

Stormwater Trash Management in Santa Clara County

Municipal & Transportation Agency Coordination Workshop



Monday, March 30, 2020
9:00am – 12:00pm

*****Please Mute Yourself*****

Welcome



Moderator
Chris Sommers
Vice President
EOA, Inc.

Workshop Agenda

- I. Workshop Impetus, Objectives & Desired Outcomes (Chris Sommers)**
- II. Trash Control by SCVURPPP Permittees (Chris Sommers)**
- III. Caltrans Stormwater Trash Management (Hardeep Takhar)**
- IV. VTA Stormwater Trash Management (Racheal Keish and Selena Gonzalez)**
- V. Caltrain Stormwater Trash Management (Ian Hull)**

Break (10 mins)

- VI. Q&A and Discussion – Identification of potential projects**
 - VII. Next Steps**
 - VIII. Adjourn (by 12:00pm)**
-

Impetus for Workshop

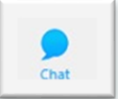


- Trash impacts many San Francisco Bay Area creeks and shorelines
 - Regulatory stormwater trash reduction mandates
 - Municipal Regional Permit (MRP)
 - Phase II Permit
 - Caltrans Permit
 - Interwoven jurisdictional areas
 - Collaboration on trash control measures could lead to mutually beneficial and cost-effective projects
-

Workshop Objective and Outcome

- **Objective** – Begin/continue identifying potential mutually-beneficial collaborative trash control measure projects to address regulatory mandates
 - **Outcomes** – Identification of potential projects that can be further discussed at future county-wide or municipality-agency specific meetings
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Workshop Logistics

- If not presenting, **please mute yourself**
 - **Turn off your video.** No need to use during the workshop
 - Ways to submit questions/comments:
 1. **Typing into the chat box**  at any point during the workshop. Be sure to select “Everyone” in the “Send to” dropdown menu
 2. Hold your question and **ask verbally during the Q&A session after the break** (make sure to unmute during your question)
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Stormwater Trash Management

SCVURPPP Permittee Progress To-date



Chris Sommers

Stormwater Trash Management Coordination Workshop
Monday, March 30, 2020

Municipal Regional (Stormwater) Permit (MRP)

Provision C.10

- **Trash Load Reduction Targets**
 - 40% by July 2014
 - 60% by July 2016 (performance guideline)
 - 70% by July 2017 (mandatory/enforceable)
 - **80% by July 2019 (mandatory/enforceable)**
 - 100% (no adverse impacts) tentative by July 2022
- **Mandatory Full Capture Systems**
- **Receiving Water Monitoring Program**
- **Annual Creek/Shoreline Cleanups**
- **Maintain Long-Term Plan**



Trash Full Capture

Large Systems

- Hydrodynamic Separators
- Nutrient/Debris Separating Baffle Boxes
- Netting Systems

