



The Revised Municipal Regional Permit

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San Mateo Countywide Water
Pollution Prevention Program



SAN MATEO COUNTYWIDE
**Water Pollution
Prevention Program**

Clean Water. Healthy Community.

www.flowstobay.org

C/CAG Stormwater Committee
January 21, 2016

The Municipal Regional Permit

- Issued by SF Bay Regional Water Board
- 76 municipal permittees
 - San Mateo, Santa Clara, Alameda, Contra Costa Counties, Cities of Fairfield, Suisun City, Vallejo
- Addresses full spectrum of stormwater issues
 - Municipal, commercial, construction
 - Monitoring, outreach
 - New & Redevelopment
 - Pollutants of concern

Municipal Regional Permit

- Revised permit adopted 11/19
- Two day hearing, much testimony
- Key Provisions
 - Trash
 - Green Infrastructure Planning
 - Mercury/PCBs

Provision C.3 – New and Redevelopment

- Many C.3 requirements did not change:
 - Regulated project thresholds
 - Road requirements and thresholds
 - Site design and source control measures
 - Pervious paving design standards required
 - Numeric sizing criteria
 - Hydromodification management & maps (for SCVURPPP)
 - Small project site design requirements

Provision C.3 – New and Redevelopment

- Key changes to C.3:
 - **LID Treatment** -- eliminates requirement to demonstrate feasibility of infiltration and rainwater harvesting prior to using biotreatment
 - **Biotreatment Soil Specifications** – allows Permittees to collectively develop revisions to specifications
 - **Special Projects** -- allows mixed use projects to use either FAR or DU/ac density criterion

Changes to O&M Verification Inspection Requirements

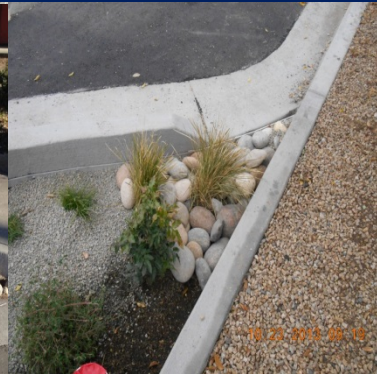
- Initial inspection of stormwater controls “at the time of installation” (instead of within 45 days)
- Installation and O&M inspections of pervious paving systems $\geq 3,000$ sq.ft. required
- Inspection frequency to be tracked by number of project sites instead of number of BMPs
- Reduced reporting - summary data instead of details for each inspection
- Third party inspections of vault-based treatment systems acceptable

Green Infrastructure

- Using natural systems to capture, treat, and infiltrate stormwater
- Restores “natural” stormwater management
- Distributed, small-scale systems
- Multi-benefit, including for key water issues
 - Adaptation for climate change impacts
 - Flooding
 - Groundwater recharge
- Includes public and private projects



*Stormwater Curb Extensions
PCB Treatment Pilot
Bransten Road
City of San Carlos*



Green Infrastructure Planning

- Each permittee must develop GI Plans by 2019, framework by 2017
- Describe gradual shift from gray to green
- Achieve 3 kg/yr PCBs load reduction by 2040
- Prioritize/map areas for potential projects on drainage-area basis within specific time frames
- Design guidelines, details, and standard specs
- Includes public and private

Green Infrastructure Planning

- Amend other relevant plans
- Evaluate funding options
- Adopt relevant policies & ordinances
- Public outreach, staff training, educate electeds
- Evaluate funding opportunities
- Early implementation (no missed opportunities)
- Participate in process to promote GI



SUSTAINABLE **STREETS** CITY OF SAN MATEO

Final Plan

February 2015

City of San Mateo Sustainable Streets Plan

- Integrates Complete Streets & Green Streets
- Extensive public engagement
 - Taste & Talk Series, event videos available
- Design guidelines
- www.sustainablestreetssanmateo.com

