



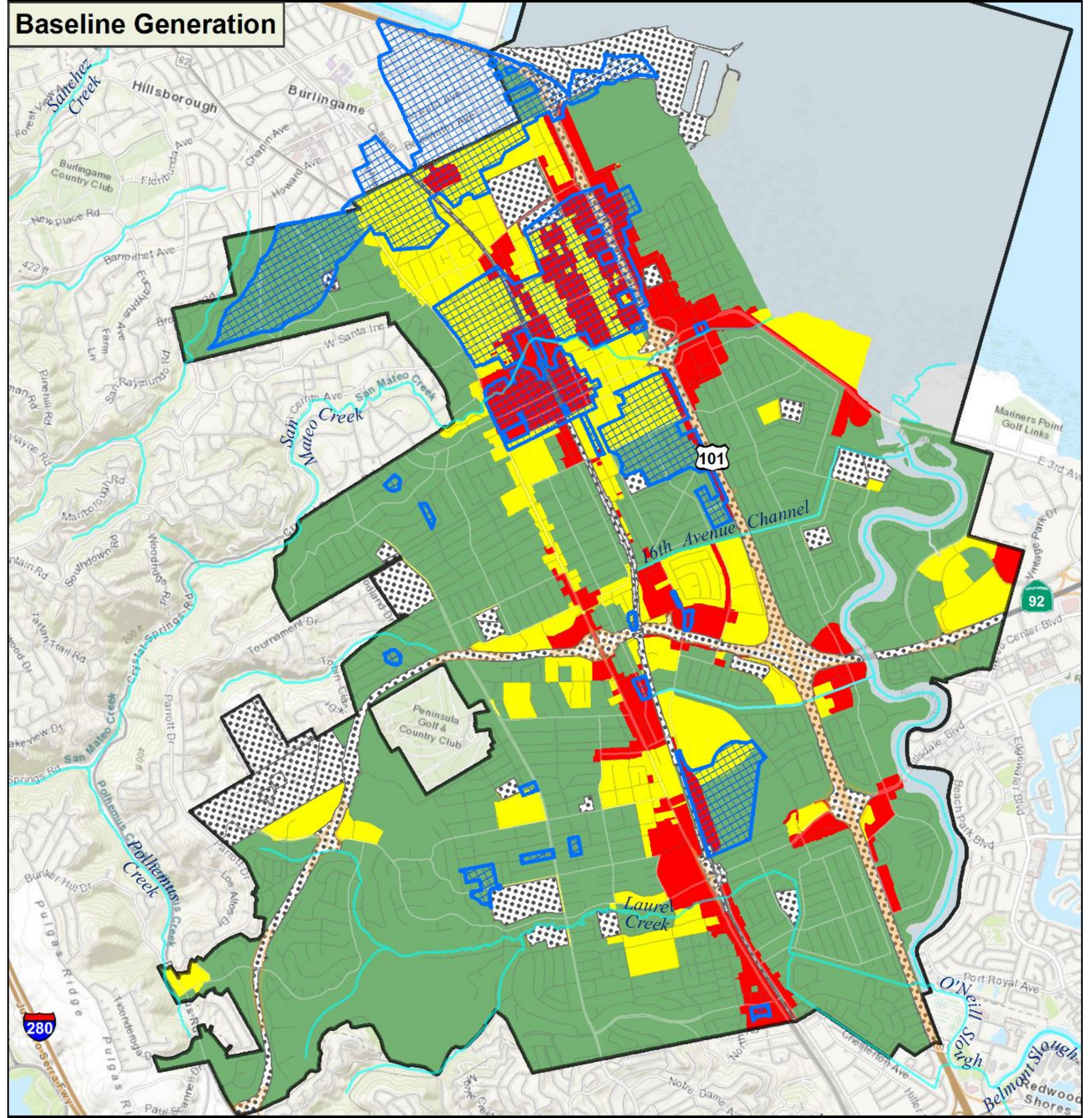
Evaluation of Potential Trash Control Measures

March 11, 2020

Sarah Scheidt, Regulatory Compliance Manager

Stormwater Permit - Trash Reduction Requirements

Baseline Trash Generation Map (2009)