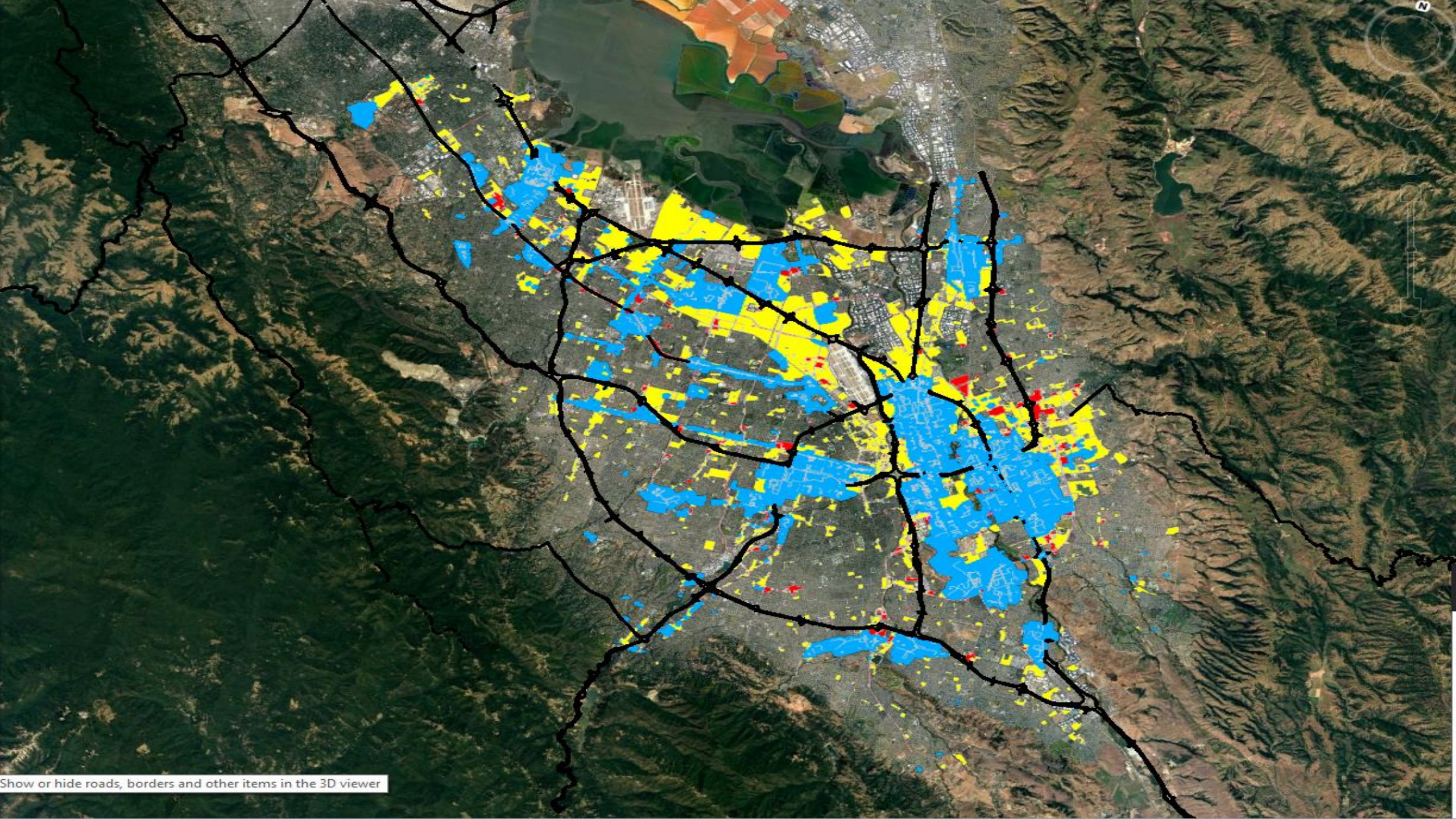


Trash Full Capture

Small (inlet-based) Systems

- Connector Pipe Screens
- Baskets/Inserts





Show or hide roads, borders and other items in the 3D viewer

Other Trash Control Measures

Via On-land Visual Trash Assessments(OVTAs)

- OVTA method used to account for trash reductions from actions other than full capture systems
 - Enhanced street sweeping
 - Reoccurring on-land cleanup events
 - Enhanced business inspection programs
 - Other actions
- **Santa Clara Countywide**
 - Over 2,000 OVTAs in FYs 18/19 and 19/20 at about 600 assessment sites (averaging 1,000 feet in length)
 - >375 miles of streets/sidewalks assessed in FYs 18/19 and 19/20



Source Controls

- Reusable bag ordinances
- Expanded polystyrene food service ware ordinances
- 60-70% reduction in stormwater



The City of San José Bring Your Own Bag Ordinance



Enhanced Receiving Water Cleanups & Direct Discharge Program (Offsets)

- Enhanced Cleanups
 - 10:1 Offset
 - Up to 10% reduction
- Direct Discharge Program
 - 10:1 Offset
 - Up to 15% reduction
 - Water Board EO Approval
 - San Jose Only SCVURPPP Permittee with Approved Program



Reported Trash Load Reductions

FY 18-19 (September 2020)

SCVURPPP Co-permittee	Full Capture Systems	Other Management Actions (via OVTAs)	Source Controls (10% Max)	Additional Creek/Shoreline Cleanup Offsets (10% Max)	Direct Discharge (Offset) (10% Max)	Total Trash Load Reduction	Total Trash Load Reduction Without SC Credits & Offsets
Campbell	40%	40%	10%	10%	-	99%	80%
Cupertino	25%	65%	-	1%	-	90%	90%
Los Altos	61%	29%	10%	-	-	100%	90%
Los Altos Hills*	NA	NA	NA	NA	NA	100%	100%
Los Gatos	17%	65%	10%	-	-	92%	82%
Milpitas	69%	7%	10%	-	-	86%	76%
Monte Sereno*	NA	NA	NA	NA	NA	100%	100%
Mountain View	28%	54%	10%	-	-	92%	82%
Palo Alto	8%	65%	10%	-	-	83%	73%
San Jose	46%	16%	10%	10%	15%	97%	62%
Santa Clara	45%	30%	10%	-	-	85%	75%
Santa Clara County	15%	59%	10%	-	-	84%	74%
Saratoga	22%	68%	-	-	-	90%	90%
Sunnyvale	28%	52%	10%	-	-	90%	80%

