d.iii.(2)(e) ► Non-Filers

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

Performance Structures – SIC Code 3446 - was identified as a non-filer in a June 10, 2022 inspection. City of Oakland coordinated with the Water Board, who followed up with a June 17, 2022 letter and a June 30, 2022 inspection and are coordinating with the business on its IGP filing status.

⁵¹List your Program's standard business categories.

C.4.e.iii ► Staff Training Summary

Training Name	Training Dates	Topics Covered	No. of Industrial/ Commercial Site Inspectors in Attendance	Percent of Industrial/ Commercial Site Inspectors in Attendance	No. of IDDE Inspectors in Attendance	Percent of IDDE Inspectors in Attendance
Oakland Business Stormwater Program Overview Training	February 2, 2022	Orientation for Oakland Fire Department inspectors onboarding to Business Stormwater Inspection Program. Training delivered by City staff and consultants. Training covered: <ol style="list-style-type: none"> 1. Business Stormwater Inspection Program (BSIP) reasoning and requirements 2. How to conduct inspections and use the inspection application 3. Behind the scenes for inspectors, managers, business 	3	100%	1	25%
Oakland Business Stormwater Program Field Training	February 3, 2022	Conducting inspections and using the inspection application	3	100%	1	25%
ACCWP IIDC Inspector Training Workshop	April 5, 2022	<ol style="list-style-type: none"> 1. Updates in MRP 3.0 2. Oakland Business Inspection Program Case Studies 3. Enforcement Case Studies from Union Sanitary District 4. Illicit Discharge Enforcement Panel 	0	0%	2	50%

Comments:
 City staff and contractor engaged in continuous training throughout the fiscal year, troubleshooting issues in the field and with the inspection app.

City contractor participated as trainers in a ACCWP inspector training April 5, 2022. The contractor employed 19 inspectors in FY 2021-2022. Seven of these inspectors participated in the ACCWP training.

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

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

Provide background information, highlights, trends, etc.

Summary:

Illicit discharge staff inspectors perform inspections and enforcement of incidents identified by complaints and field-identified issues. Resources such as aerial maps, sewer sheets, and Geographic Information System (GIS) are readily available to staff and enable them to quickly and accurately locate the source of illicit discharges. Additionally, City staff use mobile technological resources such as cell phones and tablet computers, mobile applications, and GIS maps to aid in expediting the inspection process. In addition, the City of Oakland Public Works (OPW) Department - Maintenance staff and equipment are available to assist in more complex investigation of storm drain infrastructure.

City staff in the OPW – Storm Drainage Maintenance Division conduct inspection, monitoring, and maintenance of the storm drain collection system. The City also conducts inspections of survey/screening point locations (creeks and flood control channels) to enhance the storm collection system screening program. In addition, City staff participates in the Industrial and Illicit Discharge Control Subcommittee (I&IDC) and the Municipal Maintenance Subcommittee and associated work groups of the Alameda Countywide Clean Water Program (ACCWP).

City of Oakland continues to maintain a variety of stormwater infrastructure types (including weirs, tree wells, storm drain [SD] inlets, SD inlet baskets, SD inlet screens, culvert and storm pipes, manholes, “V” ditches, pump stations, and continuous deflective separation [CDS] trash collection units). The main function of the stormwater infrastructure is to convey stormwater and prevent flooding. An indirect function of the City’s stormwater infrastructure includes the improvement of water quality by collecting and removing trash, organic material, and other types of debris before it enters nearby waterbodies (creeks, estuary, and lakes such as Lake Merritt, and the San Francisco Bay).

A summary of maintenance conducted in the FY 2021-2022 reporting period on the City’s storm drain system by City staff is shown below.

Maintenance Activity	Work Conducted
Inspect and Clean Storm Drain Inlets	10,864 inlets
Clean Stormwater Pipes	57,896 linear feet
CCTV Stormwater Pipes	6,415 linear feet
Inspect/Service Pump Stations Twice Monthly (8 pump stations)	84 inspections
Service/Maintain Trash collection devices	<ul style="list-style-type: none"> • 60 storm drain inlet baskets • 684 inlet screens • 182 weirs • 228 storm drain grates replaced

	• 15 full trash capture units
Maintenance Activity (continued)	Work Conducted (continued)
Emergency Point Repairs of Stormwater Pipe	10
Maintain/Service Street Gutter, Public Drainage Swales and V-Ditches	1,805 linear feet
Resolve Clogged Storm Drain Incidents	1,004 incidents

See the Provision C.5 Illicit Discharge Detection and Elimination section of the ACCWP FY 2021-2022 Annual Report for a summary and description of activities at the countywide or regional level.

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

Summary of any changes made during FY 21-22:

No change.

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

Spill and Discharge Complaint Tracking (fill out the following table or include an attachment of the following information)

	Number
Discharges reported (C.5.d.iii.(1))	55
Discharges reaching storm drains and/or receiving waters (C.5.d.iii.(2))	25
Discharges resolved in a timely manner (C.5.d.iii.(3))	55

Comments:

During FY 2021-2022, 37 illicit discharge incidents were reported to the City. The 37 illicit discharge incidents are summarized in the table below.

Type	Number of Incidents
Not a Potential or Actual Discharge/Violation (allowed discharge [i.e., property drainage system, exempt discharges, etc.]	15
Unsubstantiated (not found/located in the field)	15
Unresolved (discharge observed, but no source was identified)	0
Actual Illicit Discharge to Storm Drain System or Nearby Receiving Water	25 ⁵²

The illicit discharges listed above do not include Hazardous Materials responses conducted by the Oakland Fire Department (OFD) Hazardous Materials (Haz Mat) Response Teams or Sanitary Sewer Overflow (SSO) responses conducted by the OPW Sanitary Sewer Maintenance.

Hazardous Materials Response

OFD Haz Mat operates under policies that implement standard operating procedure (SOP) and protocols that require staff to respond to reported discharges within 24-48 hours from the time the incident is reported. Response to reported discharges are prioritized by the type/volume of material discharged and the location of the discharge (e.g., discharges close to highly sensitive areas). Discharges to storm drains and/or receiving waters are prioritized as a top priority for immediate response. OFD staff is trained in Hazardous Material First Responder Operational (FRO) and Hazardous Waste Operations and Emergency Response (HAZWOPER). All members of the OFD receive initial Hazardous Material FRO training at the Recruit Academy and take annual refresher FRO training. The curriculum meets the requirements of the Federal HAZWOPER standards, and Occupational Safety and Health Administration (OSHA) training requirements under 29 Code of Federal Regulations (CFR) 1910.120 (q). In addition, it meets the National Fire Protection Association (NFPA) 472 Standards for Professional Competence of Responders to Hazardous Materials, First Responder Operations Level.

SSO Response

Sanitary Sewer Overflow (SSO) Response is conducted by Sanitary Sewer Maintenance of the Oakland Public Works Department. SSO incidents are reported separately to the CA RWQCB and are not included in this Annual Report.

⁵² Illicit discharge incidents were either resolved or abated/cleaned up immediately or prior to 10 business days (and prior to any subsequent rain events).

Illicit Discharge Complaints Related to Homeless Encampments

1. A description of the City's overall response to homelessness and trash discharge issues associated with encampments is provided in the City of Oakland Direct Discharge Plan Progress Report in Attachment C.10.4 of this report.
2. The City receives illicit discharge complaints associated with homeless encampments, including vehicle encampments. If the discharged material is reported as a hazardous or unknown material, the Oakland Fire Department is dispatched to inspect and ensure that the hazard is abated and/or referred to the appropriate City Department for abatement. If the hazardous material is considered a biohazard, such as human waste or used hypodermic needles, the City dispatches a biohazard cleanup contractor, or City Public Works sewers and drainage maintenance personnel, to abate the discharge. Abatement is completed as quickly as possible; however, the City must follow the City Council-approved Encampment Management Policy if encampment intervention and Oakland Police Department assistance is needed before a contractor or City staff can access an area requiring abatement. The City's Infrastructure Maintenance Division provides storm drain cleaning services when necessary and as soon as the site can be accessed. Complaints, Service Requests, and Work Orders are tracked in Oakland's Cityworks asset management system/database. The Public Works Keep Oakland Clean and Beautiful (KOCB) Division dispatches crews to conduct thorough encampment clean-ups and closures as directed by the City's Encampment Management Team (EMT). EMT decisions are guided by the City's Encampment Management Policy. For more information on encampment management see the City's EMT webpage: <https://www.oaklandca.gov/topics/encampment-management-team>.
3. Watershed and Stormwater Management (WSM) staff continue to coordinate with the EMT to provide water quality and waterway protection and regulations information to the EMT to inform their encampment intervention prioritization process.
4. WSM staff continue to provide, for distribution, an informational flyer about proper wastewater disposal for Oakland residents living in recreational vehicles (RVs). This flyer, produced in [English](#), [Spanish](#), and [Chinese](#) is being distributed to Oakland RV residents by City of Oakland social services, cleanup, and parking enforcement staff.
5. City Department of Public Works staff collected water samples from Glen Echo Creek to support efforts to prevent an encampment adjacent to the creek from impacting creek water quality. The monitoring results are included as Attachment C.5.1. The encampment was closed in accordance with the City's Encampment Management Policy.

Section 6 – Provision C.6 Construction Site Controls

C.6.e.iii.(3)(a), (b), (c), (d) ▶ Site/Inspection Totals – Private Projects			
Number of active Hillside Sites (sites disturbing < 1 acre of soil requiring storm water runoff quality inspection) (C.6.e.iii.3.a)	Number of High Priority Sites (sites disturbing < 1 acre of soil requiring storm water runoff quality inspection) (C.6.e.iii. 3.c)	Number of sites disturbing ≥ 1 acre of soil (C.6.e.iii.3.b)	Total number of storm water runoff quality inspections conducted (include only Hillside Sites, High Priority Sites and sites disturbing 1 acre or more) (C.6.e.iii. 3.d)
18	10	21	270
<p>Comments: We performed 270 C.6 inspections among 49 runoff quality sites in FY 2021-2022. Brooklyn Basin is considered a high priority site requiring stormwater runoff quality inspection.</p> <p>Provide the number of inspections that are conducted at sites not within the above categories as part of your agency's inspection program and a general description of those sites, if available or applicable.</p> <p>In addition to inspecting hillside, CGP, and high priority sites, in FY 2021-2022 we performed an additional 109 C.6 inspections at 43 other sites, many of which were in response to complaints, to ensure compliance with the City's stormwater pollution prevention requirements.</p>			

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

	Enforcement Action (as listed in ERP) ⁵³	Number Enforcement Actions Issued
Level 1 ⁵⁴	Verbal or Very Minor Issue Noted in Inspection Report.	25
Level 2	Correction Notice or Written Notice	16
Level 3	Stop Work Order	3
Level 4	Legal Action	0
Total		44

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

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

C.6.e.iii.(3)(g) ► Corrective Actions – Private Projects

Indicate your reporting methodology below.	
<input checked="" type="checkbox"/>	Permittee reports multiple discrete potential and actual discharges at a site as one enforcement action.
<input type="checkbox"/>	Permittee reports the total number of discrete potential and actual discharges on each site.
	Number
Enforcement actions or discrete potential and actual discharges fully corrected within 10 business days after violations are discovered or otherwise considered corrected in a timely period (C.6.e.iii. .3.g)	40
Comments: We conducted 44 enforcement actions in FY 2021-2022 to address inadequate stormwater pollution prevention BMPs at construction sites. Our enforcement actions targeted BMP deficiencies before they could result in illicit discharges. There were not many rainy days during FY 2021-2022. A small amount of muddy water was discharged from one site and was corrected immediately.	

⁵³Agencies should list the specific enforcement actions as defined in their ERPs.

⁵⁴For example, Enforcement Level 1 may be Verbal Warning.

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

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

Description: We have 44 enforcement actions compared to 7 last year. Also, we revised an inspection checklist to make data entry easier and to make the paperwork process more efficient.

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

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

Description: We have revised our inspection form (checklist) for easier data entry. Inspection staff has regularly participated in the Countywide committee meeting/discussion for process improvement.

C.6.f.iii ► Staff Training Summary – Private Projects

Training Name	Training Dates	Topics Covered	No. of Inspectors in Attendance
Joint CCCWP and ACCWP C.6 Construction Stormwater Training Workshop	March 30, 2022	MRP C.6 Refresher Regulatory Update: CGP and MRP Stories from the Field Discussion with the Inspector Panel	4

C.6.e.iii.(3)(a), (b), (c), (d) ▶ Site/Inspection Totals – Public Projects			
Number of active Hillside Sites (sites disturbing < 1 acre of soil requiring storm water runoff quality inspection) (C.6.e.iii.3.a)	Number of High Priority Sites (sites disturbing < 1 acre of soil requiring storm water runoff quality inspection) (C.6.e.iii. 3.c)	Number of sites disturbing ≥ 1 acre of soil (C.6.e.iii.3.b)	Total number of storm water runoff quality inspections conducted (include only Hillside Sites, High Priority Sites and sites disturbing 1 acre or more) (C.6.e.iii. 3.d)
0	0	1	4
<p>Comments:</p> <p>See Attachment C.6.2 for Summary of Construction Site Control Inspections – Public Projects FY 2021-2022.</p> <p>The one project, ATP Telegraph, is in a low, flat area of Oakland.</p> <p>ATP Telegraph is a project on Telegraph Avenue, between 20th Street/Thomas L. Berkley Way and 42nd Street to construct infrastructure improvements for pedestrians and bicyclists. Pedestrian improvements include sidewalk extensions, raised islands, ADA compliant curb ramps, pedestrian median refuges, and crosswalk improvements. Bicycle improvements include protected bike lanes, protected intersections, and bike parking facilities. Additional components include geometric realignment, traffic signal modifications, rapid rectangular flashing beacons (RRFB), ITS infrastructure, signing and striping, and pavement repair.</p> <p>The construction is being completed in phases and, therefore, the addresses provided are for the area of active construction during rain events.</p> <p>The site was well maintained, including stockpile management. No corrections were required during action construction.</p> <p>Provide the number of inspections that are conducted at sites not within the above categories as part of your agency’s inspection program and a general description of those sites, if available or applicable.</p> <p>In addition to the reported site above in this period, staff also performed daily inspections and observation of BMPs at 25 lower priority sites. No major incidents were reported.</p>			

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

	Enforcement Action (as listed in ERP) ⁵⁵	Number Enforcement Actions Issued
Level 1 ⁵⁶		0
Level 2		0
Level 3		0
Level 4		0
Total		0

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

	Number
Number of illicit discharges, actual and those inferred through evidence at hillside sites, high priority sites and sites that disturb 1 acre or more of land (C.6.e.iii. 3.f)	0

C.6.e.iii.(3)(g) ► Corrective Actions – Public Projects

Indicate your reporting methodology below.

<input type="checkbox"/>	Permittee reports multiple discrete potential and actual discharges at a site as one enforcement action.
<input checked="" type="checkbox"/>	Permittee reports the total number of discrete potential and actual discharges on each site.
	Number
Enforcement actions or discrete potential and actual discharges fully corrected within 10 business days after violations are discovered or otherwise considered corrected in a timely period (C.6.e.iii. .3.g)	0

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

Describe your evaluation of the tracking data and data summaries and provide information on the evaluation results (e.g., data trends, typical BMP performance issues, comparisons to previous years, etc.).
Description: The City of Oakland has one site disturbing 1 acre or more during FY 2021-2022. No major issues occurred.

⁵⁵Agencies should list the specific enforcement actions as defined in their ERPs.

⁵⁶For example, Enforcement Level 1 may be Verbal Warning.

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

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

Description:

During staff meetings inspectors were reminded of the importance of monitoring BMPs and are encouraged to attend additional trainings. No new tools were developed for BMP inspection. Inspectors continue to utilize a daily inspection checklist to monitor typical BMP and housekeeping requirements for their project sites. The City of Oakland Watershed and Stormwater Management Division developed and shared guidance with inspection staff on MRP C.6 and applying stormwater requirements during construction.

C.6.f.iii ► Staff Training Summary – Public Projects

Training Name	Training Dates	Topics Covered	No. of Inspectors in Attendance
Joint CCCWP and ACCWP C.6 Construction Stormwater Training Workshop	March 30, 2022	MRP C.6 Refresher Regulatory Update: CGP and MRP Stories from the Field Discussion with the Inspector Panel	18

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

C.7.b.i.1 ► Outreach Campaign

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

Summary:

Local Efforts

The City of Oakland continues to promote its Oaktown PROUD anti-illegal dumping program with outreach and marketing to help reduce the amount of littering and dumping in Oakland. The outreach campaign encourages Oaklanders to be Oaktown PROUD (Prevent and Report Our Unlawful Dumping). The Oaktown PROUD anti-illegal dumping program is a multi-departmental initiative dedicated to reducing illegal dumping through increased staffing and equipment for illegal dumping abatement crews, an Environmental Enforcement Officers program, improved coordination with other agencies such as Caltrans and Alameda County, and coordination with the City's Homeless Encampment Task Force. The City intends this to be a long-term campaign with opportunities to partner with public and private entities.

The City of Oakland runs three large and coordinated campaigns per year to promote Oakland Earth Day, Oakland Creek to Bay Day, and Martin Luther King Jr. Day of Service. In the outreach for each campaign in FY 2021-2022, the City highlighted actions people can take at home and in their community to improve the health of their home, and of our local creeks, Lake Merritt, the Oakland Estuary, San Francisco Bay and the Pacific Ocean. This past year, two of these events were month-long engagements to allow for people to volunteer with social distancing and other Covid-19 safety precautions. Oakland Earth Day was celebrated on April 23, 2022. The promotion of these City-wide volunteer events through social media and a combination of digital and print advertising has three purposes: to invite participation in the events, increase awareness of actions people can take to reduce dumping and improve the health of local waterways, and promote year-round environmental volunteerism.

Due to Covid-19, for Oakland Creek to Bay Day and Martin Luther King Jr Day of Service, the City did not do regular distribution of English, Spanish, and Chinese printed postcards and posters across business districts, schools, colleges, universities, libraries, recreation centers, Head Start centers, senior centers, and other community spaces. Promotion for these events included social media, online newsletters, limited printing of posters, and electronic billboards at the Oakland Coliseum, and along highways 880 (near the Coliseum) and 80 (near the Bay Bridge toll plaza). For Oakland Earth Day, posters and postcards were distributed across business districts, schools, colleges, universities, libraries, recreation centers, Head Start centers, senior centers, and other community spaces. Outreach focused on home-based actions for Oakland Creek to Bay Month and MLK Jr 40 Days of Service.

Outreach focused on home-based actions. The websites for [Earth Day](#), Creek to Bay Day, and Martin Luther King Jr. Day included lists of suggested home-based actions that will remain available throughout the year and beyond so that the public has a clearinghouse for finding environmental ideas to implement from home. Adopt a Spot and citywide cleanup event pages are now hosted on ESRI HUB: <https://oakland-volunteer-community-oakgis.hub.arcgis.com/>

To publicize our Adopt a Drain program, the City continues to promote the program in e-newsletters and on social media. Physical distribution of program outreach flyers in English, Spanish, Chinese, and Vietnamese has been limited due to Covid-19. The flyer describes the importance of maintaining storm drains, how to maintain storm drains, and how to sign up for Oakland Adopt a Drain. The Adopt a Drain ESRI HUB page is located here: <https://oakland-volunteer-community-oakgis.hub.arcgis.com/pages/adopt-a-drain>. This website facilitates storm drain maintenance adoption by making it much easier for Oakland residents to adopt a drain.

Countywide Efforts

Refer to Section C.7 of the Alameda Countywide Clean Water Program (ACCWP) FY 2020-2021 Annual Report for a summary of outreach campaign activities implemented at the countywide level.

C.7.c. Stormwater Pollution Prevention Education

No changes

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

Describe general approach to event selection. Provide a list of outreach materials and giveaways distributed.

Use the following table for reporting and evaluating public outreach events

Event Details	Description (messages, audience)	Evaluation of Effectiveness
Provide event name, date, and location. Indicate if event is local, countywide or regional. Indicate if event is public outreach or citizen involvement.	Identify type of event (e.g., school fair, creek clean-up, storm drain stenciling, farmers market etc.), type of audience (school children, gardeners, homeowners etc.) and outreach messages (e.g., Enviroscope presentation, pesticides, stormwater awareness)	Provide general staff feedback on the event (e.g., success at reaching a broad spectrum of the community, well attended, good opportunity to talk to gardeners etc.). Provide other details such as: <ul style="list-style-type: none"> • Success at reaching a broad spectrum of the community • Number of participants compared to previous years. • Post-event effectiveness assessment/evaluation results • Quantity/volume of materials cleaned up, and comparisons to previous efforts

Event Details	Description (messages, audience)	Evaluation of Effectiveness
<p>Oakland Creek to Bay Month, September 2021: Local month-long event including cleanups at Oakland neighborhood, creek and shoreline sites.</p>	<p>Event type: Volunteer environmental trash cleanup and ecological restoration event.</p> <p>Audience: Volunteers that live, work, and play in Oakland.</p> <p>Outreach Message: The City of Oakland encouraged Oaklanders to “Be Oaktown PROUD” for Oakland Creek to Bay month, and participate in local, socially distanced cleanups in their neighborhood while following City of Oakland general and COVID-19 safety requirements and guidelines.</p> <p>The City of Oakland also highlighted actions people can take at home and in their community to improve the health of their home, and of our local creeks, Lake Merritt, and the San Francisco Bay on www.OaklandCreekttoBay.org.</p>	<p>Attendance: 236 volunteers contributed 806 hours</p> <p>Volunteers prevented 881 gallons of trash from entering Oakland’s creeks, Lake Merritt and the estuary. Volunteers also removed green waste (mostly non-native plants) to allow native plants to flourish and reduce fuel load. Volunteers also abated graffiti, and installed plants.</p>
 <p>CREEK TO BAY MONTH VOLUNTEER OAKLAND!</p> <p>September 2021 ♦ OaklandCreekttoBay.org</p>		

Event Details	Description (messages, audience)	Evaluation of Effectiveness
<p>Martin Luther King Jr. 40 Days of Service, 01/17/22 - 02/28/22: Local month-long event including cleanups at Oakland neighborhood, creek and shoreline sites.</p>	<p>Event type: Volunteer environmental trash cleanup and ecological restoration event.</p> <p>Audience: Volunteers that live, work, and play in Oakland.</p> <p>Outreach Message: Volunteer! Everyone can be great because everyone can serve. Oakland celebrated MLK Jr. Day in 2022 as 40 Days of Service from January 17 to February 28, 2022. The City of Oakland encouraged Oaklanders to participate in local, socially distanced cleanups in their local neighborhood and pledge to be Oaktown PROUD!</p> <p>All Oakland Public Works volunteers were required to sign the updated waiver and guidelines with COVID-19 safety requirements.</p>	<p>Attendance: 558 volunteers contributed 2,129 volunteer hours</p> <p>Volunteers prevented 23,364 gallons of trash from entering Oakland's creeks, Lake Merritt and the estuary. The trash removed will allow for better water quality and green waste removed (mostly non-native) will allow native plants to flourish while also reducing fire fuels. Volunteers also abated graffiti and performed planting.</p>
<p>Oakland Earth Day, April 23, 2022: One-day citywide cleanup event including cleanups at Oakland neighborhood, creek and shoreline sites.</p>	<p>Event type: Volunteer environmental trash cleanup and ecological restoration event.</p> <p>Audience: Volunteers that live, work, and play in Oakland.</p> <p>Outreach Message: The City of Oakland encouraged Oaklanders to "Be Oaktown PROUD" by celebrating Oakland Earth Day on April 23, 2022. Groups and individuals of all ages and abilities were invited to join cleaning and greening projects at creek, park, and neighborhood sites throughout Oakland while following City of Oakland general and COVID-19 safety requirements and</p>	<p>Attendance: 1,231 volunteers contributed 4,259 volunteer hours.</p> <p>Volunteers prevented 16,661 gallons of trash from entering Oakland's creeks, Lake Merritt and the estuary. Volunteers also removed green waste (mostly non-native plants) to allow native plants to flourish while also reducing fire fuels. Volunteers also abated graffiti and performed planting.</p>

	guidelines.	
		
Event Details	Description (messages, audience)	Evaluation of Effectiveness
<p>Adopt a Spot (including Spots, Parks, Medians, and Creeks)</p>	<p>In FY 2021-2022, the City organized and supported ongoing volunteer events through its Adopt a Spot program. Activities for these events included litter pickup, graffiti abatement, weeding, planting, and creek restoration.</p> <p>Adopt a Spot and citywide cleanup event pages are now hosted on ESRI HUB: https://oakland-volunteer-community-oakgis.hub.arcgis.com/</p>	<p>886 volunteers have adopted spots throughout Oakland.</p> <p>A spreadsheet of dates, locations, description of work, and volunteer hours is available on request.</p>

Event Details	Description (messages, audience)	Evaluation of Effectiveness
<p>Oakland Adopt a Drain</p>	<p>To publicize our Adopt a Drain program, the City continued to promote the program via e-newsletters, social media, and on our website at https://www.oaklandca.gov/services/adopt-a-drain . The outreach flyer is posted on our website in English, Spanish, Chinese, and Vietnamese. The flyer describes the importance of maintaining storm drains, how to maintain storm drains, and how to sign up for Oakland Adopt a Drain.</p> <p>The Adopt a Drain website is hosted on ESRI HUB: https://oakland-volunteer-community-oakgis.hub.arcgis.com/pages/adopt-a-drain. This website facilitates storm drain maintenance adoption by making it much easier for Oakland residents to adopt a drain. This fiscal year, 30 storm drains were adopted for a total of 1,558 storm drains adopted by 909 volunteers.</p>	<p>As of June 30, 2022, 909 volunteers have adopted 1,558 storm drain inlets in Oakland via the City of Oakland Adopt a Drain website.</p> <p>Volunteers clear debris and trash from ten feet on either side of their adopted storm drain before rain events to prevent flooding and trash from getting into creeks.</p> <p>When requested, Oakland staff provide information on how to start similar programs in other communities.</p>

C.7.e. ► Watershed Stewardship Collaborative Efforts

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

Evaluate effectiveness by describing the following:

- Efforts undertaken
- Major accomplishments

Summary:

Program Efforts:

Refer to Section C.7 of the ACCWP FY 2020-2021 Annual Report.

Local Efforts:

- Provided support to the restoration, watershed and stormwater protection, and native plant nursery efforts of the Friends of Sausal Creek (FOSC). FOSC implements numerous habitat restoration, water quality protection, trash remediation, and public outreach and engagement activities throughout the watershed.
- Continued tracking San Leandro Creek Alliance (SLCA) efforts to protect the San Leandro Creek watershed. The City did not work with this group in FY 2021-2022; however, the City plans to continue tracking this group's efforts and will provide input on plans for restoration and a greenway along San Leandro Creek if requested.
- Participated in Bay Area Municipal Stormwater Collaborative (BAMS Collaborative) (formerly the Bay Area Stormwater Management Agencies Association [BASMAA]) Bay Area Trash Workgroup, a team of municipal staff, RWQCB, and non-governmental organizations that focus on meeting trash reduction efforts.
- The City provides letters of support and planning ideas to community groups and other agencies upon request for projects proposing to plant trees, install green stormwater infrastructure, address littering and illegal dumping, etc.
- While the organizing committee for the Green Infrastructure Regional Roundtable, an effort of BASMAA (BASMAA is no longer active and has been replaced by the BAMS Collaborative) funded by the Environmental Protection Agency (EPA), is no longer meeting, the City will continue to track and promote the goals of this effort. The Regional Roundtable was an effort to bridge the gap in funding for green infrastructure through collaboration with transportation projects.

In FY 2020-2021, the San Francisco Estuary Institute (SFEI) and project partners, including the City of Oakland, began implementing the "Next Generation Urban Greening: Integrating Water Quality, Biodiversity and Resilience" project, funded by the EPA's San Francisco Bay Water Quality Improvement Fund (SFBWQIF). This project endeavors to help cities achieve more benefits through green infrastructure. SFEI, with support and input from project partners, is working to "develop, disseminate, and implement new information and tools that municipalities, regulators, NGOs, and other stakeholders need to simultaneously improve water quality (including capture of microplastics), flood risk reduction, habitat, and resiliency." The City plans to use project tools to update and implement the City's Green

Stormwater Infrastructure Plan, with the goal of improved environmental outcomes. SFEI staff shared their initial plans for the project and sought input from participants into what is most needed to support multifunctional green infrastructure in our cities. For questions or to learn more about this project, visit the project webpage: <https://www.sfei.org/projects/next-generation-urban-greening-integrating-water-quality-biodiversity-and-resilience>.

- During FY 2021-2022, the City of Oakland was awarded a Clean California Local Grant Program grant for \$2,033,575, for the Courtland Creek Restoration Project in Courtland Creek Park. As of May 2022, the project was fully funded. Due to cost escalation, the City is now in search of additional funding to cover higher-than-expected costs for vegetation removal and trail resurfacing. City of Oakland Local Measure DD funding provided about \$530,000 for initial project design. The City is partnering with the Oakland Parks and Recreation Foundation on equitable public engagement and public education and outreach elements for the project. Two local schools, a community creek and park stewardship organization, the Alameda County Flood Control District, and dedicated City of Oakland Adopt a Spot volunteers have continued to be involved in this project as it has progressed. The City executed grant agreements for \$2,500,000 in grant funding secured during the fiscal year 2019-2020 and has developed an equitable public engagement plan. The project design and engineering consultant has completed final 65% Designs and the City received project input from the community in July 2021 and May 2022 at community meetings. For more information on the project, visit the project webpage: <https://www.oaklandca.gov/projects/courtland-creek-restoration-project>.
- City of Oakland Watershed and Stormwater Management (WSM) Division staff provided information about the City's efforts to reduce stormwater pollution to Oakland City Council members and the public through two separate staff reports in FY 2020-2021. In March 2021, WSM presented an informational report on trash compliance including the City's trash management actions and their effectiveness in reducing trash from reaching waterways.

C.7.f. ► School-Age Children Outreach

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

Program Details	Focus & Short Description	Number of Students/Teachers reached	Evaluation of Effectiveness
Provide the following information: Name Grade or level (elementary/ middle/ high)	Brief description, messages, methods of outreach used	Provide number or participants	Provide agency staff feedback. Report any other evaluation methods used (quiz, teacher feedback etc.). Attach evaluation summary if applicable.
Lake Merritt Institute School Outreach Program	Watershed awareness activities, reduction of litter in Lake Merritt, Lake Merritt habitat information, and stormwater pollution awareness.	208 students reached	See Attachment C.7.1 for school outreach events conducted by the Lake Merritt Institute on behalf of the City of Oakland. Students learned about impacts of urban runoff on the lake and lake wildlife, people, and history.

Section 9 – Provision C.9 Pesticides Toxicity Controls

C.9.a. ► Implement IPM Policy or Ordinance							
Is your municipality implementing its IPM Policy/Ordinance and Standard Operating Procedures?				<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
If no, explain:							
Report implementation of IPM BMPs by showing trends in quantities and types of pesticides used, and <u>suggest reasons for increases in use of pesticides that threaten water quality</u> , specifically organophosphates, pyrethroids, carbamates fipronil, indoxacarb, diuron, and diamides. A separate report can be attached as evidence of your implementation.							
Trends in Quantities and Types of Pesticide Active Ingredients Used⁵⁷							
Pesticide Category and Specific Pesticide Active Ingredient Used	Amount ⁵⁸						
	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	
Organophosphates							
Active Ingredient Chlorpyrifos	None Reported	None Reported	None Reported	None Reported	None Reported	None Reported	
Active Ingredient Diazinon	None Reported	None Reported	None Reported	None Reported	None Reported	None Reported	
Active Ingredient Malathion	None Reported	None Reported	None Reported	None Reported	None Reported	None Reported	
Pyrethroids (see footnote #2 for list of active ingredients)							
Masterline (bifenthrin)	None Reported	None Reported	None Reported	None Reported	None Reported	None Reported	
P.I. (Pyrethrins)	None Reported	None Reported	None Reported	None Reported	None Reported	None Reported	
Suspend SC (deltamethrin)	None Reported	None Reported	None Reported	None Reported	None Reported	0.15 oz	

⁵⁷Includes all municipal structural and landscape pesticide usage by employees and contractors.

⁵⁸Weight or volume of the active ingredient, using same units for the product each year. Please specify units used. The active ingredients in any pesticide are listed on the label. The list of active ingredients that need to be reported in the pyrethroids class includes: metofluthrin, bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambdacyhalothrin, and permethrin.

Pesticide Category and Specific Pesticide Active Ingredient Used	Amount ²					
	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22
Tempo SC Ultra (beta-cyfluthrin)	2.95 ml.	None Reported				
Temprid (beta-cyfluthrin)	None Reported	None Reported	None Reported	None Reported	None Reported	None Reported
Transport Mikron (bifenthrin)	1.42 grams	None Reported				
Drione Insecticide (Pyrethrins)	None Reported	None Reported	None Reported	.66 oz	None Reported	None Reported
Zenprox Active Ingredient Etofenprox	None Reported	None Reported	None Reported	None Reported	0.98 oz	None Reported
Carbamates						
Active Ingredient Carbaryl	None Reported	None Reported	None Reported	None Reported	None Reported	None Reported
Active Ingredient Aldicarb	None Reported	None Reported	None Reported	None Reported	None Reported	None Reported
Fipronil						
Phenylpyrazoles – Termidor	0.0728 oz.	None Reported	None Reported	None Reported	None Reported	.07 oz
Max Force	None Reported	1.05 oz.	7.49 oz.	None Reported	None Reported	None Reported
Indoxacarb						
Oxadiazines – Advion	1.335 grams	19.79 oz.	9.52 oz.	None Reported	None Reported	None Reported
Diuron	None Reported	None Reported	None Reported	None Reported	None Reported	None Reported
Diamides						
Active Ingredient Chlorantraniliprole	None Reported	None Reported	None Reported	None Reported	None Reported	None Reported

Active Ingredient Cyantraniliprole	None Reported					
<p>Reasons for increases in use of pesticides that threaten water quality:</p> <p>The City of Oakland's (City's) pest control contractor applied 0.15 oz pyrethroid insecticide of Suspend SC (deltamethrin) to treat an ant infestation at a Fire Station on 10/28/21 on the building's exterior after an unsuccessful application of a green product on 10/21/21. The contractor does not intend to apply Suspend SC again, and instead will use other products that are safer for water quality.</p> <p>The pest control contractor also applied 0.07 oz of insecticide Termidor (fipronil) at the Brookfield Library/East Oakland Senior Center to treat an ant infestation on 6/30/2022. The contractor applied this chemical after three unsuccessful rounds of a green product. The ants have been gone since the Termidor application. The contractor does not intend to apply Termidor again, and instead will use other products that are safer for water quality.</p> <p>The pest control contractor also applied 1.54 oz of neonicotinoid insecticide Alpine WSG across four applications:</p> <ol style="list-style-type: none"> 1. On 10/8/2021 along the eaves and perimeter of the Montclair Recreation Center for a severe spider infestation 10/8/21. 2. On 11/24/2021 on spot treatments of the interior of the community room and exterior front entry of Fire Station 18 for a severe ant infestation. 3. On 12/2/2021 on spot treatments of the interior and exterior of the Melrose Library for an ant problem. This treatment occurred after an unsuccessful green product treatment on 11/5/2021. 4. On 1/31/2022 on spot treatments on the interior and exterior of Fire Station 21 for a severe spider infestation. <p>City staff reviewing the contractor's pesticide application records noted that this insecticide is prohibited according to Oakland City Council Ordinance 13544 – Neonicotinoid Pesticide Prohibition (see attachment C.9.4). City staff provided the neonicotinoid prohibition policy to the contractor, along with training and a directive against future applications of neonicotinoids on City property.</p> <p>City staff will provide annual refresher training to ensure that the contractor and future contractors are following the Integrated Pest Management (IPM) policy and are compliant with the MRP.</p>						
<p>IPM Tactics and Strategies Used:</p> <p>The City of Oakland works with both City staff and the City's pesticide application contractor, Omega Termite and Pest Control, to implement the following IPM tactics and strategies to reduce the use of hazardous pesticides throughout the City:</p> <ol style="list-style-type: none"> 1. Omega Termite and Pest Control is IPM-certified by Green Pro and provides the following services to the City: <ul style="list-style-type: none"> • Review and evaluate pesticide materials application reports to evaluate pesticide application use trends, to determine alternate methods of pest management, and to eliminate the use of more hazardous pesticides. 						

- Abide by City ordinance and policy, and the Municipal Regional Stormwater Permit pesticide prohibitions and exhortations.
 - Respond to City oversight and feedback of review of pesticide application records. Modify and correct procedures as required.
 - Avoid pesticide use through proper site management and notifying City Facilities management staff of where to block rodent entry points to buildings and how to implement sanitary practices that minimize and contain food waste and other pest attractants, etc.
 - Evaluate the need for pesticide application by using small insect and rodent pest detection and monitoring devices.
 - Minimize pesticide application by use of non-chemical methods for pest management such as ant glue strips, mouse and rat traps, and bait stations.
 - Use natural pest deterrents such as coyote urine.
 - Use soap wipe downs to deter pest infestation.
 - Use less toxic pesticides such as insect growth regulators and inorganics.
2. City staff in the Bureau of Environment, Parks and Tree Services Division (PTSD) and Keep Oakland Clean and Beautiful (KOCB):
- Minimize amount of chemical pesticide (herbicide) applied by using only when necessary, on street medians.
 - Use non-pesticide weed control methods such as mulching.
 - Conduct manual weed removal when applicable and feasible.

The table above demonstrates that the City has used only a small amount of pesticides of concerns since FY 16-17 and has generally decreased use over time. Currently, staff in PTSD and KOCB are not using products that contain glyphosphate, the active ingredient in non-selective, post emergent herbicides such as Roundup and Ranger Pro. Alternatively, the City is using Avenger (active ingredient is d-limonene [citrus oil]) for organic gardening and Diquat (active ingredient is diquat dibromide) for aquatic weed control on a trial basis to control weeds between April and October. To control weeds before they germinate, the City uses pre-emergent herbicides Surflan AS (active ingredient is the sulfonamide oryzalin) and Isoxaben 75WG (active ingredient is a benzamizole).

C.9.b ► Train Municipal Employees

Enter the number of employees that applied or used pesticides (including herbicides) within the scope of their duties this reporting year.	12
Enter the number of these employees who received training on your IPM policy and IPM standard operating procedures within this reporting year.	30
Enter the percentage of municipal employees who apply pesticides who have received training in the IPM policy and IPM standard operating procedures within this reporting year.	100 %

Type of Training: **(e.g., Countywide IPM Training, PAPA Seminar, local tailgate training etc.)**
 Countywide IPM Training, PAPA Seminar, local tailgate training

C.9.c ▶ Require Contractors to Implement IPM				
Did your municipality contract with any pesticide service provider in the reporting year, for either landscaping or structural pest control?	X	Yes		No
If yes, did your municipality evaluate the contractor's list of pesticides and amounts of active ingredients used?	X	Yes		No,
<p>If your municipality contracted with any pesticide service provider, briefly describe how contractor compliance with IPM Policy/Ordinance and SOPs was monitored.</p> <p>The City notifies its contractor providing pesticide control, Omega Termite and Pest Control, of all City of Oakland IPM Ordinances and Resolutions (included as Attachments C.9.1 to C.9.6).</p> <p>The contractor is an IPM certified (or equivalent) pesticide applicator (Contractor's Green Pro certificate is included as Attachment C.9.7).</p> <p>City and Pest Control Contractor staff meet prior to and at the completion of periodic site visit/inspections to identify issues and problem areas. The pest control contractor then inspects the site, recommends measures to control detected pest problems, and applies pesticides as deemed appropriate.</p> <p>The pest control contractor provides the City with a Service Summary Report with the monthly invoice for work performed.</p> <p>The reports may include, but are not limited to the following information:</p> <ul style="list-style-type: none"> • Indoor vs. outdoor application • Type of applications – non-chemical trap/deterrent, soap wipe downs, monitoring device • Product type used – natural, EPA Exempt product, or specific pesticide • Volume of product used • Volume of active ingredient • Volume of applied diluted product <p>City staff reviews the Service Summary Reports submitted with monthly invoices.</p> <p>City staff will provide annual refresher training to ensure that the contractor and future contractors are following the IPM policy and are compliant with the MRP.</p>				
If your agency did not evaluate the contractor's list of pesticides and amounts of active ingredients used, provide an explanation.				

C.9.d ▶ Interface with County Agricultural Commissioners

Did your municipality communicate with the County Agricultural Commissioner to: (a) get input and assistance on urban pest management practices and use of pesticides or (b) inform them of water quality issues related to pesticides,	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
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If yes, summarize the communication. If no, explain.

An Alameda County Agricultural Commissioner Inspector visited the City's Municipal Service Center (MSC) located at 7101 Edgewater Drive in Oakland, California on December 15, 2021. The site visit/inspection included the annual facility inspection, a review of record keeping, and issuance of the City's spray permit.

In addition, the Alameda County Agricultural Commissioner Inspectors conduct random, unannounced inspections throughout the year at various application locations on City of Oakland properties.

Also, refer to the Alameda Countywide Clean Water Program (ACCWP) FY 2020-2021 Annual Report.

Did your municipality report any observed or citizen-reported violations of pesticide regulations (e.g., illegal handling and applications of pesticides) associated with stormwater management, particularly the California Department of Pesticide Regulation (DPR) surface water protection regulations for outdoor, nonagricultural use of pyrethroid pesticides by any person performing pest control for hire.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
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If yes, provide a summary of improper pesticide usage reported to the County Agricultural Commissioner and follow-up actions taken to correct any violations. A separate report can be attached as your summary.

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

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

Summary:
 See the C.9 Pesticides Toxicity Control section of the ACCWP FY 2021-2022 Annual Report for information on point of purchase public outreach conducted countywide and regionally.

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

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

Summary:

See the C.9 Pesticides Toxicity Control section of the ACCWP FY 2021-2022 Annual Report for information on point of purchase public outreach conducted countywide and regionally.

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

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

Summary:

See the C.9 Pesticides Toxicity Control section of the ACCWP FY 2021-2022 Annual Report for a summary of our participation in and contributions towards countywide and regional public outreach to pest control operators and landscapers to reduce pesticide use.

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

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

Summary:

During FY 2021-2022, we participated in regulatory processes related to pesticides through contributions to the countywide Program and CASQA. For additional information, see the Regional Report prepared by CASQA.

Section 10 - Provision C.10 Trash Load Reduction

C.10.a.i ► Trash Load Reduction Summary	
For population-based Permittees, provide the overall trash reduction percentage achieved to-date within the jurisdictional area of your municipality that generates problematic trash levels (i.e., Very High, High, or Moderate trash generation). Base the reduction percentage on the information presented in C.10.b i-iv and C.10.e.i-ii. Provide a discussion of the calculation used to produce the reduction percentage	
Trash Load Reductions	
Percent Trash Reduction in All Trash Management Areas (TMAs) due to Trash Full Capture Systems (as reported C.10.b.i)	11.5%
Percent Trash Reduction in all TMAs due to Control Measures Other than Trash Full Capture Systems (as reported in C.10.b.ii) ⁵⁹	61.5%
Percent Trash Reduction due to Jurisdiction-wide Source Control Actions (as reported in C.10.b.iv)	10.0%
SubTotal for Above Actions	83.0%
Trash Offsets (Optional)	
Offset Associated with Additional Creek and Shoreline Cleanups (as reported in C.10.e.i)	10.0%
Offset Associated with Direct Trash Discharges (as reported in C.10.e.ii)	15.0%
Total (Jurisdiction-wide) % Trash Load Reduction through FY 2021-22	>100%
<p>Discussion of Trash Load Reduction Calculation:</p> <ul style="list-style-type: none"> • Full Capture Systems (11.5%): No additional full capture systems were installed in FY 2021-2022. Areas treated by existing trash full capture systems were evaluated and refined based on more accurate information on drainage patterns and the configuration of the City’s MS4. Based on these analyses, some drainage boundaries for trash full capture systems were refined. The total areas treated (acres) decreased by 37.3 acres compared to the number reported in the FY 2020-2021 Annual Report. Collectively, the devices installed to-date treat over 1,219.8 acres of land in the City. Areas treated by full trash capture systems (see Attachment C.10.1) receive trash reduction credit under Section C.10.b.i and are not eligible for reduction credit through On-Land Visual Trash Assessment (OVTA) results in C.10.b.ii. As the City installs additional full trash capture systems, the OVTA Program will be modified to remove sites within areas treated by full trash capture systems. • Other Trash Management Actions (61.5%): In addition to full capture systems, the City continued to implement numerous trash reduction controls in FY 2021-2022 (see Citywide Summary below). A total of 704 OVTAs were conducted by the City in FY 2021-2022. See Attachment C.10.2 for a map summarizing baseline trash generation and reductions to-date in the City via other actions (i.e., OVTAs). • Jurisdiction-wide Source Control Actions (10%): The City is receiving 10% reduction from the expanded countywide plastic bag and polystyrene food service ware bans. • Additional Creek/Shoreline Cleanups (10%): The City continued to implement numerous trash removal/cleanup events in Lake Merritt 	

⁵⁹ See Appendix 10-1 for changes between 2009 and FY 21-22 in trash generation by TMA as a result of Full Capture Systems and Other Measures.

and local creeks and on the Bay shorelines. Over 492,000 gallons of trash were removed from local waterways during FY 2021-2022 through these creek/shoreline cleanup efforts of City staff and volunteers. These 492,000 gallons are in addition to the volume of trash removed from the required annual cleanup of the City's trash hot spots. See Attachment C.10.3 for a summary of creek and shoreline cleanup totals.

- **Direct Discharge (15%):** The City submitted its proposed Direct Trash Discharge Control Plan (Direct Discharge Plan) to the Water Board on February 1, 2019. On April 9, 2019, the Water Board's Executive Officer approved the Direct Discharge Plan. The Direct Discharge Plan includes actions that the City will take to prevent and reduce the impacts of trash generated by illegal dumping and homeless encampments within the City. A Progress Report on the actions taken by the City in FY 2021-2022 as part of its Direct Discharge Plan is included in Attachment C.10.4. A total of 21,179 cubic yards (CYs) of trash within 500 feet of waterways were removed in FY 2021-2022 via actions included in the City's Direct Discharge Plan. The trash load reduction associated with the Direct Discharge Plan is based on calculation methods described in the MRP.

Planned Actions for FY 2022-2023

In FY 2022-2023, the City will continue to implement its three-part plan to achieve future trash load reduction mandates:

- Installation of full trash capture systems
- Implementation of other control measures
- Program development and research

Moving forward, actions the City will undertake include, but are not limited to:

- Leverage existing capital and transportation funding, grants, and private development projects to install full capture systems. The City completed a Citywide trash capture feasibility study to identify the most cost-effective and feasible locations and types of devices for installation. The City will continue to refine the priority locations of future trash capture devices to direct the use of Measure Q funding (up to \$1 million per year for stormwater system improvement and trash reduction efforts including the installation of full capture systems). In FY 2022-2023, the City will pursue the following trash capture projects:
 - Install 1 hydrodynamic separator unit in the Ettie Street watershed in collaboration with Caltrans.
 - Install approximately 1,200 connector pipe screens on very-high, high, and moderate trash generating areas as part of the 3-Year Paving Program.
 - Install approximately 225 connector pipe screens as part of the Sewer Rehabilitation Program.
 - Install approximately 100 connector pipe screens as part of the Pedestrian Lighting and Sidewalk Improvements on International Blvd. Project from 2nd Ave. to 107th Ave.
- Implement the education and outreach campaign—Oaktown PROUD: Prevent and Report Oakland's Unlawful Dumping.
- Continue to grow and support the extensive volunteer cleanup and Adopt-a-Spot programs and improve the data collection on the volume of trash removed.
- Examine the fee structure, fee amount, and definition of Excess Litter Fee eligible businesses.
- Work with stakeholders to encourage the formation of Business Improvement Districts in other areas (e.g., East Lake/Little Saigon Area, Piedmont Avenue).
- Develop and submit a proposal to the Water Board to use trash collection data from Business Improvement Districts in calculating total volume of trash removed for the Optional Trash Load Reduction Offset Opportunities: Creek and Shoreline Cleanups (MRP Provision C.10.f).
- Explore the feasibility of expanding food service ware limitations and implementation of a County-wide model ordinance.

- Consider recommendations and findings from a citywide street sweeping evaluation on how the City can improve trash levels on streets, reduce redundancies in trash control measures, and improve the cost-efficiency of the City's Street Sweeping Program.
- Submit an updated Direct Discharge Control Plan for approval by January 3, 2023 (per MRP Provision C.10.f).

C.10.a.iii ► Mandatory Trash Full Capture Systems

Provide the following:		
1) Total number and types of full capture systems (publicly and privately-owned) installed during FY 21-22, and prior to FY 21-22, including inlet-based and large flow-through or end-of-pipe systems, and qualifying low impact development (LID) required by permit provision C.3.		
2) Total land area (acres) treated by full capture systems for population-based Permittees and total number of systems for non-population based Permittees compared to the total required by the permit.		
Type of System	# of Systems	Areas Treated (Acres) ⁶⁰
Installed in FY 21-22		
None	--	--
Installed Prior to FY 21-22		
Connector Pipe Screens/Baskets (Public)	197	245.5
Gross Solids Removal Device (Public)	2	27.7
Hydrodynamic Separator Units (Public)	10	927.0
Low Impact Development (Public)	4 ⁶¹	18.4
Tree Wells (Public)	6	1.2
Total for all Systems Installed To-date	219	1,219.8
Treatment Acreage Required by Permit (Population-based Permittees)		228
Total # of Systems Required by Permit (Non-population-based Permittees)		N/A

⁶⁰ During FY 21-22, areas treated by existing trash full capture systems were evaluated and refined based on more accurate information on drainage patterns and the configuration of the City's MS4. Based on these analyses, some drainage boundaries for trash full capture systems were refined. The refined drainage boundaries are reported in this table and in Appendix 10-1.

⁶¹ Many additional LID features (e.g., bioretention facilities) are not included because they are part of larger projects that are also treated by traditional full trash capture devices.

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

Provide the following:

- 1) Jurisdiction-wide trash reduction in FY 21-22 attributable to trash full capture systems implemented in each TMA;
- 2) The total number of full capture systems installed to-date in your jurisdiction;
- 3) The percentage of systems in FY 21-22 that exhibited significant plugged/blinded screens or were >50% full when inspected or maintained;
- 4) A narrative summary of any maintenance issues and the corrective actions taken to avoid future full capture system performance issues; and
- 5) A certification that each full capture system is operated and maintained to meet the full capture system requirements in the permit.

TMA	Jurisdiction-wide Reduction (%)	Total # of Full Capture Systems	% of Systems Exhibiting Plugged/Blinded Screens or >50% full in FY 21-22	Summary of Maintenance Issues and Corrective Actions
1	3.3%	219	0%	The City's maintenance program includes cleaning and maintaining all full trash capture systems once per year. This City has found this cleaning frequency to be sufficient to avoid any clogging or flooding issues. The City has not had any maintenance issues or corrective actions in FY 2021-2022.
2	1.7%			
3	0.0%			
4	0.0%			
5	0.1%			
6	0.5%			
7	2.1%			
8	1.4%			
9	0.3%			
10	0.1%			
11	1.0%			
12	1.0%			
13	0.0%			
14	0.0%			
15	0.0%			
16	0.0%			
Total	11.5%			

Certification Statement:

The City of Oakland certifies that a full capture system maintenance and operation program is currently being implemented to maintain all applicable systems in manner that meets the full capture system requirements included in the Permit (please see summary above).

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

Provide a summary of trash control actions other than full capture systems or jurisdictional source controls that were implemented within each TMA, including the types of actions, levels, and areal extent of implementation, and whether actions are new, including initiation date.

TMA	Summary of Trash Control Actions Other than Full Capture Systems
<p>Citywide Summary</p>	<p>The City implemented trash control actions other than full capture systems or jurisdictional source controls in TMAs throughout the City. This report section describes these trash control actions. See Attachment C.10.5 for a map of Oakland’s TMAs.</p> <p>Street Sweeping</p> <p>The City’s intensive Street Sweeping Program is the most widespread control measure the City uses to remove its trash. The City has posted signs on all routes and uses a rigorous enforcement program to help ensure compliance with the parking restrictions. The City targets some of its street sweeping efforts to “Very High” trash producing areas including downtown Oakland, business districts and major arterials. This targeted street sweeping effort provides three or more street sweeping events per week in those designated high trash areas. Throughout the rest of the City, sweeping is conducted monthly, bi-weekly, and weekly, depending on the trash level. Street sweeping frequency is noted in Attachment C.10.6 (also available online here). To enhance performance above its baseline street sweeping levels, the City has implemented many control measures since 2009:</p> <ul style="list-style-type: none"> • In 2010, all sweeper units were equipped with GPS devices that log the route and speed of each vehicle. This helps ensure sweepers are operated in a way that provides the most effective result. • In 2012, the City added a regenerative air sweeper that in high trash areas is used in tandem with a mechanical broom sweeper to ensure full trash removal. • In FY 2013-2014, the City added three more regenerative air sweepers and eight new mechanical broom sweepers. • In FY 2014-2015, sweeping operators received training on trash reduction goals for the City and the importance of the Street Sweeping Program in meeting those goals. • In 2015 and 2016, the City conducted a routing efficiency analysis of its Street Sweeping Program. Applying the results of the efficiency analysis, the City was able to improve sweeping efficiency and effectiveness. • In 2018, the City replaced five aging mechanical street sweepers with five new mechanical street sweepers, which are more efficient and effective. • In FY 2019-2020, the City continued to implement the Street Sweeping Program. It takes four weeks of each month to complete planned street sweeping throughout the City. On the remaining days each month (not including February), City staff conduct additional sweeping. They consider trash generation levels when prioritizing street sweeping on the “extra” days each month and starting in FY 2018-2019 have increased the number of streets swept on these “extra” days. In addition, starting in FY 2018-2019 the City began sweeping select streets in and around the former Oakland ArmyBase (i.e., Maritime Street, Burma Road, Wake Avenue, Admiral Toney Way). The service is provided once a week and accounts for an additional 5.1 miles of street cleaning per week. • In FY 2020-2021, the City completed a citywide Street Sweeping Evaluation Study. The Study evaluated the effectiveness of the City’s current street sweeping program and assessed whether modifications could be made to improve the levels of trash in stormwater, while bringing greater efficiencies to this resource-intensive program. • In FY 2022-2023 the City will review the Street Sweeping program and implement possible changes to improve service delivery and more timely information that is provided to the public.

On-Land Cleanup

Oakland's award-winning Adopt a Spot program supports individuals, neighborhood groups, civic organizations, and businesses in the ongoing cleaning and greening of parks, creeks, shorelines, storm drains, streets, trails, medians, and other public spaces. The program supports volunteers in "adopting" individual sites, picking up trash at the site, and tracking and reporting their volunteer hours. The City tracks the active "adopt" sites by asking "adopters" to record the number of volunteers and hours spent at an adopted site. These volunteer hours are recorded and used to estimate the total volume of trash removed through volunteer efforts.

Creek and shoreline sites and storm drain inlets can also be adopted and are described below in this report. In FY 2021-2022, citywide, volunteers contributed about 49,388 on-land clean-up volunteer hours at adopted spots and parks. The City estimates that these volunteers removed about 572,900 gallons of trash.

The table below describes changes in on-land clean-up volunteer participation activities since 2010. There was a 12.2% net increase in volunteer hours since 2010. The table excludes Martin Luther King Jr Day of Service, Earth Day and Coastal Cleanup Day results. See section C.10.e for information on these events. The table also excludes other on-land clean-up efforts, such as community cleanups, not completed by Adopt a Spot program volunteers.

See Attachment C.10.7 for the map of over 600 confirmed active adopted spots and parks (if they adopt a median, the data are collected under the "park" category). The map also includes 183 adopted spots within 500 feet of a waterway where volunteers often clean up beyond the creek bank area. There were 93 new spots adopted in FY 2021-2022. Of these 93 spots, 27 are Adopt a Creek sites.

Indicator	2010 ⁶²	FY 2021-2022	% Change Since FY 2010
Volunteer Hours (on-land clean-ups at adopted spots, parks, and medians & community events)	44,000	49,388	12.2% Increase in hours.
No. of On-Land Events (on-land clean-ups at adopted spots, parks, medians & community events)	1,109	4,199	278% Increase in the number of events.

Adopt A Drain

In 2013, the City officially launched an "Adopt a Drain" program (for more information see: <https://www.oaklandca.gov/services/adopt-a-drain>). Prior to 2013, and beginning in 2002, volunteers adopted drains as part of their Adopt a Spot agreement. In FY 2013-2014 an online Adopt a Drain registration system was implemented and volunteers adopted 177 storm drain inlets that year. The number of adopted drains has been steadily increasing, and in FY 2021-2022 volunteers adopted 30 new storm drains, bringing the total number to 1,538, a 752% increase in adopted drains since the online

⁶² Data in 2010 is only available in calendar year. The 2010 calendar year is compared to the 2021-2022 fiscal year.

registration program was initiated in 2013. This translates to regular debris and trash removal for 11.5% of the City's estimated 13,314 storm drains.

While the primary focus of the Adopt a Drain program is removal of debris before and during storm events (adopters receive notification from City staff on approaching storms), volunteers also remove litter at their adopted storm drains throughout the year. See Attachment C.10.8 for a map of Adopt a Drain locations. A summary of the Adopt a Drain Program data is provided in the following tables:

FY 2021-2022 Metrics	FY 2021-2022 Results
New Adopted Storm Drain Inlets	30
# Storm Drain Cleaning Events	10,766
# Volunteer Hours	16,828

Total Storm Drains Adopted by June 30, 2013	Total Storm Drains Adopted by June 30, 2021	Total Storm Drains Adopted by June 30, 2022	% Increase Since 2013
177	1,508	1,538	752%

Partial Capture Devices

The City has installed a total of 110 partial trash capture devices. This includes 100 auto-retractable screens and 10 trash booms at Lake Merritt. The City inspects and maintains the auto-retractable screens at least once a year and the Lake Merritt Institute is contracted by the City to maintain the trash booms at Lake Merritt on a weekly basis.

Storm Drain Cleaning

The City continues to maintain a variety of stormwater infrastructure types (including weirs, tree wells, storm drain [SD] inlets, SD inlet baskets, SD inlet screens, culvert and storm pipes, manholes, "V" ditches, pump stations, hydrodynamic separator units, and gross solid removal devices). The main function of the stormwater infrastructure is to convey stormwater and prevent flooding. An indirect function of the City's stormwater infrastructure includes the improvement of water quality by collecting and removing trash, organic material, and other types of debris before it enters nearby waterbodies (i.e., creeks, the estuary, lakes such as Lake Merritt, and the San Francisco Bay). In addition, the network of Adopt a Drain volunteers provides additional cleaning resources throughout the year (see On-Land Cleanup summary above). The following table summarizes storm drain cleaning and maintenance conducted in FY 2021-2022 (see Section C.10.b.1 for a summary of full capture systems maintenance). See Section C.5 for further information on storm drain inlet cleaning.

Maintenance Activity	Work Conducted
Inspect and Clean Storm Drain Inlets	10,864 inlets

Clean Stormwater Pipes	57,896 linear feet
CCTV Stormwater Pipes	6,415 linear feet
Inspect/Service Pump Stations Twice Monthly (8 pump stations)	84 inspections
Service/Maintain Trash collection devices	<ul style="list-style-type: none"> • 60 storm drain inlet baskets • 684 inlet screens • 182 weirs • 228 storm drain grates replaced • 15 full trash capture units
Emergency Point Repairs of Stormwater Pipe	10
Maintain/Service Street Gutter, Public Drainage Swales and V-Ditches	1,805 linear feet
Resolve Clogged Storm Drain Incidents	1,004 incidents

Anti-littering and Public Education Outreach
 See the Provision C.7.e Public Information and Outreach section of the Alameda Countywide Clean Water Program (ACCWP) FY 2021-2022 Annual Report for a summary of related outreach activities.

Illegal Dumping Abatement
 A summary of illegal dumping abatement activities is provided in the Direct Discharge Plan Progress Report (see Attachment C.10.4).

Homeless Encampment Abatement
 A summary of homeless encampment abatement activities is provided in the Direct Discharge Plan Progress Report (see Attachment C.10.4).

Excess Litter Fee
 In 2006, the City passed an ordinance (Ordinance 12727 C.M.S) enacting an Excess Litter Fee (ELF) on fast food businesses, convenience markets, gasoline station markets, and liquor stores. Revenue generated from the fee is used to defray the cost of litter and trash clean-up resulting from the operation of these businesses (see Attachment C.10.9). In February 2015, the City initiated a new contract with a professional vendor to begin removing trash from areas around ELF businesses. The contractor employs 3 full-time staff and an operations manager. The crew works 160 hours per week and services more than 800 ELF sites throughout the City. Crews refer illegal dumping or very high levels of trash to the City for abatement. Each employee is equipped with a work truck and cleaning supplies, as well as a mobile device to input real time statistics and submit work orders to the City. In late FY 2016-2017, the City launched a Mobile Food Vendor Program and included an Excess Litter Fee of \$100 in the mobile food vendor permit fees. This allowed the City's contractor to expand litter abatement efforts in areas where mobile food vendors operate.

Beginning April 1, 2018, the City implemented a new program protocol with the intention of targeting high frequency trash and

	<p>illegal dumping locations across the City. This new approach changed the program from a fixed route deployment to a proactive response team that focused on known locations of high street litter and illegal dumping. This new service required the staff to identify neighborhood "zones" throughout Oakland, with each zone containing between 20 to 40 blocks. Currently there are 16 zones identified within the City and each zone is subsequently divided into three identifiable work areas. Each area is assigned to a specific cleaning employee for trash removal and maintenance. This Program is implemented citywide with emphasis in TMA 1, TMA 2, TMA 8, TMA 11 and TMA 12. In November 2020 the City expanded the contract with Oakland Venue Management (OVM) from \$400,000 to \$750,000 per year to implement the ELF program. This expansion of the contract allows OVM to partner with local service providers that support the unsheltered community, increase the number of work hours by 87%, and provide valuable job training and paid employment opportunities to homeless Oakland residents.</p> <p>Business Improvement Districts Business Improvement Districts (BIDs) are self-imposed assessment districts established by a majority vote of licensed businesses and/or property owners in the district and through technical assistance from the City. There are currently 10 BIDs in Oakland. Traditional BIDs provide services beyond the City's baseline services by hiring staff or contractors to remove litter, increase the number and/or capacity of trash containers in specific BIDs, maintain landscaping, assist commercial establishments with trash container management, and install cigarette butt receptacles and public signage designed to discourage littering. For example, The Montclair Village Association BID provides weekly sidewalk and gutter sweeping resulting in 5 to 20 lbs. of litter removal per week (260 to 1,040 lbs. per year). In 2021, the Jack London BID picked up over 110,000 lbs. of litter and 650 instances of illegal dumping were removed.</p> <p>On July 26, 2021, the Oakland City Council adopted Resolution No. 88781 C.M.S., establishing the Chinatown Community Benefit District, the City's newest BID. The Fruitvale Property Business Improvement District, initially established in 2001 and last renewed in 2011, expired on December 31, 2021 after an unsuccessful renewal effort. In the Dimond area, two associations provide some of the same services as those provided by BIDs. The Dimond Improvement Association's (DIA) volunteer work group, Keep Dimond Clean, removes about 12,000 lbs. of sidewalk litter every year. In addition, the DIA and the Dimond Business & Professional Association collaborate to hire a work crew to remove additional litter and debris annually. In addition to BID formation in Chinatown, City staff are assisting stakeholders with BID formation in the East Lake/Little Saigon Area and Piedmont Avenue. Early merchant organizing discussions are underway in the Coliseum Area, Oakland Airport Area, and Embarcadero Cove. See Attachment C.10.10 for a map showing existing and potential BIDs in each TMA and Attachment C.10.11 for a listing of current and potential BID acreage in each TMA.</p>
	<p>Trash Management Area Summaries</p>
<p>TMA 1 – Arterials</p>	<p>TMA 1 includes arterials (i.e., high capacity urban roads) and major road thoroughfares. This TMA covers 2,701 acres (10%) of the City's jurisdiction. The Trash Generation Rate is High or Very High in 76% of this TMA. Refer to Citywide Summary above for trash management actions other than full trash capture in TMA 1 – Arterials.</p>
<p>TMA 2 – Commercial Areas</p>	<p>TMA 2 includes geographic areas with concentrated retail and commercial land uses. These commercial centers attract high volumes of car and pedestrian traffic and often have transit stations and hubs. This TMA covers 657 acres (2%) of the City's jurisdiction. Refer to Citywide Summary above for trash management actions other than full trash capture in TMA 2 – Commercial Areas.</p>

TMA 3 – North Oakland	TMA 3 borders the City of Berkeley to the north and the City of Emeryville to the west. Litter in TMA 3 is generated by commercial centers and high density residential land uses. This TMA covers 978 acres (3%) of the City's jurisdiction. Refer to Citywide Summary above for trash management actions other than full trash capture in TMA 3 – North Oakland.
TMA 4 - Former Army Base	TMA 4 served as a US Army facility until it was closed in 1999. It is being redeveloped by a public-private partnership. This redevelopment effort will provide all new infrastructure for the site. This TMA covers 141 acres (0.5%) of the City's jurisdiction. Refer to Citywide Summary above for trash management actions other than full trash capture in TMA 4 – Former Army Base.
TMA 5 - West Oakland	TMA 5 includes industrial/warehouse, transportation and residential land uses in West Oakland. Trash in the area is generated by the regional freeway system and transportation activity, and there is significant illegal dumping in this TMA. TMA 5 covers 946 acres (3%) of the City's jurisdiction. Refer to Citywide Summary above for trash management actions other than full trash capture in TMA 5 – West Oakland.
TMA 6 - Shoreline	TMA 6 includes areas along the waterfront of the Oakland Estuary with the predominant sources of trash being the regional freeway system and litter associated with recreational use of parks and trails in the area. Many of the waterfront properties are owned by the Port of Oakland and leased to private tenants. The City works with the Port of Oakland and the East Bay Regional Park District to ensure proper trash container management on its shoreline properties. This TMA covers 809 acres (3%) of the City's jurisdiction. Refer to Citywide Summary above for trash management actions other than full trash capture in TMA 6 – Shoreline.
TMA 7 - Lake Merritt Watershed	TMA 7 consists of high density housing, arterials and commercial districts around Lake Merritt. This TMA covers 1,330 acres (5%) of the City's jurisdiction. Refer to Citywide Summary above for trash management actions other than full trash capture in TMA 7 – Lake Merritt Watershed.
TMA 8 - Downtown Oakland	TMA 8 is a high litter area due to a combination of transit hubs, high pedestrian traffic, and high density land uses. This TMA covers 306 acres (1%) of the City's jurisdiction. Refer to Citywide Summary above for trash management actions other than full trash capture in TMA 8 – Downtown Oakland.
TMA 9 - San Antonio	TMA 9 has retail and high density housing. This TMA covers 777 acres (3%) of the City's jurisdiction. Refer to Citywide Summary above for trash management actions other than full trash capture in TMA 9 – San Antonio.
TMA 10 - Sausal Creek	TMA 10 has a combination of high density housing and commercial/retail land uses. This TMA covers 475 acres (2%) of the City's jurisdiction. Refer to Citywide Summary above for trash management actions other than full trash capture in TMA 10 – Sausal Creek.
TMA 11 - East Oakland 1	TMA 11 has some commercial areas and predominant high-density residential housing. Trash sources include pedestrian litter, poor trash container management and illegal dumping. This TMA covers 1,416 acres (5%) of the City's jurisdiction. Refer to Citywide Summary above for trash management actions other than full trash capture in TMA 11 – East Oakland 1.
TMA 12 – East Oakland 2	TMA 12 has some commercial areas and predominant high-density residential housing. Trash sources include pedestrian litter, poor trash container management and illegal dumping. This TMA covers 2,672 acres (9%) of the City's jurisdiction. Refer to Citywide Summary above for trash management actions other than full trash capture in TMA 12 – East Oakland 2.
TMA 13 – Industrial East Oakland 1	This TMA has predominantly industrial land uses. This area has high litter from BART and railway lines and the adjacent freeway. This TMA has a high incidence of illegal dumping. TMA 13 covers 374 acres (1%) of the City's jurisdiction. Refer to Citywide Summary above for trash management actions other than full trash capture in TMA 13 – Industrial East Oakland 1 – West.

TMA 14 – Industrial East Oakland 2	This TMA has predominantly industrial land uses. This area has high litter from BART and railway lines and the adjacent freeway. This TMA has a high incidence of illegal dumping. TMA 13 covers 576 acres (2%) of the City's jurisdiction. Refer to Citywide Summary above for trash management actions other than full trash capture in TMA 14 – Industrial East Oakland 2 – East.
TMA 15 – Oakland Port/Airport	TMA 15 is managed by the Port of Oakland and has highly restricted access to Port and Airport facilities. Source of trash is primarily traffic-related and windblown. Airport personnel clean up property on regular basis. TMA 15 is not in the City's jurisdiction. The City did not conduct OVTAs in FY 2021-2022 in this TMA and is not taking any trash load reduction.
TMA 16 - Hills	This TMA primarily has low-density residential housing and is a low trash generating area. TMA 16 covers 14,179 acres (50%) of the City's jurisdiction. Refer to Citywide Summary above for trash management actions other than full trash capture in TMA 16 – Hills.

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

Provide the following:

- 1) A summary of the on-land visual assessments in each TMA (or control measure area), including the street miles or acres available for assessment (i.e., those associated with VH, H, or M trash generation areas not treated by full capture systems), the street miles or acres assessed, the % of available street miles or acres assessed, and the average number of assessments conducted per site within the TMA; and
- 2) Percent jurisdictional-wide trash reduction in FY 21-22 attributable to trash management actions other than full capture systems implemented in each TMA; OR
- 3) Indicate that no on-land visual assessments were performed.

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

Explanation: No OVTAs were conducted in TMA #15 because there are no jurisdictional land areas in this TMA.

TMA ID <i>or (as applicable)</i> Control Measure Area	Total Street Miles ⁶³ Available for Assessment	Summary of On-land Visual Assessments			Jurisdictional-wide Reduction (%)
		Street Miles Assessed	% of Available Street Miles Assessed	Avg. # of Assessments Conducted at Each Site	
1	74.3	7.4	9.9%	6.3	18.6%
2	22.3	2.5	11.3%	6.4	6.2%
3	31.7	4.3	13.5%	6.0	3.2%
4	1.3	0.4	33.1%	6.0	0.0%
5	31.9	4.2	13.3%	6.1	3.7%
6	16.2	1.8	10.9%	7.0	0.0%
7	34.7	3.5	10.1%	6.2	3.6%
8	7.9	0.6	7.5%	7.0	3.2%
9	27.7	2.9	10.6%	6.3	4.8%
10	9.7	1.4	14.2%	6.7	1.2%
11	42.6	4.7	11.0%	6.7	0.4%
12	78.7	7.4	9.4%	6.3	7.0%

⁶³ Street miles are defined as the street length and do not include street median curbs.

TMA ID or (as applicable) Control Measure	Total Street Miles ⁵ Available for Assessment	Summary of On-land Visual Assessments			Jurisdictional-wide Reduction (%)
		Street Miles Assessed	% of Available Street Miles Assessed	Avg. # of Assessments Conducted at Each Site	
13	8.7	2.1	24.2%	6.5	0.7%
14	9.0	1.0	10.8%	6.6	8.8%
15	0.0	0.0	0.0%	0.0	0.0%
16	6.7	1.4	20.4%	6.4	0.2%
Total		45.6	--	--	61.5%

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

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

Source Control Action	Summary Description & Dominant Trash Sources and Types Targeted	Evaluation/Enforcement Method(s)	Summary of Evaluation/Enforcement Results To-date	% Reduction
Single-use Plastic Bag Ordinance or Policy	The Alameda County Waste Management Authority adopted the expanded Single-Use Bag Ban. As of May 1, 2017 all retail stores were covered by the ban, and all restaurants were covered by the ban as of November 1, 2017. A copy of the Ordinance is available on the Alameda County Waste Management Authority's website: http://www.reusablebagsac.org/acwma-ordinance-2012-2-amended-ordinance-2016-2 .	See Section C.10 of the ACCWP FY 2021-2022 Annual Report.	See Section C.10 of the ACCWP FY 2021-2022 Annual Report.	6%
Expanded Polystyrene Food Service Ware Ordinance or Policy	In 2008, the City adopted an Ordinance to Prohibit the Use of Polystyrene Foam Disposable Food Service Ware and Require the Use of Biodegradable or Compostable Disposable Food Service Ware by Food Vendors and City Facilities (Oakland Municipal Code Chapter 8.07 Polystyrene Foam Food Service Ware, Ordinance No.12747). This ordinance applies to ALL food vendors at City-sponsored events and on City-owned property, and to all food service vendors.	See Sections C.10 of the ACCWP FY 2021-2022 Annual Report. In addition, see Attachment C.10.12 for a sample expanded polystyrene ban enforcement letter.	See Sections C.10 of the ACCWP FY 2021-2022 Annual Report. In addition, see Attachment C.10.12 for a sample expanded polystyrene ban enforcement letter.	4%

C.10.c ► Trash Hot Spot Cleanups								
Provide the FY 21-22 cleanup date and volume of trash removed during each MRP-required Trash Hot Spot cleanup during each fiscal year listed. Indicate whether the site was a new site in FY 21-22.								
Trash Hot Spot	New Site in FY 21-22 (Y/N)	FY 21-22 Cleanup Date(s)	Volume of Trash Removed (cubic yards)					
			FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Arroyo Viejo Creek (Recreation Center)	N	7/17/21	3	10	7.43	23.35	0.26	0.46
Courtland Creek	N	7/24/21	2.2	15.78	12.59	3.46	0.35	0.15
Damon Slough/ Arroyo Viejo (Line K, Section 1)	N	7/22/21	7.4	6.83	3.11	10.37	1.72	1.5
Damon Slough/ Arroyo Viejo (Sections 2)	N	7/22/21						
Damon Slough/ Arroyo Viejo (Sections 3)	N	7/22/21						
East Creek Slough/ Seminary Creek (Line I, Section 1)	N	7/9/21	2.2	2.97	4.32	4.32	2.3	1.5
East Creek Slough/ Seminary Creek (Line I, Section 2)	N	7/9/21						
Lake Merritt - East 18th Street	N	7/6/21	1.49	3.42	3.8	8.3	1.4	1.8
Lake Merritt - Glen Echo 3.8 Arm	N	7/6/21						
Lake Merritt – Channel	N	7/13/21	10	20	11.41	4.32	0.66	0.75
Peralta Creek (Cesar Chavez Park)	N	9/18/21	3.6	20	26.05	3.63	2.1	1.9
Trash Hot Spot	New Site in	FY 21-22	Volume of Trash Removed (cubic yards)					

FY 2021-2022 Annual Report
Permittee Name: City of Oakland

C.10 – Trash Load Reduction

	FY 21-22 (Y/N)	Cleanup Date(s)	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Sausal Creek – Fruitvale Bridge	N	9/18/21	5.5	3.42	2.25	2.2	1.8	0.75
Sausal Creek – Barry Place	N	9/18/21	0.6	0.45	0.86	0.6	0.67	0.3

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

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

Description of Significant Revision	Associated TMA
The City made no updates to the Long-Term Trash Load Reduction Plan in FY 2021-2022.	NA

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

Provide a summary description of each offset program implemented, the volume of trash removed, and the offset claimed in FY 21-22. Also, for additional creek and shoreline cleanups, describe the number and frequency of cleanups conducted, and the locations and cleanup dates. For direct discharge control programs approved by the Water Board Executive Officer, also describe the results of the assessments conducted in receiving waters to demonstrate the effectiveness of the control program. Include an Appendix that provides the calculations and data used to determine the trash reduction offset.

Offset Program	Summary Description of Actions and Assessment Results	Volume of Trash (CY) Removed/Controlled in FY 21-22	Offset (% Jurisdiction-wide Reduction)
Additional Creek and Shoreline Cleanups (Max 10% Offset)	<p>The methods used to calculate the volume of trash removed for the additional creek and shoreline cleanup offset are consistent with the requirements in the MRP (Section C.10.e).</p> <p>Since 1992, the City has managed a community stewardship program that organizes two citywide cleanup events per year (Earth Day and Creek to Bay Day). Starting in 2018, the City added Martin Luther King Jr Day of Service as an annual cleanup. Due to Covid-19 shelter in place order and safety requirements, Creek to Bay Day and Martin Luther King Jr Day of Service were month-long engagements instead of one day events this past year. Earth Day was a one-day citywide cleanup event day. For the month-long events, the City encouraged Oaklanders to participate in local, socially-distanced cleanups in their neighborhood while following COVID-19 safety requirements and guidelines during these events.</p> <p>In addition, the City supports volunteers to “adopt” individual sites. These individual sites are both on-land (Adopt a Spot, Adopt a Drain, Adopt a Park, Community Cleanups) and at creek/shoreline sites (Adopt a Creek). The City has recorded information pertaining to the “active” sites by asking volunteers to document the number of volunteers and hours spent on an “adopted” site, and the volume of trash removed.</p> <p>In addition to the continued expansion in participation at annual Earth Day, Creek to Bay Day and Martin Luther King Jr Day of Service cleanup efforts, the City’s “Adopt a Spot” program has grown enormously over the past 10 years. The City recorded 49,388 volunteer hours citywide in FY 2021-2022 for its “Adopt a Spot,” community cleanups, and citywide events programs. Of those total volunteer hours, 29,388 hours were spent on creek and shoreline cleanup events in FY 2021-2022. The table below provides information on the creek and shoreline cleanup program and its growth from 2010 to present:</p>	2,437 cubic yards (492,271 gallons)	10%

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

Provide a summary description of each offset program implemented, the volume of trash removed, and the offset claimed in FY 21-22. Also, for additional creek and shoreline cleanups, describe the number and frequency of cleanups conducted, and the locations and cleanup dates. For direct discharge control programs approved by the Water Board Executive Officer, also describe the results of the assessments conducted in receiving waters to demonstrate the effectiveness of the control program. Include an Appendix that provides the calculations and data used to determine the trash reduction offset.

Indicator	2010	FY 2021-2022	Change from 2010	% Increase from 2010
Volunteer Hours (Creek Only)	10,079	29,388	+19,309	+192%
No. of Adopt a Creek Events	229	5,514	+5,285	+2,308%

In FY 2018-2019, the City developed, and the Water Board approved, a volunteer trash removal rate of 11.6 gallons per hour. In FY 2021-2022, the City continued to use directly reported data on the amount of trash removed during volunteer cleanup events where available but supplemented this total with the estimated cleanup volumes using the approved volunteer trash removal rate (11.6 gallons per hour) for events that have only reported volunteer hours. This approach provides a more accurate accounting of the total volume of trash removed from the City's volunteer cleanup program.

The MRP requires one annual cleanup at trash hot spots. Consistent with the requirements of the MRP (Section C.10.c and e), the City is counting the volume of trash removed from all trash hotspot cleanups in excess of the one required annual cleanup toward the additional creek and shoreline cleanup offset. Attachment C.10.3 provides a summary of gallons removed and volunteer hours from the various cleanup efforts. This includes:

- Adopt a Creek: **338,460 gallons**
- Citywide events Earth Day, Creek to Bay Day, and Martin Luther King Jr. Day of Service at creek/shoreline locations: **32,220 gallons**
- Additional cleanups at trash hot spots: **121,591 gallons**

In total, **492,271** gallons (2,437 cubic yards) of trash were removed through our creek/shoreline cleanup programs. Of this total, 186,732 gallons were directly reported by volunteers. The City used the approved volunteer trash removal rate (11.6 gallons per hour) to calculate the remaining gallons removed (305,539 gallons)

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

Provide a summary description of each offset program implemented, the volume of trash removed, and the offset claimed in FY 21-22. Also, for additional creek and shoreline cleanups, describe the number and frequency of cleanups conducted, and the locations and cleanup dates. For direct discharge control programs approved by the Water Board Executive Officer, also describe the results of the assessments conducted in receiving waters to demonstrate the effectiveness of the control program. Include an Appendix that provides the calculations and data used to determine the trash reduction offset.

	<p>based on cleanup events that have only reported volunteer hours. Using the calculation provided in MRP C.10.e.i, this equates to a 10% citywide reduction in trash (i.e., using the 10:1 offset). The City is claiming a 10% offset credit for these additional creek and shoreline cleanup events that occurred during FY 2021-2022.</p>		
<p>Direct Trash Discharge Controls (Max 15% Offset)</p>	<p>The City submitted its proposed Direct Trash Discharge Control Plan (Direct Discharge Plan) to the Water Board on February 1, 2019. The Plan includes actions that the City will take to prevent and reduce the impacts of trash generated by illegal dumping and homeless encampments within the City. After revisions to the Direct Discharge Plan based on Water Board staff comments, it was resubmitted for approval. On April 9, 2019, the Water Board’s Executive Officer approved the Direct Discharge Plan.</p> <p>A Progress Report on the actions taken by the City in FY 2021-2022 as part of our Direct Discharge Control Plan is included in Attachment C.10.4. A total of 21,179 CYs (4,277,780 gallons) of trash were removed in FY 2021-2022 via actions included in the City’s Direct Discharge Plan. The trash load reduction associated with the Direct Discharge Plan is based on calculation methods described in the MRP. The City is claiming a 15% offset credit for implementation of the Direct Discharge Plan in FY 2021-2022.</p>	<p>21,179 cubic yards (4,277,780 gallons)</p>	<p>15%</p>

Appendix 10-1. Baseline trash generation and areas addressed by full capture systems and other control measures in Fiscal Year 21-22.¹

TMA	2009 Baseline Trash Generation (Acres)					Trash Generation (Acres) in FY 21-22 After Accounting for Full Capture Systems					Jurisdiction-wide Reduction via Full Capture Systems (%)	Trash Generation (Acres) in FY 21-22 After Accounting for Full Capture Systems and Other Control Measures					Jurisdiction-wide Reduction via Other Control Measures (%)	Jurisdiction-wide Reduction via Full Capture AND Other Control Measures (%)
	L	M	H	VH	Total	L	M	H	VH	Total		L	M	H	VH	Total		
1	103	515	773	1,249	2,640	380	481	677	1,103	2,640	3.3%	459	1,564	588	30	2,640	18.6%	21.9%
2	4	170	101	440	714	110	169	85	350	714	1.7%	243	404	67	0	714	6.2%	7.9%
3	52	329	546	28	955	53	329	545	28	955	0.0%	300	621	32	2	955	3.2%	3.2%
4	0	141	0	0	141	0	141	0	0	141	0.0%	12	106	23	0	141	0.0%	0.0%
5	0	82	740	95	917	8	81	734	94	917	0.1%	59	642	188	27	917	3.7%	3.8%
6	0	786	1	23	809	57	751	0	1	809	0.5%	195	475	126	12	809	0.0%	0.5%
7	55	858	88	290	1,291	293	727	84	187	1,291	2.1%	402	868	22	0	1,291	3.6%	5.7%
8	0	0	38	269	306	97	0	10	199	306	1.4%	151	94	61	0	306	3.2%	4.6%
9	22	197	320	226	765	42	197	312	213	765	0.3%	117	585	62	0	765	4.8%	5.1%
10	145	169	95	53	462	148	169	95	50	462	0.1%	197	239	26	0	462	1.2%	1.3%
11	40	1,101	179	52	1,373	181	1,069	93	29	1,373	1.0%	366	874	114	19	1,373	0.4%	1.4%
12	88	647	1,754	100	2,589	263	632	1,594	100	2,589	1.0%	571	1,492	522	4	2,589	7.0%	8.0%
13	4	209	144	11	368	4	209	144	11	368	0.0%	43	284	37	5	368	0.7%	0.7%
14	0	0	0	568	568	1	0	0	567	568	0.0%	27	376	161	4	568	8.8%	8.8%
15	0	0	0	0	0	0	0	0	0	0	NA	0	0	0	0	0	0.0%	NA ²
16	13,834	178	14	0	14,026	13,834	178	14	0	14,026	0.0%	13,917	100	8	0	14,026	0.2%	0.2%
Totals	14,347	5,383	4,791	3,403	27,924	15,471	5,133	4,387	2,933	27,924	11.5%	17,059	8,723	2,038	103	27,924	61.5%	73.0%

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

² "NA" indicates that the TMA has no moderate, high, or very high trash generating areas (i.e., all low trash generation and/or non-jurisdictional) and therefore no additional trash control measures are needed.

Section 11 - Provision C.11 Mercury Controls

- C.11.a ► Implement Control Measures to Achieve Mercury Load Reductions**
- C.11.b ► Assess Mercury Load Reductions from Stormwater**
- C.11.c ► Plan and Implement Green Infrastructure to Reduce Mercury Loads**

See the Alameda Countywide Clean Water Program's (ACCWP) FY 2021-2022 Annual Report for updated information on:

- Documentation of mercury control measures implemented in our agency's jurisdictional area for which load reductions will be reported and the associated management areas;
- A description of how the BASMAA Interim Accounting Methodology⁶⁴ was used to calculate the mercury load reduced by each control measure implemented in our agency's jurisdictional area (including green infrastructure) and the calculation results (i.e., the estimated mercury load reduced by each control measure);
- Supporting data and information necessary to substantiate the load reduction estimates; and
- For Executive Officer approval, any refinements, if necessary, to the measurement and estimation methodologies to assess mercury load reductions in the subsequent permit.

C.11.e ► Implement a Risk Reduction Program

A summary of Program and regional accomplishments for this sub-provision, including a brief description of actions taken, an estimate of the number of people reached, and why these people are deemed likely to consume Bay fish are included in the ACCWP's FY 2021-2022 Annual Report.

⁶⁴BASMAA 2017. Interim Accounting Methodology for TMDL Loads Reduced, Version 1.1. Prepared for BASMAA by Geosyntec Consultants and EOA, Inc., March 23, 2017.

Section 12 - Provision C.12 PCBs Controls

C.12.a ► Implement Control Measures to Achieve PCBs Load Reductions

C.12.b ► Assess PCBs Load Reductions from Stormwater

C.12.c. ► Plan and Implement Green Infrastructure to Reduce PCBs Loads

See the Alameda Countywide Clean Water Program's (ACCWP) FY 2021-2022 Annual Report for:

- Documentation of PCBs control measures implemented in our agency's jurisdictional area for which load reductions will be reported and the associated management areas;
- A description of how the BASMAA Interim Accounting Methodology⁶⁵ was used to calculate the PCBs load reduced by each control measure implemented in our agency's jurisdictional area (including green infrastructure) and the calculation results (i.e., the estimated PCBs load reduced by each control measure);
- Supporting data and information necessary to substantiate the load reduction estimates; and
- For Executive Officer approval, any refinements, if necessary, to the measurement and estimation methodologies to assess PCBs load reductions in the subsequent permit.

C.12.f. ► Manage PCB-Containing Materials During Building Demolition

See the ACCWP's FY 2021-2022 Annual Report for:

- Documentation of the number of applicable structures in each Permittee's jurisdiction for which a demolition permit was applied for during the reporting year; and
- A running list of the applicable structures in each Permittee's jurisdiction for which a demolition permit was applied for (since the date the PCBs control program 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.

⁶⁵BASMAA 2017. Interim Accounting Methodology for TMDL Loads Reduced, Version 1.1. Prepared for BASMAA by Geosyntec Consultants and EOA, Inc., September 19, 2017.

C.12.h ► Implement a Risk Reduction Program

A summary of ACCWP and regional accomplishments for this sub-provision, including a brief description of actions taken, an estimate of the number of people reached, and why these people are deemed likely to consume Bay fish are included in the ACCWP's FY 2021-2022 Annual Report.

Section 13 - Provision C.13 Copper Controls

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

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

Summary:

The City of Oakland Illicit Discharge Inspectors treat cases of wash water and waste generated from the cleaning and treatment of copper architectural features, including copper roofs, during and post-construction as an illicit discharge. Complaint, inspection, and enforcement of the cleaning and treatment of copper architectural features are handled in the same manner as any illicit discharge, and handled under the City's Enforcement Response Plan (ERP) standards for illicit discharges.

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

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

Summary:

There were no reports of any illicit discharges of copper-containing materials from pools, spas, or fountains in FY 2021-2022, and therefore no enforcement activities related to copper discharges.

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

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

Summary:

The City has incorporated the use of the Bay Area Stormwater Management Agencies Association (BASMAA) PowerPoint training module entitled "Inspecting Industrial/Commercial Facilities for Pollutants of Concern (POC) Copper (Cu), Mercury (Hg) and Polychlorinated Biphenyls (PCBs)" into its inspector training tools. Inspectors review the material on an annual basis as a refresher to ensure that they have a full understanding of environmental regulations. When conducting inspections of business facilities with a known and/or potential source of copper such as metal finishers, plating facilities, and auto dismantlers, the City Inspector will apply the information and material to their inspection to assist in identifying sources of copper and any stormwater-related issues. BMPs are provided to the business facility owner/operator at the time of the inspection. In addition to the Bay Friendly Landscaping Ordinance, if the City receives ongoing, large volume landscape irrigation runoff

complaints, they are considered illicit discharges by City of Oakland Illicit Discharge Inspectors. Complaint, inspection, and enforcement of overirrigation runoff are handled in the same manner as any illicit discharges, and handled under the City's ERP standards.

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

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

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

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

Summary:

In FY 2021-2022 the City continued implementing water conservation actions in municipal buildings, on City property, and in the community. These actions are defined in the 2020 Oakland Energy and Climate Plan (ECAP). 2020 ECAP Actions implemented in last fiscal year are:

- BE-36: Encourage the installation of rainwater and greywater systems where appropriate in accordance with State and local codes. Starting in January 2010, Oakland conducted a three-year Rain Barrel Program to place 2,708 rain barrels and cisterns in homes throughout the community. These have the capacity to store more than 400,000 gallons of rainwater, serving to protect creeks, provide irrigation, and reduce flooding. Though the program has been discontinued due to funding expiration, the City continues to promote rainwater capture online at www.oaklandca.gov/projects/rain-barrel-program.
- BE-41: As part of the LEED certification process, all municipal new construction and major renovation projects include a minimum of 20% reduction in water use. This is accomplished through efficient faucets, low-flow bathroom fixtures, and drip irrigation systems. Parks and landscape projects use only Bay Friendly plants and irrigation practices, reducing water use in outdoor spaces as well.

In July 2020 Oakland City Council adopted an update to the 2020 ECAP, the 2030 Equitable Climate Action Plan (ECAP) The 2030 ECAP establishes actions that the City and its partners will take by 2030 within a racial equity framework to reduce Oakland’s climate emissions and adapt to changing climate. The 2030 ECAP is available at: www.oakland2030.com.

Action A-6 in the ECAP calls for the City to expand and protect green infrastructure and biodiversity. Green infrastructure installed to treat roadway runoff will also help prevent impacts from over-irrigation.

In FY 2021-2022 the City posted new information resources for native and drought tolerant plants and landscaping at www.oaklandca.gov/resources/vegetation-management-for-creeks.

In FY 2021-2022, the City promoted Best Management Practices (BMPs) that:

- Minimize runoff and pollutant loading from excess irrigation
- Promote outreach for less toxic pest control and landscape management
- Promote use of drought tolerant and native vegetation
- Promote outreach messages to encourage appropriate watering/irrigation practices
- Promote sweeping, not hosing of driveways and sidewalks

The City promoted the countywide outreach webinars and resources "Hire a Certified Eco-Friendly Pest Control Contractor" and "Our Water Our World Free Webinars" on City Facebook and Instagram accounts and in e-newsletters to the public.

More information about these countywide outreach campaigns can be found in the Provision C.7.b.: Outreach Campaigns section of the Alameda Countywide Clean Water Program FY 2021-2022 Annual Report.

In FY 2021-2022 the City's Watershed and Stormwater Management Division staffed public outreach tables at Earth Day events in Courtland Creek Park on April 16, 2022, and at the Oakland Zoo on April 23, 2022. Approximately 300 people attended the events (combined). Staff provided information and brochures to the public about water conservation, less toxic pest control and landscape management, use of drought tolerant and native vegetation, and appropriate watering/irrigation practices.

Water conservation programs and policies are promoted on the City website at:

www.oaklandca.gov/topics/water-conservation

www.oaklandca.gov/resources/water-conservation-community-resources

www.oaklandca.gov/resources/oakland-policies-on-water-conservation

www.oaklandca.gov/resources/water-conservation-rebates-and-incentive-programs

ATTACHMENTS

ATTACHMENTS

ATTACHMENT C.3.1: City of Oakland Public Projects Reviewed for Green Infrastructure and Planned and/or Completed Green Infrastructure Projects (C.3.j.ii.(2) Tables A and B) FY 2021-2022

ATTACHMENT C.3.2: Annual Reporting for FY 2021-2022 Regional Supplement for New Development and Redevelopment San Francisco Bay Area Municipal Regional Stormwater Permit

ATTACHMENT C.4.1: City of Oakland List of All Industrial and Commercial Facilities Requiring Stormwater Inspections per MRP Provision C.4.b.ii.(2)(d) FY 2021-2022

ATTACHMENT C.5.1: 200 Grand Avenue Homeless Encampment Sampling Results FY 2021-2022

ATTACHMENT C.6.1: City of Oakland Summary of Construction Site Control Inspections – PRIVATE PROJECTS FY 2021-2022

ATTACHMENT C.6.2: City of Oakland Summary of Construction Site Control Inspections – PUBLIC PROJECTS FY 2021-2022

ATTACHMENT C.7.1: City of Oakland School Age Outreach Summary FY 2021-2022

ATTACHMENT C.9.1: Oakland City Council Resolution 59482 – Pesticides Policies

ATTACHMENT C.9.2: Oakland City Council Resolution 73968 – Integrated Pest Management Policies

ATTACHMENT C.9.3: Oakland City Council Resolution 76254 – Integrated Pest Management Limited Exemption for Herbicides

ATTACHMENT C.9.4: Oakland City Council Ordinance 13544 – Neonicotinoid Pesticide Prohibition

ATTACHMENT C.9.5: City of Oakland IPM Plan Update 2005 - Staff Report

ATTACHMENT C.9.6: Oakland City Council Resolution 79133 - CEQA Review for Limited Pesticide Use 2005

ATTACHMENT C.9.7: City of Oakland Contractor IPM Certification(s) or Equivalent

ATTACHMENT C.10.1: City of Oakland Full Trash Capture Maps FY 2021-2022

ATTACHMENT C.10.2: City of Oakland On-Land Visual Trash Assessment Maps FY 2021-2022

ATTACHMENT C.10.3: City of Oakland Summary of Cleanups Used for Creek and Shoreline Offset FY 2021-2022

ATTACHMENT C.10.4: City of Oakland Direct Discharge Plan Progress Report FY 2021-2022

ATTACHMENT C.10.5: City of Oakland Trash Management Areas Map

ATTACHMENT C.10.6: City of Oakland Street Sweeping Frequency Map FY 2021-2022

ATTACHMENT C.10.7: City of Oakland Adopt a Spot Map FY 2021-2022

ATTACHMENT C.10.8: City of Oakland Street Adopt a Drain Map FY 2021-2022

ATTACHMENT C.10.9: City of Oakland Excess Litter Location Map FY 2021-2022

ATTACHMENT C.10.10: City of Oakland Business Improvement Districts Map FY 2021-2022

ATTACHMENT C.10.11: City of Oakland Existing and Future Potential Business Improvement Districts Acreage FY 2021-2022

ATTACHMENT C.10.12: City of Oakland Disposable Food Service Ware Enforcement Letter FY 2021-2022

ATTACHMENT C.3.1

City of Oakland

**Public Projects Reviewed for Green Infrastructure and Planned
and/or Completed Green Infrastructure Projects**

(C.3.j.ii.(2) Tables A and B)

FY 2021-2022

City of Oakland FY 2021-2022 MRP Annual Report Attachment C.3.1 (C.3.j.ii.(2) Tables: A) Public Projects Reviewed for Green Infrastructure and, (B) Planned and/or Completed Green Stormwater Infrastructure Projects

C.3.j.ii.(2) AR Table A <small>(Public projects reviewed for green infrastructure) or B <small>(Public completed green infrastructure projects)</small></small>	Project Name	Project Location	Brief Project Description	Green Stormwater Infrastructure (GSI) Included?	GSI Type(s) Included	June 30, 2022 Status	Why GSI is impracticable if not included
A	7th St. Streetscape Phase II (7th St. West Oakland Transit Village Streetscape)	7th St. from Wood St. to Peralta St	Streetscape improvements on 7th St. between Peralta and Wood Roadway diet and reduced number of travel lanes on 7th St. in each direction. ADA and bike lanes. Several bioretention facilities included in project design	Yes	Bioretention facilitie(s)	Completed	
A	14th Ave. Phase I	E 8th St. to International Blvd.	Streetscape Improvements. Tree well(s) and potential for medians with landscaping components	Evaluating GSI Potential		Design	14. Very constrained site with design conflicts (ADA, fire access, no storm drain nearby, dock repair)
A	14th Ave. Phase III	E19th St. to E27th St.	Streetscape Improvements	Evaluating GSI Potential		Design	14. Very constrained site with design conflicts (ADA, fire access, no storm drain nearby, dock repair)
A	14th St. Safe Routes in the City (ATP)	14th St. Brush St. to Lakeside Dr.	Lane reduction, adding Class IV protected bicycle lanes, transit boarding islands, improve ped facilities including refuges, crossing & signals	No		Pre-Bid	2. Planned and designed before January 2016
A	27th St. Complete Streets	27th and Bay Pl from Telegraph Ave. to Grand Ave.	Complete street improvements consisting of protected bike lanes, crosswalk enhancements, curb extensions, signal modifications, ADA curb ramps, and road diet	Evaluating GSI Potential		Planning	
A	Arroyo Viejo Recreation Center Renovation	7701 Krause Ave.	Renovation and possible expansion of existing 12,300 sf recreation center. May be a C.3 Regulated Project	Evaluating GSI Potential		Planning	
A	Branch Library Improvement - Brookfield	9255 Edes Ave.	Improve lighting, carpet, paint, electric/data, interior space conversion	No		Design	12. No alterations to building drainage or site drainage
A	Brookdale Recreation Center	2535 High St.	Renovation and expansion of recreation center building and discovery center	Evaluating GSI Potential		Planning	

City of Oakland FY 2021-2022 MRP Annual Report Attachment C.3.1 (C.3.j.ii.(2) Tables: A) Public Projects Reviewed for Green Infrastructure and, (B) Planned and/or Completed Green Stormwater Infrastructure Projects

C.3.j.ii.(2) AR Table A <small>(Public projects reviewed for green infrastructure) or B <small>(Public completed green infrastructure projects)</small></small>	Project Name	Project Location	Brief Project Description	Green Stormwater Infrastructure (GSI) Included?	GSI Type(s) Included	June 30, 2022 Status	Why GSI is impracticable if not included
A	Caldecott Trailhead Improvements (R12 #1001)	North Oakland Sports Field Trailhead	Expand existing trail, ADA parking, tot lot, seating, landscaping	No		Design	17. Impervious trail designed to direct stormwater to adjacent vegetated or other non-erodible permeable areas.
A	East 12th St. Bikeway	E. 12th St.	Installation of bike lanes to connect International Blvd. with Fruitvale BART station. Work includes roadway paving, pavement marking, striping & signage, ADA curb ramps, traffic lanes realignment, bicycle detectors, & raised median	No		Design	3. Maintenance/minor construction/striping
A	East Bay Greenway	Adjacent to BART tracks, Fruitvale to San Leandro border	Complete multi-use pathway under or alongside BART tracks. This is an affordable housing grant project to provide safe pedestrian and bicycle access to BART and adjacent areas. A five-foot-wide permeable landscape strip has been incorporated into the project to separate the path from vehicular traffic and allow for planting of 65 deciduous trees along the path. The project has removed roadway area to create the pervious area adjacent to the path, so that there is over 4,700 SF of increased pervious area. There is no change to the drainage patterns in general	No		Pre-Bid	14. Very constrained site with design conflicts (ADA, fire access, no storm drain nearby, dock repair)
A	Estuary Park (R12 #100085)	115 Embarcadero	Renovation and expansion of existing City Park	Yes	Bioretention facilitie(s)	Design	
A	Fire Station #29	1016 66th Ave. (905 66th Ave. is potential location)	New Fire station, Training Facility, USAR (Urban Search and Rescue) and Fire Services Facilities on new site	Evaluating GSI Potential		Planning	
A	Fire Station #4	To be determined	Identify properties for relocation of Fire Station 4	Evaluating GSI Potential		Planning	

City of Oakland FY 2021-2022 MRP Annual Report Attachment C.3.1 (C.3.j.ii.(2) Tables: A) Public Projects Reviewed for Green Infrastructure and, (B) Planned and/or Completed Green Stormwater Infrastructure Projects

C.3.j.ii.(2) AR Table A <small>(Public projects reviewed for green infrastructure) or B <small>(Public completed green infrastructure projects)</small></small>	Project Name	Project Location	Brief Project Description	Green Stormwater Infrastructure (GSI) Included?	GSI Type(s) Included	June 30, 2022 Status	Why GSI is impracticable if not included
A	Fruitvale Alive Gap Closure	Fruitvale Bridge to International Ave.	Complete street improvements consisting of a raised cycle track (Class 4), widen sidewalks, improve ped crossings, add ped lights, landscape buffers, and restriping to increase safety	No	Self-retaining areas	Construction	2. Planned and designed before January 2016
A	I-880/42nd/High Freeway Access Project	42nd St. and High St. 880 on-ramp	Reconstruct surface street at 42nd/High I-880 entrance	Evaluating GSI Potential		Design	14. Very constrained site with design conflicts (ADA, fire access, no storm drain nearby, dock repair)
A	Lake Merritt to Bay Trail	Lake Merritt to Bay Trail	Spanning from Lake Merritt Channel to the Oakland Waterfront Bay Trail	ON HOLD	TBD	ON HOLD	
A	Lakeside Dr. and Lake Merritt Blvd. Cycletrack Project	Lakeside Dr. and Lake Merritt Blvd.	Extending the Lakeside Dr. two-way protected cycletrack around the Lake to International Boulevard (https://www.oaklandca.gov/projects/lake-merritt-bikeway)	Yes	Bioretention facilitie(s)	Design	
A	Lakeside Family St.	Harrison St. from Lakeside to 27th; Grand Ave. from Harrison to Bay Pl.	Complete street improvements: protected bicycle intersection, access into bicycle track, protected bike lanes, crosswalk enhancements, curb extensions, signal modifications, and ADA curb ramps. Seek opportunities to build or expand GI components of Lakeside Green Streets project	Evaluating GSI Potential		Design	
A	Lincoln Square Recreation Center Renovation and	261 11th St.	Expand and renovate existing 6,910 sf building. Add additional 6,400 square feet	Evaluating GSI Potential		Design	

City of Oakland FY 2021-2022 MRP Annual Report Attachment C.3.1 (C.3.j.ii.(2) Tables: A) Public Projects Reviewed for Green Infrastructure and, (B) Planned and/or Completed Green Stormwater Infrastructure Projects

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A	Lower Park Blvd. Bicycle & Pedestrian Improvement Project	Park Blvd @ 4th Ave. (E 17th St to Chatham Rd; E 18th St from Park to Lakeshore Ave., & 3rd Ave. from Park to E 18th St.)	Roadway rehabilitation, pedestrian safety improvements and buffered bike lanes from Lake Merritt to Oakland High School	No		Completed	4. Re-surfacing or repaving, no change to drainage patterns, no increased impervious.
A	Park Blvd. Intersection Improvement Project	Intersections of Park Blvd./E 38th St. and Park Blvd./Excelsior Ave./Alma Pl.	Intersection re-alignment and traffic signal improvements at intersections of Park Blvd./E 38th and Park Blvd./Excelsior Ave.	Yes	Bioretention facilitie(s)	Construction	
A	San Antonio Recreation Center and Head Start CIP	1701 E 19th St.	Renovate existing 1,764 sf recreation center	Evaluating GSI Potential		Planning	
A	San Leandro Bike Lanes Connection to 75th Ave.	San Leandro St. from 69th to 75th Ave.	Road surface improvements for bikes such as bike lanes	No		Design	4. Re-surfacing or repaving, no change to drainage patterns, no increased impervious.
A	Sobrante Mini Park Renovation	10800 Pueblo Dr.	Community led park renovation project, includes new Community Services Center building, play area, par course area, picnic areas, murals, pathways, lawn areas, fencing and gates, landscaping and renovation of an existing restroom	Evaluating GSI Potential		Design	
A	Tyrone Carney Park Renovation	10501 Acalanes Dr.	Community led renovation project. New play areas, par courses, pave	Evaluating GSI Potential		Design	
A	Waterfront Trails - E 7th St. to 23rd. Ave.	From Union Point Park/Con Agra property line to Lonestar/Park Street Bridge - E 7th St. to 23rd. Ave.	Oakland Waterfront trail segment	Evaluating GSI Potential	TBD	Design	
A	West Oakland Branch Library Improvement	1801 Adeline	Garage remodel to fit the City's Mobile Outreach Vehicle (MOVE) vehicle and modify parking lot. Bioretention will treat runoff from parking lot	Yes	Bioretention facilitie(s)	ON HOLD	

City of Oakland FY 2021-2022 MRP Annual Report Attachment C.3.1 (C.3.j.ii.(2) Tables: A) Public Projects Reviewed for Green Infrastructure and, (B) Planned and/or Completed Green Stormwater Infrastructure Projects

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B	14th Ave. Phase II	14th Ave. between E 12th St. and E 19th St.	Streetscape Improvements - Bulbouts, Green Space, and Trees. Includes three bioretention facilities	Yes	Bioretention facilitie(s)	Completed	
B	Begin Plaza	San Pablo Ave. and Martin Luther King Jr. Way	Park renovation. Included bioretention facility and swale installed along park perimeter	Yes	Bioretention facilitie(s)	Completed	
B	Broadway between Keith Ave. and Brookside Ave.	Broadway from Keith Ave. to Brookside Ave.	Streetscape improvements. Three bioretention facilities built	Yes	Bioretention facilitie(s)	Completed	
B	City of Oakland Fire Station No. 1 Biotreatment Retrofit Project	1605 Martin Luther King Jr. Way	Retrofit an asphalt parking lot with Low Impact Development (LID) green infrastructure features including permeable pavers, a bioretention rain garden, landscaped planter strips, stormwater-beneficial trees, and a planted trellis	Yes	Multiple GI measures (bioretention, pervious pavement, etc.)	Completed	
B	Embarcadero Bridge Replacement	Embarcadero Bridge at Lake Merritt Channel	Replacement of bridge over Lake Merritt Channel. Bioretention facilities are being installed on both sides of the bridge	Yes	Bioretention facilitie(s)	Completed	
B	High St., Courtland Ave., & Ygnacio Ave. Intersection Improvements	High St. and Courtland Ave.	Install raised median, pedestrian refuge, curb extension/extend sidewalks, ADA curb ramps, bicycle & pedestrian features, landscaping, and bio-filtration measures. Two bioretention facilities. One is in the median in the middle of the large intersection, the other is at the SE corner of High St. and Courtland Ave. Street runoff will be treated by the facilities	Yes	Bioretention facilitie(s)	Completed	
B	Lake Merritt Bellevue Ave. and pathways in Lakeside Park. (#1003319)	Bellevue Ave. between Grand Ave. and Perkins	Installation of new pervious parking area, road maintenance, and garden outer entrance. Pervious parking used "True Grid"	Yes	Pervious pavement	Completed	

City of Oakland FY 2021-2022 MRP Annual Report Attachment C.3.1 (C.3.j.ii.(2) Tables: A) Public Projects Reviewed for Green Infrastructure and, (B) Planned and/or Completed Green Stormwater Infrastructure Projects

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B	Lake Merritt Improvement Project (C394010)	Lakeside Park Entrances. Bellevue and Grand Ave.	Pedestrian safety, accessibility, landscaping and pathways. Three bioretention areas (flow through no underdrain)	Yes	Bioretention facility(ies)	Completed	
B	Lakeside Green Streets Project	Lakeside Drive from 19th St. to Grand Ave.	Park expansion and retrofit, road diet rehabilitation, and rain gardens.	Yes	Bioretention facility(ies)	Completed	
B	LAMMPS Streetscape Project - Laurel Access to Mills, Maxwell Park & Seminary	Laurel Access to Mills, Maxwell Park & Seminary	Installation of Class I bike/pedestrian path along Macarthur Blvd. from High St. to Richards Road. Several Bioretention areas included in the project	Yes	Bioretention facility(ies)	Completed	
B	Latham Square Streetscape Improvements	Latham Square	Reconstructed wide pedestrian area between Broadway and Telegraph Ave. (and 14th and 16th St.). Bioretention areas accept runoff from Broadway and paved plaza areas	Yes	Bioretention facility(ies)	Completed	
B	Rockridge BART Safe Route to Transit	College & Miles. Project extends to Shafter/Keith.	Add bike lane on College and intersection improvements on College at Shafter/Keith and at Miles. One bioretention facility incorporated into curb extension at College and Miles. The bioretention will treat runoff from College Ave and from adjacent buildings	Yes	Bioretention facility(ies)	Completed	
B	Stormwater Treatment Units (Tree Wells)	26th & Poplar 26th & 24th Willow & 24th Willow and Wood 32nd & Mandela 32nd & 28th	Install six Contech Filterra tree well units designed to remove PCBs from stormwater	Yes	Tree well(s)	Completed	

ATTACHMENT C.3.2

**Annual Reporting for FY 2021-2022 Regional Supplement for
New Development and Redevelopment San Francisco Bay
Area Municipal Regional Stormwater Permit**

Annual Reporting for FY 2021-2022

Regional Supplement for New Development and Redevelopment

San Francisco Bay Area Municipal Regional Stormwater Permit

Bay Area Municipal Stormwater Collaborative

September 2022

**MRP Regional Supplement for New Development and Redevelopment
Annual Reporting for FY 2021-2022**

TABLE OF CONTENTS

INTRODUCTION	2
GREEN INFRASTRUCTURE PLANNING AND IMPLEMENTATION	2
C.3.j.iii Participation in Processes to Promote Green Infrastructure	2
Activities and Accomplishments during FY 21-22	3
MRP 3.0 C.3/GI Work Group	3
San Francisco Estuary Blueprint 2022 Update	3
BAMSC Development Subcommittee	3
Other Participation and Comments	4

LIST OF ATTACHMENTS

C.3.j.iii Participation in Processes to Promote Green Infrastructure

1. San Francisco Estuary Blueprint 2022 – Action 19, Stormwater Management
2. Green Infrastructure Leadership Exchange – Climate Resilience Resources Guide: Part 1, August 2022

MRP Regional Supplement for New Development and Redevelopment Annual Reporting for FY 2021-2022

INTRODUCTION

This Regional Supplement has been prepared to report on regionally implemented activities complying with portions of the Municipal Regional Stormwater Permit (MRP), issued to 79 municipalities and special districts (Permittees) by the San Francisco Bay Regional Water Quality Control Board (Water Board). The Regional Supplement covers new development and redevelopment activities related to the following MRP 2.0 provision:

- C.3.j.iii. Participate in Processes to Promote Green Infrastructure.