Trash Control Measures to Date



Trash Control Measures	Reported Reductions
Full Capture Systems	29.5%
Source Control Credits (Max 10%)	10%
Other Actions (via OVTAs)	54.8%
Direct Discharge Program Offset (Max 15%)	0.0%
Creek and Shoreline Cleanup Offset (Max 10%)	0.0%
Total	94.3%

STORMWATER TRASH CONTROL MEASURES COST-BENEFIT EVALUATION

The Costs of Complying with 100% Trash Reduction

Technical Memorandum

DRAFT

Prepared for:

City of San Mateo

Prepared by:



December 2019



Spectrum of Implementation Alternatives

Property Owner Responsibility



Require full trash capture onsite at trash-generating properties

Combined Responsibility



Education, Inspection, and incremental enforcement of trash-generating properties

City Responsibility



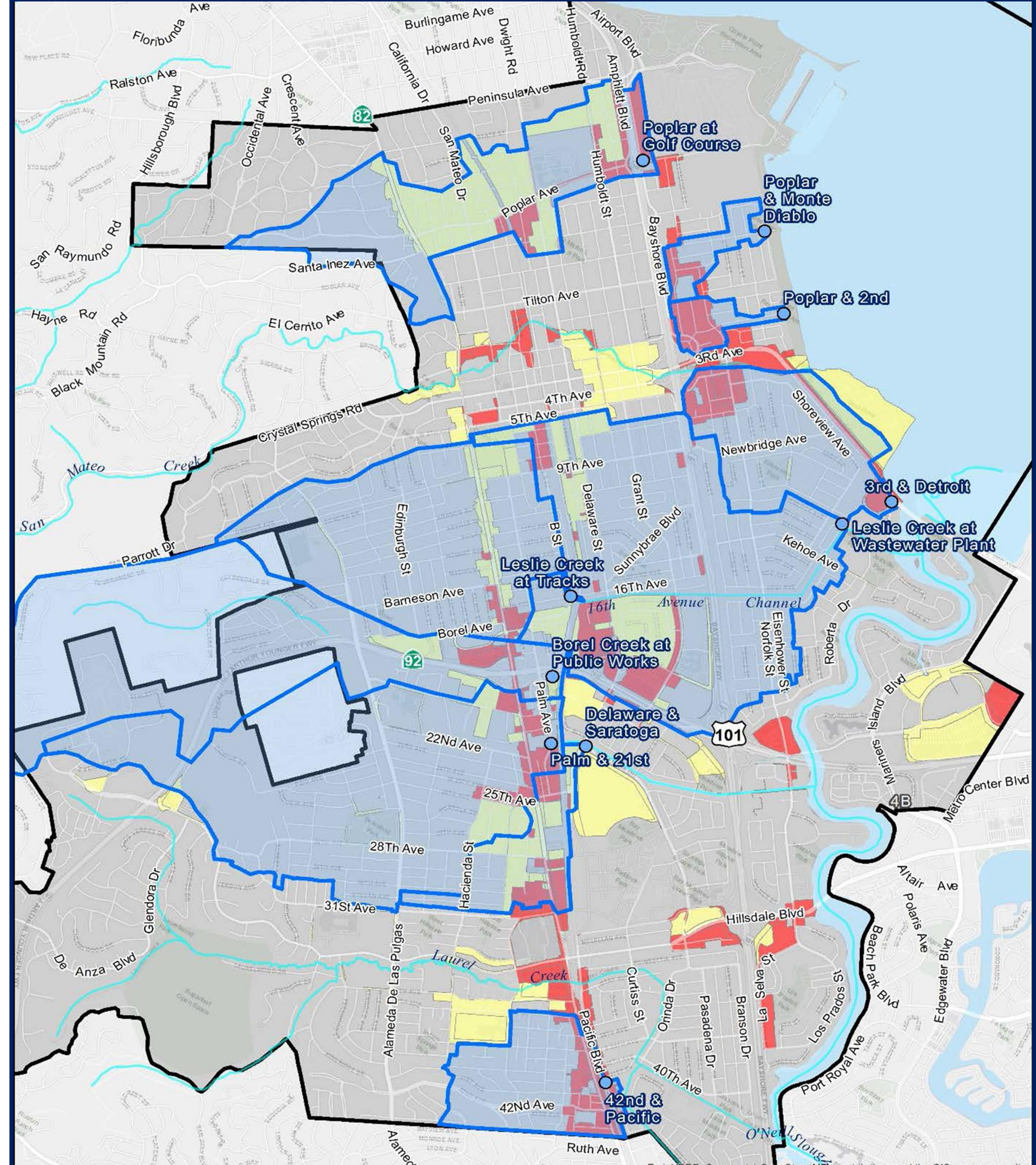
Capture all trash once enters the public right of way