*All jurisdictional areas in the municipality were identified as low trash generation on baseline maps

Achievement of 90%

9 of 14

5 of 14

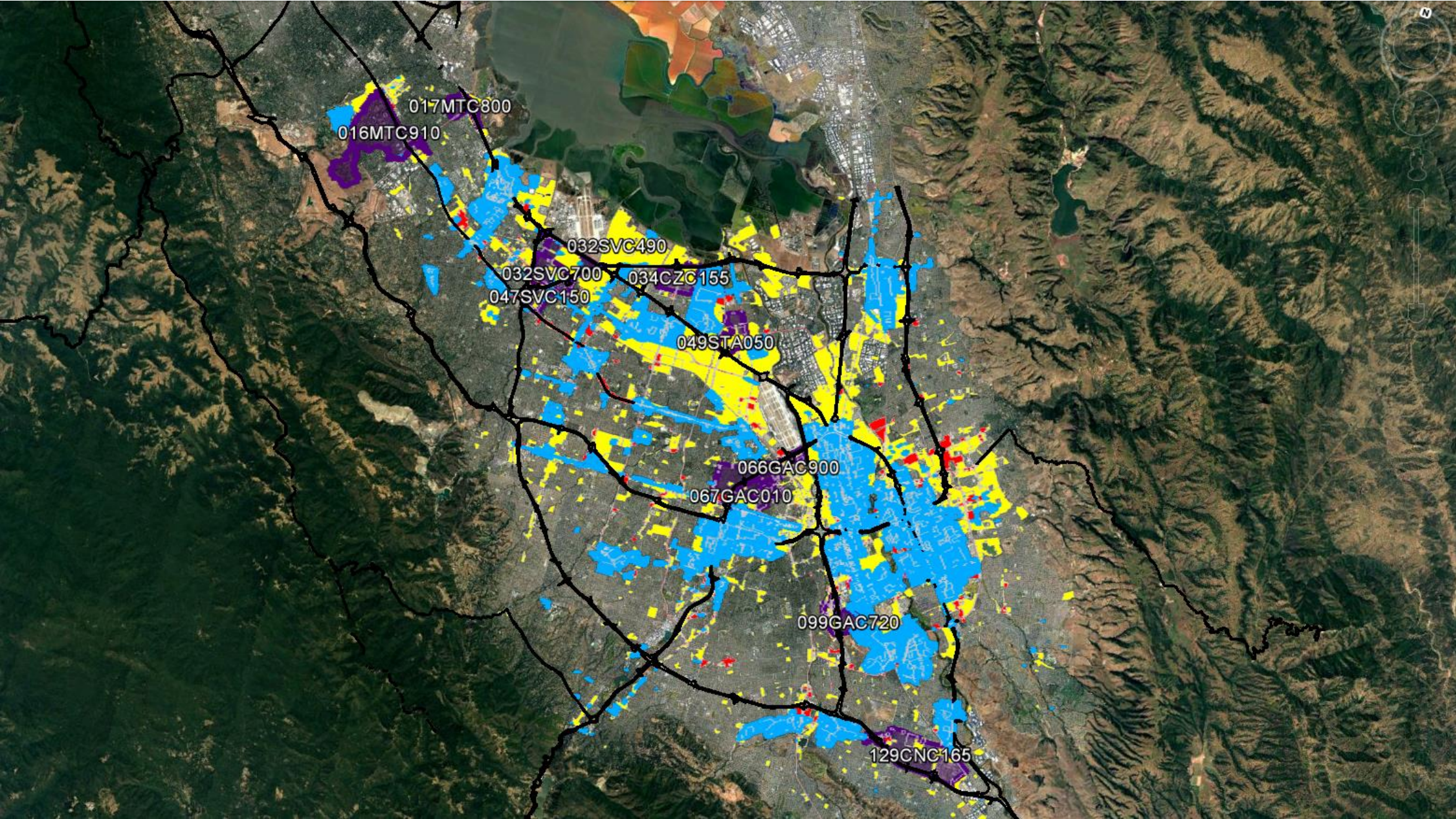
Opportunities for Future Collaboration

- **Trash Full Capture Systems**
 - Reimbursement for existing systems
 - Cost-sharing for new systems
 - Green Infrastructure as full capture?