These regionally implemented activities were conducted under the auspices of the Bay Area Municipal Stormwater Collaborative (BAMSC), an informal coalition of the municipal stormwater programs in the San Francisco Bay Area.¹ Most of the 2021-22 annual reporting requirements of Provision C.3.j.iv covered in this Supplement were completely met by BAMSC member activities, except where otherwise noted herein or by Permittees in their reports. MRP Permittees, through their program representatives on the BAMSC Steering Committee and its Subcommittees, collaboratively participated in these BAMSC informal regional activities.

GREEN INFRASTRUCTURE PLANNING AND IMPLEMENTATION

C.3.j.iii. Participation in Processes to Promote Green Infrastructure

This provision requires:

(1) The Permittees shall, individually or collectively, track processes, assemble and submit information, and provide informational materials and presentations as needed to assist relevant regional, State, and federal agencies to plan, design, and fund incorporation of green infrastructure measures into local infrastructure projects, including transportation projects. Issues to be addressed include coordinating the timing of funding from different sources, changes to standard designs and design criteria, ranking and prioritizing projects for funding, and implementation of cooperative in-lieu programs.

This section describes activities and accomplishments during FY 21-22 to promote green infrastructure (GI or GSI). The BAMSC activities described in this section provide compliance for MRP Permittees with this provision.

¹ In late FY 20-21, the predecessor to BAMSC, the Bay Area Stormwater Management Agencies Association (BASMAA), dissolved as a formal non-profit organization and its members continued to meet as an informal organization under the name Bay Area Municipal Stormwater Coalition (BAMSC). BAMSC members jointly prepared this Regional Supplement for FY 21-22.

MRP Regional Supplement for New Development and Redevelopment Annual Reporting for FY 2021-2022

Activities and Accomplishments during FY 21-22

MRP 3.0 C.3/GI Work Group

Countywide Program and Permittee staff actively participated in the BAMSC MRP 3.0 C3/GI Work Group to discuss, internally and with Water Board staff, issues to be addressed in Provision C.3 of MRP 3.0, including requirements for long-term and short-term implementation of GI. The Work Group proposed an approach for setting short-term requirements in the context of long-term GI implementation goals that would be established via a Technical Working Group (TWG) including Water Board staff and outside science experts from EPA, SFEP, SFEI, and other organizations. The TWG will begin meeting in FY 22-23 to discuss long-term goals for GI and reductions in impervious surfaces at individual, countywide and regional scales.

In FY 21-22, the C.3/GI Work Group met once with Water Board staff to discuss the MRP 3.0 Revised Tentative Order, in addition to holding several internal meetings and conducting some smaller group meetings with Water Board staff on focused topics. Key issues discussed included: regulated project thresholds; regulation of single-family homes; regulation of road maintenance and reconstruction projects; alternative compliance options, Special Projects provisions, asset management, and future GI requirements. At the May 11, 2022 Regional Water Board Adoption Hearing for MRP 3.0, the current Co-Chair of the BAMSC, Reid Bogert, presented testimony to the Regional Water Board members and hearing participants, focusing on the impacts of proposed C.3 provisions of the reissued permit and proposed strategies for improving implementation outcomes.

San Francisco Estuary Blueprint 2022 Update

The San Francisco Estuary Partnership's (SFEP's) *San Francisco Estuary Blueprint* (Blueprint), formerly known as the Comprehensive Conservation and Management Plan, is a living collaborative agreement, updated every five years, about what should be done to protect and restore the Estuary. The 2022 update of the 2016 Blueprint focused on revisions at the specific action and task levels. Action 19 and Tasks 19-1, 19-2, and 19-3 address management of stormwater with low impact development and GSI. BAMSC members worked with Josh Bradt of the SFEP to provide input on task descriptions and ways that BAMSC would be a collaborative partner in implementing these tasks. The stormwater management (Action 19) section of the final 2022 Blueprint is provided as Attachment 1.

BAMSC Development Subcommittee

The BAMSC Development Subcommittee continued to meet approximately quarterly during FY 21-22 and promoted implementation of GI by providing a forum to discuss the following topics:

- GI operation and maintenance (O&M), including the City of San Jose's GSI O&M Manual;
- Compost and mulch practices, including a new biotreatment area wood mulch specification;
- Bioretention vegetation selection and maintenance, including SCVURPPP's GSI Vegetation Guide and Contra Costa County's drought-tolerant plant list;

MRP Regional Supplement for New Development and Redevelopment Annual Reporting for FY 2021-2022

- Case studies of rain water harvesting and rain garden rebate programs implemented throughout the region, including in San Mateo County, the City of Cupertino and Valley Water.

The Development Subcommittee's Biotreatment Soil Media (BSM)-Tree-Design Work Group also met once during FY 21-22 and discussed trees in bioretention, tree well filter designs, and the bioretention wood mulch specification. The Santa Clara Valley Urban Forestry Alliance is a new organization that is now participating in this work group.

Other Participation and Comments

- Green Streets for Sustainable Communities Symposium and Work Group – In the fall of 2020, Jill Bicknell and Vishakha Atre (EOA, representing SCVURPPP) and Matt Fabry (C/CAG) worked with the organization Transportation Choices for Sustainable Communities (TCSC) to plan and conduct a "Green Streets for Sustainable Communities" Symposium. The purpose of the symposium was to bring together elected officials, city staff leaders, stormwater experts, complete street/transportation experts, environmental activists, tree and urban ecology experts, and other stakeholders to explore how to better fund, design, build, manage and maintain streets to optimize performance for people and nature. Details and presentation videos can be found on the [TCSC website](#). Following the symposium, SCVURPPP staff participated in meetings of the TCSC Green Streets Work Group during FY 20-21 and FY 21-22. The Work Group worked on follow-up actions to the Symposium, such as: 1) development of draft language for Sustainable Streets legislation; 2) meetings with State legislators and City Council members to promote sustainable streets; and 3) development of a presentation to elected officials on the need for and benefits of sustainable streets.
- Reid Bogert (SMCWPPP) – Presentation at the Silicon Valley Bicycle Coalition Annual Bike Summit on August 13, 2021 on the San Mateo Countywide Sustainable Streets Master Plan outcomes: "Tooling Up Sustainable Streets in San Mateo County".
- Reid Bogert (SMCWPPP) – Presentation at 2021 CASQA Conference: "Calm Before the Storm: San Mateo County Sustainable Streets Master Plan". Project received 2021 CASQA Award for Outstanding Sustainable Stormwater Project or Program.
- Reid Bogert (SMCWPPP) – Moderated panel at 2021 CASQA Conference on "Advancing Collaborative Approaches to Regional-Scale Stormwater Management" – the Regional Collaborative Program Framework White Paper developed under this grant funded project focused on evaluating countywide opportunities for regional-scale multi-benefit stormwater capture projects and regional programmatic implementation of distributed GI, establishing the business case for a regional collaborative approach, advancing innovative funding and financing, and developing additional concept designs for high performing regional projects.

MRP Regional Supplement for New Development and Redevelopment Annual Reporting for FY 2021-2022

- Reid Bogert (SMCWPPP) – Participated in a panel at the 2021 CASQA Conference on “Co-funding Stormwater Incentives Through ‘Stacked Incentives’”.
- Reid Bogert (SMCWPPP) – Presentation at the February California Stormwater Quality Association Funding Subcommittee on “Advancing Regional-Scale Stormwater Management in San Mateo County CASQA Funding Subcommittee” including an emphasis on advancing planning and funding for multi-benefit, regional-scale stormwater projects.
- Reid Bogert (SMCWPPP) – Presentation at the Bay Area Water Supply Conservation Agency’s Water Supply Reliability Roundtable in June, focusing on the “Advancing Regional Scale Stormwater Management in San Mateo County” project and identifying opportunities and barriers for integrated water planning (i.e., One Water) strategies in the Bay Area.
- Reid Bogert (SMCWPPP) – Project manager for Climate Resiliency Resources Guide for GI Leadership Exchange. This Collaborative Grant Program project under the GI Leadership Exchange developed a comprehensive North American scale guide focused on creating resources for integrating climate adaptation into municipal GI programming and project implementation with detailed considerations and next step recommendations for advancing this work in the areas of policy, planning, design and operations and maintenance.
- Reid Bogert (SMCWPPP) – Discussions with state legislators and staff on the development of the proposed 2022-23 Drought and Resilience Appropriations Legislation to request specific categories of funding for green stormwater infrastructure and reduced matching requirements for implementing grant programs.

Attachments

Attachment 1
San Francisco Estuary Blueprint 2022
Action 19, Stormwater Management

ACTION 19
STORMWATER MANAGEMENT

Manage stormwater with low impact development and green stormwater infrastructure.

Implement Low Impact Development (LID) and Green Stormwater Infrastructure (GSI) to reduce polluted stormwater to the Estuary. Develop planning and tracking tools, technical materials, policy recommendations, and financing strategy guidance to aid agencies with implementation.

TASK 19-1

Expand funding opportunities for Green Stormwater Infrastructure (GSI) planning and implementation, including those identified in the [Roadmap of Funding Solutions for Sustainable Streets](#). Expand effort to engage utility agencies that also maintain infrastructure in the public realm to increase collaboration and cooperation.

MILESTONE

10 stormwater management/transportation planning meetings with Metropolitan Transportation Commission, San Francisco Bay Regional Water Quality Control Board, and others.

COST ESTIMATE – \$

TASK 19-4

Develop a stormwater asset management module within the Metropolitan Transportation Commission's StreetSaver Program to help Bay Area municipal jurisdictions improve inventory, inspection, and maintenance of storm drain and green infrastructure assets along streets.

MILESTONE

Revised StreetSaver Program that includes a stormwater asset management module consistent with requirements in stormwater permits.

COST ESTIMATE – \$\$

TASK 19-2

Improve the San Francisco Bay Low Impact Development (LID) Tracker Tool and the process to efficiently receive pertinent GSI project information reported to the San Francisco Bay Regional Water Quality Control Board to increase the number of projects in the Tracker Tool and allow reporting on the cumulative pollutant reduction effectiveness of GSI projects on the water quality of San Francisco Bay.

MILESTONE

A permanent agency home and budget for the LID Tracker Tool with budget for coordination with municipalities and countywide clean water programs, project data compilation and entry, and ongoing software maintenance.

COST ESTIMATE – \$\$



Photo: Lonny Meyer

GOALS

Living Resources

Resilience

Water

Stewardship

TASK 19-3

Pilot an alternative or in-lieu LID compliance Compliance program for San Francisco Bay Regional Water Quality Control Board that demonstrates to municipalities a programmatic approach to alternative compliance that can provide funding for both capital implementation and long-term operations of multi-benefit Green Stormwater Infrastructure, and result in projects that provide a net environmental benefit or equivalent or increased water quality benefit.

MILESTONE

San Francisco Bay Regional Water Quality Control Board-approved alternative compliance pilot program with two public projects identified for receiving resources from regulated project proponents.

COST ESTIMATE – \$\$\$



Photo: Jennifer Krebs

Overview

In cities around the region, impervious surfaces such as streets and sidewalks typically represent 15-25 percent of land cover. Impervious surfaces prevent stormwater from being filtered through the soil, resulting in stormwater runoff that carries pollutants like oil, grease, pesticides, and heavy metals down drains and straight into the Estuary. As climate change brings more extreme weather events to the Estuary, green stormwater infrastructure (GSI) and low impact development (LID) installations can reduce runoff volumes and distribute runoff into inlets across a longer period of time, helping to reduce the impacts of urbanization on local hydrology and water quality.

Updates and Emerging Issues

Since 2016, this Action's focus has shifted from planning to implementation, with projects being tracked regionally via an LID Tracker Tool, built by the San Francisco Estuary Institute to be compatible with other GIS-based software programs. Additionally, this Action now explores creative ways to fund stormwater infrastructure projects, such as an in-lieu alternative compliance pilot program that would allow cities to get GSI funding from private projects where on-site treatment is infeasible. While the action is focused on the Estuary due to San Francisco Bay Regional Water Quality Control Board requirements and intense urbanization, LID/GSI is an effective strategy in Delta watersheds as well.

Climate Change Considerations

Climate change will bring more extreme weather events to the Estuary, causing periods of drought and periods of intense precipitation. GSI/LID installations can distribute runoff into inlets over a longer period of time, helping reduce flooding caused by overwhelmed stormwater systems.

Equity Considerations

GI/LID techniques often improve community aesthetics and create more pedestrian friendly spaces, which are needed in many underserved communities. However, these projects can also raise property values and lead to green gentrification, further exacerbating displacement in communities already vulnerable to hot real estate markets.

Connections to Other Actions

The use of GSI/LID to prevent water pollution and flooding hazards closely connects this action with:

- A1: Climate Resilience**
- A2: Equity**
- A3: Adaptation Planning**
- A4: Adaptation Implementation**
- A18: Recycled Water**
- A20: Nutrients**
- A21: Emerging Contaminants**
- A22: Health Risks of Contaminants**

Cost Estimate Key	\$\$ - Up to \$1 million	\$\$\$\$ - Up to \$100 million
\$ - Up to \$100,000	\$\$\$ - Up to \$10 million	\$\$\$\$\$ - Over \$100 million

Attachments

Attachment 2

Green Infrastructure Leadership Exchange

Climate Resilience Resources Guide: Part 1

August 2022

Climate Resilience Resources Guide: Part 1

August 2022

Acknowledgments

The Green Infrastructure Leadership Exchange | Project Manager

Green Infrastructure Leadership Exchange ("the Exchange") strives to accelerate the affordable and equitable implementation of green stormwater infrastructure (GSI) throughout North America by supporting peer learning, innovation and collaboration among cities, counties, and utilities. We're a highly connected peer learning network that offers a platform for practitioners to share experiences, circulate ideas, and solve problems together toward finding more sustainable water infrastructure solutions. The Exchange is a project of the Global Philanthropy Partnership. For more, visit giexchange.org.

Geosyntec Consultants | Lead Author

Geosyntec Consultants is a highly respected, top-tier geo-environmental consulting and engineering firm that works closely with public and private sector clients to address complex environmental, natural resources, and civil infrastructure problems. Geosyntec has over 100 water and natural resources practitioners nationwide known for their innovative work in stormwater and surface water quality management; hydromodification management; Best Management Practice (BMP) selection, design, and optimization; and erosion and sediment control. Geosyntec provides a thorough understanding of technical, practical, and regulatory issues to support clients in making informed management decisions. For more, visit geosyntec.com

Statements and views expressed in this Guide are solely those of the authors and do not imply endorsement by the Global Philanthropy Partnership.

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TABLE OF CONTENTS

1. INTRODUCTION	1
2. BACKGROUND	2
2.1 Stormwater Management Strategies.....	2
2.1.1 Green Stormwater Infrastructure	2
2.1.2 Grey Stormwater Infrastructure.....	4
2.1.3 Other Nature-Based Solutions	4
2.2 Climate Change Impacts	5
2.2.1 Regional Climate-Related Impacts	5
2.2.2 Climate-Related Vulnerabilities	9
2.3 GSI for Climate Resilience	11
2.3.1 Managing Urban Flooding	11
2.3.2 Preventing and Reducing Erosion.....	11
2.3.3 Reducing Urban Heat Impacts	12
2.3.4 Improving Air Quality	12
2.3.5 Water Supply Augmentation	12
2.3.6 Human Health Benefits.....	13
2.4 GSI and Equity.....	13
2.5 Public Engagement, Communication, and Outreach.....	16
2.6 Limitations of GSI.....	18
3. POLICY AND REGULATORY REQUIREMENTS.....	19
3.1 Policies and Regulations Concerning GSI and Climate Resilience	19
3.2 Incorporating Resilience into Policies and Regulations	20
3.3 Next Steps	22
4. GSI PLANNING	23
4.1 Considerations for GSI Planning Related to Climate Resilience.....	23
4.1.1 Potential Impacts of Climate Change on GSI Performance.....	24
4.1.2 Opportunities for GSI to Increase Community Resilience.....	25
4.2 Incorporating Climate Resilience into GSI Planning.....	26
4.3 Next Steps	28

5.	GSI DESIGN.....	30
5.1	Established Conceptual Model for GSI Siting, Sizing, and Design.....	30
5.1.1	Stormwater Facility Sizing.....	31
5.1.2	GSI Component Design.....	32
5.2	Considerations for GSI Related to Climate Resilience.....	33
5.2.1	Hydrologic Impacts: Precipitation Change and Early Snowmelt.....	33
5.2.2	Other Impacts: Temperature and Sea Level Rise	37
5.3	Incorporating Climate Resilience into GSI Sizing and Design.....	37
5.3.1	GSI Sizing	37
5.3.2	GSI Types	40
5.3.3	GSI Hydraulic Components.....	41
5.3.4	Media and Vegetation Considerations	41
5.3.5	Additional Considerations for CSO Communities	42
5.3.6	GSI Facility Retrofit.....	42
5.4	Next Steps	43
5.4.1	Quantifying the Potential Extent of Climate Impacts to GSI.....	43
5.4.2	Resilience of GSI Measures and Components.....	43
5.4.3	Methods to Develop New GSI Design Standards or Guidance	43
6.	GSI OPERATIONS AND MAINTENANCE.....	45
6.1	Considerations for GSI Operations and Maintenance Related to Climate Resilience.....	45
6.2	Incorporating Resilience into GSI O&M	46
6.2.1	Climate Change Education & Training.....	46
6.2.2	Adaptive Management.....	47
6.3	Next Steps	47
7.	CLIMATE RESILIENCE RESOURCES GUIDE ROAD MAP – SUGGESTED NEXT STEPS	
	48	
8.	SOURCES CITED	50

LIST OF TABLES

Table 1. Climatic Impact Drivers Relevant to GSI Policy, Planning, Design, and Operations and Maintenance	6
Table 2. Tools for Assessing Past and Future Climate Changes	9
Table 3. Equity in GSI Planning Resources.....	16
Table 4. Summary of IPCC Emission Scenarios (adapted from IPCC AR5, 2014)	39
Table 5. Prioritized Topics for Future Iterations of this Guide.....	49

LIST OF FIGURES

Figure 1. Projected change (increase or decrease) for selected climatic impact drivers in six regions in North America.	8
Figure 2. Example "Knee of the Curve" based on Historical Data	32
Figure 3. Altered "knee of the curve" sketch due to climate change impacts.....	34
Figure 4. Actual altered "knee of the curve" due to climate change impacts in Western Washington.	35
Figure 5. Map of the observed change in very heavy precipitation (defined as the top 1% of all daily events) from 1958 to 2012 in the U.S.	36
Figure 6. Projected global surface warming for different emissions scenarios	40

LIST OF APPENDICES

Appendix A: Matrix of Existing GSI Resilience Resources	
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1. INTRODUCTION

This Climate Resilience Resources Guide (Guide) explores the intersection of green stormwater infrastructure (GSI) and urban impacts from climate change. GSI is a decentralized approach to stormwater management that mimics natural hydrology by slowing and/or retaining runoff generated from rainfall. Resilience-focused policy, planning, and implementation of GSI could make communities more resilient to climate change while providing human health benefits. However, existing planning, design, and maintenance standards for GSI might leave this infrastructure at risk of not performing per current stormwater regulations or being damaged because of the impacts of a changing climate. This Guide explores potential changes to current GSI policy, planning, and implementation practices that could enhance the climate resilience benefits provided by GSI and considers how climate change could negatively impact GSI performance.

The primary target audience for this Guide includes municipal staff, decision-makers, and regulatory entities. Recommendations in this Guide may also be helpful for community members and stakeholders to advocate, plan, implement, and maintain GSI.

This Guide examines decision-making processes for planning and implementing GSI based on climate resilience, public engagement, and equity considerations. The Guide references relevant resources throughout, including frameworks for considering equity in GSI planning and finding and utilizing downscaled climate model projections. A full matrix of resources is provided in Appendix A. The Guide and matrix are intended to be living documents that are updated and expanded over time. This Guide includes a roadmap for further advancing this work through the Green Infrastructure Leadership Exchange.

2. BACKGROUND

2.1 Stormwater Management Strategies

This section defines GSI and discusses its interrelationship with other stormwater management strategies, including grey stormwater infrastructure and larger nature-based solutions, to address water quality regulatory requirements and climate resilience goals.

2.1.1 Green Stormwater Infrastructure

Infrastructure is the basic equipment and structures essential for functional, healthy, and vibrant communities.¹ "Green" stormwater infrastructure (GSI) includes a range of measures that are engineered to passively capture and treat stormwater using natural processes. GSI measures are decentralized or "distributed", that is, they capture, slow, and infiltrate rain where it falls, thus reducing local stormwater runoff and improving the health of surrounding waterways.² The primary treatment mechanisms that GSI uses include:

- Retention (i.e., preventing discharge) of stormwater runoff through infiltration to the subsurface, evapotranspiration, or capture and use;
- Filtration of stormwater runoff through vegetation and biologically active treatment media (i.e., biofiltration); and
- Treatment using passive biological processes (i.e., biotreatment) to treat stormwater runoff before discharge.

GSI measures are intentionally sized and designed to meet water quality regulatory requirements or provide other specific hydrologic benefits. GSI typically uses vegetation and engineered soil or media systems; permeable pavement or other permeable surfaces or substrates; and/or storage for subsequent use.

Typical types of GSI, organized by treatment mechanism, include:

- Infiltration measures, including infiltration basins, infiltration trenches, bioretention,ⁱ drywells, and permeable pavement;
- Practices to promote evapotranspiration, including tree planting, green roofs, and impervious surface dispersion;
- Rainwater harvesting (i.e., cisterns or rain barrels);
- Biofiltration, including bioretention, planter boxes, vegetated swales, vegetated filter strips, and proprietary biotreatment devices; and
- Biotreatment basins, such as wet detention basins and constructed wetlands.

This document uses "GSI" to refer to these measures or "GI" when a cited report uses this acronym instead. GSI measures are also implemented at different scales, including:

- Street-scale facilities or "green streets", such as curb extensions and bulb-outs designed to treat roadway runoff;
- Parcel-based facilities, which are GSI measures sized to treat an entire parcel; and
- Regional facilities, which are GSI measures that treat runoff generated from a larger area, such as a neighborhood.

The ability of GSI to deliver multiple ecological, economic, and social benefits or services has made GSI an increasingly popular strategy. In addition to reducing polluted stormwater runoff, GSI practices can decrease urban heat, provide buffer for multi-modal transportation, reduce energy consumption, improve air quality, provide carbon sequestration, increase property prices, encourage nearby recreation, and provide other elements of community health and vitality that have monetary or social value.³ Moreover, GSI measures provide flexibility to communities facing the need to adapt infrastructure to a changing climate. For more details on the benefits of GSI for climate adaptation, see Section 2.3.

ⁱ While bioretention primarily uses biofiltration as a treatment mechanism, it can be designed to infiltrate captured stormwater or treat and discharge it. When designed to infiltrate, bioretention is sometimes called "bioinfiltration".

2.1.2 Grey Stormwater Infrastructure

Traditional "grey" stormwater infrastructure includes the curbs, gutters, catch basins, inlets, storm drain and sewer piping, detention basins, treatment plants, and outfalls used to collect and convey urban stormwater away from the built environment. Grey infrastructure collects and conveys stormwater from impervious surfaces, such as roadways, parking lots, and rooftops, into a series of piping that ultimately discharges stormwater into a local water body. Combined sewer systems (CSS) convey stormwater and various wastewater sources, typically to publicly operated treatment works (POTWs) designed to overflow. CSS and related POTW discharges of stormwater from overflows are regulated. Separate systems, which for public entities are known as municipal separate storm sewer systems (MS4s), only convey stormwater. Grey infrastructure is so-called because it is often constructed from concrete. It is designed to quickly convey stormwater and wastewater in and from urban environments and is often used to convey stormwater to and from GSI.

2.1.3 Other Nature-Based Solutions

Landscape or watershed scale nature-based solutions include large open natural spaces, riparian areas, wetlands, living shorelines, or greening of steep hillsides.⁴ These broad-scale, "blue-green" solutions provide hydrology and water quality benefits (i.e., integrated stormwater management of flow and pollutants), and are also essential in the toolbox for climate change adaptation, providing ecological benefits and recreational opportunities. In addition, landscape features such as urban forest patches, parks, street trees, and living walls can provide similar benefits within the built environment. Another example, "Living Shorelines" are protected, stabilized coastal edges that contain natural materials such as plants, sand, shells, or rock⁵ which can reduce erosion and property damage by reducing the velocity and intensity of waves.⁶ While these larger features are often referred to as "green infrastructure", they are typically not engineered to meet specific stormwater regulatory requirements, as GSI is (as defined by this Guide) and are not of focus in this Guide. Other examples of nature-based solutions not covered in this guide include measures focused on mitigating the impacts of extreme, back-to-back rainfall

or "cloudburst" eventsⁱⁱ. Copenhagen, Denmark, and New York City have studied and implemented projects that store and convey water where it is favorable during extreme rain events.⁷ Examples include conveying water along the roadway's center (rather than the edges) or the use of a concave or sunken park for temporary flood storage.

Landscape features, and other broad-scale, nature-based solutions may be explored in future versions of this Guide.

2.2 Climate Change Impacts

This section summarizes the overall regional impacts of climate change in the U.S. and Canada and climate-related vulnerabilities for society and ecosystems. The implications of these impacts on GSI policy, planning, design, and operations and maintenance are discussed in Sections 4, 5, and 6, respectively.

2.2.1 Regional Climate-Related Impacts

The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change. In the most recent Assessment Report (AR6⁸), the IPCC identifies 30 climatic impact drivers (CID) relevant to land and coastal regions. CIDs are physical climate system conditions (e.g., means, events, extremes) that affect an element of society or ecosystems. Depending on system tolerance, CIDs and their changes can be detrimental, beneficial, neutral, or a mixture of each across interacting system elements and regions.⁹ The CIDs applicable to GSI policy, planning, and design include the following listed in Table 1.

ⁱⁱ Cloudburst management is the management of extreme back-to-back rainfall events through intentional flooding, conveying, and storing water where it is favorable in the landscape.

Table 1. Climatic Impact Drivers Relevant to GSI Policy, Planning, Design, and Operations and Maintenance¹⁰

Climatic Impact Driver	Explanation
Extreme heat	Temperature event of exceptionally high magnitude with a very rare occurrence, such as greater than the 90 th percentile event.
Mean precipitation	Average precipitation.
River flood	Overflowing or accumulation of water over areas that are not normally submerged and often caused by unusually heavy rain. Fluvial floods are river floods versus rain (pluvial) floods.
Heavy precipitation with pluvial flood	Overflowing or accumulation of water over areas that are not normally submerged and often caused by unusually heavy rain. Pluvial floods are rain floods versus river (fluvial) floods.
Hydrological drought	A period with large runoff and water deficits in rivers, lakes, and reservoirs.
Fire weather	Weather conditions conducive to triggering and sustaining wildfires, usually based on a set of indicators and combinations of indicators including temperature, soil moisture, humidity, and wind. Does not include the presence or absence of fuel load.
Tropical cyclone	General term for strong, cyclonic-scale disturbance that originates over tropical oceans.
Snow, glacier, and ice sheet	Glacier is a perennial mass of ice and snow, and ice sheets are land masses of continental size.
Coastal flood	Overflowing or accumulation of water over areas that are not normally submerged and often caused by unusually heavy rain.

Figure 1 shows the direction of projected change (increase or decrease) for the nine CIDs in Table 1 for six regions in North America. The direction of change and confidence level is also shown in Figure 1. The future assessed changes refer to a 20 to 30-year period centered around 2050 and/or consistent with 2°C (3.6°F) global warming compared to a similar period within 1960-2014, except for hydrological drought, which is compared to 1850-1900.¹¹ In general, the northern, central, and eastern regions of North America are expected to have hotter and wetter extremes and, in some regions, more precipitation and fire weather. In western North America,

future changes are expected to be hotter and drier, with wetter extremes in some regions.¹²

A list of tools for assessing past and future climate changes regionally and locally is provided in Table 2. Table 2 is not intended to be a comprehensive list of all available resources but a starting point for examining climate changes, providing examples of the types of tools available.

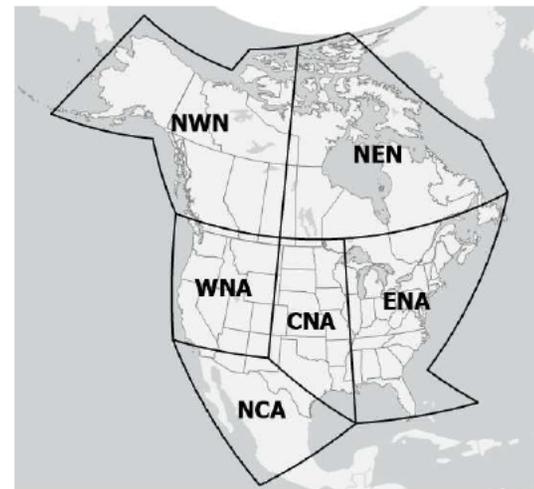
Region	Extreme Heat	Mean Precipitation	River Flood	Heavy Precipitation with Pluvial Flood	Hydrological Drought	Fire Weather	Snow, Glacier, Ice Sheet	Tropical Cyclone	Coastal Flood / Erosion
North-Western North America (NWN)	↑	↑	↑	↑		↑	↓		↑
North-Eastern North America (NEN)	↑	↑	↑	↑		↑	↓		↑
Western North America (WNA)	↑		↑	↑	↑	↑	↓		↑
Central North America (CNA)	↑		↑	↑		↑	↓	↑	↑
Eastern North America (ENA)	↑	↑	↑	↑		↑	↓	↑	↑
Northern Central America (NCA)	↑	↓		↑		↑	↓	↑	↑

Legend

High confidence of increase/decrease
Medium confidence of increase/decrease
Low confidence in direction of change or not relevant

Assessed future changes:

Changes refer to a 20 to 30-year period centered around 2050 and/or consistent with 2C global warming, compared to a similar period within 1960-2014, except for hydrological drought which is compared to 1850-1900.



Source: IPCC Working Group 1 Interactive Atlas: Regional synthesis

Iturbide, M., Fernández, J., Gutiérrez, J.M., Bedía, J., Cimadevilla, E., Díez-Sierra, J., Manzanos, R., Casanueva, A., Baño-Medina, J., Milovac, J., Herrera, S., Cofiño, A.S., San Martín, D., García-Díez, M., Hauser, M., Huard, D., Yelekci, Ö. (2021) Repository supporting the implementation of FAIR principles in the IPCC-WG1 Atlas. Zenodo, DOI: 10.5281/zenodo.3691645. Available from: <https://github.com/IPCC-WG1/Atlas>

Gutiérrez, J.M., R.G. Jones, G.T. Narisma, L.M. Alves, M. Amjad, I.V. Gorodetskaya, M. Grose, N.A.B. Klutse, S. Krakovska, J. Li, D. Martínez-Castro, L.O. Mearns, S.H. Mernild, T. Ngo-Duc, B. van den Hurk, and J.-H. Yoon, 2021: Atlas. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.J. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekci, R. Yu, and B. Zhou (eds.)]. Cambridge University Press. In Press. Interactive Atlas available from Available from <http://interactive-atlas.ipcc.ch/>

Figure 1. Projected change (increase or decrease) for selected climatic impact drivers in six regions in North America.

Table 2. Tools for Assessing Past and Future Climate Changes

Resource	Region	Description
IPCC Working Group 1 Interactive Atlas	Global	A tool for global observed and projected regional climate change information as described in the IPCC Sixth Assessment Report, including regional synthesis for Climatic Impact-Drivers (CIDs).
Climate Data Extraction Tool (Canada)	Canada	A tool for viewing and downloading statistically downscaled climate scenarios for Canada.
Climate Data for a Resilient Canada	Canada	Provides high-resolution historic and future climate projection summaries for Canadian cities/towns.
The Climate Explorer	United States	A tool to explore how climate is projected to change in any county in the U.S., including Hawaii and the U.S. territories. Provides interactive graphs and maps showing past and projected climate conditions to support the U.S. Climate Resilience Toolkit .
Climate Information for Water Resource Managers	United States	Maps and graphics showing weather and climate outlooks across the U.S. Provides resources for short-term (<1 week) weather forecasts to medium-term (monthly) outlooks to future sea level rise and climate projections.
Cal-Adapt	California	Tool for viewing and downloading future climate change projection data at the local level for California.

2.2.2 Climate-Related Vulnerabilities

Vulnerability is a function of the sensitivity of a system or population and the adaptive capacity of the same.¹³ Examples of climate-specific vulnerabilities are described below.

Human Health and Vulnerable Populations

Climate affects all areas of human health. Changes in air, water, food, and the environment will result in changes in the health and well-being of people. Increased heat waves, changes in precipitation, and sea-level rise affect health via multiple pathways. Human health risks associated with climate change are expected to increase in the future.

Some populations will be at higher risk from climate change impacts than others. Low-income communities and some communities of color are currently affected by

health disparities and are less resilient to the human health impacts of climate change. Existing health issues in native tribes across the U.S. and Canada are expected to be exacerbated by multiple climate-related factors, including the loss of traditional foods and practices, community displacement, flooding, decreased food security, and new infectious diseases.^{14,15} Children, older adults, low-income communities, some communities of color, and communities that experience discrimination are disproportionately affected by extreme weather and climate events.¹⁶ Other groups that may experience disproportional impacts from climate change include outdoor workers, residents of areas with poor environmental quality, and poorer communities, especially in rural areas.¹⁷ Communities with less access to information or support may be less able to avoid the health risks of climate change.¹⁸

Biodiversity

Biodiversity and species conservation is important for ecosystem balance and human populations (e.g., pollination of food crops). As the climate changes, many species are beginning to exhibit evolutionary adaptations in response.^{19,20,21} However, projections suggest that climate change may occur too rapidly for some species to adapt. The capacity for adaption varies by species and even among populations of the same species.²²

Changes in species ranges have been observed as a response to warming temperatures²³ as well as changes to migration patterns or life cycle events.²⁴ Climate change may increase invasive or non-native species,²⁵ leading to non-native species outcompeting native ones. Current and future stressors are projected to reduce the capacity of ecosystems to recover from extreme events like floods and fires. Climate change is projected to lead to losing iconic species from certain regions or becoming extinct altogether.²⁶

Urban Heat Island

The urban heat island effect refers to the tendency for urban areas to absorb and release solar heat,²⁷ resulting in higher local surface temperatures. Reducing the urban heat island effect is important to maintaining human health and biodiversity. Larger temperature differences have been observed in humid regions (primarily the eastern United States) and cities with larger and denser populations.²⁸ The urban heat island effect is projected to become stronger as temperatures rise and urban areas densify and grow.

Water Scarcity/Water Stress

Water scarcity and water stress are affected by both human and natural systems. Factors associated with climate change include changes in the quantity and quality of water supplies, changes in soil moisture, sea-level rise, and the frequency of extreme events.²⁹ Human systems that interact with these impacts include the vulnerability of water infrastructure, water withdrawals, and water-use efficiency. The vulnerability of water supplies to climate change is currently unknown since risks depend on future decisions and actions.

2.3 GSI for Climate Resilience

“Resilience”, as defined by the U.S. Climate Resilience Toolkit,³⁰ is “the capacity of a community, business, or natural environment to prevent, withstand, respond to, and recover from a disruption.” GSI can be a valuable tool for communities to adapt to climate change and buffer against negative impacts. Many considerations can be incorporated into GSI planning and design to increase community resilience. Yet, at the same time, there are limitations to using GSI to solve all community climate-related challenges. GSI is a part of an extensive set of solutions to increase community resilience to climate change.

2.3.1 Managing Urban Flooding

The most apparent benefit for GSI to buffer against climate change impacts is the potential to reduce localized flooding associated with increased extreme precipitation (not including riverine or sea level rise related flooding). GSI can be designed to reduce runoff from larger precipitation events through infiltration and the incorporation of detention storage, reducing the potential of existing infrastructure becoming overwhelmed by storm events.³¹ When GSI is implemented in coordination with other landscape features connecting urban hydrologic and vegetations systems, significant benefits can be achieved.

2.3.2 Preventing and Reducing Erosion

GSI implementation can provide benefits in mitigating creek and coastal erosion. Projected future increases in flooding can cause increased runoff volumes and flow rates, leading to creek erosion, bank incision, degradation, and related water quality issues in downstream receiving waters. In reconnecting the natural water cycle

through runoff retention and infiltration in an urban watershed, GSI can reduce downstream hydrologic impacts. This can be implemented through GSI facilities at multiple scales, including street trees and green roofs, which can mitigate hydrologic effects in highly urban settings. Some erosive impacts related to sea-level rise and storm surges can be reduced through GSI facilities incorporating natural functions. Additional GSI benefits include improved habitat, water quality, and carbon sequestration.³²

2.3.3 Reducing Urban Heat Impacts

Communities can reduce heat island impacts through GSI including vegetation and trees providing natural heat-regulating services, such as shading, evapotranspiration, and thermal insulation of buildings.³³ Planting urban trees that focus on urban hot spots can appreciably reduce urban heat impacts.³⁴ Strategies targeting buildings such as cool roofs or green roofs can reduce heat absorption while reducing the energy needed to cool buildings and improve stormwater runoff.³⁵ Vertical green structures such as vegetated facades and walls have been found to provide similar heat mitigation benefits to green roofs but at a smaller magnitude.³⁶

2.3.4 Improving Air Quality

Urban trees, green roofs, and other vegetated GSI solutions can improve urban air quality, although the ability to do so is highly context dependent. GSI can improve air quality impacts on human health by introducing linear vegetative barriers between traffic and pedestrians.³⁷ Some evidence suggests that increased leaf area associated with certain GSI solutions can improve air quality by air pollution preferentially depositing onto vegetation.³⁸ However, implementation must be extensive enough to make an appreciable impact on ground-level air quality. For this reason, large "green walls" provide the most significant benefit for air quality.³⁹

2.3.5 Water Supply Augmentation

Stormwater harvesting and groundwater replenishment from GSI can increase local water supplies, buffer against droughts, and reduce energy requirements and emissions associated with importing water from other locations.⁴⁰ Stormwater can serve a range of non-potable uses such as irrigation, toilet flushing, and cooling.

Through regional capture projects, stormwater may be used to recharge groundwater, improving local potable water supplies.⁴¹ For example, the Orange Memorial Park Regional Stormwater Capture Project Park in South San Francisco will divert flow from a creek for water quality treatment, beneficial reuse (e.g., irrigation), and local flood reduction.⁴² The project will offset an estimated 15 million gallons of potable water per year (resulting in \$140,000 annually in water savings) and recharge 240 acre-ft to groundwater annually.

2.3.6 Human Health Benefits

GSI has been shown to improve human health outcomes across various categories⁴³ and can be utilized to address health disparities that may be exacerbated by climate change. Through proximity, passive recreation, or active recreation, people derive many positive benefits from GSI. Schools might be a focus area for GSI in many communities and adding greens spaces in schools has the potential to improve children's well-being, learning, and play while contributing to the ecological health and climate resilience of cities.⁴⁴

Tree density and proximity to passive and active green spaces have been shown to provide physical, mental, and behavioral benefits.⁴⁵ Direct physical benefits of green space include improved cardiovascular health, reduced respiratory diseases, and reduced obesity.⁴⁶ Mental health benefits are associated with a reduced risk of depression, anxiety, and mood disorders.^{47,48} Other benefits include a reduction in anti-social behaviors such as property and violent crime⁴⁹ and an improvement in helpful and generous behaviors.⁵⁰ Fewer studies are available on the human health benefits of specific types of GSI; however, similar benefits have been documented for green roofs, rain gardens, and bioswales.^{51,52}

2.4 GSI and Equity

The effects of climate change disproportionately impact low-income and minority communities, and GSI can play an important role in improving environmental and social equity outcomes. Low-income neighborhoods are more likely to be near or within industrial areas and have fewer parks, street trees, and other green spaces.^{53,54} In a recent study, McDonald et al.⁵⁵ showed that, on average, low-income blocks have 15.2% less tree cover and are 1.5°C (2.7°F) hotter than high-income blocks. In addition, minority neighborhoods are often at low elevations, vulnerable

to sea-level rise and aging or failing stormwater infrastructure. These communities will disproportionately feel impacts from rising temperatures, urban heat island effects, poor air quality, and flooding, further contributing to inequity in health and well-being.⁵⁶

By providing green spaces and a means for improved stormwater management, implementation of GSI in low-income and minority communities can help alleviate the negative impacts of climate change such as poor air quality, severe heat, and localized flooding. Integrating GSI projects with necessary infrastructure such as active transportation (e.g., bike lanes) and street improvement projects is significant for communities that rely most on public and active means of transportation.⁵⁷ Providing access to green spaces also can improve mental and physical health overall and can indirectly improve equity outcomes through visible investments that communicate worth.⁵⁸ As presented in the Equity Guide for GSI Practitioners,⁵⁹ well-designed green infrastructure programs can make direct contributions to equity in the following ways:

- Expand nature in communities,
- Increase resilience to climate hazards,
- Improve properties,
- Invest in economic stability,
- Create spaces that facilitate community cohesion,
- Increase community participation and power, and
- Build trust and acknowledge past harms.

It is critical to have equitable access to green spaces; however the distribution of GSI in urban planning is often itself inequitable. A joint study initiated in 2018 by the Cary Institute of Ecosystem Studies and the Urban Systems Lab assessed equity in GI Plans from 20 cities across the U.S. The researchers found that the patterns of urban greening tended to follow existing patterns of uneven urban development rooted in historical inequities (www.giequity.org). Furthermore, GSI is often implemented by municipalities when technically feasible based on physical site characteristics or necessary to support grey infrastructure projects, such as managing stormwater to reduce combined sewer overflows (CSOs) or improve water quality in streams (i.e., separate sewer systems).

It is important to consider multiple factors beyond engineering feasibility at the planning stages to address inequities in GSI implementation. At a workshop organized by NOAA and the Water Research Foundation in 2020, the organizers noted the importance of integrating physical science with social and infrastructure data to understand vulnerability, identify where improvements are most needed, and provide the most benefits.⁶⁰ Similarly, the U.S. Water Alliance suggests a cost-benefit approach and conducting triple-bottom-line analyses that include environmental, economic, and social impacts when selecting sites.⁶¹

"The City/County Association of Governments of San Mateo County has created a countywide Sustainable Streets Master Plan to help equitably adapt the roadway network to climate change and clean stormwater runoff to meet municipal stormwater regulatory requirements. Development of the Master Plan included an interwoven focus on equity, with prioritization criteria supporting projects in areas where 1) vehicle ownership is low and residents are more likely dependent upon active transportation or transit, 2) runoff volume is likely to increase the most due to climate change and lead to potential roadway flooding, 3) heat impacts are expected to worsen due to climate change, 4) multiple environmental or social vulnerable or disadvantaged community indicators overlap, and 5) there is lower tree canopy coverage that could benefit from increased urban greening."

Table 3 below provides links to useful resources for incorporating equity in GSI planning.

Table 3. Equity in GSI Planning Resources

GSI Equity Resource	Description
Equity Guide for GSI Practitioners	Resource developed through the Green Infrastructure Leadership Exchange by and for green infrastructure program managers offering a variety of tools to support practitioners in customizing community-informed equity work and evaluation plans.
Joint study by the Cary Institute of Ecosystem Studies and the Urban Systems Lab of 20 cities from across the U.S. assessing equity within GI Plans.	Key outputs from the project, including definitions for equity and green infrastructure, peer-reviewed publications, public presentations, and project-related web products.
GSI Toolkit for Equitable Investment – Georgetown Climate Center	How policymakers can design green infrastructure programs to prioritize environmental justice for communities facing disproportionate climate risk and pollution burden and resources that can be used to help fund projects in disadvantaged communities.
GSI Toolkit for Equitable Planning – Georgetown Climate Center	How to consider socioeconomic and other risk factors in green infrastructure planning.

2.5 Public Engagement, Communication, and Outreach

Early and consistent public engagement is necessary for success in GSI projects and is especially important for improving GSI equity outcomes. Engaging the public as early as possible in program or project planning is important to continue to work towards different types of equity goals.⁶² When thinking about how to make a case for considering climate change, resilience, and the role of GSI, program managers should consider the following factors:

- Leadership, buy-in, and partnerships;
- Storytelling, messaging, and education;
- Intergovernmental/intragovernmental coordination; and
- Levels of service and performance targets factoring in climate change impacts and system constraints (asset management project outcomes may address this).

It may seem that providing facts and unbiased information to people would lead them to make decisions in the same way. However, social science experiments have demonstrated that information alone is not the solution. People tend to interpret facts strongly in the direction of their past experiences. Rather than solely providing facts, meeting people where they are, finding common ground, and building partnerships through regular contact and communication is critical.

At the NOAA and the Water Research Foundation workshop in 2020, the organizers noted that engaging neighborhood residents as ambassadors was mutually beneficial. The relationships provided common understanding between City staff, utility staff, and community members and helped connect communities to project funding resources. This community-based approach achieved triple-bottom-line benefits for social, economic, and environmental resilience. The partnerships succeed when:⁶³

1. Partners speak a common language. Community members respond when they understand the impact of their behaviors on the environment. Water and climate professionals implement better resilient strategies when they understand community impacts and needs.
2. The utility and the community work together. If community members feel ownership of the project, they take pride in it, which is vital for long-term maintenance.
3. Community members have trusted relationships with the utilities. Relationships are a two-way street: they help planners and engineers understand what the community wants and needs, and they give community members a window into water infrastructure and climate issues—as well as greater awareness of water careers.

Communication and outreach strategies for GSI may include a variety of platforms such as presentations and workshops, media campaigns, websites, written materials, inter-agency partnerships, and/or connections through community-based organizations. When working with minority communities, GSI practitioners should recognize language barriers and plan to produce materials in the language(s) of the target audiences. Other ways to promote accessibility and equity in the community engagement process include providing directions to a location from public transit, including contact information to request accommodations, holding meetings outside of typical working hours, and offering food or childcare. Community pop-up events

and joining with pre-existing events (e.g., cultural festivals) can also be an effective means of community engagement and buy-in. Additional information on [Communication Strategies for Green Infrastructure](#) is available through the Georgetown Climate Center.

2.6 Limitations of GSI

GSI cannot solve all community climate-related challenges. While local governments are in a good position to promote sustainable stormwater management on a larger scale, they also face complex challenges in implementing and maintaining GSI. Resources are limited, responsibilities are fragmented, and the tolerance for risk is generally low.

Unless GSI is implemented at a watershed scale, it is unlikely that it would be able to completely address receiving water quality impairments. The climate benefits of distributed green street and parcel-based GSI facilities may be overwhelmed by unmitigated existing urban areas.

Similarly, although GSI can assist in mitigating localized flood impacts, GSI facilities that are sized for water quality treatment will become saturated and bypass larger flows, providing minimal flood benefit during large storm events.

GSI requires maintenance to continue to provide water quality and hydrologic benefits. Without a dedicated O&M funding source, GSI facilities may lose their ability to provide climate resilience benefits over time.

Given the existing built environment, a combination of management measures, including GSI and other solutions, will continue to be needed to achieve greater benefits and more resilient communities.

3. POLICY AND REGULATORY REQUIREMENTS

This section summarizes existing policies and regulations relevant to GSI and climate change and discusses the importance of incorporating resilience into future policies and regulations. This section also touches on the role of grants and funding options for infrastructure improvements that prioritize projects in disadvantaged communities and community partnerships.

3.1 Policies and Regulations Concerning GSI and Climate Resilience

In the United States, the Federal Water Pollution Control Act was amended in 1972 to become the Clean Water Act (CWA). The CWA prohibits discharge of pollutants to waters of the United States from any point source unless the discharge complies with a National Pollutant Discharge Elimination (NPDES) permit. A framework for regulating municipal, industrial, and construction stormwater discharges under the NPDES program was amended to the CWA in 1987.ⁱⁱⁱ In 1990, USEPA published final requirements for stormwater permits for MS4s^{iv} serving a population of over 100,000 (Phase I communities). In 1998, USEPA published final requirements for MS4s serving populations under 100,000 (Phase II communities). Discharges from CSSs, combined sewer overflows (CSOs), are also regulated under NPDES permits.

Through these requirements, owners/operators of MS4s are required to develop, implement, and enforce a stormwater management program that includes post-construction runoff control along with other program areas. The post-construction runoff control program requires control of pollutant loads, volume, and flowrate impacts of stormwater runoff from development. Communities with CSOs must comply with the CSO Control Policy, which requires pollution prevention and other controls.

Climate change resilience has not been substantially amended to these regulations at the federal level. However, some state and local regulations and policies focus on

ⁱⁱⁱ under Section 402(p).

^{iv} An MS4 is a conveyance or system of conveyances that is: owned by a public entity and discharges to waters of the US; designed or used to collect stormwater; not a combined sewer; and not part of a sewage treatment plant.

resilience and are also relevant to stormwater management. In the United States, for example, the NPDES permit issued in 2022 by the San Francisco Bay Regional Water Quality Control Board requires that permittee's Green Infrastructure Plans are consistent with climate change adaptation plans. The permit also requires long-term green infrastructure implementation to consider linkages to climate change impacts and resilience.⁶⁴ All permittees must complete a Climate Change Adaptation Report by 2026, identifying potential climate change-related assets and appropriate adaptation strategies.

Canada does not have national regulations for stormwater similar to the US NPDES requirements. However, Canadian provinces and cities do have to meet other environmental and infrastructure requirements and goals in a sustainable manner.⁶⁵ An example of a local resilience standard in Canada includes the Toronto City Council's adopted Version 4 of the Toronto Green Standard (July 2021). This Standard addresses resilience through, "enhanced green infrastructure to manage stormwater runoff, reduce urban heat island impacts and promote biodiversity (including more extensive and higher performance green roofs), bioswales, rain gardens, native pollinator species plantings and a new requirement for "green streets" (roads or streets that incorporate green infrastructure)."⁶⁶ These standards apply to new development applications beginning May 2022.

Complimentary to the growing body of GSI regulations that consider climate change impacts, many state grant programs, and federal infrastructure funding options are focusing on climate resilience related to stormwater projects (for example, California Climate Resilience Package funds).⁶⁷ These funding options also emphasize and/or require project implementation in disadvantaged communities.

3.2 Incorporating Resilience into Policies and Regulations

Municipalities and other local agencies may incorporate resilience into local policies and regulations in response to regional, statewide, or federal regulations and/or to protect infrastructure. Climate adaptation touches on many municipal departments that might not have a history of working together and that may have competing interests. As such, interagency and interdepartmental coordination and collaboration at various levels of governance are critical for resilience. In addition, broader partnerships and multi-disciplinary collaboration will be needed. More specifically, GSI project implementation increasingly involves the private sector (e.g.,

developers) and schools, requiring partnerships between landowners with different motivations and requirements. Engaging local communities and addressing equity issues to collaborate and realize a unified vision will also be essential.

Local GSI-related policy and regulatory changes that integrate climate resilience may include:

1. Policy updates, for example:

- A requirement that the planning, design, and construction of projects and GSI facilities consider and incorporate resilience against climate change impacts for a specified climate change scenario and planning horizon. Such a requirement could require larger sizing of facilities or require specific treatment mechanisms, such as increased retention or detention.
- For proposed GSI, a requirement to consider climate adaptation, mitigation, equity, and integration with other green or grey infrastructure (e.g., cloudburst management) for greater resilience in planning and implementation.
- For existing GSI, a requirement to update asset management, operations and maintenance, system modeling, and assumed performance to address changing precipitation patterns, heat, and other climate risks to adequately understand system performance and maintenance needs. Depending on the outcomes of the updates, existing facilities may need to be retrofit or modified to better respond to changing conditions.
- Flexibility to enable the mixing of private and public stormwater to allow common or regional GSI facilities to benefit from private development contributions and vice versa.
- Requirements to integrate resilience planning across departments (i.e., stormwater compliance/public works, transportation, urban forestry/parks, climate adaptation planning, local hazard mitigation planning, water supply, sewer, etc.) and align environmental policies on resilience.

2. Updates to ordinances, design guidelines, and standard details and specifications for public and private new and redevelopment GSI, as well as other public infrastructure projects, to consider projected changes in

precipitation patterns, sea-level rise, temperature, and other climate impacts. Such updates could require redundancy through multi-layered grey-green stormwater infrastructure systems for unpredictable volumes and flow rates.

3. Adaptive management of policies and standards to respond to and anticipate changing conditions due to climate change and its environmental impacts and confirm that existing policies do not result in unintended challenges with GSI implementation.

3.3 Next Steps

Additional development of GSI policy guidance in the context of climate resilience could be incorporated into future parts of this Guide. This could include:

1. Methods for conducting risk assessment relating to GSI performance. Specifically, whether GSI can meet future and anticipated regulatory requirements given current implementation practices, including scenario planning to examine a potential range of outcomes.
2. Guidance for policy decision-making including options for addressing uncertainty with respect to climate change impacts to GSI and utilizing the outcomes of GSI risk assessments.
3. Potential management questions to be addressed in policy updates for climate resilient GSI planning and design.
4. Development of model policy language to address opportunities for improving climate resilience in GSI planning and implementation
5. Economic evaluation guidance relevant to GSI, including methods for GSI lifecycle assessments with consideration of different future climate-related standards. Economic/risk evaluation guidance could also consider how benefits from GSI could be incorporated into bond ratings that consider climate resilience.

4. GSI PLANNING

This section explores considerations for GSI planning related to climate resilience and incorporating climate resilience into GSI planning. As equity considerations and community engagement are important throughout the GSI implementation processes, these components are touched on below.

4.1 Considerations for GSI Planning Related to Climate Resilience

GSI planning entails several steps, including site and opportunities assessment, selection of GSI types, initial layout, permitting, and conceptual design. The scale at which GSI planning is conducted can range from a single property, block, neighborhood, or subwatershed to an entire City, County, or region. The full benefits of GSI may be better achieved when these measures are planned at the regional or watershed scale. Regional scale planning may also consider linkages to related municipal water and sewer infrastructure and land management activities aimed at achieving "One Water" outcomes. Public outreach should be included in planning to provide project direction and garner support for planned GSI. GSI siting considerations and objectives that may be considered in planning assessments include those relating to:

- Ease of implementation, such as location, ownership, accessibility, physical and site use/programming constraints.
- Performance considerations, including hydrologic and hydraulic factors and favorable subsurface conditions.
- Potential benefits, including improved water quality, flood management, groundwater recharge, stormwater capture, and reuse, urban greening, equity, and biodiversity.
- Incorporating social data such as identifying disadvantaged and vulnerable communities.
- Funding sources and capital and maintenance costs.
- Cost-effectively complying with applicable regulatory requirements.

Future stormwater regulations may require incorporating resilience into GSI planning, however, even in the absence of specific regulatory drivers, stormwater agencies may want to consider the additional risk climate change impacts pose. Climate resilience should be considered in GSI planning when:

1. Climate change could impact GSI performance, or
2. GSI has the potential to improve community resilience (e.g., providing flood reduction or drought resilience).

Considerations for these separate, but related, GSI planning goals are explored in the sections below.

4.1.1 Potential Impacts of Climate Change on GSI Performance

Projected climatic impact drivers, including changes to snowmelt, larger storm events, higher rainfall intensities, longer duration events, and increased soil moisture, are likely to reduce the effectiveness of GSI facilities⁶⁸ by reducing the proportion of runoff volume that may be captured and treated. Climate change may also impact the ability of GSI designed per current guidance to meet or partially meet current water quality or flood control targets. Higher temperatures cause greater stress to vegetation in GSI facilities. Projected sea and lake level rise may impact feasible locations for GSI due to inundation and rising groundwater levels.

Potential changes to or considerations of how GSI planning processes can better incorporate GSI facility resilience could include:

1. Locating GSI where climate change is less likely to impact GSI performance (e.g., avoiding: rising groundwater or surface water levels, areas of increased flood ponding, increased heat and impacts to plants, reduced irrigation water supply, or microclimates in the region observed or projected to have more extreme precipitation or heat).
2. Setting volume-based runoff capture targets to prevent inundation and erosion of GSI facilities. Such targets may differ from or exceed current local regulations.
3. Recommend GSI types and general plant/tree selection considerations with consideration of projected changes to climate.

4.1.2 Opportunities for GSI to Increase Community Resilience

There are a number of opportunities for GSI to increase climate resilience, as described previously in section 2.3. Increased precipitation associated with larger storms under climate futures may have undesirable impacts on roadway and transit infrastructure, especially for vulnerable communities, where multi-scale GSI implementation at a watershed level may provide valuable relief to associated public infrastructure like streets and roads. Climate change may also exacerbate other conditions that GSI is implemented to partially mitigate, such as the urban heat island effect, localized flooding, or impacts on disadvantaged communities. GSI may also become part of the toolbox in thinking more strategically about integrated water planning to address prolonged drought.

Potential changes to or considerations of how GSI planning processes can incorporate climate resilience provided by GSI could include:

1. Locating GSI to more optimally meet anticipated climate-related regulations or policy.
2. Setting volume-based runoff capture targets to target projected localized flooding or water quality concerns, which may differ from or exceed current local regulations.
3. Locating GSI to provide additional climate-related resilience benefits (e.g., localized flooding benefits, urban heat island benefits, water supply benefits, combined park and water storage opportunities, community resilience, and active transportation options).
4. Including social and infrastructure data to understand community climate-related vulnerability, including in underserved communities, identify where climate-related improvements are most needed, and locate GSI where it can address some of these needs.
5. Considering GSI projects across scales to assess potential benefits to the greater green infrastructure and natural heritage system, improving landscape connectivity and system resilience.
6. Recommending GSI types and general plant/tree selection considerations to maximize climate resilience-related benefits in the planning stage.

In addition to the planning considerations above, larger-scale water quality and pollutant loading changes resulting from climate change should be considered. These include but are not limited to:

1. Rising temperatures resulting in increased water temperatures in receiving water bodies; and
2. Increases in eutrophication, especially in shallow water bodies.

GSI facilities or planning strategies previously developed to meet specific water quality goals may require updating as other water quality impacts become evident and/or are included in regulations.

4.2 Incorporating Climate Resilience into GSI Planning

Additional objectives and siting considerations may be needed to incorporate these climate-resilience considerations in the earliest phases of GSI planning and assessment. Incorporating climate resilience considerations into a community's GSI planning may entail stakeholder and municipal interdepartmental meetings to identify and prioritize climate-related objectives. This may also entail additional steps, data, desktop, or field studies when performing GSI opportunity analysis (i.e., identifying locations to implement GSI). Suggested approaches for how to incorporate climate resilience considerations in GSI planning are provided in this section.

Planning and decision-making processes to incorporate climate-resilience considerations into GSI opportunity analyses may entail:

1. Identifying management priorities relating to GSI planning and design in the context of climate resilience, including:
 - Compliance with new regulatory requirements or policies relating to climate change;
 - Implementation or retrofit to achieve more resilient GSI; and
 - Optimization of GSI locations and capacity at a subwatershed scale to maximize resilience-related benefits.
2. Identifying when in the planning process to consider climate resilience, such as:

- Formation of planning objectives, prioritizing those facilities that can comply with resilience requirements or provide enhanced climate resilience.
 - Developing partnerships with stakeholders and community members to implement GSI for climate resilience goals, including "One Water" type strategies.
 - GSI siting, to account for future potential impacts of climate change (e.g., hydrologic, temperature, and groundwater level changes) on GSI performance.
 - Identification of GSI types, and extent and types of landscape/vegetation and trees, to maximize the resilience benefits provided as well as performance (adapting tree and plant species to changing climate conditions)
 - Integration and coordination with other infrastructure and community plans to incorporate GSI or avoid conflict with other larger-scale climate resilience efforts.
3. Identifying planning-level climate resilience data or projections to consider for GSI implementation, for example:
- Watershed-level quantitative targets (i.e., reduced flows or volume) for resilience.
 - The range of projected changes to precipitation patterns (e.g., calculated predictions for future floods, design storm frequencies) and potential design changes (as available and appropriate) for successful GSI performance.
 - Location and frequency of minor localized flooding or large flooding events.
 - Changes to groundwater level, including locations and frequency of flooding due to surfacing groundwater.
 - Areas, timing, and duration of urban heat stress.
 - Opportunities for groundwater recharge or capture and reuse.
 - Land use and ownership characteristics that may streamline or hinder GSI implementation or performance.
 - Relevant equity indicators.

- Community goals, concerns, and priorities for GSI and climate resilience.

4.3 Next Steps

Additional development of GSI planning guidance in the context of climate resilience could be incorporated into future parts of this Guide. This could include:

1. Guidance on decision-making processes to establish community climate resilience priorities for GSI, including:
 - Compiling regulatory requirements and how they may be achieved through GSI.
 - Establishing a comprehensive list of multi-benefit objectives.
 - Identifying relevant stakeholders and performing outreach.
 - Developing cost-benefit analyses relating to GSI and climate resilience.
 - Planning in response to adjusted requirements or design standards that consider climate change.
2. Guidance on suggested data, indicators, and metrics to locate and prioritize GSI, for example:
 - Identifying data needs relating to GSI and climate resilience (such as projected temperature changes, projected precipitation changes, flood modeling output, water quality data and/or modeling output, etc.).
 - Developing benefit metric increments that could be used to identify whether a specific location and type of GSI could provide climate resilience.
 - Description of the geospatial, other modeling, and calculation methods that could be used to analyze benefit metrics and drive implementation targets.
3. Guidance on geospatial processes to locate GSI opportunities:
 - Listing GSI opportunity analysis data needs in the context of climate resilience, such as land use, ownership, physical properties including soil, depth to groundwater, utility conflicts, etc.
 - Describing logic-based geospatial analyses to identify beneficial GSI candidate sites and remove less-favorable opportunity locations.

- Planning frameworks that address uncertainty (e.g., Robust Decision Making).
4. Guidance on incorporating needs and priorities of disadvantaged communities, identifying successful approaches for community engagement, and encouraging the equitable implementation of GSI to achieve long-term success in the context of a changing climate.
 5. Developing an evaluation framework to prioritize project opportunities to robustly capture considerations related to environmental performance, climate change risk, and social vulnerabilities and benefits.

5. GSI DESIGN

Several climatic impact drivers related to GSI are projected to change in the future and would likely affect GSI design. These drivers include precipitation, including changing storm event characteristics such as the size, intensity, duration, and location of significant rain events,⁶⁹ along with flood and submergence from rising sea, riverine, and groundwater levels and extreme temperature. Impacts are anticipated at different scales, and while there is a need for adaptation at the facility, project, and sub-watershed scale, the section below focuses on GSI design at the facility scale. This section introduces the established approach (i.e., that is currently in use) for GSI siting, sizing, and design, describes climate-related considerations that may be needed, and suggestions on how to incorporate changes to GSI siting, sizing, and design approaches given climate trends.

5.1 Established Conceptual Model for GSI Siting, Sizing, and Design

Following the adoption of federal requirements for stormwater management in the 1980s, researchers published findings on how post-construction stormwater volumes and loads could be appropriately controlled. The results of an early study by Schueler⁷⁰ were widely adopted by regulatory agencies and used in subsequent technical guidance. That study recommended that stormwater best management practices (BMPs) should be sited and designed to 1) reproduce the hydrologic conditions of the downstream receiving water; 2) provide a moderate level of removal for most urban pollutants; and 3) have a neutral impact on the natural and human environment.⁷¹

Many of these early studies focused on a general class of stormwater BMPs, including detention and non-biological filtration type facilities. Conventional detention-type stormwater BMPs capture stormwater from large storm events and release it over time to reduce runoff intensity. The use of low impact development (LID) and GSI was promulgated under subsequent NPDES stormwater permits in the late 2000s and early 2010s. LID requirements focused on mimicking a wider range of natural hydrologic functions beyond runoff discharge, including rainfall interception, shallow surface storage, evapotranspiration, and infiltration/ groundwater recharge.⁷²

LID technical guidance focused on siting GSI and other stormwater management facilities by considering physical constraints, including underlying soil or geotechnical characteristics, slope, depth to groundwater, proximity to wells or infrastructure, and anticipated pollutant loading into the BMP. Physical siting characteristics that increase the potential volume that can be retained by the facility (i.e., infiltration, capture and use, and evapotranspiration) were also incorporated.

5.1.1 Stormwater Facility Sizing

For many locations and depending on the regulatory agency, sizing requirements for total runoff captured for conventional stormwater facilities and GSI have remained unchanged for the past two decades. GSI technical guidance also recommends maximizing the retention of captured stormwater.

When examining the percent of total average annual runoff captured and treated as a function of BMP size, a "knee of the curve" is evident for most sites. This change in the instantaneous slope of the curve represents the point at which increases in BMP size (and cost) yield diminishing returns in total runoff captured and treatment effectiveness. For example, in California, the "knee of the curve" occurs at approximately the 75th-85th percentile storm event, corresponding to approximately 80% of average annual stormwater runoff (Figure 2). When a flow-based facility is designed to capture a larger rainfall intensity, a similar "knee of the curve" is found (e.g., 0.1 – 0.25 inches per hour in California).⁷³ This pronounced knee of the curve for both volume and flow-based sizing approaches allows for GSI cost efficiency while providing sufficient stormwater capture to reduce runoff volumes and pollutant loads in downstream receiving waters.

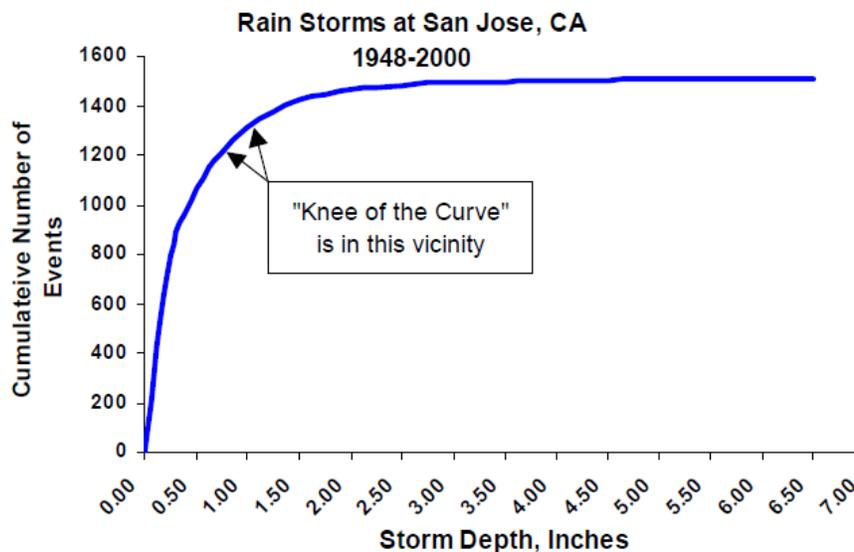


Figure 2. Example "Knee of the Curve" based on Historical Data⁷⁴

5.1.2 GSI Component Design

Technical studies of early GSI applications resulted in recommendations for typical GSI components. These components include GSI media, vegetation, and hydraulic elements (i.e., inlets, outlets, and underdrain).

Media

Following several studies identifying reduced infiltration of GSI facilities over time, media mixes were studied to identify how to avoid a decrease in performance. These studies identified that a fast filtration rate through the media (e.g., a minimum of 5 inches per hour in the San Francisco Bay Area) was required to prevent clogging. Faster drawdown of stored volume was also thought to prevent vector issues.

To provide these very fast infiltration rates, the proportion of clay in the media mix (for example, present in native topsoil used as a component) had to be greatly minimized or removed. Many regions adopted media mixes that were heavily sand-based and would therefore drain very quickly. This has resulted in benefits with reducing clogging potential but has resulted in other issues relating to plant health and irrigation requirements that are likely to be exacerbated with rising temperatures. This is particularly relevant for locations expecting to see increasing frequency, duration, and intensity of drought conditions.

Vegetation

Healthy vegetation is a key component of GSI performance. Plants provide biological treatment of pollutants, help maintain infiltration, and increase evapotranspiration. Given the harsh conditions in GSI facilities (i.e., episodic periods of submergence and desiccation), site-specific and more resilient plant palettes are needed

Hydraulic Elements

GSI technical manuals often recommend that facilities be designed to be "off-line" or installed such that only a portion of the total runoff is diverted to the facility. This avoids impacts of erosion and extended submerged periods that may occur otherwise. Inlets, underdrains, and outlets (including orifice-controlled outlets) are frequently sized to capture the required historic flow volume to meet water quality requirements.

5.2 Considerations for GSI Related to Climate Resilience

While the impacts on GSI are expected to vary by region, location, and type of facility, larger storm events, higher rainfall intensities, longer duration events, and more saturated initial conditions are likely to reduce the effectiveness of GSI facilities.⁷⁵ Other climate change impacts, including rising groundwater and changes in temperature, may also affect GSI siting and performance.

5.2.1 Hydrologic Impacts: Precipitation Change and Early Snowmelt

Design standards are typically developed based on multiple decades of historical precipitation data. GSI facilities are currently designed with the implicit assumption that past rainfall-runoff patterns will persist over their design life. Since climate change is anticipated to alter historic rainfall-runoff patterns, facilities may be in jeopardy of underperforming in the future. Climate change is projected and has already been observed to affect precipitation patterns. Rainfall is becoming more intense in many locations and less frequent in others. When the proportion of smaller, low-intensity events and larger, high-intensity events is altered, the amount of total stormwater runoff captured by a GSI facility may change. When this results in a smaller overall amount of runoff captured, the facility may no longer provide the hydrologic or water quality benefits it was designed to provide. In addition, the "knee of the curve" may be entirely shifted or become less pronounced. In the future, it

may not be appropriate to preclude larger facility sizes for providing diminishing returns.

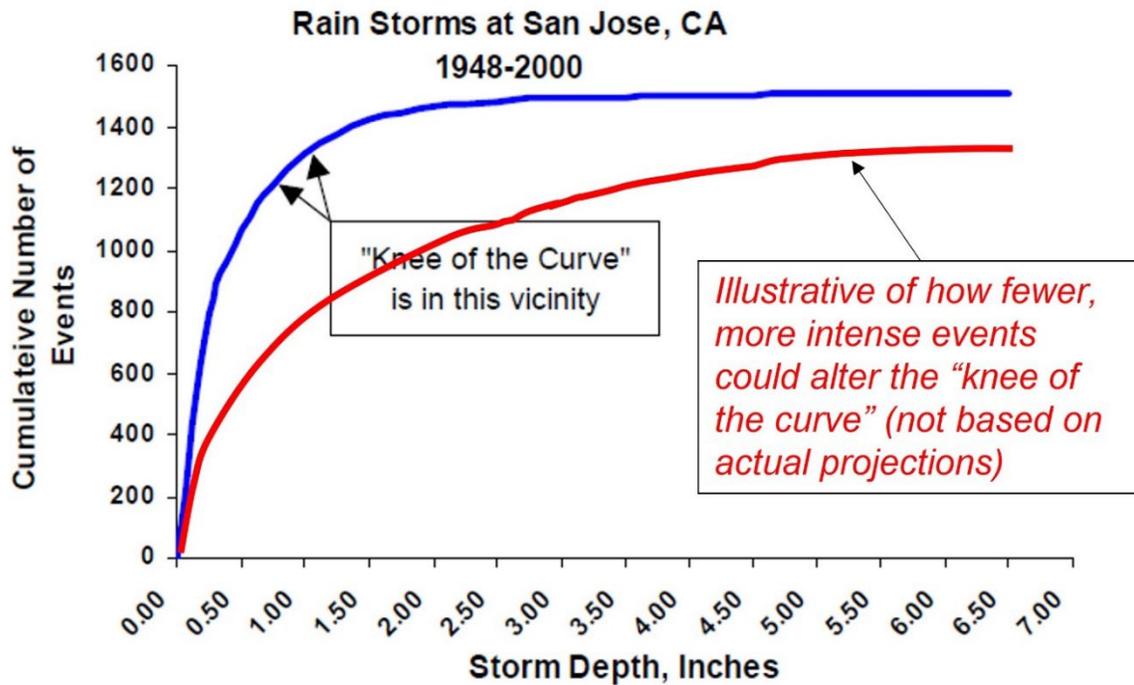


Figure 3. Altered "knee of the curve" sketch due to climate change impacts.

Based on modeling results from downscaled Global Climate Models^v (GCMs) and hourly precipitation developed through an application of regional weather modeling for Western Washington, Figure 4 provides an actual example of an altered "knee of the curve."⁷⁶

^v Global Climate Models (GCMs) are a representation of the major climate system components - atmosphere, land, ocean, and sea ice - and their interactions. They are used for forecasting climate change.

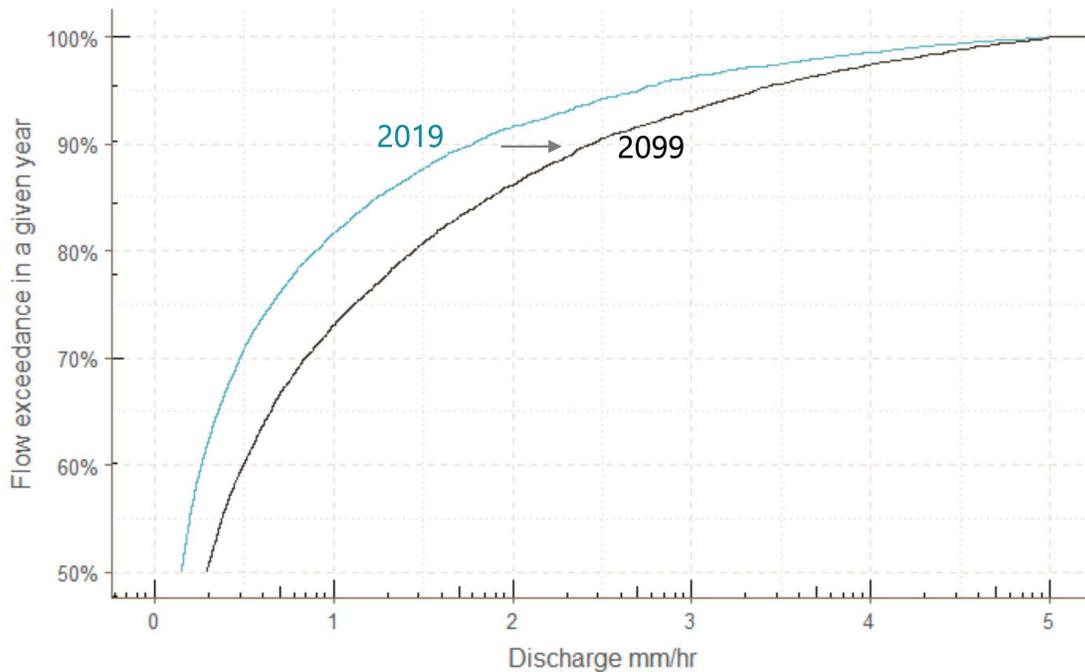


Figure 4. Actual altered "knee of the curve" due to climate change impacts in Western Washington.

In addition, more intense, less frequent storm events and other precipitation changes could affect facility performance. For example, an increased frequency of intense "back-to-back" winter storm events and atmospheric rivers has been observed in the western United States, while the eastern United States has seen an overall increase in very heavy precipitation (defined as the top one percent of all daily events) (Figure 5).

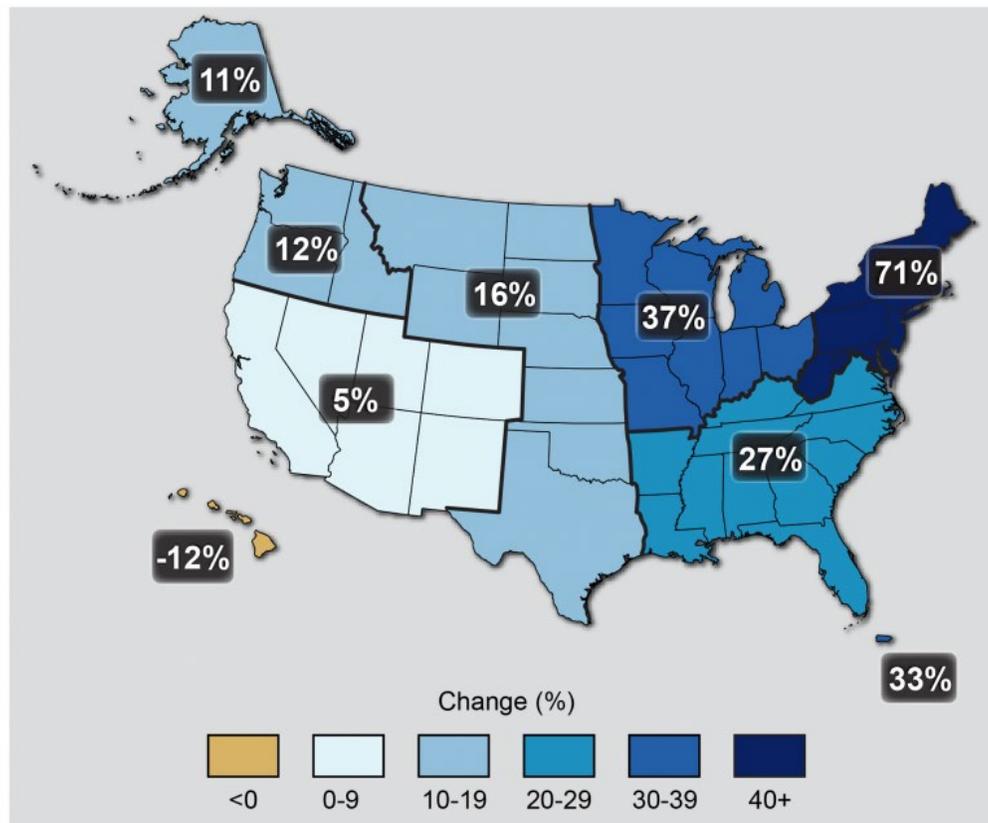


Figure 5. Map of the observed change in very heavy precipitation (defined as the top 1% of all daily events) from 1958 to 2012⁷⁷ in the U.S.

Beyond increased runoff from precipitation, conditions within the GSI facility itself may be impacted. When more storms occur in a shorter time, the ability of the GSI facility to drain, dry out, and capture the next storm is diminished, and runoff capture performance is reduced as systems bypass increased or cumulative flow.

Communities with CSSs may see an increase in CSOs or combined sewer discharges (CSDs) with increased large storm events. The performance of GSI implemented to provide upstream retention and detention may be impacted and result in impacts to the downstream POTW.

Seasonal precipitation changes, such as an extended dry season or longer dry periods between storms, may result in reduced water quality performance. These changes, which have already been observed in some locations, may cause an increase in pollutant accumulation on the landscape. Higher concentrations of

pollutants in seasonal first-flush events could impact GSI facility performance and may require additional pretreatment to maintain performance.

5.2.2 Other Impacts: Temperature and Sea Level Rise

Temperature changes may affect the performance of specific GSI design components. Some researchers have argued that increased temperature associated with climate change may lead to better performance of GSI due to reduced water viscosity and increased infiltration,⁷⁸ though temperature differences related to GSI performance vary by facility type with bioinfiltration showing more sensitivity than pervious pavement.⁷⁹ Media mixes with a high proportion of sand may dry out too quickly to maintain vegetative health when temperatures are higher. Vegetation that may have thrived in lower temperature fast-draining facilities may be increasingly stressed under higher temperatures.

Subsurface changes should also be considered for resilient GSI. Groundwater levels may rise due to increased nearby lake and sea levels. As sea levels rise, the risk of saltwater intrusion increases. As a result, areas with relatively shallow groundwater that were once suitable for GSI may no longer be appropriate.

Groundwater level rise near freshwater lakes like Lake Ontario may also cause periodic sustained inundation of the root zones of GSI facilities, causing potential rotting of roots and plant failure. More resilient species selection and grading design will need to be incorporated to anticipate these potential climate impacts.

5.3 Incorporating Climate Resilience into GSI Sizing and Design

The challenges described suggest the need for an updated approach to sizing and designing resilient GSI. Details of how climate resilience could be incorporated into GSI sizing and design are introduced in this section.

5.3.1 GSI Sizing

As described, hydrologic changes may necessitate updated GSI facility sizing guidance. This could include “dynamic sizing” approaches that more fully consider facility drawdown processes, as well as considerations of projected changes to local precipitation patterns.

Precipitation projections from Global Climate Models (GCMs) may be used in place of historic rainfall observations to design GSI facilities appropriately. However, most GCMs do not have an adequate spatial or temporal scale needed to represent urban stormwater. Most GCMs operate on a daily timestep, whereas urban storm events occur in minutes or hours. Several regions have begun to develop spatially and temporally downscaled models to provide refined precipitation datasets for stormwater managers. Local universities or state resources have often developed regionally downscaled models and identified GCMs that better represent their region. These downscaled models typically use GCM results as inputs to a regional weather forecasting model to provide more detail. The resulting precipitation data sets have a finer spatial and temporal resolution (e.g., 1-hour vs. 1-day).

While GCMs provide reliable results on a continental scale, they often suffer from both transient and system biases when compared to observed rainfall. Therefore, downscaled model outputs usually need to undergo bias correction before they can be used for planning. Additionally, regions with highly variable microclimates may require additional spatial downscaling or interpretation to be effectively used for facility sizing.

Selection of GCMs

GCMs are run for a historical period (hindcasting) and a future period (forecasting). Using the historical period, practitioners can compare GCM results with observed precipitation in the region. Different GCMs will vary in their potential applicability to a specific region. GCMs that perform poorly for the region, as tested by local researchers, universities, or state agencies, can be excluded.

Selection of Emissions Scenarios

The IPCC regularly selects and updates Representative Concentration Pathways (RCPs), reflecting the range of plausible future emissions scenarios (Table 4). Climate change predicted under higher RCPs is typically more severe, although precipitation impacts do not always scale with increased warming.

Table 4. Summary of IPCC Emission Scenarios (adapted from IPCC AR5, 2014⁸⁰)

Scenario	CO ₂ -eq Concentrations in 2100 (ppm)	Change in CO ₂ -eq emissions compared to 2010 (in %)		Likelihood of temperature change relative to 1850-1900 remaining below:			
		2050	2100	+1.5°C	+2°C	+3°C	+4°C
RCP2.6	430 – 480	-72 to -41	-118 to -78	More unlikely than likely	Likely	Likely	Likely
RCP4.5	580 - 720	-38 to 24	-134 to -50	Unlikely	More likely than not		
RCP6.0	720 - 1000	18 to 54	-7 to 72		More unlikely than likely		
RCP8.5	> 1000	52 to 95	74 to 178		Unlikely	More unlikely than likely	

Although each RCP varies with respect to atmospheric carbon and long-term warming effects, climate change models suggest similar surface warming over the next 30-40 years (Figure 6). This period is equal to the design life of most GSI facilities. Therefore, projects implemented in this decade (i.e., the 2020s) can expect similar results regardless of the specific RCP.

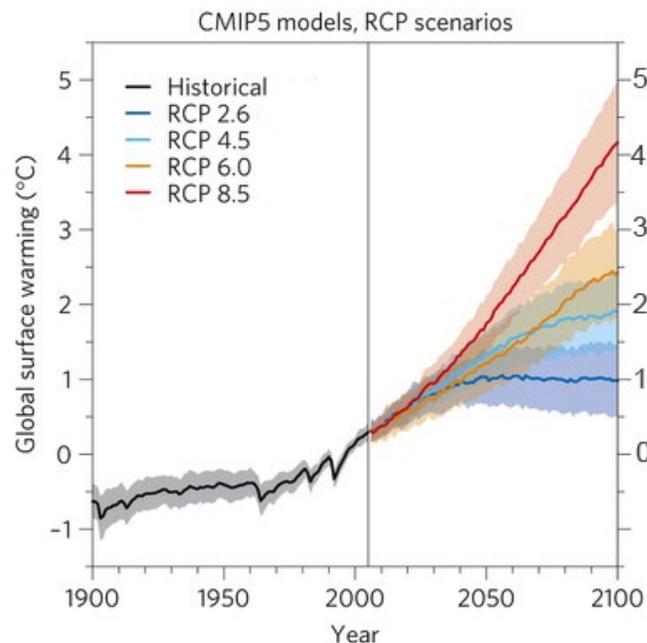


Figure 6. Projected global surface warming for different emissions scenarios⁸¹

The selected RCP scenario will have a more significant impact on projects with a longer design life or implemented in the second half of the 21st century. Considerations of risk and uncertainty should drive the selection of an RCP. For example, the highest emissions scenario, RCP 8.5, represents a more conservative analysis than lower emissions scenarios. Multiple RCPs may be chosen for a study to bracket the range of possible outcomes. If multiple scenarios are evaluated, they should be treated as independent outcomes and should not be aggregated or averaged.

5.3.2 GSI Types

In addition to standard GSI performance changing for a range of different precipitation outcomes, different GSI types may perform better or worse depending on regional climate trends. Guidance for identifying the GSI types or combinations (including with other types of stormwater management approaches) that provide increased climate resilience would be a valuable tool for communities.

Single GSI facilities that rely on fixed detention storage, for example, may fare worse than facilities that incorporate multiple treatment mechanisms (i.e., retention, infiltration, soil storage, evapotranspiration), especially in regionally wet/cool and wet/warm climates where rainfall intensity, duration and frequency may be more

dynamic or increase over time. In many regions, regardless of trends in heat and precipitation, multiple GSI facility types used together in a 'treatment-train' may provide more resilience than single facilities. Other potential options to increase GSI resilience to climate change impacts include using real-time control, adjustable outlet structures, stormwater capture and use, and GSI implemented with other large-scale nature-based solutions or cloudburst-type facilities.

5.3.3 GSI Hydraulic Components

Changes to the design and sizing of inlet, outlet, and overflow components may also be needed to adapt GSI facilities to climate change. As the hydrologic regime shifts, an inlet design that previously captured sufficient volume and flow may no longer do so. Similarly, if a facility must be designed to capture more intense or larger storms, underdrain sizing, outlet sizing, and overflow operations may also need to be revisited. Analyzing inlet, underdrain, and outlet performance with projected climate change can provide insight into potential design changes.

5.3.4 Media and Vegetation Considerations

Other GSI design components, such as media, vegetation, subsurface, liners, and structural elements may be affected by climate change and require additional design changes.

For example, media amendments (e.g., biochar) that encourage water retention while maintaining drawdown rates may be needed to sustain plant health as temperatures increase. Plant and tree species selection will need to adapt to more site-specific plant palettes that survive in harsh (including extreme dry and submerged) conditions in anticipation of rising temperatures and changing precipitation patterns, as well as potential changes in groundwater levels. Approved species lists by municipalities will need to take into consideration how climate change will affect plant hardiness zones. The shifting of those zones over time (projected by the US Forest Service)⁸² with rising temperatures and increased precipitation will need to be taken into account when designing vegetated systems to last many decades into the future.

In nearshore locations with shallow groundwater, future groundwater levels should be considered. These considerations will affect the design of a facility as well as specific features (e.g., whether a GSI facility should incorporate an impermeable

liner). Additional considerations include selecting appropriate plant palettes under future climate change and selecting appropriate media. Facility grades and hydrozone can be evaluated for optimizing plant health and selecting specific species for unique GSI configurations (i.e., stormwater planters with deeper uniform media vs. rain gardens with variable surface grades and elevations related to different hydrozones).

5.3.5 Additional Considerations for CSO Communities

CSO communities may require additional analysis to estimate the amount of upstream GSI-provided retention (e.g., infiltration) and detention needed to offset anticipated future runoff volume. The siting of upstream GSI and the volume provided may require adjustment to adequately prevent overflows given changing climate conditions.

5.3.6 GSI Facility Retrofit

The performance of existing GSI facilities may decline because of impacts of climate change. Declining performance could include but not be limited to:

1. Capture of a smaller proportion of average annual runoff or a smaller total volume, resulting in increased occurrence of bypass and less proportional or total treatment.
2. Erosion impacts to GSI facility surface or hydraulic components.
3. Other hydraulic issues such as extended ponding or flooding near inlet, outlet, or overflow with resultant vector issues.
4. Subsurface impacts, including groundwater intrusion into facility or export of pollutants to sensitive underlying groundwater basins; and/or
5. Poor vegetation survival.

Existing facilities may require re-analysis and retrofit of hydraulic components, installing a facility liner, replacing vegetation with better-suited species, enlarging facilities, or building additional facilities upstream or downstream.

5.4 Next Steps

Additional development of GSI design guidance in the context of climate resilience could be incorporated into future parts of this Guide. Potential future guidance topics are provided below.

5.4.1 Quantifying the Potential Extent of Climate Impacts to GSI

GSI design and retrofit changes needed for resilience can be further studied by examining the potential to mitigate the impacts of climate change and the extent of impacts on GSI facility performance. Comparing predicted future climate conditions to historical conditions and/or modeling GSI using a range of these conditions should be examined first. This analysis can provide insight into how the performance of existing GSI or GSI designed per current practices may be impacted.

GCMs could be identified for specific metropolitan areas, and their output could be examined for different RCPs compared to historical conditions (e.g., temperature and precipitation). Clear trends or changes identified through this comparison would provide high-level insight into potential GSI performance challenges. Developing more detailed GSI models incorporating regionally downscaled models would also provide more precise estimates of potential GSI performance issues.

5.4.2 Resilience of GSI Measures and Components

Using the results of the analysis described in section 5.4.1, or through literature studies, guidance could be developed to inform which designs or GSI measures are most resilient to anticipated climate changes. This could include a tool, such as a matrix or a flowchart, which identifies GSI measures and design changes (e.g., media amendments, facility liner, constructing facility off-line, etc.) that are best suited to manage specific climate impacts. This guidance could also be used as a planning tool once developed.

5.4.3 Methods to Develop New GSI Design Standards or Guidance

A technical and/or decision-making methodology for identifying the changes needed for GSI volume or hydraulic design could be developed. The proposed method would incorporate the range of estimated GSI performance changes leveraging existing tools at the local or regional level. This would result in the GSI sizing factors or

guidance that appropriately accounted for observed or projected changes in near-term precipitation and projected precipitation compared to long-term historic precipitation.

Additional analysis could be conducted to develop methods for changing existing design guidance for GSI components, including but not limited to:

1. Consideration of standards governing facility drawdown time and developing a method to examine potential impacts to drawdown with climate change.
2. Modeling analysis or methods to examine facility hydraulics (e.g., filtration rate, discharge rate) and associated performance changes for a range of drawdown times corresponding to different precipitation regime changes.
3. Developing factors or design changes to be incorporated into hydraulic components of facilities to address GSI performance modeling outcomes.
4. Quantifying uncertainty in design inputs.
5. Updating GSI plant palettes and resilient plant selection methods for different regions and their anticipated environmental changes. This could include guidance on hydrozone-specific plant placement geared towards specific GSI facility types to optimize vegetation health and facility resilience.

6. GSI OPERATIONS AND MAINTENANCE

This section outlines considerations for GSI operations and maintenance (O&M) related to climate resilience and incorporating climate resilience into GSI O&M. Several climate impact drivers, including changes to temperature, precipitation, flood, rising sea, riverine, and groundwater levels, and changes to snow patterns could impact O&M.

6.1 Considerations for GSI Operations and Maintenance Related to Climate Resilience

Typical operations and maintenance (O&M) practices for GSI include routine and non-routine actions specific to each facility type. Examples of GSI O&M practices and their frequency include:

1. Frequent O&M needs: irrigation, plant maintenance, trash removal.
2. Post-storm O&M needs: Inspections to examine damage including erosion, standing water/drawdown issues, and needed rehabilitation.
3. Annual O&M needs: mulch replacement, clean out of hydraulic components (inlet, outlet, or underdrain), addressing fine sediment accumulation.
4. Infrequent O&M needs: scarification of the top layer of media, plant replacement, replacement of hydraulic or structural components, replacement of media/mulch.

Typical GSI O&M practices and frequency may require adjustment to maintain performance under future climate change. Potential changes to these activities could include:

1. Frequent O&M needs: more frequent, longer term, or higher volume of irrigation or more frequent plant maintenance needs due to higher temperatures and/or changing precipitation patterns.
2. Post-storm O&M needs: More frequent inspections or rehabilitation (e.g., increased erosion caused by higher intensity storms).
3. Annual O&M needs: deeper or more frequent mulch application, increased frequency of sediment removal, and maintenance of hydraulic components to account for increased erosion and flooding.

4. Infrequent O&M needs: Plant or plant palette replacement due to drought conditions; retrofit/replacement of hydraulic components; replacement of media to provide adjusted/needed filtration or drawdown rate.

In addition to the typical O&M practices listed, the impact of changes to regular maintenance practices of nearby infrastructure should be considered. This could include, for example, increased or different amounts of salt applied to adjacent roadways in response to snow and ice changes, or increased irrigation applied to adjacent landscaping in response to increased temperature. These adjacent O&M practices could generate runoff that may impact GSI facilities; responsive GSI O&M needs should be considered.

6.2 Incorporating Resilience into GSI O&M

To incorporate resilience into GSI, O&M programs should adapt as needed to keep pace with anticipated climate change, recognizing that severe impacts are often unpredictable and will occur more frequently.

6.2.1 Climate Change Education & Training

A critical component for adapting GSI O&M programs includes communication, education, and training of GSI maintenance staff and personnel. Staff should be made aware of policy changes relating to GSI and potential changes to GSI performance based on scientific studies or community-specific analysis. Staff communication should be bidirectional and encourage the reporting of anecdotal evidence or observations of potential climate-related impacts on GSI facilities. A communication plan including education and training of staff, along with obtaining input from staff, should be developed to support and inform adaptive management of O&M practices.

Community involvement can also be considered in the O&M phase. While some O&M tasks would require work by trained professionals (e.g., replacement of soil media or structural components), the local community and residents could do other tasks, such as plant maintenance and trash removal. This type of community buy-in would improve the potential for long-term success.

6.2.2 Adaptive Management

Adaptive management processes may require more frequent inspections to learn how enhanced O&M affects GSI performance. Over time, visual inspection data coupled with precipitation and temperature data could be used to examine trends in GSI performance with specific O&M practices; changes to those trends would indicate that updates to an O&M program are needed. Results from such an evaluation would be useful to identify staff or contractor training needs, tools, and resulting funding requirements. In addition, increasing temperatures may affect the health of maintenance staff, requiring schedule adjustments. A key component to adaptive management is a robust asset management strategy that can efficiently and consistently capture O&M-related data. Changes to asset management with consideration of climate resilience may also be needed.

6.3 Next Steps

Additional development of GSI O&M guidance in the context of climate resilience could be incorporated into future parts of this Guide. This could include:

1. Providing guidance on an education, training, and communication strategy that supports adaptive management of GSI O&M practices.
2. Developing a stepwise process for examining current maintenance practices and estimating the potential required changes with projected climate impacts. In addition to examining individual activities, the stepwise approach could include suggestions for exploring staffing, tools, and cost impacts.
3. Identifying key components of asset management tools that may require update to adequately track climate trends and impacts (e.g., better linkage with preceding storm size, geospatial data needs, plant health rating scales, etc.).

7. CLIMATE RESILIENCE RESOURCES GUIDE ROAD MAP – SUGGESTED NEXT STEPS

This Guide explores the intersection of GSI and climate change. It describes how GSI that is thoughtfully planned, designed, and implemented can be important for increasing resilience to climate risks, and climate change adaptation in the urban environment at a “broad brush level” and for a variety of future climate change impacts anticipated throughout North America. GSI is part of the range of solutions that can help manage urban flooding, erosion, and urban island heat impacts, and can also improve air quality, provide water supply augmentation, and provide ecosystem and human health benefits. Equitable implementation of GSI is more critical than ever, as vulnerable communities will feel climate change impacts first and worst, and GSI is often implemented when it is easy but not where it is needed most. Community engagement early and often, combined with meeting residents in their local communities, will improve the chances of long-term success.

GSI facilities are also vulnerable to climate change impacts. This Guide provides technical resources and considerations for improving the resilience of GSI planning, design, and implementation in the face of various climate change risks.

This Guide and its appendix of GSI-related climate resilience references are intended to be living documents for the GI Leadership Exchange to leverage for current use and to build from for future GSI program development as the science and community around resilience and GSI continues to evolve. Topics to consider for future additions to this Guide are outlined and prioritized below in Table 5.

Table 5. Prioritized Topics for Future Iterations of this Guide

Section	Next Step
Policy and Regulations	Methods for conducting risk assessment and scenario planning.
	Guidance for policy decision-making with uncertainty.
	Potential management questions in climate-resilient planning and design.
	Model policy language for climate resilience relating to GSI.
	Economic evaluation guidance relating to GSI.
GSI Planning	Guidance on decision-making processes to establish climate resilience priorities and goals, including community benefits and equity.
	Guidance on suggested data, indicators, and metrics to locate and prioritize GSI, as well as select GSI type.
	Guidance on geospatial processes to site GSI.
	Evaluation framework to prioritize project opportunities.
GSI Design	Quantifying the potential extent of climate impacts to GSI.
	Flowchart or tool to guide which designs or GSI measures are most resilient to anticipated climate changes.
	Methods to develop new GSI design standards or guidance.
GSI O&M	GSI O&M communication, education, and training strategy.
	Process to estimate potential required changes to maintenance activities, staffing, tools, and cost impacts.
	GSI O&M asset management guidance.

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APPENDIX A
Matrix of Existing GSI Resilience Resources

Matrix 1. State of the Science: Resources Exploring the Intersection of Green Stormwater Infrastructure and Climate Change																	
Title	Year	Author(s)	Resource Type	Priority Item (1 to 5)	Green Stormwater Infrastructure		Climate Change Impact							Focus on Equity	Web Link	Brief Summary	
					Mention of GSI	Focus on GSI	Urban Heat	Precip	Snow-fall	Sea Level/Lake/ Riverine Rise	Water Stress	Bio-diversity	Tree/ Green Equity				Air Quality
Milwaukee Metropolitan Sewerage District: Regional Infrastructure Plan	2013	Milwaukee Metropolitan Sewerage District	Plan	2	X	X		X					X		https://www.mmsd.com/what-we-do/green-infrastructure/resources/regional-green-infrastructure-plan	Milwaukee's green infrastructure plan; The "Green Infrastructure Benefits and Costs" section detailed the triple-bottom-line analysis (sustainable development).	
San Mateo Countywide Sustainable Streets Master Plan	2021	C/CAG & Caltrans	Plan	2	X	X		X							https://cag.ca.gov/countywide-sustainable-streets-master-plan/	General guideline on sustainable streets for San Mateo County.	
EPA: Green Infrastructure for Climate Resiliency	2021	EPA	Website	2	X	X	X	X			X	X	X		https://www.epa.gov/green-infrastructure/green-infrastructure-climate-resiliency	General information how GSI can help build climate resiliency.	
Philadelphia Water Department: Green City Clean Waters	2011	Philadelphia Water Department	Plan	2	X		X	X			X	X	X		https://water.phila.gov/green-city/	Philadelphia's Green City Clean Waters program, a 25-year plan to reduce the volume of stormwater entering combined sewers using green infrastructure and to expand stormwater treatment capacity with traditional infrastructure improvements.	
City of Portland and Multnomah County Climate Action Plan	2015	City of Portland / Multnomah County	Plan	2	X		X	X	X						https://www.portland.gov/bps/climate-action/history-and-key-documents#toc-resiliency-and-preparation	Portland's climate action plan	
Green Infrastructure and Climate Change Collaborating to Improve Community Resiliency	2016	EPA / Office of Wastewater Management	Report	2	X	X	X	X						X	https://www.epa.gov/sites/default/files/2016-08/documents/gi_climate_charrettes_final.pdf	EPA convened charrettes, or intensive planning sessions in Albuquerque, Grand Rapids, Los Angeles, and New Orleans, to explore the ways in which green infrastructure could help cities become more resilient to climate change. Four different case studies are shown.	
Reducing Damage from Localized Flooding - A Guide for Communities (FEMA)	2005	FEMA	Guide	2	X	X		X							https://www.fema.gov/pdf/fima/FEMA511-complete.pdf	FEMA's guide on reducing damage from localized flooding. GSI is suggested throughout the guide.	
Developing the evidence base for mainstreaming adaptation of stormwater systems to climate change	2012	Gersonius et al.	Journal Article	3, 4, 5	X												The study introduced the mainstreaming method that can help enhance the understanding of the adaptive potential of stormwater systems.
Incorporating climate change into culvert design in Washington State, USA	2017	Wilhere et al.	Journal Article	3	X												Test culvert designs based on potential climate change impacts.
Flood loss avoidance benefits of green infrastructure for stormwater management	2015	Atkins & EPA	Report	2,3,4	X	X		X							https://www.epa.gov/green-infrastructure/flood-loss-avoidance-benefits-green-infrastructure-stormwater-management	This study generated an estimate of the monetary value of flood loss avoidance that could be achieved by using GSI; FEMA flood loss estimation model Hazus.	
Economic assessment of green infrastructure strategies for climate change adaptation: Pilot studies in the Great Lakes Region	2014	Eastern Research Group, Inc & NOAA	Report	2,3,4	X	X		X							https://coast.noaa.gov/data/digitalcoast/pdf/climate-change-adaptation-pilot.pdf	The purpose of this study was to assess the economic benefits of green infrastructure (GI) as a method of reducing the negative effects of flooding in Duluth, Minnesota, and Toledo, Ohio. A secondary purpose of the study was to develop an analytical framework that can be applied in other communities to 1) consider and estimate predicted changes in future precipitation, 2) assess how their community may be impacted by flooding with increased precipitation, 3) consider the range of available green infrastructure and land use policy options to reduce flooding, and 4) identify the benefits (as well as co-benefits) that can be realized by implementing GI.	
Arid green infrastructure for water control and conservation; State of the science and research needs for arid/semi-arid regions	2016	EPA	Report	2	X	X							X		https://www.epa.gov/sites/default/files/2016-08/documents/gi_climate_charrettes_final.pdf	BMPs in arid and semi-arid regions; Policy initiatives and guidance to address drought and water sustainability through green infrastructure; current research in the application of GSI in arid and semi-arid regions.	
The value of green infrastructure for urban climate adaptation	2011	The Center for Clean Air Policy	Report	2	X	X	X	X					X		https://www.savetherain.us/	This report showed how each type of green infrastructure can help combat certain climate change impacts. It also suggested strategies for implementing each GI.	
Smart Policies for a Changing Climate: The Report and Recommendations of the ASLA Blue Ribbon Panel on Climate Change and Resilience	2018	American Society of Landscape Architects	Report	2, 4	X									X		The report provides design and planning solutions together with policy recommendations for five different areas (natural systems, community development, vulnerable communities, transportation, and agriculture) that are important to building climate resilient community.	
Green Infrastructure for Climate Resiliency	2014	EPA / Office of Water	Brochure	1, 2	X	X	X	X			X	X				The brochure summarizes the climate change effects on cities and how GSI can help prepare cities to be resilient against flooding, drought, coastal damage and erosion, energy consumption, and urban heat island effect.	
An Equity Review of the City of Calgary's Climate Resilience Strategy	2021	Toronto Environmental	Report	2									X	X		Equity-focused review of the Calgary Resilience Strategy: Mitigation and Adaptation Action Plans and provide support to the city as it undertakes an update of this strategy.	
Climate Change and Stormwater in Portland, Gresham, and Clackamas County	2021	UW Climate Impacts Group	Report		X			X								The purpose of this project was to develop projections of 21st century changes in precipitation that can be used to inform stormwater and wastewater management in the cities of Portland, Gresham, and Clackamas County. Use global circulation models to predict future precipitation.	
BES Resiliency Master Plan and Climate Change Planning for CIP Projects	2017	Jennifer Belknap Williamson; Bureau of Environmental Services	Workshop	2	X		X	X								The pdf is a presentation on the resiliency master plan and climate change planning for CIP projects in Portland.	
The Effects of Climate Change on Lake Tahoe in the 21st Century: Meteorology, Hydrology, Loading and Lake Response	2010	Tahoe Environmental Science Center	Report		X			X								The study examines the potential effects of changing meteorologic conditions (future air temp, amount and type of precipitation, stream discharge, sediment and nutrient loading characteristics, BMP performance, lake mixing and water quality response) using existing water resource models developed for the Lake Tahoe TMDL.	
An Enhanced Climate-Related Risks and Opportunities Framework and Guidebook for Water Utilities Preparing for a Changing Climate	2021	Water Utility Climate Alliance	Report	2, 3, 4, 5	X											This is a supplement to the "Mapping Climate-related Risks and Opportunities to Water Utility Business Functions Framework" intended for water utility business function leads to use as they begin to assess the climate-related risk and opportunities associated with their critical business functions.	
Re-imagining design storm criteria for the challenges of the 21st century	2020	Markolf et al.	Journal Article	3	X	X		X								This paper seeks to identify design practices and strategies that are well-suited for the increasingly complex and rapidly changing contexts (climate change and increasing complexity of our urban systems) in which our cities and infrastructure are operating. As the conclusion, at the scale of single components/sub-systems, return periods (or similar criteria) will likely remain a necessary element of the design process. At the scale of entire system(s), approaches like safe-to-fail, robust decision making, and enhanced sensing and simulation might be more suitable.	