Capture

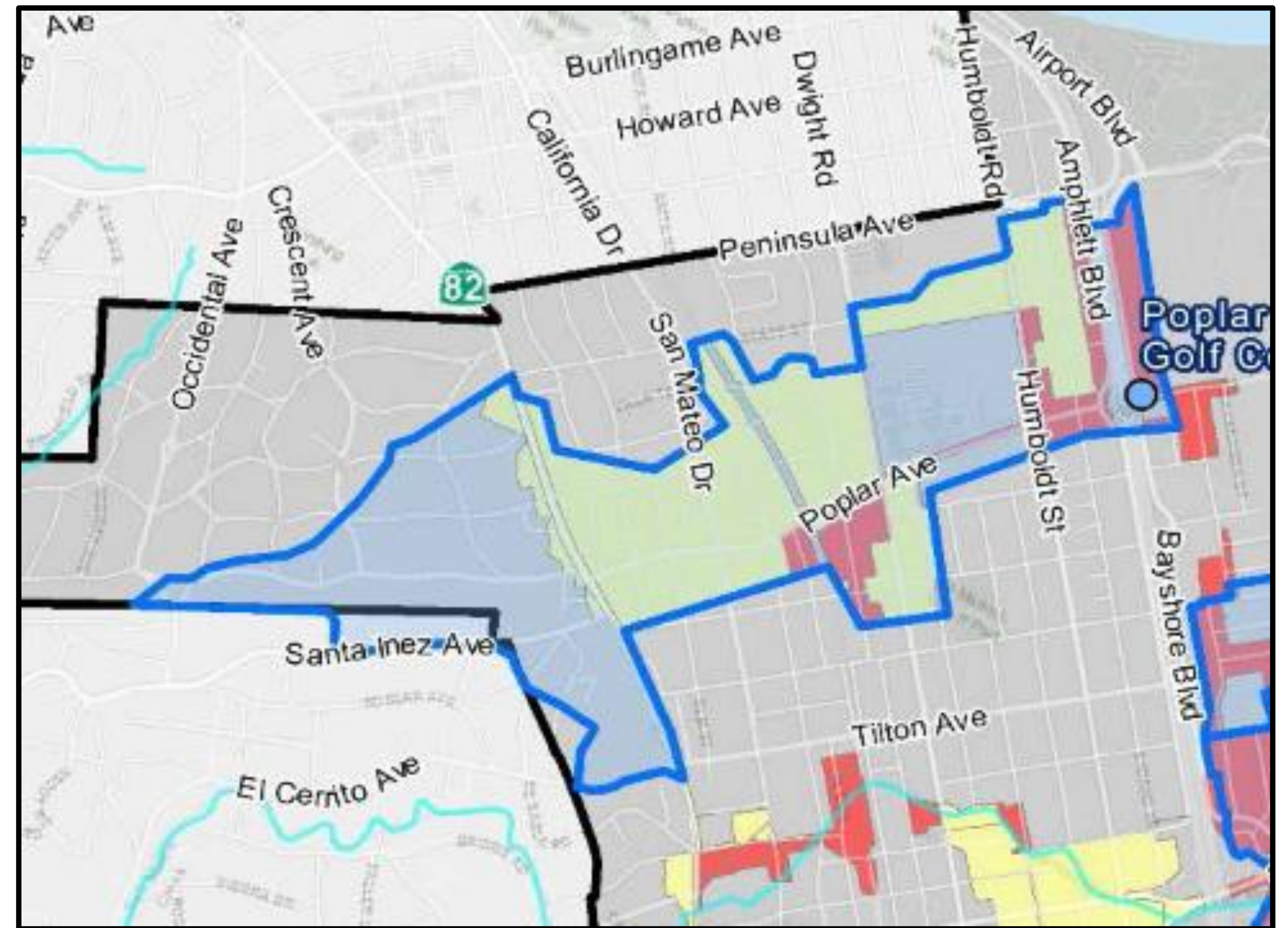
Source Control

Capture

Potential Additional Large Capture Device Locations



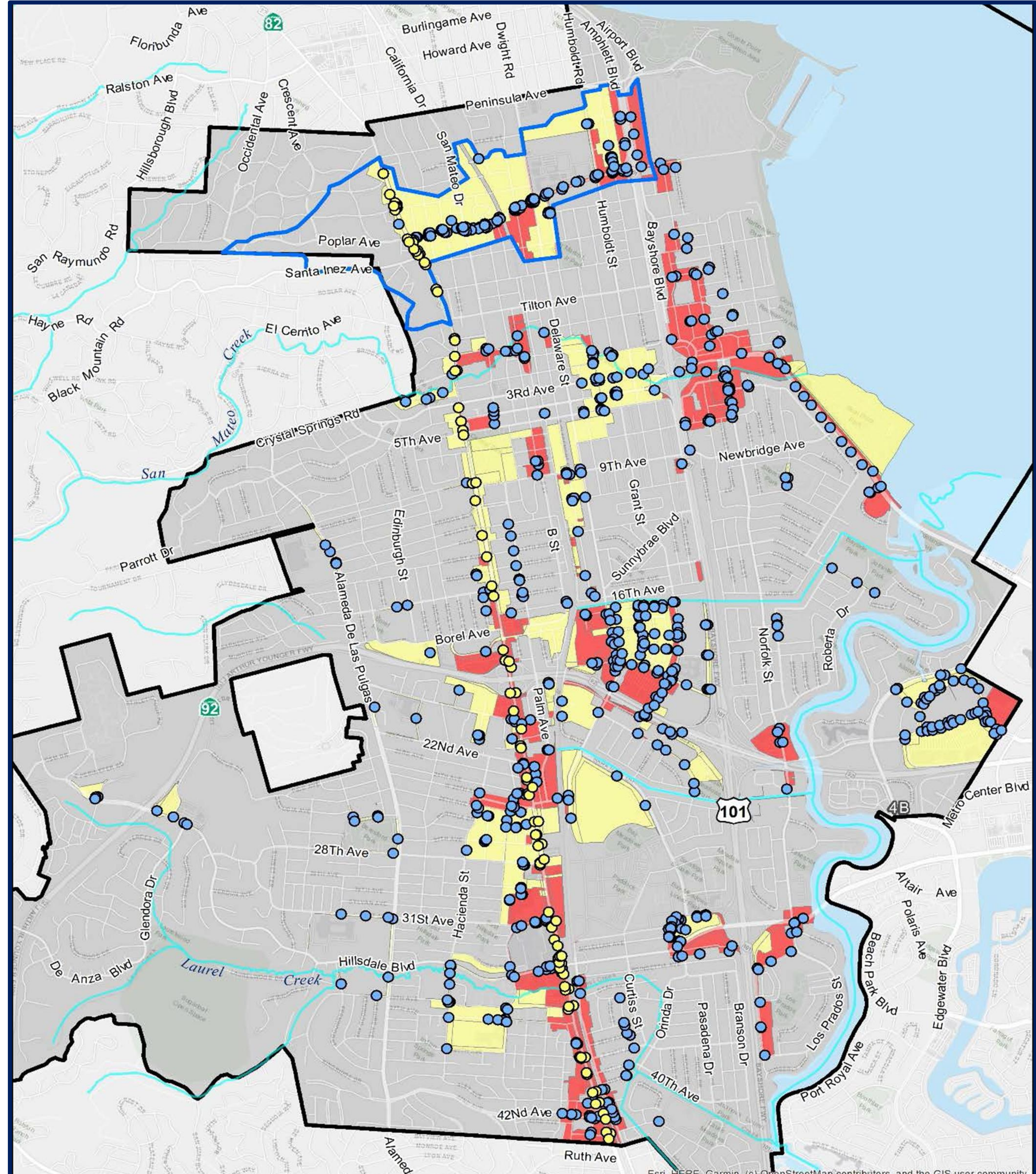
Catchment/Area	Large Full Capture Systems Evaluation		
	Trash Reduction (%)	Lifecycle Cost Estimate (50 Years)	Total Annual Costs per % Trash Reduction
3rd & Detroit	5.0%	\$1,078,600	\$4,357
42nd & Pacific	3.8%	\$1,118,600	\$5,578
Borel Creek at Trinta Park*	1.9%	\$1,802,500	\$18,544
Delaware & Saratoga*	3.8%	\$1,076,250	\$5,597
Leslie Creek at Tracks*	3.3%	\$1,417,300	\$8,675
Leslie Creek at Wastewater Plant	11.1%	\$13,535,300	\$18,922
Palm & 21 st *	4.5%	\$2,081,450	\$8,656
Poplar & 2nd	2.3%	\$759,100	\$6,484
Poplar & Monte Diablo	1.5%	\$806,700	\$10,961
Poplar at Golf Course	12.4%	\$743,100	\$1,202