- **Other Control Measures**
 - Curb Inlet Screens – El Camino Real Moderate Generation Areas
 - On-land Cleanups – Freeway on/off ramps
 - Public Education/Outreach – County/Regional Campaigns



Potential Opportunities for New Large Full Capture Systems



Transportation Agency Presentations

Break
(10 mins)

Question & Answer

Please:

1. Unmute yourself
 2. Ask your question slowly & clearly
 3. Put yourself back on mute
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Potential Collaborative Projects

- Trash Full Capture Systems

 - Other Control Measures
-

Thank you for participating!

- **Workshop materials will be distributed following the workshop**
 - Workshop recording
 - Presentations
 - Names/contact info of participants
 - Other materials
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The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The main title is centered in the upper half of the slide.

STORMWATER TRASH MANAGEMENT - MUNICIPAL AND TRANSPORTATION AGENCY COORDINATION WORKSHOP

MARCH 30, 2020

CALTRANS DISTRICT 4 – TRASH CONTROL WORKPLAN

- CALTRANS STATEWIDE NPDES PERMIT REQUIREMENTS
- DISTRICT 4 ASSETS
- 2018 VISUAL ASSESSMENTS AND CDO COMPLIANCE BENCHMARKS
- WORKPLAN - SUMMARY OF ACTIONS
- ON SYSTEM RETROFITS
- OFF SYSTEM RETROFITS WITH EXAMPLE
- CURRENT FUNDING TIMELINES
- CONTACTS

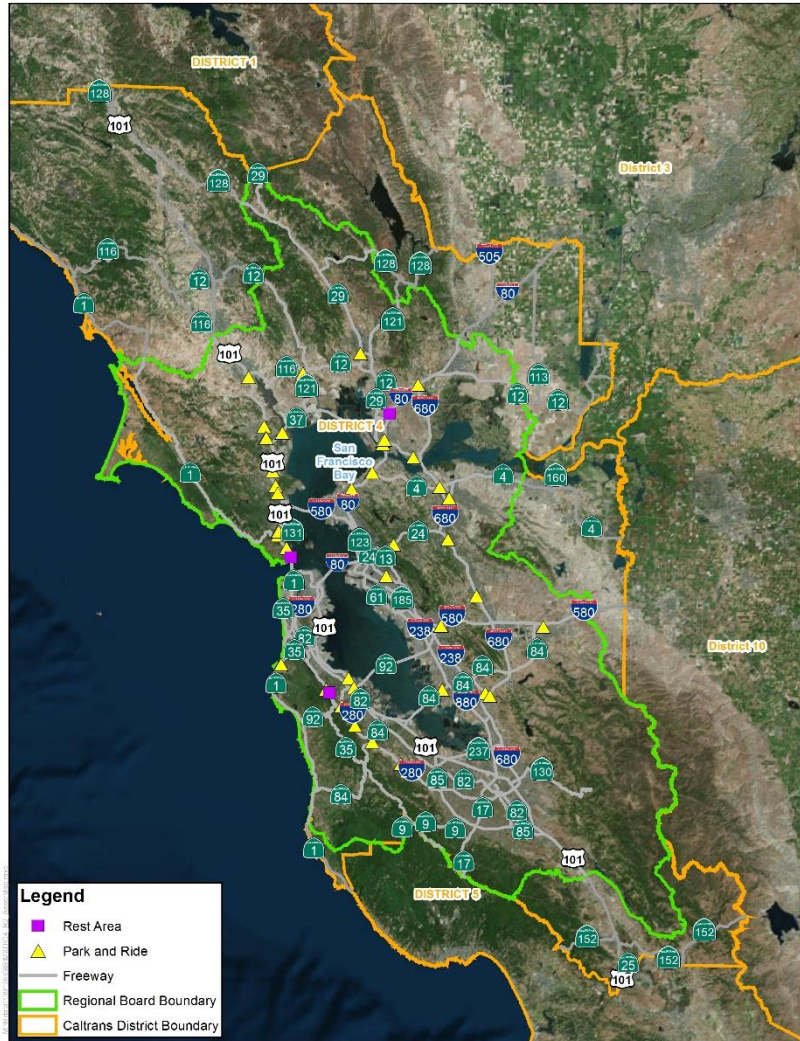
CALTRANS NPDES PERMIT ATTACHMENT V – SF BAY REGION REQUIREMENTS (TRASH)