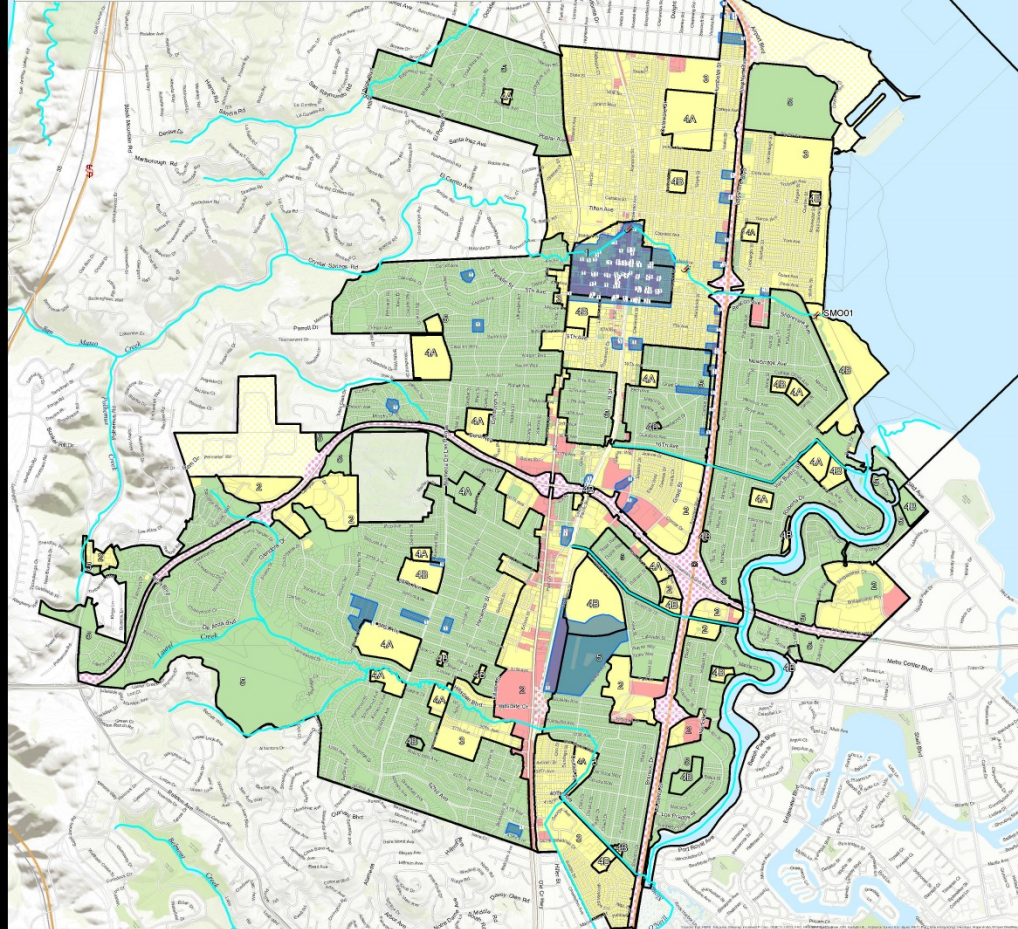
Trash

- Impacts aquatic life and aesthetics
- Municipalities required to implement controls to eliminate impacts from trash by 2022
- 40% reduction was required by July 1, 2014
- New permit has two enforceable limits:
 - 70% reduction by July 1, 2017
 - 80% reduction by July 1, 2019
- Cities have long-term trash reduction plans, trash management areas, generation rates

Trash

- Load reduction tool box includes:
 - Full Trash Capture Devices
 - Partial Trash Capture Devices
 - Street Sweeping
 - Solid Waste Process Improvements
 - Education/Outreach
 - Illegal Dumping Enforcement
 - Public Container Management
 - On-land, Creek/Shoreline Cleanups
 - Product Bans
 - Other
- Visual assessments to verify effectiveness
- Gets more costly with greater reduction

City of San Mateo Full Trash Capture and Trash Management Area Map



Legend

- | | | |
|----------------------------------|---|-----------------|
| Trash Generation Category | Creek/Shoreline Hotspot | Streets |
| Low | Full-Capture Location | Freeway |
| Moderate | Full Trash Capture | Creeks |
| High | Trash Management Area | Parcel Boundary |
| Very High | Current Condition Category (Flash Color = Current Category) | |
| | Non-Jurisdictional (Dot color = Generation Category) | |

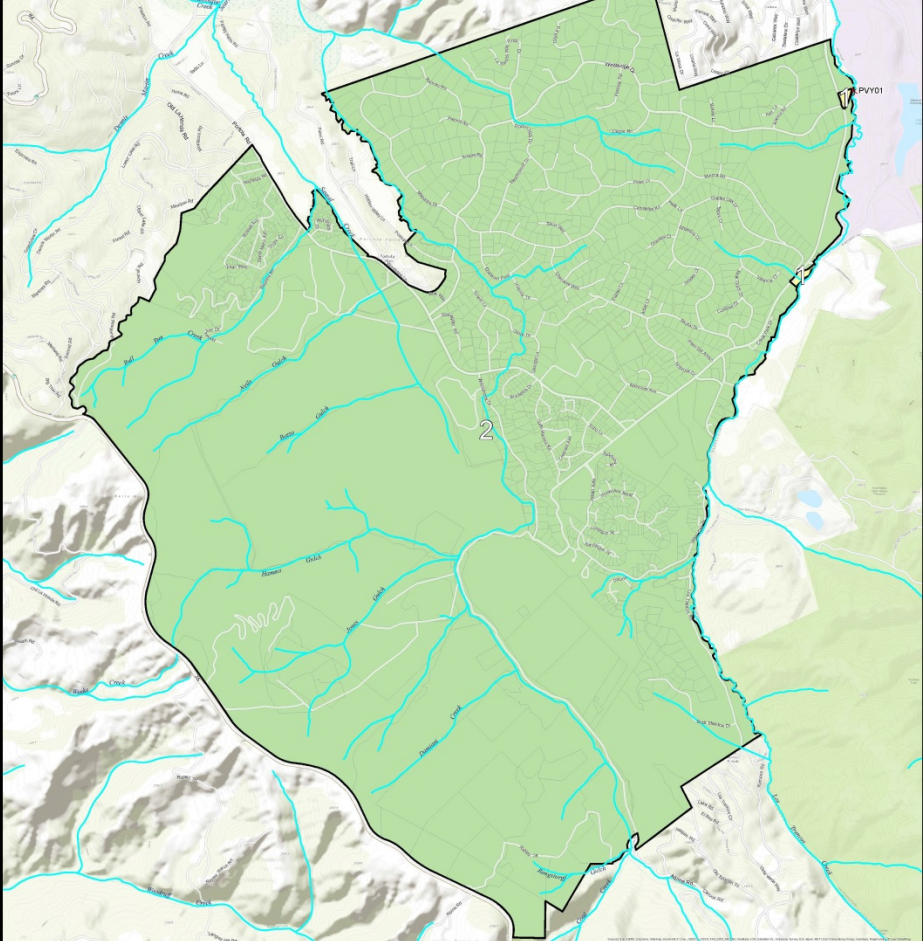
Data Sources:
 Roads: San Mateo County
 City Boundaries: San Mateo County
 Creeks: San Mateo County
 Parcels: San Mateo County
 Background: ESRI World Topographic Map