Matrix 1. State of the Science: Resources Exploring the Intersection of Green Stormwater Infrastructure and Climate Change																	
Title	Year	Author(s)	Resource Type	Priority Item (1 to 5)	Green Stormwater Infrastructure		Climate Change Impact								Focus on Equity	Web Link	Brief Summary
					Mention of GSI	Focus on GSI	Urban Heat	Precip	Snow-fall	Sea Level/Lake/ Riverine Rise	Water Stress	Bio-diversity	Tree/ Green Equity	Air Quality			
Is green infrastructure a viable strategy for managing urban surface water flooding?	2020	Webber et al.	Journal Article	2	X	X		X									This paper seeks to understand the effectiveness of GI on intervene surface water flooding. As the result, intensive application of GI could substantially reduce flood depth and velocity in the catchment but that residual risk remains, particularly during extreme flood events. The best performing intervention strategy in the study area was found to be catchment-wide decentralized rainwater capture.
Making Nature's City: A science-based framework for building urban biodiversity	2019	San Francisco Estuary Institute	Report	5	X	X							X				The report synthesizes global research to develop a science-based approach for supporting nature in cities. It identifies seven key elements of urban form and function that work together to maximize biodiversity. The elements are shown through a case study in Silicon Valley.
What is the role of GSI in managing extreme precipitation events?	2020	McPhillips et al.	Journal Article	2, 3, 4	X	X		X									This paper reviewed GSI design storm requirements for the seven Urban Resilience to Extremes Sustainability Research Network cities in the United States (Atlanta, Baltimore, Miami, New York, Phoenix, Portland, Syracuse). The results indicate that GSI in most of the study cities are designed for smaller, more common precipitation events (1-year storm) considered by current water quality regulations. For GSI to contribute to climate change adaptation, it is critical to ensure that design guidelines align with that goal.
NOAA workshop series on improving climate and weather information delivery for small- to medium-size water systems to help build climate resilience (includes 4 resources: brochure, workshop, project summary and appendices)	2020	NOAA	Workshop	3, 4, 5				X	X			X		X			This workshop series aim to improve the delivery of climate and weather information resources for small- to medium- size water systems with the goal of building their resilience to climate change. It has a specific section about equity.
Building Urban Stormwater Resiliency by Incorporating Global Climate Change Projections to Local Runoff Modeling	2021	CASQA/2ndNature	Workshop	3	X	X		X							Building Urban Stormwater Resiliency by Incorporating Global Climate Change Projections to Local Runoff Modeling CASQA - California Stormwater Quality Association	This presentation illustrates the process of incorporating climate change projections to a stormwater model designed for direct use by stormwater managers to inform GSI implementation planning and design.	
The tree cover and temperature disparity in US urbanized areas: Quantifying the association with income across 5,723 communities	2021	McDonald et al.	Journal Article	2	X								X	X			In 92% of the urbanized areas surveyed, low-income blocks have less tree cover than high-income blocks. On average, low-income blocks have 15.2% less tree cover and are 1.5C hotter than high-income blocks.
Simulated sensitivity of urban green infrastructure practices to climate change	2018	Sarkar et al.	Journal Article	2, 3	X	X		X				X	X				This paper used the Regional Hydro-Ecologic Simulation System (a hydrologic and biogeochemical watershed model) to investigate sensitivity of different GI practices to climate changes.
Life cycle assessment of stormwater management in the context of climate change adaptation	2016	Brudler et al.	Journal Article	2, 3	X	X		X									Compared a stormwater management system (combined GSI and local retention measures with planned stormwater routing) with a traditional, sub-surface approach through life cycle assessment. Showed that the adaption plan has lower impacts than the traditional alternative.
Multiobjective optimization of low impact development stormwater controls	2018	Eckart et al.	Journal Article	4, 5	X	X											This paper introduces a coupled optimization-simulation model that links SWMM to the Borg Multi-Objective Evolutionary Algorithm. The coupled model is used to identify the optimal combination of LID controls.
Assessment of low impact development for managing stormwater with changing precipitation due to climate change	2011	Pyke et al.	Journal Article	2	X	X		X									This study considers the potential effectiveness of LID for reducing stormwater impacts on surface water under changing precipitation patterns. Results suggests LID help increasing resilience of communities to changing precipitation patterns.
Potential climate change impacts on green infrastructure vegetation	2016	Catalano de Sousa et al.	Journal Article	2	X	X		X				X					This study investigates the impacts of successive simulated droughts and floods on two plant species commonly installed in green infrastructure sites built in the urban NE USA.
Using rainfall measures to evaluate hydrologic performance of green infrastructure systems under climate change	2021	Cook et al.	Journal Article	2,3	X	X		X									The study suggests that performance of GSI under climate changes can be tracked by using annual rainfall measures (e.g. max daily rainfall per year).
Planning, Designing, Operating, and Maintaining Local Infrastructure in a Changing Climate (includes 4 resources: toolkit, project overview, presentation, and guide)	2021	Baltimore Metropolitan Council & Baltimore Regional Transportation Board	Report & Toolkit	2, 5	X			X			X						Resource guide for departments of public works and transportation in the Baltimore region on potential future climate changes impacts and adaptation strategies and toolkits.
Colma Creek Hydrology and Hydraulic Modeling Analysis	2021	Paradigm Environmental & Northwest Hydraulic Consultants	Report	3, 4, 5	X	X		X			X						The report summarizes the results of hydraulic models of Colma Creek (SF Bay Area) under future climate conditions. Climate change causes higher intensity storms and increases flood risk. GI can mitigate the effects of smaller, more frequent storm events. Current 100-year storm with sea level rise also presents a major risk.
Is Green Infrastructure a Universal Good?	2022	Cary Institute of Ecosystem Studies / Urban Systems Lab	Website	2	X	X							X	X	GI Equity		This project aims to examine the equity of green infrastructure in the urban planning process. The major findings state that over 90% of city plans seek to rearrange the values and hazards of urban landscapes affecting the distributional equity of GI. However, only one in four city plans discusses equity issues. Very few cities acknowledge the potential negative impacts of uneven or disproportionate investment in greening, like green gentrification.
State of Equity Practice in Public Sector: Green Stormwater Infrastructure	2021	The Green Infrastructure Leadership Exchange	Report	2	X	X							X	X	https://giexchange.org/wp-content/uploads/2022/01/State-of-Equity-in-Public-Sector-GSI-Baseline-Report-FINAL.pdf	This report aims to help better understand the extent to which GSI leaders in the public sector are incorporating equity best practices into their work.	
Communities and Utilities Partnering for Water Resilience	2022	EPA	Website	3, 4, 5	X										Communities and Utilities Partnering for Water Resilience US EPA	EPA website on building water resilience in general.	
Climate Change and Water Tools	2022	EPA	Toolkit	3, 4, 5	X										Climate Change and Water Tools US EPA	EPA website on tools for building resilient water utilities including general adaptation strategy guide, maps, and case studies.	
Build Flood Resilience at Your Water Utility	2022	EPA	Toolkit	3, 4,5				X				X			Build Flood Resilience at Your Water Utility US EPA	EPA website on providing tools for building flood resilience.	
WaterNow Alliance: Tap Into Resilience	2022	WaterNow Alliance	Website	3, 4, 5	X										Tap into Resilience from WaterNow Alliance	WaterNow Alliance's initiative on providing water leaders nationwide with tools and inspiration to scale investment in sustainable, localized water infrastructure.	
Georgetown Climate Center Green Infrastructure Toolkit	2022	Georgetown Climate Center	Toolkit	2, 3	X	X		X					X	X	Green Infrastructure Toolkit » About This Toolkit - Georgetown Climate Center	Toolkit from Georgetown Law on Green infrastructure planning	

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					Mention of GSI	Focus on GSI	Urban Heat	Precip	Snow-fall	Sea Level/Lake/ Riverine Rise	Water Stress	Bio-diversity	Tree/ Green Equity	Air Quality			
Climate Resiliency Design Guidelines	2020	NYC Mayor's Office of Resiliency	Guide	3,4,5	X		X	X			X						The guide provides potential future climate outlook for NYC and provides toolkits to help assess and plan for resilient designs.
Water Utility Resiliency Program	2021	State of Massachusetts	Program	3, 4, 5								X				Water Utility Resiliency Program Mass.gov	This program aim at helping water and wastewater utilities to identify helpful and practical resiliency resources, finding opportunities for local and regional partnerships, offering infrastructure mapping and adaptation planning assistance, and coordinating training opportunities. It also provides various tools.
Coastal Flood Resiliency Design Guidelines	2019	Boston planning and development agency	Guide	4	X		X	X			X					Boston Planning and Development Agency Releases Coastal Flood Resiliency Design Guidelines -- NorthEndWaterfront.com	This guide aims to raise awareness of future coastal flood risk, offer strategies to reduce damage and disruption, and provide consistent standards for review of projects that fall within the proposed zoning overlay district.
Climate Resilient Neighborhood of Østerbro	2022	The City of Copenhagen	Website		X			X								Klimakvarter Østerbro	Case study of Copenhagen's first climate resilient neighborhood
Dynamic Adaptive Policy Pathways	2016	Deltares	Website	3, 4, 5												Dynamic Adaptive Policy Pathways - Adaptation Pathways Deltares Public Wiki	The webpage explains the dynamic adaptive policy pathways approach, which aims to support the development of an adaptive plan that is able to deal with conditions of deep uncertainties.
Climate adaptation app	-	Bosch Slabbers, Deltares, Sweco, KNMI, Witteveen+Bos, Climate Changes spatial planning	Website		X			X				X				Adaptive Solutions (climateapp.nl)	The app gives urban designers, engineers or others insight in feasible measures for a project with a specific climate adaptation goal. The app will generate a selection of feasible climate adaptation measures in less than a minute. If for instance, an urban development in a flood plain is to be prepared for river flooding, the app will rank feasible measures based on the local conditions and the user's input. The user guide can be found here.
Green Cities: Good Health	2010	Urban Forestry / Urban Greening Research	Program		X							X	a			Introduction :: Green Cities: Good Health (washington.edu)	The program support research in the area of showing how nature benefits the human health and well-being in the urbanized areas.
Water Utility Climate Alliance (WUCA) website	2022	Water Utility Climate Alliance	Website	2, 3, 4	X		X	X			X	X				https://www.wucaonline.org/	Website full of resources especially in relation to actionable science, e.g. climate change projections etc. See Plans and Publications and items under work plan, and Case Studies section as well
Advancing Stormwater Resiliency in Maryland (A-StoRM) Maryland's Stormwater Management Climate Change Action Plan	2021	Maryland Department of the Environment	Report	3, 4, 5	X	X		X								https://mde.maryland.gov/Documents/A-StoRMreport.pdf	The report proposes consideration of regulatory changes to include the use of the most recent NOAA Atlas 14 precipitation estimates in Maryland's Stormwater Design Manual and to develop draft updates to Maryland's stormwater design standards for ESD to MEP to capture increased stormwater runoff volume (e.g., 3.0 inches for the 1-year rainfall event) for new development and redevelopment based upon future climate projections.
Philadelphia Climate Action Playbook	2021	The City of Philadelphia Office of Sustainability	Report	4,5	X		X	X			X	X	X	X		https://www.phila.gov/documents/philadelphia-climate-action-playbook-resources/	The Philadelphia Climate Action Playbook outlines the actions Philadelphia is taking to respond to climate change through 2050. The Playbook also outlines how climate change will impact Philadelphia and where we need to go further to achieve our goals
Managing Heavy Rainfall with Green Infrastructure: An Evaluation in Pittsburgh's Negley Run Watershed	2020	Fischbach et al	Journal Article	1,2,3,4	X	X		X								https://www.rand.org/pubs/research_report/RRA564-1.html	The researchers identified potential climate change impacts for the Negley Run watershed, where urgent flood-risk challenges are presented in the city. In the project, the researchers use simulation modeling (SWMM) to evaluate present and future risks in Negley Run from sewer overflows and flooding given future rainfall uncertainty. Then, the authors evaluate proposals for a phased series of GSI investment. The study also showcases the recreational and other cobenefits of the GSI in addition to the stormwater benefits.
Quantifying the Uncertainty Created by Non-Transferable Model Calibrations Across Climate and Land Cover Scenarios: A Case Study With SWMM	2022	Sytsma et al	Journal Article	4												https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2021WR031603	The paper attempts to quantify the error in model prediction that arises when the optimal calibrated value of effective parameters changes with model forcing. A case study with SWMM was conducted with the specific parameters of subcatchment 'width' and 'connected impervious area'. The authors concluded that variation across forcing parameters can result in significant prediction errors. These results point to a need for additional research to determine how to use urban hydrologic models to make robust predictions across future conditions.
Trees and Hydrology in Urban Landscapes	2021	Whipple et al; San Francisco Estuary Institute & The Aquatic Science Center	Report	1, 2	X	X										https://www.sfei.org/documents/trees-and-hydrology-urban-landscapes	This effort seeks to build links between stormwater management and urban ecological improvements by evaluating how complementary urban greening activities, including green stormwater infrastructure (GSI) and urban tree canopy, can be integrated and improved to reduce runoff and contaminant loads in stormwater systems. This work expands the capacity for evaluating engineered GSI and non-engineered urban greening within a modeling and analysis framework, with a primary focus on evaluating the hydrologic benefit of urban trees. Insights can inform stormwater management policy and planning.
Green Stormwater Infrastructure Maintenance Manual	2016	Philadelphia Water Department	Manual	1, 3	X	X										https://water.phila.gov/pool/files/gsi-maintenance-manual.pdf	Philadelphia's GSI maintenance manual for various stormwater management practices.
Green Stormwater Infrastructure Landscape Design Guidebook	2020	Philadelphia Water Department	Guide	1, 3	X	X										https://water.phila.gov/pool/files/gsi-landscape-design-guidebook.pdf	Philadelphia's GSI landscape design guidebook.
Green Stormwater Infrastructure Planning & Design Manual	2021	Philadelphia Water Department	Manual	1, 3	X	X										https://water.phila.gov/pool/files/gsi-planning-design-manual/	Philadelphia's GSI planning and design manual.
Examples of Green Infrastructure Projects in San Francisco	2022	San Francisco Public Utilities Commission	Website	1	X	X										https://sfpub.org/projects/san-francisco-urban-watersheds/what-green-infrastructure	SFPUC's webpage explaining what is green infrastructure and showing examples of GI. The webpage also include monitoring reports for various existing GI in San Francisco.
FEMA: Nature-Based Solutions	2022	FEMA	Website	1	X											https://www.fema.gov/emergency-managers/risk-management/nature-based-solutions	FEMA's risk management guide focusing on nature-based solutions.

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					Mention of GSI	Focus on GSI	Urban Heat	Precip	Snow-fall	Sea Level/Lake/ Riverine Rise	Water Stress	Bio-diversity	Tree/ Green Equity	Air Quality				
Nature-based solutions for climate change mitigation	2021	United Nation Environment Programme (UNEP) & International Union for Conservation of Nature (IUCN)	Report	1	X		X	X	X		X	X	X	X	X		https://www.iucn.org/theme/nature-based-solutions	The report shows the benefits and challenges of using nature-based solutions to combat climate changes.
San Francisco Public Utilities Commission Green Stormwater Infrastructure Maintenance Cost Model	2018	San Francisco Public Utilities Commission	Model	1, 3	X	X											https://sfpub.sharefile.com/d-5d59402b587f4fe59	SFPUC developed this GSI maintenance cost model and have been sharing it with other municipalities. This would serve as a starting point of developing future maintenance cost model with climate resilience in mind.
Reimagining parks as stormwater infrastructure—stormwater parks of all sizes, designs, and funding sources	2019	Bryant et al	Article	1,3, 4, 5	X	X		X									http://www.newea.org/wp-content/uploads/2019/03/NEWEA-Journal_Spr19.pdf#page=19	This paper provides an overview of funding sources, design strategies, water quality improvements, and additional co-benefits provided by multi-objective green stormwater infrastructure in parks and public spaces. Example projects of all sizes from New York City, Atlanta, and Calgary are described, and an example of a successful Institute for Sustainable Infrastructure Envision verification and award process for a stormwater park is also be shared.
Cloudburst Resiliency Planning Study	2017	New York City Department of Environmental Protection & Ramboll	Report	1, 2, 4, 5	X	X		X									https://www1.nyc.gov/assets/dep/downloads/pdf/climate-resiliency/nyc-cloudburst-study.pdf	This executive summary describes the process and findings from the Cloudburst Resiliency Planning Study carried out by Ramboll in 2016. The methodology builds upon Ramboll's experience and city-to-city collaboration regarding cloudburst solutions development for the City of Copenhagen. The purpose of the project is to provide insight on ways to advance climate resiliency projects and traditional stormwater solutions to mitigate inland flooding and accommodate future increase in rainfall intensity through integration with ongoing urban planning and development.
New York City Stormwater Resiliency Plan	2021	NYC Mayor's Office of Resiliency	Plan	1, 2, 5	X	X		X									https://www1.nyc.gov/assets/orr/pdf/publications/stormwater-resiliency-plan.pdf	The Stormwater Resiliency Plan (the "Plan") outlines the City's approach to managing the risk of extreme rain events. Truly holistic planning for rain-driven flooding involves consideration of both large storm events and the chronic worsening of average conditions. For this reason, the Plan addresses emergency response procedures as well as accounting for increasing rainfall in standard design and long term planning of stormwater infrastructure.
An unexpected item is blocking cities' climate change prep: obsolete rainfall records	2022	National Public Radio (NPR)	Article	4				X									https://www.npr.org/2022/02/09/1078261183/an-unexpected-item-is-blocking-cities-	The article points out that the lack of rainfall data is a critical challenge for future planning of storm water infrastructure.
U.S. Climate Resilience Toolkit	2016	NOAA	Website		X		X	X	X	X	X	X	X	X	X	X	https://toolkit.climate.gov	
New Solutions for Sustainable Stormwater Management in Canada	2016	Sustainable Prosperity	Report		X													
Governor Newsom Signs Climate Action Bills	2021	Office of Governor Gavin Newsom	Press Release														https://www.gov.ca.gov/2021/09/23/governor-newsom-signs-climate-action-bills-outlines-historic-15-billion-package-to-tackle-the-climate-crisis-and-protect-vulnerable-communities/	

Matrix 2. Original Studies that Established the Conceptual Model for GSI Design																	
Title	Year	Author(s)	Resource Type	Priority Item (1 to 5)	Green Stormwater Infrastructure		Climate Change Impact								Focus on Equity	Web Link	Brief Summary
					Mention of GSI	Focus on GSI	Urban Heat	Precip	Snow-fall	Sea Level/Lake/ Riverine Rise	Water Stress	Bio-diversity	Tree/ Green Equity	Air Quality			
Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs	1987	Thomas R. Schueler for Washington Metropolitan Water Resources Planning Board	Manual	3	X	X										Controlling Urban Runoff Metropolitan Washington Council of Governments (mwcoq.org)	Manual provides detailed guidance on how to plan and design urban best management practices to remove pollutants and protect stream habitats
Design and Construction of Urban Stormwater Management Systems	1992	Water Environment Research Federation and American Society of Civil Engineers	Manual	3	X	X										https://ascelibrary.org/doi/book/10.1061/9780872628557	
Stormwater: Best Management Practices and Detention for Water Quality, Drainage and CSO Management, 2nd Edition	1992	Urbanas and Stahre	Textbook	3	X	X										https://www.amazon.com/Stormwater-Management-Practices-Detention-1992-10-01/dp/B01A65DCAS	
Surface Water Design Manual	1998	King County Stormwater Services	Manual	3	X	X										https://your.kingcounty.gov/dnrp/library/water-and-land/stormwater/surface-water-design-manual/1998-swdm.zip	
Stormwater Collection Systems Design Handbook	2001	Mays	Textbook	3	X	X										https://www.zoju.edu/jo/download/stormwater-collection-systems-design-handbook-2001.pdf	
Stormwater Treatment: Biological, Chemical, and Engineering Principles	2002	Minton	Textbook	3	X	X										https://books.google.com/books/about/Stormwater_Treatment.html?id=T5rRAAACA-AJ	
CASQA Stormwater BMP Handbook - New Development and Redevelopment	2003	CASQA	Manual	3	X	X											BMP manual from CASQA
Municipal Stormwater Management, 2nd Edition	2003	Debo and Reese	Textbook	3	X	X										https://www.routledge.com/Municipal-Stormwater-Management/Debo-Reese/p/book/9781566705844	
Stormwater Best Management Practices Design Guide (Volume 1, 2, and 3)	2004	U.S. Environmental Protection Agency	Manual	3	X	X										https://cfpub.epa.gov/slsl_public_record_Report.cfm?Lab=NRMRL&dirEntryId=99739	

Matrix 3. Regional-Focused Impacts and Global Hydrologic Impacts of Climate Change																
Title	Year	Author(s)	Resource Type	Priority Item (1 to 5)	Green Stormwater Infrastructure		Climate Change Impact							Focus on Equity	Web Link	Brief Summary
					Mention of GSI	Focus on GSI	Urban Heat	Precip	Snow-fall	Sea Level/Lake/ Riverine Rise	Water Stress	Bio-diversity	Tree/Green Equity			
Effects of climate change on hydrology and water resources in the Columbia River Basin	1999	Hamlet & Lettenmaier	Journal Article						X							General climate impacts in the Columbia River Basin.
Effects of simulated climate change on the hydrology of major river basins	2001	Arora & Boer	Journal Article					X								The paper explore the potential effects of global warming on the hydrology of 23 major rivers. It focuses on runoff and discharges.
Hydrologic sensitivity of global rivers to climate change	2001	Nijssen et al.	Journal Article						X							Used GCMs to predict future climate impact on hydrology.
The effects of climate change on water resources in the west: Introduction and overview	2004	Barnett et al.	Journal Article													Assessment of the effects of climate change on water resources in the western United States. The assessment focuses on the potential changes over the first half of the 21st century on the Columbia, Sacramento/San Joaquin, and Colorado river basins.
Potential impacts of a warming climate on water availability in snow-dominated regions	2005	Barnett, Adam, & Lettenmaier	Journal Article						X		X					With a modest increase in near-surface air temperature, the alterations of the hydrological cycle are expected to take place via seasonal shifts in stream-flow in snowmelt-dominated regions. This change can lead to regional water shortages in areas without adequate water storage capacity.
Changes toward earlier streamflow timing across Western North America	2005	Stewart, Cayan, & Dettinger	Journal Article						X							Changes in timing of snowmelt-derived streamflow from 1948 to 2002 were investigated through trend and principal component analyses.
Human-induced changes in the hydrology of the Western United States	2008	Barnett et al.	Journal Article													Used hydrological models together with global climate models to show that up to 60% of the climate-related trends of river flow, winter air temperature, and snowpack between 1950 to 1999 are human-induced.
Implications of 21st century climate change for the hydrology of Washington State	2010	Elsner et al.	Journal Article						X							Impacts of climate changes on the hydrological cycle in Pacific northwest; focus on the greater Columbia River watershed and Yakima River watershed; main parameters looked at are snow water equivalent, soil moisture, runoff, and streamflow under different emissions scenarios
Adapting to the impacts of climate change	2010	National Research Council	Report	5												General climate changes in the US and adaptation options and strategies.
Climate change effects on stream and river temperatures across the northwest U.S. from 1980-2009 and implications for salmonid fishes	2012	Isaak et al.	Journal Article									X				The team assembled 18 temperature time-series from sites on regulated and unregulated streams in the NW US to describe historical trends from 1980 to 2009 and assess thermal consistency between these stream categories.
Geomorphological records of extreme floods and their relationship to decadal-scale climate change	2014	Foulds et al.	Journal Article													Study of the geomorphological traces of extreme rainfall and floods occurrence between 1900 to 1960 in the Cambrian Mountains of Wales, UK.
Estimates of Twenty-First-Century Flood Risk in the Pacific Northwest Based on Regional Climate Model Simulations	2014	Salathe et al.	Journal Article					X								The paper shows substantial increases in future flood risk (2040-69) in many Pacific Northwest river basins in the early fall using a regional climate model simulation. Two primary causes: more extreme and earlier storms and warming temperatures that shift precipitation from snow to rain dominance over regional terrain
Local Enhancement of Extreme Precipitation during Atmospheric Rivers as Simulated in a Regional Climate Model	2018	Lorente-Plazas et al.	Journal Article					X								This paper examines the synoptic conditions that yield extreme precipitation in two regions with different orographic features, the Olympic Mountains and Puget Sound.
Integrated Vulnerability Assessment of Climate Change in the Lake Tahoe Basin	2020	CA Tahoe Conservancy & Catalyst Environmental Solutions	Report					X	X		X	X			tahoe.ca.gov/vulnerability-assessment	This report aims to provide residents, visitors, businesses, and public agencies with state-of-art information on how patterns of temperature and precipitation will change, and how these patterns will affect the things people care about.

ATTACHMENT C.4.1

City of Oakland

**List of All Industrial and Commercial Facilities Requiring
Stormwater Inspections per MRP Provision C.4.b.ii.(2)(d)**

FY 2021-2022

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
1 AUTO REPAIR	3509 FOOTHILL BLVD 94601	AUTO REPAIR
1ST CHOICE AUTO REPAIR	4101 MARTIN LUTHER KING JR WY 94609	AUTO REPAIR
1ST QUALITY AUTO	6528 INTERNATIONAL BLVD 94621	AUTO REPAIR
44 AUTOBODY & PAINT/DEVILS CUSTOM & PAI	950 77TH AVE 94621	AUTO REPAIR
55TH TIRE & SERVICE	5500 INTERNATIONAL BLVD 94621	AUTO REPAIR
7 DAY TIRE AND SHOP	8332 INTERNATIONAL BLVD 94621	AUTO REPAIR
880 AUTO BODY SHOP INC	4401 E 12TH ST 94601	AUTO REPAIR
A & B AUTO CENTER	5325 INTERNATIONAL BLVD 94601	AUTO REPAIR
A & P SERVICE CENTER	398 W MACARTHUR BLVD 94609	AUTO REPAIR
A AND A TIRE SERVICE AND AUTO REPAIR	1093 61ST ST 94608	AUTO REPAIR
A PLUS TIRE AND WHEELS	3500 FOOTHILL BLVD 94601	AUTO REPAIR
A&E AUTO BODY	7933 INTERNATIONAL BLVD 94621	AUTO REPAIR
A&E AUTOBODY	1383 80TH AVE 94621	AUTO REPAIR
A.S.E. AUTO REPAIR	611 85TH AVE 94621	AUTO REPAIR
A-1 AUTO COLLISION	8227 INTERNATIONAL BLVD 94621	AUTO REPAIR
A-1 AUTO EXPRESS	1774 82ND AVE 94621	AUTO REPAIR
A-1 CUSTOM WORKS	8670 INTERNATIONAL BLVD 94621	AUTO REPAIR
AAMCO TRANSMISSIONS	3050 BROOK ST 94611	AUTO REPAIR
ACAPULCO GARAGE	1421 HIGH ST 94601	AUTO REPAIR
ACEVEDO & SONS AUTO REPAIR	8515 SAN LEANDRO ST SUITE 94621	AUTO REPAIR
ADVANCE STARTERS & ALTERNATORS OF USA	850 42ND AVE 94601	AUTO REPAIR
AGKUSTOMS BODYSHOP	2690 COOLIDGE AVE 94601	AUTO REPAIR
AJS AUTO CLINIC	6006 SAN PABLO AVE 94608	AUTO REPAIR
AK MOTORS	1940 UNION ST 94607	AUTO REPAIR
ALAMEDA IMPORT AUTOMOTIVE LLC	1235 48TH AVE 94601	AUTO REPAIR
ALBERTOS AUTO REPAIR	801 54TH AVE 94601	AUTO REPAIR
ALEM H KASHAI	3909 MARTIN LUTHER KING JR WY 94609	AUTO REPAIR
ALEX AND ANGELS TIRES	5443 SHATTUCK AVE 94609	AUTO REPAIR
ALEXIA AUTOMOTRIZ	6410 INTERNATIONAL BLVD 94621	AUTO REPAIR
ALEXS UPHOLSTERY AUTO SHOP	5319 INTERNATIONAL BLVD 94601	AUTO REPAIR
ALFA AUTO REPAIR & AUTOBODY	7508 INTERNATIONAL BLVD 94621	AUTO REPAIR
ALFONSOS TINT CENTER	4200 INTERNATIONAL BLVD SUITE 94601	AUTO REPAIR
ALL MUFFLERS DISCOUNTED & TIRES	4256 INTERNATIONAL BLVD 94601	AUTO REPAIR
ALLIED SYSTEMS	3005 E 12TH ST 94601	AUTO REPAIR
ALLSTAR AUTO BODY	3658 FOOTHILL BLVD 94601	AUTO REPAIR
ALPHABET CITY AUTO SHOP	1141 98TH AVE 94603	AUTO REPAIR
AMERICAN AUTO COLLISION	3927 INTERNATIONAL BLVD 94601	AUTO REPAIR
AMERICAN AUTO UPHOLSTERY & GLASS	3080 BROADWAY 94611	AUTO REPAIR
AMERICAN CYLINDER HEAD REPAIR	499 LESSER ST 94601	AUTO REPAIR
AMIGOS AUTO BODY LLC	3714 FOOTHILL BLVD 94601	AUTO REPAIR
AMORS AUTO ELECTRIC REPAIR	1970 SEMINARY AVE 94621	AUTO REPAIR
ANDRES MOTOR SPORTS/CLEANGREEN COLLISION	2408 MANDELA PKWY 94607	AUTO REPAIR
ANGELES AUTO BODY REPAIR	8925 SAN LEANDRO ST 94621	AUTO REPAIR
ANGULO AUTO UPHOLSTERY	1336 89TH AVE 94621	AUTO REPAIR
ANTIGUA AUTO REPAIR	2520 WEST ST 94612	AUTO REPAIR
ANTS AUTO COLLISION SHOP	2300 MARKET ST SUITE 94607	AUTO REPAIR
ANTWAN IMMA	818 30TH ST 94608	AUTO REPAIR
AO APPLIANCE REPAIR	2618 77TH AVE 94605	AUTO REPAIR
ARNE AUTO REPAIR	7520 INTERNATIONAL BLVD 94621	AUTO REPAIR
A'S COIN-UP CARWASH	957 E 12TH ST 94606	AUTO REPAIR
ASC ALTERNATOR AND STARTER	1951 INTERNATIONAL BLVD 94606	AUTO REPAIR
ATC COLORS LLC	631 85TH AVE 94621	AUTO REPAIR
AUDI MAZDA OF OAKLAND	2560 WEBSTER ST 94612	AUTO REPAIR
AUDI OAKLAND SERVICE CENTER	2560 WEBSTER ST 94612	AUTO REPAIR
AUTO BOUTEEK	507 23RD AVE 94606	AUTO REPAIR
AUTO CARE SHOP	299 29TH ST 94611	AUTO REPAIR
AUTO GLASS TECHS.	2926 SAN PABLO AVE SUITE 94608	AUTO REPAIR
AUTO MECHS	801 W MACARTHUR BLVD 94608	AUTO REPAIR
AUTO PLUS	5401 SAN LEANDRO ST 94601	AUTO REPAIR
AUTO PLUS TOW STORAGE YARD	5051 COLISEUM WY 94621	AUTO REPAIR
AUTO PLUS TOWING	5150 COLISEUM WY 94621	AUTO REPAIR
AUTO REPAIR MASTER INC	448 25TH ST 94612	AUTO REPAIR
AUTO REPAIR OF OAKLAND	1750 E 12TH ST 94606	AUTO REPAIR
AUTO SAVER	2601 35TH AVE 94619	AUTO REPAIR
AUTO TECH WEST	2703 MARTIN LUTHER KING JR WY 94612	AUTO REPAIR
AUTO WORKS & COMPANY	3900 FOOTHILL BLVD 94601	AUTO REPAIR
AUTO WORLD BODY & FRAME	844 E 12TH ST 94606	AUTO REPAIR
AUTOBODY	1208 54TH AVE 94601	AUTO REPAIR
AUTOCOM NISSAN OF OAKLAND	2735 BROADWAY 94612	AUTO REPAIR

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
AUTOELECTRICS	1429 14TH AVE UNIT 94606	AUTO REPAIR
AUTOMAX OF BAY AREA INC	1750 E 12TH ST 94606	AUTO REPAIR
AUTOMOTIVE COLLISION REPAIR	365 26TH ST 94612	AUTO REPAIR
AUTOTRENDS	2840 BROADWAY 94611	AUTO REPAIR
AUTOZONE	3533 MACARTHUR BLVD 94619	AUTO REPAIR
AUTOZONE #3357	3525 MACARTHUR BLVD 94619	AUTO REPAIR
AUTOZONE #3371	7200 BANCROFT AVE 94605	AUTO REPAIR
AUTOZONE #4151	807 27TH ST 94607	AUTO REPAIR
AUTOZONE #5230	10111 INTERNATIONAL BLVD 94603	AUTO REPAIR
AUTOZONE PARTS INC	3050 E 9TH ST 94601	AUTO REPAIR
AVIS RENT A CAR SYSTEM LLC	2428 WEBSTER ST 94612	AUTO REPAIR
B & H AUTO SERVICE	851 E 12TH ST 94606	AUTO REPAIR
B & J AUTO CENTER INC	5901 COLISEUM WY 94621	AUTO REPAIR
B & J TIRES & WHEELS INC	5325 INTERNATIONAL BLVD 94601	AUTO REPAIR
B & S DISMANTLER	8925 SAN LEANDRO ST 94621	AUTO REPAIR
B AND M AUTO	9901 PIPPIN ST 94603	AUTO REPAIR
BANCROFT COMPLETE AUTO REPAIR	5342 BANCROFT AVE 94601	AUTO REPAIR
BATTERY SPECIALISTS	2824 SAN PABLO AVE 94608	AUTO REPAIR
BAY AREA AUTO REPAIR	550 E 12TH ST 94606	AUTO REPAIR
BAY AREA CYLINDER HEAD	732 E 12TH ST 94606	AUTO REPAIR
BAY AREA ENGINE EXCHANGE	1285 47TH AVE 94601	AUTO REPAIR
BAY AUTO CENTER	610 OAK ST 94607	AUTO REPAIR
BAY AUTO CENTER	810 23RD AVE 94606	AUTO REPAIR
BAY BRIDGE AUTO BODY	2130 90TH AVE 94603	AUTO REPAIR
BAY CITY ALTERNATORS	8807 INTERNATIONAL BLVD 94621	AUTO REPAIR
BAY CITY AUTO & TRANSMISSION REPAIR	1220 47TH AVE 94601	AUTO REPAIR
BAY MOTOR SPORT SERVICES INC	1118 5TH AVE 94606	AUTO REPAIR
BAY ONE AUTO BODY INC	2939 E 7TH ST 94601	AUTO REPAIR
BENJAMIN AUTO DETAIL	10100 INTERNATIONAL BLVD 94603	AUTO REPAIR
BENNER AUTO REPAIR INC	488 25TH ST 94612	AUTO REPAIR
BENSON'S TIRE AND AUTO SERVICE	488 25TH ST 94612	AUTO REPAIR
BESA QUALITY AUTO CARE	2350 WEBSTER ST 94612	AUTO REPAIR
BEST DEAL TIRES & WHEEL AUTO REPAIR	2200 E 12TH ST 94606	AUTO REPAIR
BEST DEAL WHEEL & TIRE INC	2901 SAN PABLO AVE 94608	AUTO REPAIR
BEST DETAIL INC	2412 BROADWAY 94612	AUTO REPAIR
BEST TIRE AUTO AND REPAIR	1050 98TH AVE 94603	AUTO REPAIR
BFB WORLD WIDE AUTO SALES	9959 INTERNATIONAL BLVD 94603	AUTO REPAIR
BILLS AUTO SALES AND AUTOMANIA	2921 FORD ST 94601	AUTO REPAIR
BILLS DENTS & DINGS REPAIR	515 WELDON AVE 94610	AUTO REPAIR
BILLY AUTO REPAIR	7520 INTERNATIONAL BLVD 94621	AUTO REPAIR
BM AUTO PARTS	7006 WELD ST 94621	AUTO REPAIR
BNB AUTO REPAIR	5337 INTERNATIONAL BLVD 94601	AUTO REPAIR
BOB MOTTER BODY SHOP INC	6426 SHATTUCK AVE 94609	AUTO REPAIR
BOUNMY CHENG AUTO REPAIR INC	1800 INTERNATIONAL BLVD 94606	AUTO REPAIR
BQ AUTO REPAIR	1421 HIGH ST 94601	AUTO REPAIR
BROADWAY AUTOMOTIVE & TRANSMISSION	2943 BROADWAY 94611	AUTO REPAIR
BROODY MOOD CAR WASH	10950 REPOSO DR 94603	AUTO REPAIR
BROOKS MOTOR CARS	9829 BIGGE ST 94603	AUTO REPAIR
BRUCES TIRE INC	240 HEGENBERGER RD 94621	AUTO REPAIR
BT AUTO REPAIR	2264 E 12TH ST 94606	AUTO REPAIR
BUDGET RENT A CAR SYSTEM	2428 WEBSTER ST 94612	AUTO REPAIR
BUDGET RENT A CAR SYSTEM INC	121 98TH AVE 94603	AUTO REPAIR
CALIFORNIA COVERS	431 26TH ST 94612	AUTO REPAIR
CALIFORNIA FINEST BODY & FRAME	1415 18TH ST 94607	AUTO REPAIR
CAPITAL AUTO GROUP	1141 98TH AVE 94603	AUTO REPAIR
CAR CARE OF OAKLAND	320 23RD ST 94612	AUTO REPAIR
CARLOS AUTO REPAIR AND TIRE SERVICE	2801 SAN PABLO AVE 94608	AUTO REPAIR
CASTANEDA AUTO REPAIR	855 34TH AVE 94601	AUTO REPAIR
CATRACHO AUTO REPAIR	2801 SAN PABLO AVE SUITE 94608	AUTO REPAIR
CENTER AUTO MACHINE SHOP	1231 10TH AVE 94606	AUTO REPAIR
CHARLES AUTO	4500 MARTIN LUTHER KING JR WY 94609	AUTO REPAIR
CHARLOTTE'S WEB AUTO DETAILING AND CAR WASH	2964 FRUITVALE AVE 94602	AUTO REPAIR
CHAUS AUTO BODY AND REPAIR	4506 INTERNATIONAL BLVD 94601	AUTO REPAIR
CHAUS AUTO SPORTS	1259 48TH AVE 94601	AUTO REPAIR
CHEPES TIRE SERVICE	2181 39TH AVE 94601	AUTO REPAIR
CHILTON AUTO BODY OF OAKLAND INC	1049 9TH AVE 94606	AUTO REPAIR
CHINATOWN SMOG AND REPAIR STATION	800 HARRISON ST 94607	AUTO REPAIR
CHINO'S CUSTOMS	1325 97TH AVE 94603	AUTO REPAIR
CHOY AUTOMOTIVE SERVICE	245 8TH ST 94607	AUTO REPAIR

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
CHOYS AUTO BODY & REPAIR	1407 FOOTHILL BLVD 94606	AUTO REPAIR
CHRISTIAN AUTO REPAIR	910 92ND AVE 94603	AUTO REPAIR
CLASSIC CARS WEST	411 26TH ST 94612	AUTO REPAIR
COCHRAN CAR COMPANY	3010 CHAPMAN ST 94601	AUTO REPAIR
COLISEUM AUTO BODY LLC	835 75TH AVE 94621	AUTO REPAIR
COLISEUM LEXUS/OAKLAND MOTOR CARS INC	7273 OAKPORT ST 94621	AUTO REPAIR
COLISEUM TRANSMISSIONS	6161 COLISEUM WY 94621	AUTO REPAIR
COLLISON REPAIR BY BROOKS	9821 BIGGE ST 94603	AUTO REPAIR
COMMERCIAL AUTO	10211 INTERNATIONAL BLVD 94603	AUTO REPAIR
COMMUNITY AUTO CENTER	2701 FOOTHILL BLVD 94601	AUTO REPAIR
COMMUNITY CAR WASH	8700 INTERNATIONAL BLVD 94621	AUTO REPAIR
COMPLETE FOREIGN CAR SERVICE	2750 FOOTHILL BLVD 94601	AUTO REPAIR
CONTINENTAL IMPORT AUTO SVC	2215 INTERNATIONAL BLVD 94606	AUTO REPAIR
COOKS COLLISION OF OAKLAND	149 11TH ST 94607	AUTO REPAIR
COOKS COLLISION OF OAKLAND #2	1900 MARTIN LUTHER KING JR WY 94612	AUTO REPAIR
CORNERSTONE AUTO CENTER	8008 MOUNTAIN BLVD 94605	AUTO REPAIR
COSTA AUTO CARE AND TIRE LLC	10201 MACARTHUR BLVD 94605	AUTO REPAIR
CRIS AUTO REPAIR AND DETAIL	1330 54TH AVE 94601	AUTO REPAIR
CRUZ TIRE TRUCK REPAIR & TRUCK PARTS	8255 SAN LEANDRO ST 94621	AUTO REPAIR
CSA MOBILE SERVICES INC	1408 MIDDLE HARBOR RD 94607	AUTO REPAIR
CTS TIRES & RECYCLING	2502 14TH AVE 94606	AUTO REPAIR
CUSTOM AUTO BODY & FENDER	1432 14TH AVE 94606	AUTO REPAIR
CUSTOM AUTO LLC	294 HEGENBERGER RD 94621	AUTO REPAIR
D-1 MOBILE AUTO SERVICE	10323 MACARTHUR BLVD 94605	AUTO REPAIR
DAN V AUTO REPAIR	4848 MACARTHUR BLVD 94619	AUTO REPAIR
DANNYS AUTO REPAIR	7520 INTERNATIONAL BLVD 94621	AUTO REPAIR
DAVES COMPLETE AUTO SERVICE	2801 SAN PABLO AVE 94608	AUTO REPAIR
DAVES MUFFLER BRAKE & RADIATOR SERVICE	7744 INTERNATIONAL BLVD 94621	AUTO REPAIR
DAVID P INC QUALITY BODY FENDER	2510 MARTIN LUTHER KING JR WY 94612	AUTO REPAIR
DAWIT AUTO SHOP	4101 MARTIN LUTHER KING JR WY 94609	AUTO REPAIR
DELTA AUTO GARAGE	5538 FOOTHILL BLVD 94605	AUTO REPAIR
DETAILS	2027 CHESTNUT ST 94607	AUTO REPAIR
DIAMOND AUTO CENTER	3475 CHAMPION ST 94602	AUTO REPAIR
DIAMOND DIESEL SERVICE INC	2550 E 12TH ST 94601	AUTO REPAIR
DISCOUNT AUTO SMOG AND UHAUL CENTER	3806 MARTIN LUTHER KING JR WY 94609	AUTO REPAIR
DISCOUNT BRAKES & TIRES	2301 E 12TH ST 94601	AUTO REPAIR
DOWNTOWN AUTO CENTER	4145 BROADWAY 94611	AUTO REPAIR
DUSTY & SONS TRUCK TIRE CENTER	2201 MANDELA PKWY 94607	AUTO REPAIR
E & Y TIRES AND BRAKES SERVICE	7710 INTERNATIONAL BLVD 94621	AUTO REPAIR
E B AUTO BODY	1223 MILLER AVE 94601	AUTO REPAIR
E B AUTO SERVICE INC	2338 E 12TH ST 94601	AUTO REPAIR
EA AUTO PERFORMANCE	5315 SAN PABLO AVE 94608	AUTO REPAIR
EAGLE AUTO COMPANY	8515 SAN LEANDRO ST 94621	AUTO REPAIR
EARL SCHEIB OAKLAND	901 INTERNATIONAL BLVD 94606	AUTO REPAIR
EASON AUTO WORKS	3423 HARLAN ST 94608	AUTO REPAIR
EAST 14TH AUTO SERVICE	5201 INTERNATIONAL BLVD 94601	AUTO REPAIR
EAST BAY AUTO REPAIR & TOWING	1335 FOOTHILL PL 94606	AUTO REPAIR
EAST BAY CLARKLIFT	4701 OAKPORT ST 94601	AUTO REPAIR
EAST BAY MUFFLERS	4016 INTERNATIONAL BLVD 94601	AUTO REPAIR
EAST BAY TRUCK WASH	8255 SAN LEANDRO ST 94621	AUTO REPAIR
EASY BAY AUDIO REPAIR	8410 AMELIA ST 94621	AUTO REPAIR
EIGHTEEN TRUCKING CO	2230 WILLOW ST 94607	AUTO REPAIR
ENRIQUES COMPLETE AUTO REPAIR	914 W GRAND AVE SUITE 94607	AUTO REPAIR
ENTERPRISE RENT A CAR	145 98TH AVE 94603	AUTO REPAIR
ENTERPRISE RENT A CAR CO OF S F LLC	3030 BROADWAY 94611	AUTO REPAIR
ENTERPRISE RENT A CAR CO OF SAN FRANCISCO	3950 BROADWAY 94611	AUTO REPAIR
ENTERPRISE RENT A CAR COMPANY OF SAN FRANCISCO INC	165 98TH AVE 94603	AUTO REPAIR
ENTERPRISE RENT-A-CAR OF SAN FRANCISCO LLC	25 EMBARCADERO 94606	AUTO REPAIR
ENTERPRISE RENT-A-CAR OF SAN FRANCISCO LLC	1049 9TH AVE 94606	AUTO REPAIR
ENTHUSIAST AUTOMOTIVE II	5920 ADELIN ST 94608	AUTO REPAIR
EQUIPMENT AND AUTOMOTIVE TRADING COMPANY	1323 E 17TH ST 94606	AUTO REPAIR
ER TRANSMISSION	3506 PIEDMONT AVE 94611	AUTO REPAIR
EXACTO AUTOMOTIVE	6714 INTERNATIONAL BLVD 94621	AUTO REPAIR
EXCEL AUTO	2939 E 7TH ST	AUTO REPAIR
EXPERIENCE AUTO BODY	2230 INTERNATIONAL BLVD 94606	AUTO REPAIR
EXPRESS AUTO CLINIC	3810 BROADWAY 94611	AUTO REPAIR
F & G AUTO REPAIR	2764 INTERNATIONAL BLVD 94601	AUTO REPAIR
FAMILY AUTO CARE	958 77TH AVE 94621	AUTO REPAIR
FAST & QUALITY AUTO REPAIR	6528 INTERNATIONAL BLVD 94621	AUTO REPAIR

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
FAST AUTO BODY & REPAIR	851 E 12TH ST 94606	AUTO REPAIR
FAST AUTO BODY PARTS	6914 MACARTHUR BLVD 94605	AUTO REPAIR
FAST COLLISON CENTER	2344 E 12TH ST 94601	AUTO REPAIR
FEATHERWEIGHT PERFORMANCE & RESTORATION	10966 SAN LEANDRO ST 94603	AUTO REPAIR
FERNANDOS TIRE SERVICE	1414 16TH AVE 94606	AUTO REPAIR
FIFTH STREET GARAGE	431 MARTIN LUTHER KING JR WY 94607	AUTO REPAIR
FINISHING TOUCHES AUTO DETAILING	2555 INTERNATIONAL BLVD 94601	AUTO REPAIR
FLAMING AUTO BODY	6506 INTERNATIONAL BLVD 94621	AUTO REPAIR
FLEETWORKS INC	72 98TH AVE 94603	AUTO REPAIR
FOOTHILL COLLISION CENTER	6821 FOOTHILL BLVD 94605	AUTO REPAIR
FORD WHOLESALE COMPANY	8907 RAILROAD AVE 94621	AUTO REPAIR
FRANK TIRE	299 29TH ST 94611	AUTO REPAIR
FRITZ AND PETERS IMPORT CAR	420 25TH ST 94602	AUTO REPAIR
FRM AUTO SALES	4200 INTERNATIONAL BLVD 94601	AUTO REPAIR
FRUITVALE COLLISION CENTER	3009 FOOTHILL BLVD 94601	AUTO REPAIR
FRUITVALE UNION 76 REPAIR SHOP	3066 FRUITVALE AVE 94602	AUTO REPAIR
G D L CUSTOM BODY SHOP	10211 INTERNATIONAL BLVD 94603	AUTO REPAIR
G&C AUTO BODY LLC.	5512 MARTIN LUTHER KING JR WY 94609	AUTO REPAIR
GARCIAS BRAKES	6410 INTERNATIONAL BLVD 94621	AUTO REPAIR
GARCIAS TIRES & BRAKES	872 50TH AVE 94601	AUTO REPAIR
GCR TIRES AND SERVICE	140 HEGENBERGER LOOP 94621	AUTO REPAIR
GEORGE OREN TIRE SPECIALIST INC	1350 INTERNATIONAL BLVD 94606	AUTO REPAIR
GEORGE V ARTH & SON	110 10TH ST 94607	AUTO REPAIR
GERMAN AUTO MASTER	2605 MARKET ST 94607	AUTO REPAIR
GERMAN CAR SERVICE	5300 BROADWAY 94618	AUTO REPAIR
GERMANYS BEST	5291 COLLEGE AVE 94618	AUTO REPAIR
GIOS BODY REPAIR	1124 E 11TH ST 94606	AUTO REPAIR
GOLD COIN CAR WASHES	485 27TH ST 94612	AUTO REPAIR
GOLD COIN CAR WASHES	3100 SAN PABLO AVE 94608	AUTO REPAIR
GOLD COIN CAR WASHES	401 40TH ST 94609	AUTO REPAIR
GOLD COIN CAR WASHES	2380 FOOTHILL BLVD 94601	AUTO REPAIR
GOLD COIN CAR WASHES	6315 INTERNATIONAL BLVD 94621	AUTO REPAIR
GOMES TIRE & SERVICE CENTER	1350 50TH AVE 94601	AUTO REPAIR
GOOD DEAL MOTORS	5200 INTERNATIONAL BLVD 94601	AUTO REPAIR
GOOD LUCK AUTO REPAIR SERVICES	929 38TH AVE 94601	AUTO REPAIR
H & H AUTO COLLISION INC	3031 E 12TH ST 94601	AUTO REPAIR
H & N AUTO REPAIR	8332 INTERNATIONAL BLVD 94621	AUTO REPAIR
HALF PRICE AUTO SALE LLC	10550 INTERNATIONAL BLVD 94603	AUTO REPAIR
HAROLD'S AUTO BODY AND PAINT SHOP	2126 MARKET ST 94607	AUTO REPAIR
HAVENSCOURT GARAGE	6026 FOOTHILL BLVD 94605	AUTO REPAIR
HAYASA MOTORBIKES	430 E 10TH ST 94606	AUTO REPAIR
HECTOR'S AUTO REPAIR	3725 SAN LEANDRO ST 94601	AUTO REPAIR
HHR AUTO	933 77TH AVE 94621	AUTO REPAIR
HI QUALITY AUTO	6548 INTERNATIONAL BLVD 94621	AUTO REPAIR
HIGH OCTANE BODY PAINT	1649 28TH ST 94608	AUTO REPAIR
HIGH STREET 100% HAND CARWASH LUBE OIL	569 HIGH ST 94601	AUTO REPAIR
HK AUTO CARE	3806 MARTIN LUTHER KING JR WY 94609	AUTO REPAIR
HONDA OF OAKLAND	327 34TH ST 94609	AUTO REPAIR
HOOSHIS AUTO SERVICE	1499 MACARTHUR BLVD 94602	AUTO REPAIR
HUSTEADS COLLISION INC	2915 MARKET ST 94608	AUTO REPAIR
I TAL KING AUTO	5839 INTERNATIONAL BLVD 94621	AUTO REPAIR
IAM AUTO CARE	2550 HIGH ST 94601	AUTO REPAIR
IAM AUTO SERVICE	842 E 12TH ST 94606	AUTO REPAIR
IN & OUT AUTO DETAIL	424 MARTIN LUTHER KING JR WY 94607	AUTO REPAIR
IN N OUT AUTO SERVICE	712 E 12TH ST 94606	AUTO REPAIR
INSURANCE COLLISION CENTER	504 E 10TH ST 94606	AUTO REPAIR
INTERMODEL MAINTENANCE SERVICES INC OAKLAND.	1408 MIDDLE HARBOR RD 94608	AUTO REPAIR
INTERNATIONAL E.Z. TIRE AND AUTO	10100 INTERNATIONAL BLVD 94603	AUTO REPAIR
INTERNATIONAL HAND CARWASH	4852 INTERNATIONAL BLVD 94601	AUTO REPAIR
INTERNATIONAL SMOG TEST & AUTO SERVICE	1208 INTERNATIONAL BLVD 94606	AUTO REPAIR
INTERNATIONAL TIRES & BRAKES INC	6662 INTERNATIONAL BLVD 94621	AUTO REPAIR
INTERNATIONAL TRANSMISSION COMPLETE AUTO CARE	7340 INTERNATIONAL BLVD 94621	AUTO REPAIR
J & A TRUCK REPAIR	2300 POPLAR ST 94607	AUTO REPAIR
J & J AUTO BODY AND REPAIR	1221 8TH AVE 94606	AUTO REPAIR
J 1 AUTO PARTS AND SALES	1101 98TH AVE 94603	AUTO REPAIR
J&O'S TIRE CENTER	2236 POPLAR ST 94607	AUTO REPAIR
J.G. TRUCK STOP OIL CHANGE AND TIRES	8255 SAN LEANDRO ST 94621	AUTO REPAIR
JACKIES BUBLES	1059 63RD ST 94608	AUTO REPAIR
JAMES AUTO REPAIR	2801 FOOTHILL BLVD 94601	AUTO REPAIR

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
JASON AUTO SERVICE	2424 BROADWAY 94612	AUTO REPAIR
JASON'S 76 AUTO REPAIR	3101 98TH AVE 94605	AUTO REPAIR
JB SMOG CHECK AND AUTO REPAIR	1325 76TH AVE 94621	AUTO REPAIR
JB TRUCK AND ELECTRICAL REPAIR	1433 18TH ST 94607	AUTO REPAIR
JIMENEZ GENERAL AUTO REPAIR	6001 FOOTHILL BLVD 94605	AUTO REPAIR
JIREH MOBILE REPAIR LLC	8925 SAN LEANDRO ST 94621	AUTO REPAIR
JJ BODY SHOP	4951 SAN LEANDRO ST 94601	AUTO REPAIR
JOEL UGARTE AND MARTHA HERNANDEZ	10800 MACARTHUR BLVD 94605	AUTO REPAIR
JOHNNY'S AUTO REPAIR SHOP	3074 BROADWAY 94611	AUTO REPAIR
J'S AUTO SERVICE	1201 45TH AVE 94601	AUTO REPAIR
JUAN F UMANZOR UMANA	611 85TH AVE 94621	AUTO REPAIR
JZ AUTO BODY & SERVICES	1432 14TH AVE 94606	AUTO REPAIR
K & G AUTO BODY SHOP	1215 10TH AVE 94606	AUTO REPAIR
K AUTO REPAIR SHOP	6714 INTERNATIONAL BLVD 94621	AUTO REPAIR
K JS AUTOBODY	8921 SAN LEANDRO ST 94621	AUTO REPAIR
KARKACHAS AUTO REPAIR	1445 24TH AVE 94601	AUTO REPAIR
KEN BETTS CHEVRON SERVICE	4150 REDWOOD RD 94619	AUTO REPAIR
KEN BETTSTOWING SERVICE	4625 SAN LEANDRO ST 94601	AUTO REPAIR
KONG AUTO BODY & REPAIR SHOP	1131 6TH AVE 94606	AUTO REPAIR
KRAFT AUTOMOTIVE	2020 BRUSH ST 94612	AUTO REPAIR
KSC OAKLAND	409 E 12TH ST 94606	AUTO REPAIR
KTA MOBILE TIRE SHOP	1206 82ND AVE 94621	AUTO REPAIR
L P CUSTOMS	1421 HIGH ST 94601	AUTO REPAIR
LAST GASP AUTO SALVAGE	2924 GLASCOCK ST 94601	AUTO REPAIR
LAST RESORT AUTO	1049 ALCATRAZ AVE 94608	AUTO REPAIR
LEE'S AUTO REPAIR	5525 BANCROFT AVE 94605	AUTO REPAIR
LEGACY GHARTEY SERVICE	9834 MACARTHUR BLVD 94605	AUTO REPAIR
LEONS REMANUFACTURING ALTERNATORS AND STARTERS	1421 HIGH ST SUITE 94601	AUTO REPAIR
LES AUTO BODY AND ENGINE REPAIR	1550 E 12TH ST 94606	AUTO REPAIR
LOCAL TOWING	3900 WATTLING ST 94601	AUTO REPAIR
LONE STAR	2510 WEST ST 94612	AUTO REPAIR
LOPEZ TIRES & SERVICE (LT)	3526 SAN LEANDRO ST 94601	AUTO REPAIR
LOPEZ-TZINZUN TIRES AND BRAKES	7915 INTERNATIONAL BLVD 94621	AUTO REPAIR
LOU'S MOBILE AUTOMASTERS	6200 SHATTUCK AVE 94609	AUTO REPAIR
LT TRANSMISSION	4451 E 12TH ST SUITE 94601	AUTO REPAIR
LUCKY AUTO DETAIL	2345 INTERNATIONAL BLVD 94601	AUTO REPAIR
LUIS AUTO	900 39TH AVE 94601	AUTO REPAIR
M.H. AUTO REPAIR & BODY	1211 11TH AVE 94606	AUTO REPAIR
MAC ARTHUR AUTO SERVICE CENTER	10511 MACARTHUR BLVD 94605	AUTO REPAIR
MADE IN JAPAN AUTO REPAIR	2703 MARTIN LUTHER KING JR WY 94612	AUTO REPAIR
MAKING IT HAPPEN MOTORS	4200 INTERNATIONAL BLVD 94601	AUTO REPAIR
MAMAS AUTOCARE INC	2801 MACARTHUR BLVD 94602	AUTO REPAIR
MARK MORRIS/FIRESTONE #3623-023213	2850 BROADWAY 94611	AUTO REPAIR
MASTER TECH AUTOBODY INC	1518 E 12TH ST 94606	AUTO REPAIR
MAXX HORSEPOWER	1142 82ND AVE 94621	AUTO REPAIR
MAYA CUSTOM CLEANING SERVICES	1947 SEMINARY AVE 94621	AUTO REPAIR
MC RADIATORS & WELDING INC	4307 E 12TH ST 94601	AUTO REPAIR
MCQUEENS BODY SHOP	2010 7TH AVE 94606	AUTO REPAIR
MD AUTO	5111 SAN LEANDRO AVE 94601	AUTO REPAIR
MD AUTO BODY & REPAIR	5111 SAN LEANDRO ST 94601	AUTO REPAIR
MECHANIC ON DUTY AUTO REPAIR INC	2504 MACARTHUR BLVD 94602	AUTO REPAIR
MEINEKE CAR CARE CENTER	3464 FOOTHILL BLVD 94601	AUTO REPAIR
MERCEDES BENZ OF OAKLAND	2915 BROADWAY 94609	AUTO REPAIR
MERCEDES BENZ OR OAKLAND	2915 BROADWAY 94611	AUTO REPAIR
METRO AUTO REPAIR	3412 SAN LEANDRO ST 94601	AUTO REPAIR
MEZAS TRANSMISSIONS	8515 SAN LEANDRO ST SUITE 94621	AUTO REPAIR
MHZ AUTO	8823 INTERNATIONAL BLVD 94621	AUTO REPAIR
MICKEYS CAR WASH LLC	500 E 12TH ST 94606	AUTO REPAIR
MIKES COMPLETE AUTO SERVICE	2350 HIGH ST 94601	AUTO REPAIR
MINUTE MUFFLER SERVICE	6818 FOOTHILL BLVD 94605	AUTO REPAIR
MIRAGE AUTO BODY AND PAINT	1121 98TH AVE 94603	AUTO REPAIR
MISSION BAY AUTO SALES INC	6331 INTERNATIONAL BLVD 94621	AUTO REPAIR
MITCH N ACE	5201 INTERNATIONAL BLVD 94601	AUTO REPAIR
MJ AUTOMOTIVE REPAIR AND ELECTRIC	2344 E 12TH ST 94601	AUTO REPAIR
MOBILITY WORKS	1822 EMBARCADERO 94606	AUTO REPAIR
MODERN AUTO BODY	1640 E 12TH ST 94606	AUTO REPAIR
MONTCLAIR AUTO TECH INC	5427 TELEGRAPH AVE 94609	AUTO REPAIR
MOTOR TECH AUTO	6406 INTERNATIONAL BLVD 94621	AUTO REPAIR
MURGUIAS AUTO CARE & REPAIR	4217 INTERNATIONAL BLVD 94601	AUTO REPAIR

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
MUSCO	200 BURMA RD 94607	AUTO REPAIR
N AND D ALTERNATOR & STARTER	745 E 12TH ST SUITE 94606	AUTO REPAIR
NAPA AUTO PARTS	4425 INTERNATIONAL BLVD 94601	AUTO REPAIR
NAYARIT TRANSMISSIONS AUTO REPAIR	5330 FOOTHILL BLVD 94601	AUTO REPAIR
NEO AUTOWORKS	1220 E 12TH ST 94606	AUTO REPAIR
NEW CENTURY AUTO BODY	504 E 10TH ST 94606	AUTO REPAIR
NEW H & L AUTO BODY INC	1221 12TH AVE 94606	AUTO REPAIR
NEW PRIDE CORP.	8977 RAILROAD AVE 94621	AUTO REPAIR
NICKI'S AUTO DETAIL	5330 FOOTHILL BLVD 94601	AUTO REPAIR
NILSON BROS GARAGE	2860 38TH AVE 94619	AUTO REPAIR
NOOR AUTO	3901 SAN LEANDRO ST 94601	AUTO REPAIR
NOVA TRUCK REPAIR	9201 RAILROAD AVE 94603	AUTO REPAIR
OAKLAND ACURA	6701 OAKPORT ST 94601	AUTO REPAIR
OAKLAND ALTERNATORS	8620 E ST 94621	AUTO REPAIR
OAKLAND AUTO REPAIR	1158 INTERNATIONAL BLVD 94606	AUTO REPAIR
OAKLAND AUTO TECH	1237 39TH AVE 94601	AUTO REPAIR
OAKLAND AUTO WORKS	240 W MACARTHUR BLVD 94611	AUTO REPAIR
OAKLAND AUTOMOTIVE CO (HONDA OF OAKLAND)	3330 BROADWAY 94611	AUTO REPAIR
OAKLAND COLLISION CENTER	504 E 10TH ST 94606	AUTO REPAIR
OAKLAND COLLISION TRUCK PAINTING	600 MCCLARY AVE 94621	AUTO REPAIR
OAKLAND FORKLIFT REPAIR	2124 88TH AVE 94621	AUTO REPAIR
OAKLAND IMPORT CARS	3200 MACARTHUR BLVD 94602	AUTO REPAIR
OAKLAND ONE STOP AUTO	10948 SAN LEANDRO ST 94603	AUTO REPAIR
OAKLAND PANEL CRAFT	6598 SAN PABLO AVE 94608	AUTO REPAIR
OAKLAND TIRE AND MUFFLER	1734 E 12TH ST 94606	AUTO REPAIR
OAKLAND TRANSMISSION SERVICE CENTER	9868 MACARTHUR BLVD 94605	AUTO REPAIR
OAKLANDS CUSTOM CRAFTERS	8410 AMELIA ST 94621	AUTO REPAIR
OAKLAND'S CUSTOM CRAFTERS	6821 FOOTHILL BLVD 94605	AUTO REPAIR
OIL CHANGERS	640 W GRAND AVE 94612	AUTO REPAIR
OIL CHANGERS	3418 PARK BLVD 94610	AUTO REPAIR
ONE STOP AUTO PARTS	6040 SAN PABLO AVE 94608	AUTO REPAIR
ONE STOP AUTOMOTIVE AND COLLISION CENTER INC	1021 45TH AVE SUITE 94601	AUTO REPAIR
OREILLY AUTO PARTS #2602	4200 MACARTHUR BLVD 94619	AUTO REPAIR
OREILLY AUTO PARTS #2829	3232 FOOTHILL BLVD 94601	AUTO REPAIR
OREILLY AUTO PARTS #2910	4400 BROADWAY 94611	AUTO REPAIR
OREILLY AUTO PARTS #3445	1800 PARK BLVD 94606	AUTO REPAIR
OREILLY AUTO PARTS #3473	4240 INTERNATIONAL BLVD 94601	AUTO REPAIR
ORTIZ TIRES & WHEELS	8001 INTERNATIONAL BLVD 94621	AUTO REPAIR
P & P BUMPER REPAIR	3720 FOOTHILL BLVD 94601	AUTO REPAIR
PACIFIC AUTO ELECTRIC	958 E 12TH ST 94606	AUTO REPAIR
PACIFIC COLLISION LLC	98 HEGENBERGER LOOP 94621	AUTO REPAIR
PART RESTORATION AUTOS	900 39TH AVE 94601	AUTO REPAIR
PAUL BIANCO'S GOOD CAR COMPANY OAKLAND	7201 OAKPORT ST 94621	AUTO REPAIR
PENNZOIL SPEED OIL CHANGE CENTER	2 HEGENBERGER RD 94621	AUTO REPAIR
PEOPLES CAR WASH AND AUTO DETAIL LLC	3314 SAN PABLO AVE 94608	AUTO REPAIR
PERFORMANCE AUTO BODY CENTER	635 E 12TH ST 94606	AUTO REPAIR
PERFORMANCE OPTIONS	1009 7TH ST 94607	AUTO REPAIR
PG AUTO BODY & REPAIR & DETAILING	450 INTERNATIONAL BLVD 94606	AUTO REPAIR
PHOENIX AUTO BODY	8917 SAN LEANDRO ST 94621	AUTO REPAIR
PHOENIX IRON WORKS	499 EMBARCADERO 94606	AUTO REPAIR
PINK BUBBLES CAR WASH	5815 MARKET ST 94608	AUTO REPAIR
PORBOYS INC	3640 E 9TH ST 94601	AUTO REPAIR
PRECISION MOTORS	3068 BROADWAY 94611	AUTO REPAIR
PRIMOS AUTO BODY	7933 INTERNATIONAL BLVD 94621	AUTO REPAIR
PRO AUTO SOLUTIONS	6917 MACARTHUR BLVD 94605	AUTO REPAIR
PRO LUBE	6301 SAN PABLO AVE 94608	AUTO REPAIR
PRO SPEED AUTO BODY	1410 31ST AVE 94601	AUTO REPAIR
QUALITY AUTO SERVICE INC	1200 E 12TH ST 94606	AUTO REPAIR
QUALITY BODY AND FENDER	2510 MARTIN LUTHER KING JR WY 94612	AUTO REPAIR
QUALITY TECH AUTOMOTIVE	1235 16TH AVE 94606	AUTO REPAIR
QUI AUTO REPAIR INC	3755 FOOTHILL BLVD 94601	AUTO REPAIR
QUICK SHINE	9765 MOUNTAIN BLVD 94605	AUTO REPAIR
QUIK SMOG AND REPAIR	3725 SAN LEANDRO ST 94601	AUTO REPAIR
R & C AUTO SALES	4200 INTERNATIONAL BLVD 94601	AUTO REPAIR
R H AUTO REPAIR	1371 34TH ST 94608	AUTO REPAIR
RADIATOR ENGINEER INC	4000 INTERNATIONAL BLVD 94601	AUTO REPAIR
RAKHA AUTO REPAIR WORKSHOP	905 77TH AVE 94621	AUTO REPAIR
RAMIREZ AUTO	4825 FOOTHILL BLVD 94601	AUTO REPAIR
REAL DEAL AUTO SALES LLC	4533 INTERNATIONAL BLVD 94601	AUTO REPAIR

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
RELIANCE DETAILING	1815 94TH AVE 94603	AUTO REPAIR
REUNION	1432 14TH AVE 94606	AUTO REPAIR
RICARDO'S CUSTOM AUTO SERVICE (NOW CALLED AMERICAN AUTO REPORT)	1237 40TH AVE 94601	AUTO REPAIR
RICAS AUTO	1924 99TH AVE 94603	AUTO REPAIR
ROBERTO TRUCK REPAIR	8255 SAN LEANDRO ST 94621	AUTO REPAIR
ROBERTO'S TRUCK REPAIR	8261 SAN LEANDRO ST 94621	AUTO REPAIR
ROCKRIDGE TWO WHEELS	5291 COLLEGE AVE 94618	AUTO REPAIR
ROGER MOBILE TRUCK REPAIR	4341 HOWARD ST 94601	AUTO REPAIR
ROGER'S AUTOWORKS	3022 BROADWAY 94611	AUTO REPAIR
ROMEO'S GARAGE	8807 INTERNATIONAL BLVD 94621	AUTO REPAIR
RON'S BERKELEY MUFFLER SERVICE	6432 SHATTUCK AVE 94609	AUTO REPAIR
ROUSE TIRE SERVICE INC	2340 HARRISON ST 94612	AUTO REPAIR
ROY'S TIRE & BATTERY SERVICE	4509 E 12TH ST 94601	AUTO REPAIR
RUBENS BODY SHOP	828 34TH AVE 94601	AUTO REPAIR
SAM SIPKINS AUTO MECH& D RETAIL AUTO PRT	3427 MAGNOLIA ST 94608	AUTO REPAIR
SAN PABLO AUTO BODY AND PAINT INC	2926 SAN PABLO AVE 94608	AUTO REPAIR
SAN PABLO TIRES & BRAKES	6101 SAN PABLO AVE 94608	AUTO REPAIR
SBOP	598 55TH ST 94609	AUTO REPAIR
SEVEN ELEVEN BODY SHOP	645 E 11TH ST 94606	AUTO REPAIR
SEVEN STAR DIESEL REPAIR	722 JULIE ANN WY 94621	AUTO REPAIR
SHATTUCK AUTO CENTER INC	6618 SHATTUCK AVE 94609	AUTO REPAIR
SHEAFFS SERVICE GARAGE	5930 COLLEGE AVE 94618	AUTO REPAIR
SHORTY KUSTOMS	6672 BANCROFT AVE 94605	AUTO REPAIR
SIDS COLLISION & GLASS REPAIR	6017 INTERNATIONAL BLVD 94621	AUTO REPAIR
SILVER STAR MOTORS	1727 17TH ST 94607	AUTO REPAIR
SIN-MEX AUTO BODY SHOP	4028 INTERNATIONAL BLVD 94601	AUTO REPAIR
SMOOTH AUTO BODY SHOP	1228 41ST AVE 94601	AUTO REPAIR
SOLAR CAR WASH	6360 TELEGRAPH AVE 94609	AUTO REPAIR
SOLAR CAR WASH	3092 MACARTHUR BLVD 94602	AUTO REPAIR
SOL'S OAKLAND AUTOMOTIVE	416 25TH ST 94612	AUTO REPAIR
SPECTACULAR AUTO WORKS	1101 7TH AVE 94606	AUTO REPAIR
SPEED OIL CHANGE CENTER II	5225 SHATTUCK AVE 94609	AUTO REPAIR
SPEEDY TIRES AND AUTOCENTER	5132 INTERNATIONAL BLVD 94601	AUTO REPAIR
SPRAY MASTER INC	4233 MACARTHUR BLVD 94619	AUTO REPAIR
STANDARD PARTS LLC	928 E 12TH ST 94606	AUTO REPAIR
STEVE'S AUTO	2400 E 12TH ST 94601	AUTO REPAIR
STREHLE'S BODY SHOP INC	494 36TH ST 94609	AUTO REPAIR
SUNNY CAR EAGLE	3901 INTERNATIONAL BLVD 94601	AUTO REPAIR
SUPERIOR AUTO AND INTERLOCK	1118 E 12TH ST 94606	AUTO REPAIR
SUPREME AUTO	288 28TH ST 94611	AUTO REPAIR
SUPREME AUTO	1118 E 12TH ST 94606	AUTO REPAIR
T & T AUTO REPAIRS INC	330 WEBSTER ST 94607	AUTO REPAIR
T.P. TRANSMISSION	1414 70TH AVE 94621	AUTO REPAIR
T1 BUMPER REPAIR	3720 FOOTHILL BLVD 94601	AUTO REPAIR
TAILORED AUTO DETAILING	156 LOUVAINNE AVE 94603	AUTO REPAIR
TAMS AUTO BODY REPAIR	2300 MARKET ST SUITE 94607	AUTO REPAIR
TANIS CLOUTIER'S WRONG ERA CUSTOMS	1000 40TH AVE 94601	AUTO REPAIR
TEMESCAL AUTO CENTER	426 40TH ST 94609	AUTO REPAIR
TFS TRUCKING/JAC TRUCK REPAIR	2226 MYRTLE ST 94607	AUTO REPAIR
THE BENZ SHOP	379 26TH ST 94612	AUTO REPAIR
THE BEST SHOP	381 26TH ST 94612	AUTO REPAIR
THE HERTZ CORPORATION (727318)	1001 BROADWAY 94607	AUTO REPAIR
THE HERTZ CORPORATION (735202)	2400 WEBSTER ST 94612	AUTO REPAIR
THE MUSCLE CAR HUB LLC	623 85TH AVE 94621	AUTO REPAIR
THE RIGHT SPOT AUTO DOC	740 DOUGLAS AVE 94603	AUTO REPAIR
THE TOWN CAR WASH	5625 FOOTHILL BLVD 94605	AUTO REPAIR
TIDEWATER TIRE & AUTO CENTER	4626 MALAT ST 94601	AUTO REPAIR
TIM AUTO REPAIR & BODY SHOP	1230 5TH AVE 94606	AUTO REPAIR
TIRE AND TIRE INC	1750 E 12TH ST 94606	AUTO REPAIR
TIRE SALES AND SERVICE/WHEELS EXPERT	891 W MACARTHUR BLVD 94608	AUTO REPAIR
TIRES & SERVICE	3640 E 9TH ST 94601	AUTO REPAIR
TMS AUTOMOTIVE	1125 9TH AVE 94606	AUTO REPAIR
TOM AUTO	6714 INTERNATIONAL BLVD 94621	AUTO REPAIR
TONY'S TIRE AND BRAKES	8412 INTERNATIONAL BLVD 94621	AUTO REPAIR
TOPETES AUTO REPAIR	7520 INTERNATIONAL BLVD 94621	AUTO REPAIR
TORCHIOS AUTO REPAIR INC	2344 WEBSTER ST 94612	AUTO REPAIR
TRANSTAR AUTO BODY SHOP	940 E 12TH ST 94606	AUTO REPAIR
TUANS AUTO REPAIR	4825 FOOTHILL BLVD 94601	AUTO REPAIR
TURBO AUTO BODY INC	1722 INTERNATIONAL BLVD 94606	AUTO REPAIR

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
TURBO TIRES	1745 INTERNATIONAL BLVD 94606	AUTO REPAIR
U & J AUTO REPAIR	7520 INTERNATIONAL BLVD 94621	AUTO REPAIR
UPTOWN BODY & FENDER	456 25TH ST 94612	AUTO REPAIR
UPTOWN BODY & FENDER	401 26TH ST 94612	AUTO REPAIR
URIAS JR. AUTO SHOP	8332 INTERNATIONAL BLVD 94621	AUTO REPAIR
V&J BODY SHOP	4647 FOOTHILL BLVD 94601	AUTO REPAIR
VANS TIRE & AUTO SERVICE INC	2200 INTERNATIONAL BLVD 94606	AUTO REPAIR
VINCENT ELECTRIC COMPANY	8383 BALDWIN ST 94621	AUTO REPAIR
VINTAGE AUTO SERVICE	4721 TIDEWATER AVE SUITE 94601	AUTO REPAIR
VIP AUTO COLLISION REPAIR	293 27TH ST 94612	AUTO REPAIR
VOLKSWAGEN OF OAKLAND	2740 BROADWAY 94612	AUTO REPAIR
WASH ZONE	8900 INTERNATIONAL BLVD 94621	AUTO REPAIR
WAYNES EASTBAY AUTO BODY AND DETAIL	6821 FOOTHILL BLVD 94605	AUTO REPAIR
WEATHERFORD BMW	575 W GRAND AVE 94612	AUTO REPAIR
WEST COAST FORKLIFT	1950 AUSEON AVE 94621	AUTO REPAIR
WEST OAKLAND TIRES & REPAIRS INC	914 W GRAND AVE 94607	AUTO REPAIR
WHEEL SERVICE	10320 INTERNATIONAL BLVD 94603	AUTO REPAIR
WILLIAMS AUTO PARTS	732 53RD ST 94609	AUTO REPAIR
WILLIES UNIQUE AUTO BODY SHOP	5525 FOOTHILL BLVD 94605	AUTO REPAIR
WINDOW TINTING A PLUS	3074 BROADWAY 94611	AUTO REPAIR
WONGS AUTO REPAIR	2801 FOOTHILL BLVD 94601	AUTO REPAIR
WRAP GODS	780 105TH ST 94603	AUTO REPAIR
XAN AUTO BODY & REPAIR SEVICES	1101 98TH AVE 94603	AUTO REPAIR
XUS AUTO REPAIR INC	1111 E 12TH ST 94606	AUTO REPAIR
XYZ MOTORS	299 29TH ST 94611	AUTO REPAIR
YANG AUTO REPAIR	1101 7TH AVE 94606	AUTO REPAIR
YOUNGS AUTOMOTIVE	3509 GRAND AVE 94610	AUTO REPAIR
YOUR PRIVATE EYE	1706 82ND AVE 94621	AUTO REPAIR
ZENTRUM MOTORS	1225 7TH ST 94619	AUTO REPAIR
ANGEL CAKES	745 5TH ST	BAKERY
BATCH PASTRIES LLC	2220 MOUNTAIN BLVD SUITE 94611	BAKERY
BUIPHONG BAKERY	2800 INTERNATIONAL BLVD 94601	BAKERY
DELICIAS BAKERY	3460 INTERNATIONAL BLVD 94601	BAKERY
ITS ALL GOOD BAKERY	5622 MARTIN LUTHER KING JR WY 94609	BAKERY
JAMES AND THE GIANT CUPCAKE LLC	341 17TH ST 94612	BAKERY
KATRINA ROZELLE PASTRIES & DESSERTS	5931 COLLEGE AVE 94618	BAKERY
LA DOLCE VIDA	505 40TH ST	BAKERY
LA FAVORITA	1433 FRUITVALE AVE 94601	BAKERY
LADYFINGERS	150 SANTA CLARA AVE 94610	BAKERY
LE DOLCE	3931 TELEGRAPH AVE 94609	BAKERY
MARIPOSA BAKING	5427 TELEGRAPH AVE 94609	BAKERY
PANADERIA SEVILLA	1414 FRUITVALE AVE	BAKERY
POPPY BAGELS	101 BROADWAY 94607	BAKERY
SPECIALTYS CAFE & BAKERY	155 GRAND AVE SUITE 94612	BAKERY
SPECIALTYS CAFE & BAKERY	555 12TH ST SUITE 94607	BAKERY
SUGARSWEET COOKIES & CAKE STUDIO	5855 MACARTHUR BLVD	BAKERY
SUN SING PASTRY	382 8TH ST 94607	BAKERY
WOODEN TABLE BAKING CO	910 81ST AVE SUITE 94621	BAKERY
WOODEN TABLE BAKING CO CAFE	2300 BROADWAY 94612	BAKERY
YELLOW DOOR	6466 MORAGA AVE 94611	BAKERY
ABC SUPPLY CO INC	7217 SAN LEANDRO ST 94621	BUILDING MATERIALS STORE
ATLAS HEATING AND AIR CONDITIONING	1451 32ND ST 94608	BUILDING MATERIALS STORE
BAKER MARBLE & GRANITE CORP	2430 UNION ST 94607	BUILDING MATERIALS STORE
ECONOMY LUMBER CO OF OAKLAND I	750 HIGH ST 94601	BUILDING MATERIALS STORE
FEENEY INC	2603 UNION ST 94607	BUILDING MATERIALS STORE
JBT HOLDINGS	1031 98TH AVE 94603	BUILDING MATERIALS STORE
LARMS BUILDING AND GARDEN SUPP	743 HIGH ST 94601	BUILDING MATERIALS STORE
LEVEL CONSTRUCTION SUPPLY II LLC	9838 GOULD ST 94603	BUILDING MATERIALS STORE
MARKS PAINT MART	4211 TELEGRAPH AVE 94609	BUILDING MATERIALS STORE
PACIFIC SUPPLY	1735 24TH ST 94607	BUILDING MATERIALS STORE
PPG PAINTS	3356 PIEDMONT AVE 94611	BUILDING MATERIALS STORE
ROOFLINE INC	900 37TH AVE 94601	BUILDING MATERIALS STORE
SHERWIN-WILLIAMS COMPANY #8143	559 66TH AVE 94621	BUILDING MATERIALS STORE
THE HOME.DEPOT STORE #1007	4000 ALAMEDA AVE 94601	BUILDING MATERIALS STORE
U S WHOLESALE PIPE & TUBE INC	1050 77TH AVE 94621	BUILDING MATERIALS STORE
UNITED CARPET CONSTRUCTION SUPPLY INC	1226 13TH AVE 94606	BUILDING MATERIALS STORE
U-SAVE POWER EQUIPMENT	9370 MACARTHUR BLVD 94605	BUILDING MATERIALS STORE
VAN MATRE LUMBER COMPANY INC	251 5TH AVE 94606	BUILDING MATERIALS STORE
3CBY LLC	5601 SAN LEANDRO ST 94601	CANNABIS

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
3CBY LLC	5601 SAN LEANDRO ST 94601	CANNABIS
5 LEAF	725 E 11TH ST 94606	CANNABIS
5 STAR MEDICAL PARTNERS INC	1036 47TH AVE 94601	CANNABIS
510 LABS	845 51ST AVE 94601	CANNABIS
5601 A LLC	5601 SAN LEANDRO ST 94601	CANNABIS
5601 B LLC	5601 SAN LEANDRO ST 94601	CANNABIS
5601 C LLC	5601 SAN LEANDRO ST 94601	CANNABIS
98TH OPERATION LLC	10025 SAN LEANDRO ST 94603	CANNABIS
A1 EXTRACTS	617 85TH AVE 94621	CANNABIS
A-1 NURSERY	725 E11TH ST 94606	CANNABIS
AARON EDWARDS	222 MADISON ST 94607	CANNABIS
ACCENTIAN INC	711 INDEPENDENT RD 94621	CANNABIS
ALAN PHULPS	685 85TH AVE 94621	CANNABIS
ALEXANDER FANG	2537 WILLOW AVE 94607	CANNABIS
ALEXIS BRONSON	810 81ST AVE 94621	CANNABIS
ALLISON HAYES	685 85TH AVE 94621	CANNABIS
ALVIN ODOM	722 105TH AVE 94603	CANNABIS
AMELIA STREET VENTURES LLC	8410 AMELIA ST 94621	CANNABIS
AMELIA STREET VENTURES LLC	8430 AMELIA ST 94621	CANNABIS
AMETRINE WELLNESS CORP	1137 57TH AVE 94621	CANNABIS
ARMAND BELVIN	960 98TH AVE 94603	CANNABIS
BALDWIN PARTNERS LLC	8378 BALDWIN ST 94621	CANNABIS
BANAFSHEH KHORRUM	407 CASTRO ST 94608	CANNABIS
BAY AREA ELITE FARMERS INC	5733 SAN LEANDRO ST 94601	CANNABIS
BERRY CREEK HOLDINGS LLC	563 JULIE ANN WY 94621	CANNABIS
BLUE TREE MEDICAL LLC	4901 TIDEWATER DR 94621	CANNABIS
BLUM	578 GRAND AVE 94612	CANNABIS
BLW PARTNERS LLC	685 85TH AVE 94621	CANNABIS
BLY EQUIPMENT & PROPERTY MANAGEMENT LLC	836 81ST AVE 94621	CANNABIS
BMD LANDSCAPE DESIGN	10000 EDES AVE 94603	CANNABIS
BOSS STRATEGIES	580 JULIA ANN WY 94621	CANNABIS
BRYMFACE CORPORATION	2734 E7TH ST 94601	CANNABIS
CA OPERATING CO LLC	5733 SAN LEANDRO ST 94621	CANNABIS
CALIFORNIA CANNABINOIDS INC	414 LESSER ST 94601	CANNABIS
CANNAPLEX REGULATORY	685 85TH AVE 94621	CANNABIS
CAREEM ROBINSON	810 81ST AVE 94621	CANNABIS
CARLTON WILLIAMS	722 105TH AVE 94621	CANNABIS
CAROUSEL BAY LLC	5733 SAN LEANDRO ST 94621	CANNABIS
CCSAC	6315 SAN LEANDRO ST 94621	CANNABIS
CCSAC INC	580 JULIE ANN WY 94621	CANNABIS
CCSAC INC	810 81ST AVE 94621	CANNABIS
CHANGSHENG XU	2883 WOOD ST 94607	CANNABIS
CHARISIAM	4905 TIDEWATER AVE 94621	CANNABIS
CHIEF RESEARCH & LOGISTICS	8378 BALDWIN ST 94621	CANNABIS
CHRETIEN SCHIFFER	1617 32ND ST 94608	CANNABIS
CHRIS KINGSBY	426 E 11TH AVE 94601	CANNABIS
CHRISTOPHER TENAGLIA	3134 SAN PABLO AVE 94612	CANNABIS
CISCO NEGOESCU	2802 E7TH ST 94601	CANNABIS
CISCO NEGOESCU	3800 WATTLING ST 94601	CANNABIS
CLAUDE ALLEN	1021 45TH AVE 94601	CANNABIS
CMC LLC	5801 SAN LEANDRO ST 94621	CANNABIS
COMMON GROUND ENTERPRISE INC	1025 98TH AVE 94603	CANNABIS
COMMUNITY GARDENS TREELINE INC	1699 W GRAND AVE 94607	CANNABIS
CRANE CITY NURSERY LLC	6161 COLISEUM WY 94621	CANNABIS
CUT HOUSE LLC	9845 KITTY LN 94621	CANNABIS
CYAN MANUFACTURING	1036 47TH AVE 94601	CANNABIS
DAREN WONG	9827 KITTY LN 94603	CANNABIS
DAT HING CHANG	860 77TH AVE 94621	CANNABIS
DATWEI LLC	860 77TH AVE 94621	CANNABIS
DAVID CLANCY	2650 MAGNOLIA ST 94607	CANNABIS
DAVID CLANCY	850 77TH AVE 94621	CANNABIS
DC CAPITAL HOLDINGS LLC	5733 SAN LEANDRO ST 94621	CANNABIS
DEAN WOODBRIDGE	1036 47TH AVE 94601	CANNABIS
DEGI SIMMONS	2960 CHAPMAN ST 94601	CANNABIS
DELVIN RAMON ARMSTRONG	3022 CHESTNUT ST 94608	CANNABIS
DENNIS DILLARD	2010 57TH AVE 94621	CANNABIS
DEVYN-GIOVANNI DAO	9131 SAN LEANDRO ST 94603	CANNABIS
DNA ARMY CA INC	950 89TH AVE 94621	CANNABIS
EFFETT (GARY ROBERSON)	690 HEGENBERGER RD 94621	CANNABIS

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
ELEVATED COMPASSION MANAGEMENT LLC.	916 75TH AVE 94621	CANNABIS
ELMWOOD OPERATIONS LLC	3129 ELMWOOD AVE 94601	CANNABIS
EMERALD CONNECTOR	944 85TH AVE 94621	CANNABIS
EMERALD WIZARDS INC	944 85TH AVE 94621	CANNABIS
ERIC TRAN	1025 98TH AVE 94603	CANNABIS
EXCEPTIONAL EXTRACTS	1036 47TH AVE 94601	CANNABIS
FELIX TAT CHI LUONG	2883 WOOD ST 94607	CANNABIS
FLY NEW START	1028 44TH AVE 94601	CANNABIS
FORDOAK OPERATIONS LLC	4901 E 12TH ST 94601	CANNABIS
FRANK ENNIX (CASA VERDE)	807 54TH AVE 94601	CANNABIS
FRANK WALKER	3120 CHAPMAN ST 94601	CANNABIS
FRESH MINT	808 FRANKLIN ST 94607	CANNABIS
GOLDEN STATE BLOOM LLC	8933 SAN LEANDRO ST 94621	CANNABIS
GOLDEN STATE LEGENDS MGMT. CORP.	6425 SAN LEANDRO ST 94621	CANNABIS
GOOD & BAKED	2792 MANDELA PKWY 94607	CANNABIS
GRACE & CO. INC	744 KEVIN CT 94621	CANNABIS
GRANDIFLORA GENETICS LLC	2650 MAGNOLIA ST 94607	CANNABIS
GREEN FLOURISH LLC	4901 E 12TH ST 94601	CANNABIS
GREEN GOLD INVESTMENT CORP.	563 JULIE ANN WY 94621	CANNABIS
GREEN TARGET LLC	9845 MEDFORD AVE 94603	CANNABIS
GREEN THUMB DISTRIBUTORS INC	1920 E 12TH ST 94606	CANNABIS
GREENWEED PARADISE	2734 E 7TH ST 94601	CANNABIS
GREG BRIDGES	926 85TH AVE 94621	CANNABIS
GRIZZLY PEAK FARM LLC	200 HEGENBERGER RD 94621	CANNABIS
GRIZZLY PEAK FARMS 3 LLC	701 66TH AVE 94621	CANNABIS
GUAN ZI XAN	860 77TH AVE 94621	CANNABIS
GUANG HUI LIN	563 JULIA ANN WY 94621	CANNABIS
GX MANUFACTURING	851 49TH AVE 94601	CANNABIS
HAMMERJACK USA INC	1033 44TH AVE 94601	CANNABIS
HIGH STREET ENTERPRISES LLC	926 HIGH ST 94601	CANNABIS
HUA DONG LI	850 77TH AVE 94621	CANNABIS
HUANG FUHUA	860 77TH AVE 94621	CANNABIS
HUMMINGBIRD VERDE 3	1545 WILLOW ST 94607	CANNABIS
ICOAK INC	958 77TH AVE 94621	CANNABIS
INDOOR SPECIALTIES INC	1044 44TH AVE 94601	CANNABIS
INFINITE PERCENT PARTNERS LLC	9921 MEDFORD AVE 94603	CANNABIS
IVXX GARDENS I INC	30 HEGENBERGER LP 94621	CANNABIS
JADE SMILE GARDEN	5831 SAN LEANDRO ST 94621	CANNABIS
JASON HICKS	685 85TH AVE 94621	CANNABIS
JAVIER ARMAS	2803 E 7TH ST 94606	CANNABIS
JAZMINE JACKSON	1545 WILLOW ST 94607	CANNABIS
JBTB HOLDINGS INC	1031 98TH AVE 94603	CANNABIS
JENSON DISTRIBUTION SERVICES	2401 POPLAR ST 94607	CANNABIS
JEROLD ROBINSON	2537 WILLOW ST 94607	CANNABIS
JETTY	1137 57TH AVE 94621	CANNABIS
JIMMY ROMERO	1067 77TH AVE 94621	CANNABIS
JINGLEBAY HOLDINGS INC	2960 CHAPMAN ST 94601	CANNABIS
JNBA CORPORATION	789 54TH AVE 94601	CANNABIS
JOHN HARLOW	722 105TH AVE 94621	CANNABIS
JOSHUA CHASE	2908 CHAPMAN ST 94601	CANNABIS
JOSHUA WASHINGTON	888 98TH AVE 94603	CANNABIS
JOYUS RECREATION & WELLNESS GROUP INC	2430 UNION ST 94607	CANNABIS
JT SUPPLY	8451 BALDWIN ST 94621	CANNABIS
JUAN CERVANTES NOVOA	1104 57TH AVE 94604	CANNABIS
JULIO GOMEZ	809 52ND AVE 94601	CANNABIS
KAO SAELEE	10036 PERMAIN ST 94603	CANNABIS
KEITH BRITTON	2650 MAGNOLIA ST 94607	CANNABIS
KEVEN RODRIGUEZ	580 JULIE ANN WY 94621	CANNABIS
KITTY LANE PARTNERS LLC	9845 KITTY LN 94603	CANNABIS
KRIS WONG	6163 COLISEUM WY 94621	CANNABIS
KUSHALLA INC	763 46TH AVE 94601	CANNABIS
KWONG LAI	9131 SAN LEANDRO ST 94603	CANNABIS
LADEDRIA COOKS	763 46TH AVE 94601	CANNABIS
LANDB CAPITAL INVESTMENTS	837 81ST AVE 94621	CANNABIS
LAPRIA BIVINS	685 85TH AVE 94621	CANNABIS
LEAFLETES INC	1036 46TH AVE 94601	CANNABIS
LEMAR KEY/BEVERLY JOHNSON	1036 47TH AVE 94601	CANNABIS
LIANG JI LI	9131 SAN LEANDRO ST 94603	CANNABIS
LIEN A. LO	6161 COLISEUM WY 94621	CANNABIS

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
LILI ZHANG	9901 MEDFORD AVE 94603	CANNABIS
LIMITED BOUTIQUE SUPPLY	2928 CHAPMAN ST 94601	CANNABIS
LU GLOBAL INVESTMENTS GROUP LLC	9921 MEDFORD AVE 94603	CANNABIS
MALLORY DAWN HOLT	8378 BALDWIN ST 94621	CANNABIS
MAN HO CHEN	336 MAGNOLIA ST 94610	CANNABIS
MARION CHESHER	2802 E 7TH ST 94601	CANNABIS
MARION CHESHER	3800 WATTLING ST 94601	CANNABIS
MARKVISION BIOTECH INC	619 85TH AVE 94621	CANNABIS
MATOZA HOLDINGS INC	860 77TH AVE 94621	CANNABIS
MEDOAK OPERATIONS LLC	9845 MEDFORD AVE 94603	CANNABIS
MENAGE PATIENT GROUP INC	1025 98TH AVE 94603	CANNABIS
MICHAEL DALEY	1629 84TH AVE 94621	CANNABIS
MILLENNIUM MARKETPLACE	3137 ADELIN ST 94607	CANNABIS
MIVILLC	2830 FORD ST 94601	CANNABIS
MONISH PATEL	698 HEGENBERGER RD 94621	CANNABIS
MOSSROCK	740 105TH AVE 94621	CANNABIS
NEHVENS HOLDINGS INC	850 77TH AVE 94621	CANNABIS
NICHOLAS NEVENS	1036 47TH AVE 94601	CANNABIS
NICOLE OWENS	2830 FORD ST 94601	CANNABIS
NICOLE OWENS	1201 46TH AVE 94601	CANNABIS
NINE MILE TRIBE	810 81ST AVE 94621	CANNABIS
NINE TWO ONE LLC	921 86TH AVE 94621	CANNABIS
NOR CAL ALLIANCE DISTRIBUTION INC	220 4TH ST 94607	CANNABIS
NUHTOPIA LLC	1036 47TH AVE 94612	CANNABIS
NULEVEL INVESTMENTS	1226 49TH AVE 94601	CANNABIS
NULEVEL INVESTMENTS	1341 58TH AVE 94601	CANNABIS
OAKFRUIT OPERATIONS LLC	299 3RD ST SUITE 94607	CANNABIS
OAKFRUITLAND LLC	4901 E12TH ST 94601	CANNABIS
OAKLAND VISION PROJECT	851 49TH AVE 94601	CANNABIS
OAKMED OPERATIONS LLC	9921 MEDFORD AVE 94603	CANNABIS
OMCG INC	3129 ELMWOOD AVE 94601	CANNABIS
OMCG INC	810 81ST AVE 94621	CANNABIS
OMCG INC	9801 MEDFORD AVE 94603	CANNABIS
OSANYIN LLC	222 MADISON AVE 94607	CANNABIS
PCG INDUSTRIES	827 33RD AVE 94601	CANNABIS
PETER HANSEN	2905 UNION ST 94608	CANNABIS
PHYTOLOGIE	8440 ENTERPRISE WY 94621	CANNABIS
PME 5115 LLC	5115 E8TH ST 94601	CANNABIS
PORTLAND INNOVATIONS	1222 47TH AVE 94601	CANNABIS
PRINCE NURSERY LLC	5831 SAN LEANDRO ST 94621	CANNABIS
PROWELL SYSTEMS LLC	3426 PERALTA ST 94608	CANNABIS
PSJP LLC	9921 MEDFORD AVE 94603	CANNABIS
PT-KOR LLC	65 HEGENBERGER PL 94621	CANNABIS
PURIST LLC	5901 SAN LEANDRO ST 94621	CANNABIS
PURPLE CHARLES	1530 E 12TH ST 94601	CANNABIS
QB INNOVATIONS	1308 WOOD ST 94607	CANNABIS
RALPH A BUSH III	1300 7TH ST 94607	CANNABIS
RANDY CHAU	2861 MANDELA PKWY 94607	CANNABIS
REBECCA KIRK	1021 45TH AVE 94601	CANNABIS
REBECCA KIRK	751 105TH ST 94621	CANNABIS
RED CARE SOLUTIONS	414 LESSER ST 94621	CANNABIS
REDWOOD MEDICAL SUPPLY	1104 57TH AVE 94601	CANNABIS
REFINED RESIN TECHNOLOGIES INC	2515 WILLOW ST 94607	CANNABIS
REGINALD JOHNSON JR.	2650 MAGNOLIA ST 94607	CANNABIS
REZA TAKESHI	2430 WILLOW ST 94607	CANNABIS
RICKEY MCCULLOUGH	414 LESSER ST 94621	CANNABIS
RK LABS	8378 BALDWIN ST 94621	CANNABIS
ROBERT BRACKINS	9827 KITTY LN 94603	CANNABIS
ROCK & OAK	1520 E 12TH ST 94606	CANNABIS
ROOTS NURSERY	1920 E12TH ST 94606	CANNABIS
ROOTS NURSERY (CHANGED FROM ROOTS ORGANIC)	630 E10TH ST 94606	CANNABIS
ROOTS OF CALY	630 E 10TH ST 94606	CANNABIS
RUBBERROCK INC	720 105TH AVE 94621	CANNABIS
RUDOLFO PELUZZO	407 CASTRO ST 94607	CANNABIS
SATLLA INC	763 46TH AVE 94601	CANNABIS
SEAN BULLARD	2430 WILLOW ST 94607	CANNABIS
SEVEN LONG LIFE LLC	685 85TH AVE 94621	CANNABIS
SG SCIENTIFIC	1940 UNION ST 94607	CANNABIS
SHI JIN GUAN	2430 WILLOW ST 94607	CANNABIS

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
SIN W CHEUNG	836 81ST AVE 94621	CANNABIS
SKY HIGH ENTERPRISES LLC	9801 MEDFORD AVE 94603	CANNABIS
SPRING VALLEY PATIENTS GROUP	545 INDEPENDENT RD 94621	CANNABIS
SRSF LLC	414 LESSER ST 94601	CANNABIS
SUI CU DIN	336 ADELIN ST 94607	CANNABIS
SUNRISE ORGANIC LOCAL	9921 MEDFORD AVE 94603	CANNABIS
SUNSET CONNECT OAKLAND LLC	685 85TH AVE 94621	CANNABIS
SUPREME OAK VENTURES	1036 47TH AVE 94601	CANNABIS
SUSANA LEE	4933 SAN LEANDRO ST 94601	CANNABIS
SUSTAINABLE FARMS LLC	10036 PEARMAIN ST 94603	CANNABIS
TAJAI MASSEY	840 PINE ST 94607	CANNABIS
TETRA HYDRO CULTIVATORS LLC	1036 47TH AVE 94601	CANNABIS
THE FOUNDERS UNION LLC	2430 UNION ST 94607	CANNABIS
THE FOUNDERS UNION LLC	685 85TH AVE 94621	CANNABIS
THE HONEST CIRCLE INC	8626 G ST 94621	CANNABIS
THE OAKLAND M COMPANY LLC	2433 POPLAR ST 94607	CANNABIS
TIM HEMP WAREHOUSE MANAGEMENT	721 37TH AVE 94601	CANNABIS
TOMMY TOY	1201 46TH AVE 94601	CANNABIS
TOWN BUDS LLC & THE CBD CONSULTING GRP.	807 54TH AVE 94621	CANNABIS
TRIPLE C STRATEGIES	1260 57TH AVE 94621	CANNABIS
TROY LOUIE	1545 E 12TH ST 94601	CANNABIS
UNIVERSAL CANNABIS SOLUTION	5831 SAN LEANDRO ST 94612	CANNABIS
UNIVERSAL CULTIVATING GARDENS	5831 SAN LEANDRO ST 94621	CANNABIS
V PROV LLC	435 23RD AVE 94606	CANNABIS
VANGUARD PRODUCTIONS SYSTEMS INC	9844 KITTY LN 94603	CANNABIS
VT VENTURES	1036 47TH AVE 94601	CANNABIS
WAN LIN ZHEN	9911 MEDFORD ST 94603	CANNABIS
WATERSIDE WAREHOUSING LLC	401 LESSER ST 94601	CANNABIS
WENDELL HOLDINGS LLC	860 77TH AVE 94621	CANNABIS
XCHANGE CORP.	8435 BALDWIN ST 94621	CANNABIS
XIAOFEN LUO (MARKVISION BIOTECH INC	6163 COLISEUM WY 94621	CANNABIS
XIAOFENG LUO (GREEN RUSH MANAGEMENT)	6161 COLISEUM WY 94621	CANNABIS
XIU SHENG YIN	335 ADELIN ST 94607	CANNABIS
XLJ INVESTMENT LLC	1217 48TH AVE 94601	CANNABIS
YANG FU WU	9131 SAN LEANDRO ST 94603	CANNABIS
YCL INVESTMENT GROUP	5733 SAN LEANDRO ST 94621	CANNABIS
ZENVIEW	1100 8TH AVE 94606	CANNABIS
ZENVIEW	832 E 11TH ST 94606	CANNABIS
ZHENXIAN WU	9131 SAN LEANDRO ST 94603	CANNABIS
ZI ZHEN ZHEN	1622 E 12TH ST 94601	CANNABIS
ZJ ENTERPRISES	2109 FREDERICK ST 94606	CANNABIS
ALL STAR CAR WASH	1174 73RD AVE 94621	CAR WASH
HIGH ST FOOD MART & CAR WASH	630 HIGH ST 94601	CAR WASH
HT MOBILE DETAIL CARWASH	433 INTERNATIONAL BLVD 94606	CAR WASH
PETTY CAR WASH	1174 73RD AVE 94621	CAR WASH
PLANET WASH AND DETAIL LLC	1020 HIGH ST 94601	CAR WASH
7TH ST CAFE & COFFEE	1612 7TH ST 94607	COFFEE SHOP
ALEMS COFFEE	5353 CLAREMONT AVE 94618	COFFEE SHOP
ASIA COFFEE SHOP & RESTAURANT 2	1245 6TH AVE 94606	COFFEE SHOP
BA LE FRENCH COFFEE SHOP	812 FRANKLIN ST 94607	COFFEE SHOP
BICA COFFEE HOUSE LLC	5701 COLLEGE AVE 94618	COFFEE SHOP
BICYCLE COFFEE LLC	364 2ND ST 94607	COFFEE SHOP
BLACK SPRING COFFEE COMPANY	2930 TELEGRAPH AVE 94609	COFFEE SHOP
BLUE BOTTLE COFFE INC	480 9TH ST 94607	COFFEE SHOP
BLUE BOTTLE COFFEE	4270 BROADWAY 94611	COFFEE SHOP
COFFEE ROMA	371 30TH ST 94609	COFFEE SHOP
COLE COFFEE INC	307 63RD ST 94618	COFFEE SHOP
COLE COFFEE INC	6255 COLLEGE AVE 94618	COFFEE SHOP
COLOSO COFFEE	917 WASHINGTON ST 94607	COFFEE SHOP
DA HUONG SANDWICHES & COFFEE	605 E 12TH ST 94606	COFFEE SHOP
EARTHLY COFFEE	5506 MARTIN LUTHER KING JR WY 94609	COFFEE SHOP
EQUATOR COFFEES LLC	175 BAY PL 94610	COFFEE SHOP
FOUR BARREL COFFEE	325 MARTIN LUTHER KING JR WY 94607	COFFEE SHOP
HIGHWIRE COFFEE ROASTERS	5655 COLLEGE AVE SUITE 94618	COFFEE SHOP
KILOVOLT COFFEE	1829 MANDELA PKWY 94607	COFFEE SHOP
KINGS COFFEE SHOP	3000 38TH AVE 94619	COFFEE SHOP
LAKEVIEW COFFEE SHOP	2834 LAKESHORE AVE 94610	COFFEE SHOP
LANE-E KEFA COFFEE	77 8TH ST SUITE 94607	COFFEE SHOP
LUIS COFFEE SHOP	5390 BANCROFT AVE 94601	COFFEE SHOP