Planned Large Full Capture – Poplar at Golf Course
376-acre drainage area = 12% reduction

Potential Additional Public Small Capture Devices

Potential locations of 619 small, (inlet-based) full trash capture systems in the City of San Mateo



Public Small Capture Device Costs

Base/Initial Tasks - \$687,868

On-going/Annual Tasks -
\$251,298

50 Year Lifecycle Costs -
\$13,252,765

Potential Maximum Reduction
~40%

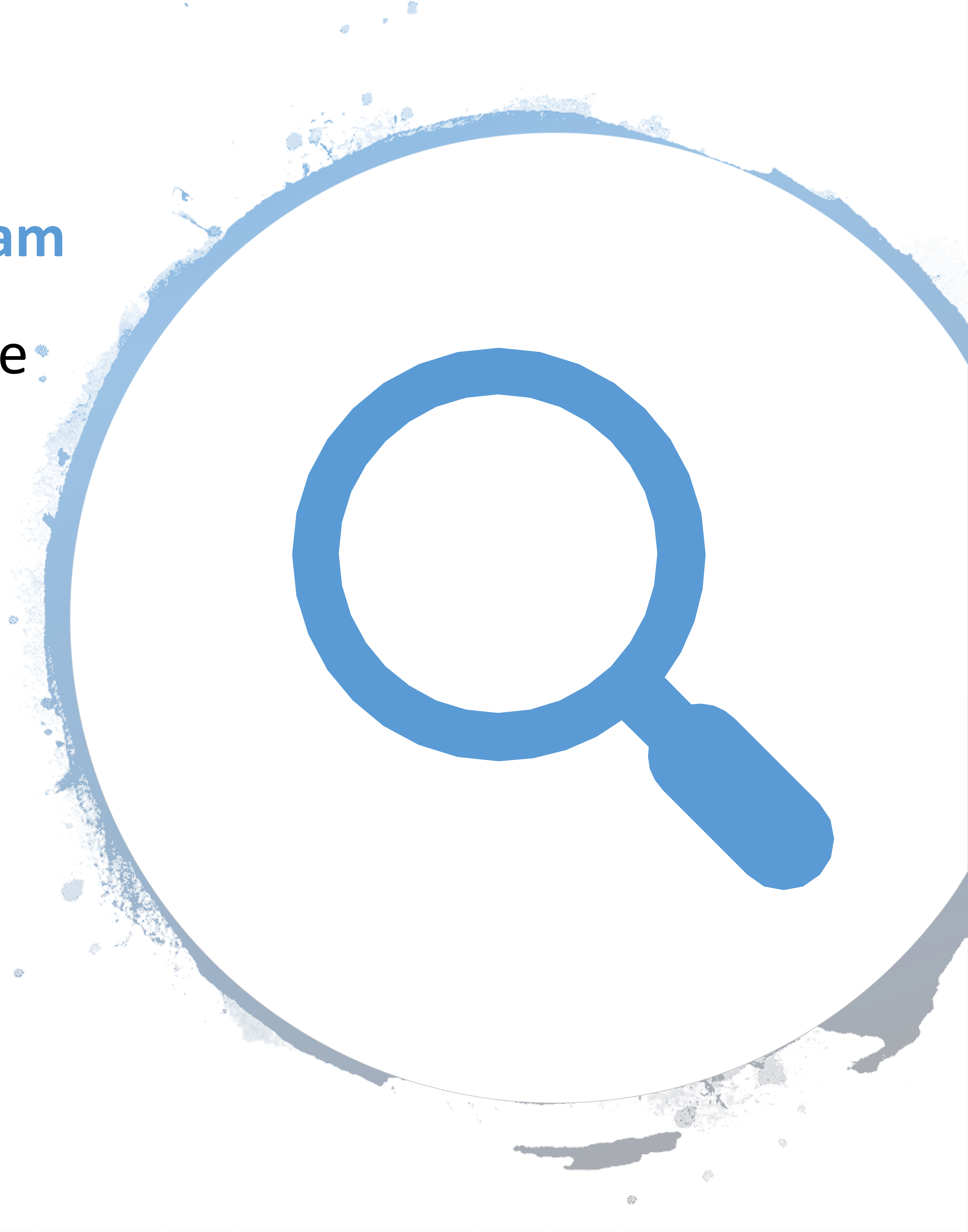


Enhanced Inspection and/or Enforcement

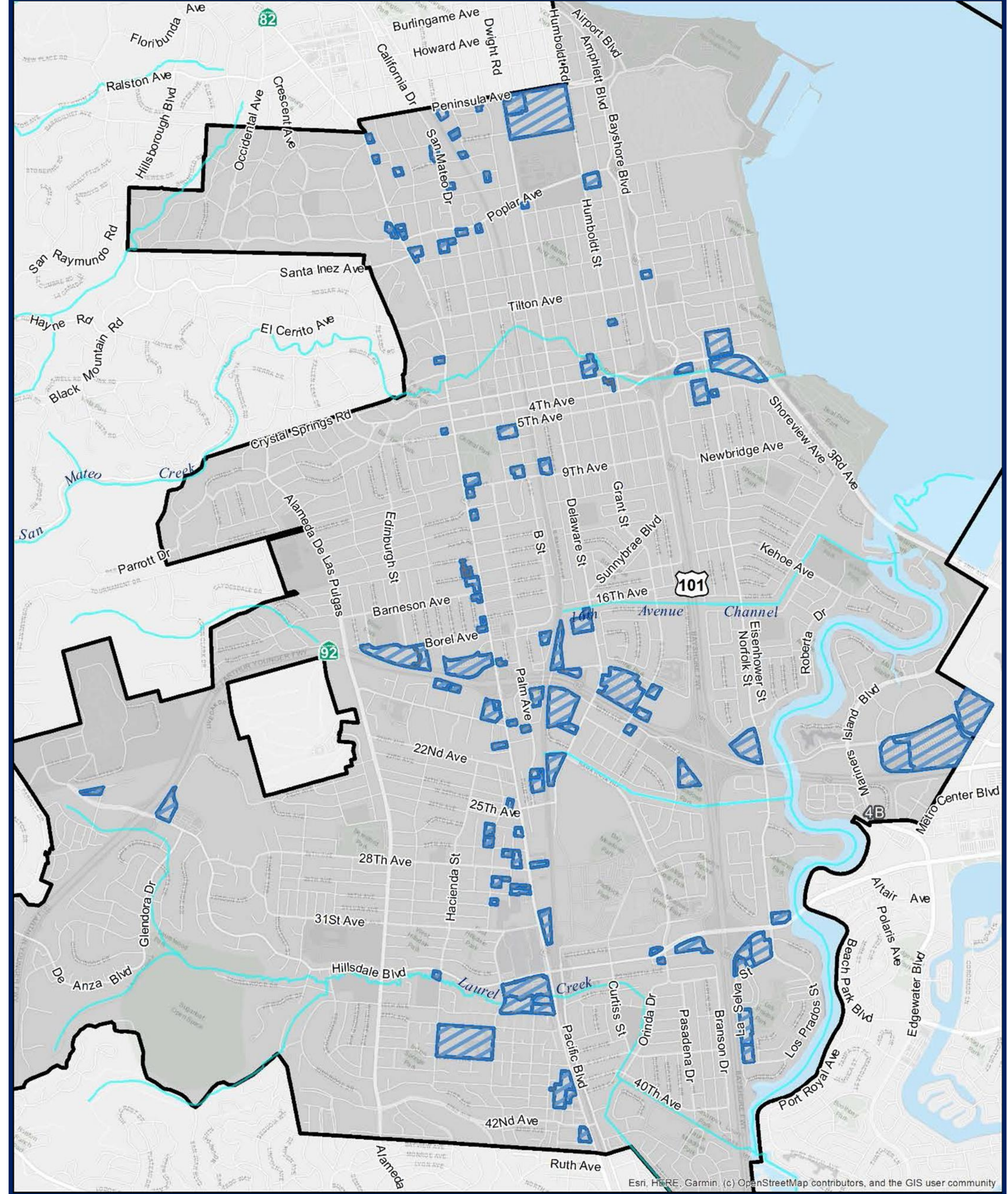


Enhanced Inspection and Enforcement Program

- 1300 hours / year = .62 Full Time Employee
- \$87,500 / year
- Add On Land Visual Assessments
- Additional Properties
- Revised Enforcement Response Plans