Map Created By:
 ECA, Inc.

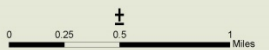
Date:
 September 14th, 2015



Town of Portola Valley Full Trash Capture and Trash Management Area Map



- Legend**
- Trash Generation Category
 - Low
 - Moderate
 - High
 - Very High
 - Creek/Shoreline Hotspot
 - Full-Capture Location
 - Full Trash Capture
 - Trash Management Area
 - Current Condition Category (Trash Color = Current Category)
 - Non-Jurisdictional
 - Dot color = Generation Category
 - Streets
 - Freeway
 - Creeks
 - Parcel Boundary

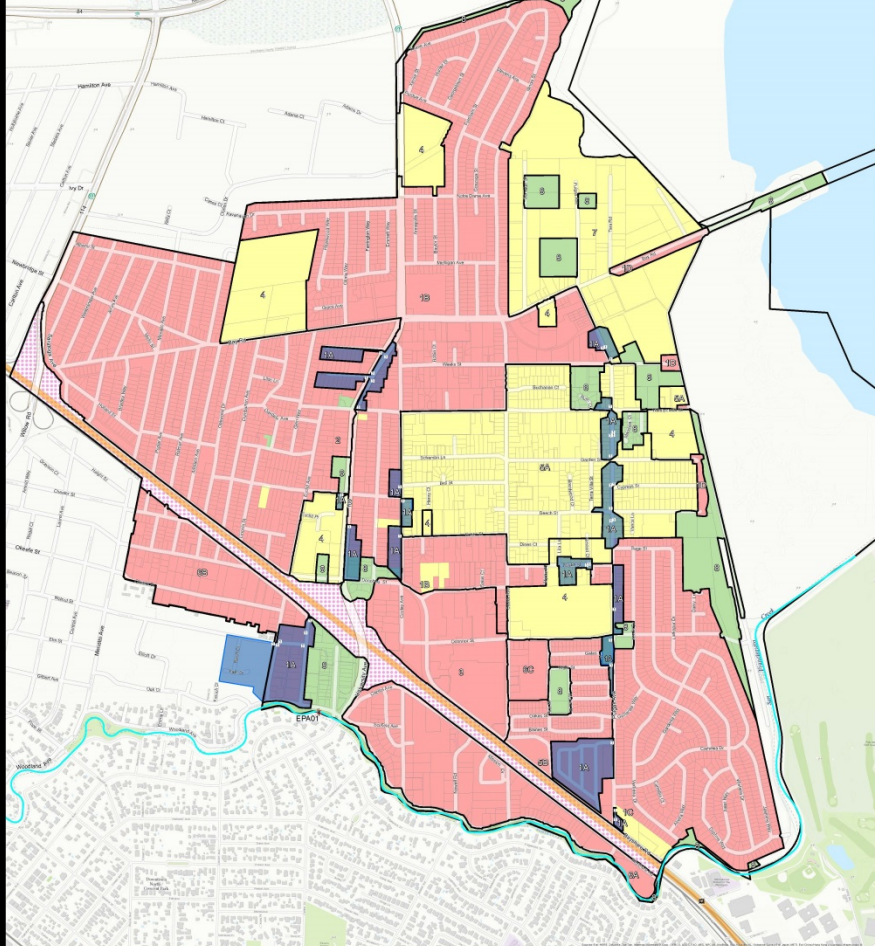


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City of East Palo Alto Full Trash Capture and Trash Management Area Map