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
MOSES COFFEE HOUSE INC	1575 7TH ST 94607	COFFEE SHOP
OAKCALI CAFE	1601 2ND AVE 94606	COFFEE SHOP
PANAMA BAY COFFEE	3701 BROADWAY 94611	COFFEE SHOP
PANAMA BAY COFFEE COMPANY	3801 HOWE ST 94611	COFFEE SHOP
PEERLESS COFFEE COMPANY INC	260 OAK ST 94607	COFFEE SHOP
PEETS COFFEE & TEA	5095 TELEGRAPH AVE SUITE 94609	COFFEE SHOP
PEETS COFFEE & TEA INC	4050 PIEDMONT AVE 94611	COFFEE SHOP
PEETS COFFEE AND TEA	2066 ANTIOCH CT 94611	COFFEE SHOP
PERCH COFFEE	440 GRAND AVE SUITE	COFFEE SHOP
PHILZ COFFEE INC	6310 COLLEGE AVE 94618	COFFEE SHOP
PORT COFFEE LLC	10 BURMA RD 94607	COFFEE SHOP
RAWR COFFEE BAR	2869 BROADWAY 94611	COFFEE SHOP
RED BAY COFFEE	3098 E 10TH ST 94601	COFFEE SHOP
ROMA COFFEE BAR	1221 BROADWAY 94612	COFFEE SHOP
ROMOS COFFEE	5395 BANCROFT AVE 94601	COFFEE SHOP
SAINT ANNA COFFEE SHOP	326 8TH ST 94607	COFFEE SHOP
SHADOWLANDS BOOKSTORE AND CAFE	5254 COLLEGE AVE 94618	COFFEE SHOP
SNOW WHITE COFFEE	3824 PIEDMONT AVE 94611	COFFEE SHOP
STARBUCKS COFFEE # 5281	3351 LAKESHORE AVE 94610	COFFEE SHOP
STARBUCKS COFFEE #10942	2251 BROADWAY 94612	COFFEE SHOP
STARBUCKS COFFEE #11453	1211 EMBARCADERO 94606	COFFEE SHOP
STARBUCKS COFFEE #2994	801 BROADWAY 94607	COFFEE SHOP
STARBUCKS COFFEE #47057	222 BROADWAY SUITE 94607	COFFEE SHOP
STARBUCKS COFFEE #5710	4098 PIEDMONT AVE 94611	COFFEE SHOP
STARBUCKS COFFEE #5751	3060 E 9TH ST SUITE 94601	COFFEE SHOP
STARBUCKS COFFEE #625	1200 CLAY ST SUITE 94612	COFFEE SHOP
STARBUCKS COFFEE #9206	315 THOMAS L BERKLEY WY 94612	COFFEE SHOP
STARBUCKS COFFEE #9861	185 98TH AVE 94603	COFFEE SHOP
STARBUCKS COFFEE#62436	470 LAKE PARK AVE 94610	COFFEE SHOP
STARBUCKS CORPORATION #514	5132 BROADWAY 94611	COFFEE SHOP
STATES COFFEE AND BREAD	419 40TH ST 94609	COFFEE SHOP
STATES COFFEE AND BREAD	4008 MARTIN LUTHER KING JR WY 94609	COFFEE SHOP
SUBROSA COFFEE 40TH	419 40TH ST 94609	COFFEE SHOP
THE COFFEE MILL	3363 GRAND AVE 94610	COFFEE SHOP
THORNHILL COFFEE HOUSE	5772 THORNHILL DR 94611	COFFEE SHOP
TROUBLE COFFEE COMPANY	1545 WILLOW ST 94607	COFFEE SHOP
WILDE BROTHERS COFFEE SHOP	3206 GRAND AVE 94610	COFFEE SHOP
DOC BAILEY CONSTRUCTION EQUIPMENT INC	9131 SAN LEANDRO ST SUITE 94603	CONSTRUCTION OPERATIONS
KIEWIT/MANSON A J/V	171 BURMA RD 94608	CONSTRUCTION OPERATIONS
MCGUIRE AND HESTER	9009 RAILROAD AVE 94603	CONSTRUCTION OPERATIONS
MUELLER NICHOLLSINC	2400 UNION ST 94607	CONSTRUCTION OPERATIONS
CVS / PHARMACY #8431	7200 BANCROFT AVE 94605	DRUG STORE
CVS PHARMACY #10475	2964 BROADWAY 94611	DRUG STORE
CVS PHARMACY #1283	3236 LAKESHORE AVE 94610	DRUG STORE
CVS PHARMACY #9130	175 41ST ST 94611	DRUG STORE
CVS PHARMACY #9226	3320 FRUITVALE AVE 94602	DRUG STORE
CVS PHARMACY #9378	4100 REDWOOD RD 94619	DRUG STORE
CVS PHARMACY #9929	2000 MOUNTAIN BLVD 94611	DRUG STORE
CVS PHARMACY #9957	344 THOMAS BERKELEY WY 94612	DRUG STORE
RITE AID #5952	1991 MOUNTAIN BLVD 94611	DRUG STORE
WALGREENS # 16477	3009 BROADWAY 94611	DRUG STORE
WALGREENS #01625	5505 TELEGRAPH AVE 94609	DRUG STORE
WALGREENS #03170	3400 TELEGRAPH AVE 94609	DRUG STORE
WALGREENS #10526	3250 LAKESHORE AVE SUITE 94610	DRUG STORE
WALGREENS #11706	301 E 18TH ST 94606	DRUG STORE
WALGREENS #13595	1333 BROADWAY 94612	DRUG STORE
WALGREENS #15330	5809 FOOTHILL BLVD 94605	DRUG STORE
WALGREENS #1536	3434 HIGH ST 94619	DRUG STORE
WALGREENS #1537	3232 FOOTHILL BLVD 94601	DRUG STORE
WALGREENS #3295	8102 INTERNATIONAL BLVD 94621	DRUG STORE
AAA ROASTERS LLC	1024 9TH AVE 94606	FOOD PRODUCTION
BUCK WILD BREWING	401 JACKSON ST 94607	FOOD PRODUCTION
DIVING DOG BREWHOUSE	1802 TELEGRAPH AVE 94612	FOOD PRODUCTION
FEDERATION BREWING	420 STE ST 94607	FOOD PRODUCTION
GHOST TOWN BREWING	2640 UNION ST 94607	FOOD PRODUCTION
HOI POLLOI BREWING	246 30TH ST 94611	FOOD PRODUCTION
IMPOSSIBLE FOODS INC	550 85TH AVE 94621	FOOD PRODUCTION
LA FINCA	909 KING ST 94606	FOOD PRODUCTION
LINE 51 BREWING LLC	303 CASTRO ST 94607	FOOD PRODUCTION

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
MAYWAY CORPORATION	1338 MANDELLA PKWY 94607	FOOD PRODUCTION
MICRO CINEMA BREWERY	567 5TH ST 94607	FOOD PRODUCTION
NOBLE BREWER BEER COMPANY INC	4721 TIDEWATER AVE SUITE 94601	FOOD PRODUCTION
NOVEL BREWING COMPANY	6510 PABLO AVE 94608	FOOD PRODUCTION
ORIGINAL PATTERN BREWING COMPANY	292 4TH ST 94607	FOOD PRODUCTION
ROSES TAPROOM (ROSES BREWING CO INC)	4930 TELEGRAPH AVE 94609	FOOD PRODUCTION
SVC MANUFACTURING	5625 INTERNATIONAL BLVD 94621	FOOD PRODUCTION
TEMESCAL BREWING	621 4TH ST 94607	FOOD PRODUCTION
TEMESCAL BREWING	4115 TELEGRAPH AVE 94609	FOOD PRODUCTION
THE EARTHGRAINS BAKING COMPANY INC	955 KENNEDY ST 94606	FOOD PRODUCTION
15 FRESH PRODUCE INC	321 FRANKLIN ST 94607	FOOD SERVICE
ALL GREEN PRODUCE	4095 FOOTHILL BLVD 94601	FOOD SERVICE
ALL SEASONS PRODUCE	370 2ND ST 94607	FOOD SERVICE
BARLOVENTO CHOCOLATES	638 2ND ST 94607	FOOD SERVICE
BETTERFOODS LLC	3110 35TH AVE 94619	FOOD SERVICE
C & L PRODUCE	440 FRANKLIN ST 94607	FOOD SERVICE
CALI FRESH PRODUCE	230 FRANKLIN ST 94607	FOOD SERVICE
CAM HUONG BAKERY	1088 WEBSTER ST 94607	FOOD SERVICE
CJ UNITED FOOD CORPORATION	105 JACKSON ST 94607	FOOD SERVICE
CREAM COMPANY	700 JULIAN WY	FOOD SERVICE
DIXON'S	8999 INTERNATIONAL BLVD 94621	FOOD SERVICE
E.14TH PRODUCE	7135 INTERNATIONAL BLVD 94621	FOOD SERVICE
EAST WEST PRODUCE CO	380 2ND ST 94607	FOOD SERVICE
ECLIPSE FOODS	380 WASHINGTON ST 94607	FOOD SERVICE
EL MICHOCANO FRUIT BARS	2342 INTERNATIONAL BLVD 94601	FOOD SERVICE
EL PUERTO PRODUCE	145 FRANKLIN ST 94607	FOOD SERVICE
EVERGREEN PRODUCE	3225 FOOTHILL BLVD 94601	FOOD SERVICE
FARMERS PRODUCE CORPORATION	380 3RD ST 94607	FOOD SERVICE
FAT BOY'S MEAT MARKET	8017 MACARTHUR BLVD 94605	FOOD SERVICE
FRISCO WHOLESALE PRODUCE	329 FRANKLIN ST 94607	FOOD SERVICE
FUJII MELONS INC	201 FRANKLIN ST 94607	FOOD SERVICE
GOLD BEAR PRODUCE CORP	315 FRANKLIN ST 94607	FOOD SERVICE
HOUSE OF PRODUCE	4020 MACARTHUR BLVD 94619	FOOD SERVICE
JAMBA JUICE	4100 REDWOOD RD SUITE 94619	FOOD SERVICE
JITTERS & SHAKES	2101 WEBSTER ST SUITE 94612	FOOD SERVICE
KAMNISHA WELLNESS	1240 47TH AVE 94601	FOOD SERVICE
KITCHEN1014	1014 FRUITVALE AVE 94601	FOOD SERVICE
LA COLMENA PRODUCE MARKET	4825 INTERNATIONAL BLVD 94601	FOOD SERVICE
LA PLACITA	4559 INTERNATIONAL BLVD 94601	FOOD SERVICE
LAKESHORE PRODUCE AND HEALTH FOOD	3312 LAKESHORE AVE 94610	FOOD SERVICE
MELOMELO KAVA BAR	3264 GRAND AVE 94610	FOOD SERVICE
MEXPOBAJA	313 FRANKLIN ST 94607	FOOD SERVICE
MR. DEWIE'S CASHEW CREAMERY	4184 PIEDMONT AVE SUITE 94611	FOOD SERVICE
NEW SAIGON SUPER MARKET	950 INTERNATIONAL BLVD 94606	FOOD SERVICE
ON ON FOOD CO	1130 5TH AVE 94606	FOOD SERVICE
PACIFIC COAST TREASURES	6577 VALLEY VIEW RD 94611	FOOD SERVICE
PROYECTO DIAZ LLC	910 81ST AVE SUITE 94621	FOOD SERVICE
RCI PRODUCE	409 2ND ST 94607	FOOD SERVICE
ROSE OF SHARON SENIOR HOMES	1600 LAKESHORE AVE 94606	FOOD SERVICE
SPERO FOODS	671 4TH ST 94607	FOOD SERVICE
TEMESCAL PRODUCE MARKET	5121 TELEGRAPH AVE 94609	FOOD SERVICE
VEGA PRODUCE	201 FRANKLIN ST 94607	FOOD SERVICE
VENTRE ZOLLER & CO	3927 AQUA VISTA ST 94601	FOOD SERVICE
WEST COAST PRODUCE LLC	300 FRANKLIN ST 94607	FOOD SERVICE
ZIGGY'S DELECTABLES	470 49TH ST SUITE 94609	FOOD SERVICE
100MAC 76	100 MACARTHUR BLVD 94610	GAS STATION
24-7 GAS & FOOD MART	8930 BANCROFT AVE 94605	GAS STATION
35TH AVENUE BP	3201 35TH AVE 94619	GAS STATION
5TH AVE GAS & FOOD MART	510 INTERNATIONAL BLVD 94606	GAS STATION
7 ELEVEN 2369-32181 B	4193 PIEDMONT AVE 94611	GAS STATION
76 C-STOP	6125 TELEGRAPH AVE 94609	GAS STATION
98TH GAS	1141 98TH AVE 94602	GAS STATION
AAA SAN PABLO FUEL INC	3420 SAN PABLO AVE 94608	GAS STATION
ALASKA GASOLINE INC	6211 SAN PABLO AVE 94608	GAS STATION
AM SHELL STATION	230 W MACARTHUR BLVD 94611	GAS STATION
ARCO	10600 MACARTHUR BLVD 94603	GAS STATION
ARCO 00276	10600 MACARTHUR BLVD 94605	GAS STATION
ARCO 00374	6407 TELEGRAPH AVE 94609	GAS STATION
ARCO 07026	566 HEGENBERGER RD 94621	GAS STATION

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
ARCO AM/PM	9800 INTERNATIONAL BLVD 94603	GAS STATION
BANCROFT GAS CORP (VALERO GAS STATION)	7225 BANCROFT AVE 94605	GAS STATION
BETTS LAKESHORE CHEVRON	3500 LAKESHORE AVE 94606	GAS STATION
BROADWAY UNION 76 INC	3943 BROADWAY 94611	GAS STATION
BROADWAY-TAFT SHELL	5755 BROADWAY 94611	GAS STATION
C.A.R. RHINO GAS STATION	5865 BROADWAY TER 94618	GAS STATION
CHEVRON	3420 35TH AVE 94602	GAS STATION
CHEVRON	4265 FOOTHILL BLVD 94601	GAS STATION
CHEVRON	3101 98TH AVE 94605	GAS STATION
CHEVRON	191 98TH AVE 94621	GAS STATION
CHEVRON #2212/308613	191 98TH AVE 94603	GAS STATION
CHEVRON STATIONS INC#1784/984800	1700 CASTRO ST 94612	GAS STATION
CHEVRON USA #90338	5500 TELEGRAPH AVE 94609	GAS STATION
COLISEUM SHELL	540 HEGENBERGER RD 94621	GAS STATION
COLISEUM UNOCAL	845 66TH AVE 94621	GAS STATION
EAGEL GAS & MINI MART	4301 SAN LEANDRO ST 94601	GAS STATION
EAST BAY GAS & FOOD	2146 E 12TH ST 94606	GAS STATION
ENERGY GAS & MART	3201 35TH AVE 94602	GAS STATION
EXPRESS GAS & MART	2951 HIGH ST 94619	GAS STATION
EXXON	4280 FOOTHILL BLVD 94601	GAS STATION
FAST GAS & MINI MART	5910 MACARTHUR BLVD 94605	GAS STATION
FLYERS	8515 SAN LEANDRO ST 94621	GAS STATION
FRUITVALE MOBIL	3066 FRUITVALE AVE 94602	GAS STATION
FRUITVALE MOBIL	3070 FRUITVALE AVE 94609	GAS STATION
GO! GAS & FOOD	2240 MOUNTAIN BLVD 94611	GAS STATION
GOLDEN GAS	6600 FOOTHILL BLVD 94605	GAS STATION
GOLFLINK STATION INC	9750 GOLF LINKS RD 94605	GAS STATION
GRAND 76	3374 GRAND AVE 94610	GAS STATION
GRAND ARCO AM/PM	889 W GRAND AVE 94607	GAS STATION
GRAND FOOD MART	3315 HIGH ST 94601	GAS STATION
GUY'S DIESEL	3820 SAN LEANDRO ST 94601	GAS STATION
HAS AM PM	3310 PARK BLVD 94610	GAS STATION
KEN BETTS MONTCLAIR CHEVRON	6550 MORAGA AVE 94611	GAS STATION
KEN BETTS SUDS MACHINE	4400 PIEDMONT AVE 94611	GAS STATION
LAKE MERRITT GASOLINE	350 GRAND AVE 94610	GAS STATION
LAKESHORE 76 INC	3200 LAKESHORE AVE 94610	GAS STATION
LAUREL CHEVRON AUTO SERVICE	3420 35TH AVE 94619	GAS STATION
MAC ARTHUR 76	4276 MACARTHUR BLVD 94619	GAS STATION
MAC ARTHUR SHELL GAS	3530 MACARTHUR BLVD 94619	GAS STATION
MARKET STREET SHELL	610 MARKET ST 94607	GAS STATION
MARTIN LUTHER KING CHEVRON	5509 MARTIN LUTHER KING JR WY 94609	GAS STATION
MASH GAS AND FOOD #4	2240 MOUNTAIN BLVD 94611	GAS STATION
MONTCLAIR 76	2246 MOUNTAIN BLVD 94611	GAS STATION
MONTCLAIR CHEVRON	6550 MORAGA AVE 94611	GAS STATION
MONTCLAIR GAS & AUTO CARE	5725 THORNHILL DR 94611	GAS STATION
NMSO INC	3400 SAN PABLO AVE 94608	GAS STATION
NW SHELL INC	3750 INTERNATIONAL BLVD 94601	GAS STATION
OAK STREET SHELL	105 5TH ST 94607	GAS STATION
PARK BLVD 76 SKRR CORP	4500 PARK BLVD 94602	GAS STATION
PARK GAS AND FOOD	1395 7TH ST 94607	GAS STATION
PORTWOOD SHELL	820 PORTWOOD AVE 94601	GAS STATION
QUICK FOOD & GAS	3810 BROADWAY 94611	GAS STATION
QUIK STOP GAS	66 MACARTHUR BLVD 94610	GAS STATION
QUIK STOP GAS	3132 BEAUMONT AVE 94619	GAS STATION
QUIK STOP GAS	2400 FRUITVALE AVE 94601	GAS STATION
QUIK STOP GAS	3130 35TH AVE 94602	GAS STATION
ROYAL GAS	10151 INTERNATIONAL BLVD 94603	GAS STATION
SAVE ON GASOLINE LLC	4251 INTERNATIONAL BLVD 94601	GAS STATION
SEMINARY GAS	6235 SEMINARY AVE 94605	GAS STATION
SHATTUCK FUEL INC	5131 SHATTUCK AVE 94609	GAS STATION
SILVER GAS 76	9755 EDES AVE 94603	GAS STATION
TONY STAR GAS & FOOD (MARKET)	3609 INTERNATIONAL BLVD 94601	GAS STATION
TQS GAS & REPAIR	5425 MARTIN LUTHER KING JR WY 94609	GAS STATION
UBE INC OBA MILL'S SHELL	3535 PIERSON ST 94619	GAS STATION
USA GAS #63049	3400 SAN PABLO AVE 94608	GAS STATION
VALERO	2200 E 12TH ST 94601	GAS STATION
VALERO	3315 HIGH ST 94619	GAS STATION
VALERO	2740 98TH AVE 94605	GAS STATION
VICKY SHELL	2120 MONTANA ST 94602	GAS STATION

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
WESTCO MART AND GAS INC	731 W MACARTHUR BLVD 94609	GAS STATION
WONGS VALERO	2200 E 12TH ST 94606	GAS STATION
ALL AMERICAN FOOD SERVICE	8400 BALDWIN ST 94621	GROCERY STORE
BABY NUTRITIONAL CARE	1939 FRUITVALE AVE	GROCERY STORE
BEVERAGES & MORE!	525 EMBARCADERO 94607	GROCERY STORE
BROWNFIELD ONLINE	768 46TH AVE 94601	GROCERY STORE
CARDENAS	1630 HIGH ST 94601	GROCERY STORE
CARDINOS PRODUCE	380 2ND ST 94607	GROCERY STORE
CORNER GROCERY STORE	7330 INTERNATIONAL BLVD 94621	GROCERY STORE
FARMER JOE S MARKETPLACE INC	3501 MACARTHUR BLVD 94619	GROCERY STORE
FARMER JOES MARKETPLACE LP	3420 FRUITVALE AVE 94602	GROCERY STORE
FOOD MAXX #417	10950 INTERNATIONAL BLVD 94603	GROCERY STORE
FOOD MAXX #484	3000 E 9TH ST 94601	GROCERY STORE
GOLDEN STATE FRESH	325 FRANKLIN ST 94607	GROCERY STORE
GROCERY OUTLET #3	2900 BROADWAY 94611	GROCERY STORE
INTERNATIONAL FOOD KING	8824 INTERNATIONAL BLVD 94621	GROCERY STORE
KOREANA PLAZA MARKET OAKLAND INC	2370 TELEGRAPH AVE 94612	GROCERY STORE
L & Y FOODS	1610 E 12TH ST 94606	GROCERY STORE
LAKE MERRIT SUPER	346 GRAND AVE 94610	GROCERY STORE
LUCKY #734	1963 MOUNTAIN BLVD 94611	GROCERY STORE
LUCKY #736	247 E 18TH ST 94606	GROCERY STORE
MAINLINE GROCERY	7618 INTERNATIONAL BLVD 94621	GROCERY STORE
MANDELA FOODS COOPERATIVE	1430 7TH ST 94607	GROCERY STORE
MI CARNAL	2755 FOOTHILL BLVD 94601	GROCERY STORE
MING LAI INC MARKET	377 8TH ST 94607	GROCERY STORE
NEW GROWERS	218 FRANKLIN ST 94607	GROCERY STORE
S & S MARKET CORPORATION	2235 35TH AVE 94601	GROCERY STORE
SAFEWAY 1119	3647 GRAND AVE 94610	GROCERY STORE
SAFEWAY 3132	5100 BROADWAY 94611	GROCERY STORE
SAFEWAY INC #2870 (RETAIL)	6310 COLLEGE AVE 94618	GROCERY STORE
SAFEWAY STORES INC #0654	2096 MOUNTAIN BLVD SUITE 94611	GROCERY STORE
SAFEWAY STORES INC #1119	3747 GRAND AVE 94610	GROCERY STORE
SAFEWAY STORES INC #638	4100 REDWOOD RD 94619	GROCERY STORE
SAFEWAY STORES INC #908	3550 FRUITVALE AVE 94602	GROCERY STORE
SHEBA	3969 TURNLEY AVE 94605	GROCERY STORE
SMART & FINAL STORES LLC (RETAIL)	1243 42ND AVE 94601	GROCERY STORE
US PRIME PRODUCE LLC	331 FRANKLIN ST 94607	GROCERY STORE
VER BRUGGE FOODS INC STORE NO2	6321 COLLEGE AVE 94618	GROCERY STORE
W A ROUSE & CO	218 FRANKLIN ST 94607	GROCERY STORE
Y.O PRODUCE	145 FRANKLIN ST 94607	GROCERY STORE
A & M LIQUOR	1301 MACARTHUR BLVD	LIQUOR STORES
ABES LOTTO LIQUOR	10125 INTERNATIONAL BLVD 94603	LIQUOR STORES
ADELINE LIQUOR	5702 ADELINE ST 94608	LIQUOR STORES
ALKALI RYE	3256 GRAND AVE 94610	LIQUOR STORES
ASA LIQUORS	5909 MARKET ST 94608	LIQUOR STORES
BAY AREA LIQUORS	3148 SAN PABLO AVE 94608	LIQUOR STORES
BOTTLES LIQUOR	1150 MARKET ST 94607	LIQUOR STORES
BROADWAY LIQUOR	2860 BROADWAY 94611	LIQUOR STORES
BROOKS FIELD LIQUORS	9786 EDES AVE 94603	LIQUOR STORES
BUCKINGHAM WINE & SPIRITS	3293 LAKESHORE AVE 94610	LIQUOR STORES
CAPTAIN LIQUOR	2531 MARTIN LUTHER KING JR WY 94612	LIQUOR STORES
CARRIAGE TRADE LIQUOR	350 E 18TH ST 94606	LIQUOR STORES
CILLES LIQUOR	8940 INTERNATIONAL BLVD 94621	LIQUOR STORES
DALLAS LIQUOR	2604 MACARTHUR BLVD 94602	LIQUOR STORES
DON ELLIS LIQUORS GROCERIES AND DELICATESSEN	10625 INTERNATIONAL BLVD 94603	LIQUOR STORES
EAST TOWN LIQUOR	2833 MACARTHUR BLVD 94602	LIQUOR STORES
EASTBAY LIQUORS	5350 MARTIN LUTHER KING JR WY 94609	LIQUOR STORES
EDDIES DRIVE IN LIQUORS	5491 COLLEGE AVE 94618	LIQUOR STORES
EDS LIQUOR STORE	2700 23RD AVE 94606	LIQUOR STORES
FAIRFAX LIQUORS	5403 FOOTHILL BLVD 94601	LIQUOR STORES
FRUITVALE BOTTLES & LIQUOR	3715 INTERNATIONAL BLVD 94601	LIQUOR STORES
FRUITVALE LIQUOR INC	2678 FRUITVALE AVE 94601	LIQUOR STORES
G & M LIQUOR	8301 INTERNATIONAL BLVD 94621	LIQUOR STORES
GATEWAY LIQUOR	5944 SAN PABLO AVE 94608	LIQUOR STORES
GIANTS LIQUOR	7629 MACARTHUR BLVD 94605	LIQUOR STORES
GRAND PIEDMONT LIQUORS	3900 GRAND AVE 94610	LIQUOR STORES
HUNTSBERRY LIQUORS	10151 FOOTHILL BLVD 94605	LIQUOR STORES
ISLERS LIQUOR	5285 FOOTHILL BLVD 94601	LIQUOR STORES
JACKSONS LIQUOR	739 E 12TH ST 94606	LIQUOR STORES

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
JAX LIQUORS	502 FOOTHILL BLVD 94606	LIQUOR STORES
LAFARANCHIS LIQUOR	3500 MACARTHUR BLVD 94619	LIQUOR STORES
LINCOLN SQUARE LIQUORS	4100 REDWOOD RD 94619	LIQUOR STORES
LIQUOR HUB	8137 MACARTHUR BLVD 94605	LIQUOR STORES
LYONS LIQUOR INC	4100 FOOTHILL BLVD 94601	LIQUOR STORES
NICK'S LIQUOR	2401 ADELIN ST 94607	LIQUOR STORES
ORLANDO MARKET	2940 LINDEN ST 94608	LIQUOR STORES
PARAMOUNT LIQUOR STORE	2045 FOOTHILL BLVD 94606	LIQUOR STORES
PARK LIQUORS	828 FRANKLIN ST 94607	LIQUOR STORES
SAN PABLO LIQUOR	2363 SAN PABLO AVE 94612	LIQUOR STORES
SAV-MOR LIQUORS	1333 PERALTA ST 94607	LIQUOR STORES
SOUZAS LIQUORS	396 12TH ST 94607	LIQUOR STORES
STAR LIQUORS	7940 INTERNATIONAL BLVD 94621	LIQUOR STORES
TOLINS LIQUOR	7101 INTERNATIONAL BLVD 94621	LIQUOR STORES
TOWN & COUNTRY LIQUORS	10808 BANCROFT AVE	LIQUOR STORES
U & I LIQUORS # 2	2710 FOOTHILL BLVD 94601	LIQUOR STORES
U AND I LIQUOR 1	4875 TELEGRAPH AVE 94609	LIQUOR STORES
WAH-FAY LIQUOR 11	2101 8TH AVE 94606	LIQUOR STORES
WHITE HORSE LIQUORS	6606 TELEGRAPH AVE 94609	LIQUOR STORES
A. M. IRON	1009 90TH AVE 94603	MANUFACTURING
AARON METALS CO INC	750 105TH AVE 94603	MANUFACTURING
ABI FOUNDRY	7825 SAN LEANDRO ST 94621	MANUFACTURING
ABK INNOVATION	888 98TH AVE 94603	MANUFACTURING
ABLE METAL PLATING INC	932 86TH AVE 94603	MANUFACTURING
ADVANCED GRINDING INC	812 49TH AVE 94601	MANUFACTURING
AGRICULTURAL BAG MANUFACTURING	960 98TH AVE 94603	MANUFACTURING
ALCHEMY METALWORKS	2440 ADELIN ST 94607	MANUFACTURING
ALLIANCE GAS PRODUCTS	4445 JENSEN ST 94621	MANUFACTURING
ALLIED CONCRETE READY MIX	3211 WOOD ST 94608	MANUFACTURING
AMERICAN WESTERN GRAPHICS CORP/ROSIN ENT	10027 PIPPIN ST 94603	MANUFACTURING
ART CRAFT CO	10441 EDES AVE 94603	MANUFACTURING
BARTLETT CABINET INC	730 105TH AVE 94603	MANUFACTURING
BCH MANUFACTURING COMPANY INC	10012 DENNY ST 94603	MANUFACTURING
BEYOND SHEET METAL	1586 35TH AVE 94601	MANUFACTURING
BLUE SKY BIOFUELS LLC	851 49TH AVE 94601	MANUFACTURING
BOBS IRON INC	740 KEVIN CT 94621	MANUFACTURING
C NAEFKE WOODWORKING	4701 SAN LEANDRO ST 94601	MANUFACTURING
CABINETS TO GO LLC	601 BRUSH ST 94607	MANUFACTURING
CALIFORNIA CEREAL PRODUCTS INC	1267 14TH ST 94607	MANUFACTURING
CEMEX CONSTRUCTION MATERIALS PACIFIC LLC	333 23RD AVE 94606	MANUFACTURING
CENTRAL CONCRETE	2400 PERALTA ST 94607	MANUFACTURING
CENTRAL CONCRETE SUPPLY CO PLANT -07	401 EMBARCADERO 94606	MANUFACTURING
CHANNEL SYSTEMS INC	74 98TH AVE 94603	MANUFACTURING
CHEMICAL COMPOUNDING CO	791 66TH AVE 94621	MANUFACTURING
CHI FUNG PLASTICS INC	1020 54TH AVE 94601	MANUFACTURING
CREATIVE WOOD PROD INC	900 77TH AVE 94621	MANUFACTURING
CUSTOM BLENDERS	980 77TH AVE 94621	MANUFACTURING
DESIGN WORKSHOPS	486 LESSER ST 94601	MANUFACTURING
DIAMOND TOOL DIE INC	508 29TH AVE 94601	MANUFACTURING
E.T HORN COMPANY	2135 FREDERICK ST 94606	MANUFACTURING
EAST BAY METAL	4911 COLISEUM WY 94601	MANUFACTURING
E-D COAT INC	715 4TH ST 94607	MANUFACTURING
EMERALD STEEL INC	727 66TH AVE 94621	MANUFACTURING
EQUIPMENT FABRICATING CORPORATION	729 45TH AVE 94601	MANUFACTURING
EXCELLENT METAL PROCESSING INC	9901 SAN LEANDRO ST 94603	MANUFACTURING
FATHOM	620 3RD ST 94607	MANUFACTURING
FIDELITY ROOF COMPANY	1075 40TH ST 94608	MANUFACTURING
FRYER INDUSTRIES INC	1073 34TH ST 94608	MANUFACTURING
G & G ORNAMENTAL IRON WORKS	9426 BURR ST 94605	MANUFACTURING
G M ASSOCIATES INC	9815 KITTY LN 94603	MANUFACTURING
GALLAGHER BURK INC	344 HIGH ST 94601	MANUFACTURING
GARNER HEAT TREAT INC	10001 DENNY ST 94603	MANUFACTURING
GENERAL GRINDING INC	801 51ST AVE 94601	MANUFACTURING
GLOW GLASS STUDIO	950 57TH ST 94608	MANUFACTURING
GM ASSOC INC	9824 KITTY LN 94603	MANUFACTURING
GO! PETROLEUM LLC	720 HIGH ST 94601	MANUFACTURING
GOLD SEAL PLATING	3125 E 7TH ST 94601	MANUFACTURING
GOLDEN PLASTICS CORP	8465 BALDWIN ST 94621	MANUFACTURING
GRANT IRISH	2232 POPLAR ST 94607	MANUFACTURING

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
HUND WELDING & MACHINING	939 871H AVE 94621	MANUFACTURING
JEROME AND HOMER SHEET METAL INC	3400 CHESTNUT ST 94608	MANUFACTURING
JOHNSON PLATING WORKS INC	2526 TELEGRAPH AVE 94612	MANUFACTURING
KRAFT STUDIO FURNITURE	4356 COLISEUM WY 94601	MANUFACTURING
KWW KITCHEN CABINET	1425 INTERNATIONAL BLVD 94606	MANUFACTURING
LAKESIDE NON-FERROUS METALS	800 77TH AVE 94621	MANUFACTURING
LEONS POWDER COATING INC	826 49TH AVE 94601	MANUFACTURING
MAUCK SHEET METAL	755 INDEPENDENT RD 94621	MANUFACTURING
MELROSE METAL FINISHING INC	10222 PEARMAIN ST 94603	MANUFACTURING
MILLER MILLING COMPANY LLC	2201 E 7TH ST 94606	MANUFACTURING
MONTEREY MECHANICAL CO	8275 SAN LEANDRO ST 94621	MANUFACTURING
MOZ DESIGNS INC	711 KEVIN CT 94621	MANUFACTURING
OAKLAND MACHINE WORKS INC	561 4TH ST 94607	MANUFACTURING
PACASSA STUDIOS	1793 12TH ST 94607	MANUFACTURING
PACIFIC GALVANIZING	715 46TH AVE 94601	MANUFACTURING
PACIFIC PANELS	74 98TH AVE 94603	MANUFACTURING
PONDEROSA MILLWORKS	2205 MAGNOLIA ST 94607	MANUFACTURING
PRECISION METAL TOOLING INC	5101 SAN LEANDRO ST 94601	MANUFACTURING
PRESSURE CAST PRODUCTS CORPORATION	4210 E 12TH ST 94601	MANUFACTURING
RAGO & SON INC	1029 51ST AVE 94601	MANUFACTURING
RIAZ CAPITAL - ARTTHAUS	2744 E 11TH ST 94601	MANUFACTURING
RIGHT AWAY REDY MIX INC	401 KENNEDY ST 94606	MANUFACTURING
SCIENTIFIC PLATERS INC	9809 KITTY LN 94603	MANUFACTURING
SIU'S PRODUCTS & DISTRIBUTOR INC	1067 45TH AVE 94601	MANUFACTURING
SKASOL INC	1696 W GRAND AVE 94607	MANUFACTURING
STANDARD IRON METALS CO	4525 SAN LEANDRO ST 94601	MANUFACTURING
STUDIO ONE	365 45TH ST 94609	MANUFACTURING
STUMASA	953 89TH AVE 94621	MANUFACTURING
TRANSENE ELECTRONIC CHEMICALS	1127 57TH AVE 94621	MANUFACTURING
TRINAPCO INC	1101 57TH AVE 94621	MANUFACTURING
UNIVERSAL ORNAMENTAL IRON WORKS	954 86TH AVE 94621	MANUFACTURING
WEICHHART STAMPING COMPANY INC	9131 SAN LEANDRO ST 94603	MANUFACTURING
WEST COAST WIRE ROPE RIGGING	597 85TH AVE 94621	MANUFACTURING
WESTERN COLLOID PRODUCT INC	700 71ST AVE 94621	MANUFACTURING
WHITE BROTHERS	4801 TIDEWATER AVE 94601	MANUFACTURING
WIEGMANN & ROSE SUB OF XCHANGER MFG COR	9131 SAN LEANDRO ST SUITE 94603	MANUFACTURING
WOOD TECH INC	4611 MALAT ST 94601	MANUFACTURING
Y H SHEET METAL CO	928 HIGH ST 94601	MANUFACTURING
27 DISCOUNT MARKET	2627 MARTIN LUTHER KING JR WY 94612	MARKET
3 RINGS MARKET	501 E 18TH ST 94606	MARKET
4M FOODS	6349 MACARTHUR BLVD 94605	MARKET
65TH STREET MARKET	6444 SAN PABLO AVE 94608	MARKET
7 AMIGOS MARKET	8135 BANCROFT AVE 94605	MARKET
7 ELEVEN #2369-14178C	4720 MACARTHUR BLVD 94619	MARKET
7 ELEVEN #2369-18608E	4100 BROADWAY 94611	MARKET
7 ELEVEN 2369-26872B	324 23RD AVE 94606	MARKET
7 ELEVEN 2369-37634A	506 INTERNATIONAL BLVD 94606	MARKET
7 ELEVEN INC STORE 20009D	2350 HARRISON ST 94612	MARKET
7 ELEVEN STORE #2369-39541A	4251 INTERNATIONAL BLVD 94601	MARKET
7 ELEVEN STORE 2232-14174E	3500 GRAND AVE 94610	MARKET
7 SEAS FOOD AND LIQUOR	1615 MACARTHUR BLVD 94602	MARKET
7TH ST FOOD & LIQUOR	1460 7TH ST 94607	MARKET
A & A CORNER MARKET	2520 FOOTHILL BLVD 94601	MARKET
A & B SEAFOOD INC	800 FRANKLIN ST 94607	MARKET
A & G MARKET	1849 E 21ST ST 94606	MARKET
A & M FOOD MARKET INC	1774 82ND AVE 94621	MARKET
A MARKET	5650 MARKET ST 94608	MARKET
ADELINE GROCERY INC	749 ADELINE ST 94607	MARKET
ADNAN MARKET	2539 MARKET ST 94607	MARKET
AFRICAN CARIBBEAN FOOD MARKET	547 8TH ST 94607	MARKET
AIBAN MARKET	701 60TH ST 94609	MARKET
AL SHUJA MARKET	8017 MACARTHUR BLVD 94605	MARKET
AL-AWDIS MINI MART AND KITCHEN	3841 WEST ST 94608	MARKET
ALGAHIM MARKET	2736 35TH AVE 94619	MARKET
ALHAITHANI CORPORATION	3615 FOOTHILL BLVD 94601	MARKET
ARRWA ONE STOP MARKET	8607 BANCROFT AVE 94605	MARKET
ASMARA SPICE BLENDS	5973 SHATTUCK AVE 94609	MARKET
BAMBOO	3766 PIEDMONT AVE 94611	MARKET
BAYVIEW MARKET & LIQUOR	10459 EDES AVE 94603	MARKET

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
BAYVIEW MARKET & LIQUOR	10495 EDES AVE 94603	MARKET
BETTER TRADE MARKET	7838 INTERNATIONAL BLVD 94621	MARKET
BLACK AND WHITE MARKET	2681 FRUITVALE AVE 94601	MARKET
BLOSSOM FOODS	2533 PERALTA ST 94607	MARKET
BLUE BIRD MARKET	9401 MACARTHUR BLVD 94605	MARKET
BROTHERS MARKET	2837 MARTIN LUTHER KING JR WY 94609	MARKET
BRUNDO INC	6419 TELEGRAPH AVE 94609	MARKET
CAFE OAKCALI	1607 2ND AVE 94606	MARKET
CALIFORNIA MARKET	1546 35TH AVE 94601	MARKET
CALIFORNIA MEAT CO	2040 SOLANO WY 94606	MARKET
CAL-MAR FOODS	737 BAY ST 94607	MARKET
CASH & CARRY SMART FOODSERVICE	400 OAK ST 94607	MARKET
CHICOS MARKET INC	2801 HAVENSCOURT BLVD 94605	MARKET
CHONG LONG MARKET	279 8TH ST 94607	MARKET
CHUNG CHOU CITY INC	388 9TH ST SUITE 94607	MARKET
CITY MART	9104 INTERNATIONAL BLVD 94603	MARKET
C-TOWN DISCOUNT	2550 SEMINARY AVE 94605	MARKET
CYPRESS MARKET	933 MANDELA PKWY 94607	MARKET
DALLAQ MARKET	6901 LION WY 94621	MARKET
DAVES GROCERY & LIQUOR	2484 PARK BLVD 94606	MARKET
DE XING LONG MARKET INC	727 WEBSTER ST 94607	MARKET
DIAMOND MARKET	2979 MACARTHUR BLVD 94602	MARKET
DIAMOND SHOP	2129 MACARTHUR BLVD 94602	MARKET
DIMOND VICINITY CORP 18216E	2411 MACARTHUR BLVD 94602	MARKET
DISCOUNT MARKET	2129 MACARTHUR BLVD 94602	MARKET
DISCOUNT MARKET	2627 MARTIN LUTHER KING JR. WAY 94612	MARKET
DOLLAR TREE #01259	2445 INTERNATIONAL BLVD 94601	MARKET
DOLLARS MARKET	1228 59TH ST 94608	MARKET
DONS MEAT MARKET	8607 BANCROFT AVE 94605	MARKET
EAST BAY MARKET INC	8432 INTERNATIONAL BLVD 94621	MARKET
EASY LIQUORS NO. TWO MARKET	900 W MACARTHUR BLVD 94608	MARKET
EASY STOP MARKET	2118 INTERNATIONAL BLVD 94606	MARKET
EBJ FOODS CORP	1155 7TH ST 94607	MARKET
EDDIES ENTERPRISE INC	1935 73RD AVE 94621	MARKET
EL CHARRO SUPER MERCADO	1502 FRUITVALE AVE 94601	MARKET
EL LATINO MARKET	2118 INTERNATIONAL BLVD 94606	MARKET
EL RANCHITO MARKET	1536 23RD AVE 94606	MARKET
ESPERANSA	2122 FRUITVALE AVE 94601	MARKET
ESTRELLAS DE SINALOA	8119 SAN LEANDRO ST 94621	MARKET
EUROMIX DELICATESSEN	4301 PIEDMONT AVE SUITE 94611	MARKET
EXPERSS LIQUOR & MARKET	1250 INTERNATIONAL BLVD 94606	MARKET
FAMILY MARKET	2222 62ND AVE 94605	MARKET
FARMER CITY MARKET	376 8TH ST 94607	MARKET
FARMSTEAD CHEESES AND WINES LLC	6218 LA SALLE AVE 94611	MARKET
FARNAM SNACK	3313 FARNAM ST 94601	MARKET
FLEURETS MARKET AND SPIRITS	1913 SAN PABLO AVE 94612	MARKET
FOOD 24 CONVENIENCE MARKET	2900 PARK BLVD 94610	MARKET
FOOD TOWN MARKET	6421 INTERNATIONAL BLVD 94621	MARKET
FOODS CO #534	10790 MACARTHUR BLVD 94605	MARKET
FOOTHILL GROCERY	6512 FOOTHILL BLVD 94605	MARKET
FOOTHILL MARKET	1906 FOOTHILL BLVD 94606	MARKET
FOUR STAR MARKET	2884 38TH AVE 94619	MARKET
GAZZALIS EXPRESS CORP	5908 SAN PABLO AVE 94608	MARKET
GAZZALIS EXPRESS CORP.	2941 COOLIDGE AVE 94602	MARKET
GAZZALIS MARKET	7000 BANCROFT AVE 94605	MARKET
GENERAL LIQUOR & GROCERY	4301 MARKET ST 94608	MARKET
GOLDEN HOURS LIQUOR & MARKET	3201 INTERNATIONAL BLVD 94601	MARKET
GOLDEN STATE MARKET	1334 PERALTA ST 94607	MARKET
GOURMET MARKET	1549 JACKSON ST 94612	MARKET
GRAND EXPRESS MARKET	363 GRAND AVE 94610	MARKET
GREEN VALLEY MEAT	749 ADELIN ST 94607	MARKET
HANDY MARKET	1801 57TH AVE 94621	MARKET
HANZAL MARKET	2276 INTERNATIONAL BLVD 94606	MARKET
HARRYS MARKET	9002 MACARTHUR BLVD 94605	MARKET
HERNANDEZ MEATS	3811 INTERNATIONAL BLVD 94601	MARKET
HIENS MARKET	1451 HARRISON ST 94612	MARKET
HIGHLAND MARKET	2467 HIGHLAND AVE 94606	MARKET
HOLLY MARKET	7900 HOLLY ST 94621	MARKET
HOMETOWN GROCERY	241 10TH ST 94607	MARKET

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
HONEY BAKED HAM INC	4364 PIEDMONT AVE 94611	MARKET
HONG KONG TRADING CO	449 9TH ST 94607	MARKET
INTERNATIONAL LAO MARKET	1619 INTERNATIONAL BLVD 94606	MARKET
INTERNATIONAL PRODUCE MARKET	3851 INTERNATIONAL BLVD 94601	MARKET
ISLAND MARKET	2314 HIGH ST 94601	MARKET
J & M MEATS	545 9TH ST 94607	MARKET
JALOS MARKET	2267 38TH AVE 94601	MARKET
JELLAVENT MULTICONCEPT INVESTMENT	3810 TELEGRAPH AVE 94609	MARKET
JOSAS TACOS	1440 BROADWAY 94612	MARKET
JUICE HOLICK	377 17TH ST 94612	MARKET
K & D MARKET	1100 24TH ST 94607	MARKET
K W GOOD LUCK MARKET	717 WEBSTER ST 94607	MARKET
KELLER MARKET	4400 KELLER AVE SUITE 94605	MARKET
KING MERCADO MARKET	5442 MARTIN LUTHER KING JR WY 94609	MARKET
KING OF GROCERY	395 8TH ST 94607	MARKET
KINGS LIQUOR & GROCERY	3715 INTERNATIONAL BLVD 94601	MARKET
L. T. LIQUOR & GROCERY	7717 BANCROFT AVE 94605	MARKET
LA BARCA MARKET	2701 E 9TH ST 94601	MARKET
LA ESTRELLA MARKET	3800 FOOTHILL BLVD 94601	MARKET
LA FUENTE DE LA SALUD	3914 INTERNATIONAL BLVD 94601	MARKET
LA RAZA MARKET	5040 INTERNATIONAL BLVD SUITE 94601	MARKET
LAKE FOOD CENTER	1585 MADISON ST 94612	MARKET
LAKESHORE NATURAL FOODS	3321 LAKESHORE AVE 94610	MARKET
LARAZA MARKET #2	1700 SEMINARY AVE 94621	MARKET
LAS VEGAS SMOKE SHOP	8231 INTERNATIONAL BLVD 94621	MARKET
LAYONNA VEGETARIAN HEALTH FOOD INC	443 8TH ST 94607	MARKET
LEES MARKET #2	6342 SHATTUCK AVE 94609	MARKET
LEV'S CHOP SHOP	1 WEBSTER ST 94607	MARKET
LG SUPERMARKET INC	325 10TH ST 94607	MARKET
LONG HING SUPERMARKET INC	830 INTERNATIONAL BLVD 94606	MARKET
LONG PAT MARKET	716 FRANKLIN ST 94607	MARKET
LOS HERMANOS PRODUCE MARKET	1723 FRUITVALE AVE 94601	MARKET
LOS MEXICANOS MARKET/BAY FARM PRODUCE	1244 HIGH ST 94601	MARKET
LUCKY SEAFOOD MARKET INC	1201 E 12TH ST 94606	MARKET
LUCKY TWO	1901 103RD AVE 94603	MARKET
LUCKYS SPOT MARKET	700 FOOTHILL BLVD 94606	MARKET
M & A LAKESIDE MARKET INC	136 14TH ST 94612	MARKET
MARIAS MARKET	7229 INTERNATIONAL BLVD 94621	MARKET
MARKET HALL PRODUCE	5655 COLLEGE AVE 94618	MARKET
MARKET ONE	3301 E 12TH ST SUITE 94601	MARKET
MAY KONG MARKET	1613 INTERNATIONAL BLVD 94606	MARKET
MEATCO INC	545 9TH ST 94607	MARKET
MELROSE MARKET	4840 MELROSE AVE 94601	MARKET
MEWS MARKET	992 105TH AVE 94603	MARKET
MI RANCHITO MARKET	3326 FOOTHILL BLVD 94601	MARKET
MI ZACATECAS	6633 BANCROFT AVE 94605	MARKET
MICROS MARKET	4428 MARTIN LUTHER KING JR WY 94609	MARKET
MIKES MINI MART	8917 MACARTHUR BLVD 94605	MARKET
MILLENIUM MARKET	1741 MARKET ST 94607	MARKET
MILLS FOOD CENTER	5911 MACARTHUR BLVD 94605	MARKET
MINI MARKET	2001 96TH AVE 94603	MARKET
MISSION MARKET FOOD	8719 INTERNATIONAL BLVD 94621	MARKET
MITHAPHEAP MARKET	1400 INTERNATIONAL BLVD SUITE 94606	MARKET
MONTE VISTA FOOD CENTER	4000 PIEDMONT AVE 94611	MARKET
MUNCHRITE MARKET	1839 96TH AVE 94603	MARKET
N A MARKET	3147 ADELIN ST 94608	MARKET
NASSAN MARKET	3401 ADELIN ST 94608	MARKET
NAWAH MARKET 2	4730 INTERNATIONAL BLVD SUITE 94601	MARKET
NAWAH MARKET AND DELI	5489 FOOTHILL BLVD 94601	MARKET
NEW D&K MARKET INC	378 8TH ST 94607	MARKET
NEW GRAND LAKE MARKET	3217 GRAND AVE 94610	MARKET
NEW HOP LUNG MARKET	878 WEBSTER ST 94607	MARKET
NEW SAIGON MARKET	443 9TH ST 94607	MARKET
NORCAL SEAFOOD	2810 E 7TH ST 94605	MARKET
NORTHSIDE MEAT	4505 MARKET ST 94608	MARKET
OAK TREE MARKET	1454 HIGH ST 94601	MARKET
OAKLAND EXPRESS MARKET	10319 INTERNATIONAL BLVD 94603	MARKET
OAKLAND HALAL MEAT MARKET	3101 TELEGRAPH AVE 94609	MARKET
OAKLAND KOSHER FOODS INC	3419 LAKESHORE AVE 94610	MARKET

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
OAKLAND LIQUORS AND MARKET	1335 E 17TH ST 94606	MARKET
OAKLAND MARKET	1000 18TH ST 94607	MARKET
OAKLAND MINI MARKET	378 17TH ST 94612	MARKET
OAKS MARKET	10501 FOOTHILL BLVD 94605	MARKET
OAKTOWN MARKET & LIQUOR	3133 HIGH ST 94619	MARKET
OAKTREE MARKET	1601 28TH AVE 94601	MARKET
OK MARKET	7994 MACARTHUR BLVD 94605	MARKET
ONE STOP LIQUORS & GROCERIES	8400 INTERNATIONAL BLVD 94621	MARKET
ORBIT COFFEE COMPANY	1924 35TH AVE 94601	MARKET
P & M MARKET	1405 34TH ST 94608	MARKET
PENNY SAVER MKT & LIQUOR	4800 FOOTHILL BLVD 94601	MARKET
PETES MARKET	6243 AVENAL AVE 94605	MARKET
PIEDMONT GROCERY CO	4038 PIEDMONT AVE 94611	MARKET
POPULAR MARKET	1088 98TH AVE 94603	MARKET
PREFERRED MEATS INC	700 JULIE ANN WY 94621	MARKET
Q & S MARKET	1524 100TH AVE 94603	MARKET
QUE HUONG SUPERMARKET	950 INTERNATIONAL BLVD 94606	MARKET
QUICK STOP MARKET #9051	3130 35TH AVE 94619	MARKET
QUIK STOP MARKET #56	3132 BEAUMONT AVE 94602	MARKET
QUIK STOP MARKET NO 52	401 MERRITT AVE 94610	MARKET
R AND R FOOD COMPANY	324 8TH ST 94607	MARKET
RAAZA KWICK WAY AND DELI	6225 INTERNATIONAL BLVD 94621	MARKET
RANCHO MARKET	1950 FRUITVALE AVE 94601	MARKET
REX MARKET	8733 D ST 94621	MARKET
RIMY MEDITERRANEAN GROCERY & GRILL	900 MARKET ST SUITE 94607	MARKET
RIVER NILE MARKET	3105 TELEGRAPH AVE 94609	MARKET
ROCKYS MARKET	1440 LEIMERT BLVD 94602	MARKET
ROWAID MARKET	2123 90TH AVE 94603	MARKET
ROYAL FOOD SUPERMARKET	7615 MACARTHUR BLVD 94605	MARKET
S & N MARKET	3222 MARTIN LUTHER KING JR WY 94609	MARKET
S M S MARKET	1049 55TH ST 94608	MARKET
SAEEDS MARKET	5035 E 12TH ST 94601	MARKET
SAFELAND MARKET	5701 FOOTHILL BLVD 94605	MARKET
SAIGON MARKET	2331 TELEGRAPH AVE 94612	MARKET
SALAM HALAL MARKET	999 7TH ST 94607	MARKET
SALEEM MARKET	1200 78TH AVE 94621	MARKET
SANA MARKET	3710 TELEGRAPH AVE 94609	MARKET
SARA MARKET	2876 TELEGRAPH AVE 94609	MARKET
SAVE MORE MARKET	4219 PARK BLVD 94602	MARKET
SCHOOL MARKET	3051 SCHOOL ST 94602	MARKET
SECURITY LIQUOR & GROCERY	201 INTERNATIONAL BLVD 94606	MARKET
SHARIFS MARKET	1044 WILLOW ST 94607	MARKET
SHAWARMAJI	2123 FRANKLIN ST 94612	MARKET
SHOP RITE SUPERMARKET	5800 BANCROFT AVE 94605	MARKET
SHOPPERS MARKET	2101 23RD AVE 94606	MARKET
SIDAMO FOODS	3622 TELEGRAPH AVE 94609	MARKET
SIERRA MARKET LLC	311 OAK ST 94607	MARKET
SKY MARKET	2645 14TH AVE 94606	MARKET
SPROUTS FARMERS MARKET	3035 BROADWAY 94611	MARKET
SUN BEAM MARKET	1400 ADELIN ST 94607	MARKET
SUN HING MEAT MARKET	386 8TH ST 94607	MARKET
SUN HOP FAT #1	501 E 12TH ST 94606	MARKET
SUN SANG SUPERMARKET INC	751 INTERNATIONAL BLVD 94606	MARKET
SUN TIN SUNG SUPER MARKET LLC	310 7TH ST 94607	MARKET
SUNRISE MARKET	1880 22ND AVE 94606	MARKET
SUPER DISCOUNT	3229 FOOTHILL BLVD 94601	MARKET
SUPER MERCADO MI PUEBLO	2838 INTERNATIONAL BLVD 94601	MARKET
SUPERMERCADO MI TIERRA III	9520 INTERNATIONAL BLVD 94603	MARKET
SUPERMERCADO MI TIERRA LLC	2758 FRUITVALE AVE 94601	MARKET
SUPERMERCADO MI TIERRA LLC	1470 HIGH ST 94601	MARKET
SUPREMA MEATS	955 57TH ST 94608	MARKET
T C LIVEFISH	1751 E 20TH ST 94606	MARKET
TAIZ MARKET	874 85TH AVE 94621	MARKET
TAYLORS SAUSAGE	907 WASHINGTON ST SUITE 94607	MARKET
TAZA MARKET	2207 MACARTHUR BLVD 94602	MARKET
TELEGRAPH QUALITY MARKET	2429 TELEGRAPH AVE 94612	MARKET
THAI KEE CO LLC	2121 E 12TH ST 94606	MARKET
THE NEW MARKET	7475 BANCROFT AVE 94605	MARKET
THREE AMIGOS MARKET	1554 13TH AVE 94606	MARKET

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
TIGER MARKET	4701 FOOTHILL BLVD 94601	MARKET
TLH SUPERMARKET	1199 E 12TH ST 94606	MARKET
TONY'S MARKET	2036 MARKET ST 94607	MARKET
TONYS MARKET PLACE	7980 MOUNTAIN BLVD 94605	MARKET
TRADER JOES #203	3250 LAKESHORE AVE 94610	MARKET
TRADER JOES #231	5727 COLLEGE AVE 94618	MARKET
TWO STAR MARKET	2020 MACARTHUR BLVD 94602	MARKET
UCTS INC	507 8TH ST 94607	MARKET
UNCLE ROSS MARKET	1102 71ST AVE 94621	MARKET
UPTOWN MARKET AND LIQUOR STORE	5635 SHATTUCK AVE 94609	MARKET
USA FOOD MART	2400 MARKET ST 94607	MARKET
USA GROCERY & LIQUORS	1944 90TH AVE 94603	MARKET
VERNON MARKET	3210 HARRISON ST 94611	MARKET
VILLAGE MARKET	5885 BROADWAY TER 94618	MARKET
WAH HANG MARKET 2	383 8TH ST 94607	MARKET
WAH HANG MARKET INC	415 9TH ST 94607	MARKET
WAH MEI HING MARKET & LIQUOR	3432 INTERNATIONAL BLVD 94601	MARKET
WAYLANDS MEAT	3421 FRUITVALE AVE 94602	MARKET
WHOLE FOODS MARKET	230 BAY PL 94612	MARKET
WON KEE SUPERMARKET	216 7TH ST 94607	MARKET
WOODMINSTER MKT	5000 WOODMINSTER LN 94602	MARKET
WRIGHT AND BROWN DISTILLING COMPANY	2715 MAGNOLIA ST 94607	MARKET
YAGRABET MARKET	2412 TELEGRAPH AVE 94612	MARKET
YASAI PRODUCE MARKET	6301 COLLEGE AVE 94618	MARKET
YET SUN MARKET	397 8TH ST 94607	MARKET
YET SUN MARKET # 2	323 9TH ST 94607	MARKET
YUEN HOP CO	824 WEBSTER ST 94607	MARKET
ZION MARKET	2876 TELEGRAPH AVE 94609	MARKET
10 ROADS EXPRESS LLC	2226 CAMPBELL ST 94607	OTHER
ALUMATHERM	1717 KIRKHAM WY 94607	OTHER
ARAMARK	330 CHESTNUT ST 94607	OTHER
ARROW SIGN COMPANY	1051 46TH AVE 94601	OTHER
ASBESTOS MANAGEMENT GROUP OF CALIFORNIA LNC./DBA AMG	3438 HELEN ST 94808	OTHER
BOSCO LAI	860 77TH AVE 94621	OTHER
BRITTELL ENVIRONMENTAL CORP.	60 HEGENBERGER LOOP 94621	OTHER
CHABOT SPACE & SCIENCE CENTER	10000 SKYLINE BLVD 94619	OTHER
CIVICORPS JOB TRAINING CENTER	1425 5TH ST 94607	OTHER
CRESO EQUIPMENT RENTALS	6767 BROADWAY TER 94611	OTHER
CUMULUS ENERGY STORAGE PILOT PLANT	1010 22ND AVE 94606	OTHER
DOCKTIME CORPORATION	1301 24TH ST 94607	OTHER
DREISBACH ENTERPRISES	2530 E 11TH ST 94601	OTHER
E AND F DEMOLITION	760 98TH AVE 94603	OTHER
EASTGATE PETROLEUM LLC - OAKLAND PORT	1107 5TH ST 94607	OTHER
FALCK NORTHERN CALIFORNIA	325 FALLON ST 94607	OTHER
FLO SHOR PRODUCTS	1663 13TH ST 94607	OTHER
GALLAGHER AND BURK	4500 TIDEWATER AVE 94568	OTHER
GOLDEN GATE RESTURANT EQUIPMENT CO	1212 41ST AVE 94601	OTHER
GOLDEN WEST BETTERWAY UNIFORMS	499 HIGH ST 94601	OTHER
GUNARI ENTERPRISES	8615 E ST 94621	OTHER
HTI TANK WASH	9957 MEDFORD AVE BLDG 94603	OTHER
HUGOS PALLETS INC	770 100TH AVE 94603	OTHER
MATHESON POSTAL SERVICES	2500 POPLAR ST 94607	OTHER
OAKLAND TIDEWATER SAND YARD	4501 TIDEWATER AVE 94601	OTHER
OAKLANDSTORE -EASTGATE	421 23RD AVE 94606	OTHER
OUTBOARD MOTOR SHOP	333 KENNEDY ST 94606	OTHER
PERFORMANCE STRUCTURES	3 5TH AVE 94606	OTHER
SHRED WORKS	455 HIGH ST 94601	OTHER
STERLING ENVIRONMENTAL CORPORATION	10203 E ST 94603	OTHER
STORAGE	2715 MARKET ST 94607	OTHER
SUN VILLAGE	1173 28TH ST 94607	OTHER
SVARTVIK METALWORKS	4126 MARTIN LUTHER KING JR WY 94609	OTHER
SWIFTSSCALE BIOLOGICS	2100 LIVINGSTON ST 94606	OTHER
THE CARPENTER GROUP DBA CABLE MOORE	4700 COLISEUM WY 94601	OTHER
THE CRUCIBLE	1260 7TH ST 94607	OTHER
WEBB ENGINEERING SPECIALTY COMPANY	9929 PEARMAIN ST 94603	OTHER
WEST COAST SHIP SUPPLY	745 85TH AVE SUITE 94621	OTHER
WORLD ENVIRONMENTAL & ENERGY INC	6233 SAN LEANDRO ST 94621	OTHER
WRIST SHIP SUPPLY	795 85TH AVE 94621	OTHER
AG SUPPLIES DBA TRADER JANE	850 42ND AVE 94601	PLANT NURSERY

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
BROADWAY TERRACE NURSERY	4340 CLAREWOOD DR 94618	PLANT NURSERY
CLARKS HOME & GARDEN INC	9370 MACARTHUR BLVD	PLANT NURSERY
EAST BAY KOI AND POND SUPPLY	3501 E 8TH ST 94601	PLANT NURSERY
GOMES NURSERY	9875 MACARTHUR BLVD 94605	PLANT NURSERY
LAKESIDE NURSERY	666 BELLEVUE AVE 94610	PLANT NURSERY
WEST COAST SUNRISE	2852 E7TH ST 94601	PLANT NURSERY
WEST COAST SUNRISE INDUSTRIES COOPERATIVE CORP	2401 POPLAR ST 94607	PLANT NURSERY
YARROW NURSERY	6250 THORNHILL DR 94611	PLANT NURSERY
ARGENT MATERIALS RECYCLE YARD	8300 BALDWIN ST 94621	RECYCLING
ASPHALT SHINGLE RECYCLERS	5900 COLISEUM WY 94621	RECYCLING
BEE GREEN RECYCLING	725 JULIE ANN WY 94621	RECYCLING
BEE GREEN RECYCLING	740 JULIE ANN WY 94621	RECYCLING
CALIFORNIA WASTE SOLUTIONS	1820 10TH ST 94607	RECYCLING
CALIFORNIA WASTE SOLUTIONS	1819 10TH ST 94607	RECYCLING
CALIFORNIA WASTE SOLUTIONS	3300 WOOD ST 94608	RECYCLING
CASS INC	2730 PERALTA ST 94607	RECYCLING
CCY INC	2505 POPLAR ST 94607	RECYCLING
COMMERCIAL WASTE RECYCLING LLC	725 INDEPENDENT RD 94621	RECYCLING
CYPRESS AUTO SALVAGE INC	2717 PERALTA ST 94607	RECYCLING
EAST BAY RESOURCES	2430 WILLOW ST 94607	RECYCLING
GREEN PLANET 21	1221 3RD ST 94607	RECYCLING
INDEPENDENT RECYCLING SERVICES	9039 SAN LEANDRO ST 94603	RECYCLING
INNER CITY RECYCLING	9009 RAILROAD AVE 94603	RECYCLING
JD RECYCLING LLC (JD SERVICES)	745 KEVIN CT 94621	RECYCLING
LAKESIDE NON FERROUS METALS	412 MADISON ST 94607	RECYCLING
NATIONAL RECYCLING CORP	1312 KIRKHAM ST 94607	RECYCLING
NORCAL METAL FABRICATORS	1121 3RD ST 94607	RECYCLING
PICKNPULL OAKLAND 70	8451 SAN LEANDRO ST 94621	RECYCLING
SUPER LINK PLASTIC INC	888 92ND AVE 94603	RECYCLING
WASTE MANAGEMENT OF ALAMEDA COUNTY	172 98TH AVE 94603	RECYCLING
WORLDWIDE GREEN RESOURCE INC	9315 SAN LEANDRO ST 94603	RECYCLING
MARC 29	4915 TELEGRAPH AVE 94609	RESTAURANT
#1 SEAFOOD & CHICKEN LLC	4014 MACARTHUR BLVD 94619	RESTAURANT
1/4 LB GIANT BURGERS	2055 MACARTHUR BLVD 94602	RESTAURANT
1/4 LBS GIANT BURGERS #3	8026 INTERNATIONAL BLVD 94621	RESTAURANT
10TH & WOOD	945 WOOD ST 94607	RESTAURANT
130 CAFE	150 FRANK H OGAWA PZ SUITE 94612	RESTAURANT
16 DE SEPT TAQUERIA	3438 INTERNATIONAL BLVD 94601	RESTAURANT
23 BILLIARDS N CAFE	1437 23RD AVE 94606	RESTAURANT
3 SEASONS THAI BISTRO	1506 LEIMART BLVD 94608	RESTAURANT
475 CAFE OAKLAND	475 14TH ST SUITE 94612	RESTAURANT
50 TEA	1004 WEBSTER ST 94607	RESTAURANT
7 ELEVEN 14170G	5741 THORNHILL DR 94611	RESTAURANT
9 CATERING	1607 63RD ST 94608	RESTAURANT
9 JULIO EMPANADA KITCHEN	2914 MADERA AVE 94619	RESTAURANT
A & Y FOOD MARKET LLC	387 9TH ST 94607	RESTAURANT
A BEAUTIFUL SWAN CUSTOM CATERING	770 19TH ST 94612	RESTAURANT
A TASTE OF DENMARK	3401 TELEGRAPH AVE 94609	RESTAURANT
A+ BURGER	6228 TELEGRAPH AVE 94609	RESTAURANT
A2 CAFE	5212 BROADWAY 94618	RESTAURANT
A-BEN'S BURGER & TERIYAKI	10921 MACARTHUR BLVD 94605	RESTAURANT
ABESHA ETHIOPIAN CUISINE	4929 SHATTUCK AVE 94609	RESTAURANT
ABURAYA	362 17TH ST 94612	RESTAURANT
ADDIS ETHIOPIAN RESTAURANT	6100 TELEGRAPH AVE 94609	RESTAURANT
AGAVE UPTOWN	2135 FRANKLIN ST 94612	RESTAURANT
AJUZOUN JAPANESE AMERICAN STEAK	15 EMBARCADERO W 94607	RESTAURANT
AL ATTLES CALIFORNIA CHEESESTEAKS	7001 COLISEUM WY 94621	RESTAURANT
ALL BAKED	537 ATHOL AVE 94606	RESTAURANT
AMAZONAS PIZZA	2427 TELEGRAPH AVE 94612	RESTAURANT
ANH HONG - BO 7 MON	725 INTERNATIONAL BLVD 94606	RESTAURANT
ANNAPURNA RESTAURANT & BAR	948 CLAY ST 94607	RESTAURANT
ANNIES DELI	595 15TH ST 94612	RESTAURANT
ANULAS CAFE	1319 FRANKLIN ST 94612	RESTAURANT
APELILA & J LLC ONO HAWAIIAN BBQ	2990 E 9TH ST 94601	RESTAURANT
APT C BAR LOUNGE & RESTAURANT	8916 INTERNATIONAL BLVD 94621	RESTAURANT
AQUA FRESH SEAFOOD	10823 MACARTHUR BLVD 94605	RESTAURANT
ARAMARK SERVICES INC	7001 COLISEUM WY 94621	RESTAURANT
AROMA CAFE	1901 HARRISON ST SUITE 94612	RESTAURANT
AROMA CAFE & BAKERY	1900 FRANKLIN ST 94612	RESTAURANT

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
ARTICHOKE BASILLE'S PIZZA	4799 TELEGRAPH AVE 94609	RESTAURANT
ARTISON FOOD PRODUCTIONS INC	4029 PIEDMONT AVE 94611	RESTAURANT
A'S GIANT CORP	4215 MACARTHUR BLVD 94619	RESTAURANT
ASMARA RESTAURANT	5020 TELEGRAPH AVE 94609	RESTAURANT
ASMARINA CAFE	6101 SHATTUCK AVE 94609	RESTAURANT
ATHENIAN DELI & CAFE	2125 FRANKLIN ST 94612	RESTAURANT
AU OAKLAND	2430 BROADWAY 94612	RESTAURANT
AUNT MARYS CAFE	4640 TELEGRAPH AVE 94609	RESTAURANT
AUTOBAHN CAFE	571 5TH ST 94607	RESTAURANT
AWAZI KITCHEN	1009 CLAY ST 94607	RESTAURANT
AZIT	4390 TELEGRAPH AVE SUITE 94609	RESTAURANT
B & M CAFE	288 11TH ST SUITE 94607	RESTAURANT
BA LE SANDWICH LLC	1909 INTERNATIONAL BLVD SUITE 94606	RESTAURANT
BABY CAFE LLC	358 11TH ST 94607	RESTAURANT
BACHEESO	246 GRAND AVE 94610	RESTAURANT
BACHEESOS	246 GRAND AVE	RESTAURANT
BAGEL STREET CAFE	501 14TH ST SUITE 94612	RESTAURANT
BAJA TAQUERIA	4070 PIEDMONT AVE 94611	RESTAURANT
BANANA BLOSSOM THAI CUISINE	4228 PARK BLVD 94602	RESTAURANT
BANGKOK GARDEN	5231 COLLEGE AVE 94618	RESTAURANT
BAR OESTE	722 CLAY ST 94607	RESTAURANT
BARBARA LLEWELLYN CATERING & EVENT PLAN	434 25TH ST 94612	RESTAURANT
BARCESAR	4039 PIEDMONT AVE 94611	RESTAURANT
BARCOTE ETHIOPIAN RESTAURANT	6430 TELEGRAPH AVE 94609	RESTAURANT
BARDO	3343 LAKESHORE AVE 94610	RESTAURANT
BARE KNUCKLE PIZZA	351 12TH ST 94607	RESTAURANT
BARNEYS COLLEGE	5819 COLLEGE AVE 94618	RESTAURANT
BARNEY'S PIEDMONT INC	4162 PIEDMONT AVE 94611	RESTAURANT
BASIL PIZZERIA	300 13TH ST 94612	RESTAURANT
BATTAM BANG	850 BROADWAY 94607	RESTAURANT
BAY FUNG TONG SEAFOOD TEA HOUSE	1916 FRANKLIN ST 94612	RESTAURANT
BAYGREEN SALAD & MORE	2225 WEBSTER ST 94612	RESTAURANT
B-DAMA INC	536 9TH ST 94607	RESTAURANT
BEAUTY&S BAGEL SHOP	3938 TELEGRAPH AVE 94609	RESTAURANT
BEAUTYS BAGEL SHOP	3838 TELEGRAPH AVE 94609	RESTAURANT
BECKYS CHINESE RESTAURANT	5620 COLLEGE AVE 94618	RESTAURANT
BEEF NOODLE SOUP 84 INC	354 17TH ST 94612	RESTAURANT
BEER BARON	5900 COLLEGE AVE 94618	RESTAURANT
BELCAMPO	55 WEBSTER ST 94607	RESTAURANT
BELCAMPO MEAT COMPANY	369 3RD ST 94607	RESTAURANT
BELGIAN BIER CAFE LLC	460 8TH ST 94607	RESTAURANT
BELLANICO	4238 PARK BLVD 94602	RESTAURANT
BELOTTI RISTORANTE E BOTTEGA	5403 COLLEGE AVE 94618	RESTAURANT
BEN & NICKS BAR & GRILL (CATO CORP)	5612 COLLEGE AVE 94618	RESTAURANT
BENS RESTAURANT	398 3RD ST 94607	RESTAURANT
BEST COAST BURRITOE ROCKRIDGE LLC	5108 BROADWAY 94611	RESTAURANT
BEST TASTE RESTAURANT & DELI	814 FRANKLIN ST 94607	RESTAURANT
BHUGAYS KATSU CURRY	578 14TH ST 94612	RESTAURANT
BHUGAYS SUSHI TO GO	1200 CLAY ST SUITE 94612	RESTAURANT
BIG A SANDWICHES	475 14TH ST UNIT 94612	RESTAURANT
BIG BAD WOLF BBQ	922 56TH ST 94608	RESTAURANT
BIG BROTHERS	10800 BANCROFT AVE 94603	RESTAURANT
BIG DADDYS CHINESE RESTAURANT INC	3700 TELEGRAPH AVE 94609	RESTAURANT
BIG DISH	339 9TH ST 94607	RESTAURANT
BIG G BURGER	333 17TH ST 94612	RESTAURANT
BIGG MOMMAS KITCHEN LLC	4929 INTERNATIONAL BLVD 94601	RESTAURANT
BINGO SNACK BAR	10800 INTERNATIONAL BLVD 94603	RESTAURANT
BINH MINH QUAN	338 12TH ST 94607	RESTAURANT
BIRD & BUFFALO	4659 TELEGRAPH AVE 94609	RESTAURANT
BIRYANI KABAB	377 13TH ST 94612	RESTAURANT
BIRYANI TIKA KABAB	328 14TH ST 94612	RESTAURANT
BLESSED GARDEN RESTAURANT	419 15TH ST 94612	RESTAURANT
BLIND TIGER	2600 TELEGRAPH AVE 94612	RESTAURANT
BLUE NILE ETHIOPIAN RESTURANT INC	160 14TH ST 94612	RESTAURANT
BLUE NILE XPRESS ETHIOPIAN & ERITREAN RESTAURANT	1910 PARK BLVD 94606	RESTAURANT
BOB BLACK 222 INC	3400 FOOTHILL BLVD 94601	RESTAURANT
BOMBERA	3455 CHAMPION ST SUITE 94602	RESTAURANT
BON APPETIT	1547 LAKESIDE DR 94612	RESTAURANT
BON APPETIT MANAGEMENT CO.	5000 MACARTHUR BLVD 94613	RESTAURANT

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
BOSTON MARKET #1297	5132 BROADWAY 94611	RESTAURANT
BOSTON MARKET #2288	3060 E 9TH ST 94601	RESTAURANT
BOURBAN AND BEEF	5634 COLLEGE AVE 94618	RESTAURANT
BOWL'D BBQ KOREAN STONE GRILL	4869 TELEGRAPH AVE 94609	RESTAURANT
BOXICHEF INC	468 3RD ST 94607	RESTAURANT
BROADWAY CAFE	3600 BROADWAY	RESTAURANT
BROKE LOCAL	340 14TH ST 94612	RESTAURANT
BROTZEIT LOKAL LLC	1000 EMBARCADERO 94606	RESTAURANT
BUFFET FORTUNA OF OAKLAND	800 BROADWAY 94607	RESTAURANT
BURGER KING	1541 E 12TH ST 94606	RESTAURANT
BURGER KING	4200 INTERNATIONAL BLVD 94601	RESTAURANT
BURGER KING	7200 BANCROFT AVE 94605	RESTAURANT
BURGER KING #8326	580 HEGENBERGER RD 94621	RESTAURANT
BURMA BEAR LLC	325 19TH ST 94612	RESTAURANT
BURMA BITES	4911 TELEGRAPH AVE 94609	RESTAURANT
BURMA SUPERSTAR RESTAURANT	4721 TELEGRAPH AVE 94609	RESTAURANT
BURRITO IN INC	4496 BROADWAY 94611	RESTAURANT
BUTTERCUP	229 BROADWAY 94607	RESTAURANT
BUTTERCUP	1000 COTTON ST 94606	RESTAURANT
BY THE GLASS ACADEMY/ UNDERWOOD	308 41ST ST 94609	RESTAURANT
C & M BISTRO	388 9TH ST SUITE 94607	RESTAURANT
CABALEN SWEET & SAVORY	3331 INTERNATIONAL BLVD 94601	RESTAURANT
CACTUS TAQUERIA	5642 COLLEGE AVE 94618	RESTAURANT
CAFÉ% CRUSH	3943 PIEDMONT AVE	RESTAURANT
CAFE BOBO	1604 INTERNATIONAL BLVD 94606	RESTAURANT
CAFE CA SAU	1624 INTERNATIONAL BLVD 94606	RESTAURANT
CAFE COLUCCI INC	6429 TELEGRAPH AVE 94609	RESTAURANT
CAFE DEJENA	3939 MARTIN LUTHER KING JR WY 94609	RESTAURANT
CAFE DEM	1544 14TH AVE 94606	RESTAURANT
CAFE EL PATIO	4030 INTERNATIONAL BLVD 94601	RESTAURANT
CAFE ELOISE	1301 CLAY ST 94612	RESTAURANT
CAFE ENCINA	308 41ST ST	RESTAURANT
CAFE ERITREA DAFRIQUE	4069 TELEGRAPH AVE 94609	RESTAURANT
CAFE KEFA	422 29TH AVE 94601	RESTAURANT
CAFE LA FONGS INC	5885 BANCROFT AVE 94605	RESTAURANT
CAFE MONTESION	888 98TH AVE SUITE 94603	RESTAURANT
CAFE OF THE BAY	4011 MACARTHUR BLVD 94619	RESTAURANT
CAFE PLATANO	3612 INTERNATIONAL BLVD 94601	RESTAURANT
CAFE SANTANA	4100 MACARTHUR BLVD 94619	RESTAURANT
CAFE TV	649 E 12TH ST 94606	RESTAURANT
CAFE UMAMI	2224 MACARTHUR BLVD 94602	RESTAURANT
CAFFE 817	817 WASHINGTON ST 94607	RESTAURANT
CALABASH LLC	2300 VALDEZ ST SUITE 94612	RESTAURANT
CALAVERA	2337 BROADWAY 94612	RESTAURANT
CALTRANS CAFÉ	111 GRAND AVE 94612	RESTAURANT
CAM ANA	920 WEBSTER ST 94606	RESTAURANT
CAM HUONG DELI RESTAURANT	702 INTERNATIONAL BLVD SUITE 94606	RESTAURANT
CAM HUONG DELI/RESTAURANT	920 WEBSTER ST 94607	RESTAURANT
CAMBODIAN STREET FOOD	2045 FOOTHILL BLVD	RESTAURANT
CAMBURGER	430 13TH ST 94612	RESTAURANT
CANA CUBAN PARLOR & CAFE	530 LAKE PARK AVE 94610	RESTAURANT
CARLS JR #484/#720	3770 TELEGRAPH AVE 94609	RESTAURANT
CARNICERIA Y FRUTERIA EL VALLE	1527 INTERNATIONAL BLVD 94606	RESTAURANT
CASSAVE RESTAURANT & TAQUERIA	5412 SAN PABLO AVE ST SUITE 94608	RESTAURANT
CATOS ALE HOUSE	3891 PIEDMONT AVE 94611	RESTAURANT
CHAI THAI NOODLES	545 INTERNATIONAL BLVD 94606	RESTAURANT
CHAMN CHUM INC	1515 CLAY ST 94612	RESTAURANT
CHAMPA GARDEN	2102 8TH AVE	RESTAURANT
CHAMPION SMOKEHOUSE	679 98TH AVE 94603	RESTAURANT
CHAO THAI CUSINE	482 LAKE PARK AVE 94610	RESTAURANT
CHARLIE FRANKS PIES	3939 CANON AVE 94602	RESTAURANT
CHARLIES LAS PALMAS (S & D SUCCESS INC)	5941 MACARTHUR BLVD 94605	RESTAURANT
CHEF DADDY CATERING	7940 BANCROFT AVE 94605	RESTAURANT
CHEF YU INC	4871 TELEGRAPH AVE 94609	RESTAURANT
CHERIS ICE CREAM & DELI SHOP	3206 INTERNATIONAL BLVD 94601	RESTAURANT
CHICA	303 OAKLAND AVE APT 94611	RESTAURANT
CHICK & TEA	3932 TELEGRAPH AVE 94609	RESTAURANT
CHILE JALAPENO TAQUERIA	6706 SAN PABLO AVE 94608	RESTAURANT
CHINA EXPRESS RESTAURANT	4425 FOOTHILL BLVD 94601	RESTAURANT

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
CHINA GARLIC RESTURANT	3766 PIEDMONT AVE 94611	RESTAURANT
CHINA GOURMET EXPRESS	3301 FOOTHILL BLVD 94601	RESTAURANT
CHINA GOURMET EXPRESS INC	3407 FRUITVALE AVE 94602	RESTAURANT
CHINA HUT	4021 BROADWAY 94611	RESTAURANT
CHINA PACK KITCHEN	3118 35TH AVE 94619	RESTAURANT
CHINA STAR EXPRESS LLC	399 8TH ST 94607	RESTAURANT
CHIPOTLE MEXICAN GRILL #1738	3271 LAKESHORE AVE 94610	RESTAURANT
CHIPOTLE MEXICAN GRILL #2544	3001 BROADWAY 94611	RESTAURANT
CHIPOTLE MEXICAN GRILL #2544	3017 BROADWAY 94611	RESTAURANT
CHOLITA LINDA LLC	4923 TELEGRAPH AVE 94609	RESTAURANT
CHUBBY FREEZE	600 HEGENBERGER RD 94621	RESTAURANT
CHURCHS CHICKEN #181	4155 TELEGRAPH AVE 94609	RESTAURANT
CHURCHS CHICKEN #182	7301 BANCROFT AVE 94605	RESTAURANT
CHURROS BAYFAIR	9133 INTERNATIONAL BLVD 94603	RESTAURANT
CITY CENTER PIZZERIA	500 12TH ST SUITE 94607	RESTAURANT
CITY CUP CAFE & CITY GRILL	1259 JEFFERSON ST 94612	RESTAURANT
CITY LIGHTS CAFE	2121 HARRISON ST 94612	RESTAURANT
CLASSIC CARS WEST BEER GARDEN	411 26TH ST 94612	RESTAURANT
CLASSIC GULIN RICE NOODLES	261 10TH ST SUITE 94607	RESTAURANT
CO NAM	3936 TELEGRAPH AVE 94609	RESTAURANT
COACH SUSHI	532 GRAND AVE 94610	RESTAURANT
COCO BREEZE RESTAURANT	2370 HIGH ST 94601	RESTAURANT
COCO CAFE	1924 FRANKLIN ST 94612	RESTAURANT
COLLEGE AVE BURRITO SHOP 1	5359 COLLEGE AVE 94618	RESTAURANT
COLLEGE AVE RESTAURANT INC	5478 COLLEGE AVE 94618	RESTAURANT
COLONIAL DONUTS	6126 LA SALLE AVE 94611	RESTAURANT
COLONIAL DONUTS INC	1000 BROADWAY SUITE 94607	RESTAURANT
COLONIAL DONUTS INC	3318 LAKESHORE AVE 94610	RESTAURANT
COLUMBO CLUB INC	5321 CLAREMONT AVE 94618	RESTAURANT
COMAL NEXT DOOR OAKLAND	554 GRAND AVE 94610	RESTAURANT
COMALAPA RESTAURANTE	1498 7TH ST SUITE 94607	RESTAURANT
COMMIS	3859 PIEDMONT AVE 94611	RESTAURANT
COMMUNITE TABLE LLC	4171 MACARTHUR BLVD 94619	RESTAURANT
COMPLEX OAKLAND	420 14TH ST 94612	RESTAURANT
COMPONERE FINE CATERING INC	5836 SAN PABLO AVE 94608	RESTAURANT
CONNIES CANTINA (closed December 2021)	3340 GRAND AVE 94610	RESTAURANT
COPPER SPOON COCKTAILS & KITCHEN	4031 BROADWAY TER 94611	RESTAURANT
CORNBREADS CATERING SERVICE	6018 MACARTHUR BLVD 94605	RESTAURANT
COSECHA	907 WASHINGTON ST 94607	RESTAURANT
COSINA LA TIPICA	3851 INTERNATIONAL BLVD 94601	RESTAURANT
COUSIN ANTHONY'S URBAN STYLE SAUCES & SEASONINGS	2736 NICOL AVE 94602	RESTAURANT
CREPEVINE	4184 PIEDMONT AVE SUITE 94611	RESTAURANT
CREPEVINE	5600 COLLEGE AVE 94618	RESTAURANT
CRIS LAS PALMAS	6215 INTERNATIONAL BLVD 94621	RESTAURANT
CROGANS	6101 LA SALLE AVE 94611	RESTAURANT
CULINARY CAPERS	921 MANDANA BLVD 94610	RESTAURANT
CUPCAKE COVE	500 12TH ST 94607	RESTAURANT
CUPCAKE PATTY SWEET TREATS BY STEPHANIE	4441 BRIAR CLIFF RD 94605	RESTAURANT
CYBELLES PIZZA	3465 FRUITVALE AVE 94602	RESTAURANT
CYBELLES PIZZA #7	1422 BROADWAY 94612	RESTAURANT
DA NANG QUAN	615 E 12TH ST 94606	RESTAURANT
DA PO BOY	9714 MACARTHUR BLVD 94605	RESTAURANT
DAUGHTER THAI KITCHEN	6118 MEDAU PL 94611	RESTAURANT
DAUGHTER'S DINER	326 23RD ST UNIT 94612	RESTAURANT
DAVAN THAI CUISINE	1803 WEBSTER ST 94612	RESTAURANT
DE VAUGHN'S CAJUN KITCHEN	6638 BANCROFT AVE 94605	RESTAURANT
DELEGATES RESTAURANT	568 14TH ST 94612	RESTAURANT
DELI FRESH INC	404 22ND ST 94612	RESTAURANT
DEN SAKE BREWERY	2311 MAGNOLIA ST 94607	RESTAURANT
DENNY'S RESTAURANT #296	601 HEGENBERGER RD 94621	RESTAURANT
DICKS DONUTS	3417 HIGH ST 94619	RESTAURANT
DIGGERY INN	4212 PARK BLVD 94602	RESTAURANT
DIMOND CAFE	3430 FRUITVALE AVE 94602	RESTAURANT
DIMOND SLICE PIZZA	2208 MACARTHUR BLVD 94602	RESTAURANT
DINNER HOUSE	329 14TH ST 94612	RESTAURANT
DIRTY SOUTH JOES	937 W GRAND AVE 94607	RESTAURANT
DOLLAR TREE #07646	1818 PARK BLVD 94606	RESTAURANT
DOLMA DEEJIS DELI	100 BROADWAY 94607	RESTAURANT
DOMINOS PIZZA STORE #8150	1204 FRUITVALE AVE 94601	RESTAURANT

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
DOMINOS PIZZA STORE #8241	3639 MACARTHUR BLVD 94619	RESTAURANT
DOMINOS PIZZA STORE #8276	3360 GRAND AVE 94610	RESTAURANT
DOMINOS PIZZA STORE #8527	314 BROADWAY 94607	RESTAURANT
DONA	3770 PIEDMONT AVE 94611	RESTAURANT
DONUT SAVANT LLC	1934 BROADWAY 94612	RESTAURANT
DOPO	4293 PIEDMONT AVE 94611	RESTAURANT
DOSIRAK SHOP	366 GRAND AVE UNIT 94610	RESTAURANT
DOUKKALA	4905 TELEGRAPH AVE 94609	RESTAURANT
DRAGON GATE LOUNGE & GRILL	300 BROADWAY 94607	RESTAURANT
DRAKES DEALERSHIP	2325 BROADWAY 94612	RESTAURANT
DYAFA	44 WEBSTER ST 94607	RESTAURANT
EAT MY GRITS	135 12TH ST 94607	RESTAURANT
EGG ROLL KITCHEN	6650 BANCROFT AVE 94605	RESTAURANT
EL AGAVERO RESTAURANT	2071 MOUNTAIN BLVD 94611	RESTAURANT
EL BURRITO LOCO	1165 84TH AVE 94621	RESTAURANT
EL CARRETERO	5701 FOOTHILL BLVD 94605	RESTAURANT
EL GRANO DE ORO TAQUERIA	3829 FOOTHILL BLVD 94601	RESTAURANT
EL HUARACHE AZTECA	3842 INTERNATIONAL BLVD 94601	RESTAURANT
EL OJO DE AGUA	10401 INTERNATIONAL BLVD 94603	RESTAURANT
EL PAISA	2900 INTERNATIONAL BLVD 94601	RESTAURANT
EL PAISA@.COM	4610 INTERNATIONAL BLVD 94601	RESTAURANT
EL POLLO LOCO #3480	2506 INTERNATIONAL BLVD 94601	RESTAURANT
EL POTRILLO RESTAURANT AND BAR	400 29TH AVE 94601	RESTAURANT
EL RINCONSITO CHAPIN	3831 INTERNATIONAL BLVD 94601	RESTAURANT
EL TACO ZAMORANO	4032 FOOTHILL BLVD 94601	RESTAURANT
EL TORERO TAQUERIA	5801 INTERNATIONAL BLVD 94621	RESTAURANT
EL TORITO CARNICERIA	1601 28TH AVE 94601	RESTAURANT
ELAINE'S CAJUN CUISINE	380 15TH ST 94612	RESTAURANT
ELI'S MILE HIGH CLUB LLC	3629 MARTIN LUTHER KING JR WY 94609	RESTAURANT
EM DELI & CATERING	329 14TH ST 94612	RESTAURANT
EM PIZZA LLC	4395 PIEDMONT AVE UNIT 94611	RESTAURANT
EMILS BURGER & BREAKFAST	3301 E 12TH ST SUITE 94601	RESTAURANT
EPICUREAN SOLUTIONS SF LLC	8929 MACARTHUR BLVD 94605	RESTAURANT
ETERNAL	247 4TH ST SUITE	RESTAURANT
EVERETT & JONES BARBEQUE-JACK LONDON LLC	126 BROADWAY 94607	RESTAURANT
EVERETT AND JONES BARBEQUE	4245 MACARTHUR BLVD 94619	RESTAURANT
EXOTIC FOR YOU INC	2837 MARTIN LUTHER KING JR WY 94609	RESTAURANT
EZ TAQUERIA	4013 TELEGRAPH AVE 94609	RESTAURANT
FALAFEL BOY	1924 FRANKLIN ST 94612	RESTAURANT
FAMILY SUPER MARKET	1600 12TH ST 94607	RESTAURANT
FARLEYS EAST	33 GRAND AVE 94612	RESTAURANT
FARMHOUSE RAMEN	90 FRANKLIN ST 94607	RESTAURANT
FAT CAT CAFE	1720 TELEGRAPH AVE 94612	RESTAURANT
FAZ RESTAURANT & BAR	1111 BROADWAY 94607	RESTAURANT
FILIPPO'S	5400 COLLEGE AVE 94618	RESTAURANT
FISH KING	6447 INTERNATIONAL BLVD SUITE 94621	RESTAURANT
FIST OF FLOUR PIZZA COMPANY	4166 MACARTHUR BLVD 94619	RESTAURANT
FIVE AND DIME GARDENS LLC DBA LOST AND FOUND (LOST AND FOUND)	2040 TELEGRAPH AVE 94612	RESTAURANT
FLAVOR BRIGADE	3540 FRUITVALE AVE 94602	RESTAURANT
FLINTROY CATERING	1606 41ST AVE 94601	RESTAURANT
FLIPPERS GOURMET BURGERS	2062 MOUNTAIN BLVD 94611	RESTAURANT
FLIPSIDE BURGER	3401 LAKESHORE AVE 94610	RESTAURANT
FLOWER LOUNGE RESTAURANT	2033 MACARTHUR BLVD 94602	RESTAURANT
FORAGE KITCHEN	478 25TH ST 94612	RESTAURANT
FORGE PIZZA DANVILLE LLC	66 FRANKLIN ST SUITE 94607	RESTAURANT
FORT GREEN	736 WASHINGTON ST 94607	RESTAURANT
FORTUNE COOKIE	1698 7TH ST 94607	RESTAURANT
FORTUNE RESTAURANT	940 WEBSTER ST 94607	RESTAURANT
FOUNTAIN CAFE/E & N GHATTAS INC	499 14TH ST SUITE 94612	RESTAURANT
FOUNTAIN GARDEN SEAFOOD RESTAURANT	3836 MACARTHUR BLVD 94619	RESTAURANT
FRANNIE EXPRESS	3542 INTERNATIONAL BLVD 94601	RESTAURANT
FRATELLANZA CLUB	1140 66TH ST 94608	RESTAURANT
FREMONT MARKET & DELI	4701 FOOTHILL BLVD 94601	RESTAURANT
FRESH & BEST CAFE 2	1428 ALICE ST 94612	RESTAURANT
FRESH & NATURAL CAFE 74 LLC	12500 CAMPUS DR 94619	RESTAURANT
FRESKA MARKET	1854 CHURCH ST 94621	RESTAURANT
FRIDAS CAFE	2300 BROADWAY 94612	RESTAURANT
FRIENDS MARKET	3501 INTERNATIONAL BLVD 94601	RESTAURANT
FRUIT BAR JALISCO	4139 FOOTHILL BLVD 94601	RESTAURANT

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
FULL HOUSE CAFE	326 7TH ST 94607	RESTAURANT
FUNG WONG BAKERY & CAFE	833 INTERNATIONAL BLVD SUITE 94606	RESTAURANT
GALETO BRAZILIAN GRILL	1019 CLAY ST 94607	RESTAURANT
GAYLORDS CAFFE ESPRESSO	4150 PIEDMONT AVE 94611	RESTAURANT
GELATO FIRENZE/Q TEA BAR	478 LAKE PARK AVE 94610	RESTAURANT
GEORGINA PUPUSERIA	5130 INTERNATIONAL BLVD 94601	RESTAURANT
GERARDO MEXICAN RESTAURANT	3811 MACARTHUR BLVD 94619	RESTAURANT
GETA	165 41ST ST 94611	RESTAURANT
GIANT BURRITO	2540 SAN PABLO AVE 94612	RESTAURANT
GILROY GARLIC MARINARA	1630 HIGH ST 94601	RESTAURANT
GINZA	303 BROADWAY 94607	RESTAURANT
GLENNS HOT DOGS	3506 MACARTHUR BLVD 94619	RESTAURANT
GLOBAL FOOD SERVICE	111 GRAND AVE 94612	RESTAURANT
GOGI TIME INC	2600 TELEGRAPH AVE 94612	RESTAURANT
GOLDEN GATE BELL LLC TACO BELL #30756	2255 TELEGRAPH AVE 94612	RESTAURANT
GOLDEN GATE BELL LLC TACO BELL #30763	3535 35TH AVE 94619	RESTAURANT
GOLDEN GATE BELL LLC TACO BELL #30769	630 HEGENBERGER RD 94621	RESTAURANT
GOLDEN GATE DONUT	4201 TELEGRAPH AVE 94609	RESTAURANT
GOLDEN LOTUS VEGAN RESTAURANT	1301 FRANKLIN ST 94612	RESTAURANT
GOLDEN PEACOCK RESTAURANT	825 WEBSTER ST 94607	RESTAURANT
GOLDEN TEA SHOP	901 FRANKLIN ST SUITE 94607	RESTAURANT
GOOD NEWS CAFE	155 17TH ST 94612	RESTAURANT
GOOD TO EAT	478 E 25TH ST 94612	RESTAURANT
GOT JUICE	3841 MACARTHUR BLVD 94619	RESTAURANT
GOURMET DELIGHT RESTAURANT	701 WEBSTER ST	RESTAURANT
GRAND AVE THAI CUISINE	384 GRAND AVE 94610	RESTAURANT
GRAND GOLDEN BAY BISTRO	400 E 12TH ST 94606	RESTAURANT
GRAND LAKE KITCHEN	576 GRAND AVE 94610	RESTAURANT
GRAND LAKE KITCHEN	2042 MACARTHUR BLVD 94602	RESTAURANT
GRAND LAKE THEATRE	3200 GRAND AVE 94610	RESTAURANT
GREAT WALL CHINESE RESTAURANT	6247 COLLEGE AVE 94618	RESTAURANT
GRINDERS	2069 ANTIOCH CT 94611	RESTAURANT
GRUBERS GOURMET	5736 THORNHILL DR SUITE 94611	RESTAURANT
GUADALAJARA RESTAURANT	1001 FRUITVALE AVE 94601	RESTAURANT
GUM KUO RESTAURANT	388 9TH ST SUITE 94607	RESTAURANT
GUS'S WORLD FAMOUS FRIED CHICKEN	1440 BROADWAY SUITE 94612	RESTAURANT
GUSSIES SOUTHERN TABLE AND BAR	2021 BROADWAY 94612	RESTAURANT
GYU-KAKU JAPANESE BBQ	459 8TH ST 94607	RESTAURANT
HADDON HILL CAFE	504 WESLEY AVE 94606	RESTAURANT
HALFTIME SPORTS BAR LLC	316 14TH ST 94612	RESTAURANT
HANCOOK	4315 TELEGRAPH AVE 94609	RESTAURANT
HAPPY BURRITO #1	1616 WEBSTER ST 94612	RESTAURANT
HAPPY BURRITO II	564 14TH ST 94612	RESTAURANT
HAPPY DONUTS	378 17TH ST 94612	RESTAURANT
HAPPY GARDEN CHINESE RESTAURANT	4112 MACARTHUR BLVD 94619	RESTAURANT
HAPPY HOT DOG	10601 MACARTHUR BLVD 94605	RESTAURANT
HARNOOR NIJJAR PIZZ INC/ MOUNTAIN MIKES	2042 MOUNTAIN BLVD 94611	RESTAURANT
HAT RAC ESPRESSO BAR	1714 FRANKLIN ST SUITE 94612	RESTAURANT
HAWKING BIRD	4901 TELEGRAPH AVE	RESTAURANT
HEAVENLY EYES BURGER & FRIES	4076 FOOTHILL BLVD 94601	RESTAURANT
HEGENBURGER	280 HEGENBERGER RD 94621	RESTAURANT
HEN HOUSE	907 WASHINGTON ST 94607	RESTAURANT
HENRYS GALLERY CAFE	1700 FRANKLIN ST 94612	RESTAURANT
HIGH PEAKS KITCHEN	391 GRAND AVE 94610	RESTAURANT
HILS COOKING	3327 TELEGRAPH AVE 94609	RESTAURANT
HL'S CAFE	1952 MOUNTAIN BLVD 94611	RESTAURANT
HOLLYS MANDARIN FINE CHINESE CUISINE	4080 PIEDMONT AVE 94611	RESTAURANT
HOLY BASIL	5362 COLLEGE AVE 94618	RESTAURANT
HOLY LAND KOSHER FOOD	677 RAND AVE 94610	RESTAURANT
HOME OF CHICKEN & WAFFLE	444 EMBARCADERO W 94607	RESTAURANT
HOME ON THE RANGE	2773 TELEGRAPH AVE 94612	RESTAURANT
HOME TOWN DONUT & LIQUOR & FOOD	93 8TH ST 94607	RESTAURANT
HEMGROWN OAKLAND	6501 SAN PABLO AVE 94608	RESTAURANT
HOMEROOM	400 40TH ST 94609	RESTAURANT
HOMETOWN DONUTS # 3	5040 INTERNATIONAL BLVD SUITE 94601	RESTAURANT
HONG KONG FAST FOOD RESTAURANT	900 MARKET ST SUITE 94607	RESTAURANT
HOPSCOTCH	1915 SAN PABLO AVE 94612	RESTAURANT
HORN BARBECUE	2534 MANDELA PKWY 94607	RESTAURANT
HORNITOS CAFE	3012 INTERNATIONAL BLVD 94601	RESTAURANT

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
HOUSE OF BAGELS	6104 LA SALLE AVE 94611	RESTAURANT
HOUSE OF CURRIES # 6	391 GRAND AVE 94610	RESTAURANT
HUDSON BAY CAFE INC	5401 COLLEGE AVE 94618	RESTAURANT
HUNAN VILLAGE	3232 GRAND AVE 94610	RESTAURANT
HUONG QUE CAFE	1228 7TH AVE 94606	RESTAURANT
IBS HOAGIES OAKLAND	400 21ST ST 94612	RESTAURANT
ICAFE	950 INTERNATIONAL AVE 94606	RESTAURANT
ICHIRO	412 15TH ST 94612	RESTAURANT
IKAROS GREEK RESTAURANT	3268 GRAND AVE 94610	RESTAURANT
IKES LAIR	2204 BROADWAY 94612	RESTAURANT
IKES LOVE AND SANDWICHES	6300 COLLEGE AVE 94618	RESTAURANT
ILAVA HAWAIIAN BARBECUE	1446 HIGH ST 94601	RESTAURANT
IMPERIAL SOUP	723 WEBSTER ST 94607	RESTAURANT
INTERNATIONAL TAQUERIA	7127 SAN LEANDRO ST 94621	RESTAURANT
ISSEY	460 GRAND AVE SUITE 94610	RESTAURANT
ITALIAN COLORS	2220 MOUNTAIN BLVD SUITE 94611	RESTAURANT
ITANI RAMEN 1736 LLC	1736 TELEGRAPH AVE 94612	RESTAURANT
IZZA	4419 TELEGRAPH AVE 94609	RESTAURANT
J J FISH AND CHICKEN / DAWALI CORPORATION	8035 INTERNATIONAL BLVD 94621	RESTAURANT
J. CHANS KITCHEN	3758 PIEDMONT AVE 94611	RESTAURANT
J. T. CATERING	881 41ST ST 94608	RESTAURANT
JACK IN THE BOX #413	6510 TELEGRAPH AVE 94609	RESTAURANT
JACK IN THE BOX #420	2424 INTERNATIONAL BLVD 94601	RESTAURANT
JACK IN THE BOX #433	4425 TELEGRAPH AVE 94609	RESTAURANT
JACK IN THE BOX #533	532 HEGENBERGER RD 94621	RESTAURANT
JACKIE 209 INC	950 MARKET ST 94607	RESTAURANT
JACKS OYSTER BAR & FISH HOUSE	336 WATER ST 94607	RESTAURANT
JADE PALACE CHINESE KITCHEN	2531 MACARTHUR BLVD 94602	RESTAURANT
JAIME E PINA GUTIERREZ	900 FALLON ST 94607	RESTAURANT
JALISCO RESTAURANT	1721 INTERNATIONAL BLVD 94606	RESTAURANT
JAMBA JUICE	1982 PLEASANT VALLEY AVE 94611	RESTAURANT
JAMBA JUICE #103	500 12TH ST SUITE 94607	RESTAURANT
JAMES ELLIOTT KITCHEN	2020 MACARTHUR BLVD 94602	RESTAURANT
JIM'S LIQUORS DELI & GROCERIES	8137 MACARTHUR BLVD 94605	RESTAURANT
JIMMYS SNACKS AND DELI	1600 BROADWAY SUITE 94612	RESTAURANT
JIN SING RESTAURANT	2068 35TH AVE 94601	RESTAURANT
JJ FISH & CHICKEN	941 W GRAND AVE 94607	RESTAURANT
JJ FISH AND CHICKEN	6001 MACARTHUR BLVD 94605	RESTAURANT
JLH MONTCLAIR LLC	6106 LA SALLE AVE 94611	RESTAURANT
JOLLY-JOLLY	1410 7TH ST 94607	RESTAURANT
JONG GA RESTAURANT CORPORATION	372 GRAND AVE 94610	RESTAURANT
JOSHUAS GULFPORT SEAFOOD	2907 FRUITVALE AVE 94602	RESTAURANT
J'S GIANT BURGER	1920 DENNISON ST 94606	RESTAURANT
JUANITA'S RESTAURANT	282 HEGENBERGER RD 94631	RESTAURANT
JUDOKU SUSHI	3314 PIEDMONT AVE 94611	RESTAURANT
JUDOKU SUSHI ROCKRIDGE	5295 COLLEGE AVE 94618	RESTAURANT
JUDY'S BURGER	2691 FRUITVALE AVE 94601	RESTAURANT
JUHU BEACH CLUB	5179 TELEGRAPH AVE 94609	RESTAURANT
JUICE JOINT EATERY	332 FRANK H OGAWA PZ 94612	RESTAURANT
JULES THIN CRUST PIZZA	5804 COLLEGE AVE 94618	RESTAURANT
JUMPING JAVA	6606 SHATTUCK AVE 94609	RESTAURANT
JUSTYNA 139 INC	3734 MACARTHUR BLVD 94619	RESTAURANT
KAIA FOODS	2935 ADELIN ST 94608	RESTAURANT
KAKUI INC	2060 MOUNTAIN BLVD SUITE 94611	RESTAURANT
KAMDESH AFGHAN CUISINE	332 14TH ST 94612	RESTAURANT
KANG NAM	4419 TELEGRAPH AVE 94609	RESTAURANT
KANG TONG	3702 TELEGRAPH AVE 94609	RESTAURANT
KANSAI	4345 TELEGRAPH AVE 94609	RESTAURANT
KARIBBEAN CITY	1408 WEBSTER ST 94612	RESTAURANT
KASPERS HOT DOGS INC #1	2551 MACARTHUR BLVD 94602	RESTAURANT
KEN S SIO INC	600 E 15TH ST 94606	RESTAURANT
KENTUCKY FRIED CHICKEN	470 LAKE PARK AVE 94610	RESTAURANT
KFC	950 MARKET ST 94607	RESTAURANT
KIM HUONG VIETNAMESE CUISINE	304 10TH ST 94607	RESTAURANT
KING KONG B.B.Q. RESTAURANT	3421 MACARTHUR BLVD 94602	RESTAURANT
KING KONG ROTISSERIE & CHINESE RESTAURANT	839 INTERNATIONAL BLVD 94606	RESTAURANT
KINGSTON 11 CUISINE LLC	2270 TELEGRAPH AVE 94612	RESTAURANT
KINJA SUSHI	357 GRAND AVE 94610	RESTAURANT
KOFFEE POT	2532 TELEGRAPH AVE 94612	RESTAURANT

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
KORYO JAJANG	4390 TELEGRAPH AVE SUITE 94609	RESTAURANT
KOTOBUKI JAPANESE RESTAURANT	6111 LA SALLE AVE 94611	RESTAURANT
KOUZINA	2064 ANTIOCH CT 94611	RESTAURANT
KULTUAH CAFE	340 14TH ST 94612	RESTAURANT
KUM WAH COMPANY	388 9TH ST SUITE 94607	RESTAURANT
L & S FISH CHIPS	326 E 18TH ST 94606	RESTAURANT
L M S C INC	2775 TELEGRAPH AVE 94612	RESTAURANT
LA BARBACOA	900 FALLON ST 94607	RESTAURANT
LA BONITA TAQUERIA	2200 BROADWAY 94612	RESTAURANT
LA CALACA LOCA(BISTRO INVESTORSLLC)	5199 TELEGRAPH AVE 94609	RESTAURANT
LA CHATA	346 14TH ST 94612	RESTAURANT
LA DORA LLC/CAFE ROMANAT	462 SANTA CLARA AVE 94610	RESTAURANT
LA ESQUINA TAQUERIA	9896 MACARTHUR BLVD 94605	RESTAURANT
LA ESTRELLITA CAFE	446 E 12TH ST 94606	RESTAURANT
LA FRONTERA MEXICAN RESTAURANT & TAQUERIA	4481 INTERNATIONAL BLVD 94601	RESTAURANT
LA FURIA CHALACA RESTAURANT	310 BROADWAY 94607	RESTAURANT
LA HACIENDA RESTAURANT	2045 MACARTHUR BLVD 94602	RESTAURANT
LA MEXICANA RESTAURANT	3930 INTERNATIONAL BLVD 94601	RESTAURANT
LA PERLA DEL PACIFICO	4149 FOOTHILL BLVD 94601	RESTAURANT
LA PERLA PUERTO RICAN CUISINE	2020 MACARTHUR BLVD 94602	RESTAURANT
LA RASPAHADITA	2138 INTERNATIONAL BLVD 94606	RESTAURANT
LA SALSA	501 14TH ST SUITE 94612	RESTAURANT
LA TORTA LOCA	3419 INTERNATIONAL BLVD 94601	RESTAURANT
LADY ESTHER'S ORIGINAL SOUTHERN CAFE LLC	300 FRANK H OGAWA PZ 94612	RESTAURANT
LAKE CHALET LLC	1520 LAKESIDE DR 94612	RESTAURANT
LAKEHURST HALL DINING	1569 JACKSON ST 94612	RESTAURANT
LAKESHORE CAFE	3257 LAKESHORE AVE 94610	RESTAURANT
LANESPLITTER PIZZA	536 LAKE PARK AVE 94610	RESTAURANT
LAS PALMAS	2682 FRUITVALE AVE 94601	RESTAURANT
LAS PALMAS SUPER BURRITO & SEAFOOD	3820 MARKET ST 94608	RESTAURANT
LAZEEZA	10 HEGENBERGER RD SUITE 94621	RESTAURANT
LE CHEVAL RESTAURANT	1007 CLAY ST 94607	RESTAURANT
LEE SANDWICH	530 E 12TH ST 94606	RESTAURANT
LEES DONUTS	4496 BROADWAY SUITE 94611	RESTAURANT
LEES DONUTS # 12	6652 BANCROFT AVE 94605	RESTAURANT
LEMON PEPPER	1060 E 12TH ST 94606	RESTAURANT
LENA'S SOUL FOOD	6403 FOOTHILL BLVD 94605	RESTAURANT
LEVEL 13 INC	341 13TH ST 94612	RESTAURANT
LEVY PREMIUM FOODSERVICE LP	7000 COLISEUM WY 94621	RESTAURANT
LIBA FALAFEL INC	380 17TH ST 94612	RESTAURANT
LIN JIA ASIAN KITCHEN	3437 LAKESHORE AVE 94610	RESTAURANT
LINS EXPRESS	5800 BANCROFT AVE 94605	RESTAURANT
LION DANCE CAFE	380 17TH ST 94612	RESTAURANT
LITTLE BISTRO	1464 WEBSTER ST 94612	RESTAURANT
LITTLE CAESARS	2218 MACARTHUR BLVD 94602	RESTAURANT
LITTLE SHIN SHIN	4260 PIEDMONT AVE 94611	RESTAURANT
LITTLEFIELD PLACE	1433 MYRTLE ST 94607	RESTAURANT
LOADS ICE CREAM AND CANDY	5942 MACARTHUR BLVD SUITE 94605	RESTAURANT
LOADS ICE-CREAM	2825 MACARTHUR BLVD 94602	RESTAURANT
LOCAL FOOD HALL	1410 7TH ST 94607	RESTAURANT
LOCAL FOOD HALL	1552 BEACH ST SUITE 94608	RESTAURANT
LOCOCOS RESTAURANT & PIZZERIA	4270 PIEDMONT AVE 94611	RESTAURANT
LOIS THE PIE QUEEN	851 60TH ST 94608	RESTAURANT
LOS CAMELLEOS TIENDA	5913 INTERNATIONAL BLVD 94621	RESTAURANT
LOS CAMELLOS	5911 INTERNATIONAL BLVD 94621	RESTAURANT
LOS CANTAROS RESTAURANT & TAQUERIA	336 GRAND AVE 94610	RESTAURANT
LOS COCOS RESTAURANT	1449 FRUITVALE AVE 94601	RESTAURANT
LOS COMALES	2105 MACARTHUR BLVD 94602	RESTAURANT
LOS DOS GALLOS TAQUERIA	5901 INTERNATIONAL BLVD 94621	RESTAURANT
LOS HERNANDEZ	845 66TH AVE 94621	RESTAURANT
LOS OLIVOS RESTAURANT	3010 FOOTHILL BLVD 94601	RESTAURANT
LOTUS FALAFEL AND SHAWERMA	1814 FRANKLIN ST SUITE 94612	RESTAURANT
LOUISES KITCHEN	6730 COLTON BLVD 94611	RESTAURANT
LOUISIANA FAMOUS FRIED CHICKEN	4006 MACARTHUR BLVD 94619	RESTAURANT
LOUISIANA FISH & CHIPS	2817 TELEGRAPH AVE 94609	RESTAURANT
LOVO RESTAURANTS CNB	3425 TELEGRAPH AVE 94609	RESTAURANT
LOWER BOTTOMS	1539 CAMPBELL ST 94607	RESTAURANT
LUCIA ESPRESSO	5225 SHATTUCK AVE 94609	RESTAURANT
LUCKY DONUTS & SANDWICHES INC	4010 MACARTHUR BLVD 94619	RESTAURANT