- ~38% Reduction



Potential Full
Capture Devices
on Private
Property
~15%





Enhanced Public Outreach and On-land Cleanups

Single-use Plastic Food Service Ware Ordinance ~15%



Summary of New or Enhanced Measures			
Control Measure	Potential Maximum Additional Reduction	50 Year Lifecycle Cost Estimates	Recommendation
Publicly-Owned Large Full Capture System	12.4%	\$800,000	Implement Poplar Avenue
Publicly-Owned Small Full Capture Systems	39.5%	\$13,000,000	Future, selected locations
Full Capture Requirement for Private Properties	14.6%	\$140,000	Not Implemented
Enhanced Municipal Trash Inspection Program	38.5%	\$4,000,000	To Be Implemented
Publicly-Owned Curb Inlet Screens	42.7%	\$2,000,000	Potential for future implementation depending on MRP 3.0
Enhanced Municipal Street Sweeping	42.7%	\$2,000,000	
Expanded On-Land Cleanups	Unknown	\$2,000,000	To Be Implemented
Enhanced City-Wide Public Education and Outreach Program	5%	\$2,700,000	
Municipal Ordinance – Single-use Plastic Food Service Ware	15%	\$2,000,000	To Be Implemented
TOTAL TO BE IMPLEMENTED		\$9,500,000	

Summary and Recommendations



One Large
Full Capture
Devices

12.4%



Focused,
Small Full
Capture
Devices

TBD



Enhanced
Trash
Inspection
and
Enforcement

38.5%



Enhanced
Public
Outreach

5%

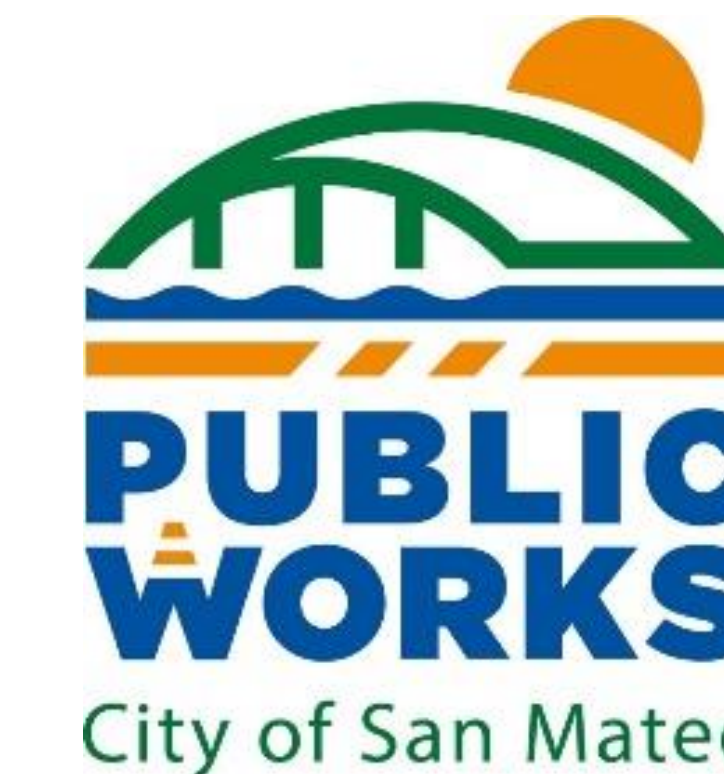


Plastic Food
Service
Ware
Ordinance

15%



Thank you for your time



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