- Legend**
- Low
 - Moderate
 - High
 - Very High
 - Full-Capture Location
 - Trash Management Area
 - Current Condition Category (Hash Color = Current Category)
 - Non-Jurisdictional (Dot color = Generation Category)
 - Streets
 - Freeway
 - Creeks
 - Parcel Boundary
 - Creek/Shoreline Hotspot
 - Full-Capture Location
 - Trash Management Area
 - Current Condition Category (Hash Color = Current Category)
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C.15 – Exempted and Conditionally Exempted Discharges

- Discharges allowed to go to the storm drain, or allowed to go to the storm drain if BMPs used
- Key change: potable water discharges are no longer covered under the MRP
 - Agencies that have water utilities must get coverage under the State General Permit for Drinking Water System Discharges
 - File Notice of Intent for coverage by January 1, 2016
 - Contractors must also meet these requirements

Mercury & PCBs

- Mercury – legacy and ongoing problem
- PCBs – Used extensively, now banned, but still found throughout urban environment and in buildings
- Fish tissue levels = public health threat
- Significant reduction required for both
- Both attach strongly to sediment

A guide to eating San Francisco Bay fish and shellfish

Women 18 - 45 and children 1 - 17

Safe to eat
2 servings per week

OR

Safe to eat
1 serving per week

Do not eat



Chinook (king) salmon ♥



Brown rockfish



Red rock crab



Jacksmelt



California halibut



White croaker



Striped Bass



Surfperches



Sharks



White sturgeon

♥ = High in Omega-3s

Mercury & PCBs

- Source Controls
 - Source property identification and referral
 - Building materials – renovation/demolition controls
 - Mercury recycling
 - Industrial inspections (include PCBs)
- Downstream Interception
 - Stormwater treatment retrofits and green infrastructure
 - Enhance routine municipal O&M (e.g., street sweeping, inlets)
 - Conveyance cleanouts (streets, channels, piping, pump stations)
 - Diversions to wastewater treatment plants
- Outreach: Risk communication and exposure reduction

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Mercury & PCBs

- Permit mandates 3 kg/yr PCBs reduction
 - San Mateo County = 370 g/yr (pop. share)
- Property referrals = half initially, full at cleanup
- Area-wide building demolition program = 2 kg/yr
- Green infrastructure = 120 g/yr (15 for SM Co)
- “Reasonable assurance analyses” required
 - One for 3 kg/yr by 2040 via green infrastructure
 - One for overall mercury/PCBs load reductions
 - Show/model reductions by 2020, 2030, & 2040

Mercury & PCBs

- Accounting system for implemented controls
- Monitoring for mercury & PCBs included in overall WQ monitoring requirements
- Numbers are numeric effluent limits
- Failure to meet numbers = non-compliance, subject to enforcement and 3rd party suits

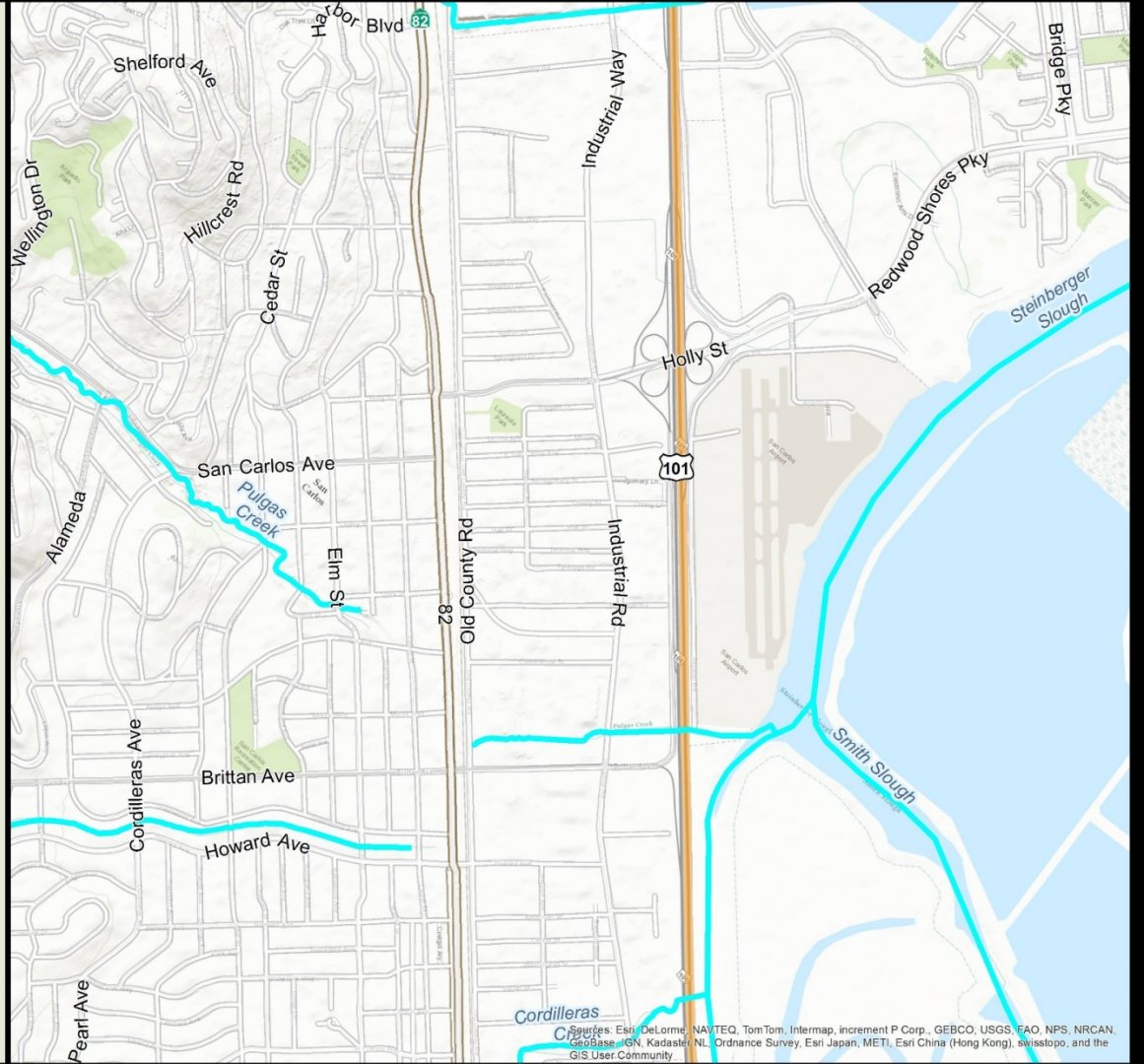
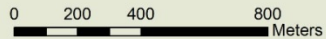
PCBs/Mercury Approach