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
LUCKY EXPRESS	10700 MACARTHUR BLVD SUITE 94605	RESTAURANT
LUCKY THREE SEVENS	2868 FRUITVALE AVE 94601	RESTAURANT
LUKAS LLC	2221 BROADWAY 94612	RESTAURANT
LULA RESTAURANT	2805 TELEGRAPH AVE 94609	RESTAURANT
LY LUCK CHINESE RESTAURANT	3537 FRUITVALE AVE 94602	RESTAURANT
LYNN & LU'S ESCAPEDE CAFE	3353 GRAND AVE 94610	RESTAURANT
M & S KITCHEN	6336 SHATTUCK AVE 94609	RESTAURANT
MAC KHAI	417 17TH ST 94609	RESTAURANT
MACARTHUR DELI	5929 MACARTHUR BLVD 94605	RESTAURANT
MAGO	3762 PIEDMONT AVE 94611	RESTAURANT
MAIN SQUEEZE	3435 LAKESHORE AVE 94610	RESTAURANT
MALYS DONUT & BURGER	144 14TH ST 94612	RESTAURANT
MAMA AFRICA	2655 WALLACE ST 94606	RESTAURANT
MAMA OAKLAND	388 GRAND AVE 94610	RESTAURANT
MAMA'S ROYAL CAFE	4012 BROADWAY 94611	RESTAURANT
MANNA CORPORATE FOOD SVC INC	1950 FRANKLIN ST 94612	RESTAURANT
MARHABA	1437 FRANKLIN ST 94612	RESTAURANT
MARICA	5301 COLLEGE AVE 94618	RESTAURANT
MARIOTT COURTYARD OAKLAND OPERATOR LLC	988 BROADWAY 94607	RESTAURANT
MARISCOS EL TATA AL ESTILA SINALOA	10555 INTERNATIONAL BLVD 94603	RESTAURANT
MARISCOS LA COSTA	3625 INTERNATIONAL BLVD 94601	RESTAURANT
MARKET STREET MCDONALDS	800 MARKET ST 94607	RESTAURANT
MARUFUKU RAMEN	4828 TELEGRAPH AVE 94609	RESTAURANT
MARWA MARKET	2517 TELEGRAPH AVE	RESTAURANT
MARZANO RESTAURANT	4214 PARK BLVD 94602	RESTAURANT
MASA BAGA	2022 TELEGRAPH AVE 94612	RESTAURANT
MAZZAT GRILL	1924 FRANKLIN ST 94612	RESTAURANT
MC DONALDS #23467	7200 BANCROFT AVE 94605	RESTAURANT
MCDONALDS	4514 TELEGRAPH AVE 94609	RESTAURANT
MCDONALDS	6623 SAN PABLO AVE 94608	RESTAURANT
MCDONALDS	4010 ALAMEDA AVE 94601	RESTAURANT
MCDONALDS #10235	6300 INTERNATIONAL BLVD 94621	RESTAURANT
MCDONALDS OF OAKLAND #1666	2520 E 12TH ST 94601	RESTAURANT
MCDONALDS RESTAURANT # 11834	640 HEGENBERGER RD 94621	RESTAURANT
MCDONALDS RESTAURANT #7100	9725 INTERNATIONAL BLVD 94603	RESTAURANT
MERRITT RESTAURANT & BAKERY	3355 LAKESHORE AVE 94610	RESTAURANT
MERRITT STATION CAFE	614 GRAND AVE SUITE 94610	RESTAURANT
MESOB ETHIOPIAN RESTAURANT	4301 PIEDMONT AVE 94611	RESTAURANT
MI GRULLEUSE #2	2925 INTERNATIONAL BLVD 94601	RESTAURANT
MI GRULLEUSE	1457 FRUITVALE AVE 94601	RESTAURANT
MI LINDO JALISCO	340 14TH ST 94612	RESTAURANT
MIEN TAY RESTAURANT	1218 15TH AVE 94606	RESTAURANT
MIJORI INC	3260 GRAND AVE 94610	RESTAURANT
MILIKI RESTURANT	3725 MACARTHUR BLVD 94619	RESTAURANT
MILLENNIUM	5912 COLLEGE AVE 94618	RESTAURANT
MILLET	4987 SHAFTER AVE 94609	RESTAURANT
MILLS HOAGIES SHOP	5930 MACARTHUR BLVD 94605	RESTAURANT
MINTO'S JAMAICAN PATTIES & JUICE BAR	1405 FRANKLIN ST 94612	RESTAURANT
MISS BIRDIES CATERING COMPANY	1445 HARRISON ST SUITE	RESTAURANT
MISS SAIGON	3345 GRAND AVE SUITE 94610	RESTAURANT
MISTURA	3858 PIEDMONT AVE 94611	RESTAURANT
MLK CAFE	3860 MARTIN LUTHER KING JR WY 94609	RESTAURANT
MOCKINGBIRD	416 13TH ST 94612	RESTAURANT
MODIGLIANI CARRYOUT & CATERING LLC	3208 GRAND AVE 94610	RESTAURANT
MOES PIZZA CO	2293 INTERNATIONAL BLVD 94606	RESTAURANT
MOJOE CAFE	160 14TH ST SUITE 94612	RESTAURANT
MOLCAJETE RESTAURANT	1734 WEBSTER ST 94612	RESTAURANT
MOM'S BUN MI	1400 14TH AVE 94606	RESTAURANT
MONAGHAN'S ON THE HILL	2820 MOUNTAIN BLVD 94602	RESTAURANT
MONKEY KING OAKLAND	3920 PIEDMONT AVE 94611	RESTAURANT
MONSTER PHO	3905 BROADWAY 94611	RESTAURANT
MONTSES CAFE	155 FILBERT ST SUITE 94607	RESTAURANT
MOUNTAIN MIKES PIZZA	1830 WEBSTER ST 94612	RESTAURANT
MOUNTAIN MIKE'S PIZZA	4870 TELEGRAPH AVE 94609	RESTAURANT
MR GREEN BUBBLE LLC	4299 PIEDMONT AVE SUITE 94611	RESTAURANT
MR. CHICKEN	9219 INTERNATIONAL BLVD 94603	RESTAURANT
MR. ESPRESSO	696 3RD ST 94607	RESTAURANT
MSSD MANAGEMENT INC	1330 JACKSON ST 94612	RESTAURANT
MUA	2442 WEBSTER ST 94612	RESTAURANT

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
MUDITA RAMEN	4000 BROOKDALE AVE 94619	RESTAURANT
MUN-CHEEZE PIZZA & GRILL	1259 JEFFERSON ST 94612	RESTAURANT
MUNCHRITE MARKET	1839 96TH AVE 94603	RESTAURANT
MUSIC CAFE	251 9TH ST 94607	RESTAURANT
MZ KETTLES BBQ CHICKEN & RIBS	2676 FRUITVALE AVE 94601	RESTAURANT
NAAN-N-CURRY	1615 CLAY ST 94612	RESTAURANT
NAK KING KALE	433 ADAMS ST 94610	RESTAURANT
NAMA	3400 FRUITVALE AVE 94602	RESTAURANT
NAMASTE PIZZA	5942 SAN PABLO AVE 94608	RESTAURANT
NAMASTEY PATIO NEPALESE AND INDIAN CUISINE	5500 COLLEGE AVE 94618	RESTAURANT
NAN CAFE	734 WEBSTER ST 94607	RESTAURANT
NATIONS NO 7	317 BROADWAY 94607	RESTAURANT
NATURE VEGETARIAN RESTAURANT	1116 FRANKLIN ST 94607	RESTAURANT
NEECHA THAI	3236 GRAND AVE 94610	RESTAURANT
NELSON MYERS LLC	1300 CLAY ST SUITE 94612	RESTAURANT
NEW BORINQUEN SOUL	2020 MACARTHUR BLVD 94602	RESTAURANT
NEW GOLD MEDAL RESTAURANT	389 8TH ST 94607	RESTAURANT
NEW HO HO RESTAURANT	4871 TELEGRAPH AVE 94609	RESTAURANT
NEW IDEA RESTURANT INC	383 9TH ST 94607	RESTAURANT
NEW OCEAN FOOD MARKET	3252 INTERNATIONAL BLVD 94601	RESTAURANT
NEZA FOOD	900 FALLON ST 94607	RESTAURANT
NGAY	1623 INTERNATIONAL BLVD	RESTAURANT
NIBS	3112 MARKET ST 94608	RESTAURANT
NICKS PIZZA	6400 SHATTUCK AVE 94609	RESTAURANT
NICKS PIZZA MADE IN OAKLAND LLC	6211 SHATTUCK AVE 94609	RESTAURANT
NIDO	444 OAK ST 94607	RESTAURANT
NIKKI'S	25 REDDING PL 94619	RESTAURANT
NIKKO'S RESTAURANT	340 23RD AVE 94606	RESTAURANT
NINNA	4066 PIEDMONT AVE 94611	RESTAURANT
NOAH'S NEW YORK BAGELS	5095 TELEGRAPH AVE 94609	RESTAURANT
NOAHS NEW YORK BAGELS #2102	2060 MOUNTAIN BLVD 94611	RESTAURANT
NOAHS NEW YORK BAGELS #2180	3351 LAKESHORE AVE 94610	RESTAURANT
NOODLE THEORY	6099 CLAREMONT AVE 94618	RESTAURANT
NOODLE THEORY PROVISIONS	5849 SAN PABLO AVE 94608	RESTAURANT
NORCAL POPEYES #9091	1200 CLAY ST 94612	RESTAURANT
NORCAL POPEYES #9929	3080 E 9TH ST 94601	RESTAURANT
NORTH BEACH DELI & CATERING INC	308 JACKSON ST SUITE 94607	RESTAURANT
NYC BUFFET	4108 INTERNATIONAL BLVD 94601	RESTAURANT
NYUM BAI	3340 E 12TH ST 94601	RESTAURANT
OAKLAND GRILL	311 FRANKLIN ST 94607	RESTAURANT
OAKLAND I-TEA INC	388 9TH ST SUITE 94607	RESTAURANT
OAKLAND MARRIOTT CITY CENTER	1001 BROADWAY 94607	RESTAURANT
OAKLAND THAI FOOD TO GO	5907 FOOTHILL BLVD 94605	RESTAURANT
OASIS LOUNGE	344 GRAND AVE 94610	RESTAURANT
OBELISCO	3411 E 12TH ST SUITE 94601	RESTAURANT
OHGANE RESTAURANT	3915 BROADWAY 94611	RESTAURANT
OLD BROOKLYN CAFE & BAKERY	2228 BROADWAY 94612	RESTAURANT
OLD KAN BEER & COMPANY	95 LINDEN ST SUITE 94607	RESTAURANT
OLD WEANG PING VILLAGE	6217 MACARTHUR BLVD 94605	RESTAURANT
OLIVETO CAFE RESTAURANT	5655 COLLEGE AVE 94618	RESTAURANT
ONI SUSHI INC	6100 LA SALLE AVE 94611	RESTAURANT
OORI FOODS	1300 CLAY ST SUITE 94612	RESTAURANT
OORI RICE TRIANGLES	6000 COLLEGE AVE 94618	RESTAURANT
OPD SNACK BAR	455 7TH ST 94607	RESTAURANT
ORCHIDS THAI	4133 PIEDMONT AVE 94611	RESTAURANT
ORGANIC CHOICE	175 98TH AVE 94603	RESTAURANT
ORGANIC MAMA	1089 26TH ST APT 94607	RESTAURANT
ORIENTAL BBQ TOWN	6101 TELEGRAPH AVE 94609	RESTAURANT
OSMANTHUS	6048 COLLEGE AVE 94618	RESTAURANT
OTAEZ MEXICATESSEN INC	3872 INTERNATIONAL BLVD 94601	RESTAURANT
OVATIONS FANFARE LP	7000 COLISEUM WY 94621	RESTAURANT
OVO TAVERN & EATERY	5319 MARTIN LUTHER KING JR WY 94609	RESTAURANT
PACHIS HOT DOGS	6115 E 17TH ST 94621	RESTAURANT
PAGARUNG THAI CUISINE	6200 ANTIOCH ST 94611	RESTAURANT
PALMETTO	1900 TELEGRAPH AVE 94612	RESTAURANT
PANADERIA EL PUEBLO	10228 INTERNATIONAL BLVD 94603	RESTAURANT
PANDA EXPRESS #1330	500 12TH ST 94607	RESTAURANT
PANDA EXPRESS #2958	5108 BROADWAY 94611	RESTAURANT
PANDA KITCHEN	138 14TH ST 94612	RESTAURANT

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
PAPA JOES	900 FALLON ST 94607	RESTAURANT
PAPA JOHN	3301 E 12TH ST SUITE 94601	RESTAURANT
PAPA JOHNS	5412 SAN PABLO AVE 94608	RESTAURANT
PARADISE PARK CAFE	6334 SAN PABLO AVE 94608	RESTAURANT
PARAMOUNT THEATRE	2025 BROADWAY 94612	RESTAURANT
PARIS BAGUETTE # 26	1389 JEFFERSON ST 94612	RESTAURANT
PARK BURGER	4218 PARK BLVD 94602	RESTAURANT
PARRAS RESTAURANT	3284 INTERNATIONAL BLVD 94601	RESTAURANT
PASTINOS PASTA & PIZZA	4207 PARK BLVD 94602	RESTAURANT
PATTY'S & BUNS BURGER	2852 MOUNTAIN BLVD 94602	RESTAURANT
PENROSE & SONS FINE MEATS & SPIRITS	3311 GRAND AVE 94610	RESTAURANT
PEONY SEAFOOD RESTAURANT	388 9TH ST SUITE 94607	RESTAURANT
PEOPLES KITCHEN COLLECTIVE LLC	1615 8TH ST 94607	RESTAURANT
PERLE	2058 MOUNTAIN BLVD 94611	RESTAURANT
PETIT CAFE LLC	411 30TH ST 94609	RESTAURANT
PHAT MATTS BBQ	3415 TELEGRAPH AVE 94609	RESTAURANT
PHILLYS CHEESESTEAK & MORE LLC	2293 INTERNATIONAL BLVD 94606	RESTAURANT
PHNOM PENH RESTAURANT	3912 MACARTHUR BLVD 94619	RESTAURANT
PHO ANH DAO OAKLAND	280 E 18TH ST 94606	RESTAURANT
PHO HOA LAO	720 INTERNATIONAL BLVD 94606	RESTAURANT
PHO KING RESTAURANT	638 INTERNATIONAL BLVD 94606	RESTAURANT
PHO VY VIETNAMESE CUISINE	401 INTERNATIONAL BLVD 94606	RESTAURANT
PHOSHO DOUGH	6601 TELEGRAPH AVE 94609	RESTAURANT
PHUONG NAM RESTAURANT	1615 CLAY ST 94612	RESTAURANT
PIEOLOGY PIZZERIA	5132 BROADWAY SUITE 94611	RESTAURANT
PIETISSERIE LLC	1605 2ND AVE 94606	RESTAURANT
PINTOH THAI RESTAURANT	1442 FRANKLIN ST 94612	RESTAURANT
PITA POCKET	3932 TELEGRAPH AVE 94609	RESTAURANT
PIZZA CITY	2935 FOOTHILL BLVD SUITE 94601	RESTAURANT
PIZZA GUYS 172	3522 FOOTHILL BLVD 94601	RESTAURANT
PIZZA LOVE	900 MARKET ST SUITE 94607	RESTAURANT
PIZZA MATADOR	3033 MACARTHUR BLVD 94602	RESTAURANT
PIZZA NATION INC	4919 TELEGRAPH AVE 94609	RESTAURANT
PLANK	98 BROADWAY 94607	RESTAURANT
PLANTED TABLE	550 2ND ST 94607	RESTAURANT
PLAYA AZUL	2818 INTERNATIONAL BLVD 94601	RESTAURANT
PLENTY	1825 SAN PABLO AVE SUITE 94612	RESTAURANT
POKE PARLOR	1999 HARRISON ST 94612	RESTAURANT
POPEYES FRIED CHICKEN	7007 INTERNATIONAL BLVD 94621	RESTAURANT
PORTAL	1611 2ND AVE	RESTAURANT
PORTAL GASTROPUB	1611 2ND AVE 94606	RESTAURANT
PRIMAVERA	4800 BROADWAY 94611	RESTAURANT
PROPOSITION CHICKEN	3260 LAKESHORE AVE 94610	RESTAURANT
PROSPECT PARK SANDWICHES	1633 BROADWAY 94612	RESTAURANT
PUPUSAS GUADALUPE	4729 INTERNATIONAL BLVD 94601	RESTAURANT
PUPUSAS SALVADORENAS	1462 HIGH ST 94601	RESTAURANT
PUPUSERIA GABRIELA	4729 INTERNATIONAL BLVD 94601	RESTAURANT
PURE CATERING	1831 8TH AVE 94606	RESTAURANT
PURPLE PEPPER PIZZA	4496 BROADWAY 94611	RESTAURANT
PYEONG CHANG TOFU HOUSE INC	4701 TELEGRAPH AVE 94609	RESTAURANT
PYRAMIDS	3100 HIGH ST 94619	RESTAURANT
QI DUMPLING LOUNGE	3300 GRAND AVE 94610	RESTAURANT
QUALITY DONUT	6860 SUNKIST DR 94605	RESTAURANT
QUEEN'S CAJUN SEAFOOD	2211 INTERNATIONAL BLVD 94606	RESTAURANT
QUICK BITE	1511 FRANKLIN ST 94612	RESTAURANT
QUICKLY	328 10TH ST 94607	RESTAURANT
QUICKLY	1243 33RD AVE 94601	RESTAURANT
QUICKLY E. 12TH	609 E 12TH ST 94606	RESTAURANT
QUICKLY-LAKESHORE	3306 LAKESHORE AVE 94610	RESTAURANT
QUINNS LIGHTHOUSE RESTAURANT	1951 EMBARCADERO W 94606	RESTAURANT
QULTURE COLLECTIVE	1714 FRANKLIN ST SUITE 94612	RESTAURANT
QUYNH TRUC CAFE	1939 INTERNATIONAL BLVD 94606	RESTAURANT
R & R SUSHI & BOWLS	4151 PIEDMONT AVE 94611	RESTAURANT
R & U BBQ	6018 MACARTHUR BLVD 94605	RESTAURANT
R NOODLE & BAKERY	930 WEBSTER ST 94607	RESTAURANT
RAILROAD STOP DELI	1210 26TH ST 94607	RESTAURANT
RAJ INDIAN CUISINE	4086 PIEDMONT AVE 94611	RESTAURANT
RAMEN SHOP	5812 COLLEGE AVE 94618	RESTAURANT
RANG DONG RESTAURANT	724 WEBSTER ST 94607	RESTAURANT

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
RAZZOS PIZZA AND SALAD	4312 MACARTHUR BLVD 94619	RESTAURANT
RED BOY PIZZA LEIMERT	1500 LEIMERT BLVD 94602	RESTAURANT
RED PLANET	308 14TH ST 94612	RESTAURANT
RED SEA CORAL	5800 BANCROFT AVE 94605	RESTAURANT
RED SEA RESTAURANT	5200 CLAREMONT AVE 94618	RESTAURANT
REEM'S CALIFORNIA LLC	3301 E 12TH ST 94601	RESTAURANT
RESENTIZ FOOD	900 FALLON ST 94607	RESTAURANT
RESTAURANT 4 CAMINOS	3800 SAN LEANDRO ST 94601	RESTAURANT
RESTAURANTE DONA TOMAS	5004 TELEGRAPH AVE 94609	RESTAURANT
RESTAURANTE LA GRAN CHIQUITA	3503 INTERNATIONAL BLVD 94601	RESTAURANT
REVOLVE CAFE & JUICE BAR	1714 FRANKLIN ST 94612	RESTAURANT
RHZOCALI	1309 CENTER ST 94607	RESTAURANT
RIKYU JAPANESE RESTAURANT	5335 COLLEGE AVE 94618	RESTAURANT
RIO CALIFORNIA	1233 PRESERVATION PKWY 94612	RESTAURANT
ROAM ARTISAN BURGERS	1951 TELEGRAPH AVE 94612	RESTAURANT
ROCKIN CRAWFISH	211 FOOTHILL BLVD SUITE 94606	RESTAURANT
ROCKRIDGE CAFE	5492 COLLEGE AVE 94618	RESTAURANT
ROCKRIDGE IMPROVEMENT CLUB	5515 COLLEGE AVE 94618	RESTAURANT
RODERICKS	2708 98TH AVE 94605	RESTAURANT
ROLLING DUNES CREPE HOUSE	3331 LAKESHORE AVE 94610	RESTAURANT
ROMOS CAFFE	900 FALLON ST 94607	RESTAURANT
ROOZ CAFE	1918 PARK BLVD 94606	RESTAURANT
ROSALIES TASTE OF NEW ORLEANS	5833 BANCROFT AVE 94605	RESTAURANT
ROSAS CATERING	7621 MACARTHUR BLVD 94605	RESTAURANT
ROSITAS RESTAURANTE	10555 INTERNATIONAL BLVD 94603	RESTAURANT
ROUND TABLE DEVELOPMENT CO	7000 COLISEUM WY 94621	RESTAURANT
ROUND TABLE PIZZA #979	5095 TELEGRAPH AVE 94609	RESTAURANT
ROXAL KITCHEN INDIAN RESTAURANT	175 98TH AVE 94603	RESTAURANT
ROXANNAS	2422 57TH AVE 94605	RESTAURANT
ROYALTEA USA	702 WEBSTER ST 94607	RESTAURANT
RSVP CATERING	2963 107TH AVE 94605	RESTAURANT
RUBY Q	954 FRUITVALE AVE 94601	RESTAURANT
RUTHS BUKA	5250 FOOTHILL BLVD 94601	RESTAURANT
SAHN MARU KOREAN BBQ	4315 TELEGRAPH AVE 94609	RESTAURANT
SAIDA ABDELRAHMAN	475 14TH ST UNIT 94612	RESTAURANT
SAIGON RESTAURANT	326 FRANK H OGAWA PZ 94612	RESTAURANT
SAKURA BISTRO	388 9TH ST SUITE 94607	RESTAURANT
SALMA FAGEEH	707 WILLOW ST 94607	RESTAURANT
SALT PARTNERS LLC	3303 SAN PABLO AVE 94608	RESTAURANT
SAM'S CARRYOUT	6432 INTERNATIONAL BLVD 94621	RESTAURANT
SAMURAI SUSHI BOAT	3336 GRAND AVE 94610	RESTAURANT
SAN FRANCISCO RESTAURANT	8418 INTERNATIONAL BLVD 94621	RESTAURANT
SAN FRANCISCO SOUP COMPANY	1300 CLAY ST 94612	RESTAURANT
SAND BAR	2418 BROADWAY 94612	RESTAURANT
SANTO COYOTE RESTAURANT	4806 INTERNATIONAL BLVD 94601	RESTAURANT
SAYSETHA RESTAURANT	6230 TELEGRAPH AVE 94609	RESTAURANT
SCOTTS SEAFOOD GRILL & BAR	2 BROADWAY 94607	RESTAURANT
SEABREEZE ON THE DOCK	31 WEBSTER ST 94607	RESTAURANT
SEAHORSE'S CATERING SERVICE	2624 RICHIE ST 94605	RESTAURANT
SEISON	495 10TH ST 94607	RESTAURANT
SELAM RESTAURANT	2786 MARTIN LUTHER KING JR WY 94612	RESTAURANT
SEÑOR SISIG	333 17TH ST 94612	RESTAURANT
SEÑOR SISIG	1628 WEBSTER ST 94612	RESTAURANT
SEOUL GOM TANG II	3801 TELEGRAPH AVE 94609	RESTAURANT
SEQUOIA DINER	3719 MACARTHUR BLVD 94619	RESTAURANT
SEQUOYAH COUNTRY CLUB	4550 HEAFEY RD 94605	RESTAURANT
SERVICIOS ALFARO	4200 FOOTHILL BLVD 94601	RESTAURANT
SHAAN NORTH & SOUTH INDIAN CUISINE	3434 FRUITVALE AVE 94602	RESTAURANT
SHAKE SHACK #1290	1954 TELEGRAPH AVE 94612	RESTAURANT
SHAKWELL LLC	3407 LAKESHORE AVE 94610	RESTAURANT
SHAN DONG MANDARIN RESTAURANT	324 10TH ST 94607	RESTAURANT
SHANGRI-LA VEGAN	4905 TELEGRAPH AVE 94609	RESTAURANT
SHANGRILA VEGAN ORGANIC CAFE	4001 LINDEN ST 94608	RESTAURANT
SHEBA DINING	371 13TH ST 94612	RESTAURANT
SHIBA RAMEN CORP	1438 BROADWAY 94612	RESTAURANT
SHIMIZU SUSHI INC	4290 PIEDMONT AVE 94611	RESTAURANT
SHOGUN JAPANESE SUSHI & STEAK	3417 GRAND AVE 94610	RESTAURANT
SHOOTING STAR CAFE	1022 WEBSTER ST 94607	RESTAURANT
SHRI BALAJI INC	6447 INTERNATIONAL BLVD SUITE 94621	RESTAURANT

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
SIDEBAR	542 GRAND AVE 94610	RESTAURANT
SIDESHOW	942 STANFORD AVE 94608	RESTAURANT
SILVER CINEMAS ACQUISITION CO	4186 PIEDMONT AVE 94611	RESTAURANT
SIMPLY GREEK	4060 PIEDMONT AVE 94611	RESTAURANT
SINCERE SEAFOOD INC	907 WASHINGTON ST SUITE 94607	RESTAURANT
SISTER RESTAURANT	3308 GRAND AVE 94610	RESTAURANT
SKEWERS MED-DELIGHT INC	1109 OAK ST 94607	RESTAURANT
SKYLINE PIZZA	4400 KELLER AVE SUITE 94605	RESTAURANT
SLAINTE BAR	131 BROADWAY 94607	RESTAURANT
SLICE OF HOLLYWOOD	3306 LAKESHORE AVE 94610	RESTAURANT
SMELLYS CREOLE CATERING LLC	420 14TH ST 94612	RESTAURANT
SMITTEN ICE CREAM 0003	5800 COLLEGE AVE 94618	RESTAURANT
SOBO RAMEN	388 9TH ST SUITE 94607	RESTAURANT
SOBRE MESA	1618 FRANKLIN ST 94612	RESTAURANT
SODEXO OPERATIONS LLC	1850 ALICE ST 94612	RESTAURANT
SOI FOUR RESTAURANT	5421 COLLEGE AVE 94618	RESTAURANT
SOMBERO MEXICAN CAFE	9101 INTERNATIONAL BLVD 94603	RESTAURANT
SON 142 INC	6035 TELEGRAPH AVE 94609	RESTAURANT
SOPRANOS PIZZA	326 23RD ST SUITE 94612	RESTAURANT
SOUTHERN CAFE AT 2000 MACARTHUR LLC	2000 MACARTHUR BLVD 94602	RESTAURANT
SOUTHIE	6311 COLLEGE AVE 94618	RESTAURANT
SOVANNIKA RESTAURANT	1604 INTERNATIONAL BLVD 94606	RESTAURANT
SPARKYS RESTURANT LLC	4120 REDWOOD RD 94619	RESTAURANT
SPECIALTY FOODS INC	535 8TH ST 94607	RESTAURANT
SPENCETTA'S KITCHEN CATERING SERVICES	3810 FOOTHILL BLVD 94601	RESTAURANT
SPICE MONKEY	1628 WEBSTER ST 94612	RESTAURANT
SPICES13	370 12TH ST 94607	RESTAURANT
SPINNING DOUGH	2935 MARKET ST 94608	RESTAURANT
SPUN SPIRAL FRIES	3545 KLAMATH ST 94602	RESTAURANT
SQUARE PIE GUYS	826 WASHINGTON ST 94607	RESTAURANT
STARBUCKS	3013 BROADWAY 94611	RESTAURANT
STAR-LIGHTS DONUTS AND ICE CREAM	900 MARKET ST SUITE 94607	RESTAURANT
STARLINE SOCIAL CLUB LLC	645 W GRAND AVE 94612	RESTAURANT
STARS AND STRIPES CAFE	1212 FRUITVALE AVE 94601	RESTAURANT
STARTER BAKERY	1552 BEACH ST SUITE 94608	RESTAURANT
STATE SIDE	587 15TH ST 94612	RESTAURANT
STAY GOLD DELI	2635 SAN PABLO AVE 94612	RESTAURANT
STEEP WATER LLC	5316 COLLEGE AVE 94618	RESTAURANT
STICKY RICE CAFE	2810 INTERNATIONAL BLVD 94601	RESTAURANT
STOMACH KONSULT	3404 CHAMPION ST 94602	RESTAURANT
SUBWAY # 50316	290 E 18TH ST 94606	RESTAURANT
SUBWAY #46672 (closed December 2021)	1000 JEFFERSON ST 94607	RESTAURANT
SUBWAY (NG GREWAL INC)	4415 FOOTHILL BLVD 94601	RESTAURANT
SUBWAY (NGNS GREWAL INC)	6341 SHATTUCK AVE 94609	RESTAURANT
SUBWAY SANDWICHES & SALADS	3301 E 12TH ST SUITE 94601	RESTAURANT
SUBWAY SANDWICHES & SALADS #6992	3205 LAKESHORE AVE 94610	RESTAURANT
SUBWAY SANDWICHES & SALADS 62565	1300 CLAY ST SUITE 94612	RESTAURANT
SUBWAY SANDWICHES AND SALADS	175 98TH AVE 94603	RESTAURANT
SUBWAY SANDWICHES SALAD	4300 MACARTHUR BLVD 94619	RESTAURANT
SUKHO THAI	5498 COLLEGE AVE 94618	RESTAURANT
SUM YEE PASTRY	918 WEBSTER ST 94607	RESTAURANT
SUPER JUICED LLC	540 9TH ST 94607	RESTAURANT
SUPREME BEAN	300 LAKESIDE DR 94621	RESTAURANT
SUSHI GO GO	3535 PIERSON ST 94619	RESTAURANT
SUSHI PARK JAPANESE RESTAURANT	4209 PARK BLVD 94602	RESTAURANT
SUSHI VILLA	367 17TH ST 94612	RESTAURANT
SUSHIYA	4015 BROADWAY 94611	RESTAURANT
SWEETHEART CAFE & TEA	315 9TH ST 94607	RESTAURANT
T & K CAFE	337 8TH ST 94607	RESTAURANT
T & T SEAFOOD #2	4104 MACARTHUR BLVD 94619	RESTAURANT
TACO BELL #30742	6900 BANCROFT AVE 94605	RESTAURANT
TACO OAXACO	4717 FOOTHILL BLVD 94601	RESTAURANT
TACO TIJUANA 4 PAREDES	1212 37TH AVE 94601	RESTAURANT
TACOS & TAMALES LA OAXAQUENA	2608 MARKET ST 94607	RESTAURANT
TACOS DAVID	900 FALLON ST 94607	RESTAURANT
TACOS EL MUELLE	900 FALLON ST 94607	RESTAURANT
TACOS EL PELON	1600 102ND AVE 94603	RESTAURANT
TACOS EL ULTIMO BAILE	722 30TH ST 94609	RESTAURANT
TACOS LA COSTENA	5800 BANCROFT AVE 94605	RESTAURANT

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
TACOS LAS RANCHERITAS	6161 COLISEUM WY 94621	RESTAURANT
TACOS LOS CUATES	9117 BURR ST 94605	RESTAURANT
TACOS MI RANCHO	1434 1ST AVE 94606	RESTAURANT
TACOS OSCAR	420 40TH ST 94609	RESTAURANT
TAIWAN BENTO	412 22ND ST 94612	RESTAURANT
TAKARA SUSHI	5897 COLLEGE AVE 94618	RESTAURANT
TAKE IT EASY	351 17TH ST 94612	RESTAURANT
TAMALERIA AZTECA	5751 MARKET ST 94608	RESTAURANT
TAMALES EMILY	4509 FOOTHILL BLVD 94601	RESTAURANT
TAMALES JOVANNI	5324 FOOTHILL BLVD 94601	RESTAURANT
TAMALES SALVADORENOS	5324 FOOTHILL BLVD 94601	RESTAURANT
TAMARINDO ANTOJERIA MEXICANA	468 8TH ST 94607	RESTAURANT
TAO YUEN PASTRY	816 FRANKLIN ST 94607	RESTAURANT
TAQUERIA DURANGO	3601 FOOTHILL BLVD 94601	RESTAURANT
TAQUERIA EL CRUZERO	1309 MACARTHUR BLVD 94602	RESTAURANT
TAQUERIA EL FAROLITO #4	3646 INTERNATIONAL BLVD 94601	RESTAURANT
TAQUERIA EL GRULLO	2630 FOOTHILL BLVD 94601	RESTAURANT
TAQUERIA LA CASITA	3659 FOOTHILL BLVD 94601	RESTAURANT
TAQUERIA LA GLORIA	2301 E 27TH ST 94601	RESTAURANT
TAQUERIA LA MEJOR	3411 HIGH ST 94619	RESTAURANT
TAQUERIA LA MINA	597 15TH ST 94612	RESTAURANT
TAQUERIA LA PALMA	8217 INTERNATIONAL BLVD 94621	RESTAURANT
TAQUERIA LAS COMADRES	2081 MOUNTAIN BLVD 94611	RESTAURANT
TAQUERIA REYNOSO	3329 FOOTHILL BLVD 94601	RESTAURANT
TAQUERIA SAN JOSE INC	3433 INTERNATIONAL BLVD 94601	RESTAURANT
TARGET STORE T2767	1555 40TH ST 94608	RESTAURANT
TASTEE STEAM KITCHEN	329 11TH ST 94607	RESTAURANT
TASTY BOWL	205 E 18TH ST 94606	RESTAURANT
TASTY PHO	200 INTERNATIONAL BLVD 94606	RESTAURANT
TASTY SZECHUAN RESTAURANT	2811 HAVENSCOURT BLVD 94605	RESTAURANT
TAY HO	344 12TH ST 94607	RESTAURANT
TEN WIN INC	6111 LA SALLE AVE 94611	RESTAURANT
TENI EAST KITCHEN	4015 BROADWAY 94611	RESTAURANT
Tf&O / TUTTI FRUTTI OAKLAND	4214 PIEDMONT AVE 94611	RESTAURANT
THANH KY CAFE INC	659 E 12TH ST 94606	RESTAURANT
THE ALLEY	3325 GRAND AVE 94610	RESTAURANT
THE BACKYARD	102 OAK ST 94607	RESTAURANT
THE BENTO HOUSE	801 WASHINGTON ST 94607	RESTAURANT
THE BEST DIM SUM AND PASTRY RESTAURANT	723 E 12TH ST 94606	RESTAURANT
THE BIG APPLE	1000 BROADWAY SUITE 94607	RESTAURANT
THE BLACKBERRY BISTRO	4240 PARK BLVD 94602	RESTAURANT
THE BROWN SUGAR KITCHEN	2295 BROADWAY 94612	RESTAURANT
THE COOK AND HER FARMER	907 WASHINGTON ST 94607	RESTAURANT
THE CRO CAFE INC	470 49TH ST 94609	RESTAURANT
THE EVEREST MOMO LLC	2212 BROADWAY 94612	RESTAURANT
THE FAT LADY	201 WASHINGTON ST 94607	RESTAURANT
THE FOOD MILL INC	3033 MACARTHUR BLVD 94602	RESTAURANT
THE GASTROPIG	2123 FRANKLIN ST 94612	RESTAURANT
THE GOLDEN SQUIRREL (OHMAYA LLC)	5940 COLLEGE AVE SUITE 94618	RESTAURANT
THE GOOD LIFE MARKETPLACE	5859 MACARTHUR BLVD 94605	RESTAURANT
THE GRADUATE	6202 CLAREMONT AVE 94618	RESTAURANT
THE GRAND TAVERN	3601 GRAND AVE 94610	RESTAURANT
THE GROANING BOARD	100 STRATHMOOR DR 94705	RESTAURANT
THE HABIT BURGER GRILL	5108 BROADWAY SUITE 94611	RESTAURANT
THE HOGS APOTHECARY	375 40TH ST 94609	RESTAURANT
THE KEBABERY	4201 MARKET ST 94608	RESTAURANT
THE KON TIKI	347 14TH ST 94612	RESTAURANT
THE LAMONT PAYTON GROUP	4535 REDDING ST 94619	RESTAURANT
THE LAYOVER	1517 FRANKLIN ST 94612	RESTAURANT
THE LEANING TOWER OF PIZZA	498 WESLEY AVE 94606	RESTAURANT
THE LIBERTINE	3332 GRAND AVE 94610	RESTAURANT
THE LODGE ON PIEDMONT INC	3758 PIEDMONT AVE 94611	RESTAURANT
THE LUMPIA COMPANY	372 24TH ST 94612	RESTAURANT
THE LUNCH BOX	1720 FRANKLIN ST 94612	RESTAURANT
THE MIRANDA	1739 BROADWAY 94612	RESTAURANT
THE MIXING BOWL	4920 TELEGRAPH AVE 94609	RESTAURANT
THE ORGANIC COUP INC	1300 CLAY ST 94612	RESTAURANT
THE PANTRY	222 MADISON ST 94607	RESTAURANT
THE POSH BAGEL	4037 PIEDMONT AVE 94611	RESTAURANT

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
THE PUNCHDOWN	1737 BROADWAY 94612	RESTAURANT
THE ROTISSERIE / DELI	361 19TH ST 94612	RESTAURANT
THE ROTISSERIE DELI	200 FRANK H OGAWA PZ 94612	RESTAURANT
THE STAR ON GRAND	3425 GRAND AVE 94610	RESTAURANT
THE SWEET BOOTH	388 9TH ST SUITE 94607	RESTAURANT
THE TERRACE ROOM	1800 MADISON ST	RESTAURANT
THE VEGETARIAN GOURMET	344 20TH ST 94612	RESTAURANT
THE WELL CAFE LLC	5443 TELEGRAPH AVE 94609	RESTAURANT
THE WOLF	3853 PIEDMONT AVE 94611	RESTAURANT
THEO CATERING	434 58TH ST 94609	RESTAURANT
THU ANH NGUYEN DESSERTS LLC	839 INTERNATIONAL BLVD SUITE 94606	RESTAURANT
TIANJIN DUMPLINGS	989 FRANKLIN ST SUITE 94607	RESTAURANT
TIEN DONUTS & SUBS	1460 7TH ST SUITE 94607	RESTAURANT
TIGISTS GUADA	80 FAIRMOUNT AVE 94611	RESTAURANT
TIJUANA RESTAURANT	1308 INTERNATIONAL BLVD 94606	RESTAURANT
TOGIS MONGOLIAN CUISINE	352 14TH ST 94612	RESTAURANT
TORPEDO SUSHI	25 GRAND AVE 94612	RESTAURANT
TORTAS AHOGADAS MI BARRIO	4749 INTERNATIONAL BLVD 94601	RESTAURANT
TOWN BAR AND LOUNGE	2001 BROADWAY 94612	RESTAURANT
TRANSON INVESTMENT GROUP INC DBA NOODLE BOWL	188 10TH ST 94607	RESTAURANT
TRIBU CAFE	6501 SAN PABLO AVE 94608	RESTAURANT
TRIBUNE	401 13TH ST 94612	RESTAURANT
TRISLER 291 INC	7272 INTERNATIONAL BLVD 94621	RESTAURANT
TRUEBURGER	4101 BROADWAY 94611	RESTAURANT
TRUEBURGER LLC	146 GRAND AVE 94612	RESTAURANT
TRUST AUTO BODY & PAINT	2000 16TH AVE 94606	RESTAURANT
TU TAI 3 VIETNAMESE RESTAURANT	2141 MACARTHUR BLVD 94602	RESTAURANT
TWINS HALAL HOUSE & BAKERY	2608 MARKET ST 94607	RESTAURANT
TWM INDUSTRIES LP	10770 MACARTHUR BLVD 94605	RESTAURANT
TWO MAMMAS AN A PAPAS VEGAN KITCHEN	3700 E 12TH ST 94601	RESTAURANT
UARHI TAQUERIA	134 14TH ST 94612	RESTAURANT
UC DESSERT	388 9TH ST SUITE 94607	RESTAURANT
ULTIMATE GROUND CAFE AND TEA	4225 PARK BLVD 94602	RESTAURANT
UMAMI BURGER	2100 FRANKLIN ST 94612	RESTAURANT
UNITED PALETERIA Y NEVERIA	4768 INTERNATIONAL BLVD 94601	RESTAURANT
UPTOWN CAFE & CREPES	410 21ST ST 94612	RESTAURANT
UZEN	5415 COLLEGE AVE 94618	RESTAURANT
V' MARIES SOUL FOOD	8133 IDLEWOOD ST 94605	RESTAURANT
VEGAN DONUT GELATO	411 E 18TH ST 94606	RESTAURANT
VEGE HOUSE AND SPICES	369 12TH ST 94607	RESTAURANT
VIEN HUONG RESTAURANT INC	712 FRANKLIN ST 94607	RESTAURANT
VIENTIAN CAFE INC	3801 ALLENDALE AVE 94619	RESTAURANT
VINCE & VILMA 131 INC	9825 INTERNATIONAL BLVD 94603	RESTAURANT
VULCAN CAFE	915 45TH AVE 94601	RESTAURANT
WATERFRONT F & B LLC	10 WASHINGTON ST 94607	RESTAURANT
WAWA THAI FOOD	3009 MACARTHUR BLVD 94602	RESTAURANT
WEHEREHOUSE LLC	3446 MARKET ST 94608	RESTAURANT
WEI WANG HOUSE LLC	1501 23RD AVE APT 94606	RESTAURANT
WENDYS	3111 INTERNATIONAL BLVD 94601	RESTAURANT
WENDYS HAMBURGERS	189 98TH AVE 94603	RESTAURANT
WENDYS OLD FASHIONED HAMBURGER	5211 BROADWAY 94618	RESTAURANT
WEST HOT DOG & CATERING	3401 E 12TH ST 94601	RESTAURANT
WHEELHOUSE OAKLAND	302 12TH ST 94607	RESTAURANT
WING WAH PHO GA RESTAURANT	1221 E 12TH ST 94606	RESTAURANT
WINGSTOP	528 LAKE PARK AVE 94610	RESTAURANT
WISE SONS JEWISH DELICATESSEN	1700 FRANKLIN ST 94612	RESTAURANT
WOOD TAVERN	6315 COLLEGE AVE 94618	RESTAURANT
WOODMINSTER CAFE	5020 WOODMINSTER LN 94602	RESTAURANT
WOODYS CAFE	1841 PARK BLVD 94606	RESTAURANT
WORLD GROUND CAFE	3726 MACARTHUR BLVD 94619	RESTAURANT
XOLO TAQUERIA LLC	1916 TELEGRAPH AVE 94612	RESTAURANT
XYCLO	4218 PIEDMONT AVE 94611	RESTAURANT
YANG CHOW RESTAURANT	3211 GRAND AVE 94610	RESTAURANT
YAYA POKI	388 9TH ST 94607	RESTAURANT
YIA YIA	200 ALICE ST 94607	RESTAURANT
YO 510	1120 INTERNATIONAL BLVD 94606	RESTAURANT
YOGURT DELUXE	3203 LAKESHORE AVE 94610	RESTAURANT
YOKEE LLC	1728 FRANKLIN ST SUITE 94612	RESTAURANT
YOSHIS JAPANESE RESTAURANT IN	510 EMBARCADERO W 94607	RESTAURANT

Attachment C.4.1
City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
YOUTH UPRISING CORNERS CAFE	8711 MACARTHUR BLVD 94605	RESTAURANT
YUMMY DIM SUM	307 10TH ST 94607	RESTAURANT
YUMMY GRILL	4300 INTERNATIONAL BLVD 94601	RESTAURANT
YUNG KEE RESTAURANT	888 WEBSTER ST 94607	RESTAURANT
YURIS RESTAURANT	9101 INTERNATIONAL BLVD 94603	RESTAURANT
YY BUFFET	4108 INTERNATIONAL BLVD 94601	RESTAURANT
Z CAFE & BAR	2735 BROADWAY 94612	RESTAURANT
ZACHARYS CHICAGO PIZZA INC	5801 COLLEGE AVE 94618	RESTAURANT
ZAYA CAFE	1768 BROADWAY 94612	RESTAURANT
A M S TRANSPORTATION CO	1700 24TH ST 94607	TRANSPORTATION
ABF FREIGHT SYS INC	4575 TIDEWATER AVE 94601	TRANSPORTATION
AMTRAK OAKLAND MAINTENANCE FACILITY	1303 3RD ST 94607	TRANSPORTATION
BRITISH MARINE	11 EMBARCADERO 94606	TRANSPORTATION
DURHAM SCHOOL SERVICES	4919 TIDEWATER AVE 94601	TRANSPORTATION
FEDEX OAKRT	9190 EDES AVE 94603	TRANSPORTATION
FIRST STUDENT INC 12676	333 FILBERT ST 94607	TRANSPORTATION
FIRST TRANSIT INC 55570	407 HIGH ST 94601	TRANSPORTATION
FRIENDLY CAB CO	4849 E 12TH ST 94601	TRANSPORTATION
GREYHOUND LINES INC 892540	2103 SAN PABLO AVE 94612	TRANSPORTATION
HEITZ TRUCKING INC	4919 TIDEWATER AVE 94601	TRANSPORTATION
METRO TAXICAB COMPANY INC	4849 E 12TH ST 94601	TRANSPORTATION
OAKLAND MARITIME SUPPORT SERVICES INC	10 BURMA RD 94607	TRANSPORTATION
SF OAKLAND TRUCK STOP	8255 SAN LEANDRO ST 94621	TRANSPORTATION
UNION PACIFIC RAILROAD WEST OAKLAND	1504 MIDDLE HARBOR RD 94607	TRANSPORTATION
A B TRUCKING	10 BURMA RD 94607	TRUCKING
ALLSTAR TRANSPORT INC	8724 G ST 94621	TRUCKING
BERNARDINI ENTERPRISES INC	745 KEVIN CT 94621	TRUCKING
BROOKS AND JOHNSON TRUCKING	650 85TH AVE 94621	TRUCKING
BROOKS TRUCKING	721 LOUISIANA ST 94603	TRUCKING
CAL STATE XPRESS	4909 TIDEWATER AVE 94601	TRUCKING
FAST LANE LINTERMODEL	850 92ND AVE SUITE 94603	TRUCKING
GJ SERVICES	8255 SAN LEANDRO ST 94621	TRUCKING
GOLDEN GATE TRUCK CENTER	8200 BALDWIN ST 94621	TRUCKING
HONG KEE TRUCKING INC	854 66TH AVE 94621	TRUCKING
HOOVESTOL INC	2226 CAMPBELL ST 94607	TRUCKING
HWH EXPRESS INC	851 81ST AVE 94621	TRUCKING
HWH TRUCKING INC	851 81ST AVE SUITE 94621	TRUCKING
J.A.V. TRUCKING COM.	650 85TH AVE 94621	TRUCKING
JAYS SMALL MOVES	2525 MANDELA PKWY 94607	TRUCKING
KAMAL TRUCKING CORP	526 2ND ST 94607	TRUCKING
LANGE TRUCKING INC	2226 CAMPBELL ST 94607	TRUCKING
LIMEX INC	3213 WOOD ST 94608	TRUCKING
MODERN EXPRESS COURIER	750 4TH ST 94607	TRUCKING
MONROE TRUCKING	815 STONE ST 94603	TRUCKING
MUTUAL EXPRESS COMPANY	1700 W GRAND AVE 94607	TRUCKING
PACIFIC COAST CONTAINER BLDG 803	2498 W 16TH ST 94607	TRUCKING
PACIFIC COAST CONTAINER INC	2099 7TH ST 94607	TRUCKING
PACIFIC TRANSLOAD SERVICES	737 BAY ST 94607	TRUCKING
PHUONG LUU	745 KEVIN CT 94621	TRUCKING
QUINTERO TRUCKING CO	2270 POPLAR ST 94607	TRUCKING
R & A TRUCKING CO	1050 77TH AVE 94621	TRUCKING
SILICON LOGISTICS	4341 HOWARD ST 94601	TRUCKING
SLINE TRUCKING	1338 MANDELA PKWY 94607	TRUCKING
SPRINT	851 81ST AVE 94621	TRUCKING
STARVING STUDENTS INC	2850 POPLAR ST 94608	TRUCKING
TEC OF CALIFORNIA. INC	8099 S COLISEUM WY 94621	TRUCKING
THE CHANGS INTERNATIONAL	2505 POPLAR ST 94607	TRUCKING
THREE HARBORS SERVICES INC	4831 TIDEWATER AVE 94601	TRUCKING
TIGHE TRANSPORTATION & WLSLE	2230 WILLOW ST 94607	TRUCKING
U S FREIGHT SYSTEMS	1819 10TH ST 94607	TRUCKING
U-HAUL MOVING & STORAGE OF OAKLAND COLISEUM	8000 SAN LEANDRO ST 94621	TRUCKING
U-HAUL OF OAKLAND	5330 INTERNATIONAL BLVD 94601	TRUCKING
UNITED RENTALS (NORTH AMERICA) INC	700 98TH AVE 94603	TRUCKING
VA TRANSPORTATION INC	1225 MANDELA PKWY 94607	TRUCKING
WEST COAST MOVING SYSTEMS	745 85TH AVE SUITE 94621	TRUCKING
ALAMEDA PALLETS	2982 E 7TH ST 94601	WAREHOUSING AND DISTRIBUTION
BAY AREA PALLETS	1025 47TH AVE 94601	WAREHOUSING AND DISTRIBUTION
DURAN PALLETS CORPORATION	740 JULIE ANN WY 94621	WAREHOUSING AND DISTRIBUTION
GLOBAL PALLETS	750 98TH AVE 94603	WAREHOUSING AND DISTRIBUTION

Attachment C.4.1
 City of Oakland, FY 2021-2022

BUSINESS NAME	Address (all in Oakland, CA)	Business Type
GOOD EGGS INC	2000 MARITIME ST SUITE 94607	WAREHOUSING AND DISTRIBUTION
HUGOS PALLETS INC	4601 E 12TH ST 94601	WAREHOUSING AND DISTRIBUTION
IMCD US LLC	2135 FREDERICK ST 94606	WAREHOUSING AND DISTRIBUTION
JS SKY NETWORK INC	294 HEGENBERGER RD 94621	WAREHOUSING AND DISTRIBUTION
MATSON LOGISTICS WAREHOUSING	700 INDEPENDENT RD 94621	WAREHOUSING AND DISTRIBUTION
MATSON LOGISTICS WAREHOUSING	9401 SAN LEANDRO ST 94603	WAREHOUSING AND DISTRIBUTION
MINDFUL LLC	2935 ADELIN ST 94608	WAREHOUSING AND DISTRIBUTION
SOCIETY OF ST. VINCENT DE PAUL ALAMEDA COUNTY	9235 SAN LEANDRO ST 94603	WAREHOUSING AND DISTRIBUTION
STORQUEST SELF STORAGE	2227 SAN PABLO AVE 94612	WAREHOUSING AND DISTRIBUTION

ATTACHMENT C.5.1

City of Oakland

200 Grand Avenue Homeless Encampment Sampling Results

FY 2021-2022

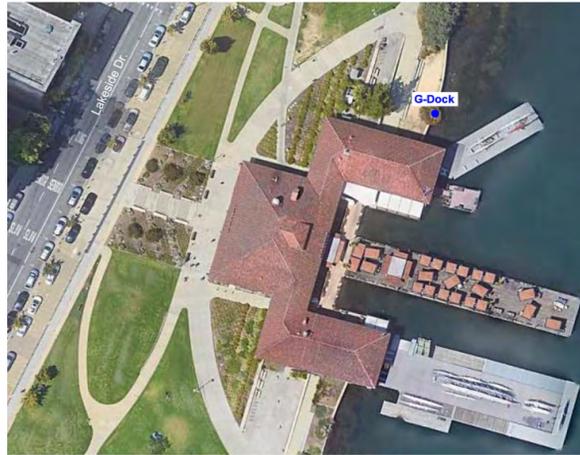
200 Grand - Study of potential impacts of encampment at Grand and Harrison - 2022

Tidal Condition	high tide	incoming	outgoing	incoming	outgoing	incoming	outgoing	high tide	incoming	outgoing	incoming	outgoing	incoming	outgoing	high tide	incoming	outgoing	incoming	outgoing	incoming	outgoing	
	4/13/2022	4/18/2022	5/11/2022	5/18/2022	5/25/2022	6/1/2022	6/8/2022	4/13/2022	4/18/2022	5/11/2022	5/18/2022	5/25/2022	6/1/2022	6/8/2022	4/13/2022	4/18/2022	5/11/2022	5/18/2022	5/25/2022	6/1/2022	6/8/2022	
Sample ID	E. Coli (MPN/100ml)							Enterococci (MPN/100ml)							Fecal Coliform (MPN/100ml)							
G-Up	>120,980	>241,960	>120980					3,448	3,968	15,531					>16,000	>16,000	>16,000					
G-Source	>120,980	>241,960	>120980	100,790	198,630	20,640	1,610	4,884	4,106	10,462	6,131	1,585	>24,196	1,785	>16,000	>16,000	>16,000	> 1.6E+06	3,500,000	330,000	13,000	
G-Down	>120,980	>241,960	64,985					9,208	2,098	6,488					>16,000	>16,000	>16,000					
GEC-Dock				56,950	9,930	10,710	410				7,701	61	>24,196	3,257				> 1.6E+06	4,500	330,000	4,500	
G-Dock	<50	<100		328	1,017	312	433	<10	63		10	98	<10	<10	--	<180		130	1,300	45	20	

Note: Encampment was removed early May in coordination with the City of Oakland's Encampment Management Team and following the Encampment Management Policy.

Further South

E. Coli threshold= 576
 Enterococci threshold = 500
 Ammonia threshold = 0.4 ug/L



Legend:
 - Approximate location of



Scale: 1 inch = 200 feet

ATTACHMENT C.6.1

City of Oakland

Summary of Construction Site Control Inspections

PRIVATE PROJECTS

FY 2021-2022

**City of Oakland
Summary of Construction Site Control Inspections
Private Projects
FY 2021 - 2022**

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					First Inspection Date for the Site	Inspection Date	Site Fully Stabilized							Erosion (R13)	Sediment (R14)	Run-on & Runoff (R15)	Active Treatment (R16)	Site Mgt. (R17)	Non S/W Mgt (R18)				10 Days	30 Days	
1	1	1	1428	105TH	12/9/2021	12/9/2021		CLOUDY	N	1											Date: 12/9/2021 I walked the site with Supt. Brandon. The PZ construction permit can not be closed until the decision is made on how to handle the permit being divided into three separate phases. I will talk with Manager Tim Lou, result of this inspection is a partial.				
1		1	1428	105TH		2/1/2022		CLOUDY	N												Date: 2/1/2022 I met with Assistant Superintendent Brandon. 1). The contractor repaired the cracked and damaged concrete sidewalk areas on 105th Ave. 2). The contractor installed a 30ft cyclone fence crossing the rear entry way to prevent driving onto the property. The 60ft entry driveway has class II aggregate rock. Non resident tenants are parking vehicles in the open area and tracking sediment off site into the street. The contractor had two vehicles towed by the police today. The contractor will have to come up with a better plan on the driveway entrance to prevent tracking and erosion run offs from taking place .	1		1	2/25/2022
1		1	1428	105TH		2/25/2022		CLEAR	N												Date: 2/25/2022 C- 6 inspection. The contractor called for a Final inspection on the PZ permit. The corrections the contractor made are not adequate for preventing sediment from running off site. The spray sealer that was used will not adhere to the dirt, there are already 6 to 7 place's were the dirt is showing through. I met with Superintendent Andrew, I showed him the unacceptable product that was present for approval. Not ready for Final sign off.	2		1	3/25/2022
1		1	1428	105TH		3/25/2022		CLEAR	N												Date: 3/25/2022 Contractor has paved the fire path				
1	1		226	13TH	8/13/2021	8/13/2021		CLOUDY	N			1									Date: 8/13/2021 I met with Superintendent Jaime. After walking the construction site I signed off on the PZ permit extension.				
1			226	13TH		10/6/2021		CLOUDY	N												Date: 10/6/2021 I met with Project Manager Adrian and signed off on the 30 day permit extension.				
1			226	13TH		3/18/2022		CLEAR	N												Date: 3/18/2022 I met with project manager Adrian. I received the Civil Engineers Statement of Completion letters from the contractor. This permit can be finalized and close. C Ray.				
1	1	1	238	13TH	4/1/2022	4/1/2022		CLOUDY	N	1											Date: 4/1/2022 After meeting and walking the site with Project Manager Adrian, I signed off on the PZ permit. This permit can be Finalized and closed. The contractor submitted the the building permit instead of the PZ permit for sign off, Adrain will have to submit the PZ permit for sign off.				
1	1	1	385	14TH	10/7/2021	10/7/2021		CLEAR	N			1									Date: 10/7/2021 All work under the PZ permit is complete and finalized.				
1	1		570	16TH	7/22/2021	7/22/2021		CLEAR	N		1										Date: 7/22/2021 I inspected 4"inch x 60 ft. of storm drain PVC pipe in the courtyard. The contractor must seal all open ends of conduit's that have been cut off with concrete. The contractor must install concrete separation between the pipe crossing directly underneath the 4 " for approximately 3 1/2 feet in the middle of the courtyard to give separation. A follow up inspection is required .				
1			570	16TH		12/15/2021		CLOUDY	N												Date: 12/15/2021 I met with Superintendent John. I inspected 100 ft. x 4" storm drain pipe running from the right rear side to the front of the building The contractor has called for a plumbing inspection later today. No problems on the PZ permit, after passing the plumbing inspection the contractor can back fill the trench. Remove all tripping hazards on the sidewalk on 16th St.				

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Summary of Construction Site Control Inspections
Private Projects
FY 2021 - 2022**

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1	1		219	9TH	4/1/2022	4/1/2022		CLOUDY	N		1	0										Date: 4/1/2022 I met with Superintendent Bobby and Project Manager Pete. We walked the construction site looking at the areas that that need to be fully completed before the Grading permit would be signed off. Including having the Statement of Completion signed by the Civil Engineer.				
1			219	9TH		6/3/2022		CLOUDY	N			0										Date: 6/3/2022 The contractor called for a TCO inspection. They are not ready. The contractor is paving the sidewalk areas with hot asphalt. 2) The construction fencing with 6ft silt screening attached is not in place. 3) The 3 dirt piles need to be removed. 4) Cover the dumpster with a tarp or netting. 5) Run a street sweeper to remove all loose dirt, rocks and dust.				
1			219	9TH		6/6/2022		RAIN	Y			0										Date: 6/6/2022 The contractor called for a Final inspection, but the construction site is not ready. The 8th Ave side is still not ready. The contractor had all of the DOT, building Service and myself for a team meeting. The corrections will have to be completed on 8th Ave. Replace the sidewalk, repave the street, paint the curbs and stripe the streets. The contractor will be calling for another inspection in two to four weeks for a Final.				
1	1	1	2503	ADELINE	10/7/2021	10/7/2021		CLOUDY	N	1												Date: 10/7/2021 I met with Superintendent Joe and his foreman Daryl. Held a PZ permit Pre-construction meeting on site. Discuss requirements for S/S, Storm Drains, utilities and water trenches. The contractor must protect the sidewalk during construction.				
1		1	2503	ADELINE		10/14/2021		CLEAR	N													I inspected 90 ft. of 6" storm drain pipe with 9 - 4" laterals. I also inspected 80 ft. of 4" planter pipe. The planters will be installed at a later date. OK for the contractor to back fill the trenches, this is a very narrow construction site..				
1		1	2503	ADELINE		2/17/2022		CLEAR	N													C - 6 Inspection. I inspected erosion controls and compaction in the drive way approach. The contractor has installed his CI II aggregate rock in the drive entry way for the units. Maintain erosion .controls and remove all loose rocks and dirt from the the sidewalk and gutter pan.				
1		1	2503	ADELINE		3/25/2022		CLOUDY	N													Date: 3/25/2022 No ready for final. Needs sign off from zoning, DOT and fire.				
1	1		5915	Balboa	7/1/2021	7/1/2021		CLOUDY	N				1									The contractor peter called for a Final GR permit inspection. There is no permanent address attached to the new house and he does not have his Statement of Completion letter signed with a wet stamp from the Civil Engineer. I will sign off on the Gr permit when the corrections have been completed and the Statement letter is turned in.				
1			5915	Balboa		7/2/2021		CLOUDY	N													I received the Statement of Completion letter from the owner Peter Choy, he drop it off at 4:10 pm today This GR permit can know be closed and Finalized.				
1	1	1	2820	BROADWAY	7/28/2021	7/28/2021		CLEAR	N	1												I met with Supt. Todd. The contractor is still working on the outside of the building structure on Broadway including scaffolding.. The sidewalk is not completely 100% installed on Broadway. Trees are not planted. BMP's are not being maintained. The sidewalks are still closed. The construction site has large dirt piles uncovered in the rear of the building. Remove all concrete wash out waste in the rear dirt pile area. Make repairs to the storm drain catch basin and repave around the inlet on 28th St.. I gave the contractor a Correction Notice. The construction site is not ready for a Final Grading sign off.				
1		1	2820	BROADWAY		8/2/2021		CLOUDY	N													Date: 8/2/2021 The contractor called for a Final inspection. The construction site was not ready for a final inspection. All of the items listed on the Corrections Notice had not been completed. The sidewalk on Broadway was not open for pedestrians to have a clear walking path.				

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Summary of Construction Site Control Inspections
Private Projects
FY 2021 - 2022**

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1	1		6930	BUCKINGHAM	11/3/2021	11/3/2021	CLOUDY	N					1								I met with the owner Troy and contractor Victor. The contractor has installed ground covering all the way around his new house. There are a couple of areas that have to be address. 1) The asphalt area in front of the retaining wall with drain rock will DOT require that area to be paved? (2) The height elevation between the street and the approach to the entry way to the house 3 to 4" ? (3) The left side of the garage area should have a 6" berm of asphalt to prevent runoff, I will check with DOT on Thursday.				
1			6930	BUCKINGHAM		1/25/2022	CLOUDY	N													Date: 1/25/2022 I met with the Owner Cory. The owner will have to install some check dams on the left side of property between him and his neighbor down to the air conditioner. Remove all the rocks and install ground covering over that area approximately 25 ft. I received the Statement of Completion letter from the Civil Engineer. I signed off on the the GR permit. This permit can be closed and Finalized.				
1	1		1701	CAMPBELL	7/27/2021	7/27/2021	CLOUDY	N				1									Date: 7/27/2021 TCO sign off for building 12. No conditions.				
1			1701	CAMPBELL		12/16/2021	RAIN	Y													Date: 12/16/2021 TCO sign off under the PZ permit. Ok				
1			1701	CAMPBELL		1/31/2022	CLOUDY	N													Date: 1/31/2022 TCO sign off on the last building on phase one.				
1			1701	CAMPBELL		5/24/2022	CLEAR	N													Date: 5/24/2022 Rebar inspection for bench area near the office. Ok to pour.				
1	1	1	2932	CARMEL	8/7/2021	8/7/2021	CLOUDY	N	1												Date: 8/7/2021 C - 6 - Follow up inspection to a STOP WORK ORDER issued on Wednesday. The contractor did run a street sweeper to remove and clean up the sediment tracked off site. The contractor must install a barricade over the damaged sidewalk area around the broken water meter, cover the exposed open hole. The contractor must also install storm drain protection for two catch basins with filter fabric.	2	1	8/7/2021	
1	1	1	6039	CASTLE	8/17/2021	8/17/2021	CLEAR	N	1					1							Date: 8/17/2021 C - 6 erosion complaint. The contractor has completed the creek protection and clean up according to the Correction Notice issued to the contractor. This complaint can be closed	2	1	8/17/2021	
1		1	6039	CASTLE		8/31/2021	CLEAR	N													Date: 8/31/2021 All grading is done and the site is stable. However I need the statement of completion before final sign off.				
1		1	6039	CASTLE		11/9/2021	CLOUDY	N													Date: 11/9/2021 The site is stable All permanent erosion controls are in place and effective. I have the statement of completion from the engineer. Ok to process the bond release.				
1	1	1	6728	CHARING CROSS	9/13/2021	9/13/2021	CLEAR	N					1	1							Date: 9/13/2021 Contractor had been storing soil on next door lot for backfill. A stop order was placed under the GR permit for storing off site. The contractor has now installed all erosion controls to protect the soil on the adjacent lot and will begin to off haul when the obstruction permit is in place. The contractor is also updating all erosion controls at the main site and will have in place by next weeks inspection on the Energy dissipator. The stop work has been lifted.	3	1	9/20/2021	
1		1	6728	CHARING CROSS		9/20/2021	CLEAR	N													Date: 9/20/2021 Inspected drainage including the energy dissipater. Ok to cover. All erosion controls are in place and effective. The contractor will remove soil from the lot two doors down on Friday. Contractor will need all permanent erosion controls in place and have the statement of completion before final sign off on the grading permit				

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Summary of Construction Site Control Inspections
Private Projects
FY 2021 - 2022**

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1	1		1045	DERBY	5/2/2022	5/2/2022		CLOUDY	N			1										Date: 5/2/2022 Inspection for two excavations where soil Remediation took place. The excavations were backfilled with CDF. No compaction test required. The asphalt restoration will take place on a later date. The area has been protected.				
1	1		3	DRURY	1/7/2022	1/7/2022		CLOUDY	N			1										Date: 1/7/2022 The contractor called for a TCO sign off on this project. There was no plastic put down on the ground to prevent erosion from taking place if the rain should start. The site was no winterized. The owner / contractor must install plants, jute netting with redwood chips or some sort of ground covering to prevent erosion from taking place. Covering up the areas with plastic will not work towards getting a temporary TCO.				
1			3	DRURY		1/19/2022		CLOUDY	N													Date: 1/19/2022 The contractor called for a grading TCO inspection. The construction site only has wattle rolls running across the property no plants no ground cover. The site is not ready for an inspection or sign off at this time, the inspection fail.				
1			3	DRURY		5/17/2022		CLEAR	N													Date: 5/17/2022 Final grading inspection. The site is stable and I have the statement of completion. Ok to process the bond release.				
1	1		3511	E 12TH	10/13/2021	10/13/2021		CLEAR	N			1										Date: 10/13/2021 Met with the contractor about the construction driveway. I gave him a verbal notice to update the construction driveway and have a sweeper on site anytime off hauling is taking place.any future violations will be met with a Stop Work notice. Before I left the site cleanup had begin.				
1			3511	E 12TH		11/3/2021		CLOUDY	N													Date: 11/3/2021 The contractor is pumping concrete today. The trucks are driving over plastic and two rattle plates plus muddy rocks. They are tracking onto the access road before getting to the street. The contractor is running one Street Sweeper which is not enough to keep up with the cleaning that is required. Using a 2" water hose to wash off the street is no good. The sediment must be vacuum up. Clean the ped's ramp mid block on E.12th St. Install erosion controls. I issued the contractor a Correction Notice. This operation cannot be done like this going forward.				
1	1	1	1402	E 12TH	12/16/2021	12/16/2021		CLOUDY	N	1												Date: 12/16/2021 The construction site has a new Construction Sipt. John. A second pre- construction meeting was held with sub- contractor Waller Construction. Replace the construction driveway approach with fabric and Rip-Rap rock and rattle plates. Install 6 ft. silt screen on construction fencing. Remove all loose dirt and sediment from the street as soon as it tracked out into the street. Prevent all sediment from leaving the construction site. Informational construction sign is required				
1		1	1402	E 12TH		12/21/2021		RAIN	Y													Date: 12/21/2021 I met with superintendent John and subcontractor Bow. I inspected storm drain base tie into the 12" concrete main existing pipe at the corner of East 12th and 15th Ave. I also inspected the outside structure of the pump station. I inspected the s/s wye connections with 2 clean outs behind the sidewalk. All three locations passed inspection.				
1		1	1402	E 12TH		12/21/2021		RAIN	Y													Date: 12/21/2021 I met with Superintendent John. I inspected the sanitation sewer line connections behind the sidewalk with two clean outs. I inspected the storm drain pipe in the rear of the parking lot. The backfill around the pump station.All three locations passed my inspections.				
1		1	1402	E 12TH		1/7/2022		RAIN	Y													Date: 1/7/2022 I inspected 40' ft x 8" S/D PVC pipe from the M.H behind the sidewalk to 1 bubble up catch basin with 2 concrete collars. The contractor can backfill the trench.				

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1			1776	GASPAR		12/1/2021		CLEAR	N												Date: 12/1/2021 I received a call from DOT Supervisor Saleh Aboutaleb. The construction contractor was not willing to remove the dirt from the P/R/O/W as requested today's ago Saleh also stated that the hill side cuts were not being maintained with plastic covering. When I arrived, I also seen that the construction site was not being maintained. I wrote a Correction Notice and gave the contractor 5 working days to make corrections Dec 8, 21 (See attachment) f				
1	1		5945	GLENARMS	6/15/2022	6/15/2022		CLOUDY	N				1								Date: 6/15/2022 The owner Tom called for a Final inspection sign off on his GR permit. The construction site is not ready for a sign off. Tom needs to install plants and ground covering on all four sides of his new house. The Statement of Completion letter must be signed off by the Civil Engineer with s wet stamp, not the soil engineer. After making these corrections, Tom can call for a Final Inspection.				
1	1		9612	GOLF LINKS	3/25/2022	3/25/2022		CLEAR	N		1										Date: 3/25/2022 I have inspected the site partially at this time I will need access to the property so I will reschedule a site visit with home owner. The site the property owner is claiming is causing the issue is approximately one mail away. I will view the debris to see if it is consistent with might be coming from the Oak Knoll site.				
1			9612	GOLF LINKS		4/1/2022		CLEAR	N												Date: 4/1/2022 I met with the property owner of 9612 Golf Links Road Dwight. I have taken videos and pictures of the the area and they are part of this report However I cannot verify the source of the rock debris. I have talked with Tim Low about this issue .				
1	1	1	220	GRAND	10/28/2021	10/28/2021		CLEAR	N	1											Arrived at job site spoke with foreman Fernando Diaz regarding BMP and site safety, showed Fernando photo of excavator with no flaggers. Informed him to follow BMP as stated on plans. Note: Verified equipment has been moved and sidewalk was clear at time of inspection. Primary contractor Patrick Drake was not on site at time of visit. Photo of BMP violation in file. Will continue to monitor.	1	1	10/28/2021	
1	1		1122	GRAND VIEW	10/29/2021	10/29/2021		CLEAR	N				1								Date: 10/29/2021 Fence not in place. Mud in street				
1			1122	GRAND VIEW		11/2/2021		CLOUDY	N												Date: 11/2/2021 Met Mr. Ray and owner, Mr. Al Masso, for C6 inspection. Violations noted at front slope of main home above the creek. C/N 1) To avoid Stop Work order, corrections are to be made as detailed in correction notice under GR1800132. Hard copy of required corrections handed to owner of property by Mr. Ray.				
1			1122	GRAND VIEW		11/3/2021		CLOUDY	N			0		1							Date: 11/3/2021 C - 6 Inspection. I met with inspector John Fryer and the Owner Al Masso. I inspected the erosion controls that the contractor installed to prevent erosion from taking place. The construction site needs work cover all open areas with black plastic, wattle rolls and P gravel or sand bags to hold the plastic in place. Stake the wattle rolls every two or three ft. apart. Remove all debris, construction material and trash from the downhill side of the creek Install Creek area protection. I gave Al Masso a Correction Notice.	1	1	11/3/2021	

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1			6550	HEATHER RIDGE	12/20/2021	12/20/2021	Rain	y						1							Date: 12/20/2021 C-6 Inspection 1) All hillside cuts need to be protected by plastic. 2) Waddle has to be refreshed.. Currently during rains events mud is coming off the unprotected areas of the hillside and running down the roadway and into the creek. This not allowed . It is the responsibility of the contractor to monitor the site during rain events and prevent site runoff's	2	1	Y		
1			6550	HEATHER RIDGE		12/24/2021	CLOUDY	N			0		1								Date: 12/24/2021 C-6 Inspection This was a follow up inspection from December 16th. When a correction notice was sent. There are still violations at this construction site.The project site has 4 parcels but two have been excavated they all have different grading permit numbers. 1) All hillside cut have not been adequately protected. These cuts need to be covered with plastic. 2) There is muddy water leaving the site. This could be prevented if all erosion controls were in place. 3) The contractor has been notified to schedule a inspection after the corrections have been made. This notice was sent to Gilbert and Gabriel	2	1	Y		
1			6534	HEATHER RIDGE	12/27/2021	12/27/2021	RAIN	Y			0										Date: 12/27/2021 C-6 inspection Met with Gabriel inside. We went over Russia controls that will be needed to bring the site into compliance. Some of the work cannot be done at this time as the wet and slippery conditions is hazardous to workers. I asked Gabriel to set up a construction inspection as soon as crews are able to be on site to do the work he just					
1	1		10	HEGENBERGER	8/24/2021	8/24/2021	CLOUDY	N			1										Date: 8/24/2021 Clear C - 6 - inspection. I inspected the bio-re-tension pond on the right hand side of the driveway. The contractor sent plans over to the City for revision of removing the storm drain pipes because of the water table per City Engineer. The contractor will have to use plastic to protect the soil, to prevent contamination from the concrete. The contractor still needs to install 12" blocks onto top of the existing sections all the way around. The contractor must clean up the construction entrance driveway, prevent all sediment from leaving the construction site.					
1			10	HEGENBERGER		10/7/2021	CLOUDY	N													Date: 10/7/2021 C - 6 inspection weather is fair. I inspected erosion controls and the bio swale planters. The contractor will have to grade down all dirt planter areas around the construction site.					
1			10	HEGENBERGER		11/19/2021	CLOUDY	N													I met with the Supt. Charles we walked the construction site. The contractor is making sub-x repairs in the parking lot in multi pumping areas around the site. The contractor has a soil Engineer on site inspecting and over seeing the repairs being done.					
1			10	HEGENBERGER		11/24/2021	CLOUDY	N													Date: 11/24/2021 Contractors we're finishing grade in the driveway area. Soils engineer was on site taking compaction test. I asked Daniel to call all paving and bio swale inspections under the PZ permit. All erosion controls are in place and effective.					
1			10	HEGENBERGER		11/29/2021	CLEAR	N													Date: 11/29/2021 I inspected the contractor grading work in the driveway and the rear parking lot. The contractor is doing a very good job of high lighting the highs and lows spots that required more or less class II aggregate.					
1			10	HEGENBERGER		11/30/2021	CLEAR	N													The contractor ran into some problems with the A/C plant. No paving today.					

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Private Projects
FY 2021 - 2022**

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1			5441	INTERNATIONAL	12/23/2021	12/23/2021		RAIN	Y												Date: 12/23/2021 C-6 inspection There are no violations at this site. The rain continues and they are pumping water from the site after being filtered. This is monitored by a third party vendor. Next inspection will be next week after the Christmas break.				
1			5441	INTERNATIONAL		2/22/2022		CLEAR	N							1				1	C - 6 Inspection. I inspected erosion controls and the construction driveway. The trucks are still tracking sediment off site. The contractor is off hauling dirt running just one sweeper, this is not enough to keep International Blvd clean. They must improve the clean up operation on Wednesday. 2) I inspected 150 ft. of 8" ductile iron pipe with the plastic covering on it connecting to the Bio-retention structure.	1		1	3/4/2022
1			5441	INTERNATIONAL		3/4/2022		CLOUDY	N												Date: 3/4/2022 C - 6 Inspection. I inspected erosion controls and the construction driveway entrance including the tire wash stations. The contractor is not off hauling dirt today, we had rain last night and early this morning. The contractor is still running two Street Sweepers cleaning the streets. 2) I inspected 700 ft. of 18" S/D pipe and 170 ft. of 4" lateral S/D pipe. Re-grout the outside of the 2nd catch basin the grout has cracked. OK to back fill the trench after the grout dries.				
1	1	1	9409	INTERNATIONAL	4/13/2022	4/13/2022		CLOUDY	N	1				1							Date: 4/13/2022 A correction notice was given under the grading permit.	2	1	Y	
1		1	9409	INTERNATIONAL		4/13/2022		CLOUDY	N					1							Date: 4/13/2022 Site inspection revealed the following violations. 1) The construction driveway needs to be updated and refreshed. Verbal notice given. 2) One of the outhouses is missing the secondary pan. Verbal notice was given. will reschedule inspection for next week.	1	1	Y	
1	1	1	860	LEO	8/4/2021	8/4/2021		CLOUDY	N	1											Date: 8/4/2021 I met with superintendent Mike. The contractor will have to install some ground covering on the right side of the property in the back. Contractor will call for another inspection for sign off.				
1		1	860	LEO		8/9/2021		CLEAR	N												Date: 8/9/2021 All grading is done and the site is stable however we do need the statement of completion before the grading permit can be closed. Call for reinspection once the document is in hand.				
1		1	860	LEO		8/19/2021		CLOUDY	N												Date: 8/19/2021 I received the Statement of Completion letter from the contractor. This permit can be Finalized and closed.				
1	1	1	4208	LINCOLN	8/30/2021	8/30/2021		CLOUDY	N	1											Date: 8/30/2021 - Unable to verify if anyone was at project. - Did not view "construction vehicles", no vehicles parked in driveway or in immediate street area. - Knocked at door several times, no answer. - Walked to both side yards, called out, no response				
1	1	1	1888	M L KING JR	7/13/2021	7/13/2021		CLOUDY	N	1											Date: 7/13/2021 This inspection was canceled because the contractor did not have the statement of completion.				
1	1	1	2618	M L KING JR	7/28/2021	7/28/2021		CLEAR	N	1											Date: 7/28/2021 No final on the Grading permit, contractor still needs to have the statement of completion				
1		1	2618	M L KING JR		7/28/2021		CLEAR	N												Date: 7/28/2021 All work under the PZ is done however I didn't sign off because the GR permit is still open. I don't have the statement of completion.				
1		1	2618	M L KING JR		8/27/2021		CLEAR	N												Date: 8/27/2021 Grading is complete and the site is stable. The contractor has given me the statement of completion in two pages from two different engineers I have entered them into Accela. Ok to process the bond release.				

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1			8750	MOUNTAIN		9/29/2021		CLEAR	N												Date: 9/29/2021 There has been progress on the corrections notice items. The construction entrance on Sequoia Dr. has been closed and it's no longer in use. The contractor had more water trucks delivered everywhere I looked and where construction was going on there was no dust. The construction driveway will be reconfigured later on today and re-inspection is scheduled for tomorrow									
1			8750	MOUNTAIN		9/29/2021		CLEAR	N					1								Date: 9/29/2021 Contractor continues site grading and still working on corrections from the correction notice. Reinspection is scheduled for tomorrow .	2	1	10/5/2021					
1			8750	MOUNTAIN		10/5/2021		CLOUDY	N													Date: 10/5/2021 Met with the Goodfellowbros construction team at their trailers. Before the meeting I monitored the site for dust and other issues. The contractor is using many more water trucks , with no dust issues in site. The erosion control contractor continues to install waddle, hydro seed and other erosion controls measures to get ready for the moratorium. The contractor has ordered more signage because some are missing of in bad shape. The construction driveway on Keller is now compliant. I will continue to monitor the the work site.								
1			8750	MOUNTAIN		10/7/2021		CLOUDY	N													Date: 10/7/2021 Inspected two of the three remaining storm drain collars going into the manholes. One more to come.								
1			8750	MOUNTAIN		10/13/2021		CLOUDY	N													Date: 10/13/2021 Spent an hour on site observing construction operations. No violations. All erosion controls are in place and effective with no dust flare ups.								
1			8750	MOUNTAIN		10/13/2021		CLOUDY	N													Date: 10/13/2021 Spent an hour on site observing construction and grading operations. No violations with erosion controls in place and effective.								
1			8750	MOUNTAIN		10/13/2021		CLOUDY	N													Date: 10/13/2021 Observed construction operations with no violations. Erosion controls are in place and effective. Sub contractor continues to prepare the site for October 15 moratorium.								
1			8750	MOUNTAIN		10/13/2021		CLOUDY	N													Date: 10/13/2021 Inspected the last of the water stops leading into manholes. Ok to cover.								
1			8750	MOUNTAIN		10/20/2021		RAIN	Y													Date: 10/20/2021 C-6 Inspection Grading continues at the site under the AAMR. Because of last nights rain the ground is moist with no dust clouds. The erosion control contractor continues to install BMP's and erosion controls over this 190 acre Site.								
1			8750	MOUNTAIN		10/20/2021		CLOUDY	N													Date: 10/20/2021 Contractor continues grading under there AMMR . Contractor continues to install winter erosion controls over the 190 acre site. Site has no tracking or dust issues.								
1			8750	MOUNTAIN		10/20/2021		CLOUDY	N													Date: 10/20/2021 Contractor has installed new signage to replace the old that was soiled. Contractor continues to grading under the AMMR and grading permit with no issues . There is no infrastructure inspection today.								

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1			8750	MOUNTAIN		10/26/2021		RAIN	Y					1							<p>Arrived on site at 10:00 am</p> <p>11:00 am I stopped the off site contractor from power washing the street because the storm drain was unprotected and crew were allowing soiled water to go down into the storm drain system. All storm drains will have to be protected before power washing can continue. Some of the storm drain inlet protection were removed during the debris clean up. The vacuum sweepers can continue to run.</p> <p>12:12 pm I ran across a contractor laying down mulch on the Oak knoll site near the credit union. C-6 activity is allowed to continue.</p> <p>12:30 Contractor has finished protecting the storm drains and is allowed to power wash the street at Sequoia and Mountain Boulevard.</p> <p>1:00 pm Contractor moved to another location just of Mountain boulevard I don't have the street name, however they have begun to power wash the roadway and sidewalk, all storm drain inlets we're protected and they were using a vacuum truck to remove the mud and debris .</p> <p>3:45 I had a conversation with Sean Lennan and he invited me to a on site meeting tomorrow morning at 10:30 am I accepted the meeting..</p>	1	1	10/26/2021		
1			8750	MOUNTAIN		11/3/2021		CLOUDY	N												<p>Date: 11/3/2021</p> <p>Contractor is trying to close out this grading permit. All soil Remediation has been completed however the statement of completion has not been produced. Once I have that document then I can final that permit.</p>					
1			8750	MOUNTAIN		11/3/2021		CLOUDY	N												<p>Date: 11/3/2021</p> <p>10am</p> <p>Met with Sean on site and we walked parcel 6 areas that are be addressed with new reinforced silt fence and other erosion controls like plastic waddle and hydro seeding.</p> <p>11:00</p> <p>We looked at the Mountain Blvd entrance and I am have then freshen up the driveway with rock .</p> <p>11:40</p> <p>The construction driveway on Keller is being moved to the upper entrance. Credit union traffic will still have access on the lower Keller entrance.</p> <p>The new construction driveway is located about 250 yards from the gate. And is paved with asphalt.</p> <p>Construction crews continue to reinstall erosion controls throughout the site and this will take several more weeks.</p> <p>Including the jetting of the storm drain inlets, at this point we still don't know how much of the storm drain system was effected.</p>					
1			8750	MOUNTAIN		11/8/2021		CLOUDY	N												<p>Date: 11/8/2021</p> <p>Contractor continues to install BMP's. I have. I have entered into Accela the email from Public Works that reports no illicit runoffs into there sewer system. Pubic Works ran a camera to check the system for damage and blockages but found none.</p>					
1			8750	MOUNTAIN		11/10/2021		CLOUDY	N												<p>Date: 11/10/2021</p> <p>Goodfellowbros are continuing the process of reinstalling erosion controls damaged in the rain event two weeks ago. There were no new illicit runoffs from the site after the latest rain event last night.</p> <p>The are crews cleaning out the storm drain inlets with vacuum trucks</p> <p>At this point I don't know how many inlets were affected by the illicit storm water runoffs but the crews will ca record and make a report of the clean up.</p>					

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1			8750	MOUNTAIN		12/8/2021		CLOUDY	N												Date: 12/8/2021 Inspection on V- trenches on the southern slope. Will keep track of the progress on the PZ drawings stored in the office. Also inspected # 6 Bio Swale on creekside loop. Ok to pour # 6 and eastern V-trench Rain					
1			8750	MOUNTAIN		12/8/2021		CLOUDY	N												Date: 12/8/2021 Contractor continues to reinstall the erosion controls that were damaged in last months storm. They are past the point where they were before the storm and now are installing extra measures including a new water filtering system to protect against overwhelming rain water like in the last month big storm also they have lay down erosion blankets instead of spraying Hydro seed and have reinforced the silt fence in areas that failed during the storm.					
1			8750	MOUNTAIN		12/8/2021		CLOUDY	N												Date: 12/8/2021 All grading is complete for the officers club, however the permit remains open at this time. Rain					
1			8750	MOUNTAIN		12/13/2021		RAIN	Y												Date: 12/13/2021 There was no construction activity because of the heavy rainfall however there were crews on site maintaining the erosion controls during the storm. I will continue to monitor the site during this rain event. Rain					
1			8750	MOUNTAIN		12/13/2021		RAIN	Y									1			Date: 12/13/2021 C-6 Inspection There was a small amount of muddy water leaving the site at the corner of Sequoia and Mountain Blvd. Crews from the site we're in the process of cleaning up the spill and Refiguring the soil in that area to prevent any other runoff during the storm. This was a very small spill. and the storm drain inlets in the area were protected . I will continue to monitor during this rain event R14 Sediment- Verbal Notice Issued R13 Erosion Controls- Verbal Notice Issued R15 Run-on/Runoff- Verbal Notice Issued Rain	1	1	12/15/2021		
1			8750	MOUNTAIN		12/13/2021		RAIN	Y									1			Date: 12/13/2021 C-6 Inspection There was a small amount of muddy. That had left the site. All storm drain inlet were protected and none of this muddy water went down the storm drain system.	1	1	12/15/2021		
1			8750	MOUNTAIN		12/15/2021		RAIN	Y												Date: 12/15/2021 No grading operations today. The site is to wet for normal operations. There are crews continuing to work on erosion controls. There are no site runoff's.					
1			8750	MOUNTAIN		12/15/2021		RAIN	Y												Date: 12/15/2021 After last night's rains there were no offsite runoff. Crews continue to work on erosion controls but all other construction activity has halted due to the wet site conditions.					
1			8750	MOUNTAIN		12/22/2021		RAIN	Y												Date: 12/22/2021 There is no construction activity due to the soggy conditions from the rain.					

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1			8750	MOUNTAIN		12/22/2021		RAIN	Y												Date: 12/22/2021 Currently there is no construction activity due to rain and soggy conditions. There are no violations and no site runoff's during this latest rain event that is ongoing for the next week. I will continue to monitor the site.				
1			8750	MOUNTAIN		12/22/2021		RAIN	Y												Date: 12/22/2021 Currently there is no construction activity due to the rain event and the soggy conditions. There are no site runoff's and the containment ponds are in good shape. The rain will continue for the next week and I will continue to monitor the sites erosion controls. There is a small crew on site maintaining the erosion controls.				
1			8750	MOUNTAIN		12/23/2021		RAIN	Y												Date: 12/23/2021 This final is for the remediation work only. There are still two open grading permits at this site with another one in phase 2 to come. Ok to release the bond for this permit.				
1			8750	MOUNTAIN		1/13/2022		CLEAR	N												Date: 1/13/2022 Inspected 6 bio swale walls along creekside loop. These are only the retaining walls at the curbside and not the backside retaining walls. Ok to pour. They have been marked on the drawing in the main office.				
1			8750	MOUNTAIN		1/13/2022		CLEAR	N												Date: 1/13/2022 There is currently no work be done under the grading permit for the officers club. The area is stable with no erosion issues at the time of this inspection.				
1			8750	MOUNTAIN		1/13/2022		CLEAR	N												Date: 1/13/2022 C-6 Inspection Goodfellowbros continue to install erosion controls throughout the project. I did give verbal instructions for the following. 1) update and refresh the construction driveway on Mountain Blvd. There are uneven areas where 3-6 inch rip rap rock is missing and those areas could be a source of tracking in the future. 2) The area at the corner of Sequoyah and mountain Boulevard. There is some missing erosion blankets. The crews are beginning to install the permanent retaining wall however this may not be done before the next rain event. 5 days before the next rain stop construction of the large retaining wall and make safe for the rain event because this is an area that has had issues in the past.				
1			8750	MOUNTAIN		1/19/2022		CLEAR	N												Date: 1/19/2022 Inspected two storm drain tie-ins at the manholes ok to cover. Mark on the drawing. Many more to come.				
1			8750	MOUNTAIN		1/19/2022		CLEAR	N												Date: 1/19/2022 Grading has continued on the roadway . There on no violations . There are continuous upgrades to the erosion controls				
1			8750	MOUNTAIN		1/19/2022		CLEAR	N												Date: 1/19/2022 No grading operations at the clubhouse however all erosion in this area are installed and working properly.				
1			8750	MOUNTAIN		1/20/2022		CLEAR	N												Date: 1/20/2022 Rebar and forms inspection for bio swales 8,9,10,11,12 all ore ok to pour . Marked off on office set of plans				
1			8750	MOUNTAIN		1/26/2022		CLEAR	N												Date: 1/26/2022 Inspected bio swale 13 and 11 ok to pour.				
1			8750	MOUNTAIN		1/26/2022		CLEAR	N												Date: 1/26/2022 Inspected bio swale 9 and 11 storm drain A 2 and one more marked on plans				
1			8750	MOUNTAIN		1/26/2022		CLEAR	N												Date: 1/26/2022 C-6 inspection No violations and work continues on all erosion controls updates				

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1			8750	MOUNTAIN		3/3/2022		CLOUDY	N													Date: 3/3/2022 Inspection on bio swale back walls. 3 & 9 are both ok to pour. 5 & 7 need to center the rebar in a couple of places. I will allow the contractor to send pictures because it's a minor correction. After I ok the pictures it will be ok to pour 5&7 too.				
1			8750	MOUNTAIN		3/3/2022		CLOUDY	N													Date: 3/3/2022 C-6 inspection Grading operations continues with no violations. Contractor is continually updating erosion controls.				
1			8750	MOUNTAIN		3/3/2022		CLOUDY	N													Date: 3/3/2022 C-6 Inspection Site grading continues with no violations. The contractor is continually updating the erosion controls.				
1			8750	MOUNTAIN		3/9/2022		CLEAR	N													Date: 3/9/2022 Inspected the following. Inspected the back wall on 4 bio swales and V ditch's on the east wall. All have been marked on the office plan's				
1			8750	MOUNTAIN		3/11/2022		CLEAR	N													Date: 3/11/2022 C-6 inspection No violations				
1			8750	MOUNTAIN		3/11/2022		CLEAR	N													Date: 3/11/2022 C-6 inspection No violations				
1			8750	MOUNTAIN		3/21/2022		CLEAR	N													Date: 3/21/2022 Contractor is installing a new construction entrance. It is not open yet maybe mid of next week				
1			8750	MOUNTAIN		3/21/2022		CLEAR	N													Date: 3/21/2022 Inspection on bio swale back wall. All marked on site plans.				
1			8750	MOUNTAIN		3/21/2022		CLEAR	N													Date: 3/21/2022 Contractor is installing a new construction entrance. Will be ready next week. No violations.				
1			8750	MOUNTAIN		3/21/2022		CLEAR	N													Date: 3/21/2022 Site inspection is for bio swales front and back walls. All inspections are marked on site plans.				
1			8750	MOUNTAIN		3/24/2022		CLEAR	N													Date: 3/24/2022 Inspection on Bio Retention pond number 6. Piping is fine ok to backfill with AB.				
1			8750	MOUNTAIN		3/25/2022		CLOUDY	N													Date: 3/25/2022 C-6 Inspection Contractor continues to install new construction entrance on Mountain Blvd and updating BMPs. No violations				
1			8750	MOUNTAIN		3/25/2022		CLOUDY	N													Date: 3/25/2022 C-6 Inspection Contractor continues to update BMPs and constructing a new entrance on Mountain Blvd. no violations.				
1			8750	MOUNTAIN		3/30/2022		N	N													Date: 3/30/2022 Inspection on the piping on the west side of creekside loop. All rain gardens marked on the site plans can be backfilled with AB.				
1			8750	MOUNTAIN		3/30/2022		CLOUDY	N													Date: 3/30/2022 Contractor continues to update construction driveway and erosion controls throughout the site no violations				
1			8750	MOUNTAIN		4/1/2022		CLOUDY	N													Date: 4/1/2022 Piping for rain gardens 3,6,8,10 and 12 ok to cover.				
1			8750	MOUNTAIN		4/1/2022		CLOUDY	N													Date: 4/1/2022 The site is continually updating the erosion controls with no violations.				
1			8750	MOUNTAIN		4/6/2022		CLEAR	N													Date: 4/6/2022 Continued inspection on the rain garden walls all walls that were inspected today were OK for pour and they are marked on the site copy of plants that is in the office.				
1			8750	MOUNTAIN		4/7/2022		CLEAR	N													Date: 4/7/2022 C-6 Inspection All grading is done for the clubhouse and recreation area all erosion controls are in place and effective.				

**City of Oakland
Summary of Construction Site Control Inspections
Private Projects
FY 2021 - 2022**

Enter "1" per inspection	Enter "1" for each site	Enter "1" per complaint based or other inspection	Street Number	Site Name (Street Name)	Date			Weather	Rain & Runoff Y/N	Complaint Based and Other Inspection	High Priority site disturbing <1 acre of soil requiring storm water runoff quality inspection	>1 acre	Hillside Avg. Slope 20% Dist ≥ 5,000sf and < 1 acre	BMP Categories - Problems and Resolution (Resolution Options: Problem Fixed (immediately or within 10 days), Need More Time, Escalate Enforcement)						Illicit Discharge (R19)	Comments (Problem & Resolution)	Enforcement Level (R21)	Violation Corrected? (Y/N/TBD) & Date Correction Verified				
					First Inspection Date for the Site	Inspection Date	Site Fully Stabilized							Erosion (R13)	Sediment (R14)	Run-on & Runoff (R15)	Active Treatment (R16)	Site Mgt. (R17)	Non S/W Mgt (R18)				10 Days	30 Days			
1			8750	MOUNTAIN		4/7/2022		CLEAR	N					1								Date: 4/7/2022 Site inspection revealed the following violations. 1) The upper construction entrance driveway has been removed. Reinstall or close the gates to this entrance. 2) There were trucks leaving the site without being covered. All loaded trucks must be covered when leaving the site. 3) The upper entrance is generating dust when any equipment goes through. Water is to be used in these areas all the way up to the asphalt. A correction notice was sent to Goodfellowbros.	2	1	4/13/2022		
1			8750	MOUNTAIN		4/13/2022		RAIN	Y					1				1				Date: 4/13/2022 Contractor continues to update erosion controls. I gave verbal notice to use more water in there rock crushing areas and continue to lock the upper Keller gate.	1	1	4/13/2022		
1			8750	MOUNTAIN				CLEAR	N													Date: 4/13/2022 They continue to build foundations for the club house. There is no real grading taking place and erosion controls are effective.					
1			8750	MOUNTAIN		4/28/2022		CLOUDY	N					1								Date: 4/28/2022 Stop work was issued for the upper Keller gate being open without a proper construction driveway and trucks leaving the site uncovered. Also inspected rain gardens 9-11&13 ok to pour.	3	1	5/9/2022		
1			8750	MOUNTAIN		5/9/2022		CLOUDY	N													Date: 5/9/2022 C- 6 inspection. I inspected the construction driveway and erosion controls. I met with Superintendent Shawn. I inspected 3 curbs turns out back walls rebar construction at loc # 5, 6 and 8. Also 2 inside turn in front side rebar for curb pouring, OK to pour concrete. Location # 5, 6 & 8.					
1			8750	MOUNTAIN		5/16/2022		CLOUDY	N													Date: 5/16/2022 Continued inspection on the rain gardens under the PZ permit also had conversations about the upcoming grading inspections and what construction will take place under what PZ permit					
1			8750	MOUNTAIN		5/26/2022		CLOUDY	N													Date: 5/26/2022 There is no inspections under the PZ today.					
1			8750	MOUNTAIN		5/26/2022		CLOUDY	N													Date: 5/26/2022 Erosion controls are in place and effective at the clubhouse. No issues.					
1			8750	MOUNTAIN		6/2/2022		CLOUDY	N													Date: 6/2/2022 Erosion controls are in place and effective with no site runoff's.					
1			8750	MOUNTAIN		6/2/2022		CLOUDY	N													Date: 6/2/2022 Continued inspection on the rain gardens back walls. All progress in marked on the site plans.					
1			8750	MOUNTAIN		6/8/2022		CLOUDY	N													Date: 6/8/2022 Continued inspection on rain gardens- piping ok to cover. All work is recorded on site plans.					
1			8750	MOUNTAIN		6/15/2022		CLEAR	N													Date: 6/15/2022 Inspection on the west side of creekside loop rain gardens Ok to backfill . Inspection are marked on office set of plans.					
1			8750	MOUNTAIN		6/23/2022		CLEAR	N													Date: 6/23/2022 IC - 3 inspection. Inspected erosion controls. I met with Asst Superintendent Sydney. We inspected the front side walls rebar and forms of 5 Rain Gardens. Loc's # 15, 16, 17, 18 & 19 all passed the inspection. The contractor can pour concrete on Thursday. (See attachment)					
1	1	1	7201	OAKPORT	5/24/2022	5/24/2022		CLEAR	N	1		0										Date: 5/24/2022 C-6 Inspection Contractor is getting ready to start demolition of the building walls. Erosion controls are in place. Next up C-6 once demolition starts to check on dust and any off site runoff's. This will be scheduled for two day's from today.					

**City of Oakland
Summary of Construction Site Control Inspections
Private Projects
FY 2021 - 2022**

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					First Inspection Date for the Site	Inspection Date	Site Fully Stabilized							Erosion (R13)	Sediment (R14)	Run-on & Runoff (R15)	Active Treatment (R16)	Site Mgt. (R17)	Non S/W Mgt (R18)				10 Days	30 Days			
1	1	1	3330	SARAZEN	11/1/2021	11/1/2021		CLOUDY	N	1												Date: 11/1/2021 All permanent erosion controls are in place and effective, however the builder did not have the statement of completion so I could not close the GR permit. the builder will call for reinspection.					
1		1	3330	SARAZEN		11/5/2021		RAIN	Y														Date: 11/5/2021 All permanent erosion controls are in place and effective. I have the statement of completion. Ok to process the bond release.				
1	1		2588	SCOUT	9/2/2021	9/2/2021		CLOUDY	N				1										Date: 9/2/2021 Contractor is not ready to close out the grading permit. Permanent erosion controls are not in place. Verbal CN to protect uncover DI				
1	1		2578	SCOUT	9/2/2021	9/2/2021		CLOUDY	N				1										Date: 9/2/2021 Site is not ready to close out permit. Permanent erosion controls need to be installed. Verbal instructions to protect an uncovered DI .				
1			2588	SCOUT		9/20/2021		CLEAR	N														Date: 9/20/2021 Contractor still does not have the statement of completion.				
1			2578	SCOUT		10/14/2021		CLEAR	N														Date: 10/14/2021 Grading Final Contractor still need to provide statement of completion and clear erosion controls from the catch basins before sign off.				
1			2588	SCOUT		10/15/2021		CLEAR	N														Date: 10/15/2021 Contractor still needs statement of completion , remove outhouse from the ROW and to clean up construction debris, before final sign off.				
1			2578	SCOUT		10/19/2021		CLOUDY	N														Date: 10/19/2021 All grading operations is complete and permanent erosion controls are in place and effective. The bond release can be processed.				
1			2588	SCOUT		10/19/2021		CLOUDY	N														Date: 10/19/2021 All grading operations are complete and permanent erosion controls are in place and effective. The bond release can be issued.				
1	1		6388	SHEPHERD CANYON	8/18/2021	8/18/2021		CLOUDY	N				1										Date: 8/18/2021 All grading at the site is finished and the landscape is complete however I still need the statement of completion before I can close the permit. I gave a copy to Michael to get it signed off. He will call for reinspection				
1			6388	SHEPHERD CANYON		8/20/2021		CLOUDY	N														Date: 8/20/2021 All grading is complete and permanent erosion controls are in place. I have the statement of completion. Ok to process the bond release				
1	1		6785	SKYVIEW	4/21/2022	4/21/2022		RAIN	Y			1											Date: 4/21/2022 All grading is complete and the site is stable however the contractor didn't have the statement of completion. He will reschedule once he has it and then the permit can be closed.				
1			6785	SKYVIEW		6/8/2022		CLEAR	N														Date: 6/8/2022 All work on this parcel is complete and the soils are stable. I have the statement of completion. Ok to process the bond release.				
1	1		6801	SNAKE	8/11/2021	8/11/2021		CLEAR	N				1										Date: 8/11/2021 I met with the contractor Anthony. The contractor can not install the ground covering and plants in the back yard of the property because the Sanitation sewer pipe is laying on top of the ground. I will do a follow up with the Sanitation Sewer Dept., to determine what is the best course of action to take to resolve this situation.				
1			6801	SNAKE		8/19/2021		CLOUDY	N														Date: 8/19/2021 I inspected the contractors landscaping. The contractor installed plants and ground covering from front to back. The contractor also covered up the sanitation sewer pipe that was laying on top of the ground. The job looks good the contractor will have to submit a Statement of Completion letter from the Civil Engineer for closure of the construction project.				

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Private Projects
FY 2021 - 2022**

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					First Inspection Date for the Site	Inspection Date	Site Fully Stabilized							Erosion (R13)	Sediment (R14)	Run-on & Runoff (R15)	Active Treatment (R16)	Site Mgt. (R17)	Non S/W Mgt (R18)				10 Days	30 Days			
1		1	2225	TELEGRAPH		4/18/2022		CLOUDY	N													Date: 4/18/2022 The PZ permit cannot get signed off until the grading has been signed off. The grading needs the statement of completion.					
1		1	2225	TELEGRAPH		4/18/2022		CLEAR	N														Date: 4/18/2022 Could not close the grading permit because there is no statement of completion yet.				
1		1	2016	TELEGRAPH		5/4/2022		CLEAR	N														Date: 5/4/2022 I met with Superintendent Joe. I signed off on the PZ permit extension for another 60 days.				
1		1	2016	TELEGRAPH		6/20/2022		CLOUDY	N														Date: 6/20/2022 The contractor Everett called for a Final inspection on his PZ permit. After walking the construction site I signed off on the PZ permit. This permit can be Finalized and closed. (see attachments)				
1	1		4875	TIDEWATER	10/5/2021	10/5/2021		CLOUDY	N			1											Date: 10/5/2021 Contractor has installed erosion controls. And will start trenching to install infrastructure. When they start importing soils we will revisit the effectiveness of the BMP's				
1			4675	TIDEWATER		12/20/2021		RAIN	Y														Date: 12/20/2021 Have been monitoring site after the rain events. All erosion controls are in place and effective.				
1	1	1	2415	VALDEZ	7/23/2021	7/23/2021		CLEAR	N	1													Date: 7/23/2021 All work under the PZ permit has been completed.				
1	1	1	58	VERNON	7/21/2021	7/21/2021		CLEAR	N	1													Date: 7/21/2021 Contractor need to submit statement of completion before final sign off on grading.				
1		1	58	VERNON		7/28/2021		CLEAR	N														Date: 7/28/2021 Grading is complete and the site is stable. I have copy of the statement of completion, ok to process the bond release.				
1		1	58	VERNON		7/28/2021		CLEAR	N														Date: 7/28/2021 All work is complete. There is no O&M agreement. Permit is finialed.				
1	1	1	41	VICENTE	8/17/2021	8/17/2021		CLEAR	N	1													Date: 8/17/2021 I met with foreman Jose. The contractor is drilling post holes for the new street retaining wall. The owner will call for a post hole depth inspection including rebar next week. The contractor is not pouring concrete today. The contractor will have to install a second plywood barrier fence crossing the lot below the freshly cut soil back. Prevent all dirt from rolling downhill towards the creek.				
1		1	41	VICENTE		10/19/2021		CLOUDY	N														Date: 10/19/2021 A construction meeting was held with a property owner IHinead, City of Oakland inspector Keith Pacheco, and the Retaining wall engineer. The contractor has framed and installed rebar for the new retaining wall behind the street. The building Inspector gave permission to pour the retaining wall concrete The contractor is also did grading without a permit on the lower retaining wall without having approved plans stamped on site. The contractor /owner was issued a correction notice and a stop work order for not having a Grading permit and not having the construction site winterized .				
1		1	41	VICENTE		11/5/2021		CLOUDY	N														Date: 11/5/2021 The contractor is working on the upper retaining only today. The lower section remains covered up with plastic.				
1	1	1	240	W MACARTHUR	8/16/2021	8/16/2021		CLEAR	N	1													Date: 8/16/2021 Clear C - 6 - Inspection. I met with Superintendent Mike. After walking the construction site the contractor will have to replace two of the four storm drain filters The fabric is not protecting the storm drain inlets.				
1		1	240	W MACARTHUR		10/15/2021		CLOUDY	N														Date: 10/15/2021 No construction fencing. No silt screens. Etc etc				
1		1	240	W MACARTHUR		3/25/2022		CLOUDY	N														Date: 3/25/2022 Inspection to keep the PZ permit open.				