- **TRASH, AS DEFINED IN OUR STATEWIDE NPDES PERMIT** – “.. ALL IMPROPERLY DISCARDED WASTE MATERIAL ASSOCIATED WITH HUMAN HABITATION, OF HUMAN ORIGIN; OR FROM ANY PRODUCING, MANUFACTURING, OR PROCESSING OPERATION INCLUDING, BUT NOT LIMITED TO, PRODUCT PACKAGING OR CONTAINERS CONSTRUCTED OF STEEL, ALUMINUM, GLASS, PAPER, PLASTIC, AND OTHER NATURAL AND SYNTHETIC MATERIALS THAT ARE THROWN OR DEPOSITED IN WATERS OR WHERE IT COULD BE TRANSPORTED, AS FLOATING, SUSPENDED, AND/OR SETTLEABLE MATERIALS, TO WATERS OF THE STATE, INCLUDING WATERSHEDS...”
- **INSTALL, OPERATE, AND MAINTAIN FULL TRASH CAPTURE SYSTEMS**, TREATMENT CONTROLS, AND/OR ENHANCED MAINTENANCE CONTROLS FOR STORM DRAINS OR CATCHMENTS THAT SERVICE THE SIGNIFICANT TRASH GENERATING AREAS.
- **COORDINATE WITH NEIGHBORING MS4 PERMITTEES TO CONSTRUCT, OPERATE, AND MAINTAIN FULL TRASH CAPTURE SYSTEMS**, TREATMENT CONTROLS, AND/OR ENHANCED MAINTENANCE CONTROLS IN HIGH TRASH GENERATING AREAS AND/OR PRIORITY LAND USE AREAS (HIGH DENSITY RESIDENTIAL, INDUSTRIAL, COMMERCIAL, AND PUBLIC TRANSPORTATION STATIONS).

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DISTRICT 4 ASSETS



- 1,030 CENTERLINE MILES
- 790 RAMPS
- 1,800 BRIDGES
- 3 REST AREAS
- 46 PARK-N-RIDE LOTS
- D4 SF BAY TOTAL ROW ~ 25,000 ACRES
- <1% OF SF BAY WATERSHED
- (~2,500,000 ACRES)

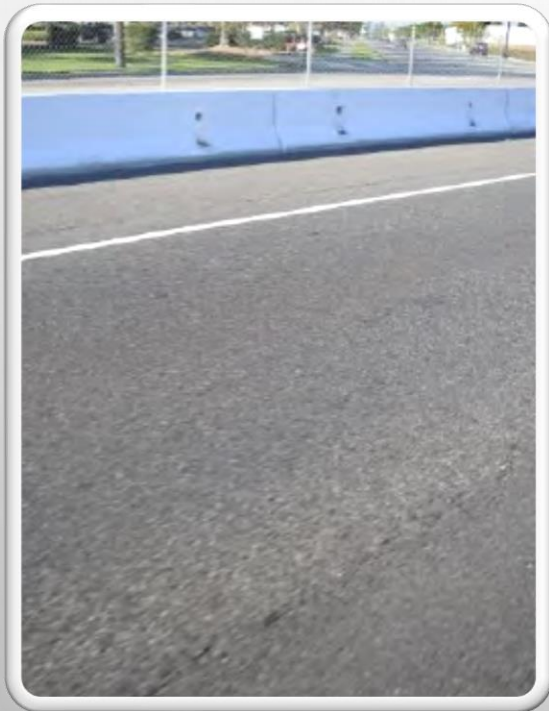
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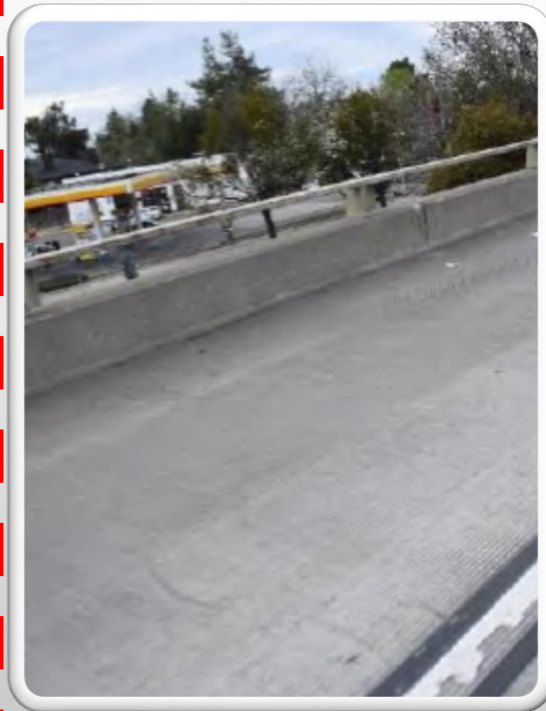
ON-LAND VISUAL TRASH ASSESSMENT