- Identify watersheds or management areas for PCBs controls (supported by PCBs monitoring in Provision C.8)
- Identify control types in watersheds and management areas
- Submit a schedule of control implementation
- Implement sufficient controls to meet the permit area-wide or county-specific load reductions
- Demonstrate load reductions via regional interim accounting tool
 - Take credit for existing activities (e.g., enhanced channel dredging, redevelopment, cleanup sites)

City of San Carlos



Date: January 7th, 2016
EOA, Inc.



Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Cesium, IGN, Kadaster, NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, and the GIS User Community

City of San Carlos High Interest Areas

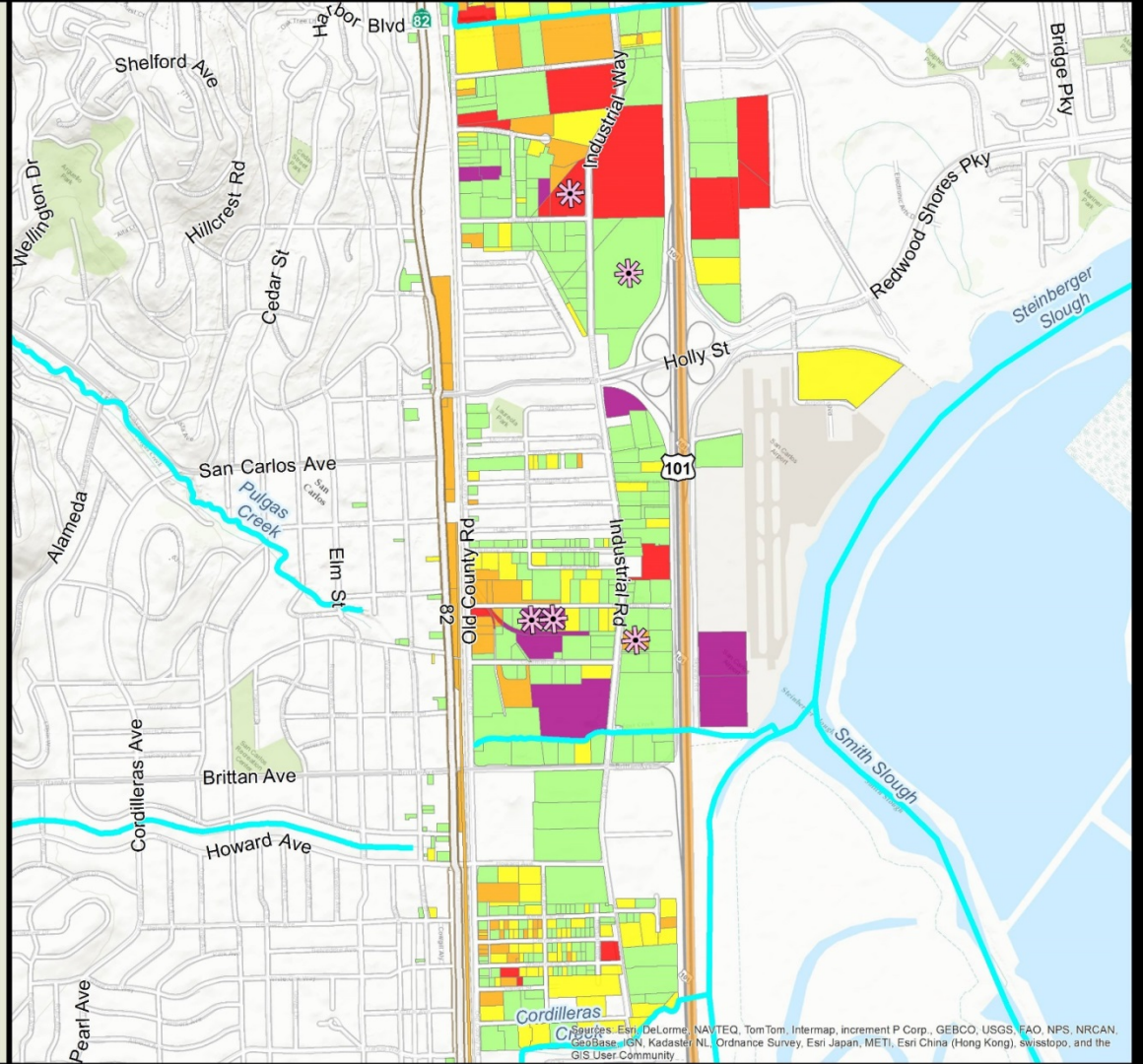
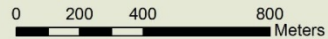
Parcel Interest Category