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Private Projects
FY 2021 - 2022**

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					First Inspection Date for the Site	Inspection Date	Site Fully Stabilized							Erosion (R13)	Sediment (R14)	Run-on & Runoff (R15)	Active Treatment (R16)	Site Mgt. (R17)	Non S/W Mgt (R18)				10 Days	30 Days
1	1	1	6454	WESTOVER	10/21/2021	10/21/2021	CLOUDR	N	1											Date: 10/21/2021 C-6 inspection All erosion controls are in place and effective with no tracking or site runoffs.				
1			6298	WESTOVER		12/24/2021	RAIN	Y												Date: 12/24/2021 I received a call from Supv, David Miles regarding a land slide at this location. Upon my arrival C/O/O inspector John Fryer was already on site. The contractor upper retaining wall in the middle had fallen over and broke free from the other two sections. The mud pushed the wall and rocks down hill. The pier holes showed no signs of braking off at ground level, just that they were forced to lay over. The owner must get with their Civil Engineer to come up with a new plan on how to winterized and stabilize the construction site as soon as possible. The owner removed all the sediment from the street.				
1	1	1		WHITTLE	10/27/2021	10/27/2021	CLOUDY	N	1											Follow - up inspection for S/W/O and Correction Notice issued the day before by Inspector Michae for non compliance with BMP's and erosion controls. The contractor replaced the sidewalk around the EBMUD water meter box. They also did a good job of cleaning the sidewalk. Nothing was installed or done to prevent erosion runoffs from happening again with the next rain storm. Gap still remain under the construction fencing. No plastic installed covering the dirt. No wattle rolls. No 3 ft. silt fencing installed in missing areas where it should have been installed. Damaged 3 ft. fence areas in the rear have not been replaced or repaired. Over grown vegetation areas impacting the 3 ft. fence areas have not been maintained behind the plywood barrier protecting the creek. Erosion controls are required to prevent runoffs.				
1	1		1708	WOOD	9/8/2021	9/8/2021	CLEAR	N			1									Date: 9/8/2021 Contractor is in the process by of setting 400 piers. Special Inspector is on site. Everything is in order. All C-6 are in place and effective.				
1			1708	WOOD		9/16/2021	CLEAR	N												Date: 9/16/2021 -C-6 inspection. Inspect erosion controls. The contractor is drilling pier holes and pouring concrete in 20 to 30 holes per day. Contractor has a special inspector that's doing the inspection on the drilling. The contractor must cover all dirt piles with plastic at the end of the day. Dust controls are required use water at least 3 to 4 times a day as needed. Prevent sediment from leaving the construction site, run a street sweeper				
1			1708	WOOD		9/22/2021	CLEAR	N												Date: 9/22/2021 C6 inspection. Inspect erosion control and storm drain protection. I met with superintendent matt and subcontractor foreman Wayne. The dirt piles are not being covered with plastic as required, best management practices are not being maintained. This is the second warning for the contractor, all erosion controls must be in place by Friday 9/24/21. A follow up inspection is required.				
1	1	1	6307	WOOD	12/4/2021	12/4/2021	CLOUDY	N	1											Date: 12/4/2021 C6 inspection conducted virtually with contractor in response to neighbor email complaint of loose soils. — Jute ground cover in process of being installed and contractor will install low wood retaining along right side as part of final landscape work.				
379	92	109								43	10	21	18	29	0	0	0	7	0	3		40	4	

270 high priority + CGP + hillside site inspections

ATTACHMENT C.6.2

City of Oakland

Summary of Construction Site Control Inspections

PUBLIC PROJECTS

FY 2021-2022

**City of Oakland
Summary of Construction Site Control Inspections
Public Projects
FY 2021-2022**

Enter "1" per inspection	Enter "1" for each site	Street Number	Site Name (Street Name)	Date			Weather	Rain & Runoff Y/N	Enter "1" for site if "High Priority" site disturbing <1 acre of soil requiring storm water runoff quality inspection	Enter "1" for site if disturbed >1 acre (CGP sites)	Enter "1" for the site if hillside avg slope ≥ 20% & amnt of disturbed soil ≥ 5000sf & < 1 acre	BMP Categories - Problems and Resolution (Resolution Options: Problem Fixed (immediately or within 10 days), Need More Time, Escalate Enforcement)						Illicit Discharge (R19)	Comments (Problem & Resolution)	Enforcement Level (R21)	Violation Corrected? (Y/N/TBD) & Date Correction Verified								
				First Inspection Date for the Site	Inspection Date	Site Fully Stabilized						Erosion (R13)	Sediment (R14)	Run-on & Runoff (R15)	Active Treatment (R16)	Site Mgt. (R17)	Non S/W Mgt (R18)				10 Days	30 Days							
1	1	2831	ATP Telegraph	3/3/2022	3/3/2022	Not Applicable	Rain	Y	0	1	0	0	Not Applicable	0	Not Applicable	0	Not Applicable	0	Not Applicable	0	Not Applicable	0	Not Applicable	0	Not Applicable	0	Not Applicable	0	Not Applicable
1	See Above	2805	ATP Telegraph	3/28/2022	3/28/2022	Not Applicable	Rain	N	0	0	See Above	0	Not Applicable	0	Not Applicable	0	Not Applicable	0	Not Applicable	0	Not Applicable	0	No problem found	0	Not Applicable	0	Not Applicable	0	Not Applicable
1	See Above	2775	ATP Telegraph	4/11/2022	4/11/2022	Not Applicable	Rain	N	0	0	See Above	0	Not Applicable	0	Not Applicable	0	Not Applicable	0	Not Applicable	0	Not Applicable	0	no problem found	0	Not Applicable	0	Not Applicable	0	Not Applicable
1	See Above	2775	ATP Telegraph	4/11/2022	4/21/2022	Not Applicable	Rain	N	0	0	See Above	0	Not Applicable	0	Not Applicable	0	Not Applicable	0	Not Applicable	0	Not Applicable	0	no problem found	0	Not Applicable	0	Not Applicable	0	Not Applicable

ATP Telegraph is a project on Telegraph Avenue, between 20th St/Thomas L. Berkley Way and 42nd Street to construct infrastructure improvements for pedestrians and bicyclists. Pedestrian improvements include sidewalk extensions, raised islands, ADA compliant curb ramps, pedestrian median refuges, and crosswalk improvements. Bicycle improvements include protected bike lanes, protected intersections, and bike parking facilities. Additional components include geometric realignment, traffic signal modifications, rapid rectangular flashing beacons (RRFB), ITS infrastructure, signing and striping, and pavement repair.

The construction is being completed in phases and, therefore, the addresses provided are for the area of active construction during rain events.

		TOTALS	0	1	0	Total Enforcement Actions										0
Total # of Inspections	Total # of Sites	Number of sites disturbing less than 1 acre:			0	EC Violations	SC Violations	R&R Violations	AT Violations	SM Violations	NS Violations	ID Violations	Timely corrections	Corrected in 30 days		
4	1					0	0	0	0	0	0	0	0	0		

For all violations, percentage in each category: 0 % EC, 0 % SC, 0 % R&R, 0 % AT, 0 % SM, 0 % NS, 0 % ID

Total Discrete Violations: 0

For all violations, percentages corrected as follows: N/A % Timely corrections, N/A % Corrected in 30 days

Total Level 1 Enforcement Inspections	0
Total Level 2 Enforcement Inspections	0
Total Level 3 Enforcement Inspections	0
Total Level 4 Enforcement Inspections	0
Total Enforcement Actions	0

ATTACHMENT C.7.1

City of Oakland

School Age Outreach Summary

FY 2021-2022

Date	Name	Group	Type (field/classroom)	# of Participants	Grade Level	Outreach Focus
Aug-21	Lake Merritt Institute	Head Royce	field	20	high school	watershed awareness activites
Sep-20	Lake Merritt Institute	Irvington High School	field	15	high school	watershed awareness activites
Oct-21	Lake Merritt Institute	Achieve High School	field	17	high school	watershed awareness activites
Nov-21	Lake Merritt Institute	Park Day	field	35	Middle school	watershed awareness activites
Nov-21	Lake Merritt Institute	Achieve High School	field	17	high school	watershed awareness activites
Dec-21	Lake Merritt Institute	Park Day	field	35	Middle school	watershed awareness activites
Jan-22	Lake Merritt Institute	Achieve High School	field	13	high school	watershed awareness activites
Mar-22	Lake Merritt Institute	St. Paul Elementary	field	15	Middle school	watershed awareness activites
4/1/2022	Lake Merritt Institute	Achieve Middle School	field	16	Middle school	watershed awareness activites
5/1/2022	Lake Merritt Institute	Park Day	field	13	Middle school	watershed awareness activites
Jun-22	Lake Merritt Institute	OakDOT	field	12	college	watershed awareness activites
TOTAL				208		

ATTACHMENT C.9.1

Oakland City Council Resolution 59482 – Pesticides Policies

OAKLAND CITY COUNCIL

59482

RESOLUTION No. _____ C.M.S.

INTRODUCED BY COUNCILMAN _____

TAL

RESOLUTION ADOPTING POLICIES REGARDING USE OF
CHEMICAL PESTICIDES BY CITY DEPARTMENTS TO
CONTROL UNWANTED PLANT GROWTH, FUNGI AND INSECTS

* * * * *

WHEREAS, the City Council established a Committee of citizens and City staff to study the use and effects of pesticides to control the pest population; and

WHEREAS, the Committee has completed its study of the issues and has developed a series of policies regulating the use of pesticides to control unwanted plant growth, fungi and insects; now therefore, be it

RESOLVED: that City departments, shall, to the fullest extent possible, adopt and implement Integrated Pest Management (IPM) techniques and methods as standard operating procedure to approach pest problems, and employ a combination of control strategies, placing major reliance on those with the least wanted impacts; and be it

FURTHER RESOLVED: that City departments shall consider pest maintenance techniques and use of resistant vegetation to reduce pesticide and other maintenance techniques in the process of planning future parks and replacing vegetation in existing facilities; and be it

FURTHER RESOLVED: that the use of chemical pesticides shall be minimized as much as possible and shall be considered only as a last resort to more environmentally sound alternatives such as cultural and manual pest controls; that the amount and types of chemical pesticides stored and used shall be kept to a minimum; that departments shall develop, maintain and update a list of approved chemicals to be made available to the public; that under no circumstance shall any chemical pesticide be applied in amounts other than those for which it is registered and approved; and be it

FURTHER RESOLVED: that City staff shall keep detailed records of all chemical applications administered by City staff or contractors engaged by the City with such records available for public inspection and reviewed periodically by staff to ensure compliance with relevant rules and regulations; that City departments which employ the use of chemicals shall maintain records of pest-related complaints; and be it

FURTHER RESOLVED: that all City employees engaged in the application of chemical pesticides shall be trained and certified, and provided with adequate supervision and proper safety equipment; and be it

FURTHER RESOLVED: that prior posting of all pesticide applications shall be provided to the public in the form of thirty days advance notice for regular seasonal spraying programs and same day notification for minor or unscheduled applications where notice shall remain for a reasonable period after completion so that the public will be aware of a chemical application in the area; and be it

FURTHER RESOLVED: that community participation shall be sought for the purpose of developing alternatives to chemical pesticides and that City departments will hold public meetings at the community's request to develop options to deal with the pest population and weed problems by means other than chemical pesticides; and be it

FURTHER RESOLVED: that public agencies in Oakland shall be requested to cooperate by adhering to these policies; and be it

FURTHER RESOLVED: that the Committee to study pesticides shall review techniques applied by departments and their contractors in City owned structures for development of a series of recommendations relating to the matter.

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CIVIL SERVICE
DEPARTMENT
MUNICIPAL
EMPLOYEES
ASSOCIATION

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IN COUNCIL, OAKLAND, CALIF., FEB 3 1981, 19

PASSED BY THE FOLLOWING VOTE:

AYES — ENG, GIBSON, GILMORE, MOORE, OGAWA, RILES, SPEES, SUTTER
AND PRESIDENT WILSON — 8

NOES — NONE

ABSENT — COUNCIL MEMBER GILMORE, - 1

ATTACHMENT C.9.2

**Oakland City Council Resolution 73968 – Integrated Pest
Management Policies**

OAKLAND CITY COUNCIL

RESOLUTION NO. 73968 C. M. S.

REVISED

INTRODUCED BY COUNCILMEMBER _____

RESOLUTION ADOPTING INTEGRATED PEST MANAGEMENT
POLICIES FOR THE CITY OF OAKLAND

WHEREAS, the City recognizes that population levels of certain plants, insects, plant pathogens, vertebrates, and other pests may create a nuisance or threaten the public health and safety, and therefore need to be controlled; and

WHEREAS, the City recognizes that the use of pesticides can present a potential hazard to the citizens of Oakland, City staff and the environment, now therefore be it

RESOLVED: That City departments shall, to the fullest extent possible, adopt and implement Integrated Pest Management (IPM) techniques and methods as standard operating procedures to manage pest problems; and be it

FURTHER RESOLVED: That, effective January 1, 1998, pesticides shall not be used in or on City owned property or facilities, except as specifically exempted by this resolution; and be it

FURTHER RESOLVED: That the only exemptions to the ban on pesticides established herein are as follows:

1. In those instances where the use of pesticides is required to preserve and/or protect human health and safety;
2. The use of swimming pool chemicals, disinfectants, and other antimicrobials;
3. The use of pesticidal soaps, insect growth regulators, microbials, botanicals, synthetic pyrethroids, horticultural oils, and insecticidal bait stations;
4. At municipal golf courses (signage shall be provided warning golfers of the pesticides used, the location, and date of application);
5. At municipal putting and lawn bowling greens (with signage as per 4. above);
6. At the Morcom Rose Garden (with signage as per 4. above);
7. For weed control in the construction of new landscaping and ballfields (with signage as per 4. above);
8. In sports fields, to control gophers, moles, and ground squirrels;
9. In the Oakland Museum of California, to protect museum artifacts, artworks, and collections;

- 10. Around fire hydrants in selected areas where weed growth threatens to obscure them;
- 11. On public streets and rights-of-way maintained by the Public Works Agency; and be it

FURTHER RESOLVED: That exemption 1 above shall only apply to situations that conform to guidelines established by the Alameda County Health Agency, and that herbicide usage is not exempted by exemption 6 above; and be it

FURTHER RESOLVED: That when the use of any pesticide is determined to be necessary, the least hazardous effective available pesticide will be used; and be it

FURTHER RESOLVED: That category 1 pesticides shall not be used on any City property except for the use of aluminum phosphide on sports fields for vertebrate control; and be it

FURTHER RESOLVED: That only pesticides that are approved and registered with the Environmental Protection Agency and by the State of California will be used; and be it

FURTHER RESOLVED: That if contractors are used to apply pesticides, they must be licensed by the State of California as Pest Control Operators; and be it

FURTHER RESOLVED: That public notification of pesticide use be done through signage of areas being treated, marker dyes in sprays, and public education programs; and be it

FURTHER RESOLVED: That City employees are not to bring pesticides from home for use on City property. This includes pesticides that are packaged for home use; and be it

FURTHER RESOLVED: That each City agency have a person designated to be responsible for coordinating pest control issues; and be it

FURTHER RESOLVED: That the Citizens' IPM Advisory Committee shall continue to advise the City Council on pest control practices.

IN COUNCIL, OAKLAND, CALIFORNIA, DEC 16 1997, 19__

PASSED BY THE FOLLOWING VOTE:

AYES- BRUNNER, CHANG, DE LA FUENTE, MILEY, NADEL, REID, RUSSO, SPEES AND
PRESIDENT HARRIS - 9

NOES- None

ABSENT- None

ABSTENTION- None

ATTEST: Ceda Floyd
CEDA FLOYD
City Clerk and Clerk of the Council
of the City of Oakland, California

ATTACHMENT C.9.3

Oakland City Council Resolution 76254 – Integrated Pest Management Limited Exemption for Herbicides

OAKLAND CITY COUNCIL

RESOLUTION No. 76254 C. M. S.

INTRODUCED BY COUNCILMEMBER _____

MAF

RESOLUTION AUTHORIZING A LIMITED EXEMPTION TO THE INTEGRATED PEST MANAGEMENT POLICY TO USE HERBICIDES ON LANDSCAPED STREET MEDIANS

WHEREAS, in 1997 City Council approved the implementation of a comprehensive Integrated Pest Management (IPM) policy and passed Resolution No. 73968 C.M.S. that prohibited the use of pesticides on City property except as specifically exempted; and

WHEREAS, the Office of Parks and Recreation maintains landscaping in parks, open space, and landscaped street medians; and

WHEREAS, landscaped street medians are typically designed as long and narrow landscaped areas with minimal public use; and

WHEREAS, landscaped street medians are potentially dangerous places for employees performing landscape maintenance work due to erratic and speeding drivers; and

WHEREAS, the closure of certain traffic lanes in order to allow City employees to perform landscape maintenance safely and efficiently causes traffic delays and congestion along major streets; and

WHEREAS, the disadvantages of using gasoline powered string mowers to cut down weeds on street medians outweighs the advantages; and

WHEREAS, the manual removal of weeds is a time consuming and costly method of controlling weed growth that diverts staff resources away from park maintenance activities that are a direct service to the public; now therefore be it

RESOLVED: That the Oakland City Council hereby grants a limited exemption to the Integrated Pest Management policy by allowing limited herbicide use on landscaped street medians to control weeds and undesirable plants; and be it

FURTHER RESOLVED: That the Office of the City Attorney has approved this resolution as to form and legality, and a copy will be on file in the Office of the City Clerk.

I hereby certify that the foregoing is a full, true and correct copy of a Resolution passed by the City Council of the City of Oakland on JAN 30 2001

CEDA FLOYD
City Clerk and Clerk of the Council

Per Onetha Middleton Deputy

ATTACHMENT C.9.4

**Oakland City Council Ordinance 13544 – Neonicotinoid
Pesticide Prohibition**

Arnold Litt

CITY ATTORNEY'S OFFICE

19 MAY 23 PM 1:16

OAKLAND CITY COUNCIL

ORDINANCE NO. 13544 C.M.S.

INTRODUCED BY COUNCIL PRESIDENT PRO TEM DAN KALB,
COUNCILMEMBER NIKKI FORTUNATO BAS, AND COUNCIL PRESIDENT
REBECCA KAPLAN

ORDINANCE: (1) ESTABLISHING THE CITY OF OAKLAND'S (CITY) POLICY PROHIBITING THE CITY'S USE OF NEONICOTINOID PESTICIDES (NEONICOTINOIDS) IN ORDER TO PROTECT HONEY BEES AND OTHER POLLINATORS; (2) URGING THE ADOPTION OF STATE AND FEDERAL RESTRICTIONS ON NEONICOTINOIDS; AND (3) URGING RETAILERS OPERATING IN THE CITY OF OAKLAND TO NOT SELL NEONICOTINOIDS

WHEREAS, bees and other insect pollinators are critical to agricultural production of certain types of crops. According to the U.S. Department of Agriculture, honey bee pollinators (*apis mellifera L.*) play a critical role in producing one-third of the nation's food supply. The monetary value of such pollination is estimated to be \$18 to \$27 billion in annual agricultural production in the United States; and

WHEREAS, the maintenance of healthy, biodiverse ecosystems depends upon the significant environmental services provided by pollinator species; and

WHEREAS, bees and other insect pollinators are under great environmental stress and experiencing global die-offs and diminishing populations, driven by a number of factors including habitat loss, disease, pesticide exposure, lack of forage, and climate change; and

WHEREAS, neonicotinoids are a class of nicotine-like pesticides, which include acetamiprid, imidacloprid, clothianidin, dinotefuran, nitenpyram, nithiazine, thiacloprid and thiamethoxam. First patented in the 1980s for commercial use, neonicotinoids have become frequently used in agriculture and are now the most widely used class of pesticide in the world. In agriculture, neonicotinoids are used to coat seeds or applied to the plant; and

WHEREAS, neonicotinoids are absorbed by plants to which they are applied and are described as “systemic,” which means they travel throughout a plant via its vascular system, spreading to all parts of a plant, including pollen and nectar, which are consumed by bees, greatly increasing the likelihood that animals that come into contact with the plant are contaminated. Applied neonicotinoids are also slow to break down and can remain persistent in plants, soil, and the environment for long periods of time; and

WHEREAS, the United States Geological Survey has highlighted the growing use of neonicotinoids in the United States and found significant neonicotinoid contamination in our nation's waters and studies show that neonicotinoids are highly toxic to aquatic invertebrates; and

WHEREAS, in the late 1990s, neonicotinoids came under increasing scrutiny over their environmental impacts. Neonicotinoid use was linked in a range of studies to adverse ecological effects, including honey-bee colony collapse disorder and loss of birds due to a reduction in insect populations. Recent research suggests that there is a possible link between pesticides that contain neonicotinoids and the die-off of plant pollinators, including honey bees, native bees, butterflies, moths and other insects. The Global Taskforce on Systemic Pesticides, a group of 29 independent scientists, examined over 800 peer-review papers on the effects of neonicotinoids on wildlife, as well as water and soil quality, over a four year period and published a report in 2014 that concluded that neonicotinoids are toxic to bee populations; and

WHEREAS, neonicotinoids are known to have acute and chronic effects that are highly damaging to bees, butterflies and other pollinator species, and even nonlethal exposure can affect bee navigation, reproduction, survival rates, and foraging; and

WHEREAS, a large and growing body of independent, peer-reviewed scientific studies demonstrate that existing neonicotinoid contamination in the environment can also adversely impact birds, aquatic organisms and the ecosystems they support; and

WHEREAS, neonicotinoids are included in pesticide products that are readily available to the public and application of the products in home gardens can occur at significantly higher rates than what has been approved for agricultural crops. Educating the public and promoting the discontinuance of pesticide products containing neonicotinoids will benefit bees and other insect pollinators and agricultural production within the city and the surrounding region; and

WHEREAS, on May 19, 2015, the White House Pollinator Health Task Force under President Barack Obama issued its report, focusing on increasing habitat for pollinators and called for further extensive research into all aspects of pollinator health; and

WHEREAS, following lawsuits against the EPA and the introduction of ultimately unsuccessful legislation banning certain neonicotinoids in 2012-2013, the Obama administration issued a blanket ban in 2014 on the use of neonicotinoids on National

Wildlife Refuges, a decision which was overturned in 2018 by the Trump Administration;
and

WHEREAS, cities, states, and countries are increasingly banning neonicotinoids;
and

WHEREAS, some national and other retailers have taken steps to stop selling
pesticides with neonicotinoids; and

WHEREAS, urban use of pesticides is often for mere cosmetic purposes and is
not necessary to create and maintain attractive landscapes, gardens or open spaces,
given the availability of viable alternative practices and products; and

WHEREAS, the Oakland City Council adopted an Integrated Pest Management
(IPM) policy in 1995. The IPM policy was amended by the Council in 2005 to include
exemptions for the purpose of wildfire mitigation in addition to the existing exemptions.
While the implementation of the IPM plan has the potential to benefit or harm
pollinators, Oakland currently does not have any language directly addressing
neonicotinoids or bees; and

WHEREAS, the City's IPM policy prohibits the City from using pesticides on City
owned property or facilities with limited exceptions; and

WHEREAS, the City does not currently use neonicotinoid pesticides on its
properties; and

WHEREAS, on April 19, 2016, the Oakland City Council approved Resolution
No. 86114 C.M.S. introduced by Councilmember Dan Kalb in support of Senate Bill
1282 (Leno), unsuccessful legislation that would have required labeling of seeds and
plants sold at retail establishments that have been treated with a neonicotinoid pesticide
and designated neonicotinoid pesticides as restricted materials pursuant to state law;
and

WHEREAS, on May 16, 2017, the Oakland City Council approved Resolution No.
86736 C.M.S. introduced by Councilmembers Dan Kalb and Abel Guillen in support of
Senate Bill 602 (Allen & Wiener), unadopted legislation which, in its original form, would
have required labeling of commercially available seeds and plants treated with
neonicotinoid pesticide; and

WHEREAS, in January of 2018, California's Department of Pesticide Regulation
announced that it would no longer consider any applications by pesticide companies
that would expand the use of neonicotinoids in the state, to be lifted once the agency
finishes an ongoing evaluation, in conjunction with the EPA, of the pesticides; and

WHEREAS, the City of Oakland values pollinators and sustainability, has had its
own Pollinator Posse community group, and is home to apiaries, pollinator gardens, the
Bee Hotel at the Gardens at Lake Merritt, and residents and organizations who care and

work on the health of our environment and food supply. And bees have been the focus of various Oakland garden workshops, walking tours, and an Oakland Museum *Bees* exhibit; and

WHEREAS, California law limits the ability of local jurisdictions to restrict or regulate pesticide usage; and

WHEREAS, the actions contemplated in this Ordinance do not constitute a project for the purposes of the California Environmental Quality Act (CEQA). Further, even such actions were to be construed as a project under CEQA, it is exempt pursuant to CEQA Guidelines section 15061(b)(3) (it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment), and 15308 (it is an action for the protection of the environment).

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF OAKLAND DOES ORDAIN AS FOLLOWS:

SECTION 1. Title 18 of the Oakland Municipal Code is amended to add Chapter 18.04 **AN ORDINANCE ESTABLISHING THE CITY OF OAKLAND'S POLICY PROHIBITING THE CITY'S USE AND PURCHASE OF NEONICOTINOID PESTICIDES, URGING THE ADOPTION OF STATE AND FEDERAL RESTRICTIONS ON NEONICOTINOID, AND URGING RETAILERS OPERATING IN THE CITY OF OAKLAND NOT TO SELL NEONICOTINOID**, to read as follows:

18.04.010. Definitions

"IPM" means the City of Oakland's Integrated Pest Management Policy, enacted by Resolution Number 73963 C.M.S. and all subsequent amendments.

"Neonicotinoid" means a class of nicotine-like pesticides, which include acetamiprid, imidacloprid, clothianidin, dinotefuran, nitenpyram, nithiazine, thiacloprid and thiamethoxam.

"Nursery stock" means young plants grown at a nursery.

"Pollinator" means an insect that carries pollen from one plant or part of a plant to another.

18.04.020. Prohibition on City's Use and Purchase of Neonicotinoid Pesticides or Nursery stock, Trees, Plants, Seeds, or other plants or materials treated with or consisting of neonicotinoids

The City of Oakland (City) shall not use any neonicotinoid or neonicotinoid-like, systemic, persistent pesticides for any purpose, other than treatment of an animal by a veterinarian in accordance with the City's IPM Policy, on property owned or operated by

the City, including public rights-of-way. This prohibition applies, at a minimum, to seed dressings, soil treatments, foliar sprays, and other types of applications.

Further, the City shall not purchase neonicotinoids and other neonicotinoid-like, systemic, persistent pesticides other than for veterinarian purposes in accordance with the City's IPM Policy.

18.04.030. Pollinator-friendly Methods of Pest Control

The City will strive to use only pollinator-friendly methods of pest control on any City-owned or operated property.

18.04.040. Collaboration with Community and Conservation Organizations

The City Administrator or designee shall ensure that the Departments of Public Works and Parks and Recreation, and other relevant City agencies, departments, and offices as established in Oakland Municipal Code Chapter 2.29 will seek to collaborate with Oakland community and conservation organizations, such as the Pollinator Posse, to prioritize planting and maintaining pollinator attracting plants on City-owned or operated properties.

18.04.050. Education of the Public on Effect of Neonicotinoids on Pollinator Populations

The City Administrator or designee shall post information on the City's website to educate the public regarding the effects of pesticides that contain neonicotinoids on bee and other pollinator populations and promote the use of other less-harmful pesticide products and/or alternative pest control practices, as well as planting bee-friendly plants. Residents should be advised that the City recommends avoiding spraying insecticides on plants and flowers on private property.

18.04.060. Rules and Regulations

The City Administrator is authorized to promulgate any rules and regulations or administrative instruction, necessary to carry out the purposes of this Ordinance.

SECTION 2. Public Notification of City Policy Prohibiting Its Use and Purchase of Neonicotinoids

Within six months of the adoption of this Ordinance, the City Administrator or designee shall notify the public regarding the City's policy prohibiting its use and purchase of neonicotinoids through the City's, Public Works', and Parks and Recreation's websites and/or website pages to inform residents of the impacts and risks associated with the use of neonicotinoids on or near pollinators, the beneficial reasons for the protection of insects, birds, and water-related animals in the environment, and methods and alternatives the City is using for protection of pollinators.

SECTION 3. Presentation before the Parks and Recreation Advisory Commission

The City Administrator or designee shall, during the 2019 calendar year, present to the Parks and Recreation Advisory Commission information regarding this Ordinance and the City's plan to ensure that it never knowingly purchases commercial nursery stock, trees, plants, seeds, or other plants or materials treated with or consisting of neonicotinoids.

SECTION 4. Encouraging Businesses to Stop Selling and Using Neonicotinoids

The City strongly encourages retail businesses operating within the City of Oakland to take immediate steps to ensure no plants, seeds, or garden, landscaping, or agricultural products containing neonicotinoids are purchased, sold, or used within the City of Oakland.

The City Administrator or designee shall send a copy of this Ordinance with an accompanying letter to pest control companies, nurseries, hardware stores, and other retailers operating in the City of Oakland that are believed to sell or likely to sell products to the public containing neonicotinoids.

SECTION 5. Notice to Local Public Agencies

The City Administrator or designee shall send a copy of this Ordinance to the Board of Directors and Superintendent of the Oakland Unified School District, the Board of Directors and General Manager of the East Bay Regional Park District, the Board of Directors and General Manager of the East Bay Municipal Utility District, and the Alameda County Board of Supervisors.

SECTION 6. Notice to State and Federal Legislators and Agencies

The City Administrator or designee is directed to send a copy of this Ordinance to Assemblymembers Rob Bonta and Buffy Wicks, State Senator Nancy Skinner, Governor Gavin Newsom, U.S. Representative Barbara Lee, and U.S. Senators Kamala Harris and Dianne Feinstein, the California Department of Pesticide Regulation, and the U.S. Environmental Protection Agency.

SECTION 7. California Environmental Quality Act

The City Council finds that the above actions do not constitute a project for the purposes of the California Environmental Quality Act (CEQA). Further, even if the above actions were to be construed as a project under CEQA, the City Council finds that it is exempt pursuant to CEQA Guidelines section 15061(b)(3) (it can be seen with certainty that there is no possibility that the activity in question may have a significant

effect on the environment), and 15308 (it is an action for the protection of the environment).

SECTION 8. CEQA Notice of Exemption

The City Administrator or designee shall file a Notice of Exemption with the appropriate agencies.

SECTION 9. Severability. If any section, subsection, sentence, clause or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of the Chapter. The City Council hereby declares that it would have passed this Ordinance and each section, subsection, clause or phrase thereof irrespective of the fact that one or more other sections, subsections, clauses or phrases may be declared invalid or unconstitutional

SECTION 10. Effective Date. This ordinance shall become effective immediately on final adoption if it receives six or more affirmative votes; otherwise it shall become effective upon the seventh day after final adoption.

IN COUNCIL, OAKLAND, CALIFORNIA,

JUN 18 2019

PASSED BY THE FOLLOWING VOTE:

AYES - FORTUNATO BAS, GALLO, GIBSON MCELHANEY, KALB, REID, TAYLOR, THAO AND PRESIDENT KAPLAN *-8*

NOES *-0*

ABSENT *-0*

ABSTENTION *-1*

ATTEST:



LATONDA SIMMONS

City Clerk and Clerk of the Council of the City of Oakland, California

Date of Attestation:

June 25, 2019

Introduction Date
JUN 04 2019

NOTICE AND DIGEST

ORDINANCE: (1) ESTABLISHING THE CITY OF OAKLAND'S (CITY) POLICY PROHIBITING THE CITY'S USE OF NEONICOTINOID PESTICIDES (NEONICOTINOIDS) IN ORDER TO PROTECT HONEY BEES AND OTHER POLLINATORS; (2) URGING THE ADOPTION OF STATE AND FEDERAL RESTRICTIONS ON NEONICOTINOIDS; AND (3) URGING RETAILERS OPERATING IN THE CITY OF OAKLAND TO NOT SELL NEONICOTINOIDS

This ordinance establishes a policy (policy) prohibiting the City from using Neonicotinoid pesticides. It also requires the City to urge state and federal legislators to take action to regulate Neonicotinoid pesticides and for the City to inform local public agencies and retailers about the policy.

ATTACHMENT C.9.5

City of Oakland

IPM Plan Update 2005 - Staff Report

City of Oakland
Agenda Report

OFFICE OF THE CITY CLERK
CITY OF OAKLAND

05 FEB -9 PM 3:48

To: Public Works Committee
Public Safety Committee
From: Councilmember Jean Quan
Date: February 22, 2005

Re: RESOLUTION AUTHORIZING A LIMITED EXEMPTION TO THE INTEGRATED PEST MANAGEMENT POLICY TO USE HERBICIDES ON CITY-OWNED LAND IN THE WILDFIRE PREVENTION DISTRICT AND OTHER CITY PROPERTIES IDENTIFIED BY THE FIRE MARSHAL AS AREAS OF HIGH FIRE HAZARD

SUMMARY

The City Council is requested to approve a limited exemption to the Integrated Pest Management (IPM) policy to allow use of specific herbicides to abate certain non-native, highly flammable trees and shrubs that create a fuel load for potential fires on City - owned property in the Wildfire Prevention Assessment District and other city properties identified by the Fire Marshall as areas of high fire hazard. If approved, vegetation management staff in the City of Oakland and contractors hired to work on vegetation management projects on City-owned property within the Wildfire Prevention Assessment District and the few City-owned properties outside of the Wildfire Prevention Assessment District with similar topography and fuel load risks, will be allowed the limited use of the herbicides glyphosate and triclopyr on certain highly flammable non-native plants.

The proposed policy further requires that:

- Preference will be given to available non-pesticide alternatives, where feasible, before considering the use of herbicides on city property. Glyphosate and triclopyr will only be used when conditions and best management practices (BMPs) demonstrate that a chemical treatment would be the most effective approach;
- Herbicides must be directly hand applied or painted on to the cambium layer (actively growing surface) of freshly cut stumps;
- Staff must comply with requirements established in the City's IPM policy such as public notification, dye markers, buffer zones, monthly reporting, etc.;

- Staff must comply with state and federal requirements for dispensing herbicides and permitting requirements for herbicide use;
- OFD must produce a yearly report on herbicide use as part of a strategic vegetation management plan;
- The current ban on the use of herbicides in the City's playgrounds, picnic, ball fields, and other high public use areas will remain in effect.

FISCAL IMPACT

Successful implementation of this policy will require the recruitment of a consultant with technical expertise in Integrated Pest Management (specifically the use of herbicides) and vegetation management in the urban/wild land interface so that the requirements for planning and monitoring the use of herbicides as part of an overall vegetation management plan may be implemented. Initial research shows that a consultant would run approximately \$124,000 the first year, and less in subsequent years. For comparison, the cost of hiring a full-time employee at the level of a Public Works Supervisor Level II would run \$123,548 including benefits. It is anticipated that the position would be funded through the Wildfire Prevention Assessment District.

The long-term fiscal impact is unknown at this time. However, the limited use of herbicides to efficiently control the proliferation of highly flammable tree and shrub materials will save labor costs over time for the Wildfire Prevention Assessment District that could be utilized for increased fire education and prevention efforts. The experience of neighboring entities has shown that when herbicides are appropriately used, the population of the invasive plants is reduced substantially over a two- to three-year period, reducing not only the continuing need for herbicide applications in the target area, but also the necessity of having labor forces do major maintenance in the area.

BACKGROUND

Integrated Pest Management (IPM) is a recognized pest management strategy that focuses on long term prevention of pests with minimum impact on human health, the environment and non-target organisms. A pest management strategy may include one or more of the following elements: no controls; physical/mechanical controls (e.g. hand labor, soil tilling, mowing); biological controls (animal grazing); chemical controls (preferably low toxicity materials such as soaps and oils) and other controls (e.g. mulching, alternative vegetation). Preference is typically given to available non-pesticide alternatives, where feasible, before considering the use of pesticides.

In May 1995, the City Council approved the implementation of a comprehensive Integrated Pest Management policy that updated the City's initial IPM policy adopted in 1981. The new policy reduced pesticide use, required public notification of pesticide use application, established coordination between departments responsible for pest management and required an annual report on usage and implementation of the policy. In December 1997, the City Council further reduced the use of pesticides through

Resolution 73968 which banned the use of pesticides on City property with only a few specific exemptions.

Following various reports to the Council from the Office of Parks and Recreation expressing concern about limited staff resources and the blighted condition of landscaped street medians, an exemption was approved in January of 2001 to allow limited herbicide use on landscaped medians to control weeds and other undesirable plants.

KEY ISSUES AND IMPACTS

The Fire Department is responsible for vegetation management on City-owned property in the Wildfire Prevention Assessment District. The District is a high fire hazard urban/wild land interface that stretches from the Contra Costa County line on the East, the Berkeley border on the North, the San Leandro border on the South, and slightly beyond Highway 13 and 580 on the West, dipping down into the Dimond Park/Dimond Canyon area. In 1991, this area experienced one of the worst urban fires in California history. Its continued vulnerability requires ongoing preventive measures to protect life and property. In 2004, a special assessment district was established to fund vegetation management and education activities in the Wildfire Prevention Assessment District.

In November 2004, the Wildfire Prevention Assessment District Advisory Council approved a Ten Year Goal to establish and implement a fuel management plan that is strategic, cost-effective, sustainable and environmentally sensitive. It also identified six criteria for identifying priorities for actions within the Wildfire Prevention Assessment District:

- Reduce the sources of ignition
- Maintain access (fire suppression) and egress (evacuation) routes
- Develop fire prevention friendly policies
- Reduce the spread of fires from wild lands
- Support/leverage efforts by home/property owners
- Develop a year-round seasonal strategy

Allowing the limited use of herbicides as one of an array of approaches under IPM best management practices (BMPs) is specifically identified as a necessity for the Wildfire Prevention Assessment District to achieve these objectives.

On January 27, 2005, the Wildfire Prevention Assessment District Advisory Council unanimously voted to endorse the proposed policy for limited use of herbicides within the Wildfire Prevention Assessment District and similarly identified city-owned properties.

Non-Native Plant and Tree Species

The following list of non-native, highly-flammable plant species are the targeted focus of the Oakland Fire Department's vegetation management efforts within the Wildfire Prevention District:

- all species of *Eucalyptus* (*E. globulus* (blue gum), red gum, and others)
- all species of *Acacia* (*A. dealbata* (silver wattle) and *A. melanoxylon* (blackwood acacia) and others); all non-native species of *Prunus* (plum and cherry)
- all species of *Ulmus* (elm)
- *Ilex aquifolium* (Holly)
- *Maytenus boaria* (Mayten)
- all species of *Cotoneaster* (*C. franchetii*, *C. lacteus*, *C. pannosa*)
- all species of broom and gorse: *Cytisus scoparius* (Scotch broom), *Genista monspessulana* (French broom), *Spartium junceum* (Spanish broom) and *Ulex europeae* (gorse)
- *Crataegus monogyna* (Italian hawthorn)
- non-native species of blackberry: *Rubus discolor* (Himalayan blackberry) and *R. ulmifolius* (thornless blackberry)
- *Cortaderia selloana* and *C. jubata* (pampas grass, jubata grass),

These plants were brought here from all over the world and have few natural enemies to deter their growth in this environment. Eucalyptus, in particular, is highly flammable and proved to be the primary fuel load for the 1991 Oakland Hills fire. Acacias create dense thickets with deep fuel beds of seed pods and downed wood. Other plants represent less immediate fire danger, but resprout vigorously when cut, creating repeated management expenses in fuel breaks and on roadsides. Vegetation management staff in the Wildfire Prevention Assessment District work to control fuel beds and ladder fuels created by these non-native, invasive plants throughout approximately 1000 acres of city-owned open space, canyon hill parcels, roadsides, public streets, paths, firebreaks and escape routes. Left unchecked, non-native trees and shrubs threaten native plant species and wildlife habitat, and create a continuous fuel bed for potential fires that could cause the loss of life and significant property damage.

The exemption for limited herbicide use will be exclusively focused on the plant and tree species listed above. The plants on this list have been identified by OFD vegetation management staff working in the District. The list of non-native plants may expand as new species threatening wildfire prevention efforts are identified. Any new species found problematic in the District will be reported in an annual report to the Wildfire Prevention Assessment District Advisory Board and the City Council.

Grazing, Hand Pulling and Mechanical Cutting Methods

Under the current IPM policy, staff must control and eradicate the growth of non-native plants solely through the use of grazing, hand pulling and mechanical cutting methods. Integrated Pest Management specialists, particularly among the public agencies working within the Wildfire Prevention Assessment District and adjacent to it, have successfully integrated limited herbicide use into their vegetation management practices. All of them follow the IPM guideline of using herbicides only when necessary. Consequently,

herbicides are a small component of their IPM program (from 2 to 6 gallons of concentrate per year), and they have seen decreases in the amounts they have used over time.

Grazing, hand pulling and mechanical means of weed control are not always effective in controlling the spread of invasive non-native vegetation. Each method has limitations in the rugged topography in much of the Wildfire Prevention Assessment District.

Eradicating eucalyptus trees has been particularly challenging for OFD and City staff. When mechanically cut, the eucalyptus tree resprouts quickly and profusely, requiring cutting several times a year to fully abate growth or simply control. Repeatedly returning to a particular canyon to re-cut new growth is costly and inefficient. Likewise, a repeated trip into an area where native plant growth may be disturbed is not a good practice.

Goat grazing is most effective at removing grass and at reducing the overall fuel load in shrublands. Most of the woody invasive shrubs resprout after goat grazing, including broom. Hand pulling is usually required for long-term control. This method is labor intensive and very costly. Hand pulling may also contribute to erosion as dislodging roots from a large area may cause the soil to become unstable and slide.

The most efficient approach to managing nuisance plants is a combination of methods, based upon plant species, location, topography, employee safety and economic considerations. This analysis is the key component of a working Integrated Pest Management program.

IPM Requirements

Herbicides would only be used when necessary, as a part of the annual WPAD vegetation management plan, and according to strict requirements as outlined in the City's Integrated Pest Management procedures manual, other local, state and federal regulations and this resolution.

The limited use of herbicides would be identified within the Wildfire Prevention Assessment District's annual plan for use on identified plants in specific locations, using BMPs garnered from other public agencies with vegetation management responsibilities. These include the East Bay Regional Park District, the University of California, and East Bay Municipal Utility District, and other public agencies in the greater Bay Area. The California Invasive Plant Council and The Nature Conservancy, and other conservation groups provide valuable research on their web sites BMPs from the State Department of Fish and Game and the U.S. Fish and Wildlife Service will be adopted for areas containing endangered species. City staff will consult with and obtain necessary permits from agencies such as the Alameda County Clean Water Program or the City's Environmental Services Creek Protection Program, prior to applying pesticides in endangered species habitats.

Standards already established in the City's current IPM policy will remain in force. These include requirements for:

- Public notification;
- Signage;
- Dye markers to indicate exactly where herbicide was applied;
- Monthly reporting;
- Buffer zones;
- Compliance with all state and federal regulations for applying and dispensing herbicides, including training or certification of all city staff and contractors who handle herbicides;
- Monitoring areas where herbicides have been applied.

The most important component of the IPM policy is the annual reporting requirement that details when and where herbicides have been applied in the past year and will be applied in the coming year, what herbicide was used, quantities used, and the success rate of the application, if possible. In addition to the mandated reporting requirements, the proposed exemption for the Wildfire Prevention Assessment District calls for the Fire Department to develop a vegetation management plan each year that is reviewed and approved by the Wildfire Prevention Assessment District Board and the City Council. The Wildfire Prevention Assessment District Board is a citizen advisory body responsible for developing a ten-year strategic plan for fuel reduction in the District. The vegetation management plan will allow staff to yearly map out the work required to meet the goals of the strategic plan. The plan will also contain a report detailing the use of herbicide over the past year, its impact on fuel reduction efforts and report new, non-native plants threatening the District. The success of the proposed policy can be measured by a reduction in the use of herbicides each year and the resurgence of native plant species that are more fire resistant and provide forage and habitat for wildlife.

Herbicide Formulations and Application

The exemption will be limited to the use of two herbicides – glyphosate (in formulations such as Roundup or Rodeo) and triclopyr (in formulations such as Garlon and Pathfinder). These are federally- and California-registered pesticides for the control of woody plant species and broad leaf plants in right of ways, forests, open space parks, ditch banks and maintenance of wildlife corridors. The U.S. Environmental Protection Agency categorically ranks herbicide toxicity on a scale of one to four as follows: Category One – highly toxic; Category Two – moderately toxic; Category Three – Slightly Toxic; Category Four – Not Acutely Toxic. Both glyphosate and triclopyr have received the lowest ranking for toxicity or a Category Four. In accordance with the city's IPM policy and BMPs, the choice of formulation for each type of application will be determined based on environmental factors as well as the product's capabilities.

When herbicides are needed for vegetation control, best management practices call for direct application to the plant or tree either by hand painting or hand applying the herbicide directly on to the cambium of the freshly cut tree or plant stump. When

glyphosate and triclopyr are applied in this manner, the herbicide is absorbed within the plant or tree's system and does not migrate into the surrounding soil.

Glyphosate and triclopyr will only be used when conditions and BMPs demonstrate that a chemical treatment would be the most effective approach and will only be applied to the list of plants previously identified in this report and those new non-native plants that may be identified in the Wildfire Prevention Assessment District's yearly report.

Environmental Impact

SUSTAINABLE OPPORTUNITIES

Economic: Giving the Oakland Fire Department a cost effective tool to control flammable non-native vegetation will prevent the destruction of homes and property.

Environmental: The goal of the proposed policy is to enhance fire prevention efforts and encourage the growth of native vegetation. Fires create severe toxic pollution damaging local streams and wildlife. Native trees and plants are more fire resistant and provide forage and habitat for wildlife.

Social Equity: Fire prevention equally benefits every member of the community. The ongoing effort to reduce the fuel load within the Wildfire Prevention Assessment District reduces the risk of a major fire spreading throughout the city following another firestorm such as the City experienced in 1991 or after a major earthquake on the Hayward Fault, which runs through the length of the Wildfire Prevention Assessment District.

DISABLED AND SENIOR ACCESS

Much of the city-owned land focused in this report consists of non-landscaped, undeveloped properties that are not wheelchair accessible.

RECOMMENDATION

That the City Council approve the attached resolution authorizing a limited exemption to the Integrated Pest Management Policy to use herbicides on City-owned land in the Wildfire Prevention Assessment District and other City properties identified by the Fire Marshal as areas of high fire hazard.

Respectfully submitted,

Jean Quan
Councilmember, District 4

Appendix 1

OAKLAND CITY COUNCIL

RESOLUTION NO. _____ C. M. S.

REVISED

INTRODUCED BY COUNCILMEMBER _____



RESOLUTION ADOPTING INTEGRATED PEST MANAGEMENT POLICIES FOR THE CITY OF OAKLAND

WHEREAS, the City recognizes that population levels of certain plants, insects, plant pathogens, vertebrates, and other pests may create a nuisance or threaten the public health and safety, and therefore need to be controlled; and

WHEREAS, the City recognizes that the use of pesticides can present a potential hazard to the citizens of Oakland, City staff and the environment, now therefore be it

RESOLVED: That City departments shall, to the fullest extent possible, adopt and implement Integrated Pest Management (IPM) techniques and methods as standard operating procedures to manage pest problems; and be it

FURTHER RESOLVED: That, effective January 1, 1998, pesticides shall not be used in or on City owned property or facilities, except as specifically exempted by this resolution; and be it

FURTHER RESOLVED: That the only exemptions to the ban on pesticides established herein are as follows:

1. In those instances where the use of pesticides is required to preserve and/or protect human health and safety;
2. The use of swimming pool chemicals, disinfectants, and other antimicrobials;
3. The use of pesticidal soaps, insect growth regulators, microbials, botanicals, synthetic pyrethroids, horticultural oils, and insecticidal bait stations;
4. At municipal golf courses (signage shall be provided warning golfers of the pesticides used, the location, and date of application);
5. At municipal putting and lawn bowling greens (with signage as per 4. above);
6. At the Morcom Rose Garden (with signage as per 4. above);
7. For weed control in the construction of new landscaping and ballfields (with signage as per 4. above);
8. In sports fields, to control gophers, moles, and ground squirrels;
9. In the Oakland Museum of California, to protect museum artifacts, artworks, and collections;

10. Around fire hydrants in selected areas where weed growth threatens to obscure them;
11. On public streets and rights-of-way maintained by the Public Works Agency; and be it

FURTHER RESOLVED: That exemption 1 above shall only apply to situations that conform to guidelines established by the Alameda County Health Agency, and that herbicide usage is not exempted by exemption 6 above; and be it

FURTHER RESOLVED: That when the use of any pesticide is determined to be necessary, the least hazardous effective available pesticide will be used; and be it

FURTHER RESOLVED: That category 1 pesticides shall not be used on any City property except for the use of aluminum phosphide on sports fields for vertebrate control; and be it

FURTHER RESOLVED: That only pesticides that are approved and registered with the Environmental Protection Agency and by the State of California will be used; and be it

FURTHER RESOLVED: That if contractors are used to apply pesticides, they must be licensed by the State of California as Pest Control Operators; and be it

FURTHER RESOLVED: That public notification of pesticide use be done through signage of areas being treated, marker dyes in sprays, and public education programs; and be it

FURTHER RESOLVED: That City employees are not to bring pesticides from home for use on City property. This includes pesticides that are packaged for home use; and be it

FURTHER RESOLVED: That each City agency have a person designated to be responsible for coordinating pest control issues; and be it

FURTHER RESOLVED: That the Citizens' IPM Advisory Committee shall continue to advise the City Council on pest control practices.

I certify that the foregoing is a full, true and correct copy of a Resolution passed by the City Council of the City of Oakland, California.

on _____

CEDA FLOYD
City Clerk and Clerk of the Council

Per _____ Deputy

Appendix 2

City of Oakland
Integrated Pest Management Plan

May 1996

TABLE OF CONTENTS

Citywide IPM Plan

Introduction	2
Goals & City Policies.....	3
Implementation Structure	5
Development of Pest Control Strategies.....	6
Pest Control Procedures	9
1. Monitoring	9
2. Action Threshold Reached	9
3. Initiate Appropriate Control Measure.....	9
A. Pest Control Recommendation	9
B Public Notification.....	10
a. Media and Neighborhood Notification	10
b. Signs	10
Buildings.....	10
Parks & Other Landscaped Areas	13
Median Strips	19
Fire Hydrants	19
Chabot Golf Course.....	19
Lake Merritt.....	23
Vehicles	25
c. Dye Markers	29
C. Pesticide Purchasing.....	29
D. Pesticide & Pesticide Container Disposal.....	29
E. Record Keeping.....	29
F. Evaluation	29
Training & Certification.....	30
Public Outreach.....	30
Use Reports	30
1. Monthly Reports.....	30
2. Yearly Reports.....	31

Departmental IPM Plans

Office of Fire Services IPM Plan.....	33
Office of Parks, Rec., and Cultural A. & Office of Public Works Structural IPM Plan.....	37
Office of Parks, Rec., and Cultural Affairs IPM Plan for Lake Chabot Golf Course..	45
Office of Parks, Rec., and Cultural Affairs IPM Plan for Parks, Median Strips, & ...	55
Office of Public Works IPM Plan.....	73

Introduction

Integrated pest management (IPM) is a pest management strategy that focuses on long-term prevention or suppression of pest problems with minimum impact on human health, the environment, and nontarget organisms. Preferred pest management techniques include encouraging naturally occurring biological control, using alternate plant species or varieties that resist pests, selecting pesticides with a lower toxicity to humans or nontarget organisms; adoption of cultivating, pruning, fertilizing, or irrigation practices that reduce pest problems; or changing the habitat to make it incompatible with pest development. Broad spectrum pesticides are used as a last resort when careful monitoring indicates they are needed according to preestablished guidelines. When treatments are necessary, the least toxic and most target-specific pesticides are chosen. Implementing an integrated pest management program requires a thorough understanding of pests, their life histories, their environmental requirements and natural enemies as well as establishment of a regular, systematic program for surveying pests, their damage and/or other evidence of their presence. ["Establishing Integrated Pest Management Policies and Programs: A Guide for Public Agencies"; Flint, Daar, & Molinar]

The City of Oakland embraced Integrated Pest Management (IPM) principles on February 3, 1981 when it adopted Resolution No. 59482 C.M.S. Since that time, City staff has been informally using these principles. To further advance the use of IPM principles, this citywide IPM plan has been developed. It specifies the procedures that City staff uses to control pests. This provides a reference for pest control experts, city staff, and the citizens of Oakland from which to make comments, criticisms, or recommendations. Therefore, this document will be amended as suggestions are adopted, new pest control techniques are developed, new pests present themselves, old pests present new problems, or other concerns are expressed.

This IPM plan is divided into two major sections. The first section is the portion that defines the IPM plan from a citywide perspective. This section presents the procedures that the departments which are responsible for pest control will follow to develop their own IPM plans, and how these departmental plans are integrated into the citywide IPM plan. The second section presents the IPM plans for each of the departments.

Goals & City Policies

1. Whenever feasible, pesticides will not be used when an effective alternative is available that does not involve the use of pesticides.
2. When a pesticide is determined to be necessary, the least hazardous pesticide available that will provide an adequate level of control will be used.
3. Only category 2, 3, and 4 pesticides will be used. (Category 1 pesticides are considered the most toxic, and category 4 pesticides are considered the least toxic.)
4. Pesticides that are designated by the State of California as Restricted Pesticides will only be used when a non-restricted pesticide will not provide an acceptable level of control. Restricted pesticides are pesticides that present a particular hazard, so the State of California requires a special permit to use them.
5. Only pesticides that are approved and registered with the Environmental Protection Agency and by the State of California will be used.
6. All federal and state laws that pertain to the safe use of pesticides will be adhered to.
7. All instructions on the label of the pesticide will be followed. This includes instructions on:
 - A. proper mixing procedures,
 - B. the proper use of the pesticide,
 - C. the proper disposal of empty containers and any unused material.
8. Only City employees who have a current Qualified Pesticide Applicator Certificate will apply pesticides. The only exception to this will be the use of Roundup in 3 gallon tanks.

If contractors are used to apply pesticides, they must be licensed by the State of California as Pest Control Operators. State law requires that employee's of these companies be properly trained in each pesticide that they are to mix or apply.

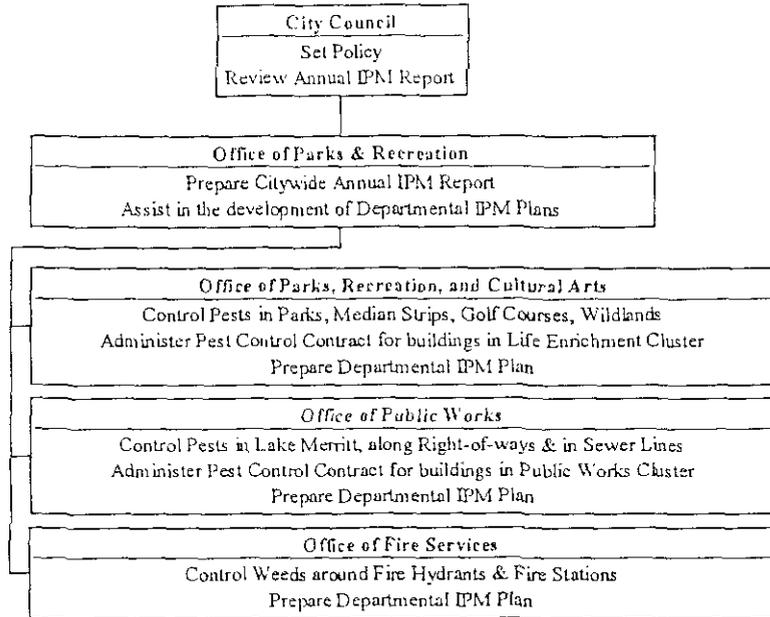
City employees are not to bring pesticides from home for use on city property. This includes pesticides that are packaged for home use.

9. An employee will receive training in the proper use of a pesticide before he or she can use that pesticide. This specific training will be conducted on an annual basis, and will be one part of the state mandated annual training on the safe and effective use of pesticides that all employees who use pesticides are required to participate in.

- 10 For Pest control actions that take place in parks, golf courses, median strips, right-of ways, and any other area that is considered an agricultural use by the State of California, a Pest Control Recommendation will be prepared by a Pest Control Adviser who is licensed by the State of California.

11. In an effort to reduce pesticide use, a target reduction of 5% per year has been established. The basis for monitoring pesticide usage will be the weight of the active ingredient of the pesticide.

Implementation Structure



Development of Pest Control Strategies

Summary

Before pest control operations can be conducted against any pest, a pest control strategy must exist for that pest. This strategy will specify:

1. The pest to be controlled,
2. The location,
3. The host (if applicable),
4. Action thresholds,
5. Approved methods of control.

If an applicable control strategy does not exist one must be developed before pest control operations can begin.

Development of Pest Control Strategies

Each department will develop and update their own pest control strategies for the pests that affect them. As available resources permit, the Office of Parks, Recreation, and Cultural Affairs will provide some technical assistance in the development of these strategies.

These strategies will specify:

1. The Pest,

The pest should be identified as specifically as is reasonable. Scientific and common names are acceptable, but if scientific names are used common names should also be noted to make the strategy as understandable as possible. As an example, identifying the pest as argentine ants is preferable to identifying it as ants, and the scientific name (*Iridomyrmex humilis*) could be included for completeness.

2. The Location,

The location should also be identified as specifically as is reasonable. It should either specify a location by name or by type of facility. Some examples would be, City of Oakland Service Center, City maintained buildings, Lakeside Park Show Gardens, or City of Oakland parks. The more specific names would be used when the pest only occurs at that location.

3. The Host (Not always applicable),

The host is the organism that the pest lives on. An example of a host would be a dog for fleas. Dogs are the host, and fleas are the pest.

4. Action Thresholds,

An action threshold is an observable condition that must be present before a pest control measure can be initiated. The action threshold is calculated to initiate a pest control method when it will be effective in keeping the pest population below an injury level.

A pest is only a problem if it causes a significant amount of damage. An insect pest that only eats one leaf off of a tree is not a problem, but if the pest ate 50% of the leaves of a tree, then it might be considered a problem. The amount of damage that a pest must cause before it is considered a problem is the injury level. The **injury level** is then used to determine the **action threshold**. The action threshold should take into account, the pests' natural population fluctuations, the pests' natural enemies, the time needed for the control measure to take effect, etc. To help develop these action thresholds, scientific literature, monitoring of the pest, staff experience, and any other applicable resources should be consulted.

Typical action thresholds include:

- A. Observing the pest in a specified abundance (e.g. 4 fleas found on the dog when doing a weekly inspection)
- B. Observing a specified amount of damage from a pest (e.g. 50% of the leaves of a tree are eaten)
- C. Observing a specified temperature & humidity conditions which create an environment suitable for fungal infections.

5. **Approved Methods of Control**

An action threshold is determined for a specific method of control. This is because different control methods can be more effective under different conditions, and because a control method that has few or no adverse effects can and should be initiated before a control method with more adverse effects is initiated. Approved methods should only include those practices in which the benefits of that action outweigh any potential adverse affects. Adverse affects include the time and cost involved to perform the control action, inconvenience to the public, health concerns, environmental concerns, etc. If no method can be found that meets this criteria, then the only approved method should be "no action" until an acceptable method of control is developed.

It is advisable to develop as many methods of control as possible. This helps keep any adverse affects from accumulating and the pest from becoming resistant to any one form of control. It also gives the most number of options to best meet any particular situation. All potential methods of control should be considered not just chemical ones. **Non-chemical control methods include:**

A. Cultural Practices

Cultural practices are those measures that are taken to alter the environment to be beneficial to the host and detrimental to the pest. Cultural practices in a park setting, include things like watering, fertilizing, pruning and mulching. For the dog and flea example, proper grooming can help reduce flea problems, and different grooming techniques can be initiated when fleas are a problem. A large number of pest problems can be avoided if proper sanitation practices are followed in the storage, consumption, & disposal of food (See page 40).

B. Biological Control

Biological Control involves introducing an organism that preys on the pest. Ladybird Beetles are sometimes released in an attempt to control aphid populations. Biological control is usually most effective in controlling pests that have been introduced to our area from another location. The medfly is an example of an introduced pest.

C. Mechanical Control

Mechanical Control involves physically manipulating the pest, the host, or the environment. This includes measures like picking the fleas off the dog, hand weeding, and mowing or plowing weeds under the soil.

Pest Control Procedures

This section describes the procedure that must be followed before a pest control operation can be initiated.

1. Monitoring

Monitoring is an integral part of any IPM plan. Since initiation of a pest control operation depends on observing when an action threshold is reached, monitoring of the environment is necessary to observe when it occurs. Monitoring and careful record keeping can also provide valuable data on the effectiveness of pest control actions and pest population fluctuations. Observations of the pests environment and health of the host is also helpful. Modifications of the environment can help to deter pest problems. A healthy landscape plant is less likely to be attacked by a pest than an unhealthy plant. Therefore proper pruning, fertilizing, watering and other cultural practices can help reduce the necessity of other pest control measures. Some of these cultural measures can be included as approved methods of control for control of a pest.

2. Action Threshold Reached

When the action threshold is reached for a particular pest, the associated method of control can be initiated.

3. Initiate Appropriate Control Measure

A. Pest Control Recommendation

For control measures that take place in parks, golf courses, median strips, right-of ways, and any other area that is considered an agricultural use by the State of California, a Pest Control Recommendation is required. This Recommendation is written by a Pest Control Adviser who is licensed by the State of California. If the department performing the pest control operation does not have a current Recommendation for the planned method of control, a new Recommendation must be acquired.

Currently, the Office of Parks, Recreation, and Cultural Affairs is the only department in the City that has a licensed Pest Control Adviser on staff. Therefore, the Office of Parks, Recreation, and Cultural Affairs will provide these recommendations to other departments as time and resources permit. It is the responsibility of the department requesting the recommendation that their recommendations are up to date, and that all information necessary to complete the recommendation is supplied to the Office of Parks, Recreation, and Cultural Affairs. It is also the requesting departments responsibility to ensure that all the procedures on the recommendation, on the label, and in applicable State and Federal laws are followed.

B. Public Notification

To ensure that the public and city staff are aware of what pesticides are being used in their vicinity, the following public notification procedures must be followed by City staff and contractors performing pest control operations for the City. There are three types of notification that can be required:

- a. media and neighborhood notification
- b. public notification signs
- c. blue dye in liquid pesticides.

a. Media and Neighborhood Notification

For all large scale pesticide application which are pre-scheduled (e.g. right-of-way, street median weed control programs, and Lake Merritt algae control), press releases shall be issued and public notices posted in local newspapers, on KTOP, and on CityLine; such notices shall also be distributed to neighborhood organizations in the affected areas. Such notices shall include the locations and dates of proposed pesticide applications, a description of the pesticides being used, and phone numbers for obtaining more information or reporting problems.

b. Signs

BUILDINGS

When pest control operations will be conducted inside of a building, public notification signs will be posted as described below. Signs do not have to be posted for the use of poisonous baits and traps as their effect is localized.

1. Signs shall be posted at least 3 working days prior to any pesticide application, and shall remain posted for at least 24 hours after the application or until the reentry period has elapsed (whichever is longer).
2. The signs shall:
 - A. Be at least 8.5" x 11".
 - B. Be printed on a bright red background.
 - C. Include the following information:
 - a. The date the pesticide will be applied.
 - b. The location(s) within the building that is to be treated.
 - c. The problem pest(s).
 - d. The pesticide(s) that is to be used.
 - e. The reentry period that is specified on the pesticide label.
 - f. A phone number to call for more information or concerns.
 - D. Have the Material Safety Data Sheet (MSDS) for the pesticide(s) attached to the sign.
 - E. The date and time shall be added to the sign when the pesticide is applied.
3. The signs shall be posted at all entrances to the building.

There is a sample sign on the following page. It can be copied onto red paper, properly filled out with the MSDS attached, and used as a public notification sign.

Public Notice of Pesticide Application

A Pesticide will be applied in this building. The Material Safety Data Sheet (MSDS) is attached to this notice.

Planned Application Date: _____

Location(s): _____

Pest being Controlled: _____

Pesticide(s) to be Used: _____

Reentry Period: _____

For More Information Call: _____

This information is to be completed when the pesticide is applied.

Application Date: _____

Application Time: _____

PARKS & OTHER LANDSCAPED AREAS

When pest control operations will be conducted in a park, vacant lot, public path, roadsides, or in the landscaped area surrounding City owned buildings, public notification signs will be posted as described below.

1. Signs shall be posted 24 - 72 before the pesticide application is started, and shall remain posted for at least 24 hours after the application or until the reentry period has elapsed (whichever is longer).
2. The signs shall:
 - A. Be at least 11" x 17".
 - B. Be printed on a bright red background.
 - C. Include the following information:
 - a. The date & time of the pesticide application.
 - b. either i or ii
 - i. The **location(s)** within the park that is to be treated.
 - ii. A notification that **blue dye** is in the pesticide to indicate where it has been applied.
 - c. The problem pest(s).
 - d. The pesticide(s) that is to be used.
 - e. The reentry period that is specified on the pesticide label.
 - f. A phone number to call for more information or concerns.
3. The signs shall be located as follows:
 - A. **Parks**

The signs shall be posted at all sidewalks & paths that enter the area being treated, and at any other location where people would normally enter the area being treated.
 - B. **Vacant Lots**

The signs shall be posted on each side of the property that is bordered by a street or sidewalk.
 - C. **Public Path**

The signs shall be posted at each end of the public path and at any other public entrances to the path.
 - D. **Roadsides**

The signs shall be posted at each end of a block the roadside spans, or at each end of the roadside if it does not span a block and it is more that 100' wide. If the roadside is 100' wide or less one sign is required.
 - E. **Landscaped Areas Surrounding Public Buildings**

The signs shall be posted at all sidewalks & paths that enter the area being treated, and at any other location where people would normally enter the area being treated.

There are two sample signs on the following four pages. The first sign is for situations where blue dye is not used, and the second sign is for situations where blue dye is used. Since the signs are 11" x 17", they span two pages of this document. Signs on a single 11" x 17" piece of paper can be obtained from Art Yamashita of the Office of Parks, Recreation, and Cultural Affairs (615-5850). These full sized signs can be copied onto red paper, properly filled out, and used as public notification signs.

Public

Pesticide /

Application Date: _____

Location(s): _____

Pest(s) being Controlled: _____

Pesticide(s) to be Used: _____

Reentry Period: _____

For More Information Call: _____

Notice

f

pplication

Time: _____

Public

Pesticide

A Pesticide is being applied
contains a blue dye to indicate

Application Date: _____

Pest(s) being Controlled: _____

Pesticide(s) to be Used: _____

Reentry Period: _____

For More Information Call: _____

Notice

f

pplication

in this area. The pesticide
where it has been applied.

Time: _____

MEDIAN STRIPS

People do not usually frequent median strips. Therefore, if a walkway or path does not enter a median strip, signs are not usually required unless the pesticide label specifies that posting is required. However, blue dye shall be mixed with all liquid pesticides to indicate what areas have been sprayed.

If a walkway or path enters a median strip, signs shall be posted as specified in the Parks & Other Landscaped Areas section (p. 13). The signs shall be posted at all sidewalks & paths that enter the area being treated, and at any other location where people would normally enter the area being treated.

FIRE HYDRANTS

Signs are not required when applying Roundup around fire hydrants. However, blue dye shall be mixed with the spray to indicate what has been sprayed.

CHABOT GOLF COURSE

When pest control operations will be conducted at Chabot Golf Course, public notification signs will be posted as described below.

1. Signs shall be posted before the pesticide application is started, and shall remain posted for at least 24 hours after the application or until the reentry period has elapsed (whichever is longer).
2. The signs shall:
 - A. Be at least 11" x 17".
 - B. Be printed on a bright red background.
 - C. Include the following information:
 - a. The date & time of the pesticide application.
 - b. The **location(s)** that is to be treated.
 - c. The *problem pest(s)*.
 - d. The pesticide(s) that is to be used.
 - e. The reentry period that is specified on the pesticide label.
 - f. A phone number to call for more information or concerns.
3. The signs shall be posted at the first tee of the golf course.

There is a sample sign on the following two pages. Since the sign is 11" x 17", it spans two pages of this document. Signs on a single 11" x 17" piece of paper can be obtained from Art Yamashita of the Office of Parks, Recreation, and Cultural Affairs (615-5850). These full sized signs can be copied onto red paper, properly filled out, and used as public notification signs.

Public

Pesticide A

Application Date: _____

Location(s): _____

Pest(s) being Controlled: _____

Pesticide(s) to be Used: _____

Reentry Period: _____

For More Information Call: _____

Notice of Application

Time: _____

LAKE MERRITT

1. Signs shall be posted at least 24 hours prior to the pesticide application, and shall remain posted for at least 24 hours after the application or until the reentry period has elapsed (whichever is longer).
2. The signs shall:
 - A. Be at least 8.5" x 11"
 - B. Be printed on a bright red background.
 - C. Include the following information:
 - a. The date the pesticide will be applied.
 - c. The problem pest(s).
 - d. The pesticide(s) that is to be used.
 - e. The reentry period that is on the pesticide label.
 - f. A phone number to call for more information or concerns.
 - D. The date and time shall be added to the sign when the pesticide is applied.
3. Signs shall be posted at:
 - A. The Sailboat House boat rental window.
 - B. The Rowing Club boat storage facilities at 1520 Lakeside Drive.
 - C. The entryway of the Parks, Recreation, and Cultural Affairs offices at 1520 Lakeside Drive.

There is a sample sign on the following page. It can be copied onto red paper, properly filled out, and used as a public notification sign.

Public Notice of Pesticide Application

A pesticide will be applied to Lake Merritt for the control of algae.

Planned Application Date: _____

Pesticide(s) to be Used: _____

Reentry Period: _____

For More Information Call: _____

This information is to be completed when the pesticide is applied.

Application Date: _____

Application Time: _____

VEHICLES

Whenever a pesticide is being applied from a vehicle (e.g. truck, trailer, or utility cart), the vehicle shall display a sign on each side and rear of the vehicle. The signs shall:

- A. Be at least 11" x 17" unless this size sign would interfere with the proper use of the spray equipment. In no case will the sign be smaller than 8.5" x 11".
- B. Be printed on a bright red background.
- D. State that the vehicle is being used to apply pesticides and display a phone number to call for information or concerns. (Note: additional information is not recommended because it will not be readable on a moving vehicle).

There is a sample sign on the following two pages. Since the sign is 11" x 17", it spans two pages of this document. Signs on a single 11" x 17" piece of paper can be obtained from Art Yamashita of the Office of Parks, Recreation, and Cultural Affairs (615-5850). These full sized signs can be copied onto red paper, properly filled out, and used as public notification signs.

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c. Dye Markers

All outdoor liquid pesticide applications will use a blue dye marker to indicate exactly where pesticide materials have been applied. The only exceptions to this requirement shall be for golf course tees, greens and fairways, and on flowering plant material where blue dye would significantly detract from the visual aesthetics of the plant material (e.g. roses at the Morcom Rose Garden).

C. Pesticide Purchasing

All purchasing of pesticides must be done with the approval of the applicable department's designated Pest Control Officer. No other person should be authorized to approve the purchase of any pesticide. Employees are not to bring pesticides from home for use on city property. This includes pesticides that are packaged for home use.

D. Pesticide & Pesticide Container Disposal

- a. Unused pesticides and empty pesticide containers will only be done at disposal sites approved by the Alameda County Agricultural Commissioner's Office.
- b. All empty containers that previously contained concentrated liquid pesticides are to be triple rinsed before disposal. The rinsate is to be added to the spray tank as part of the water used to dilute the pesticide.
- c. All disposal procedures on the pesticide label and required by law will be adhered to.

E. Record Keeping

Records are to be kept of all pesticide applications done by City staff and contractors. The records are to include:

- a. the date of the application
- b. the brand name of the pesticide
- c. the amount of pesticide used
- d. the concentration of the pesticide used
- e. the name of the applicator or contractor's name
- f. where the pesticide was applied
- g. when applicable, the size of the area treated.

These records are to be sent to the Pest Control Officer of the Office of Parks, Recreation, and Cultural Affairs by the end of the following month.

By State law, records of this same information are required to be kept for two years and a monthly summary is required to be sent to the Alameda County Agricultural Commissioner's Office for applications done by City staff.

F. Evaluation

As part of the regular monitoring program, the effectiveness of the treatment should be evaluated to help make future treatments more effective.

Training & Certification

1. Pesticide Applicators

Only City employees who have a current Qualified Pesticide Applicator Certificate will apply pesticides. The only exception to this will be the use of Roundup in 3 gallon tanks. Roundup when mixed and applied from 3 gallon tanks may be applied by city employees who have received annual training in its proper use.

To obtain a Qualified Pesticide Applicator Certificate, one has to pass a series of tests given by the State of California. Qualified Pesticide Applicator Certificate holders also have to complete 20 hours of additional training every 2 years.

All employees who apply pesticides will be required to receive annual training on the proper use of pesticides, and will receive specific training on the proper use of each type of pesticide they will use. An employee will not apply pesticides unless he or she has received this training.

If contractors are used to apply pesticides, they must be licensed by the State of California as Pest Control Operators. State law requires that employee's of these companies be properly trained in each pesticide that they are to mix or apply.

2. Pest Control Advisors

For control measures that take place in parks, golf courses, median strips, right-of ways, and any other area that is considered an agricultural use by the State of California, a Pest Control Recommendation is required. This Recommendation is written by a Pest Control Adviser who is licensed by the State of California. To be eligible for this license, one has to meet stringent educational requirements and pass a series of tests given by the State of California. To maintain this license, a Pest Control Advisor has to complete 40 hours of training every 2 years.

Public Outreach

As materials and resources become available, an effort will be made to provide the Citizens of Oakland with material that will assist them to decide when to use pesticides, how to properly use pesticides if they are to be used, and how to understand the information that is continued on a pesticide label. This material will also include information on alternatives to pesticides and other pest control methods.

Use Reports

1. Monthly Reports

The Office of Public Works and the Office of Fire Services will prepare a monthly report of all pesticides used by their respective departments and contractors. The report will list for each application:

- A. the date of the application
- B. the brand name of the pesticides used
- C. the amount of pesticide used
- D. the concentration of the pesticide used
- E. the name of the applicator or contractor's name
- F. where the pesticide was applied
- G. when applicable, the size of the area treated.

This report is to be sent to the Pest Control Officer of the Office of Parks, Recreation, and Cultural Affairs by the end of the following month.

By State law, records of this same information are required to be kept for two years and a monthly summary is required to be sent to the Alameda County Agricultural Commissioner's Office for applications done by City staff.

2. Yearly Reports

The Office of Parks, Recreation, and Cultural Affairs will use the monthly reports provided to it by the Office of Public Works and the Office of Fire Services to prepare a report for City Council. This report will include:

- A. detailed pesticide usage data,
- B. the reduction in pesticide use and how well the target of a 5% yearly reduction was met,
- C. discussions of methods being used to reduce pesticide usage by City departments,
- D. an update of this *IPM Plan*.

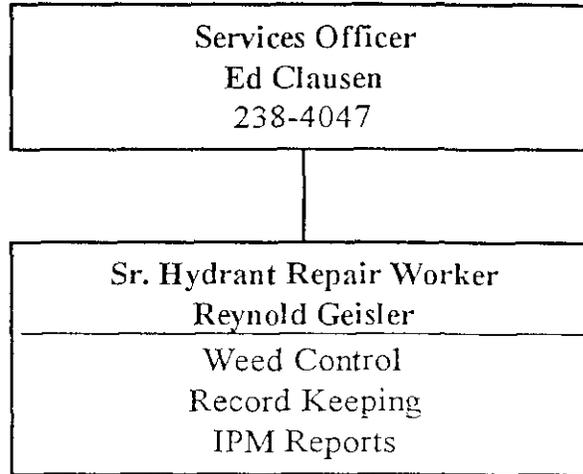
This report will also be presented to the Alameda County Agricultural Commissioner's Office for its comment and review.

City of Oakland
Office of Fire Services

Integrated Pest Management Plan

May 1996

Implementation Structure



Persons Authorized to Perform Pest Control Activities

Only employees who have a current Qualified Pesticide Applicator Certificate will apply pesticides. City employees are not to bring pesticides from home for use on city property. This includes pesticides that are packaged for home use.

Weeds Around Fire Hydrants in the Oakland Hills

Location/Host	Action Threshold	Action
The area surrounding a fire hydrant that is: 1. 15' from the Fire Hydrant 2. Between the Fire Hydrant & the Street	50% of the area covered with weeds that are 1' or more in height.	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

In the hills of Oakland, the area around fire hydrants needs to be kept relatively free of weeds. Weeds in this area can become large enough to obscure the hydrant from view which makes it difficult to find and use when it is needed for fire control. The fire hydrant needs to be visible from the street so fire crews can easily find them. The area around the fire hydrant also needs to be kept clear for proper operation of the hydrant. Weeds are primarily a problem in the hills area.

The areas around fire hydrants are *not* currently mulched. Hydrants that could benefit from mulch around them need to be identified and mulched as time and resources permit. Mulching helps to keep weed seeds from germinating, and thus reducing the need for pesticide applications.

When weed control is necessary, mechanical control is the preferred alternative.

Weeds Around Fire Stations

Location/Host	Action Threshold	Action
Areas of Bare Ground	Mulch is less than 4" thick.	Replenish mulch to a 6" or greater depth.
	Weeds cover 25% of the surface of the ground.	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

There are some areas of bare ground around fire stations that occasionally need weed control. These areas are not currently covered with mulch. As time and resources permit these areas should be covered with mulched. Mulching helps to keep weed seeds from germinating, and thus reducing the need for pesticides.

When weed control is necessary, mechanical control is the preferred alternative.

City of Oakland
Office Of Parks, Recreation, and
Cultural Affairs
&
Office of Public Works

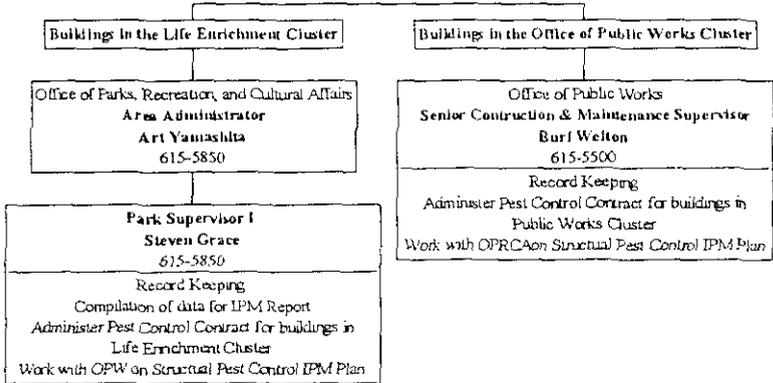
Structural Integrated Pest
Management Plan

May 1996

TABLE OF CONTENTS

IMPLEMENTATION STRUCTURE	39
PERSONS AUTHORIZED TO PERFORM PEST CONTROL ACTIVITIES .	40
GENERAL PRINCIPLES	40
ARACHNIDS	41
Black Widow Spiders	41
Other Spiders.....	41
INSECTS	42
Argentine Ants	42
Cockroaches.....	43
Fleas.....	43
Termites	43
VERTEBRATES	44
Rats & Mice	44

IMPLEMENTATION STRUCTURE



PERSONS AUTHORIZED TO PERFORM PEST CONTROL ACTIVITIES

The City uses contractors to apply pesticides for the control pests of buildings. The contractors must be licensed by the State of California as Pest Control Operators. State law requires that employees of these companies be properly trained in each pesticide that they are to mix or apply.

City employees are not to bring pesticides from home for use on city property. This includes pesticides that are packaged for home use.

GENERAL PRINCIPLES

Buildings are not a natural habitat for pests, but they can provide be attractive places for pests to live. Buildings can be made less attractive with proper sanitation and building maintenance.

1. Exclusion

Crack and crevices that pests can enter should be caulked or repaired. Window screens should be kept in good condition to keep out flying insects. These insects can be a pest themselves, but they also provide food for spiders which can also be a pest.

Pests can be unknowingly be brought into buildings by people. Potted plants, cut flowers, and other material should be inspected for insects or spiders.

2. Sanitation

Food should be properly stored and disposed of. Spills should be promptly cleaned up to prevent them from becoming food for pests. The areas around stoves, sinks, refrigerators, and other areas used for food preparation or consumption need to be kept clean. Garbage containers that are used to dispose of empty food containers or uneaten food need to be emptied frequently, and provided with a tight fitting lid. The area around dumpsters should be kept clean, and the lid should be kept closed.

ARACHNIDS

Black Widow Spiders

Location/Host	Action Threshold	Action
Inside of Buildings	A black widow spider is identified.	Apply an acaricide to the spider or its web.

It is unlikely that black widow spiders will be encountered. They are only found in dark locations. If a black widow is found, it is acceptable to use an acaricide. To be effective the acaricide must be applied directly to the spider or its web.

Other Spiders

Location/Host	Action Threshold	Action
Inside of Buildings	Spiders or webs are observed.	Vacuum the spider & its web.

Most spiders are harmless to people and are often beneficial, but they need to be controlled because their webs can be a nuisance and many people have an aversion to spiders. Pesticides are not usually necessary to control spiders. In most situations, mechanical removal, proper sanitation and building maintenance will keep them under control.

INSECTS

Argentine Ants

Location/Host	Action Threshold	Action
Food Preparation & Storage Areas	Ants are observed.	Wipe up ants with soapy water, and/or use insecticidal bait.
	A definable trail is observed.	Treat building's foundation, surrounding sidewalk cracks, and crawl space with an insecticide. If possible, only treat those areas near the food preparation areas.
Other Areas	A definable trail is observed.	Wipe up ants with soapy water, and/or use insecticidal bait.
	More than one definable trail is observed.	Treat foundation, sidewalk crack, and crawl space under building with an insecticide. If possible, only treat those areas near the ant trails.

Insecticides used indoors do not provide long term control. Insecticidal bait is taken to the nest, where it can be more effective. Soapy water can be used to get rid of ants that are an immediate problem.

Insecticides can be used outside of the building to provide a barrier to ant invasions. The foundation, cracks in pavement surrounding buildings, and the crawl space that is under some buildings are areas where an insecticide can help control ants. If ants are only a problem in a portion of a building, it may be possible to only treat the part of the building that is near the problem area.

Cockroaches

Location/Host	Action Threshold	Action
Food Preparation & Storage Areas	2 Cockroaches in any sticky trap.	Use insecticidal bait, or treat with an insecticide.
Other Areas	5 Cockroaches in any sticky trap.	Use insecticidal bait, or treat with an insecticide.

To determine when control of cockroaches is warranted, a system of monitoring is necessary. In areas where cockroaches are a known or suspected problem, sticky traps need to be put out to evaluate the problem. After 24 - 48 hours, if the number of cockroaches in any trap reaches the action threshold, either the use of insecticidal bait or treatment of the area with an insecticide is warranted. Where insecticidal bait may be effective it is the preferred alternative.

Fleas

Location/Host	Action Threshold	Action
Carpeted Floors.	When fleas are found.	Vacuum the area weekly or more frequently.
	2 weeks after initially spotting fleas, and carpet has been vacuumed at least 3 times.	Apply an insecticide.

Vacuuming is effective in controlling adult fleas, but termite larvae are resistant to being picked by the vacuum. Therefore, vacuuming must be repeated frequently. Fleas can survive in the vacuum bag, so the vacuum bag should be disposed of in a sealed plastic bag.

Termites

Location/Host	Action Threshold	Action
Wooden parts of Buildings	Evidence of termite activity is observed.	Replace damaged wood and treat with an insecticide.

When termites are found in the structure of a building, prompt action is required to prevent the termites from spreading throughout the building and causing significant damage. Any conditions that exist that make the structure susceptible to termite attacks need to be corrected.

VERTEBRATES

Rats & Mice

Location/Host	Action Threshold	Action
Inside of Buildings	Evidence of rats or mice is observed.	Put out traps or bait stations in the affected areas.

When rat or mouse control is necessary, traps are the preferred alternative.

City of Oakland
Office of Parks, Recreation, and
Cultural Affairs

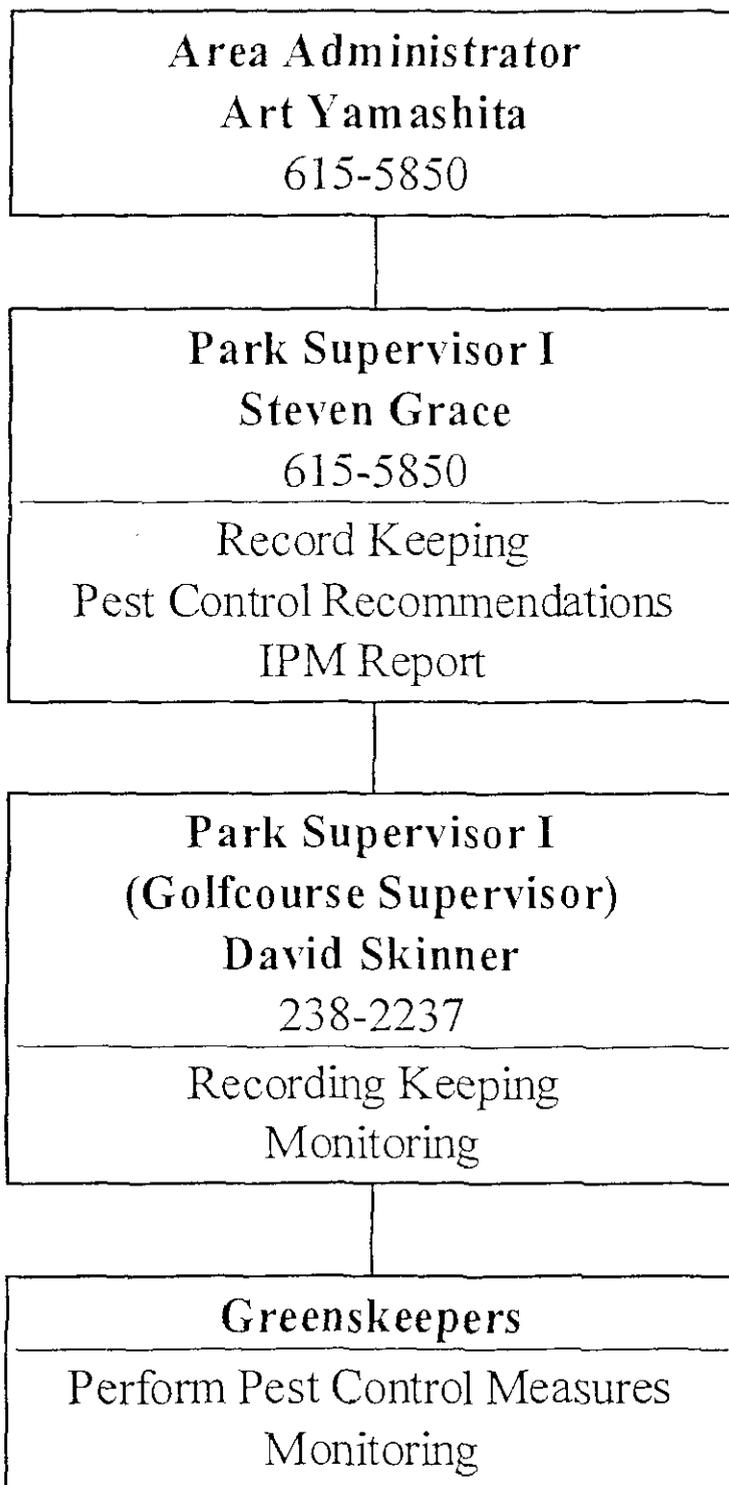
Integrated Pest Management Plan
for
Lake Chabot Golf Course

May 1996

TABLE OF CONTENTS

IMPLEMENTATION STRUCTURE	47
PERSONS AUTHORIZED TO PERFORM PEST CONTROL ACTIVITIES ..	48
PLANTS	48
Weeds in Mulched Bare Areas	48
Weeds in Unmulched Bare Areas	49
Turf Edges.....	49
Weeds Around Sprinkler Heads	50
Weeds in Paths & Roads.....	51
Broadleaf Weeds in Turf.....	52
FUNGI	53
Turfgrass Fungi	53
INSECTS	53
Sod Webworms	53
VERTEBRATES	54
Gophers & Ground Squirrels	54

Implementation Structure



PERSONS AUTHORIZED TO PERFORM PEST CONTROL ACTIVITIES

Only employees who have a current Qualified Pesticide Applicator Certificate will apply pesticides. City employees are not to bring pesticides from home for use on city property. This includes pesticides that are packaged for home use.

Pest control operations that take place in a golf course are considered to be an agricultural use by the State of California; therefore, A Pest Control Recommendation is required for all pest control operations. This Recommendation is written by a Pest Control Adviser who is licensed by the State of California. If a current Recommendation is not in effect for the planned method of control, a new Recommendation must be acquired from the Community Program Facilitator in charge of Integrated Pest Management.

PLANTS

Weeds in Mulched Bare Areas

Location/Host	Action Threshold	Action
Areas kept bare of vegetation.	Mulch is less than 4" thick.	Replenish mulch to a 6" or greater depth.
	Weeds cover 5% of the surface of the ground.	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

When weed control is necessary, mechanical control is the preferred alternative.

Weeds in Unmulched Bare Areas

Location/Host	Action Threshold	Action
Areas kept bare of vegetation.	Weeds cover 5% of the surface of the ground.	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

When weed control is necessary, mechanical control is the preferred alternative.

Turf Edges

Location/Host	Action Threshold	Action
<i>Turf Edges</i>		
Edges that can be edged with a mechanical edger.	Grass is growing in from edge 1".	Use a mechanical edger to maintain the edge.
Edges that cannot be edged with a mechanical edger.	Grass is growing in from edge 3".	Mechanically remove the encroaching grass, or spray the encroaching grass with Roundup in accordance with the current Pest Control Recommendation.

Turf edges that are overgrown are unsightly and can interfere with the activities of the adjoining area. Encroaching grass can decrease the width of a path, make valve covers and other access covers hard to open or can hide them altogether.

When weed control is necessary, mechanical control is the preferred alternative.

Weeds Around Sprinkler Heads

Location/Host	Action Threshold	Action
3" band around irrigation heads	Weeds (including grass) growing in at least 1" or are interfering with the sprinkler.	Mechanically remove the encroaching weeds, or spray the 3" band with Roundup in accordance with the current Pest Control Recommendation.

Weeds (including grass) are a constant problem around sprinkler heads. They interfere with the proper operation of the heads by not allowing the heads to pop up, the operating mechanism is stopped from moving, or the stream of water is obstructed. This results in the inadequate watering of turf. To combat this problem, a 2" - 3" band is kept free of weeds and encroaching grass.

When weed control is necessary, mechanical control is the preferred alternative.

Weeds in Paths & Roads

Location/Host	Action Threshold	Action
Cracks in paved paths & roads (asphalt or concrete)	Weeds cover 5% of the surface area.	Mechanically remove the weeds, or spot spray with Roundup in accordance with the current Pest Control Recommendation.
	Weeds are observed and Roundup is being used in adjacent areas.	Spot spray with Roundup in accordance with the current Pest Control Recommendation.
Unpaved paths (e.g. crushed rock)	Weeds cover 5% of the surface area.	Mechanically remove the weeds, or spot spray with Roundup in accordance with the current Pest Control Recommendation.

Weeds in paths and roads can be very unsightly and need to be controlled. Paving prevents weeds from becoming established, but when cracks develop, weeds appear. Just a few weeds can be very unsightly, but do not justify initiating a spray job in themselves. However, if Roundup is being sprayed in the area for another reason, it is appropriate to spot spray these weeds.

When weed control is necessary, mechanical control is the preferred alternative.

Broadleaf Weeds in Turf

Location/Host	Action Threshold	Action
Greens	Weeds cover 10% of the green.	Spray the green with a selective herbicide in accordance with the current Pest Control Recommendation.
Tees	Weeds cover 20% of the surface of the tee.	Spray the tee with a selective herbicide in accordance with the current Pest Control Recommendation.
Fairways	English Daisies cover 25% of the surface of the fairway.	Spray the fairway with a selective herbicide in accordance with the current Pest Control Recommendation.

FUNGI

Turfgrass Fungi

Location/Host	Action Threshold	Action
Greens & Tees	1 square foot of turf with symptoms of a fungal disease per 1000 square feet.	Spray the green with a fungicide in accordance with the current Pest Control Recommendation.
Fairways	50 square feet of turf with symptoms of a fungal disease per 1000 square feet.	Spray the green with a fungicide in accordance with the current Pest Control Recommendation.

The area with symptoms noted above can be made up of many smaller areas that add up to the required area size.

Once a fungal disease attacks, it can spread very quickly. For this reason a quick application of a fungicide is required. In an effort to prevent fungal outbreaks, a fertilizer with a fungicide as one of its ingredients is also being used. This fertilizer use is included in all IPM pesticide use reports.

INSECTS

Sod Webworms

Location/Host	Action Threshold	Action
Greens & Tees	3 square feet of turf with symptoms of sod webworms per 1000 square feet.	Spray the green with an insecticide in accordance with the current Pest Control Recommendation.

The area with symptoms noted above can be made up of many smaller areas that add up to the required area size.

VERTEBRATES

Gophers & Ground Squirrels

Location/Host	Action Threshold	Action
Greens, Tees, & Areas within 30 feet of a Green	1 gopher or ground squirrel hole in the green or tee.	Use traps or poison baits in accordance with the current Pest Control Recommendation.
Fairways	6 gopher or ground squirrel holes per thousand square foot area.	Use traps or poison baits in accordance with the current Pest Control Recommendation.

The holes created by gophers and ground squirrels create an extreme tripping hazard. For this reason, Park Services has a zero tolerance level for these pests on greens and tees.

When gopher or ground squirrel control is necessary, trapping is the preferred alternative.

City of Oakland
Office of Parks, Recreation, and
Cultural Affairs

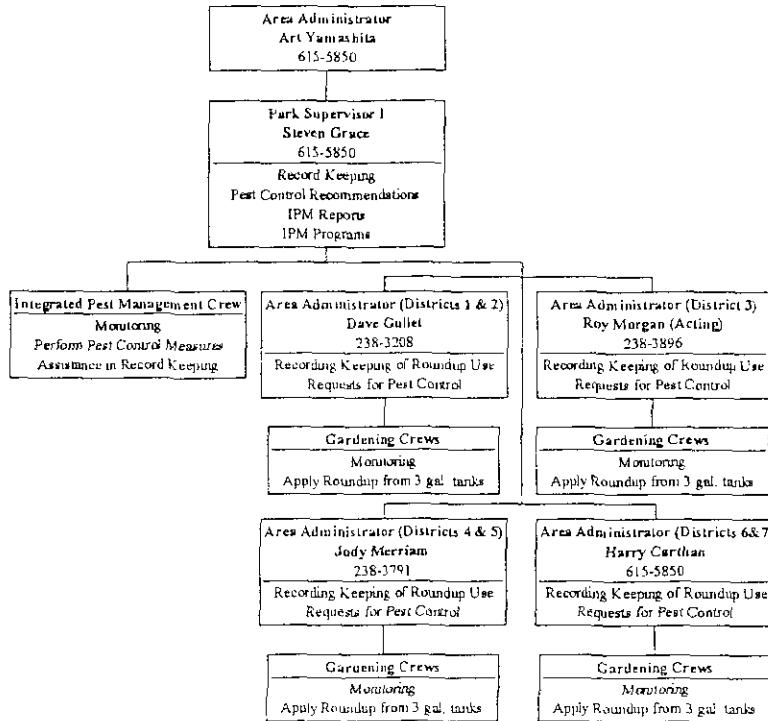
Integrated Pest Management Plan
for
Parks, Median Strips,
& Other Outdoor Facilities

May 1996

TABLE OF CONTENTS

IMPLEMENTATION STRUCTURE	57
PERSONS AUTHORIZED TO PERFORM PEST CONTROL ACTIVITIES ..	58
AREAS OF SPECIAL CONSIDERATION	58
Rotary Nature Center & Wildlife Refuge.....	58
PLANTS	59
Annual Bluegrass (<i>Poa annua</i>) in Bowling Greens.....	59
Broadleaf Weeds in Turf.....	59
Weeds in Mulched Bare Areas	60
Weeds in Unmulched Bare Areas.....	61
Turf Edges.....	61
Weeds Around Sprinkler Heads	62
Weeds in Paths & Roads.....	63
PLANT DISEASES	64
Turfgrass Fungi	64
Diseases on Bearded Iris.....	64
Powdery Mildew	64
Rust.....	65
Blackspot	65
MOLLUSKS	66
Snails.....	66
ARACHNIDS	67
Mites	67
INSECTS	68
Cutworms.....	68
Hornets & Wasps	68
Bees	69
Sucking Insects.....	69
VERTEBRATES	70
Gophers & Ground Squirrels	70
Rats & Mice	70
Cats.....	71

IMPLEMENTATION STRUCTURE



PERSONS AUTHORIZED TO PERFORM PEST CONTROL ACTIVITIES

Only City employees who have a current Qualified Pesticide Applicator Certificate will apply pesticides. The only exception to this will be the use of Roundup in 3 gallon tanks. Roundup when mixed and applied from 3 gallon tanks may be applied by city employees who have received annual training in its proper use. .

City employees are not to bring pesticides from home for use on city property. This includes pesticides that are packaged for home use.

For pest control measures that take place in parks, golf courses, median strips, right-of ways, and any other area that is considered an agricultural use by the State of California, a Pest Control Recommendation is required. This Recommendation is written by a Pest Control Adviser who is licensed by the State of California. If a current Recommendation is not in effect for the planned method of control, a new Recommendation must be acquired from the Community Program Facilitator in charge of Integrated Pest Management.

AREAS OF SPECIAL CONSIDERATION

Rotary Nature Center & Wildlife Refuge

Due to concern over the effect that pesticides may have on the waterfowl that utilize the wildlife refuge at the Rotary Nature Science Center in Lakeside Park, the following special precautions will be taken:

1. Any pesticide that is hazardous to waterfowl according to the pesticide's label or Material Safety Data Sheet (MSDS) will not be used in this area.
2. No Pesticides will be used in this area between March 1 and July 1. Only mechanical or cultural methods of pest control are to be used during this time. This is the time of year that these birds are nesting and raising their young. They are the most vulnerable at this time, and so an extra level of precaution is taken.

PLANTS

Annual Bluegrass (*Poa annua*) in Bowling Greens

Location/Host	Action Threshold	Action
Bermuda Grass Bowling Greens at Lakeside Park	Weeds cover 10% of the green.	Spray the greens in January with Roundup in accordance with the current Pest Control Recommendation.

The Lawn Bowling Greens are covered with a Bermuda Grass turf. This turf is invaded by Annual Bluegrass in the spring and fall. This weed creates bumps in the green that disrupt play. January is the ideal time to control this weed, because Roundup will control the Annual Bluegrass without significantly affecting the Bermuda Grass turf.

Broadleaf Weeds in Turf

Location/Host	Action Threshold	Action
Putting & Bowling Greens	Weeds cover 10% of the green.	Spray the green with a selective herbicide in accordance with the current Pest Control Recommendation.
Athletic Fields	Weeds cover 10% of the green.	Spray the field with a selective herbicide in accordance with the current Pest Control Recommendation.
Newly Established Turf	Weeds cover 7% of the green.	Spray the turf with a selective herbicide in accordance with the current Pest Control Recommendation.

Other Turf	Weeds cover 25% of the green.	Spray the turf with a selective herbicide in accordance with the current Pest Control Recommendation.
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Weeds in Mulched Bare Areas

Location/Host	Action Threshold	Action
Median Strips & other areas kept bare of vegetation.	Mulch is less than 4" thick.	Replenish mulch to a 6" or greater depth.
	Weeds cover 5% of the surface of the ground.	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

Weeds in median strips and other areas that are devoid of desirable vegetation need to be kept relatively free of weeds. Weeds contribute to the impression that the area is unkept which is not in accordance with the city's policy of maintaining a clean and aesthetically pleasing city.

When weed control is necessary, mechanical control is the preferred alternative.

Weeds in Unmulched Bare Areas

Location/Host	Action Threshold	Action
Median Strips & other areas kept bare of vegetation.	Fall & Spring: Weeds cover 1% of the surface of the ground.	Spray the area with a pre-emergent herbicide in accordance with the current Pest Control Recommendation.
	Weeds cover 5% of the surface of the ground.	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

Weeds in median strips and other areas that are devoid of desirable vegetation need to be kept relatively free of weeds. Weeds contribute to the impression that the area is unkept which is not in accordance with the city's policy of maintaining a clean and aesthetically pleasing city.

There are some areas that are not currently mulched but could be, these areas should be mulched as time and resources permit. Mulching helps to keep weed seeds from germinating, and thus reducing the need for pesticides.

Mechanical control is preferable to the use of Roundup.

Turf Edges

Location/Host	Action Threshold	Action
Turf Edges		
Edges that can be edged with a mechanical edger.	Grass is growing in from edge 1".	Use a mechanical edger to maintain the edge.
Edges that cannot be edged with a mechanical edger.	Grass is growing in from edge 3".	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

Turf edges that are overgrown are unsightly and can interfere with the activities of the adjoining area. Encroaching grass can decrease the width of a path, make valve covers and other access covers hard to open or can hide them altogether.

When weed control is necessary, mechanical control is the preferred alternative.

Weeds Around Sprinkler Heads

Location/Host	Action Threshold	Action
3" band around irrigation heads	Weeds (including grass) growing in at least 1" or are interfering with the sprinkler.	Mechanically remove the weeds, or spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

Weeds (including grass) are a constant problem around sprinkler heads. They interfere with the proper operation of the heads by not allowing the heads to pop up, the operating mechanism is stopped from moving, or the stream of water is obstructed. This results in the inadequate watering of turf. To combat this problem a 2" - 3" band is kept free of weeds and encroaching grass.

When weed control is necessary, mechanical control is the preferred alternative.

Weeds in Paths & Roads

Location/Host	Action Threshold	Action
Cracks in paved paths & roads (asphalt or concrete)	Weeds cover 5% of the surface area	Mechanically remove the weeds, or spot spray the weeds with Roundup in accordance with the current Pest Control Recommendation.
	Weeds are observed and Roundup is being used in adjacent areas.	Spot spray the weeds with Roundup in accordance with the current Pest Control Recommendation.
Unpaved paths (e.g. crushed rock)	Weeds cover 5% of the surface area.	Mechanically remove the weeds, or spot spray the weeds with Roundup in accordance with the current Pest Control Recommendation.

Weeds in paths and roads can be very unsightly and need to be controlled. Paving prevents weeds from becoming established, but when cracks develop, weeds appear. Just a few weeds can be very unsightly, but do not justify initiating a spray job in themselves. However, if Roundup is being sprayed in the area for another reason, it is appropriate to spot spray these weeds.

When weed control is necessary, mechanical control is the preferred alternative.

PLANT DISEASES

Turfgrass Fungi

Location/Host	Action Threshold	Action
Putting, Bowling, & Croquet Greens	1 square foot of turf with symptoms of a fungal disease per 1000 square feet.	Spray the green with a fungicide in accordance with the current Pest Control Recommendation.

Once a fungal disease attacks, it can spread across the green very quickly. For this reason a quick application of a fungicide is required.

Diseases on Bearded Iris

Location/Host	Action Threshold	Action
Bearded Iris	25% of the foliage is covered with signs or symptoms of fungal leaf spot or rust.	Spray the plants with a fungicide in accordance with the current Pest Control Recommendation.

When a bearded iris is attacked by fungal leaf spot or rust, it can quickly affect the whole plant making it unsightly. To keep this from happening, the plant needs to be sprayed with a fungicide.

Powdery Mildew

Location/Host	Action Threshold	Action
Morcom Rose Garden Roses and Lakeside Park Show Garden Flowers (e.g. Fuchsias and Dahlias)	10% of foliage with signs of mildew.	Spray the affected plants with a fungicide in accordance with the current Pest Control Recommendation.

Rust

Location/Host	Action Threshold	Action
Morcom Rose Garden Roses and Lakeside Park Show Garden Flowers (e.g Fuchsias and Dahlias)	25% of foliage with signs of rust.	Spray the affected plants with a fungicide in accordance with the current Pest Control Recommendation.

Blackspot

Location/Host	Action Threshold	Action
Morcom Rose Garden Roses	Spots ¼" in size.	Spray the affected plants with a fungicide in accordance with the current Pest Control Recommendation.

MOLLUSKS

Snails

Location/Host	Action Threshold	Action
Flats of annuals waiting to be planted.	Snails are observed in the course of other duties.	Pick snails off plants and mechanically destroy.
	½ % of plant material eaten.	Pick snails off plants and mechanically destroy, or apply snail bait in accordance with the current Pest Control Recommendation, or control by mechanical means.
Annual Flower Beds	Snails are observed in the course of other duties.	Pick snails off plants and mechanically destroy.
	5% of plant material eaten.	Apply snail bait in accordance with the current Pest Control Recommendation, or control by mechanical means.

While flats of annuals are waiting to be planted, they are very vulnerable to destruction by snails. The plants are young, succulent and growing very close together. Therefore, to prevent a massive loss of plants, the snails must be controlled when a very small level of activity is observed.

When snail control is necessary, mechanical control is the preferred alternative.

ARACHNIDS

Mites

Location/Host	Action Threshold	Action
Morcom Rose Garden Roses	Spring & Early Summer. 70% of roses with symptoms.	Spray all roses with an insecticide in accordance with the current Pest Control Recommendation.

INSECTS

Cutworms

Location/Host	Action Threshold	Action
Areas that are to be planted with annual flowers.	10 cutworms are found per sq. yrd. of area that is being prepared for planting.	Destroy the cutworms by mechanical means or with an insecticide in accordance with the current Pest Control Recommendation.

Hornets & Wasps

Location/Host	Action Threshold	Action
All areas maintained by the Office of Parks, Recreation, and Cultural Affairs.	A nest is observed within 10' of the ground.	Destroy the nest by mechanical means or with a pesticide in accordance with the current Pest Control Recommendation.
	A nest is observed on a building.	Destroy the nest by mechanical means or with a pesticide in accordance with the current Pest Control Recommendation.

Hornets, and Wasps present a significant hazard to the users of our parks. Their sting can cause a sore spot on most people and can be life threatening to others. Since these are colonial insects, they are concentrated in their nests. This makes the nest both the focal point of the hazard, and the ideal point of control. Nests that are within 10' of the ground or on a building pose the greatest hazard to the public.

When hornet or wasp control is necessary, mechanical control is the preferred alternative if it can be done safely.

Bees

Location/Host	Action Threshold	Action
All areas maintained by the Horticulture Section.	A hive is observed within 10' of the ground.	Contact one of the beekeepers on file, and have them remove the hive.
	A hive is observed on a building.	Contact one of the beekeepers on file, and have them remove the hive.

Even though bees are beneficial in the pollination of flowers, they must be controlled due to the hazard they present. Their sting can cause a sore spot on most people and can be life threatening to others. Since these are colonial insects, they are concentrated in their hives. This makes the hive both the focal point of the hazard, and the ideal point of control. Hives that are within 10' of the ground or on a building pose the greatest hazard to the public. There are local beekeepers who will remove hives for a fee. The use of this service allows us to control this pest without the use of pesticides.

Sucking Insects

Location	Action Threshold	Action
Lakeside Park Show Gardens, Morcom Rose Garden Roses	25% of foliage with symptoms from sucking insects or mites.	Use a pesticide in accordance with the current Pest Control Recommendation.

VERTEBRATES

Gophers & Ground Squirrels

Location/Host	Action Threshold	Action
Trafficked Areas and areas that surround them (e.g. Athletic Fields, and Lawns)	1 hole in an area of any size.	Use poison bait or traps in accordance with the current Pest Control Recommendation.
Non-trafficked Areas (e.g. shrub beds)	15 holes per thousand square foot area.	Use poison bait or traps in accordance with the current Pest Control Recommendation.

The holes created by gophers and ground squirrels create an extreme tripping hazard to park users in trafficked areas. For this reason, Park Services has a zero tolerance level for these pests in areas that the public would be walking or playing on. This same threshold is used for the surrounding area because these pests are very mobile and would soon be in the trafficked areas.

When gopher or ground squirrel control is necessary, trapping is the preferred alternative.

Rats & Mice

Location/Host	Action Threshold	Action
All outdoor areas maintained by the Office of Parks, Recreation, and Cultural Affairs	A rat or mouse is observed.	Use traps or poison bait in accordance with the current Pest Control Recommendation.

When rat or mouse control is necessary, trapping is the preferred alternative.

Cats

Location/Host	Action Threshold	Action
All areas maintained by the Office of Parks, Recreation, and Cultural Affairs	A cat is determined to be living in one of our parks.	Live trap and turn them over to one of the interested parties who will try to find homes for them.