SIGNIFICANT TRASH GENERATION AREA (STGA)

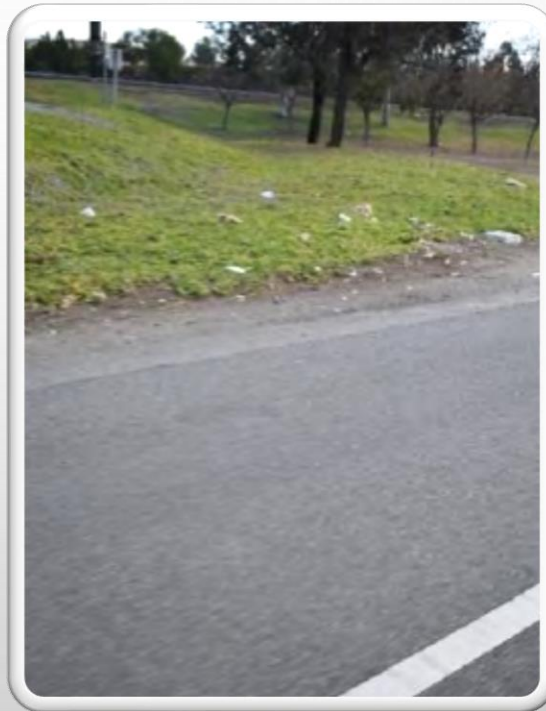
LOW



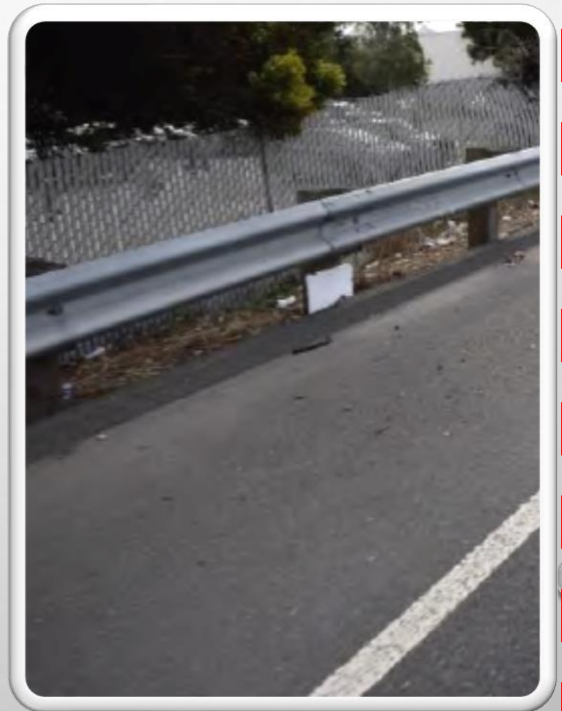
MEDIUM



HIGH



VERY HIGH



ON-LAND VISUAL ASSESSMENT

Rating Category	Litter	Definition	Acres
Low	None	No trash observed in assessment area	
Medium	Slightly	Predominantly free of trash expect for a few littered areas On average, one piece per 2 car lengths	7,320
High	Littered	Predominantly littered except for few clean areas	1,495
Very High	Very Littered	Trash is continuously seen through assessment area	
		Significant Trash Generation Area (STGA)	8,815