- High - High
- High - Moderate
- High - Low
- Redeveloped - High
- Redeveloped - Low/Moderate
- Moderate

Envirostor Site Listed for PCBs



Date: January 7th, 2016
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Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Esri, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

City of San Carlos High Interest Areas

Parcel Interest Category

- High - High
- High - Moderate
- High - Low
- Redeveloped - High
- Redeveloped - Low/Moderate
- Moderate

Sediment Sample

PCB Concentration (mg/kg)

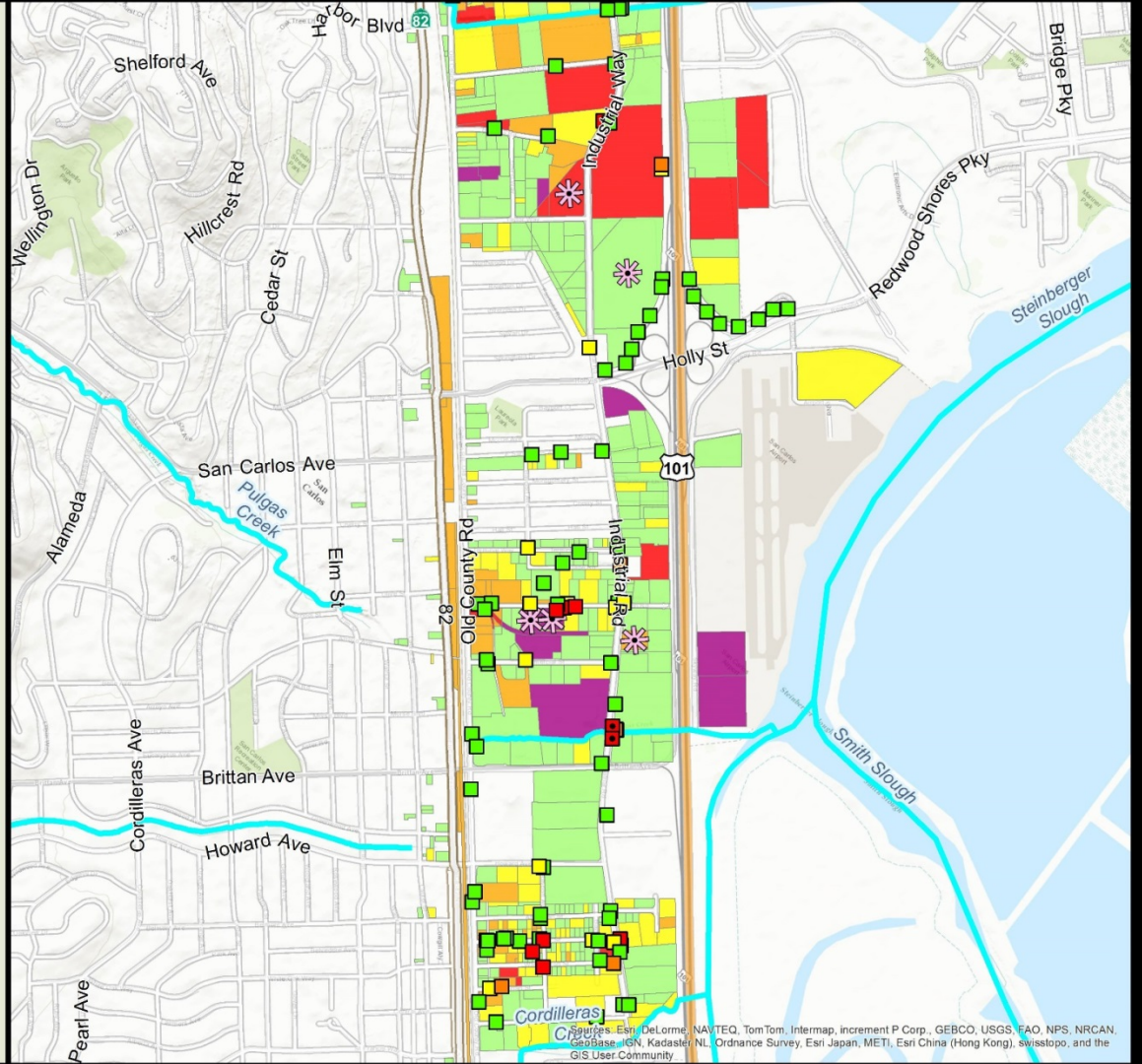
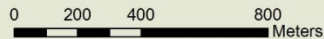
(□ indicates storm sample)