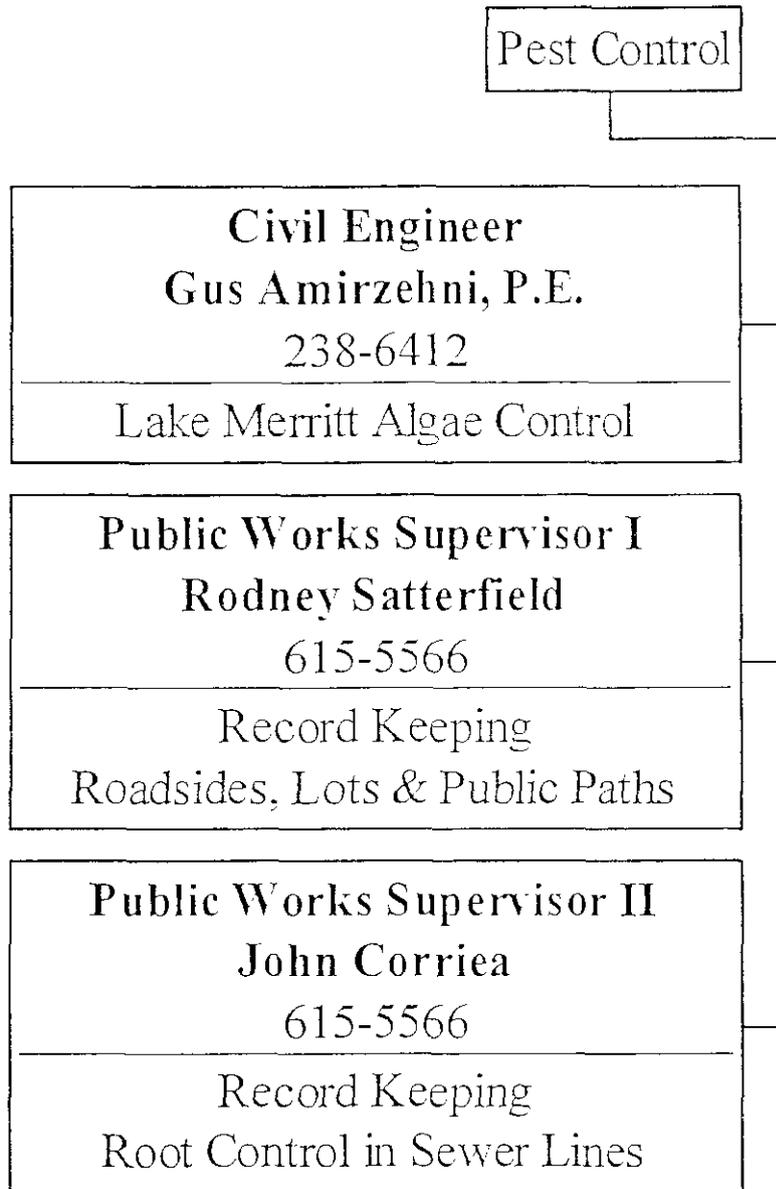
Stray cats often make their way to our parks, and certain members of the public feed them out of concern for their welfare. This in turn attracts more cats, which compounds the problem. Cats are an improper inhabitant of our parks. They are domesticated animals which need a level of care that cannot be provided in our parks, so the cats that inhabit our parks are unhealthy and could potentially pose a health hazard. In addition, these cats do not contribute to what our parks were designed to provide. For this reason, we are attempting to keep these cats out of our parks. Feeding of cats by the public is discouraged, and cats are trapped and released to interested parties who attempt to find homes for them.

City of Oakland
Office of Public Works

Integrated Pest Management Plan

May 1996

Implementation Structure



PERSONS AUTHORIZED TO PERFORM PEST CONTROL ACTIVITIES

Only employees who have a current Qualified Pesticide Applicator Certificate will apply pesticides. City employees are not to bring pesticides from home for use on city property. This includes pesticides that are packaged for home use

The City uses contractors to control algae in Lake Merritt. The contractors must be licensed by the State of California as Pest Control Operators. State law requires that employee's of these companies be properly trained in each pesticide that they are to mix or apply.

LAKE MERRITT

Algae Control

Location/Host	Action Threshold	Action
Shallow Water Shelf around Lake Merritt.	Algae has grown to the extent that it is ready to mat up.	Treat the algae with an algaecide (1995 only) and/or mechanically grind up the algae.

The shallow water around the edge of Lake Merritt promotes the growth of a algae. When the algae decomposes, it creates an obnoxious smell and an eyesore that greatly detracts from the beauty of the lake. To combat this problem, the amount of algae in the lake needs to be kept down to a level where it will not produce an undesirable smell.

The algaecide currently being used (Aquazine) is no longer available. After the current supply is used, only mechanical methods will be used to control algae.

ROADSIDES, LOTS, & PUBLIC PATHS

Weeds

Location/Host	Action Threshold	Action
Areas kept bare of vegetation.	Weeds cover 15% of the surface of the ground.	Mechanically remove the weeds, or spray the weeds with Roundup & Surflan in accordance with the current Pest Control Recommendation.

The areas maintained by Public Works are not currently mulched. Areas that could benefit from a layer of mulch need to be identified and mulched as time and resources permit. Mulching helps to keep weed seeds from germinating, and thus reducing the need for pesticide applications.

When weed control is necessary, mechanical control is the preferred alternative.

SEWER LINES

Tree Roots in Sewer Lines

The sewer lines in the hills area are cleared of tree roots annually to keep them from clogging up. These lines are fairly small (4" - 6") and are often are obstructed by tree roots. A file is kept on each of the sewer lines in the hills. Each sewer is categorized as:

1. Free Flowing
2. Clogged
3. or, Severely Clogged.

These categories are based on the condition of the sewer line before it was cleared the previous year.

If the sewer line is categorized as free flowing, the sewer line is mechanically cleared. If there are too many roots in the line to be mechanically cleared, Angus Hot Rod is used to soften up the roots in the sewer line. The roter can then more easily clear the line. If the line is classified as clogged or severely clogged, Angus Hot Rod is applied to the line before any rooting is attempted. A "severely clogged" line may require more Angus Hot Rod to adequately soften the roots for cleaning than a "clogged" line. After the line is cleared the condition of the line before it was cleared is recorded for use in predicting the requirements for the next years cleaning.

Angus Hot Rod is a category 1 pesticide. The City has a policy of not using category 1 pesticides. A search needs to be completed to determine if a less toxic alternative is available.

OAKLAND CITY COUNCIL

RESOLUTION NO. _____ C.M.S.

INTRODUCED BY COUNCILMEMBER Jean Quan

RESOLUTION AUTHORIZING A LIMITED EXEMPTION TO THE INTEGRATED PEST MANAGEMENT POLICY TO USE HERBICIDES ON CITY OWNED LAND IN THE WILDFIRE PREVENTION DISTRICT AND OTHER CITY PROPERTIES IDENTIFIED BY THE FIRE MARSHAL AS AREAS OF HIGH FIRE HAZARD

WHEREAS, in 1997 the Oakland City Council approved the implementation of a comprehensive Integrated Pest Management (IPM) policy and passed Resolution No. 73968 C.M.S., that prohibits the use of pesticides on City property except as specifically exempted; and

WHEREAS, the Oakland Fire Department is responsible for reducing wild land fuels through vegetation management in Oakland's Wildfire Prevention District; and

WHEREAS, Oakland's Wildfire Prevention District includes City owned public open space such as Joaquin Miller Park, Knowland Park, King Estates Park, Dimond Canyon, Dimond Park, rugged canyons, public pathways, fuel breaks, roadsides, medians and steep hillsides; and

WHEREAS, there are a handful of other areas in Oakland with comparable topography and vegetation to the established Wildfire Prevention District with potentially the same high risk of fire danger; and

WHEREAS, the proliferation of non-native trees and shrubs such as blue gum eucalyptus, acacia, broom, and pampas grass creates a continuous fuel bed and fire hazard throughout the City's high fire hazard urban/wild land interface; and

WHEREAS, invasive, non-native trees and shrubs have few natural enemies, propagate readily in Oakland's climate and are resistant to eradication or control without the assistance of herbicides; and

WHEREAS, the offending trees and shrubs sprout profusely after hand or mechanical clearing and require cutting several times per year to fully abate growth; and

WHEREAS, the uncontrolled growth of non-native, invasive trees and shrubs constitutes a greater risk to native plant communities and wildlife habitat than does the use of selected herbicides as a component of a strategic vegetation management plan; and

WHEREAS, pulling or mechanically removing trees and shrubs may be ecologically damaging in some circumstances as it disturbs soil and creates an inviting seedbed for weeds. Herbicides leave soil intact and undisturbed, making it easier for native plants to survive as well as preventing erosion; and

WHEREAS, the Oakland City Council seeks to improve fire prevention and reduce wild land fuels within the City of Oakland in a cost effective and environmentally sensitive way; now therefore be it

RESOLVED: That the Oakland City Council hereby grants a limited exemption to the Integrated Pest Management policy by allowing the selective use of glyphosate (in formulations such as Round-up or Rodeo) and triclopyr (in formulations such as Garlon and Pathfinder) on City owned land in the Wildfire Prevention District; and be it

FURTHER RESOLVED: That whenever said herbicides are used, they shall only be painted or applied directly on the plant or tree stumps and shall only be used when conditions and best management practices demonstrate that a chemical treatment would be the most effective approach to control the following plant and tree species:

- all species of *Eucalyptus* (*E. globulus* (blue gum), red gum, and others)
- all species of *Acacia* (*A. dealbata* (silver wattle) and *A. melanoxylon* (blackwood acacia) and others); all non-native species of *Prunus* (plum and cherry)
- all species of *Ulmus* (elm)
- *Ilex aquifolium* (Holly)
- *Maytenus boaria* (Mayten)
- all species of *Cotoneaster* (*C. franchetii*, *C. lacteus*, *C. pannosa*)
- all species of broom and gorse: *Cytisus scoparius* (Scotch broom), *Genista monspessulana* (French broom), *Spartium junceum* (Spanish broom) and *Ulex europea* (gorse)
- *Crataegus monogyna* (Italian hawthorn)
- non-native species of blackberry: *Rubus discolor* (Himalayan blackberry) and *R. ulmifolius* (thornless blackberry)
- *Cortaderia selloana* and *C. jubata* (pampas grass, jubata grass), when these plants cannot be removed with a hand or power tools.
- other non-native, invasive species threatening native plant communities and wildlife habitat identified in the Wildfire Prevention District annual report;

and be it

FURTHER RESOLVED: That the selective use of herbicides on City owned land in the Wildfire Prevention District shall be implemented in accordance with best management practices, a strategic integrated vegetation management plan and other applicable local, state and federal requirements concerning the safe use of herbicides such as public notification, use of colored dye and return intervals; and be it

FURTHER RESOLVED: That all vegetation management service contracts shall stipulate compliance with the City's IPM policies and procedures, including those specific to the use of herbicides, and shall require that contractors provide the City with a copy of their state herbicide use reports;

FURTHER RESOLVED: That the limited exemption to the IPM policy to selectively use herbicides on city owned land in the Wildfire Prevention District shall be expressly limited to undeveloped, non-landscaped areas (excluding developed fields, playgrounds, picnic, and other high use areas as currently stipulated in the City's IPM policy); and be it

FURTHER RESOLVED: That only certain strategic areas outside the Wildfire Prevention Assessment District shall have a limited exemption to the IPM policy if the Fire Marshal determines that the proliferation of a non-native, invasive plant species is contributing to the creation of fuel beds that are a high fire hazard;

FURTHER RESOLVED: That the Fire Department shall annually prepare a report to the Wildfire Prevention Assessment District Advisory Board and the City Council on vegetation management efforts over the past twelve months that includes a detailed account of amounts and types of herbicide used and a vegetation management plan for the upcoming year.

IN COUNCIL, OAKLAND, CALIFORNIA, _____, 20_____

PASSED BY THE FOLLOWING VOTE:

AYES – BROOKS, BRUNNER, CHANG, DE LA FUENTE, NADEL, QUAN, REID, WAN

NOES-

ABSENT-

ABSTENTION-

ATTEST: _____
LATONDA SIMMONS
City Clerk and Clerk of the Council
Of the City of Oakland, California

ATTACHMENT C.9.6

**Oakland City Council Resolution 79133 - CEQA Review for
Limited Pesticide Use 2005**

REVISED

Farinukh Faiz

OAKLAND CITY COUNCIL

79133

RESOLUTION NO. _____

C.M.S.

05 APR 11 PM 3:35

INTRODUCED BY COUNCILMEMBER Jean Quan

RESOLUTION DIRECTING PREPARATION OF THE APPROPRIATE ENVIRONMENTAL REVIEW DOCUMENTS IN ACCORDANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) EVALUATING A LIMITED EXEMPTION TO THE INTEGRATED PEST MANAGEMENT POLICY TO USE HERBICIDES ON CITY OWNED LAND IN THE WILDFIRE PREVENTION DISTRICT AND OTHER CITY PROPERTIES IDENTIFIED BY THE FIRE MARSHAL AS AREAS OF HIGH FIRE HAZARD

WHEREAS, in 1997 the Oakland City Council approved the implementation of a comprehensive Integrated Pest Management (IPM) policy and passed Resolution No. 73968 C.M.S., that prohibits the use of pesticides on City property except as specifically exempted; and

WHEREAS, the Oakland Fire Department is responsible for reducing wild land fuels through vegetation management in Oakland's Wildfire Prevention District; and

WHEREAS, Oakland's Wildfire Prevention District includes City owned public open space such as Joaquin Miller Park, Knowland Park, King Estates Park, Diamond Canyon, Diamond Park, rugged canyons, public pathways, fuel breaks, roadsides, medians and steep hillsides; and

WHEREAS, there are a handful of other areas in Oakland with comparable topography and vegetation to the established Wildfire Prevention District with potentially the same high risk of fire danger; and

WHEREAS, the proliferation of non-native trees and shrubs such as blue gum eucalyptus, acacia, broom, and pampas grass creates a continuous fuel bed and fire hazard throughout the City's high fire hazard urban/wild land interface; and

WHEREAS, invasive, non-native trees and shrubs have few natural enemies, propagate readily in Oakland's climate and are resistant to eradication or control without the assistance of herbicides; and

WHEREAS, the offending trees and shrubs sprout profusely after hand or mechanical clearing and require cutting several times per year to fully abate growth; and

WHEREAS, the uncontrolled growth of non-native, invasive trees and shrubs constitutes a great risk to native plant communities and wildlife habitat.; and

WHEREAS, pulling or mechanically removing trees and shrubs may be ecologically damaging in some circumstances as it disturbs soil and creates an inviting seedbed for weeds. When hand applied directly to tree and plant stumps, herbicides leave soil intact and undisturbed, making it easier for native plants to survive as well as preventing erosion; and

WHEREAS, the Oakland City Council seeks to improve fire prevention and reduce wild land fuels within the City of Oakland in a cost effective and environmentally sensitive way; now therefore be it

RESOLVED: That the Oakland City Council hereby directs the preparation of the appropriate environmental review documents consistent with CEQA evaluating a limited exemption to the Integrated Pest Management policy for the selective use of glyphosate (in formulations such as Round-up or Rodeo) and triclopyr (in formulations such as Garlon and Pathfinder) on City owned land in the Wildfire Prevention District through revisions to standard practices, protocols and developing a Wildfire Prevention Assessment District vegetation management plan; and be it

FURTHER RESOLVED: That the environmental review will analyze the use of herbicides painted or applied directly on the plant or tree stumps and shall only be used when conditions and best management practices demonstrate that a chemical treatment would be the most effective approach to control the following plant and tree species:

- all species of *Eucalyptus* (*E. globulus* (blue gum), red gum, and others)
 - all species of *Acacia* (*A. dealbata* (silver wattle) and *A. melanoxylon* (blackwood acacia) and others); all non-native species of *Prunus* (plum and cherry)
 - all species of *Ulmus* (elm)
 - *Ilex aquifolium* (Holly)
 - *Maytenus boaria* (Mayten)
 - all species of *Cotoneaster* (*C. franchetii*, *C. lacteus*, *C. pannosa*)
 - all species of broom and gorse: *Cytisus scoparius* (Scotch broom), *Genista monspessulana* (French broom), *Spartium junceum* (Spanish broom) and *Ulex europea* (gorse)
 - *Crataegus monogyna* (Italian hawthorn)
 - non-native species of blackberry: *Rubus discolor* (Himalayan blackberry) and *R. ulmifolius* (thornless blackberry)
 - *Cortaderia selloana* and *C. jubata* (pampas grass, jubata grass), when these plants cannot be removed with a hand or power tools.
 - other non-native, invasive species threatening native plant communities and wildlife habitat identified in the Wildfire Prevention District annual report;
- and be it

FURTHER RESOLVED: That the environmental review will look at the environmental impact of the use of herbicides on each of the abovementioned plants to assess the relative impact on each species; and be it

FURTHER RESOLVED: That the selective use of herbicides on City owned land in the Wildfire Prevention District shall be implemented in accordance with best management practices, a strategic integrated vegetation management plan and other

applicable local, state and federal requirements concerning the safe use of herbicides such as public notification, use of colored dye and return intervals; and be it

FURTHER RESOLVED: That the City's current IPM guidelines shall be revised and updated utilizing proposed BMPs including buffer zones around creeks and wetland; and be it

FURTHER RESOLVED: That changes in protocols and practices shall include that all vegetation management service contracts shall be developed in accordance with the vegetation management plan and stipulate compliance with the City's IPM policies and procedures, including those specific to the use of herbicides, and shall require that contractors provide the City with a copy of their state herbicide use reports; and be it

FURTHER RESOLVED: That the proposed limited exemption to the IPM policy to selectively use herbicides on city owned land in the Wildfire Prevention District shall be expressly limited to undeveloped, non-landscaped areas (excluding developed fields, playgrounds, picnic, and other high use areas as currently stipulated in the City's IPM policy); and be it

FURTHER RESOLVED: That only certain strategic areas outside the Wildfire Prevention Assessment District shall have a limited exemption to the IPM policy if the Fire Marshal determines that the proliferation of a non-native, invasive plant species is contributing to the creation of fuel beds that are a high fire hazard; and be it

FURTHER RESOLVED: That the Fire Department shall annually prepare a report to the Wildfire Prevention Assessment District Advisory Board and the City Council on vegetation management efforts that includes a detailed account of any proposed amounts and types of herbicide to be used; and be it

FURTHER RESOLVED: That upon completion of the appropriate environmental review and documentation, Staff shall bring to the City Council for its consideration and approval a vegetation management plan, plant list and revised IPM policy for the Wildfire Prevention Assessment District (WPAD).

APR 05 2005

IN COUNCIL, OAKLAND, CALIFORNIA, _____, 20____

PASSED BY THE FOLLOWING VOTE:

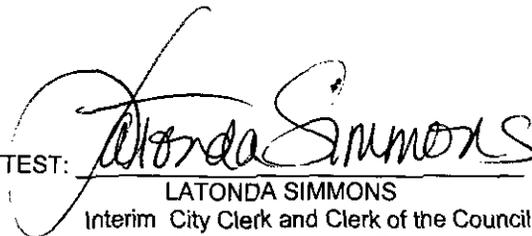
AYES – BROOKS, BRUNNER, CHANG, DE LA FUENTE, NADEL, QUAN, REID, ~~XXX~~ - 7

NOES- 0

ABSENT- 0

ABSTENTION- 0

ATTEST:


LATONDA SIMMONS
Interim City Clerk and Clerk of the Council
Of the City of Oakland, California

ATTACHMENT C.9.7

City of Oakland

Contractor IPM Certification(s) or Equivalent

QualityPro

GREENPRO SERVICE CERTIFICATION



Presenting this certificate of excellence to
Omega Termite & Pest Control, Inc.

in acknowledgment of your continuing efforts toward professional excellence
and environmental awareness in the pest management industry by meeting
the requirements to provide GreenPro Certified Service.



A handwritten signature in black ink, appearing to read "Chris", is written above a horizontal line.

OFFICIAL SIGNATURE

EXPIRES 1/2023

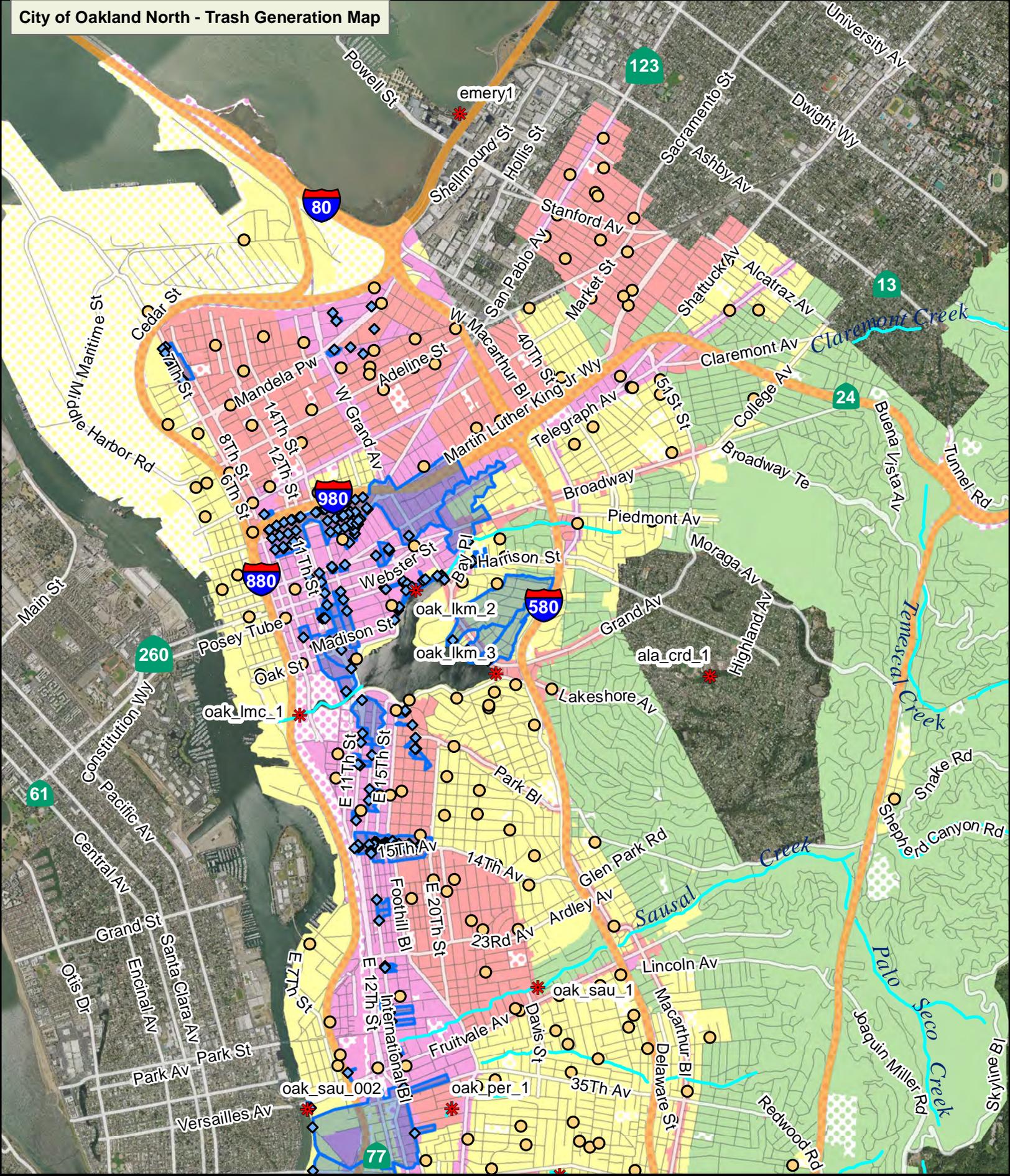
ATTACHMENT C.10.1

City of Oakland Full Trash Capture

Maps

FY 2021-2022

City of Oakland North - Trash Generation Map

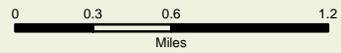


Trash Generation Category

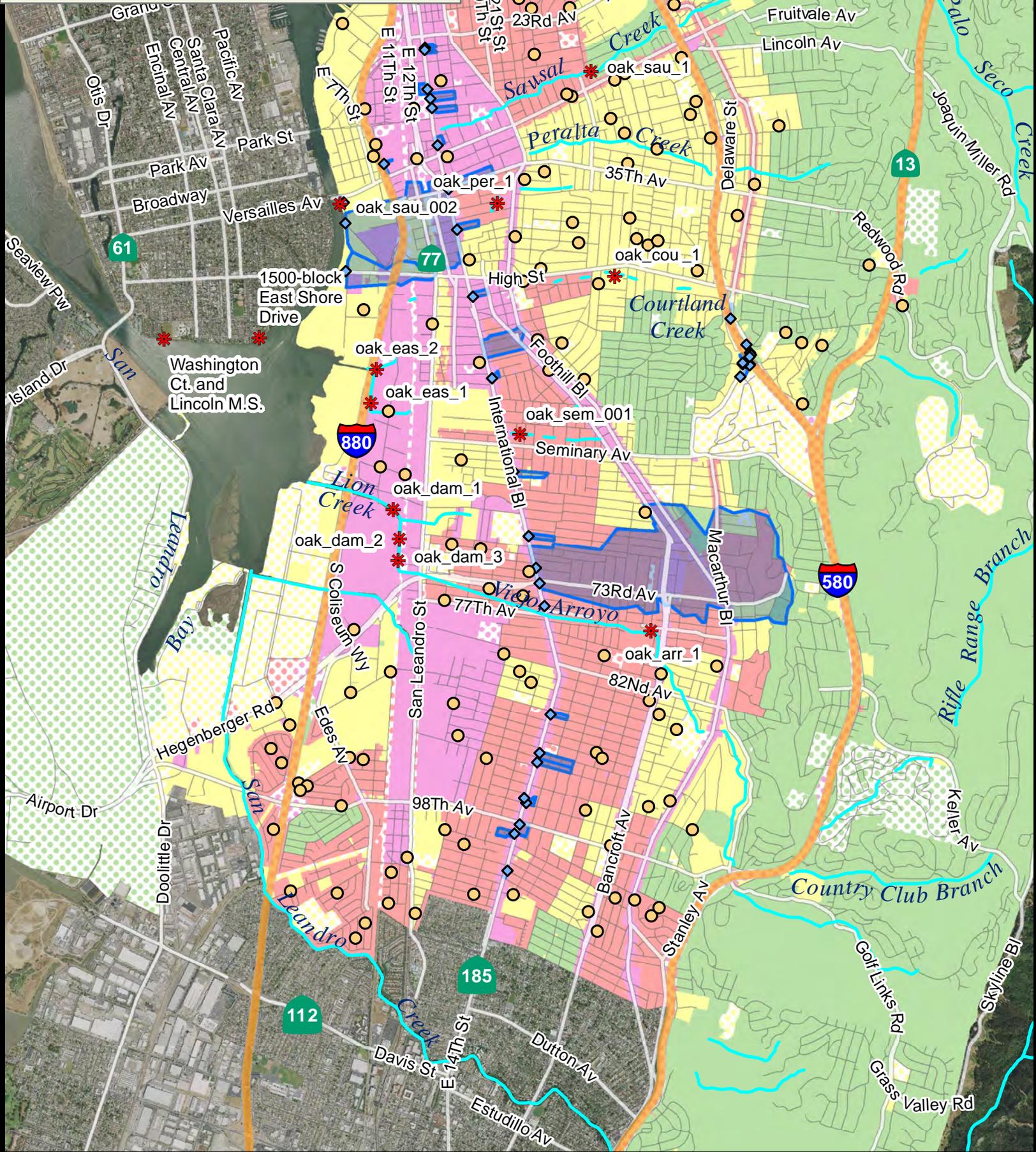
- Low
- Moderate
- High
- Very High

- On-Land Visual Assessment Site
- Creek/Shoreline Hotspot
- Full-Capture Location
- Full Trash Capture
- Non-Jurisdictional (Dot color = Generation Category)

- Street
- Freeway
- Agency Boundary
- Creek



City of Oakland South - Trash Generation Map



Trash Generation Category

- Low
- Moderate
- High
- Very High

- On-Land Visual Assessment Site
- Creek/Shoreline Hotspot
- Full-Capture Location
- Full Trash Capture
- Non-Jurisdictional (Dot color = Generation Category)

- Street
- Freeway
- Agency Boundary
- Creek



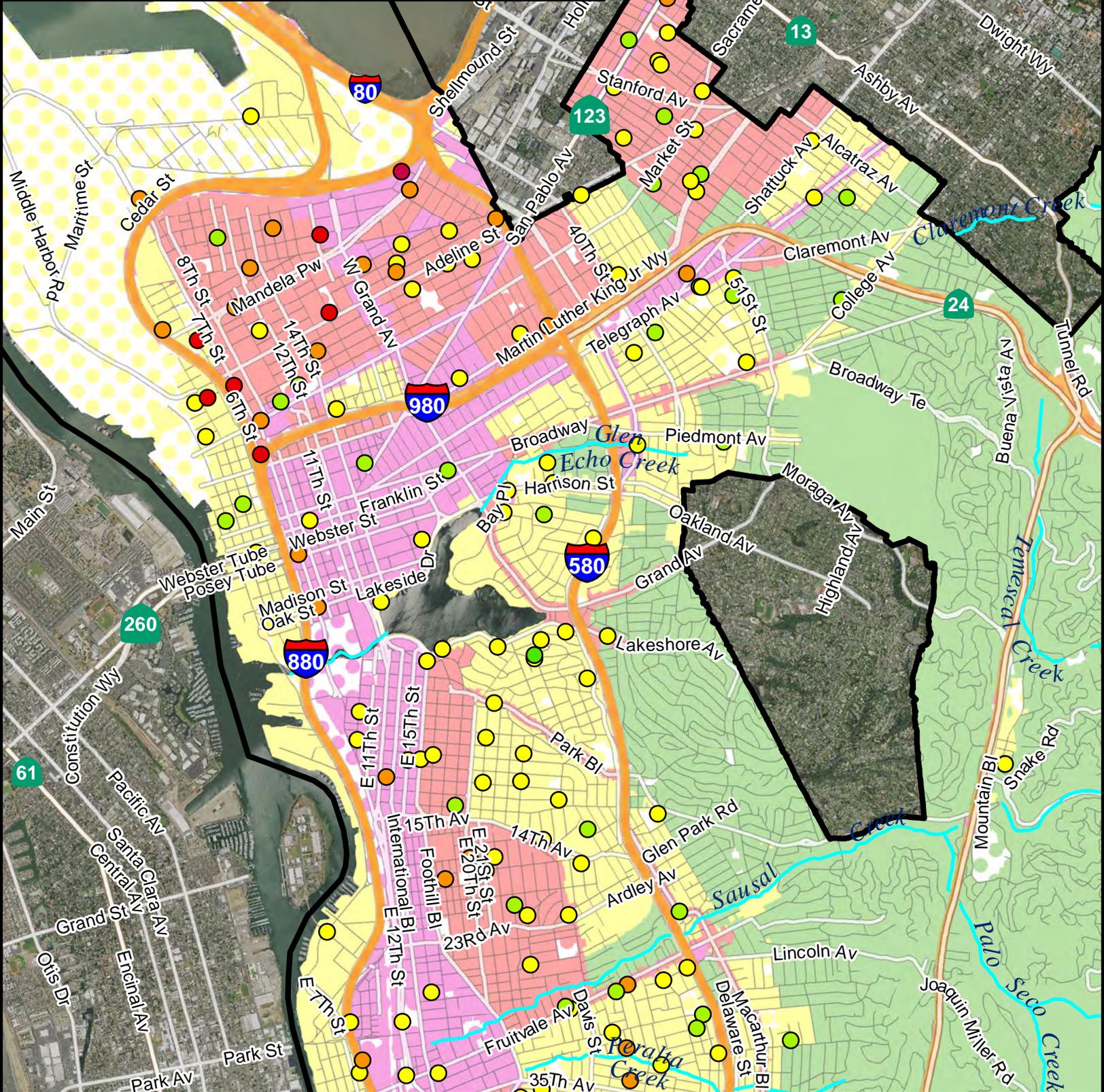
ATTACHMENT C.10.2

City of Oakland

On-Land Visual Trash Assessment Maps

FY 2021-2022

City of Oakland North - Assessment Results Map



Legend

Trash Generation Category

- Low
- Moderate
- High
- Very High
- Non-Jurisdictional
(Dot color = Generation Category)

On-Land Visual Trash Assessment Results

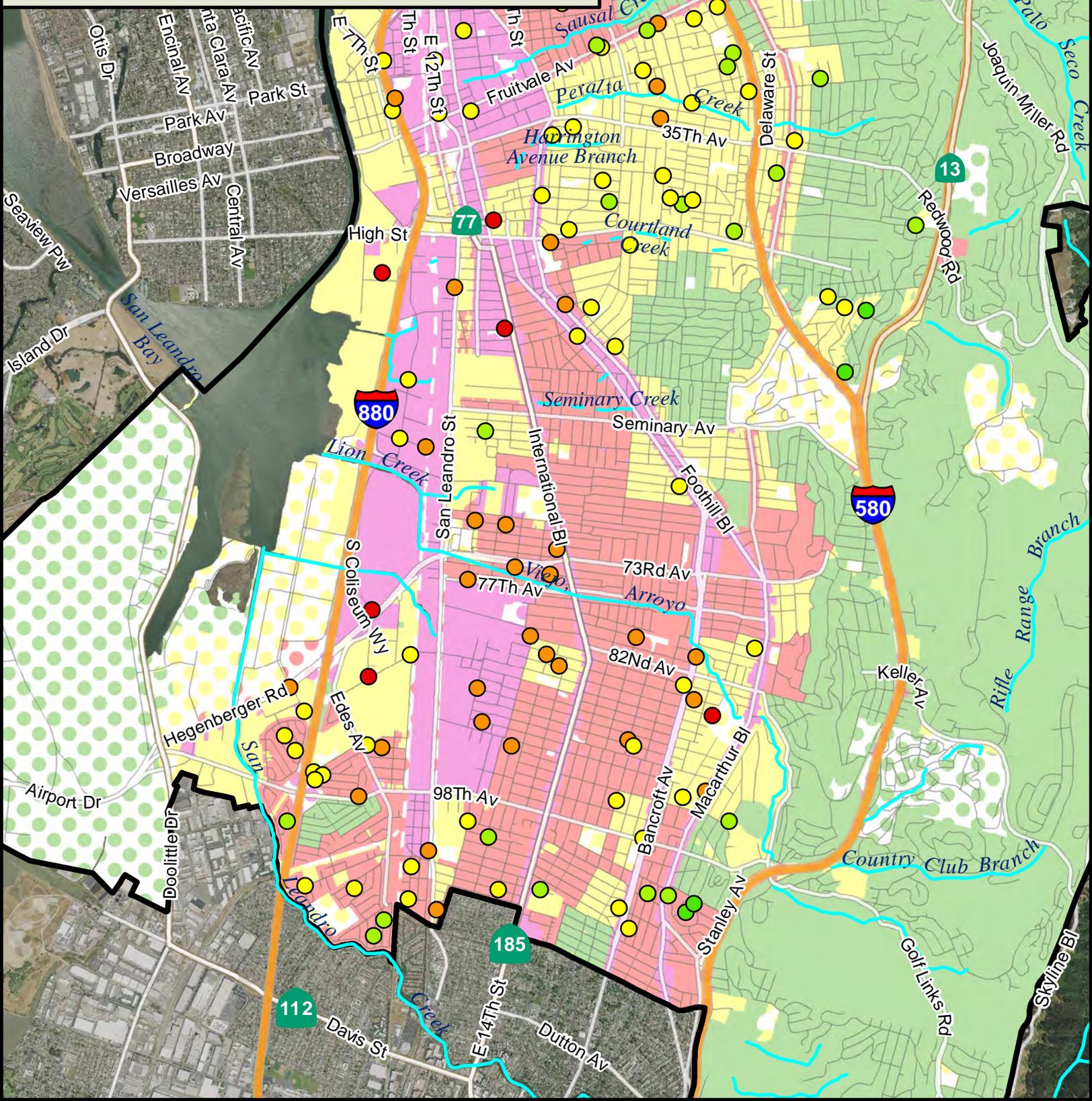
- Low
- Low/Moderate
- Moderate
- Moderate/High
- High
- High/Very High
- Very High

- Streets
- Freeway
- Creeks



0 0.275 0.55 1.1
Miles

City of Oakland South - Assessment Results Map



Legend

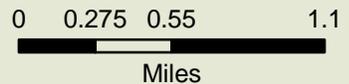
Trash Generation Category

- Low
- Moderate
- High
- Very High
- Non-Jurisdictional
(Dot color = Generation Category)

On-Land Visual Trash Assessment Results

- Low
- Low/Moderate
- Moderate
- Moderate/High
- High
- High/Very High
- Very High

- Streets
- Freeway
- Creeks



ATTACHMENT C.10.3

**City of Oakland Summary of Cleanups Used for Creek and
Shoreline Offset
FY 2021-2022**

Summary of Cleanups Used for Creek and Shoreline Offset

In FY 2021-2022 the City continued to use the approved volunteer trash removal rate (11.6 gallons/per hour) that was developed and submitted to the Water Board in FY 2018-2019. The volume data (gallons) directly reported by volunteers is shown in cells with gray shading. All other volume data (gallons) was calculated using the approved volunteer trash removal rate (11.6 gallons/per hour) for events that have only reported volunteer hours. This approach provides a more accurate accounting of the total volume of trash removed from the City’s volunteer cleanup program.

Table 1: Adopt a Creek Volunteer Totals

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
1	Arroyo Viejo Creek	Arroyo Viejo Park	City of Oakland - Department of. Violence Prevention in partnership with Black Cultural Zone and HOMIES Empowerment	48	1x/week	2,227.2
2	Arroyo Viejo Creek	Glenn Daniel King Estates Open Space Park	Cocina del Corazón	24	2x/month	1,113.6
3	Arroyo Viejo Creek	78th and 79th Ave cul de sac entries to Arroyo Viejo Park	Individual	48	1x/week	556.8
4	Arroyo Viejo Creek	2500 (approx) Ritchie St (Corner of Ritchie and Bancroft - East side of Bancroft Ave)	Individual	48	1x/week	556.8
5	Arroyo Viejo Creek	Along both sides of 73rd Ave between 73rd Avenue and Hawley Avenue.	Individual	48	1x/week	556.8
6	Arroyo Viejo Creek	Corner of Krause and Maywood Ave, near Arroyo Viejo Park	Individual	48	1x/week	556.8

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
7	Arroyo Viejo Creek	Arroyo Viejo Park	Keepers of Existence	12	1x/month	1,020.8
8	Arroyo Viejo Creek	Along Golf Links Road and creek through park	Majestic Real Estate Group	48	1x/week	2,227.2
9	Arroyo Viejo Creek	Golf Links Road & Elysian Fields Drive	ARSH (Associated Residents of Sequoyah Highlands)	1	7/3/2021	150
10	Arroyo Viejo Creek	9521-9799 Mountain Blvd, Oakland, California, 94605	ARSH (Associated Residents of Sequoyah Highlands)	1	3/26/2022	330
11	Arroyo Viejo Creek	9770-9784 Golf links Rd, Oakland, California, 94605	ARSH (Associated Residents of Sequoyah Highlands)	1	9/12/2021	240
12	Arroyo Viejo Creek	9522-9798 Mountain Blvd, Oakland, California, 94605	Associated Residents of Sequoyah Highlands (ARSH)	1	7/31/2021	300
13	Arroyo Viejo Creek	Golf Links Rd & Elysian Fields Dr, near Knowland Park	BSA Troop 203	2	2x/year	660
14	Arroyo Viejo Creek	9535 Mountain Blvd, Oakland, California, 94605	Associated Residents of Sequoyah Highlands (ARSH)	1	3/30/2022	210
15	Arroyo Viejo Creek tributary	Parker Elementary School	Eastmont Hills Neighborhood Association	1	6/4/2022	456
16	Arroyo Viejo Creek	The Cul de Sac entrance to Arroyo Viejo park on 78th Ave and Arthur St.	Arroyo Viejo Association of Neighbors	48	1x/week	4,454.4
17	Arroyo Viejo Creek	Knowland Park	Individual	48	1x/week	556.8
18	Arroyo Viejo Creek	Golf Links Road	Individual	30	1x/week	870

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
19	Country Club Branch	Mountain Blvd and Calafia Ave, Oakland, California, 94605	A sample photo essay of DPW and other agencies/departments helping clean Mountain	1	2/9/2022	180
20	Country Club Branch	9521-9799 Mountain Blvd, Oakland, California, 94605	ARSH (Associated Residents of Sequoyah Highlands)	1	2/5/2022	240
21	Country Club Branch	Mountain and Calafia Ave, Oakland, California, 94605	Individual	1	3/23/2022	390
22	Country Club Branch	Mountain Blvd and Calafia Street, Oakland, California, 94605	Individual	1	2/10/2022	60
23	Country Club Branch	Mountain Blvd. and Calafia Ave, Oakland, California, 94605	Individual	1	8/25/2021	150
24	Country Club Branch	Mountain Blvd. and Calafia Ave, Oakland, California, 94605	Individual	1	8/26/2021	60
25	Country Club Branch	On Mountain Blvd near Calafia down from Living Faith Christian Church	Individual	1	9/8/2021	11.6
26	Courtland Creek	2265 Courtland Ave. Courtland Creek Park spur/median	Adopt a Spot volunteers	52	1x/week	603.2
27	Courtland Creek	Courtland Creek (Courtland Ave & Fairfax St)	Individual	192	4x week	2,227.2

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
28	Courtland Creek	Courtland and Redding	Maxwell Park Neighborhood Council Blight & Beautification committee	48	1x/week	1,113.6
29	Courtland Creek	3434 High Street behind Walgreens	Maxwell Park Neighborhood Council Blight & Beautification committee	12	1x/month	556.8
30	Courtland Creek	High St & 580	Abundant Aid in Coordination with the High Street Beautification Coalition	1	8/28/2021	410
31	Courtland Creek	High St & Brookdale Avenue	High Street Beautification	1	12/18/2021	30
32	Courtland Creek	High St & 580	High Street Beautification	1	1/8/2022	180
33	Courtland Creek	High St & Brookdale Avenue	High Street Beautification	1	1/22/2022	900
34	Courtland Creek	High St & Brookdale Avenue	High Street Beautification	1	9/30/2021	450
35	Courtland Creek	High St & Brookdale Avenue	High Street Beautification	1	11/15/2021	30
36	Courtland Creek	High St & Brookdale Avenue	High Street Beautification	1	12/15/2021	30
37	Courtland Creek	High St & Brookdale Avenue	High Street Beautification	1	1/5/2022	30
38	Courtland Creek	High St & 580	High Street Beautification	1	2/12/2022	600
39	Courtland Creek	High St & Brookdale Avenue	High Street Beautification Coalition	1	4/9/2022	1,050
40	Courtland Creek	High St & 580	High Street Beautification Coalition	1	3/26/2022	600
41	Courtland Creek	High St & Brookdale Avenue	Urban Compassion Project	1	4/2/2022	1,500

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
42	Elmhurst Creek	8032-8090 San Leandro St, Oakland, California, 94621	Alameda County DA's Environmental Protection Unit, Alameda County Sheriff's Office, Reset Advantage Hauling and Junk Removal	1	10/2/2021	1,500
43	Elmhurst Creek	75 th Ave/San Leandro Street to 92 nd Ave and International Blvd.	Individual	3	3x/year	900
44	Glen Echo Creek	Glen Echo Park	Friends of Glen Echo Creek	24	2x month	360
45	Glen Echo Creek	Oak Glen Park	Friends of Oak Glen Park	48	1x/week	360
46	Glen Echo Creek	3504 Richmond Blvd	Individual	24	2x/month	360
47	Glen Echo Creek	Broadway at 30 th	Individual	24	2x/month	556.8
48	Glen Echo Creek	Montell St & Piedmont Ave	Individual	48	1x/week	556.8
49	Glen Echo Creek	29 th St & Fairmount St.	Nomadic Press	4	4x/year	1856
50	Glen Echo Creek	Oak Glen Park	Numi Organic Tea	12	1x/month	360
51	Glen Echo Creek	84 Monte Vista Ave.	Piedmont Avenue Neighborhood Improvement League (PANIL)	4	4x/year	696
52	Glen Echo Creek	Along Glen Echo Creek, both sides of Richmond Blvd	Individual			
53	Glen Echo Creek & Lake Merritt	Veterans building park along Glen Echo Creek	Individual	48	1x/week	556.8
54	Glen Echo Creek & Lake Merritt	2300 block of Harrison St, Grand Ave & Harrison St, and Lake Merritt	Rose Mary Jane	350	7x/week	4,060
55	Harwood Creek	Garber Park	Friends of Garber Park	24	2x month	1,392

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
56	Harwood Creek	Along Claremont Ave from Claremont Hotel up to the end at Grizzly Peak Blvd.	Individual	24	2x/month	556.8
57	Horseshoe Creek	4444 Mountain Blvd.	Buffalo Soldiers Oakland Bay Area Motorcycle Club	2	1x/week	232
58	Horseshoe Creek	4444 Mountain Blvd.	Friends of Leona Heights Park	24	2x/month	1,113.6
59	Horseshoe Creek	Mountain Blvd, Leona St and Rusting	Individual	48	1x/week	3,340.8
60	Horseshoe Creek	Campus Drive by Carl B Munck Elementary School	Individual	96	2x/week	1,113.6
61	Horseshoe Creek (Lion Creek)	York Trail Head- Mtn Blvd on - ramp	Individual	12	1x/month	1,113.6
62	Lake Merritt	Lakeside Park & shoreline along Lakeshore Ave.	2 Individuals	48	1x/week	1,113.6
63	Lake Merritt	Brooklyn Avenue Near Lake Merritt	2 Individuals	48	1x/week	1,113.6
64	Lake Merritt	The Pagoda at Lake Merritt	Alameda County Family Justice Center Chapter of VOICES	12	1x/month	556.8
65	Lake Merritt	Snow Park	Friends of Snow Park	350	7x/week	6090
66	Lake Merritt	Pittman Green at Lake Merritt	Individual	48	1x week	2,227.2
67	Lake Merritt	Lakeshore and Wayne Ave	Individual	350	7x/week	4,060
68	Lake Merritt	Lake Merritt shoreline along Lakeshore Ave from Pittman Green to 1200 Lakeshore Ave	Individual	12	1x/month	278.4

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
69	Lake Merritt	Lake Merritt; Grand Lakeside	Individual	12	1x/month	556.8
70	Lake Merritt	Lakeside Park and Lake Merritt shoreline along Lakeshore Ave.	Individual	48	7x/week	1,113.6
71	Lake Merritt	Litter pick up underneath and around underpass of 580 highway, either Harrison St. or Oakland Ave	Individual	12	1x/month	278.4
72	Lake Merritt	On Lakeshore Ave	Individual	48	1x/week	556.8
73	Lake Merritt	Lakeside Park	Junior Center for Art and Science	48	1x week	1,113.6
74	Lake Merritt	The light poles around Lake Merritt and clean them up, remove graffiti, stickers, etc.	Lake Merritt Breakfast Club	12	1x/month	556.8
75	Lake Merritt	The shoreline near the Lake Merritt Boating Center	Lake Merritt Observatory	12	1x/month	556.8
76	Lake Merritt	Lakeshore between Boden Way and Embarcadero	Maison Invisible Colors	4	4x/year	278.4
77	Lake Merritt	Shoreline near Lake Merritt Boating Center	Oakland Women's Rowing Club	12	1x/month	278.4
78	Lake Merritt	The grounds of the Rotary Nature Center and bird sanctuary yard in Lakeside Park	Rotary Nature Center Friends	12	1x/month	278.4
79	Lake Merritt	Splash Pad Park	SplashPad.org	12	1x/month	556.8

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
80	Lake Merritt	Lake Merritt shoreline near Fairyland	TITLE Boxing Club Oakland Central	12	1x/month	556.8
81	Lake Merritt	Lake Merritt	Individual	1	3/24/2022	0
82	Lake Merritt	Harrison St, Oakland, California, 94612	Lake Merritt Advocates	1	8/8/2021	330
83	Lake Merritt	Lakeside Dr, Oakland, California, 94612	Lake Merritt Advocates' Summer of Sundays	1	9/5/2021	270
84	Lake Merritt	471-499 Grand Ave, Oakland, California, 94610	Lake Merritt Advocate's Summer of Sundays	1	8/22/2021	210
85	Lake Merritt	Grand Ave, Oakland, California, 94610	Lake Merritt Weed Warriors	1	1/29/2022	60
86	Lake Merritt	Grand Ave, Oakland, California, 94610	Lake Merritt Weed Warriors	1	2/1/2022	60
87	Lake Merritt	554-558 Bellevue Ave, Oakland, California, 94610	Rotary Nature Center Friends	1	6/18/2022	30
88	Lake Merritt	580-594 Bellevue Ave, Oakland, California, 94610	Rotary Nature Center Friends	1	10/16/2021	60
89	Lake Merritt	Lake Merritt shoreline between Staten and Pergola	Summer of Sundays co-sponsored by Lake Merritt Advocates and Untrash East Bay	1	7/4/2021	450
90	Lake Merritt	Lake Merritt parkland from Bellevue to Pergola and across El Embarcadero Plaza	Summer of Sundays hosted by Lake Merritt Advocates and Untrash East Bay	1	7/18/2021	600

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
91	Lake Merritt	Lakeside Dr from Madison to Harrison, Snow Park	Summer of Sundays sponsored by Lake Merritt Advocates and Untrash East Bay	1	7/18/2021	450
92	Lake Merritt	Lake Merritt Pergola to East Lake Park		96	2x/week	2,227.2
93	Lion Creek	6725 Lion Way	Amazon	48	1x/week	556.8
94	Lion Creek	966 66th Avenue	Individual	48	1x/week	556.8
95	Lion Creek	McCrea Park (outside) along Carson Street	Individual	48	1x/week	556.8
96	Lion Creek	Lion Way and Hawley Street near Lion Creek Crossings	Individual	12	1x month	139.2
97	Lion Creek	McCrea Park & Trout ponds	Individual	48	1x/week	556.8
98	Lion Creek	6818 Lion Way	Lion Creek Crossings Family Resource Center	12	1x month	556.8
99	Lion Creek	Lion Creek Crossings, Lion Creek		12	1x month	5,011
100	Oakland Estuary	Glascock Street and Derby Ave	Individual	12	1x/month	139.2
101	Oakland Estuary	Sausal Creek mouth, Jingletown		96	2x week	8,640
102	Oakland Estuary	Union Point Park		24	2x/month	3,600
103	Oakland Estuary	Estuary Park		12	1x/month	720
104	Oakland Estuary	Jack London Square		48	1x/week	1,440
105	Oakland Estuary	East Shore Park		12	1x/month	720
106	Oakland Estuary	Oakport St, Oakland, California, 94621	Blue Terra Clean Up	1	9/18/2021	750

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
107	Oakland Estuary	Oakport St, Oakland, California, 94621	Blue Terra Clean Up LLC	1	10/23/2021	1,800
108	Oakland Estuary	5887-5899 Oakport St, Oakland, California, 94621	Blue Terra Clean Up, LLC	1	8/14/2021	600
109	Oakland Estuary	MLK Jr Shoreline Park	Blue Terra Clean Up, LLC	1	7/10/2021	810
110	Oakland Estuary	Jack London Aquatic Center	Individual	1	2/17/2021	120
111	Oakland Estuary	Jack London Square Estuary	Individual	19	2x/month	640
112	Oakland Estuary	Martin Luther King, Jr. Regional Shoreline Park	Individual	1	6/6/2021	900
113	Oakland Estuary	300-398 Derby Ave, Oakland, California, 94601	Jingletown	1	2/5/2022	210
114	Oakland Estuary	Jingletown	Jingletown Arts and Business Community	1	1/21/2021	420
115	Peralta Creek	Cesar Chavez park	Canticle Farm	12	1x/month	696
116	Peralta Creek	Wisconsin St. & Rettig Ave.	Friends of Peralta Creek Park	12	1x/month	556.8
117	Peralta Creek	Peralta Hacienda Historical Park	Friends of Peralta Hacienda Historical Park	12	1x/month	696
118	Peralta Creek	Cesar Chavez park	Individual	12	1x/month	139.2
119	Peralta Creek	Peralta Creek Park - 4000 Rettig Avenue	Individual	350	7x/week	
120	Peralta Creek	Between 38th Avenue & 39th Avenue	Individual	48	1x/week	556.8
121	Peralta Creek	35th Ave between Sutter & Delaware including onramp	Individual	24	2x/month	139.2
122	Peralta Creek	Cul-de-sac at end of Eden Lane.	True Buddha Vijaya Temple	12	1x/month	835.2

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
123	Peralta Creek	3705 Foothill Blvd.	Unity Council & Fruitvale Alliance Neighbors	4	4x/year	1,856
124	Peralta Creek	2465 34th Ave (Peralta Hacienda Historical Park)		12	1x/month	1,440
125	Peralta Creek	35th & Delaware art garden		12	1x/month	2,160
126	Peralta Creek	35th Ave., MacArthur - Kansas		96	2x/week	8,640
127	Peralta Creek	Foothill Blvd & Bridge Ave		78	1-2x/week	4320
128	Peralta Creek	Midvale & Georgia		48	1x/week	1,113.6
129	Peralta Creek	Peralta Creek at Peralta Hacienda Park		12	1x month	2,088
130	Peralta Creek	3514 Butters Dr.	Butters Canyon Conservancy	1	3/31/2022	150
131	Peralta Creek	2181 Ransom Ave, Oakland, California, 94601	Jungle Hill Beautification Project	1	11/27/2021	116
132	Peralta Creek	35th Ave between Quigley St and Redding	Individual	1	Jul-14-20	15
133	Peralta Creek	35th Ave between Quigley St and Redding	Individual	1	Jul-21-20	22.5
134	Peralta Creek, Sausal Creek	Fruitvale neighborhood	Fruitvale Alliance Neighbors	24	2x/month	3,340.8
135	Radio Beach	Beach to the right of Bay Bridge Toll Plaza	KGB Kiteboarding	12	1x/month	278.4
136	Redwood Creek	Redwood Rd turnout between Moraga and Chabot entrance		12	1x/month	417.6
137	Rifle Range Branch	Skyline Blvd		1	Oct-12-21	165

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
138	San Leandro Creek	105th Ave and Edes Avenue heading south to dead end at HWY 880, near the Planting Justice Nursery	Arsola's House and Arsola's Distribution Center and Community Services, https://arsola.org/	24	2x/month	4,176
139	San Leandro Creek	Pardee Ln (Edgewater to San Leandro Creek)	C.A.T. Associates, LLC/ CAC Associates, LLC	12	1x/month	1,392
140	San Leandro Creek	Creek area around Hegenberger Rd	Friends of San Leandro Creek	4	4x/year	1,392
141	San Leandro Creek	105th Ave at Edes St		96	2x/week	3,541.5
142	Sausal Creek	Dimond Ave. & Bienati Way	Dimond Clean Team	48	1x/week	556.8
143	Sausal Creek	10060 Skyline Blvd.	Friends of Joaquin Miller Park	12	1x/month	348
144	Sausal Creek	Josie de la Cruz Park	Friends of Josie de la Cruz Park	48	1x/week	1,113.6
145	Sausal Creek	1382 El Centro Ave	Friends of Sausal Creek	12	1x/month	348
146	Sausal Creek	3594 Sanborn Rd	Friends of Sausal Creek	12	1x/month	208.8
147	Sausal Creek	10570 Skyline Blvd.	Friends of Sausal Creek	12	1x/month	139.2
148	Sausal Creek	3860 Hanly Rd., native plant demonstration garden	Friends of Sausal Creek	12	1x/month	348
149	Sausal Creek	Open space surrounding the Police Activities League (PAL) Camp. 10100 Skyline Blvd	Friends of Sausal Creek	12	1x/month	139.2
150	Sausal Creek	2920 McKillop Rd.	Friends of Wood Park	12	1x/month	348
151	Sausal Creek	E 27th street from Fruitvale to 25th Ave.	Individual	48	1x/week	556.8

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
152	Sausal Creek	Along Skyline near Castle Drive	Individual	48	1x/week	556.8
153	Sausal Creek	Park blvd from 13 to Leimert Blvd. Adjacent to Dimond Canyon	Individual	12	1x/month	139.2
154	Sausal Creek	Dimond Canyon Park, Bridgeview Trail & pollinator garden	Individual, Friends of Sausal Creek	24	2x/month	278.4
155	Sausal Creek	500 Peterson Street	Jingeltown Community Arts & Business	12	1x/month	1392
156	Sausal Creek	Joaquin Miller Park		24	2x/month	720
157	Sausal Creek	Dimond Park, Fruitvale and Lyman		12	1x/month	3,898.05
158	Sausal Creek	Josie De La Cruz Rec. Ctr		11	1x/month	660
159	Sausal Creek	E 27th street from Fruitvale to 25th Ave.		24	2x/month	720
160	Sausal Creek	Park Blvd		96	2x/week	2,227.2
161	Sausal Creek	Beaconsfield Canyon	Friends of Sausal Creek	1	2/26/2022	30
162	Sausal Creek	Sausal Creek watershed - various locations		145	3x/week	1,998
163	Sausal Creek	Dimond Park	Friends of Dimond Park	4	4x/year	928
164	Sausal Creek	Shepherd Canyon Park	Individual	48	1x/week	556.8
165	Sausal Creek	4460 Shepherd St, Oakland, California, 94619	Adopt A Spot, Friend of McCrea	1	5/6/2022	30
166	Sausal Creek	Dimond Park	Oakland Parks and Recreation Foundation	1	6/23/2022	232
167	Sausal Creek	Mountain Blvd & Joaquin Miller Ct	Piedmont pines neighborhood association	1	1/8/2022	151

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
168	Sausal Creek	6313 MELVILLE DR	PPNA	1	9/23/2021	30
169	Sausal Creek	10586-10718 Skyline Blvd, Oakland, California, 94619	PPNA and Friends of Joaquin Miller Park	1	1/22/2022	90
170	Sausal Creek	Dimond District (Dimond Improvement Association)		24	2x/week	40,690
171	Sausal Creek, Peralta Creek	Noel Gallo - Oakland City Council District 5 - Clean Streets = Safe Streets		104	2x/week	113,664
172	Shepherd Creek	5884 Escher Drive	Sheperd Canyon Homeowner's Association	4	4x/year	556.8
173	Shoreline	550 El Embarcadero, Oakland, CA 94610	Abundant Aid	12	1x/month	278.4
174	Shoreline	Estuary Park	Bay Area Black Divers	4	4x/year	185.6
175	Shoreline	115 Embarcadero	East Bay Rowing Club	12	1x/month	278.4
176	Shoreline	Jack London Square near 472 Water Street	Individual	48	1x/week	556.8
177	Shoreline	Path between Eve's Restaurant and Jack London Square	Individual	48	1x/week	556.8
178	Shoreline	115 Embarcadero, Oakland, CA 94607	Individual	12	1x/month	139.2
179	Shoreline	115 Embarcadero, Oakland, CA 94607	Individual	12	1x/month	139.2
180	Shoreline	Union point park	Individual		1x/week	556.8
181	Shoreline	Along 9th Ave. from brooklyn basin way to embarcadero	Individual	48	1x/week	556.8

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
182	Shoreline	Waterfront stretch and lawn/bushes along Jack London Square	Individual	48	1x/week	556.8
183	Shoreline	Round planter area behind Aquatic Center building	Individual	12	1x/month	139.2
184	Shoreline	5000 Proctor	Kramer Media	12	1x/month	278.4
185	Shoreline	Embarcadero and Dennison/Livingston Street at 22nd Avenue	Mountain Remedy	4	4x/year	464
186	Shoreline	48 5th Avenue - Clinton Basin wetlands	Neap Tide Ninjas	48	1x/week	2,227.2
187	Shoreline	Union Point Park	Oakland Spanish Seventh-Day Adventist Church	48	1x/week	2,227.2
188	Shoreline	4th street in Jack London & the Oakland Estuary Park	TheQueerView.com	12	1x/month	417.6
189	Temescal Creek	Temescal Rockridge Greenbelt	DMV Neighbors Association (DNA)	12	1x/month	1,670.4
190	Temescal Creek	Redondo Ave. & Cavour St.	DMV Neighbors Association (DNA)	4	4x/year	464
191	Temescal Creek	55th street between Lowell and San Pablo along both sides	Individual	12	1x/month	278.4
192	Temescal Creek	Adjacent to upper Broadway, south of Hwy. 24	North Hills Landscape Committee	4	4x/year	464
193	Temescal Creek	5437 Claremont Ave		48	1x/week	2,222
194	Temescal Creek	5670 Grisborne Ave.	Friends of Montclair Park	1	4/23/2022	6,000
195	Temescal Creek	North Oakland Sports Field		15	1x/month	390

No.	Creek or Waterway	Location	Organization	No. of events	Date or Frequency	Trash removed (Gallons)
		Total Events		5,514	Total Trash Removed (gallons)	338,460.4

Table 2. Citywide Events Volunteer Totals

Event	# of Volunteers	Total Hours	Total Gallons
Earth Day 2022 total	1,231	4,259	16,661
creek/shoreline portion	871	3,007.5	12,201
Creek to Bay Day 2021 total	236	806	818
creek/shoreline portion	236	806	818
Martin Luther King Jr Day 2022	558	2,129	23,364
creek/shoreline portion	413	1,683.5	19,201
TOTALs	2,025	7,194	40,843
Creek & Shoreline Portion	1,520	5,497	32,220

Table 3. Additional Cleanups at Trash Hot Spot Sites Volunteer Totals

Trash Hot Spot Site No.	Hot Spot site location	Creek	Organization	Date of cleanup	No. of events	Trash removed (gallons)
1	Arroyo Viejo Park	Arroyo Viejo Creek	Friends of Arroyo Viejo	weekly	47	4361.6
2	Barry Place	Sausal Creek	The Friends of Barry Place	monthly	11	348
3	Cesar Chavez Park	Peralta Creek	Individual	weekly	47	545.2
4	Courtland Creek Park	Courtland Creek	Friends of Courtland Creek	4/23/2022	1	6,000
8 & 9	East Creek Slough	East Creek Slough	Coliseum Public Market	weekly	47	6542.4
10	Fruitvale Bridge Park	Sausal Creek	Oakland Public Works	2x/month	23	3,304
11 & 12	Lake Merritt (2 sites)	Lake Merritt	Lake Merritt Institute	weekly	47	67,830
13	Lake Merritt Channel	Lake Merritt	Lake Merritt Channel Allies	1/20/2022	1	210
1, 4 & Alternate site	Arroyo Viejo Park, Courtland Creek Park, Rainbow Rec Center & surrounding neighborhoods	Arroyo Viejo, Courtland, Peralta & Seminary Creek	Team Oakland	3x/week	45	32,450
				Totals	269	121,591.2

ATTACHMENT C.10.4

City of Oakland

Direct Discharge Plan Progress Report

FY 2021-2022

CITY OF OAKLAND DIRECT TRASH DISCHARGE CONTROL REPORT

Fiscal Year 2021-22



September 21, 2022

TABLE OF CONTENTS

Section 1: Introduction	1
Section 2: Background	2
2.1 City of Oakland	2
2.2 Direct Discharge Trash Pathways	2
2.2.1 Homeless Encampments	3
2.2.2 Illegal Dumping	3
2.3 Direct Trash Discharge Control Plan	4
Section 3: Homeless Encampment Trash Controls	5
3.1 Prevention and Support Strategies and Programs	5
3.1.1 Shelter Crisis Declaration	5
3.1.2 Permanent Access to Housing Strategy	6
3.1.3 Oakland Local Action Plan	7
3.1.4 Housing and Homeless Assistance	8
3.1.5 Keep Oakland Housed	9
3.1.6 Additional Prevention and Support Efforts	9
3.2 Homeless Encampment Management	9
3.2.1 Homeless Encampment Task Force	10
3.2.2 Homeless Encampment Management Policy	10
3.2.3 Trash and Debris Removal	10
Section 4: Illegal Dumping Trash Controls	12
4.1 Agency Coordination	12
4.2 Eradication	12
4.3 Physical Deterrence	13
4.4 Enforcement	13
4.5 Education	14
4.6 Bulky Pickup Service	15
Section 5: Monitoring and Reporting	17
5.1 Homeless Individuals	17
5.2 Homeless Services	17
5.2.1 Homeless Shelters	18
5.2.2 Community Cabins	20
5.2.3 Sanitation and Garbage Services	21
5.3 Homeless Encampment Abatement	22
5.4 Illegal Dumping Enforcement	23
5.5 Illegal Dumping Deterrence	23

5.6	Trash Volume Controlled.....	24
5.6.1	Homeless Encampments	24
5.6.2	Illegal Dumping	27
5.6.3	Total Trash Volumes Removed.....	30
Section 6: Assessment of Receiving Water Conditions		32
Section 7: Funding and Planned Actions.....		35
7.1	Fiscal Year 2019-21 Budget.....	35
7.2	Fiscal Year 2021-23 Budget.....	36
7.3	Planned Actions.....	36
Section 8: Trash Reduction Offset		38

ATTACHMENTS

1 - City of Oakland Direct Discharge Work Plan Approval Letter

2 - City of Oakland Resolution 89320

3 - Homeless Encampment Cleanup Schedule

4 - Homeless Encampment Cleanup Heat Map FY 2020-21

LIST OF FIGURES

FIGURE 1: COMMUNITY CABIN (TUFF SHED) SITE EXAMPLE.	21
FIGURE 2: HOMELESS ENCAMPMENT SANITATION SITE MANAGED BY THE CITY.	22
FIGURE 3: HOMELESS ENCAMPMENT CLEAN-UP EXAMPLE.	23
FIGURE 4: HOMELESS ENCAMPMENT CLEANUPS IN FY 2021-22.	25
FIGURE 5: DENSITY OF TRASH REMOVED AT HOMELESS ENCAMPMENT CLEANUPS IN FY 2021-22.	26
FIGURE 6: ILLEGAL DUMPING LOCATIONS CLEANED IN FY 2021-22.....	28
FIGURE 7: DENSITY OF ILLEGAL DUMPING LOCATIONS CLEANED IN FY 2021-22.	29
FIGURE 8: VOLUME OF TRASH REMOVED BY FISCAL YEAR AND SOURCE AND PROXIMITY TO WATERWAY	31

LIST OF TABLES

TABLE 1: LAND USES OF JURISDICTIONAL AND NON-JURISDICTIONAL LAND AREAS IN THE CITY OF OAKLAND.....	2
TABLE 2: NUMBER OF HOMELESS INDIVIDUALS AND SHELTER STATUS IN OAKLAND AND ALAMEDA COUNTY IN 2019 AND 2022.....	17
TABLE 3: SUMMARY OF HOMELESS SHELTER SERVICES FOR FY 2021-22.	20
TABLE 4: SUMMARY OF COMMUNITY CABINS SERVICES FOR FY 2021-22.	21
TABLE 5: HOMELESS ENCAMPMENT ABATEMENT SUMMARY BY FISCAL YEAR.....	22
TABLE 6: VOLUMES OF TRASH REMOVED FROM HOMELESS ENCAMPMENTS BY FISCAL YEAR.	24
TABLE 7: ILLEGAL DUMPING ABATEMENT TOTALS FYs 2012-13 THROUGH 2021-22.....	27
TABLE 8: SUMMARY OF GALLONS OF TRASH REMOVED VIA HOMELESS ENCAMPMENT AND ILLEGAL DUMPING CLEANUP EFFORTS BY FISCAL YEAR.....	30
TABLE 9: ASSESSMENT RESULTS FOR TARGETED TRASH RECEIVING WATER MONITORING CONDUCTED DURING 2018-19.....	34
TABLE 10: ASSESSMENT RESULTS FOR TRASH RECEIVING WATER MONITORING AT LAKE MERRITT IN 2018-19.	34
TABLE 11: FY 2021-22 TRASH LOAD REDUCTION OFFSET DATA SUMMARY.....	38

SECTION 1: INTRODUCTION

The purpose of this Direct Trash Discharge Control Report (Direct Discharge Report) is to provide an update on the progress that the City of Oakland (City) has made on the implementation of its Direct Discharge Trash Control Program (Direct Discharge Program), which is designed to reduce the impacts of trash from homeless encampments and illegal dumping into local creeks, lakes and the San Francisco Bay. The trash control measures implemented by the City as part of the Direct Discharge Program are described in its Direct Discharge Control Plan (Direct Discharge Plan) dated February 2019. Information provided in this Direct Discharge Report is focused on the efforts made by the City during Fiscal Year (FY) 2021-22.

The information contained within this report supports the City's 15% trash load reduction offset included in its FY2021-22 Annual Report and claimed in accordance with the Provision C.10.e.ii of the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit (NPDES Permit No. CAS612008, Order No. R2-2015-0049) (MRP). The MRP allows Permittees to offset part of Provision C.10.a trash load percent reduction requirements by implementing a comprehensive plan, approved by the Executive Officer to control direct discharges of trash to receiving waters from non-storm drain system sources. The Provision sets a maximum of 15% offset credit. MRP Provision C.10.f.ix. requires that Permittees claiming a C.10.e.ii offset include the following with their annual report:

- A summary description of control actions;
- Receiving water assessment results;
- Quantification of trash volume controlled;
- Assessment of resulting improvements in receiving water condition; and
- The claimed offset and documentation of information used in the C.10.e.i formula.

This Direct Discharge Report fulfills these requirements and is structured as follows:

- **Section 2** provides background information on the City and the regulatory context of the Direct Discharge Program.
- **Section 3** provides a summary description of the City's homelessness prevention and support programs and the City's efforts to manage and control trash and debris associated with homeless encampments.
- **Section 4** provides a summary description of the City's efforts to prevent and control illegal dumping.
- **Section 5** quantifies the results of the City's efforts to prevent, control, and remove trash associated with homeless encampments and illegal dumping.
- **Section 6** includes an initial assessment on the condition of receiving waters resulting from the City's control efforts.
- **Section 7** presents the City's funding and planned actions for the Direct Discharge program in FY2021-22 and beyond.
- **Section 8** presents the claimed trash reduction offset and supporting information.

SECTION 2: BACKGROUND

2.1 CITY OF OAKLAND

Incorporated in 1852, the City of Oakland covers 36,749 acres in Alameda County. Of this land area, 27,926 acres are considered jurisdictional areas that are subject to trash load reduction requirements included in the MRP.

According to the 2010 Census, Oakland has a population of 390,724, with a population density of 7,004 people per square mile and an average household size of 2.49.¹ Oakland's demographics include: 21.3% under the age of 18, 9.3% between the ages of 18 and 24, 33.1% between the ages of 25 and 44, 25.2% between the ages of 45 and 65, and 11.1% older than 65 years of age. The median household income of Oakland residents in 2010 was \$49,721, with 18.7% of living in poverty.

There are seven primary land use categories within the City. A summary of the land uses within Oakland as depicted by the Association of Bay Area Governments' (ABAG) land use data layer (2005)² is provided in Table 1.

Table 1: Land Uses of Jurisdictional and non-jurisdictional land areas in the City of Oakland.

Land Use Category	Jurisdictional Area (Acres)	% of Jurisdictional Area
Commercial and Services	1,545	5.4%
Industrial	2,239	7.9%
Residential	16,767	59.0%
Retail	1,318	4.6%
K-12 Schools	810	2.8%
Urban Parks	602	2.1%
Other	5,143	18.1%

2.2 DIRECT DISCHARGE TRASH PATHWAYS

Trash is transported to local creeks, Lake Merritt, and the San Francisco Bay through a number of different pathways, including the City's municipal separate storm sewer system (MS4). Pathways other than the City's MS4 include wind blowing trash directly to waterways, trash located near creeks, and trash left behind or dumped at homeless encampments in or near waterways. These non-MS4 pathways are collectively named "direct discharges." The two pathways that are addressed via the City's Direct Discharge Program are illegal dumping and homeless encampments. Background information on these direct discharge pathways was provided in the Direct Discharge Plan and is also described below. Additional information on the actions that the City is taking to address trash from the MS4 pathway via its Long-Term Trash Load Reduction Plan is included in Section C.10 of its FY 2021-22 Annual Report to the Regional Water Board.

¹According to the California Department of Finance (<https://dof.ca.gov/Forecasting/Demographics/>), the City of Oakland population as of January 2022 was 424,464, which is an 9% growth from 2010.

² ABAG (Association of Bay Area Governments). 2005. Bay Area Land Use Geographical Information Systems Data Layer.

2.2.1 Homeless Encampments

The homeless epidemic is a crisis for Oakland, the entire Bay Area, and every major city along the West Coast. According to the 2019 Alameda County Homeless Census and Survey Comprehensive Report³ the unsheltered population in the City increased by 69% between 2017 and 2019. As discussed further in Section 5.1, according to the 2022 Census there was an additional 4% increase in the unsheltered population in Oakland between 2019 and 2022.

Trash generated at, or dumped near, homeless encampments accumulate due to limited or nonexistent sanitation and debris services. This unmanaged trash can lead to discharges to storm drains and directly to waterways. The Regional Water Board recognized the impacts that homelessness is having on water quality when they adopted Resolution No. R2-2015-0024 (Actions to Address the Adverse Water Quality Impacts of Homeless Encampments) in 2015. The resolution encourages local agencies to undertake efforts to eliminate and prevent adverse water quality impacts from homeless encampments and finds that discharges or dumping of trash and human waste from homeless encampments poses a significant threat to water quality and public health. The resolution also identifies the need for clear and measurable goals for protecting and restoring water quality and acknowledges that the problem of trash and human waste discharges from homeless encampments is entwined with complex and challenging societal issues, including poverty, the Bay Area's high cost of living, under-employment and unemployment.

The trash control measures that the City is implementing to address water quality impacts associated with trash from homeless encampments is discussed in Section 5.

2.2.2 Illegal Dumping

Oakland has a severe, well-documented problem with illegal dumping throughout the City. As described in the Direct Discharge Plan, Oakland Public Works Department (OPW) spends approximately \$14 million⁴ on eradication of illegal dumping annually. City resources include 71 men and women in OPW that collect illegal dumping and rapidly remove reported graffiti incidents. Crews remove the illegally dumped materials seven days a week and follow a performance standard of addressing 85% of the requests within three business days. In FY 2021-22, the City addressed over 46,000 work orders and removed more than 15.2 million gallons of illegally dumped debris and litter from City streets, parks and right-of-way (See Section 5.6.2). Even with this herculean effort in picking up material faster than weekly garbage service, the challenge of the illegal behavior persists. Illegal dumping blights Oakland, impacts both residential and commercial property owners, degrades local pride and is devastating to the community.

In spring 2017, the City conducted a survey of illegal dumping sites to help staff better understand the materials found in the public right-of-way and to determine the sources of the materials including trash.⁵ The findings of the survey included: (1) more than 55% of the trash piles found included illegally dumped materials from residential sources; (2) the geographic source of 29% of the piles was identified as from Oakland; and (3) 32% of the piles were found in areas where the infrastructure was moderately to severely neglected. The data from the survey has assisted the City in developing strategies for addressing illegal dumping, including 1) eradicating illegally dumped materials from the streets; 2) enforcement to catch and prosecute the perpetrators of illegal dumping; and 3) educating Oakland residents and businesses on proper disposal methods

³ Available online at: https://everyonehome.org/wp-content/uploads/2019/07/2019_HIRDRReport_Alameda_FinalDraft_8.15.19.pdf

⁴ This total includes graffiti abatement.

⁵ City Public Works Committee Agenda Report (September 12, 2017 meeting) summarizing findings of the study can be found here: <https://oakland.legistar.com/LegislationDetail.aspx?ID=3108761&GUID=91485569-0C10-4D75-B680-1C999F90AFBA>.

and opportunities to take ownership and pride in their community. A progress update on the trash control measures intended to address illegal dumping in the City is discussed further in Section 5.

2.3 DIRECT TRASH DISCHARGE CONTROL PLAN

In February 2019, the City of Oakland prepared and submitted a Direct Discharge Plan to the Regional Water Board. The Direct Discharge Plan fulfilled the requirements of MRP Provision C.10.e.ii. and focuses on two main sources of trash to receiving waters—illegal dumping and homeless encampments. The Direct Discharge Plan describes the various programs the City has in place for homelessness prevention, support, and management, and illegal dumping abatement, and the data that the City will collect and report to demonstrate the trash reduction associated with its control measures. The Direct Discharge Plan was approved by the Regional Water Board Executive Officer in April 2019 (Attachment 1). This Direct Discharge Report satisfies the monitoring and reporting elements for FY 2021-22, as described in the Direct Discharge Plan.

SECTION 3: HOMELESS ENCAMPMENT TRASH CONTROLS

The City's efforts to minimize and control trash discharge from homeless encampments include homelessness prevention and support programs, as well as encampment management programs.⁶ A description of the various programs and progress made in FY 2021-22 are provided in this section. Metrics associated with these efforts, including trash volume controlled, are presented in Section 5. Planned actions for FY 2022-23 and beyond are described in Section 7.

3.1 PREVENTION AND SUPPORT STRATEGIES AND PROGRAMS

As described in the Direct Discharge Plan, the City is working to address the homelessness crisis in a number of different ways, in partnership with Alameda County. These include:

- Upstream interventions that prevent people from becoming homeless (e.g., \$2.7 million in FY 2019-21 funding for anti-displacement services; additional renter protections; increased relocation funding requirements),
- Providing emergency shelter and street outreach services when people become homeless (e.g., Family Front Door, Housing First Support Network, temporary cabin communities), and
- Funding the construction of more affordable housing by leveraging Community Development Block Grants, Measure KK and County A-1 funds.

A summary of the City's efforts and any updates to the City's strategy since the completion of the Direct Discharge Plan in April 2019 are presented below.

3.1.1 Shelter Crisis Declaration

The City has taken measures to expand the resources available for homeless encampment abatement activities. California Government Code Section 8698, et seq., allows the governing body of a city to declare a shelter crisis when a significant number of persons are without the ability to obtain shelter, resulting in a threat to their health and safety. In September of 2017, the Oakland City Council passed Ordinance Number 13456, which declared a shelter crisis in the City and, pursuant to California Government Code Section 8698.1:

“authorized [the City Administrator] in her discretion to suspend the provisions of state and local regulatory statutes, regulations, or ordinances prescribing standards of housing, health, or safety as needed for the interim establishment of shelters for the homeless to the extent that strict compliance would in any way prevent, hinder, or delay the mitigation of the effects of the shelter crisis.”

California Government Code Section 8698.2 provides that, upon a declaration of a shelter crisis, a city may allow persons unable to obtain housing to occupy designated public facilities (including facilities leased by the City) during the duration of the crisis. In April of 2018, the Oakland City Council passed Resolution 87129 C.M.S which directs the City to support private organizations seeking to provide temporary shelter and sanitation services on their properties, identify funding sources and public land for these efforts, and ease requirements so more housing alternatives

⁶ More information available online at :<https://www.oaklandhomelessresponse.com/>; and <https://cao-94612.s3.amazonaws.com/documents/4.16.20-COVID-19-Homeless-Response-Update-Council-Info- Memo.pdf>

can be provided.

In the City's ongoing efforts to expand the resources available for homeless encampment abatement activities, Resolution 87765 was adopted on July 9th, 2019, renewing and continuing the City Council's September 2017 declaration of a local emergency due to the existence of the City's homelessness crisis. In February 2020, the City Council passed Resolution 88038, further renewing and continuing the 2017 declaration. The 2017 declaration was renewed once again in December 2020, May 2021, and July 2022. Pursuant to California Government Code Section 8698.1, the 2017 declaration:

“authorized [the City Administrator] in her discretion to suspend the provisions of state and local regulatory statutes, regulations, or ordinances prescribing standards of housing, health, or safety as needed for the interim establishment of shelters for the homeless to the extent that strict compliance would in any way prevent, hinder, or delay the mitigation of the effects of the shelter crisis.”

A copy of the 2022 resolution is again included with this report as Attachment 2.

3.1.2 Permanent Access to Housing Strategy

The City's Permanent Access to Housing Strategy (PATH)⁷ is a roadmap for ending homelessness in the City over the next fifteen years. PATH is a companion to *EveryOne Home*, the Alameda Countywide Homeless and Special Needs Housing Plan. *EveryOne Home* is a coordinated and collaborative effort by Alameda County and the cities of Oakland and Berkeley to create a comprehensive plan for providing housing and supportive services to homeless people in Alameda County and to those people living with serious mental health illness, chemical dependency, HIV/AIDS and other disabling conditions.

PATH describes the challenge of homelessness in the City, identifies Oakland-specific outcomes to achieve the desired result of ending homelessness, and articulates strategies to achieve those outcomes that are aligned and coordinated with the strategies in *EveryOne Home*. The overarching strategy articulated in PATH and *EveryOne Home* is to shift the approach to the homelessness problem away from managing it and towards solving it. Key elements of this shift will include transitioning from emergency shelter and services towards the acquisition, development and operation of permanent affordable and supportive housing, and the restructuring and refinement of homelessness prevention activities, including new initiatives to prevent people from being discharged from publicly funded systems into homelessness and to ensure that people who do become homeless are re-housed as rapidly as possible.

To end homelessness in Oakland over the next fifteen years (projected from 2007), the City needs:

- Approximately 7,000 units of affordable and supportive housing;
- Three sources of funding: capital dollars, service dollars and operations dollars;
- County, State, Federal and private funding to leverage Oakland's local dollars; and
- Political and business leadership.

In FY 2019-20, the City updated the five-year strategy outlined in PATH.⁸ Specifically, the plan

⁷ Available online at: <http://www2.oaklandnet.com/oakca1/groups/dhs/documents/report/oak022659.pdf>

⁸ More information available online at: <https://www.oaklandca.gov/documents/2019-permanent-access-to-housing-path-framework-update>

sets the following targets as indicators of progress toward this goal:

- 2021: No families with children will be sleeping outdoors, in cars, or other places not meant for human habitation
- 2021: Reduce unsheltered homelessness by half from 2019 Point-In-Time Count levels
- 2021 Fewer than 3000 people will be homeless
- 2021: Eliminate disparities by race in permanent housing outcomes
- 2023: Homeless system can quickly shelter or rehouse anyone experiencing a housing crisis

To better define and measure the changes that are needed to achieve these results, the Plan outlines specific strategies to reach the above goals and commits to measuring the effectiveness of these strategies annually for the life of the plan, including:

- Fewer people become homeless each year
- More people return to housing as quickly as possible
- Expand, improve, and maintain crisis response beds
- People who have been homeless have the incomes and supports they need to avoid returning to homelessness
- Expand the supply of deeply affordable and supportive housing for Oakland's most vulnerable residents
- Address impacts of unsheltered homelessness on sheltered and unsheltered neighbors

The Plan recognizes that providing someone with a bed in an emergency shelter or transitional housing program offers a critical stepping-stone toward housing stability but alone is insufficient. Expanding the supply of deeply affordable and supportive housing, especially for seniors and persons with disabilities, is critical element to solving homelessness. The Plan sets a goal, within the next five years, for Oakland to create:

- 3,000 more units of deeply affordable rental housing; and
- 2,000 more units of permanent supportive housing.

All strategies proposed in the Plan are grounded in the following commitments:

- Addressing equity by eliminating racial disparities in the rates at which people experience homelessness, and rates they exit to stable housing.
- Continuing to strengthen our coordinated entry system to ensure that those most in need are prioritized for limited resources.
- Aligning Oakland resources and policies with partners in the private sector and in county, state, and federal governments.
- Learning from and using best practices based on evidence about what works.

3.1.3 Oakland Local Action Plan

The Oakland Local Action Plan⁹ is an implementation plan for addressing homelessness in

⁹ Available online at: <https://oakland.legistar.com/LegislationDetail.aspx?ID=5655487&GUID=3DC19351-7B9E-4EC9-BF97-863F7B633ECE>

Oakland in FY 2022-23. While the PATH Framework, crafted in late 2019, provided the overall goals, strategies and investments needed to dramatically reduce homelessness in Oakland over a five-year period, the purpose of this Oakland Local Action Plan is to bridge the gap between those broad goals and what is achievable with resources currently allocated and expected. The Oakland Local Action Plan is intended to be a companion document to the countywide Home Together Plan¹⁰ (footnote) and outlines Oakland's specific role in addressing homelessness locally, which contributes to the larger countywide efforts. While the work described in the Local Action Plan is closely aligned with the Home Together Plan, it is responsive to the specific needs of Oaklanders particularly the need to address the disproportionately impacted Black population. In an effort to set realistic, measurable goals, the Local Action Plan focuses primarily on strategies, resources, and expected outcomes in FY 2022-23.

3.1.4 Housing and Homeless Assistance

The City's Community Housing Services recognizes the tremendous need for services specific to the homeless population. Through the administration of contracts, the City partners with non-profit organizations to assist the homeless and near-homeless community with temporary shelter, hotel/motel vouchers, rental assistance, eviction prevention, transitional, supportive and special needs housing. Also provided are a continuum of other support services to the homeless such as food, employment, physical and mental health, drug abuse and domestic violence programs. Community Housing Services provides the following programs:

- **Homelessness Prevention** – Programs that provide one-time rental assistance or move-in assistance help to people with a temporary financial crisis to prevent them from becoming homeless.
- **Emergency Housing** – Homeless shelters, as well as hotel/motel vouchers, are included in this program to provide temporary lodging for homeless persons.
- **Transitional Housing** – Several transitional housing programs provide housing with case management and support services to families for up to 24 months. Transitional housing programs are designed to assist those families who are experiencing episodes of homelessness to sustain themselves and to bring about stability in the family unit and eventually to transition to independent living in permanent housing through services provided.
- **Special Needs/AIDS** – Housing facilities and services for special needs populations, particularly those with HIV/AIDS and their families, are provided through supportive housing programs and Housing Opportunities for Persons Living with AIDS throughout Alameda and Contra Costa Counties.
- **Homeless Mobile Outreach Program** – While committed to mitigating the public health and blight associated with homeless encampments, the City recognizes that homeless persons sleeping outside need assistance in accessing homeless services and housing resources. To assist persons living in homeless encampments, the City has established a Homeless Mobile Outreach Program (HMOP). The HMOP provides humanitarian and survival assistance and encourages people in encampments to seek case management, income, health and housing assistance referrals with a goal of becoming permanently housed members of our community.

¹⁰ Available online at: <https://homelessness.acgov.org/homelessness-assets/docs/Home-Together-Plan.pdf>

3.1.5 Keep Oakland Housed

In addition to the City’s Community Housing Services (Section 3.1.4), in 2021 the City has launched a \$9 million program—Keep Oakland Housed—intended to prevent residents from becoming homeless by providing legal representation, emergency financial assistance, and supportive services. The program is funded with \$3 million from the San Francisco Foundation through an anonymous donor and up to \$6 million from Kaiser Permanente. It is run as a partnership between three local nonprofits: Bay Area Community Services, Catholic Charities of the East Bay, and East Bay Community Law Center. Keep Oakland Housed distributes up to \$7,000 in financial assistance to each household in need of help. Funds are not distributed directly to the families in need but instead to their landlords or other third-party providers or vendors. The money is intended to help residents pay rent, cover moving costs, or handle an unexpected bill. Eligibility requirements are annual income up to \$40,700 for a one-person household or \$58,000 for a family of four (household income at or below 50% of the Alameda County median income).

3.1.6 Additional Prevention and Support Efforts

In support of its ongoing efforts to address homelessness, the City has identified nine actions to focus its efforts:

1. Encourage and support private development of expanded housing options;
2. Pursue multiple strategies including leases with non-profits and faith-based organizations;
3. Permit the disposal of sewage through a temporary holding tank with a contract for regular pumping for people who live in RVs;
4. Amend the City's business tax ordinance to waive the first \$30,000 annually in residential rental property income from tax for property rented through Section 8 or other means-tested housing assistance programs;
5. Identify available public land for these efforts;
6. Call upon external funders including Alameda County and US Department of Housing and Urban Development to maximize funding for these efforts;
7. Ask Alameda County, Oakland Unified School District, and Caltrans to identify available public land and/or fund support services;
8. Find funding sources to support these efforts; and
9. Identify options to deal with issues related to liability and insurance.

The September 19, 2022 report—*Performance Audit of the City of Oakland Homelessness Services*¹¹—provides updates on these planned actions.

3.2 HOMELESS ENCAMPMENT MANAGEMENT

OPW and the Department of Human Services (DHS) jointly maintain a master list of encampments considered for interventions in Oakland (e.g., removal, implementation of sanitation and trash removal). The list includes information about the encampments related to the four criteria for intervention applied by the City and described in more detail in the Direct Discharge

¹¹ Available online at: https://www.oaklandauditor.com/wp-content/uploads/2022/09/20220919_Performance-Audit_The-City-of-Oaklands-Homelessness-Services_Final.pdf

Plan: safety, health, location, size. A summary of the City's efforts and any updates to the City's actions to manage trash associated with homeless encampments that have occurred since the completion of the Direct Discharge Plan in April 2019 are presented below.

3.2.1 Homeless Encampment Task Force

Starting in 2011, the City initiated a multi-agency Homeless Encampment Task Force that meets bi-weekly to focus measures on areas subject to homeless occupation. The Task Force duties include: 1) prioritizing monthly homeless encampment clean-ups; 2) coordinating agency resources (illegal dumping crew, homeless social services and fire department personnel) for the monthly clean-up efforts; 3) collaborating with adjacent landowners (such as Caltrans) on encampment prevention and trash removal; and 4) identifying physical barriers, such as fencing or boulder installations, to prevent encampment establishment at potential tent site locations.

In May of 2020, the Emergency Homelessness Taskforce (renamed the Encampment Management Team; EMT) was established in response to COVID-19 to promote harm-reduction strategies, provide linkages to essential health and human services, and reduce encampment footprints where waste and debris are jeopardizing public safety and public health.¹²

3.2.2 Homeless Encampment Management Policy

There are currently four active interventions that the City takes in regard to an encampment. Alternatively, the City could take no action. The active interventions include:

1. **Closure** – removing the encampment and using enforcement to prevent re-encampment;
2. **Cleaning** – temporarily moving an encampment so that the location can be cleaned to resolve health and hygiene issues and then allowing the encampment residents to return;
3. **Temporary Health and Safety Measures** – providing services to address the immediate health and safety needs of persons at an encampment and surrounding neighbors such as barriers to protect campers from traffic, portable toilets and wash stations, regular garbage pickup; and
4. **Debris Pick-up** – scheduled collection of debris associated or near encampment.

Active interventions at encampment are considered and prioritized through the EMT. The City's standard operating procedure for the closure of homeless encampments with guidelines that must be followed to protect the constitutional rights of persons whose personal property remains at the locations prior to closure is provided in Attachment 3 of the City's Direct Discharge Plan. In October 2020 the Oakland City Council passed Resolution 88341 C.M.S which adopted an Encampment Management Policy.¹³

3.2.3 Trash and Debris Removal

The City's Keep Oakland Clean and Beautiful Division (KOCB), which falls under OPW, implements the Illegal Dumping Abatement Program in response to citizen reports of litter and illegal dumping (see Section 4 for more information). The KOCB also removes illegally dumped

¹² More information available online at: <https://www.oaklandca.gov/topics/emergency-homelessness-taskforce>

¹³ Available online at: <https://cao-94612.s3.amazonaws.com/documents/Encampment-Management-Policy-88341-CMS.pdf>

material associated with homeless encampments.

SECTION 4: ILLEGAL DUMPING TRASH CONTROLS

As described in the Direct Discharge Plan, the City addresses illegal dumping using three strategies:

- Eradicate illegally dumped materials from the streets
- Enforce to catch and prosecute the perpetrators of illegal dumping
- Educate Oakland residents and businesses on proper disposal methods and opportunities to take ownership and pride in their community

A description of the City's Illegal Dumping Trash Controls and progress made in FY 2021-22 are provided in this section. Metrics associated with these efforts, including trash volume controlled, are presented in Section 5. Planned actions for FY 2022-23 and beyond are described in Section 7.

4.1 AGENCY COORDINATION

In September 2017, the City formed an internal Illegal Dumping Task Force (IDTF). The IDTF meets biweekly to plan actions to implement its three strategies described above. The monthly meetings are attended by representatives from multiple City departments to receive updates and provide input on actions and goals to address the illegal dumping epidemic in the City. Staff of the IDTF also coordinate illegal dumping abatement activities with Caltrans, Union Pacific Railroad, and Alameda County Flood Control and Water Conservation District. This includes forwarding service requests, installation of fencing at key locations, and establishing procedures for joint cleanup efforts.

In Spring 2019, OPW entered into an agreement with the Alameda County Sheriff's Department to participate in the Sheriff's Work Alternate Program (SWAP). This program enables court assignees identified by Alameda County to perform litter abatement, debris and vegetation removal, assist with illegal dumping cleanup and other community service work under the direct supervision of OPW staff. The Participants in this program have proven to be a complimentary benefit that has assisted OPW with completing more tasks quickly and on a larger scale.

4.2 ERADICATION

As described in the Direct Discharge Plan, KOCB staff respond to citizen reports of litter and illegal dumping. The KOCB's Illegal Dumping Abatement Program operates seven days per week. On the weekends, there are four full time crews in four garbage trucks. Monday and Friday there are 12 full-time crews that utilize 12 trucks (garbage, flatbed, overhead loader, and pickup). From Tuesday through Thursday there are four additional fulltime crews (for a total of 16 crews) that utilize the trucks. This work is accomplished by 38 staff including three supervisors, 10 crew leaders, and 25 workers. Materials are picked up and taken to the Davis Street transfer station. Starting in 2009, every call and clean-up activity for illegal dumping is tracked through the City's data tracking system, *Cityworks*. In 2009, the City established a performance standard that 85% of its illegal dumping requests will be cleaned up within three working days.

In July 2015, as part of the new Mixed Material and Organics Franchise Agreement (MM&O) with the City's contractor, Waste Management of Alameda County (WMAC), Oakland began assigning 25 illegal dumping service requests received per workday to WMAC. Since FY 2017-

2018, Oakland assigns up to 30 services requests per workday to WMAC as provided in the MM&O Agreement.

In March 2018 the City initiated a Rapid Response Crew (RRC) that proactively removes illegal dumping from main thoroughfares, noted hotspots, and block-by-block (as opposed to responding only to dumping identified by work orders). The FY 2018-19 budget allocated funding to pay for one additional full-size packer truck and the 2018 mid-cycle budget allocated an additional \$1.7 million to create two more RRCs. The Oakland City Council allocated additional resources in FY 2020-21 to address illegal dumping. OPW utilized the funds to purchase additional equipment and hire staff to form a fourth proactive RRC.

4.3 PHYSICAL DETERRANCE

KOCB has implemented structural controls to help reduce illegal dumping. In 2009, KOCB identified 83 “high priority” illegal dumping sites and in 2010 the City launched a pilot video program that placed deterrence devices (live cameras and dummy cameras) at 46 of those locations (see Section 4.4 for more information). In addition, the City has installed physical barriers (logs, boulders, fences) at known dump sites to discourage dumping. The City continues identifying opportunities to implement additional physical deterrence methods.

4.4 ENFORCEMENT

Starting in spring of 2013, the City launched an illegal dumping enforcement initiative. This effort is multi-pronged and has created a more effective mechanism for holding illegal dumpers accountable. The initiative includes: 1) creation of a multi-departmental task force; 2) modification of the City ordinance (Ordinance 13195 C.M.S.); 3) institution of administrative fines for illegal dumping incidents; and 4) creation of “sting operations.” In 2017 the multi-departmental task force was reinvigorated as the IDTF (see Section 4.1). The Ordinance modifications include, but are not limited to, the following elements:

- Classify illegal dumping as a public nuisance;
- Make large commercial quantities of illegal dumping (one cubic yard or greater) a misdemeanor;
- Enhance administrative and civil remedies and penalties against persons for illegal dumping. The penalties include administrative citations, civil penalties, treble damages, and punitive damages;
- Provide a civil penalty up to \$1,000 per day for each large item or commercial quantity (one cubic yard or more) illegally dumped. For example, for each day an illegally dumped mattress remains on public or private property, a civil penalty up to \$1,000 is applicable. Dumping more than three cubic yards (an amount requiring more than one pickup truck to remove) would be citable as two violations;
- Permit recovery of the City's and victim's costs from the perpetrator, including costs of investigation and recovery of attorney's fees and court costs;
- Allow community service in lieu of monetary penalties, in accordance with procedures developed by the City Administrator;

- Require landlords to disclose forwarding information for tenants who leave and illegally dump their belongings near their former residences; and
- Make landlords responsible for materials tenants illegally dump near their rental units.

Since September 2014, the City operates a reward program to encourage community members to provide information on illegal dumping. The program is prominently advertised in multiple locations on the City's website and through fliers distributed throughout the City at Neighborhood Crime Prevention Council meetings and other community meetings. In addition, the City makes it easy to report illegal dumping through the 311 Call Center, via email, an online reporting form, and a mobile phone/web app.

The City's 2018 mid-cycle budget included funding to rebuild the former Litter Enforcement Officer Program that is now called the Environmental Enforcement Officers (EEOs). Starting in FY 2018-19, four EEOs and one Supervising EEO began assisting with illegal dumping enforcement efforts. EEO duties include illegal dumping outreach, education, and enforcement, issuing warning letters, and carrying out investigations to identify individuals violating illegal dumping regulations. Metrics on the program for FY 2021-22 are provided in Section 5.4.

In 2016, the City Council allocated \$100,000 in funding for implementation and use of cameras for illegal dumping enforcement. These funds allowed the City to purchase four sets of video cameras and license plate readers as well as a server at City Hall that receives the data from each camera site. The cameras are installed at undisclosed strategic locations. Camera systems are promising tools for gathering evidence and holding illegal dumpers accountable. Experience has shown that citizen's reports of illegal dumping are frequently limited to incidents citizens happen to observe and critical information is often missing to hold the illegal dumpers accountable. City staff has been adjusting the use and deployment of the cameras and expects to improve their effectiveness over time.

In the FY 2021-23 budget, the City Council authorized \$100,000 for the purchase of 10 cameras to support EEOs in their effort to deter illegal dumping on Oakland city streets. The City's goal is to install cameras near chronic dumping hotspots and use the video evidence to identify dumpers or produce supporting information needed to build credible cases for prosecution. As the City prosecutes more cases using video evidence, illegal dumpers will have to re-evaluate their desire to dump against the higher risk of getting caught. Over time, surveillance cameras may serve as an ongoing, visual deterrent to potential dumpers after the surveillance program matures.

4.5 EDUCATION

The City has taken steps to educate citizens on illegal dumping with the goal to: reset societal norms on personal responsibility for proper disposal of unwanted items; re-emphasize the laws and consequences for illegally dumping; and, remind residents and businesses of proper disposal options available to them.

A Media Outreach Campaign for Illegal Dumping is focusing on users of social media who are based in Oakland. It encompasses youth, young adults, and adults who use these platforms. For transparency and accountability, Cityworks data regarding illegal dumping is posted in a dashboard online.¹⁴ The information is updated and managed by one of the Illegal Dumping Task Force members. The messaging has informed users on City activities to address illegal dumping, and how the City and community members can work together to make progress toward cleaner

¹⁴ See <https://www.oaklandca.gov/services/oak311>.

neighborhoods.

OPW contracted with Aspire Visual Communications and Design, an Oakland-based consultant, to develop an outreach and marketing campaign to empower residents and reduce dumping. Per the contract scope, “the campaign, through messaging and outreach strategy/tools, will empower and build unity within the community by providing awareness, information, and guidance towards resources designed to promote behavioral change and reduce illegal dumping and its negative impacts.” In the spring of 2019, Aspire conducted a “research and development” phase of the campaign to gather input from stakeholders in the community, the City, and other subject matter experts to help inform what the messaging goals and scope of the campaign.

The campaign slogan, “Oaktown PROUD: Prevent and Report Oakland’s Unlawful Dumping” along with a logo was developed with significant input by the community. This slogan and logo was used on outreach materials beginning with the launch of the campaign at the **Battle for the Bay** event that took place on Coastal Cleanup Day, September 21, 2019.¹⁵ Conceived of by Oakland staff as a nod to the 20th anniversary of the famous Brown + Brown=Green event, where Oakland and San Francisco, under the leadership of Jerry Brown and Willie Brown competed to see which city could be the cleanest and greenest, the two Cities will once again participate in a friendly competition to rally volunteers and clean neighborhoods and waterways. The Oaktown PROUD messaging was featured throughout the event publicity and day-of activities. Further outreach events and media messaging will build on the momentum of the Battle for the Bay event.

Building from an idea suggested by Oakland High School students, in the summer of 2020 OPW sponsored twenty-five students from Oakland High School and Skyline High School to undergo internship training as illegal dumping experts. They developed multimedia skills for video production and public speaking skills. Over the fall and spring semesters, these students (now seniors) developed and delivered presentations to their peers and to younger students at Oakland middle schools. These presentations educated young people about the nature and impact of the illegal dumping problem and empowered them with information and encouragement on how to combat the problem, including connecting them with affordable waste disposal services such as Bulky Pickup Service and Bulky Block Parties. The concept is partly modeled after the recycling movement’s successful efforts to teach young people about correct recycling habits, which empowered those young people to in turn teach their own families.

A crucial component of the Environmental Enforcement Program is to change the behavior of those who contribute to the persistent blight in Oakland. Through zone walks, EEOs conduct educational visits to convey to Oakland residents and merchants the impacts of unlawful hauling/dumping and provide appropriate ways to dispose of waste. Officers also distribute information at community meetings, City-sponsored events, schools, and via social media. Notably, EEOs establish rapport and ongoing relationships with residents to empower Oaklanders to be a part of the solution, resulting in clean, sustainable communities. The EEOs, through their zone patrol and community engagements, routinely promote WMAC’s Bulky Pickup Service as a resource and an alternative to dumping. This awareness campaign has been instrumental in educating Oaklanders in the proper method of disposing bulky items.

4.6 BULKY PICKUP SERVICE

Appointment style curbside bulky pickup service¹⁶ is provided by WMAC and has been available free of charge if used once a year to residents of 1-4-unit single family dwellings (SFD) since

¹⁵ More information available at: <https://medium.com/@Oakland/oakland-volunteers-break-records-on-battle-for-the-bay-2019-7629634ab467>

¹⁶ More information available at: www.oaklandrecycles.com

2005, and to residents of 5-plus-unit multi-family dwellings (MFD) since July of 2015. OPW staff continues to promote the service to increase utilization by all residents, and particularly residents of MFD, through electronic distribution of ads and video content including Facebook, YouTube and Craigslist, and on television screens at both Oakland branches of the Department of Motor Vehicles. Printed promotional materials are distributed annually by mail to all Oakland households, and on an on-going basis at community fairs and events, at Oakland Library branches and Community Centers. OPW staff also provides on-site technical assistance, in collaboration with WMAC staff, to first-time MFD owners and managers to ensure successful outcomes that foster ongoing participation.

In FY 2018-19, OPW staff and the Mayor's office collaborated on a phone banking effort targeting MFD property owners and managers. In July and August 2018, OPW staff trained Mayoral interns to call MFD owners and managers and promote use of the Bulky Pickup service and to promote the waiver that allows tenants to schedule Bulky Pickup appointments directly with WMAC. Over 600 owners and managers were contacted and approximately 100 waivers were distributed.

OPW and the Mayor's Office are also collaborating on "bulky block party" events to promote participation in the bulky pickup service. The first event was held on August 25, 2018. Oakland residents may bring bulky items including appliances, mattresses, tires, and other large items for free disposal or recycling, in addition to receiving information about and encouragement to use the bulky pickup service. The program was paused for a portion of FY 2020-21 due to COVID-19 gathering restrictions. In FY 2021-22, the City resumed bulky block parties on the last Saturday of every month.

SECTION 5: MONITORING AND REPORTING

Metrics associated with the homeless encampment and illegal dumping prevention, control and removal efforts described in Sections 3 and 4 are presented in this section.

5.1 HOMELESS INDIVIDUALS

Every two years, during the last ten days of January, communities across the country conduct comprehensive counts of the local population experiencing homelessness to measure the prevalence of homelessness in each community. The Point-in-Time Count (i.e., Census) is required by the U.S. Department of Housing and Urban Development (HUD), but more importantly, it informs local strategic planning, investment, capacity building, and advocacy campaigns to prevent and end homelessness.

During the most recent general street count on the night of February 22, 2022, a total of 5,055 homeless individuals were recorded in Oakland.¹⁷ Of these homeless individuals, 1,718 were considered sheltered¹⁸ and the remaining 3,337 were considered unsheltered.¹⁹ Despite the City's ongoing prevention and support programs, the number of homeless individuals increased from what was recorded during the previous count in 2019, which was 4,071.²⁰ As shown in Table 2, the increase in the number of homeless individuals in Oakland is relatively consistent with that recorded for the County. The next Census is scheduled for 2024.

Table 2: Number of homeless individuals and shelter status in Oakland and Alameda County in 2019 and 2022.

Year	Status	Oakland	Alameda County	% in Oakland
2019	Sheltered	861	1,710	50%
	Unsheltered	3,210	6,312	51%
	Total 2019	4,071	8,022	51%
2022	Sheltered	1,718	2,612	66%
	Unsheltered	3,337	7,135	47%
	Total 2022	5,055	9,747	52%
% Change	Sheltered	100%	53%	6%
	Unsheltered	4%	13%	-4%
	Total 2019 vs 2022	24%	22%	1%

Source: EveryOne Home. 2022. Oakland 2022 Point In Time Count Unsheltered & Sheltered Report.

5.2 HOMELSS SERVICES

As of FY 2020-21, homeless services provided by the City of Oakland include operating three permanent homeless shelters, four recreational vehicle sites, one secure overnight parking locations, five community cabins, and fifty-two (52) hygiene sites. In FY 2020-21, the

¹⁷ EveryOne Home. 2022. Oakland 2022 Point In Time Count Unsheltered & Sheltered Report.

¹⁸ Living in a supervised publicly or privately-operated shelter designated to provide temporary living arrangement (ASR 2019)

¹⁹ With a primary nighttime residence that is a public or private place not designed for or ordinarily used as a regular sleeping accommodation for human beings, including a car, park, abandoned building, bus or train station, airport, or camping ground (ASR 2019).

²⁰ Applied Survey Research (ASR) 2019. Alameda County Homeless Count and Survey, Comprehensive Report.

City of Oakland used an \$8.6 million grant from the State of California Homeless Emergency Aid Program (HEAP) to create additional housing, shelter and social services for unsheltered residents. In October 2020, the City Council passed a resolution that authorizes the City Administrator to use \$6.6 million of the HEAP funds to provide beds, shelter, and services to an estimated 1,000 unsheltered residents within one year. This includes:

1. Three new additional Community Cabin sites will shelter residents living in dangerous, unregulated street encampments in West, Central, and East Oakland.²¹ This program provides emergency shelter, services and a path to transitional and permanent housing while eliminating the health and safety issues encampments have on surrounding neighborhoods. The new Community Cabin locations include:
 - 1449 Miller Avenue (City property)—Serving East 12th & 23rd Avenue, which will be displaced by the 23rd Avenue Bridge Retrofit Project.
 - 3401 Mandela Parkway (Caltrans property large enough to accommodate two Community Cabin sites)—Serving 35th & Peralta, the 2400 to 2600 block of Wood Street, and encampments near the Emeryville border.
 - 105 5th Street (Caltrans parcel under 880 from Oak to Madison streets)—For several smaller encampments near Jack London Square and Chinatown.
2. Four managed recreational vehicle (RV) sites in East, Central, and West Oakland for up to 125 RVs with secure parking, sanitary facilities, and garbage services. All locations are currently at near 100% occupancy except the recently opened site at 2401 Wood Street which is growing towards full capacity as well. Locations include:
 - 711 71st Avenue across from Coliseum BART;
 - 3499 Beach Street, connected to the proposed double Community Cabin site at 3401 Mandela Parkway;
 - 3801 East 8th Street near High Street and I-880; and
 - 2401 Wood Street
3. Increasing the number of year-round shelter beds from 350 to 450 and operating the winter shelter year-round.
4. An \$800,000 grant agreement with Bay Area Community Services to provide day-to-day management of the interim housing program for unsheltered residents at The Holland, the new rapid rehousing facility at 641 Grand Ave.

5.2.1 Homeless Shelters

In FY 2020-21 the City operated three City-funded shelters (Saint Mary's, Saint Vincent de Paul, and East Oakland Community Project - Crossroads). The City provided 225 single beds and five (5) family units available daily and year-round. Although there was no interruption to the shelters being open 365 days per year, maximum occupancy was reduced, at Saint Vincent de Paul occupancy was reduced to 75 from 100, and at the Crossroads Shelter occupancy for single beds was reduced from 125 to 99 while family beds remained the same at five (5). Increased efforts were carried out at Saint Vincent de Paul and the Crossroads Shelter to reduce risk of infection and spread by decompressing the shelters, regular wellness checks, regular covid-testing, and vaccinations as they became available.

In FY 2020-21, COVID-safety was the primary work of the Shelter staff which included regular

²¹ The City expects to spend an estimated \$4.5 million to operate these sites for 18 months and is still actively raising private contributions to purchase needed cabins and supplies and build the sites.

surveillance testing, COVID education to clients and staff, as well as vaccination events in partnership with Alameda County Healthcare for the Homeless programs. A total of 471 unduplicated individuals were provided housing through the East Oakland Community Project. During FY 2020-21 the shelter provided 25,439 single bed nights (70% occupancy) and 1,099 family unit night (60% occupancy). In addition, with 70 households (single and family units) exited to Permanent Housing, and 246 to Transitional Housing. The Saint Vincent de Paul shelter provided shelter to 234 unduplicated individuals and provided a total of 27,375 bed nights (57% occupancy). During that time frame, 4 households were moved from the shelter to permanent housing, and 118 individuals were moved to transitional housing.

Due to COVID, the FY 2020-21 Winter Relief efforts looked significantly different than in previous years. Saint Mary's Center, which normally runs a 28-bed congregate winter shelter for seniors did not open their shelter due to COVID. Instead, they received City and County funding for an intensive, street-based case management program to identify highly vulnerable seniors on the street and work with them to obtain temporary or permanent housing to stray from unsafe congregate shelter settings during the pandemic and encourage social distancing. East Oakland Community Project (EOCP) was able to safely add its regular 10 winter overflow beds to the Crossroads Shelter. These beds are for single men and women and are available on a first come first served basis.

In FY 2020-21 the City continued to increase its capacity to provide emergency/crisis response beds/spaces to people experiencing unsheltered homelessness in Oakland. The City currently has over 1800 beds/spaces for unsheltered individuals including shelter, transitional housing, and Safe RV parking programs. In FY 2020-21, the following new crisis beds/spaces opened:

- Family Matters Shelter – family shelter with 20 individual family units/60 beds
- HomeBase trailers – COVID response program for people at high risk of serious illness or death due to COVID with 67 trailers serving 128 people
- Covenant House/YEAH! shelter – 30 bed shelter for transitional aged youth
- Lake Merritt Lodge – COVID response hotel for people at high risk of serious illness or death due to COVID - 92 rooms
- Wood Street Safe RV Parking - 40 RV parking spaces

Under the City of Oakland Permanent Access To Housing (PATH) Strategy, Homeless Mobile Outreach Program (HMOP), regular outreach is conducted to assess the needs of unsheltered persons in encampments, transition aged youth (TAY), and the general homeless population to not only assess their needs but also to also provide the intervention necessary to direct unsheltered persons to housing options, health services and other human services. In FY 2020-21 the City's Homeless Mobile Outreach Program (HMOP) was expanded substantially, doubling full time employee to 10 front line workers.

In FY 2020-21 the COVID-19 pandemic continued to significantly impact outreach efforts and work focus including but not limited to increasing on the concentration on COVID-19 wellness checks, education on COVID-19 Safety and supply distribution, coordination with Street Medicine Teams, supporting vaccination and testing events, special assignments for relocating the most vulnerable, as well as reduced fieldwork hours. In spite of these difficulties, outreach efforts resulted in the following outcomes:

- 17,914 units of harm reduction supplies including food, water, blankets, fire

extinguishers, flashlights, socks, etc. were distributed.

- Street-based services were offered to 895 unduplicated, unsheltered persons living in homeless encampments, in their vehicles or on the streets.
- Over 4,493 units of duplicated outreach and intensive case management efforts were provided to the 895 unduplicated unsheltered persons.
- From the outreach services to the unsheltered, 43 individuals successfully exited homelessness to positive housing destinations including permanent housing, transitional housing, shelters, and respite.

Table 3 provides a summary of homeless shelter services provided in FY 2021-22.

Table 3: Summary of homeless shelter services for FY 2021-22.

Emergency Shelter	Beds Available Per Night	Number Moved to Transitional Housing	Number Moved to Transitional Housing
East Oakland Community Project	99	121	401
Saint Vincent de Paul	45	24	226
TOTALS	144	145	226

5.2.2 Community Cabins

The City of Oakland established Community Cabins to provide individuals living in encampments with a specific location where they can stay temporarily. Each site serves up to 40 individuals at a time for up to 6 months. Services include wash stations, portable toilets, garbage pickup, and housing navigation (case management) services. Program goals are to increase health and safety of residents, to connect residents with mainstream services and the mainstream homeless response system, and to end the unsheltered status of residents.

The pilot program began in December 2017 with the opening of the first site at 6th & Castro (known as Castro Community Cabins). In May 2018, a second site was opened at 27th & Northgate (known as Northgate Community Cabins). The 6th and Castro site was closed in January 2019, but two more programs opened during FY 18-19; Lake Merritt Community Cabins in October 2018, and Miller Community Cabins in January 2019. Three more sites opened in FY 19-20, Mandela Parkway North, Mandela Parkway South, and Oak Street Community Cabins. As of March 2020, the Lake Merritt Community Cabins were decommissioned and currently five sites are operating Citywide. A photograph of the site at Peralta Park and Lake Merritt Channel is provided in Figure 1.



Figure 1: Community Cabin (Tuff Shed) Site example.

In response to the Covid-pandemic approximately 10-12 beds are taken offline to afford single occupancy units for those who are medically fragile. The reduction of maximum occupancy leads to approximately 182 beds being available during FY 2020-21. In addition, FY 2020-21 saw significant reduction in positive outcomes as a result of the multitude of challenges presented during the global pandemic including but not limited to; staffing shortages, Covid-exposures and infections, shelter in place, eviction moratoriums, reduced housing availability, etc. The following services were provided during FY 2020-21:

- 428 unduplicated clients served (253 of those have been homeless one year or longer).
- 72 individuals transitioned to permanent housing locations.
- 121 individuals exited to transitional housing/temporary locations.

Table 4 provides a summary of community cabin services provided in FY 2021-22.

Table 4: Summary of community cabins services for FY 2021-22.

Community Cabin	Beds Available Per Night	Number Moved to Transitional Housing	Number Moved to Transitional Housing
Miller Community Cabin	Inactive	0	91
Oak Street Cabin	60	0	72
Lakeview Drive	55	2	56
3 rd Street and Peralta Street	40	0	28
Mandela N Cabin	36	6	102
Mandela S Cabin	36	2	62
Northgate	35	2	76
TOTALS	262	12	487

5.2.3 Sanitation and Garbage Services

Sanitation services provided by the City at many locations associated with homeless encampments include portable bathrooms, hand-washing stations and/or garbage carts. In FY 2020-21 the City increased the number of sanitation service locations from forty-five (45) to fifty-two (52), there are also thirteen (13) sites served by mobile showers.

An image showing sanitation and garbage services at a homeless encampment sanitation site managed by the City of Oakland is presented in Figure 2. The porta-potties and hand-washing stations are serviced regularly by the vendor. OPW staff picks up the garbage and debris at these locations once per week (see Attachment 3 for the cleanup schedule). Trash removal volumes associated with sanitation and garbage services are presented and discussed in Section 5.6.1.



Figure 2: Homeless encampment sanitation site managed by the City.

5.3 HOMELSS ENCAMPMENT ABATEMENT

Table 5 shows the number of homeless encampment abatements from 2010 through FY 2020-21. A total of 14 of the 113 abatements (12%) conducted in FY 2021-22 were within 500 feet of a waterway. A photograph of a homeless encampment cleanup is presented in Figure 3. Trash removal volumes associated with these abatements are discussed in Section 5.6.1.

Table 5: Homeless encampment abatement summary by fiscal year.

Action	Fiscal Year								
	2010-13	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Homeless Encampment Abatements (City-wide)	10	91	193	390	294	412	189	57	113

Note: Numbers presented in this table differ from those presented in Table 6 because this table only includes abatements and does not include garbage removal conducted at encampment sites.

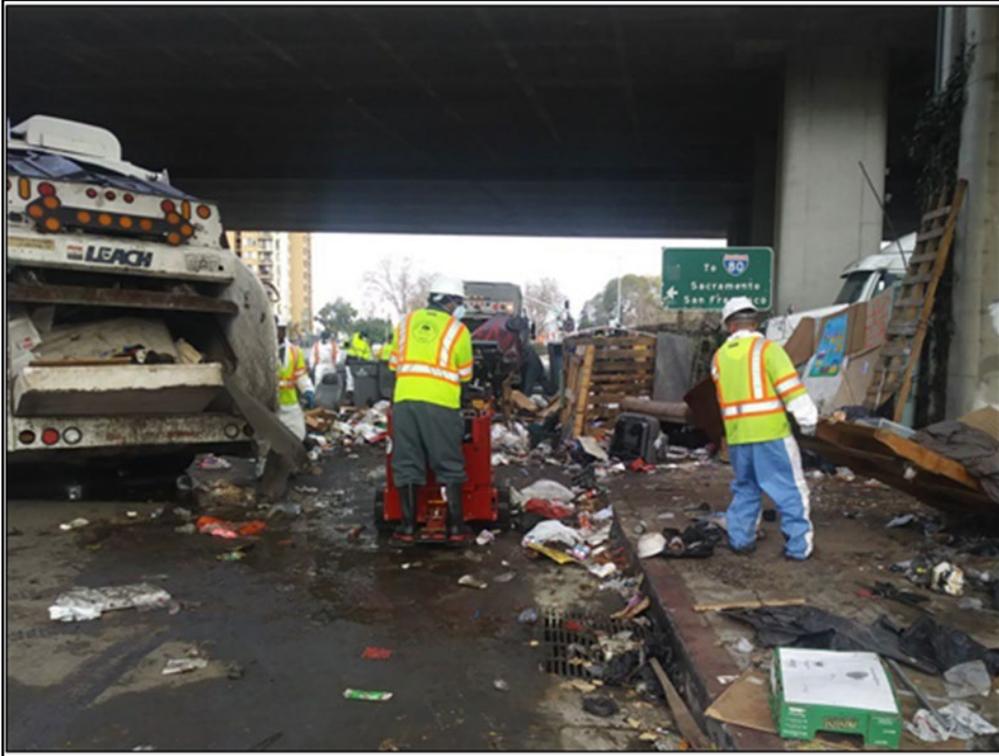


Figure 3: Homeless encampment clean-up example.

5.4 ILLEGAL DUMPING ENFORCEMENT

The City Administrator's Office's Nuisance Abatement Division issues administrative citations and warning letters based on evidence gathered from the City Attorney's Office after the initial referral of citizen information regarding illegal dumping is made by the Call Center. During FY 2021-22, the Environmental Enforcement Officer Program (EEOP) responded to 5,463 work orders from July 2021 through June 2022. EEOs issued a total of 719 citations during FY 2021-22, out of the 719 citations issued, 136 (12%) were paid by the offending party. Roughly 3% of the work orders (172 out of 5,463) were resolved by removing the illegally dumped material by the owner/resident after contact by an EEO. Approximately 1% of the work orders (41 out of 5,463) resulted in a request for community service. No work orders were referred to the City Attorney's Office, to determine whether a citation or fine would be issued.

5.5 ILLEGAL DUMPING DETERRENCE

As a means of deterring illegal dumping near Golf Links Road between Blandon Road and Glenly Road, the City installed physical illegal dumping barriers (such as logs, boulders, and fences). Log barriers will also be installed on Golf Links Road between Elysian Fields and Scotia Avenue to deter illegal dumping in Arroyo Viejo Creek. Illegal dumping barriers were also installed as part of an ongoing beautification project on Edes Avenue between 105th Avenue and Bergedo Road.

In FY 2020-21, the City began the process of completing a beautification project on Hegenberger Road between International Boulevard and Hawley Street. The project includes the removal of vegetation, illegal dumping, and litter along that section of Hegenberger Road, the installation of physical illegal dumping barriers, and the spreading of mulch to prevent vegetation growth. Plants

and flowers were planted to beautify the area and serve as a deterrence for future dumping. A similar project is ongoing at Bond Street between High Street and 42nd Avenue.

In addition to the beatification projects, the City is also working with Team Oakland students to have mosaic artwork installed on litter containers on International Boulevard from the San Leandro border to High Street. The project is intended to instill civic pride along this corridor and reduce the amount of illegal dumping that is occurring around litter containers. Due to COVID-19 related delays, not all available funding for beautification and physical illegal dumping deterrence were utilized in FY 2020-21.

5.6 TRASH VOLUME CONTROLLED

5.6.1 Homeless Encampments

Through the combined efforts of encampment clean-ups, abatements, and recurring garbage service, the City removed more than 10.6 million gallons of homeless-related trash and debris in FY 2021-22 (Table 4). This is a 131% increase in the volume of litter removed compared to the previous fiscal year. A map showing the locations of homeless encampment clean-ups is provided in Figure 4 and a heatmap illustrating the volume trash removed in FY 2021-22 is provided as Figure 5. The heatmap shows high volumes of trash removed from or near the following waterways:

- Lake Merritt
- Courtland Creek
- Seminary Creek
- Arroyo Viejo
- the San Leandro Bay

A visual comparison of the heatmap for trash removal associated with encampments in FY 2021-22 and previous FYs, provided in Attachment 4, suggests that clean-up locations have remained relatively consistent since last year. Most of the trash associated with homeless encampments is concentrated around West Oakland and the areas surrounding International Boulevard. Additional discussion of the number of homeless encampment clean-up events and the volume of trash removed in FY 2021-22, including efforts within 500 feet of a waterway, is provided in Section 5.6.3.

Table 6: Volumes of trash removed from homeless encampments by fiscal year.

Action	Fiscal Year				
	2017-18	2018-19	2019-20	2020-21	2021-22
Volume trash & debris removed (gallons)	557,942	2,357,433	3,513,253	4,577,342	10,573,791

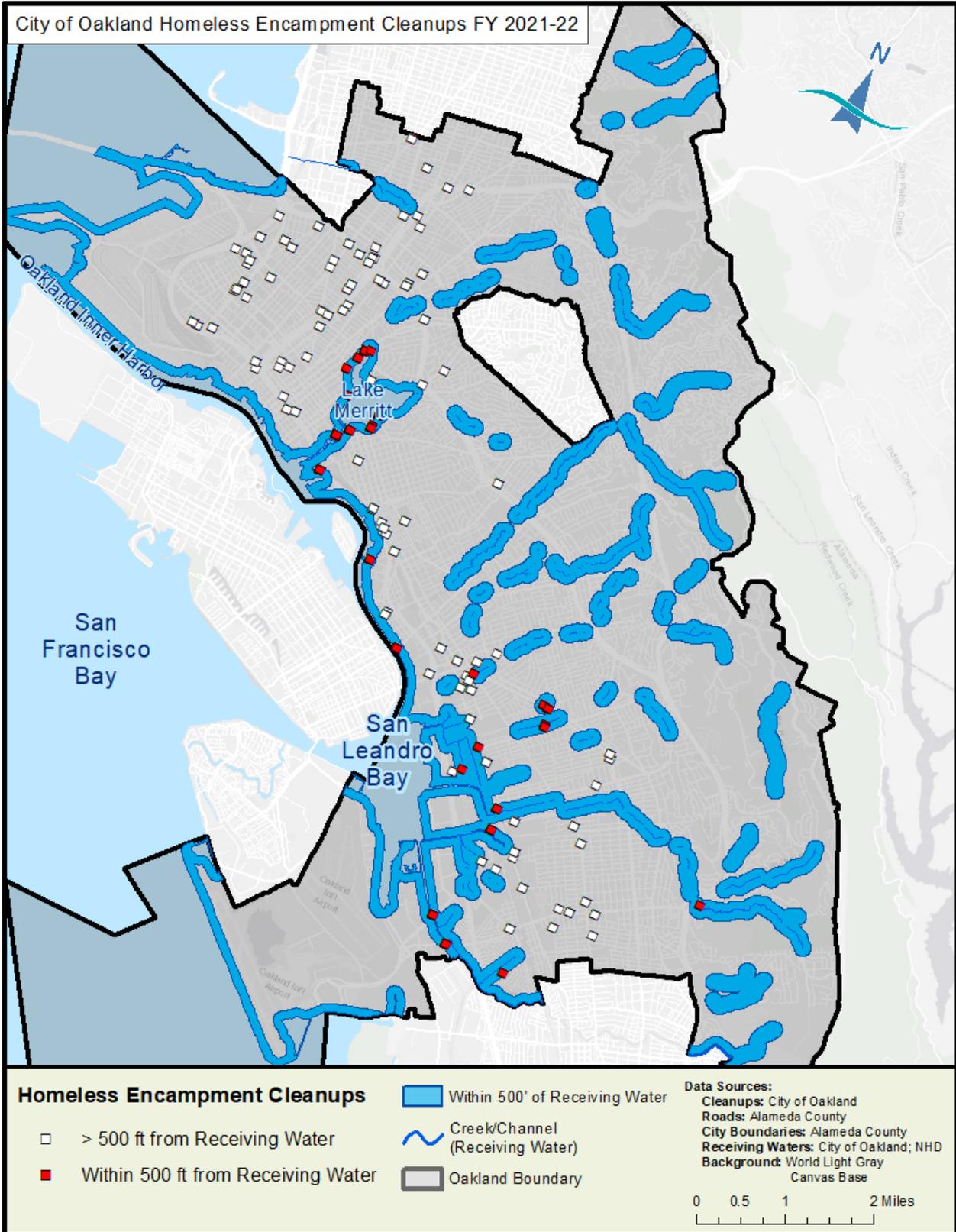


Figure 4: Homeless encampment cleanups in FY 2021-22.

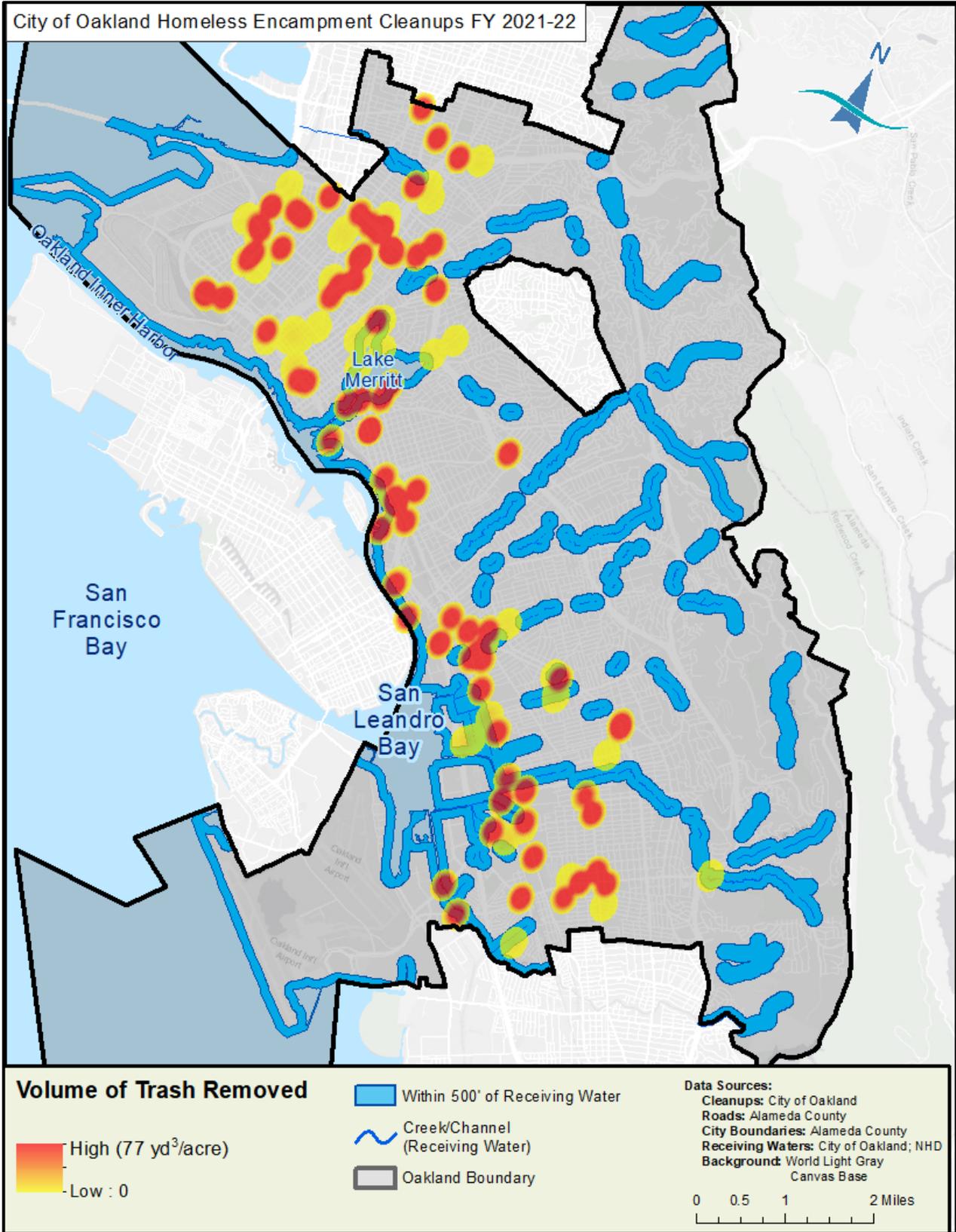


Figure 5: Density of trash removed at homeless encampment cleanups in FY 2021-22.

5.6.2 Illegal Dumping

Through the combined efforts of the KOCB and WMAC, the City removed more than 15.2M gallons of illegally dumped debris and litter from City streets, parks, and rights-of-way in FY 2021-22. This is a 18% decrease from the amount removed in FY 2020-21 (Table 5). In FY 2021-22, 91% of work orders associated with illegal dumping were closed within three working days, which exceeds the standard of 85% set by the City and is consistent with performance in past years.

A map showing the locations of illegal dumping clean-up sites in the City in FY 2021-22 is provided in Figure 6. A heat map showing the volume of illegal dumping material removed by KOCB and RRC in FY 2021-22 is provided in Figure 7.²² Evident from these maps is that dumping occurs throughout most parts of the City, but is concentrated largely west of Highway 580, in the densest portions of the City. A visual comparison with the heatmaps from previous Fiscal Years, included in the City’s Direct Discharge Plan suggests that the geographic distribution of illegal dumping has not substantially changed over the last fiscal year.

Additional discussion of the illegal dumping clean-up events and the volume of trash removed in FY 2021-22, including efforts within 500 feet of a waterway, is provided in Section 5.6.3.

Table 7: Illegal dumping abatement totals FYs 2012-13 through 2021-22.

Metric	Fiscal Year									
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 ^a	2018-19	2019-20	2020-21	2021-22
% of Sites Cleaned within 3 Business Days	86%	85%	90%	85%	81%	86%	92%	90%	89%	91%
# of Closed Illegal Dumping Work Orders^b	15,692	17,346	17,848	21,899	32,758	34,289	39,340	44,552	59,733	46,755
Volume of Material Removed (Gallons)	7.3M	7.6M	6.9M	7.3M	11.3M	12.1M	12.8M	15.3M	18.6M	15.2M

^a The percent of sites cleaned within 3 business days in FY 17-18 is based on the KOCB work orders only. 100% of WMAC orders were closed within 3 days. Information for RRC on the % of work orders closed within 3-days was not available for FY 2017-18.

^b Number of closed illegal dumping work orders only includes work orders with trash quantities collected greater than zero.

²² The volume trash removed by WMAC is not recorded by work order and is therefore not presented on the heat maps. For purposes of this report, total volume removed by WMAC is calculated by multiplying the number of work orders handled by WMAC times the average volume removed per KOCB/RRC work order. For FY 2021-22, the average gallons per KOCB/RRC work order was calculated to be of 323. 3,551 WMAC work orders x 323 gallons per work order = 1,147,683 gallons removed by WMAC.

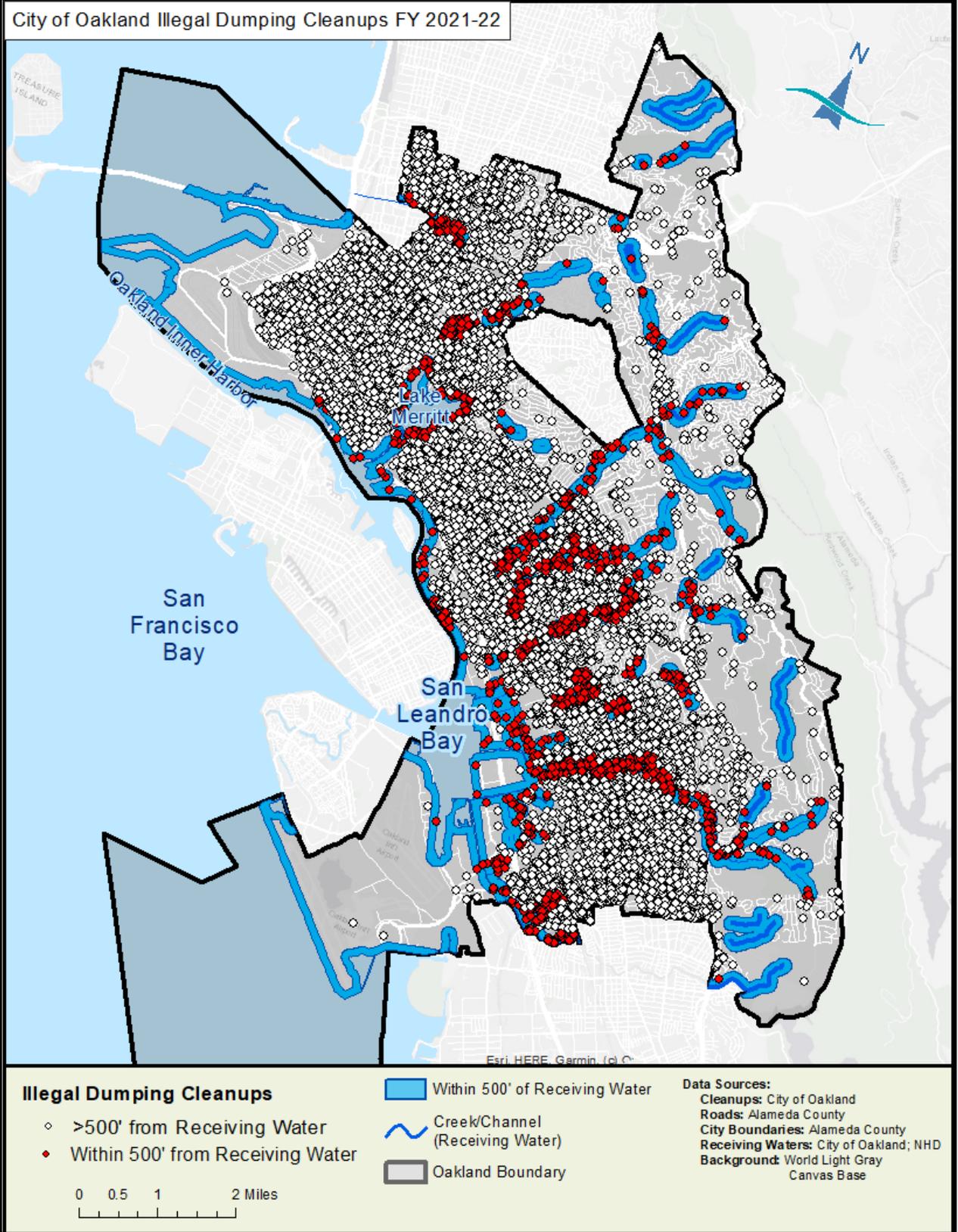


Figure 6: Illegal dumping locations cleaned in FY 2021-22.

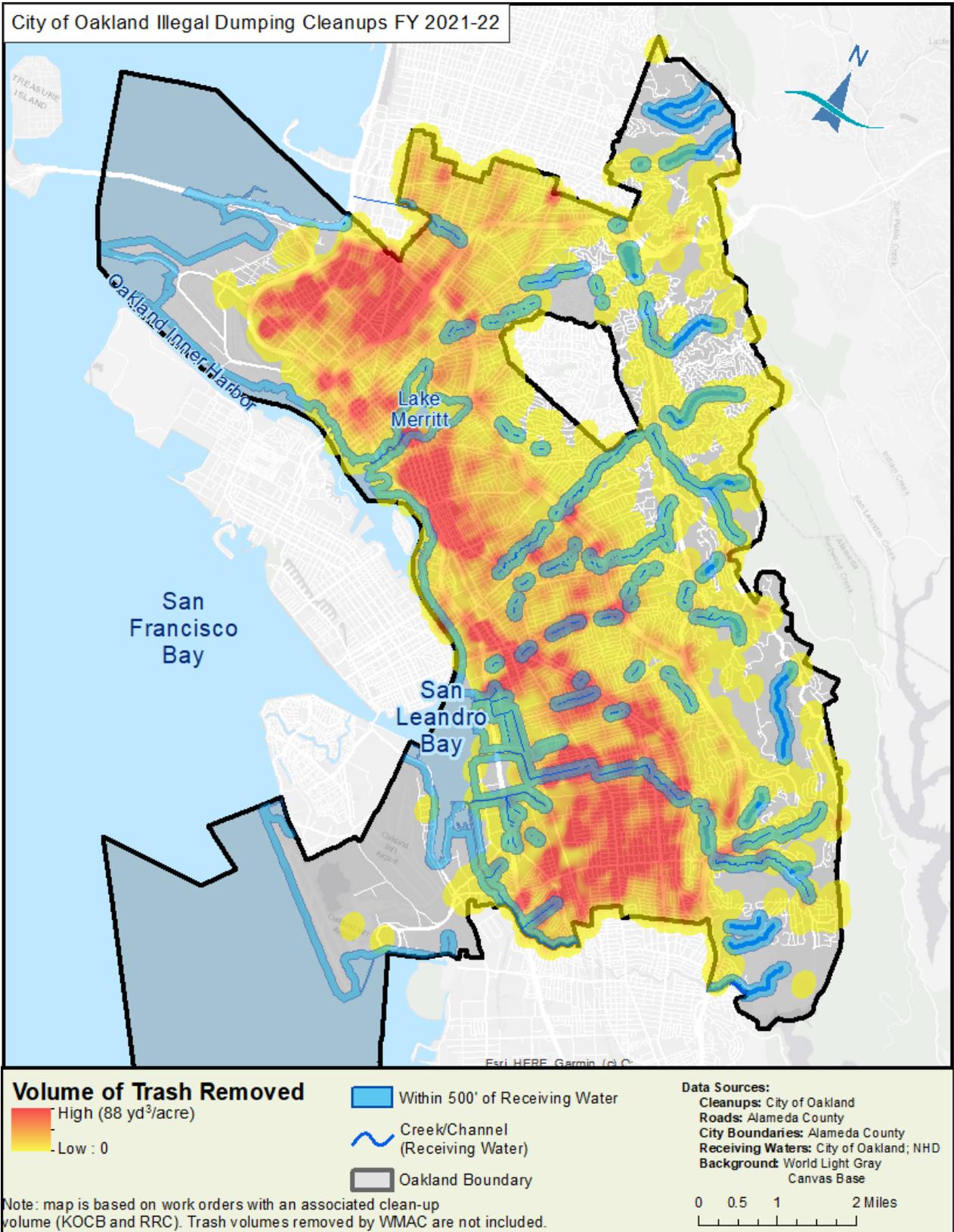


Figure 7: Density of illegal dumping locations cleaned in FY 2021-22.

5.6.3 Total Trash Volumes Removed

Through its efforts to control trash associated with homeless encampments and illegal dumping, the City of Oakland removed more than 25.7 million gallons of trash from City streets, parks, and public rights-of-way in FY 2021-22 (Table 8; Figure 8). Of this volume removed, 59% (15.2 million gallons) was associated with illegal dumping and the remaining 10.5 million gallons was associated with homeless encampments. Over 4.2 million gallons of the trash removed by the City during FY 2021-22 was within 500 feet of a waterway. That accounts for 16% of the total trash removed by the City.

Though the City’s efforts the overall volume of trash removed increased by 11% in FY 2021-22 compared to FY 2020-21, the volume of litter removed associated with homeless encampments increased by 131% during the same timeframe. For litter associated with homeless encampments within 500 feet of a waterway, the volume of trash removed increases by a factor of 2.8. In FY 2021-22, a total of 11 homeless encampment sites within 500 feet of a creek were cleaned. The increase in the amount of trash removed from homeless encampments is attributable to the City’s enhanced efforts via the KOCB Division to increase the number of cleanup events at homeless encampment sites in FY 2021-22 (Table 8; Figure 8).

As listed in Table 8, the number of illegal dumping cleanup events decreased in FY 2021-22 along with the volume of trash removed via these events, which decreased by 18%.

Table 8: Summary of gallons of trash removed via homeless encampment and illegal dumping cleanup efforts by fiscal year.

Fiscal Year	Source and Trash Removal Location					
	Homeless Encampments ^b		Illegal Dumping ^c		Combined	
	Within 500' of a Waterway	All Sites	Within 500' of a Waterway	All Sites	Within 500' of a Waterway	All Sites
Gallons of Trash Removed						
2017-18	54,340	557,942	1,899,708 ^a	12,148,044	1,954,048 ^a	12,705,986
2018-19	146,995	2,357,433	1,836,992	12,751,974	1,983,988	15,109,407
2019-20	362,408	3,513,253	1,927,317	15,262,860	2,289,725	18,776,112
2020-21	567,824	4,577,342	3,542,380	18,576,829	4,110,204	23,154,171
2021-22	1,588,629	10,573,791	2,689,151	15,211,065	4,277,780	25,784,856
Number of Cleanup Events						
2017-18	71	382 ^b	4,553 ^a	34,289	4,624 ^a	34,671
2018-19	74	936 ^b	5,519	39,340	5,593	40,276
2019-20	177	1,264 ^b	5,924	44,552	6,101	45,816
2020-21	318	1,892 ^b	9,553	59,733	9,871	61,625
2021-22	782	5,103	8,755	46,755	9,537	51,858

^a Location information was not available for the illegal dumping work orders addressed by WMAC in FY 2017-18 and therefore these data were not included in the “within 500’ of waterway” numbers for FY 2017-18. WMAC events and volumes trash removed are included in FY 2018-19 numbers presented in this table.

^b Number of homeless encampment clean-up events presented in this table differ from those presented in Table 8 because this table includes all clean-up efforts (abatement and garbage removal) conducted at encampment sites, while Table 8 presents abatements only.

^c Number of closed illegal dumping work orders only includes work orders with trash quantities collected greater than zero.

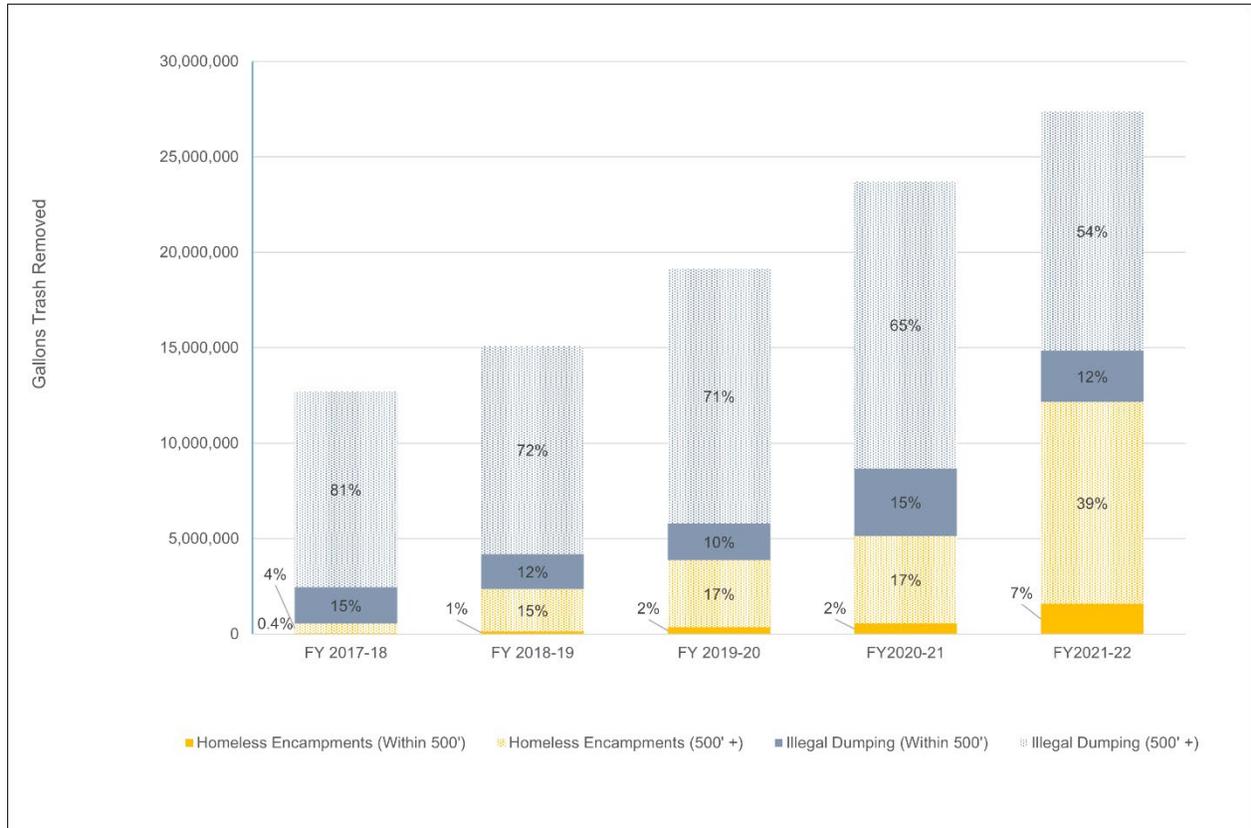


Figure 8: Volume of trash removed by fiscal year and source and proximity to waterway

Note: location information was not available for the FY 2017-18 work orders addressed by WMAC, so all volumes removed by WMAC in this FY was assigned to the 500+ category.

SECTION 6: ASSESSMENT OF RECEIVING WATER CONDITIONS

In FYs 2015-16 through 2019-20, the City participated in a regional project led by the Bay Area Stormwater Management Agencies Association (BASMAA) to develop and test a Receiving Water Trash Monitoring Plan (Trash Monitoring Plan). The project was intended to satisfy requirements in Provision C.10.b.v. of the MRP. The BASMAA Trash Monitoring Plan focused on initial evaluations of the extent, magnitude and pathways of trash present/deposited on the surface and banks of local creeks, channels, rivers and lakes/lagoons, and the shorelines of San Francisco Bay and the Pacific Ocean. The study area for the Trash Monitoring Plan consisted of receiving water bodies that are within the MRP Area, which includes portions of the five participating counties (San Mateo, Santa Clara, Alameda, Contra Costa, Solano) that are subject to MRP requirements.

As part of the testing phase of the Trash Monitoring Plan, trash assessments were conducted during 2018 through 2020 at five locations within the City of Oakland. Three sites were located at urban creeks/channel segments and two sites were located along the shorelines of Lake Merritt and Oakland Estuary. In addition, two monitoring events were conducted at two trash boom locations at Lake Merritt. The trash assessments results for the five sites in the City of Oakland are presented in Table 9. Trash boom monitoring results are presented in Table 10.

Both qualitative assessments included a visual survey that documented the levels and sources/pathways (including illegal dumping and homeless encampments) of trash observed, and quantitative monitoring that included the measurement of trash volumes collected from within defined assessment areas in creeks, channels, rivers, and lagoons. The methodology and broader study objectives are described in detail in the BASMAA Receiving Water Trash Monitoring Plan (BASMAA 2018) and the final report submitted to the Water Board by BASMAA on July 1, 2020 (BASMAA 2020).

The assessment results showed that trash deposited at sites due to homeless encampments was the predominant pathway during five (5) events. Illegal dumping was the predominant pathway during three (3) events, and litter deposited by wind or due to adjacent land uses (Litter/Wind) was the predominant trash pathway during two (2) events. The broader findings described in the final BASMAA Receiving Water Trash Monitoring Report (BASMAA 2020) show that at targeted locations, poor trash conditions are associated with higher proportions of trash from illegal encampments and illegal dumping. These findings are consistent with the data collected at the five targeted sites within the City of Oakland, where the highest volumes of total trash removed were attributed to either the homeless encampment or illegal dumping pathways.

Given that homeless encampments or illegal dumping were the most dominant pathways of trash observed at receiving water monitoring sites in the City of Oakland, receiving water monitoring may be a useful indicator, along with other on-land and programmatic indicators, to measure trends in trash levels impacting local waterways. Trend indicators and methods, however, cannot be discussed and selected independently from the actions being taken as part of the City's Direct Discharge Plan.

In May 2022, the Water Board adopted MRP 3.0, which includes requirements for direct discharge controls programs (provision C.10.f.ii). This provision requires Permittees with an existing Direct Discharge Control Programs approved during MRP 2.0 to submit an updated plan for approval no later than January 3, 2023, if they intend to continue claiming trash load percent reduction offsets. As such, the City plans to resubmit an updated plan to the Water Board by the end of 2022. This

provision requires a number of specific items be included in the updated plan, including “A description of how effectiveness of controls will be assessed, *including documentation of controls, quantification of trash volume controlled, and assessment of resulting improvements to receiving water conditions.*” As such, the City will include a proposed method to demonstrate improvements in receiving water conditions in the updated plan. To the extent possible, these methods will be consistent with trash monitoring requirements included in MRP 3.0 provision C.8 (Water Quality Monitoring).

Table 9: Assessment results for targeted trash receiving water monitoring conducted during 2018-19

Waterbody	Assessment Location	Trash Assessment Date	Assessment Area (sq ft)	Qualitative Assessment		Quantitative Assessment		Quantitative Trash Pathway			
				Trash Condition Score (0-12)	Trash Condition Category	Total Trash Removed (gallons)	Trash density (gal/ft ²)	Litter/Wind	Homeless Encampments	Illegal Dumping	Upstream Sources
Lake Merritt Channel	Shoreline	7/12/2018	3580	2	Low	8	0.002	100%	0%	0%	0%
		8/22/2019		6	Moderate	10	0.002	0%	100%	0%	0%
Oakland Estuary at Sausal Outfall	Shoreline	7/12/2018	4380	4	Moderate	20	0.005	100%	0%	0%	0%
		8/22/2019		6	Moderate	70	0.015	21%	36%	43%	0%
Courtland Creek	Creek	7/11/2018	3150	5	Moderate	5	0.002	0%	100%	0%	0%
		8/22/2019		11	Very High	30	0.009	0%	100%	0%	0%
Arroyo Viejo	Creek	7/11/2018	2780	6	Moderate	544	0.196	12%	88%	0%	0%
		8/22/2019		10	Very High	85	0.157	0%	100%	0%	0%
Peralta Creek	Creek	7/10/2018	3380	11	Very High	155	0.046	16%	6%	77%	0%
		8/22/2019		10	Very High	75	0.016	0%	13%	73%	13%

Table 10: Assessment results for trash receiving water monitoring at Lake Merritt in 2018-19.

Location	Drainage Area (acres)	Trash Assessment Date	Previous Clean Date	Period of Trash Accumulation (Days)	Trash Volume Removed (Gallons)	Gallon/Day	Gallons/ Month/Acre
Outfall 56	138	4/17/2018	3/27/2018	21	5	0.24	0.05
		2/28/2019	2/21/2019	7	20	2.86	0.62
		1/21/2020	1/28/2020	7	30	4.29	0.93
Glen Echo	1609	4/17/2018	3/27/2018	21	20.5	0.98	0.02
		2/28/2019	2/21/2019	7	102	14.57	0.27

SECTION 7: FUNDING AND PLANNED ACTIONS

7.1 FISCAL YEAR 2019-21 BUDGET

On June 25, 2019, the Oakland City Council adopted the balanced, two-year \$3.29 billion “Oakland Together” budget covering FYs 2019-2020 and 2020-21. The Oakland Together budget adopts the Mayor’s proposed budget and augments funding (\$44.4 million in amendments) to address shared priorities on which the Mayor, the City Council, and Oaklanders are aligned, including:

Illegal Dumping (\$3.6 million):

- Adds an illegal dumping crew.
- Strengthens illegal dumping rewards program and funds an education campaign to address behavior change related to littering and dumping.
- Funds “Last Saturday Free Dump Days” (referred to in this report as the Bulky Block Party Events) at the Edgewater Corporation Yard to assist residents with proper disposal of bulky waste.
- Funds additional cameras in illegal dumping hot spots.

Homelessness (\$32 million):

- Creates Oakland’s first-ever Commission on Homelessness.
- Allocates \$19.3 million in State Homeless Emergency Aid Program (HEAP) funding (\$10 million of which is anticipated from the Governor’s budget for homeless services).
- Creates a \$2.7 million fund for anti-displacement services and housing security improvements.

In partnership with the San Francisco Foundation, the Keep Oakland Housed program augments the City’s budget with \$8 million in rapid anti-displacement assistance.

In March of 2020, Oakland voters passed Measure Q—The 2020 Oakland Parks and Recreation Preservation, Litter Reduction, and Homelessness Support Act which authorizes a twenty-year annual special parcel tax. The new funds will be used to:

- Provide programs to help homeless individuals move out of parks and into shelters and housing;
- Remove trash and debris from city parks;
- Keep restrooms at parks and recreational centers clean by attending to them more than once a day; and
- Protect local water quality by cleaning storm systems and park creeks.

Oakland City Council passed Resolution 88290 C.M.S which allocated Measure Q funds in FY 2020-21 towards: \$277,348 to provide permanent housing subsidies and supportive services for the families; and a \$1.4 million grant award to Building Futures for Women and Children to

operate the Oakland PATH Re-Housing Initiative (OPRI) to fund rental housing subsidies for homeless individuals living in encampments or on the streets, youths exiting foster care or juvenile justice systems, and young adults who are at high risk of being perpetrators or victims of violence.

7.2 FISCAL YEAR 2021-23 BUDGET

On July 30, 2021, the Oakland City Council adopted the balanced, two-year \$3.85 billion “Just Recovery” budget covering FYs 2021-22 and 2022-23. The Just Recovery budget includes:

Illegal Dumping (\$1.6 million):

- Adds \$1.6 million to curtail blight and pick up illegal dumping. Institutionalizes Free Dump Days (formerly the Bulky Block Party pilot), that allow Oaklanders to dispose of large, unwanted items for free on the last Saturday of every month.
- Provides funding to increase EEOP staff capacity and enable the unit to expand efforts of combating illegal dumping, two (2) EEOs are set to be hired in FY 2021-22, and one (1) additional EEO in FY 2022-23, which will bring the total to seven (7) EEOs.

Homelessness (\$41 million):

- Creates a new Homelessness Unit in the City Administrator’s Office to coordinate the City’s overall response to the homelessness epidemic and implement Oakland’s Encampment Management Policy.
- Allocates an unprecedented \$41 million to prevent homelessness, stabilize our unsheltered residents with hygiene supports and interim housing/shelter, and help move them to permanently affordable housing.
- Creates Oakland’s first dedicated Encampment Cleaning Crews with new positions, overtime funding and equipment, which will double the number of encampments we will clean and service compared with pre-pandemic levels.
- Creates a new Community Development & Engagement unit in the Housing & Community Development Department to improve and diversify landlord-tenant education and engagement, including on Fair Chance and Just Cause Eviction laws.

On July 5, 2022 the Oakland City Council unanimously adopted mid-cycle budget amendments for FY 2022-2023. The mid-cycle budget amendments include:

- \$1.1 million to fully fund the 66th Ave. Safe RV Parking Site for the unhoused community; and
- Several grants to support violence prevention and homelessness services.

7.3 PLANNED ACTIONS

To the extent possible and within the City’s budgets, the City will continue to expand its efforts to prevent, support and control homelessness and illegal dumping in FY 2022-23 and future

years. For the FY 2022-23 fiscal year (FY), the DHS has a homeless services budget of approximately \$65.25 million through a combination of federal, state, county, and city funds.²³ Some of these funds will be spent over multiple years and this total does not include homeless specific resources which are part of the City Administrator's budget, Housing and Community Development budget or OPW budget. Besides continuing the ongoing programs described in the City's Direct Discharge Plan, it will also implement the following programs:

- Homelessness prevention, support, and control including²⁴:
 - 667 Crisis response beds (shelter, cabins, trailers)
 - 130 RV safe Parking spaces- average 2 people/space
 - Hygiene (portable toilets, wash stations) at a minimum of 60 encampments plus 7 program sites; 35 mobile shower sessions/week
 - Capacity building with a focus on racial equity
 - Capacity building initiative for small BIPOC (Black, Indigenous, People of Color) led agencies
 - Training program for providers with focus on anti-racist and culturally responsive services
- Illegal dumping abatement programs (i.e., eradicate, enforce, educate) including deploying 10 cameras to support EEOs in their effort to deter illegal dumping and enforce against dumpers.
- In June 2022 the City Council approved Resolution No. 89279 C.M.S. to accept and appropriate up to \$1.28 million in Clean California grant funds over the next two years and to execute a two-year, Clean California Maintenance Agreement (CCMA) between California's Department of Transportation (Caltrans) and the City to provide litter, bulky waste, and homeless encampment debris removal services in Caltrans' rights of way in Oakland. The CCMA will extend the City's capacity to clean areas of Oakland that are not cleaned by City crews. Caltrans will contract with the City to clean on-ramps and off-ramps, underpasses and other areas under Caltrans' jurisdiction, contributing to safer communities and more sustainable infrastructure. Twenty-three (23) locations totaling fifty-seven (57) sites were identified by Caltrans and vetted by the City for worker safety. The City will execute a contract with the Beautification Council²⁵ to perform the work on Caltrans property. Currently, OPW contract with the Beautification Council to follow after OPW homeless encampment crews at certain locations to gather and bag remaining litter and debris, broom clean and sanitize near and in active homeless encampments. The Beautification Council crews will be tasked to provide comprehensive litter, bulky waste, and homeless encampment debris abatement and disposal from Caltrans' rights of way in Oakland.

Lastly, in FY 2022-23 the City will submit an updated Direct Discharge Control Plan for approval by January 3, 2023 (per MRP Provision C.10.f).

²³ Table 1 (pp. 7-8) in the Oakland Local Action Plan (available online [here](#)) has a detailed breakdown on the accounting of the type and use of funds.

²⁴ For more information on planned actions by homeless intervention type see Oakland Local Action Plan pp. 13-19 (available online [here](#)).

²⁵ Beautification Council is a community-based, 501(c)3, local nonprofit based in Oakland. Beautification Council states their commitment is to "restore quality of life in communities adversely affected by illegal dumping, graffiti vandalism, and related blight," Beautification Council is "dedicated to combatting the pernicious issues plaguing Oakland's underserved communities, by uplifting justice system-involved and unhoused individuals through on-the-job, job readiness training and life skills training."

SECTION 8: TRASH REDUCTION OFFSET

In accordance with Provision C.10.e.ii of the Permit, the City can claim up to a 15% offset in trash load reduction using a formula identical to the offsets allowed for additional creek and shoreline cleanups (Provision C.10.e.i). This formula applies a 10:1 offset to the total trash volume collected via control measures that apply to the provision. For the City, the trash load that applies is defined as any cleanup of homeless encampments or illegal dumping that was identified as being within 500 feet of a waterway. For FY 2021-22, this includes the 1,588,629 gallons removed from homeless encampments and the 2,689,151 gallons removed from illegal dumping locations, for a total of 4,277,780 gallons (see Table 11).

Consistent with its Baseline Trash Generation Map for stormwater, the City has a reported baseline trash generation load of 490,396 gallons of trash. Fifteen percent of this baseline load equals 73,559 gallons. By applying the ten to one offset ratio, the trash volume increases to 735,594 gallons. The City would need to remove this volume of trash via actions conducted under its Direct Discharge Program to receive the 15% trash load reduction offset for implementing these actions. In FY 2021-22, Oakland removed approximately 5.8 times more trash within 500 feet of a receiving water than was necessary to claim the 15% reduction (Table 11). Therefore, consistent with the MRP, the City is reporting a 15% reduction offset in its FY 2021-22 Annual Report.

Table 11: FY 2021-22 trash load reduction offset data summary.

Metric	Trash (gallons)
Baseline Load	490,396
15% of Baseline Load	73,559
Load required to offset 15% of Baseline Load at 10:1 offset	735,594
Quantity of trash removed in FY 2021-22 within 500 feet of waterway	4,277,780 (Over 5x the Load Required to Offset 15%)

ATTACHMENTS

ATTACHMENT 1

CITY OF OAKLAND DIRECT DISCHARGE WORK PLAN APPROVAL LETTER



San Francisco Bay Regional Water Quality Control Board

Sent via email: no hard copy to follow

April 9, 2019
CIWQS ID: 241756

Watershed and Stormwater Management Division
City of Oakland
Attn.: Ms. Kristin Hathaway, Watershed Program Supervisor
250 Frank H. Ogawa Plaza, Suite 4314
Oakland, CA 94612

Emailed to: Kristin Hathaway, khathaway@oaklandca.gov

Subject: Approval of the City of Oakland's Direct Trash Discharge Controls Plan Developed per the Municipal Regional Stormwater NPDES Permit, Provision C.10.e.ii, Trash Load Reduction, Optional Trash Load Reduction Offset Opportunities, Direct Trash Discharge Controls

Dear Ms. Hathaway:

Thank you for submitting the City of Oakland's (City's) Direct Trash Discharge Control Plan (Plan), dated March 13, 2019, to the San Francisco Bay Regional Water Quality Control Board (Water Board). The Water Board recognizes and appreciates the significant resources and effort that the City has committed to in the Plan. The Plan characterizes the sources of directly discharged trash in the City and describes the approaches and activities of the City's many abatement programs and efforts. The Plan meets the minimum requirements of Municipal Regional Stormwater NPDES Permit (MRP) Provision C.10.e.ii, Direct Trash Discharge Controls.

With this letter, the Executive Officer approves the Plan submitted by the City per Provision C.10.e.ii, for the remainder of the current permit term, with the following conditions:

- x The City may claim up to a 15 percent direct discharge credit toward the trash load reduction goal in the 2018-19 and 2019-20 MRP annual reports. Credit will be based on reporting adequate success in reducing homeless encampment impacts to the trash

DR. TERRY F. YOUNG, CHAIR | MICHAEL MONTGOMERY, EXECUTIVE OFFICER

1515 Clay St., Suite 1400, Oakland, CA 94612 | www.waterboards.ca.gov/sanfranciscobay



condition adjacent to the creeks, consistent with MRP Provisions C.10.e.i and C.10.e.ii., and the collection and removal of a sufficient volume of trash.

- x Each annual report should include an update of the Plan's implementation, scheduling and funding. The update may be included in the annual report section addressing Long Term Trash Load Reduction Plan updates per Provision C.10.d, or as a separate document.
- x Any significant changes in the Plan must be submitted to, and approved by, the Executive Officer prior to their implementation.

Each Provision C.10.e.ii requirement is presented below followed by a brief summary of how the Plan satisfies the requirement.

a. Description of sources of the directly discharged trash

The Plan identifies homelessness and illegal dumping as the two main drivers of directly discharged trash and explains the root causes behind homelessness. Homeless encampments discharge trash mainly as a result of insufficient sanitation and debris collection services. Socioeconomic pressures have challenged the City's ability to combat the expanding homelessness crisis. These include long-term and recent decreases in Federal and State funding for housing programs, poverty, increasing costs of living, and under-employment and unemployment. In 2017, the City investigated the sources of illegal dumping materials and found that 55% of the piles they found included illegally dumped materials from residential sources, 29% of the material in those piles originated in Oakland, and 32% of those piles were found in areas where the infrastructure was moderately to severely neglected.

b. Description of control actions that will be implemented during the permit term to prevent or reduce direct discharge trash loads in a systematic and comprehensive manner

In order to more efficiently abate direct discharges of trash from homeless encampments, the City is addressing the homelessness crisis at its roots. This includes forming partnerships with Alameda County on funding upstream interventions and affordable housing, expanding resources available for homeless shelters by declaring a shelter crisis and passing Resolution 87129 C.M.S - a list of resources needed to end homelessness in the City by 2022 - and contracting with non-profit organizations to provide services to homeless and near-homeless people. The City has also secured a total of \$7 million in grants from a federal Community Development Block Grant, a Department of Housing and Urban Development (HUD) Emergency Shelter Grant, the HUD Supportive Housing Program, HUD Housing Opportunities for Persons with AIDS, HUD Continuum of Care, Alameda County, and the Oakland Housing Authority. The City has secured an \$8.6 million grant from the State of California's Homeless Emergency Aid Program and received \$10 million in one-time funds from Alameda County. Starting in July 2018, the \$9 million Keep Oakland Housed (KOH) program is funded and run by local businesses and organizations and endeavors to prevent homelessness by providing legal representation, emergency financial assistance, and supportive services. The City is coordinating with Caltrans on the installation of outdoor

emergency shelter facilities at locations in the City within Caltrans' right of way. For example, the City and Caltrans are planning outdoor emergency shelter facilities at three locations: 1) 27th and Northgate (existing; leased from Caltrans for a nominal payment), 2) west side of Mandela Parkway (in development), and 3) 105 5th street.

The Plan also describes the City's downstream efforts to manage homeless encampments, including the process by which encampments are identified, prioritized and abated, and the task forces and clean-up crews that perform this work. In order to prevent re-encampment of a homeless encampment that has been closed, the City uses physical barriers such as fencing or boulders when possible. A Homeless Encampment Task Force (HETF) meets regularly to review/update the list of encampments and decide which encampments will be designated for closure, cleaning, health and safety interventions, and debris pickup in the following weeks based on available resources and capacity. This task force includes staff from Public Works, Human Services, the City Administrator's Office, the Oakland Police Department, the Oakland Fire Department, and as needed, the City Attorney's Office. The City considers damage to environmentally critical areas such as receiving waters when determining if homeless encampment intervention is warranted. When Watershed and Stormwater Division staff observe, or are notified of, an encampment that is impacting a waterway, staff notifies the HETF for inclusion of that encampment in their list of priority sites. For example, the City recently removed an encampment at Peralta Park adjacent to the Lake Merritt channel that was impacting a restored wetland and moved some of the displaced homeless persons to a community cabin site at the Henry J. Kaiser Convention Center.

Through regular notification of homeless encampment cleanups within 500 feet of a waterway from the City's asset management software, Cityworks, City Watershed and Stormwater Management Division staff relay that information to the HETF on a monthly basis. Cityworks has various fields for tracking a range of conditions about the work performed, such as distance from a waterway, and all work is geocoded allowing staff to analyze homeless encampments within 500 feet of waterways. Staff are also made aware of encampments near waterways by direct contact with stakeholders such as community members or groups, or by other constituents who contact City staff when they observe activities that may be impacting a waterway. Direct observations are also made by staff when conducting other field work. Staff from the Litter Enforcement Officer Program (Litter Program) assist in identifying homeless encampments. The City also coordinates with adjacent landowners to strategize encampment prevention and trash removal – for at least 10 years, the City has held a standing quarterly meeting with Caltrans to discuss those strategies. The City has established regular sanitation services at 12 encampments, which includes garbage and debris pickup once per week.

Regarding illegal dumping abatement, the City formed an Illegal Dumping Task Force in 2017 which coordinates abatement activities with Caltrans, the Union Pacific Railroad, and the Alameda County Flood Control and Water Conservation District. The Plan contains a heatmap of illegal dumping abatement occurrences and describes the process by which Oakland Public Works Department's (OPW's) Keep Oakland Clean and Beautiful Division performs illegal dumping abatements. Launched in 2018, the Rapid Response Crew (RRC) uses trucks to remove trash from main thoroughfares, noted hotspots, and city blocks, and has secured and expanded funding for future fiscal years. Table 2 in the Plan lists illegal

dumping statistics starting in FY 2012-2013, and one important detail is that the number of closed illegal dumping works orders and the total volume of material removed have increased every year. In 2014, the City established a program which rewards community members to report illegal dumpers using the collected fines. In 2018, the City relaunched the Litter Program by hiring 5 new officers who assist in illegal dumping outreach, education, investigation, and enforcement. New budget appropriations have secured funding for the Litter Program. The Plan describes the City's illegal dumping education efforts, its free bulky pickup service, and its abatement funding. Illegal dumping abatement funding has a baseline of \$5.5 million per year which has often been increased year-to-year in order to hire new staff and purchase new resources for programs like the RRC.

Illegal dumping abatement requests are received through the City's call center and are distributed to the appropriate department(s) through a computerized maintenance management system database called Cityworks. Since 2009, the City has maintained a performance standard of closing out 85% of its illegal dumping requests within three working days. The City operates a phone app called SeeClickFix which its citizens can use to refer illegal dumping requests. Oversight of SeeClickFix comes from the supervisors and managers who oversee staff that respond to the service requests as well as the RRCs that proactively clean illegal dumping sites at main thoroughfares, noted hotspots, and block-by-block. The City facilitates a Caltrans Working Group to coordinate cleanup activities and share information regarding problem areas. Caltrans shares its monthly cleanup schedule with the City. Also, through the recently-adopted 311 system, when the City receives a complaint about dumping or other issues in the Caltrans right of way, the complaint is automatically forwarded to the Caltrans area supervisor. At many sites, Caltrans has, at the City's request, increased the cleaning frequency from once per month to twice per month to reduce impacts.

Regarding human waste discharges from RVs, the number parking on City streets has significantly increased in recent years, which has coincided with an increase in complaints about discharges of human waste. Staff has been working to address this challenge by developing a Safe Parking Program. A critical element of that program is to identify a service provider which would service RVs by collecting and appropriately disposing of their black water. Roto Rooter, an existing City contractor, has confirmed that it can provide that service. The has identified several sites and is moving forward with initial stages of implementing the Safe Parking Program.

c. Map of the affected receiving water area and associated watershed

The Plan contains a map of the City's watersheds and receiving waters. The Plan also has several maps containing trash removal data. First, there is a map of the City's homeless encampment cleanups for fiscal year 2017-18, which juxtaposes locations and volumes of trash removed from homeless encampments with locations of receiving waters. Second, there is a map of the City's illegal dumping cleanups for fiscal year 2017-18, which juxtaposes locations and volumes of trash removed from illegal dumping sites with receiving waters. Finally, there is a map showing the location of all homeless encampment cleanups and illegal dumping cleanups relative to receiving waters, for fiscal year 2017-18. In each fiscal year

that the City claims a direct trash discharge controls offset, the City will provide an updated version of each of these three maps with its MRP annual report.

d. Description of how effectiveness of controls will be assessed, including documentation of controls, quantification of trash volume controlled, and assessment of resulting improvements to receiving water conditions

The Plan describes the different types of data and information that the City will collect in order to evaluate the effectiveness of its various strategies, including: the number of abated homeless encampments and illegal dumping sites, volume of trash removed, and the number of citations. The City will submit a receiving water monitoring report in September 2020 along with its fiscal year 2019-20 annual report, which will use the results of the Bay Area Stormwater Management Agencies Association's (BASMAA) regional Trash Receiving Water Monitoring Plan to determine whether receiving water monitoring data can provide statistically significant findings on the successful implementation of the City's Plan. If necessary, the City will evaluate alternative strategies for assessing improvements to receiving water conditions, and then will obtain approval from the Water Board before implementation of any alternative strategy. With the submittal of the 2018-2019 annual report, the City will report on a metric that it will use to assess improvements to receiving water conditions. A summary of all other information required by MRP Provision C.10.e.ii.d will be submitted with each annual report in which the City requests to claim a Direct Trash Discharge Controls offset.

In each fiscal year that the City claims a Direct Trash Discharge Controls offset, the City will use the total volume of material removed (or prevented) from sites located within 500 feet of a waterway to calculate the offset that it will claim in accordance with MRP Provision C.10.e.ii. The City has determined that 500 feet is the maximum distance that trash from illegal dumping and/or homeless encampments could reach a waterway via pathways other than the municipal separate storm sewer system.

A copy of the Plan will be available at the following URL under the Direct Trash Discharge Control Plans subheading:

https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/MRP/Prov_C10.html

Should you have any questions, please contact Zach Rokeach of my staff at (510) 622-2364 or via email to zachary.rokeach@waterboards.ca.gov.

Sincerely,



for Michael Montgomery
Executive Officer

Digitally signed by Keith
H. Lichten, Division Chief
Date: 2019.04.09 18:06:14
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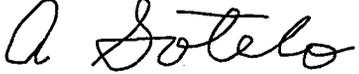
Cc: Jim Scanlin, Program Manager, Alameda County Clean Water Program

ATTACHMENT 2

CITY OF OAKLAND RESOLUTION 89320

22 JUL -7 PM 1:52

Approved as to Form and Legality


City Attorney's Office

OAKLAND CITY COUNCIL

RESOLUTION NO. 89320 C.M.S.

INTRODUCED BY VICE MAYOR KAPLAN

ADOPT A RESOLUTION RENEWING AND CONTINUING THE CITY COUNCIL'S DECLARATION OF A LOCAL EMERGENCY DUE TO THE EXISTENCE OF THE CITY'S HOMELESSNESS CRISIS

WHEREAS, homelessness has long-term and serious consequences to the health and safety of those who experience it, in particular children who are at risk of health problems including life-long behavioral health challenges; and

WHEREAS, homelessness is a national crisis where the US Department of Housing and Urban Development's 2018 Annual Homeless Assessment Report found that 553,000 Americans were experiencing homelessness on a single day; and

WHEREAS, according to this 2018 Annual Homeless Assessment Report, California accounted for 24% of the nation's homeless population; and

WHEREAS, California "does not have enough affordable housing stock to meet the demand of low-income households" and "the state's 2.2 million extremely and very low-income renter households compete for 664,000 affordable rental homes" as stated in a report by the 2018 League of California Cities Homelessness Taskforce; and

WHEREAS, in the 2017 Alameda County's Homeless Persons Point-In-Time recorded 5,629 people experiencing homelessness the night of January 30, 2017, an increase of 1,489 people from the 2015 count; and

WHEREAS, in 2017 Alameda County's Homeless Persons Point-In-Time Count, 2761 homeless persons were counted in the City of Oakland; and

WHEREAS, on September 19, 2018, a United Nations report on "adequate housing" described Oakland's efforts to "to discourage residents from remaining in informal settlements or encampments by denying access to water, sanitation and health services and other basic necessities" as "cruel;" and

WHEREAS, on January 5, 2016, and also on October 6, 2017, the Oakland City Council adopted ordinances (No. 13348 and No. 13456 respectively), both of which declared a shelter crisis due to a "significant number of persons...without the ability to obtain shelter, resulting in a threat to their health and safety;" and

WHEREAS, conditions described in Ordinance Numbers 13348 and 13456 persist including the exposure of "homeless individuals to traffic hazards, crime, risk of death and injury, exposure to weather, lack of adequate sanitation and debris services, and other conditions that are detrimental to their health and safety;" and

WHEREAS, the number of unhoused individuals or individuals living in substandard or temporary conditions continues to overwhelm our limited City resources and has a devastating impact upon the public health and safety of our residents and the citizenry; and

WHEREAS, multiple cities across California have declared homelessness an emergency including Los Angeles and San Francisco and in California, former Governor Jerry Brown declared a state of emergency in 2017 for a Hepatitis A outbreak in San Diego that killed 20 homeless individuals and left hundreds ill; and

WHEREAS, on February 26, 2019, the City Council adopted Resolution No. 87538 that proclaims that , a local emergency exists due to the welfare and safety concerns of those who live in homelessness or at risk of homelessness and pursuant to Government Code section 8630 does so declare; now, therefore, be it

RESOLVED: That the City Council of the City of Oakland finds and proclaims that a local emergency exists due to the welfare and safety concerns of those who live in homelessness or at risk of homelessness and pursuant to Government Code section 8630 does so declare; and be it

RESOLVED: That the City Council will renew its declaration of a local public health emergency about the homelessness crisis, as stated in Resolution No. 87538 at each of its regular Council meetings to assure that efforts to solve homelessness remain in the forefront and the emergency will continue until its termination is proclaimed and ordered by the City Council, and will be reviewed every 14 days by the City Council.

FURTHER RESOLVED: That the City Clerk shall communicate this resolution to all City Departments, to the Governor, to the President Pro Tempore of the California Senate and the Speaker of the California Assembly, to the regional California Congressional delegation and Senators, and to President Biden.

IN COUNCIL, OAKLAND, CALIFORNIA, JUL 19 2022

PASSED BY THE FOLLOWING VOTE:

AYES - ~~AYALA~~ GALLO, KALB, ~~MANNING~~ REID, TAYLOR, THAO AND
PRESIDENT FORTUNATO BAS - 6

NOES - 0

ABSENT - 0

ABSTENTION - 0

2 Excused - Fred Kaplan

ATTEST:



ASHA REED
City Clerk and Clerk of the Council of the
City of Oakland, California

ATTACHMENT 3

HOMELESS ENCAMPMENT CLEANUP SCHEDULE

CITY OF OAKLAND
2022 HOMELESS ENCAMPMENT CLEAN-UP SCHEDULE

UPCOMING OPERATIONS		
15-Aug-22	Mon	Wood St
16-Aug-22	Tues	Wood St
17-Aug-22	Wed	Wood St
18-Aug-22	Thurs	Wood St
22-Aug-22	Mon	E 12th Median
23-Aug-22	Tues	E 12th Median
24-Aug-22	Wed	E 12th Median
25-Aug-22	Thurs	E 12th Median
		Closure
		Closure / Deep Cleaning
WEEKLY GARBAGE REMOVAL (NO CARTS)		
Days	Location	Intervention
Tuesday-Thursday	PILE REMOVAL:	Pile Removal (PR) / Garbage Cart Service (GCS) Porta Potty (PP) / Wash Stations (WS) / Abandoned Auto (AA)
	1. 46th & E12th	PR; GCS; PP; WS
	2. 47th & E12th	PR; GCS
	3. 48th & E12th	PR; GCS; PP; WS
	4. 47th & San Leandro	PR; GCS; PP; WS
	5. 14th & MacArthur	PR; GCS; PP; WS
	6. Alameda ave & Fruitvale	PR; GCS; PP; WS
	7. E8th & Alameda	PR; GCS; PP; WS
	8. E12th Median	PR; GCS
	9. 77th & Hawley	PR; GCS; PP; WS
	10. Independent loop	PR; GCS; PP; WS
	11. 29th & MLK	PR; GCS; PP; WS
	12. 30th & MLK	PR; GCS; PP; WS
	13. Sycamore & Northgate	PR; GCS; PP; WS
	14. 23rd & MLK	PR; GCS
	15. 6th & Alice	PR; GCS; PP; WS
	16. 24th & Union	PR; GCS
	17. 23rd and Brush	PR; GCS
	18. 16th & Mandela	PR; GCS; PP; WS
	19. 34th & Peralta	PR; GCS; PP; WS
	20. 38th & San Pablo	PR; GCS
	21. 5th & Kirkham	PR; GCS; PP; WS
	22. 38th & San Leandro	PR; GCS
	23. 19th & E12th	PR; GCS
	24. 22nd & E12th	PR; GCS; PP; WS
	25. 5th & Harrison / 45th & International	PR; GCS
	26. 99th & Edes	PR; GCS
	27. 54th & San Leandro	PR; GCS
	28. 6200 San Leandro	PR; GCS
	29. 84th & San Leandro	PR; GCS; PP; WS
	30. 92nd & San Leandro	PR; GCS; PP; WS
	31. 67th & Bancroft (all around old ace hardware)	PR; GCS
	32. 8400 Enterprise	PR; GCS
	33. 14th & E. 8th	PR; GCS
	34. Leet Drive	PR; GCS
	35. Peralta Park Drive	PR; GCS; PP; WS
	36. 81st and International	PR; GCS
	37. 5th Ave. between E. 8th St. and Embarcadero	PR; GCS
	38. 45th & International/E12th	PR; GCS; PP; WS
	39. High St & Bancroft	PR; GCS
	40. Mosswood (dog park)	PR; GCS
	41. Bancroft & Hilton/55th	PR; GCS
Friday	CONT. PILE REMOVAL	Pile Removal (PR) / Garbage Cart Service (GCS) Porta Potty (PP) / Wash Stations (WS) / Abandoned Auto (AA)
WEEKLY GARBAGE REMOVAL (CARTS)		
	CONTAINERIZED GARBAGE RUN	
	1. 83rd & International (carts)	PR; GCS
	2. 84th & International (carts)	PR; GCS
	3. Bancroft & High (carts)	PR; GCS
	4. Bancroft way (carts)	PR; GCS
	5. 42nd & E12th (carts)	PR; GCS
	6. 45th & MLK (carts)	PR; GCS
	7. 36th & MLK (carts)	PR; GCS
	8. 28th & Ettie (carts)	PR; GCS
	9. 38th & Manila (carts)	PR; GCS
	10. 35th & Market (carts)	PR; GCS
	11. 35th & West (carts)	PR; GCS
	12. Bishop Flood Park (carts)	PR; GCS
	13. 34th & Telegraph (carts)	PR; GCS
	14. Driver Plaza (carts)	PR; GCS
	15. 56th & Telegraph (carts)	PR; GCS
	16. Grove Shafter Park (carts)	PR; GCS
	17. Ramandi Park (carts)	PR; GCS
	18. Elmhurst Plaza Tennis Courts (carts)	PR; GCS; PP; WS
	19. Embarcadero & Livingston (carts)	PR; GCS
	20. 96th & International (carts)	PR; GCS
	21. Cypress Memorial Park (carts)	PR; GCS; PP; WS
	22. Pine Knoll Park (carts)	PR; GCS
	23. Veteran Memorial Park (carts)	PR; GCS; PP; WS
	24. 18th and Poplar (carts)	PR; GCS
	25. 34th & Elm (carts)	PR; GCS; PP; WS
	26. Baldwin (carts)	PR; GCS; PP; WS
	27. 3rd and Chester	PR; GCS
	28. Edes and Carey	PR; GCS
	29. Channel Park	PR; GCS
	30. 20th and Willow	PR; GCS; PP; WS
	31. Dover Mini Park	PR; GCS
	32. Snow Park	PR; GCS; PP; WS

* The schedule is created in advance and posted weekly, no later than Monday.

* Information is subject to change at any time without further notice.

* Sites listed can be serviced in any order.

updated 8/12/22

ATTACHMENT 4

HOMELESS ENCAMPMENT CLEANUP HEAT MAP FY 2020-21

City of Oakland Homeless Encampment Cleanups FY 2020-21

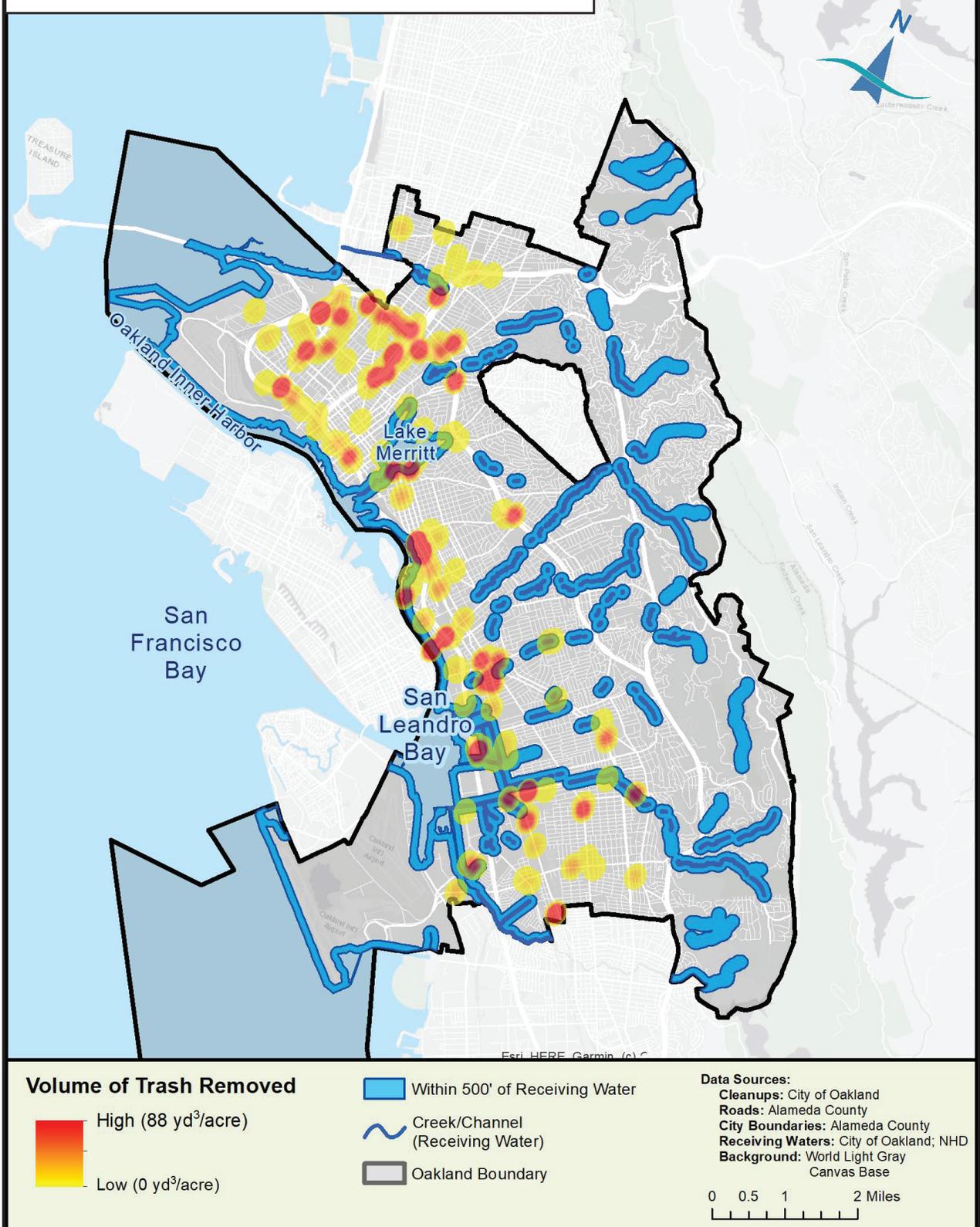


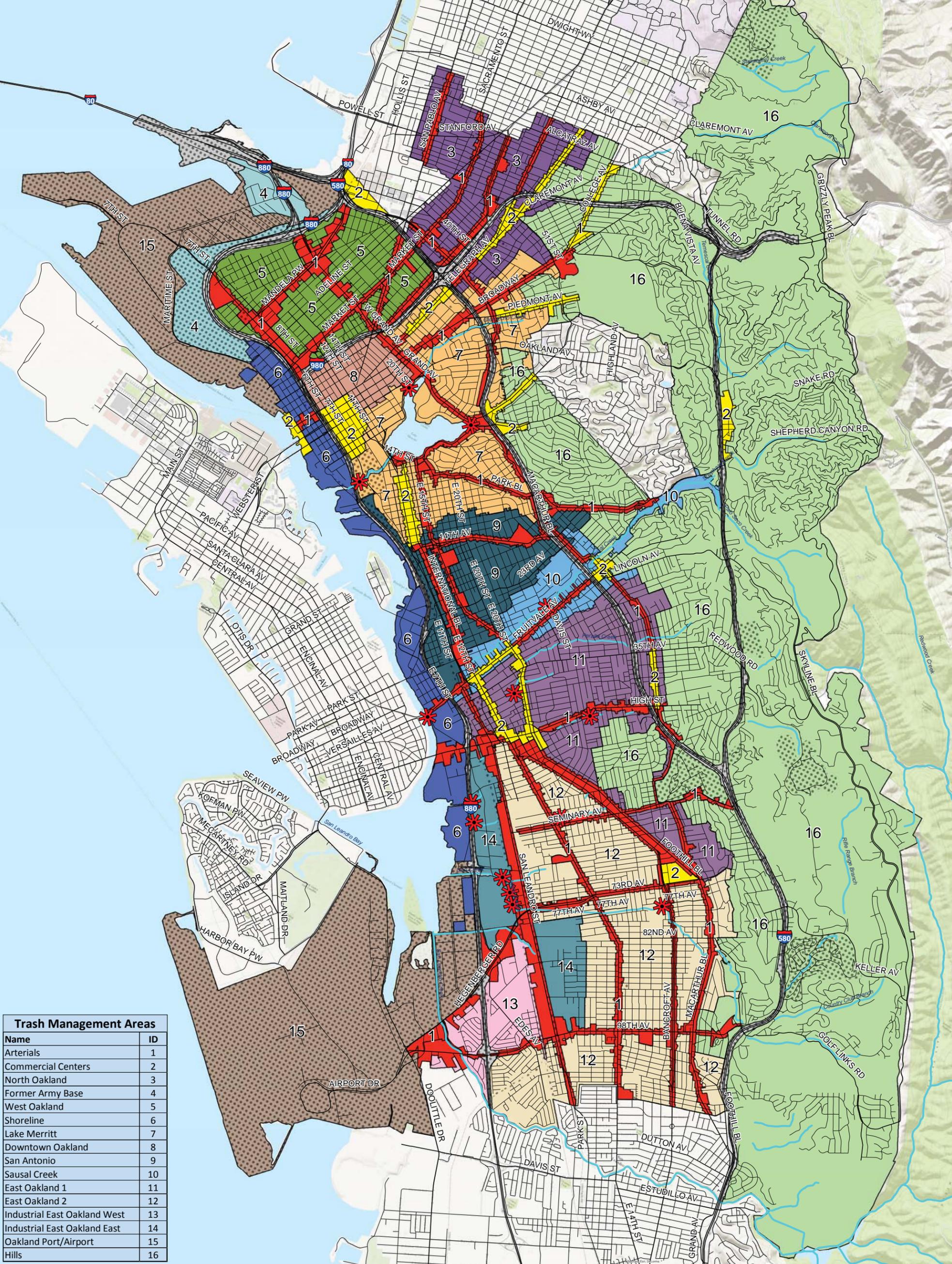
Figure 6. Density of Homeless Encampment Cleanups led by the City of Oakland, FY 2020-21.

ATTACHMENT C.10.5

City of Oakland

Trash Management Areas Map

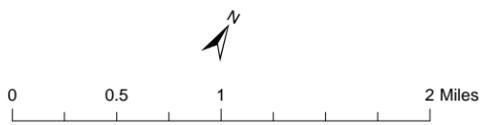
City of Oakland Trash Management Areas Map



Trash Management Areas	
Name	ID
Arterials	1
Commercial Centers	2
North Oakland	3
Former Army Base	4
West Oakland	5
Shoreline	6
Lake Merritt	7
Downtown Oakland	8
San Antonio	9
Sausal Creek	10
East Oakland 1	11
East Oakland 2	12
Industrial East Oakland West	13
Industrial East Oakland East	14
Oakland Port/Airport	15
Hills	16

Legend

- Trash Hot Spot/Assessment Area
- Non-Jurisdictional
- Streets
- Agency Boundary
- Creeks



Data Sources:
 Roads: Alameda County
 City Boundaries: Alameda County
 Background: ESRI World Topographic Map

Map Created By:
 EOA, Inc.

Date:
 January 30th, 2014

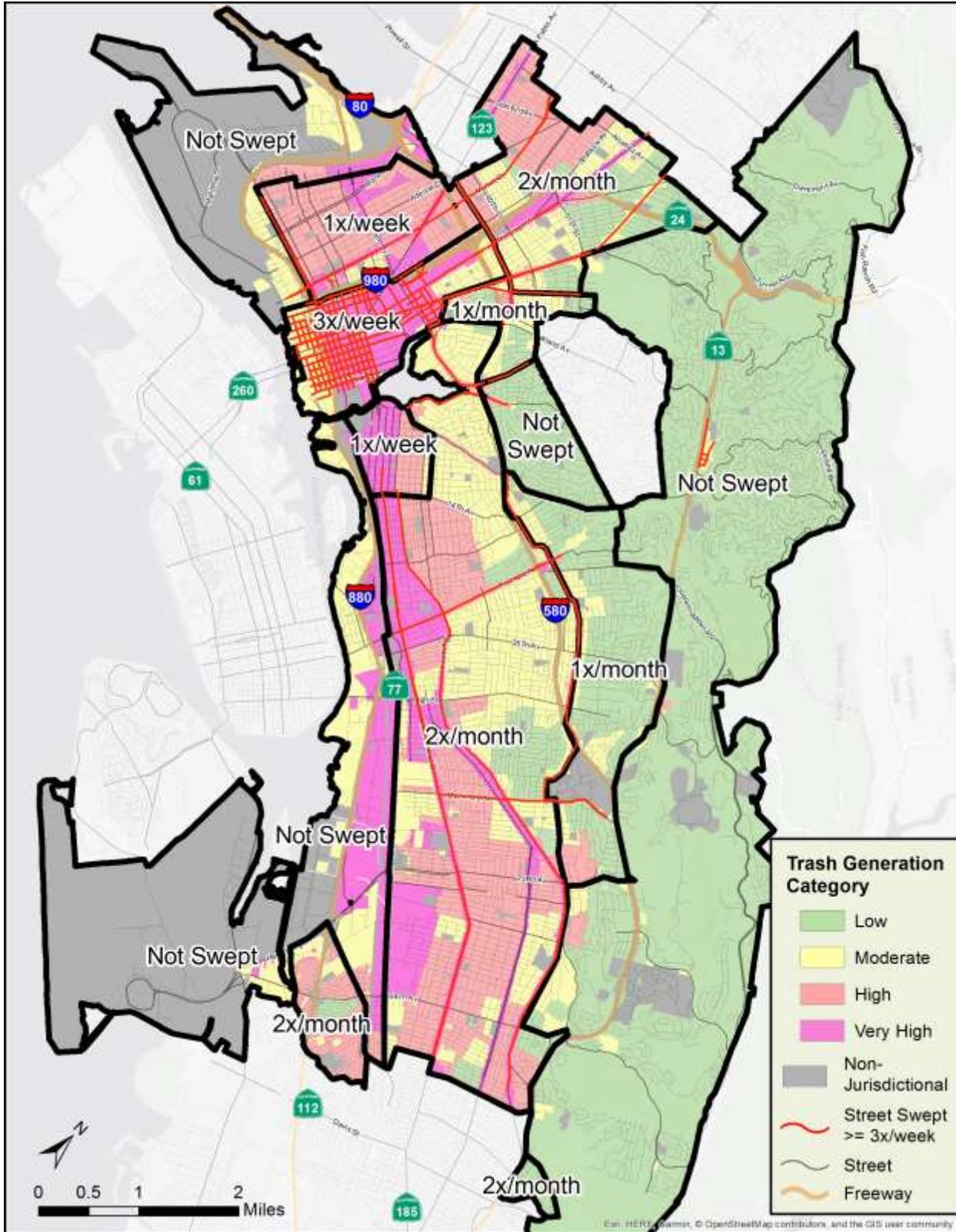
ATTACHMENT C.10.6

City of Oakland

Street Sweeping Frequency Map

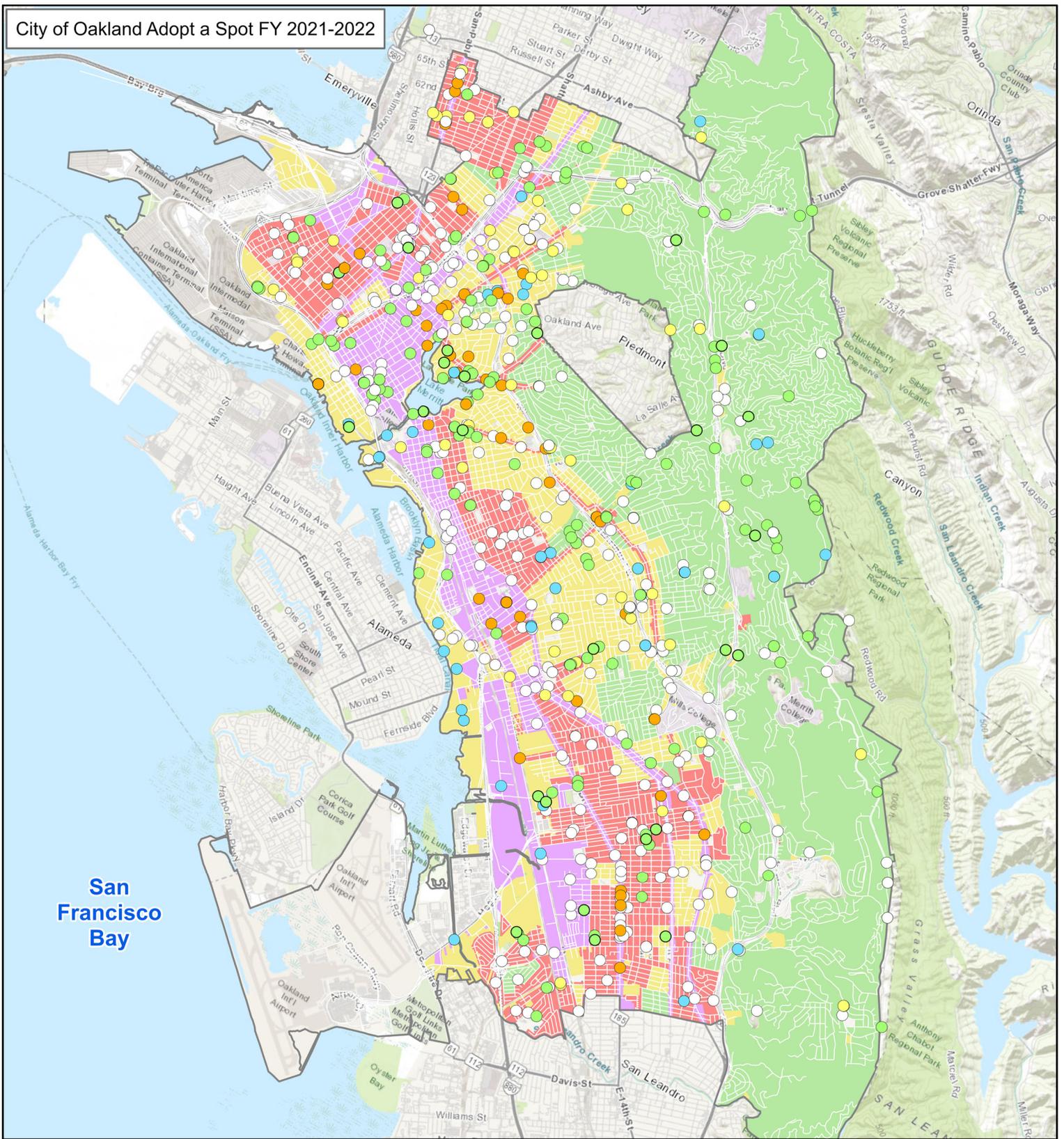
FY 2021-2022

Street Sweeping Frequency FY 2020-2021



ATTACHMENT C.10.7
City of Oakland Adopt a Spot Map
FY 2021-2022

City of Oakland Adopt a Spot FY 2021-2022



Type of Adopted Spot

- Block
- Creek/Shoreline
- Litter Container
- Median
- Park

Trash Generation Rate

- Low
- Moderate
- High
- Very High

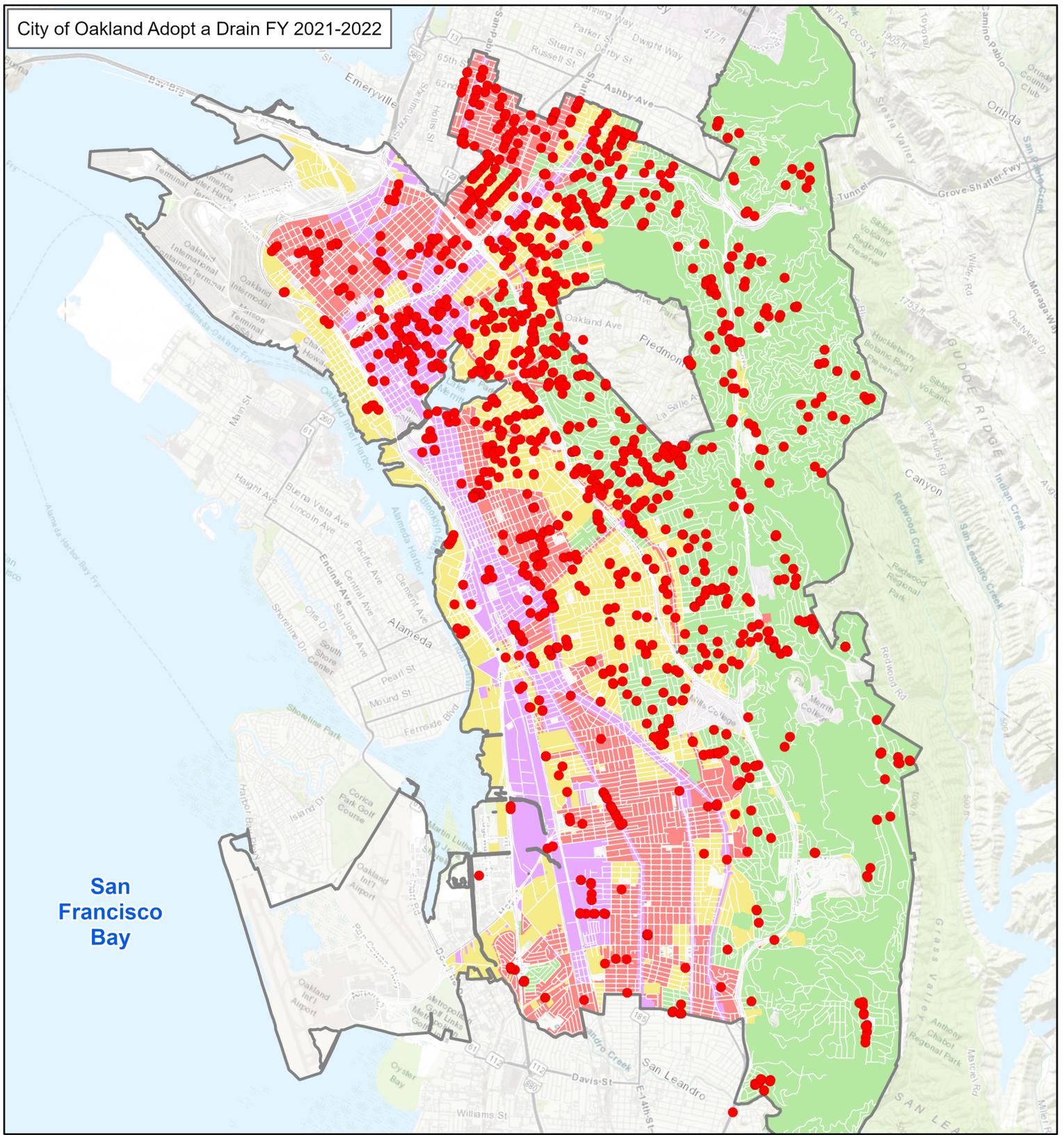


CITY OF OAKLAND



ATTACHMENT C.10.8
City of Oakland Adopt a Drain
Map
FY 2021-2022

City of Oakland Adopt a Drain FY 2021-2022



San Francisco Bay

● Adopted Storm Drain Inlet

Trash Generation Rate

- Low
- Moderate
- High
- Very High



CITY OF OAKLAND



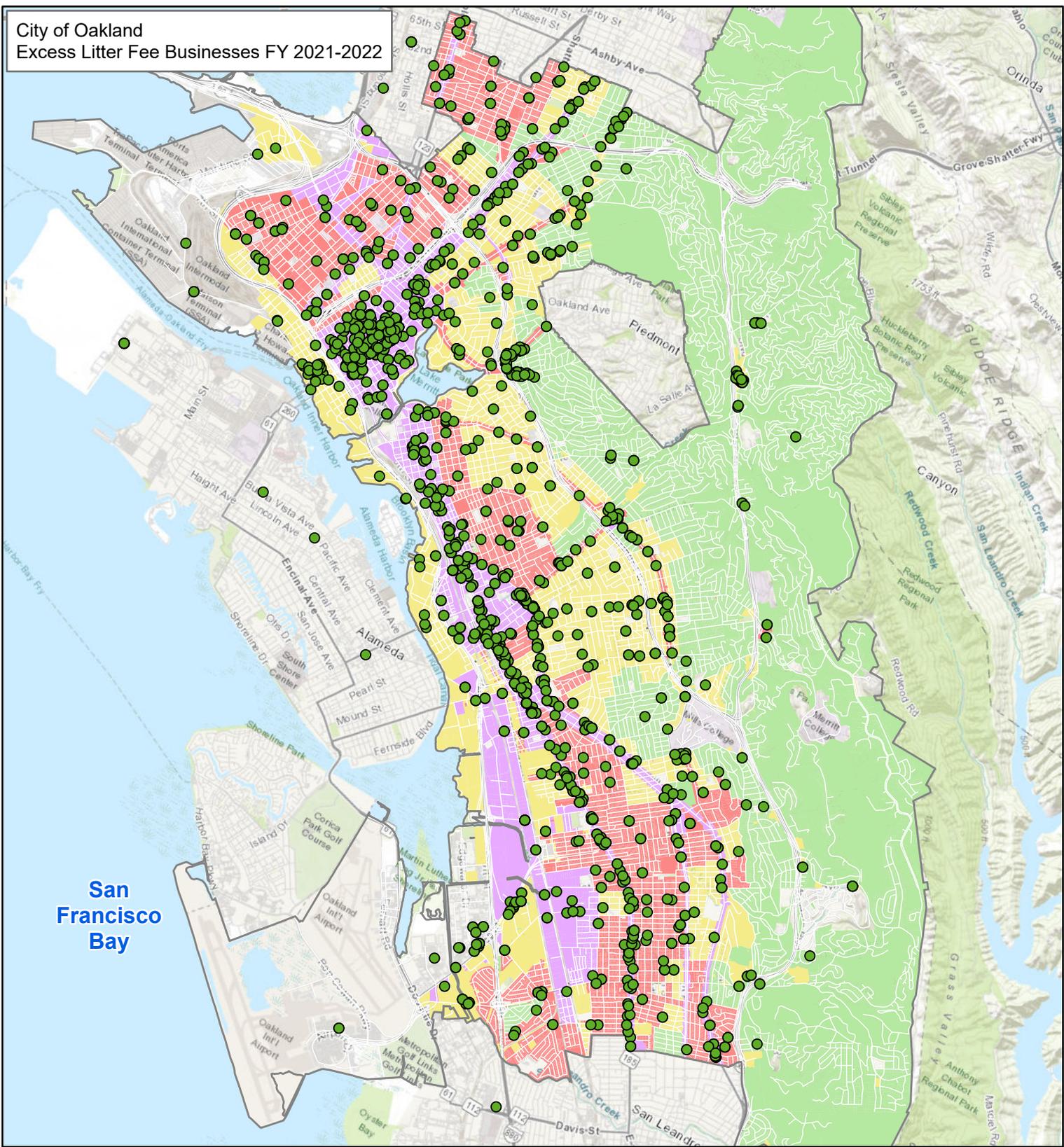
ATTACHMENT C.10.9

City of Oakland

Excess Litter Fee Location Map

FY 2021-2022

City of Oakland
Excess Litter Fee Businesses FY 2021-2022

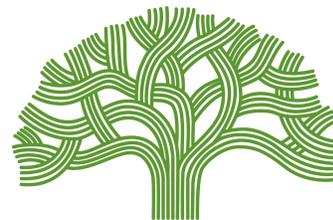


Legend

● Excess Litter Fee Business Location

Trash Generation Rate

- Low
- Moderate
- High
- Very High



CITY OF OAKLAND

0 0.5 1 Miles

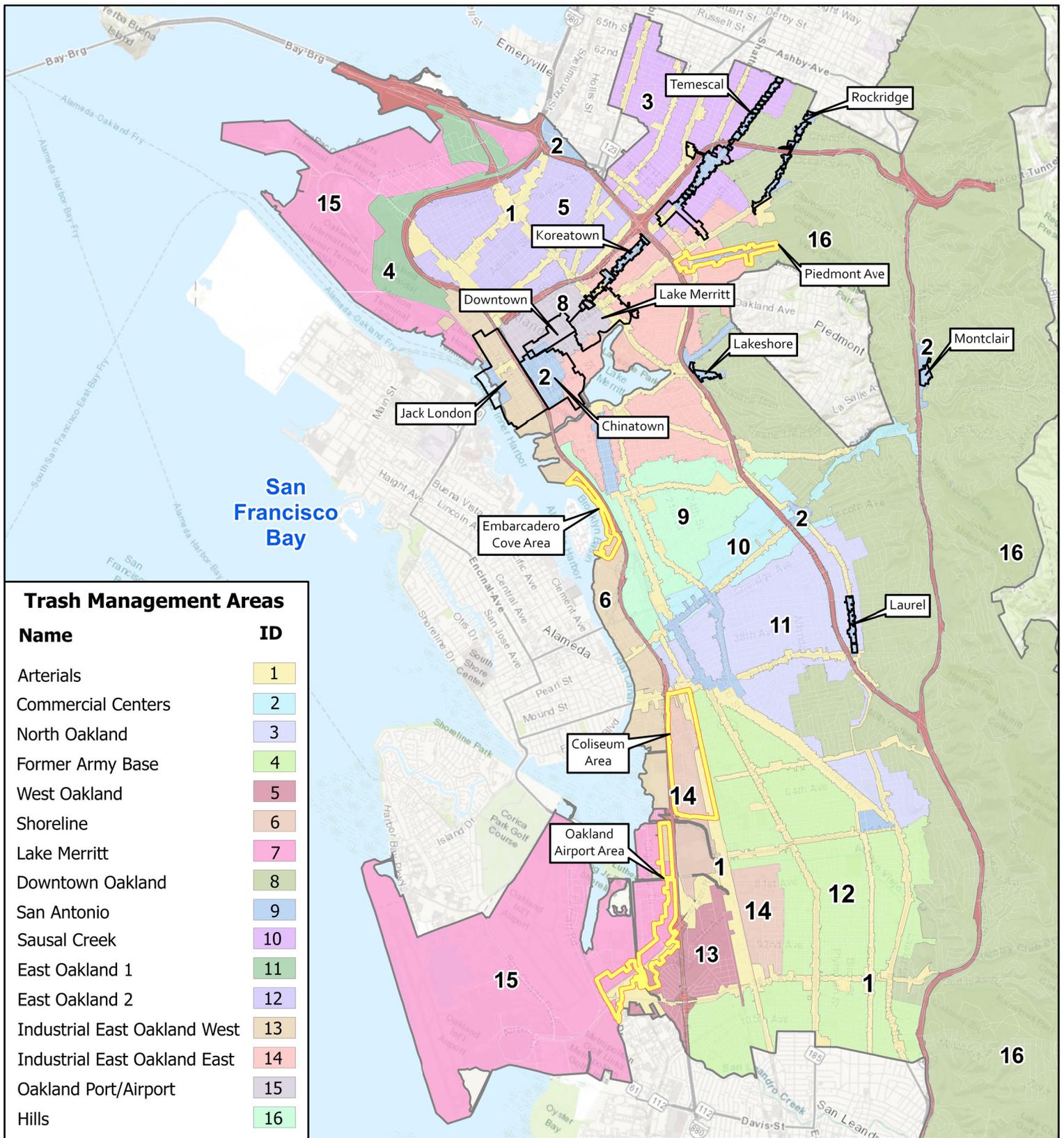


ATTACHMENT C.10.10

City of Oakland

Business Improvement Districts Map

FY 2021-2022



Trash Management Areas

Name	ID
Arterials	1
Commercial Centers	2
North Oakland	3
Former Army Base	4
West Oakland	5
Shoreline	6
Lake Merritt	7
Downtown Oakland	8
San Antonio	9
Sausal Creek	10
East Oakland 1	11
East Oakland 2	12
Industrial East Oakland West	13
Industrial East Oakland East	14
Oakland Port/Airport	15
Hills	16

Legend

-  Business Improvement Districts
-  Potential Future BID
-  City Limits

Business Improvement Districts
and Trash Management Areas
FY21/22
Oakland, California



Date: 08/12/2022

ATTACHMENT C.10.11
City of Oakland
Existing and Potential Future
Business Improvement Districts Acreage
FY 2021-2022

City of Oakland
Existing and Future Potential Business Improvement Districts
FY 2021/2022

TMA	Coliseum Area	Embarcadero Cove Area	Oakland Airport Area	Piedmont Ave	Total Potential BID Acres	Chinatown	Downtown ¹	Jack London	Koreatown	Lake Merritt	Lakeshore	Laurel	Montclair	Rockridge	Temescal	Total Existing BID Acres
Outside TMAs					0	2		23						0	1	26
TMA 1	67		47	5	119			12	8	29		0		5	19	73
TMA 2				37	37	97	8	22	24		12	19	11	28	73	294
TMA 3															22	22
TMA 4																
TMA 5																
TMA 6		40	23		63			148								148
TMA 7				12	12	49			4	35					7	95
TMA 8					0	6	47	0	6	58						117
TMA 9																
TMA 10																
TMA 11												0				
TMA 12																
TMA 13			12		12											
TMA 14	190				190											
TMA 15			115		115											
TMA 16				5	5					0		1	0			1
Total	257	40	197	59	553	154	55	205	42	122	12	19	12	33	122	776

Notes:

Orange shading: Potential Future BIDs

Blue shading: Existing BIDs

¹Community Benefit District

ATTACHMENT C.10.12

City of Oakland

Example Disposable Food Service Ware

Enforcement Letter

FY 2021-2022



CITY OF OAKLAND



250 Frank H. Ogawa Plaza, Suite 5301

OAKLAND, CALIFORNIA 94612-2034

Public Works Agency
Environmental Services Division

FAX (510) 238-7286
TDD (510) 238-3254

Date

Name

Business Name

Address

Oakland, CA 946xx

**Re: Formal Warning to Comply with Chapter 8.07, Title 8 of the Oakland Municipal Code:
Disposable Food Service Ware**

This is to inform you that the City of Oakland has observed or received complaints of the following violation of the Disposable Food Service Ware Ordinance, Chapter 8.07 of Title 8 of the Oakland Municipal Code at your business: Business Name located at Business Address in Oakland. It was observed:

1. That your business serves prepared food on polystyrene foam food service ware.
2. That your business provides straws for eat-in service without receiving a request.
3. That your business provides non-BPI certified compostable disposable food service ware.

The City reserves the right to inspect your business to determine whether you comply with the terms of the above cited regulations. After Date, you must ensure that for your business, Business Name:

1. prepared foods are not served on polystyrene foam food service ware.
2. staff in your business only provide straws for customers upon request.
3. staff in your business only provide BPI certified compostable disposable food service ware.

To help you comply with the ordinance, please find enclosed a copy of the Environmental Compliance Guide. It contains additional information about the ordinance requirements, which you may find helpful. If your food service ware vendor is unaware of the required compostable products, you may search <https://www.bpiworld.org/CertifiedCompostable> for the disposable products your business needs.

Thank you for your cooperation in helping to make our City a healthier place to do business. If you have any questions about this matter, you may contact the Recycling Hotline at (510) 238-SAVE (7283) for more information.

Sincerely,

Peter Slote
Solid Waste & Recycling Program Supervisor

cc: OPW 2019 File
City Administrator
Enclosure: Environmental Compliance Guide