- < 0.2
- 0.2 - 0.5
- 0.5 - 1.0
- > 1.0

Envirostor Site Listed for PCBs







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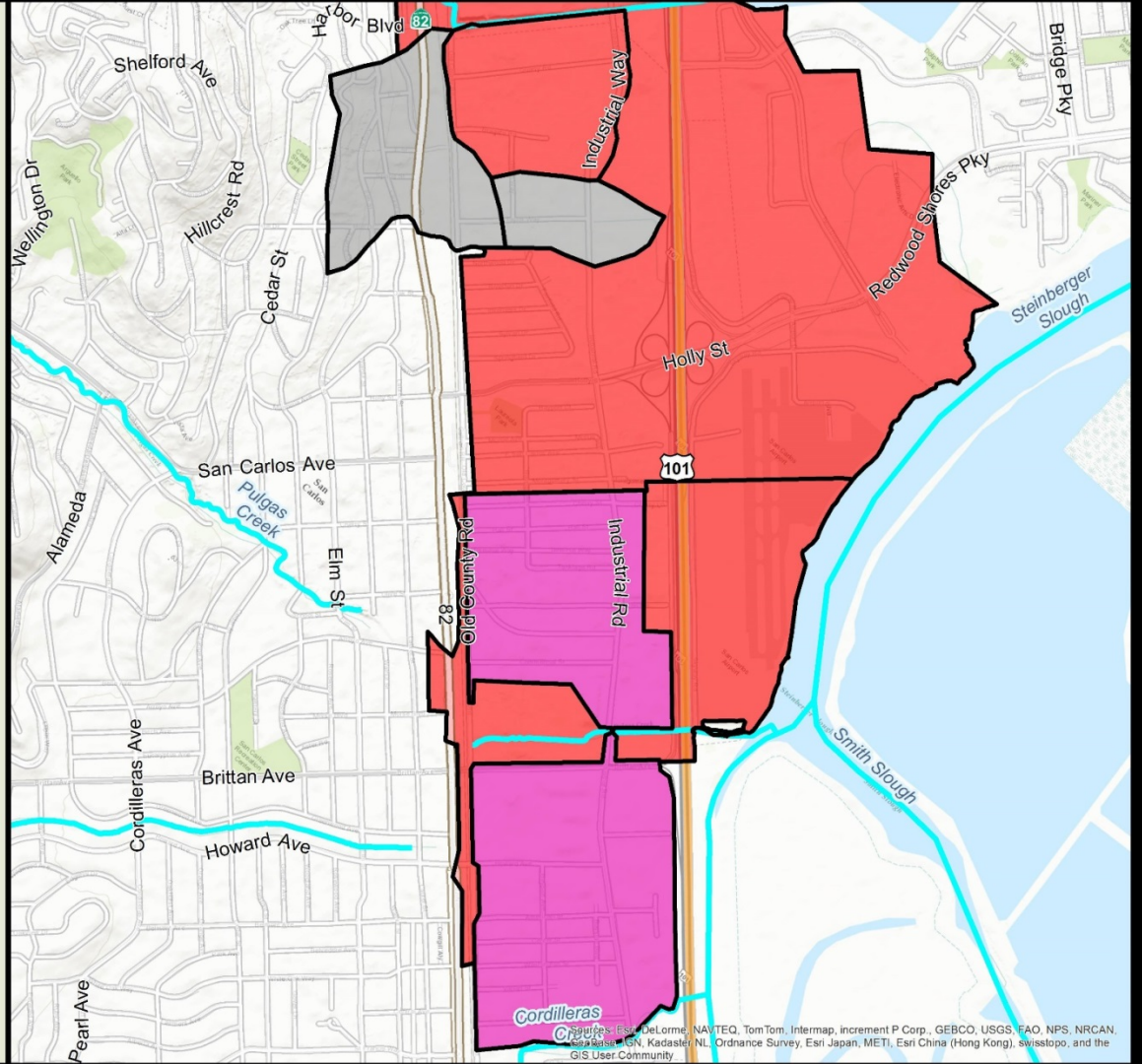
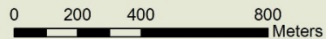
City of San Carlos POC Catchments of Interest

Catchment Status

-  Confirmed High Source Catchment
-  Potential High Source Catchment (Sediment samples > 0.5 mg/kg)
-  Potential Moderate Source Catchment (Sediment samples 0.2 - 0.5 mg/kg)
-  Other Catchments of Interest (No samples > 0.2 mg/kg)

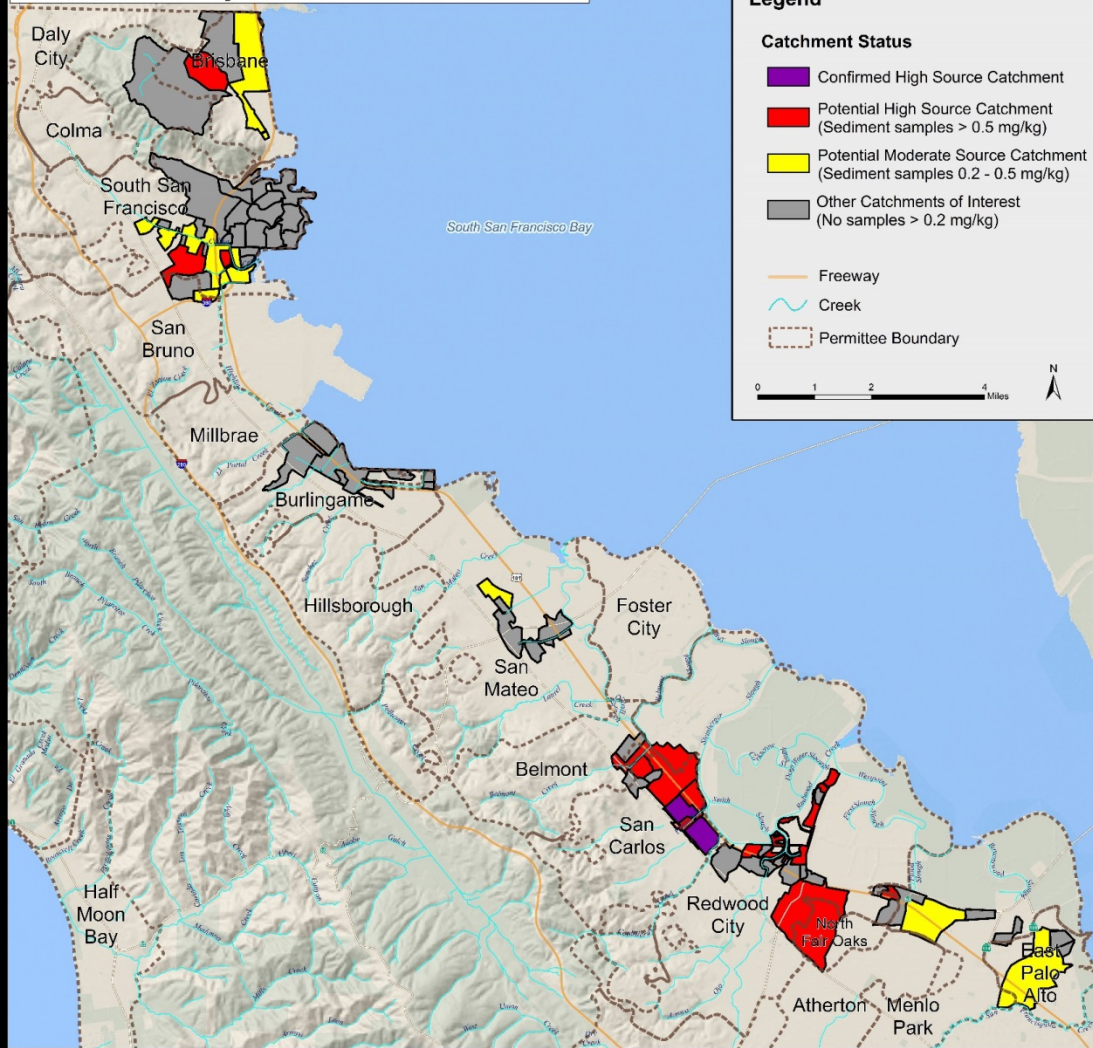


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San Mateo County PCB Catchments of Interest



PCBs in Building Materials



- Manage PCBs-containing materials during building demolition
 - Constructed/remodeled between 1950-80 with PCBs \geq 50 ppm
 - Exempt: wood frame buildings and SFR
- Vital for compliance – credit for 2/3 of required load reduction
- Protocol by July 2019 to keep PCBs out of storm drains
- Tailor future regional materials for local use and provide guidance to local agencies



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