2018 Visual Assessments

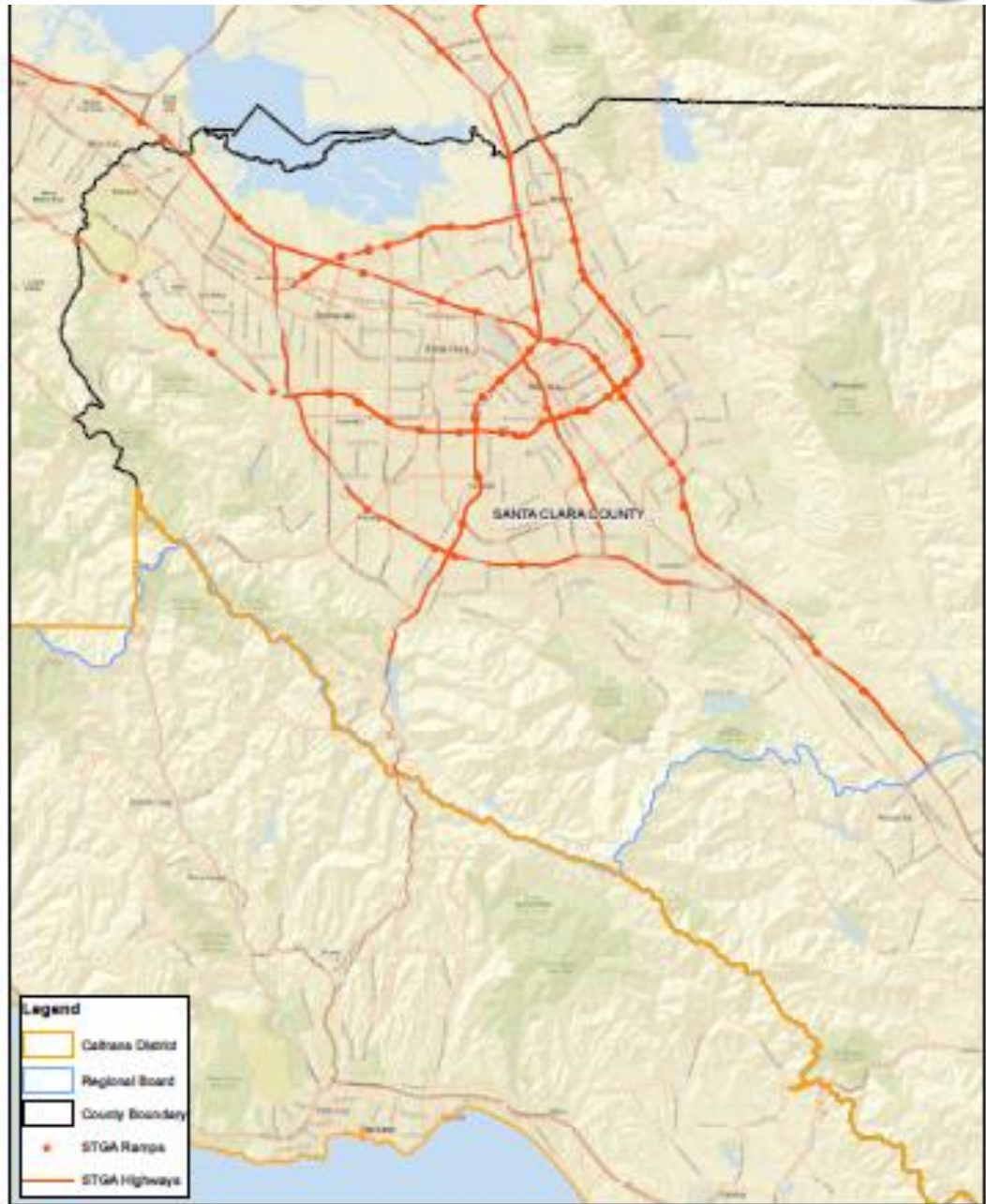


2019 D4 STGAs (8,815 acres)

Adopted CDO	
STGA ¹ , acres	Timeline
2,000	6/30/2020
4,000	6/30/2022
6,000	6/30/2024
8,800	6/30/2026
Additional	12/2/2030

SANTA CLARA COUNTY

- STGA INCLUDES:
 - INTERSTATES
 - STATE ROUTES
 - ON-RAMPS/OFF-RAMPS
 - PARK AND RIDES

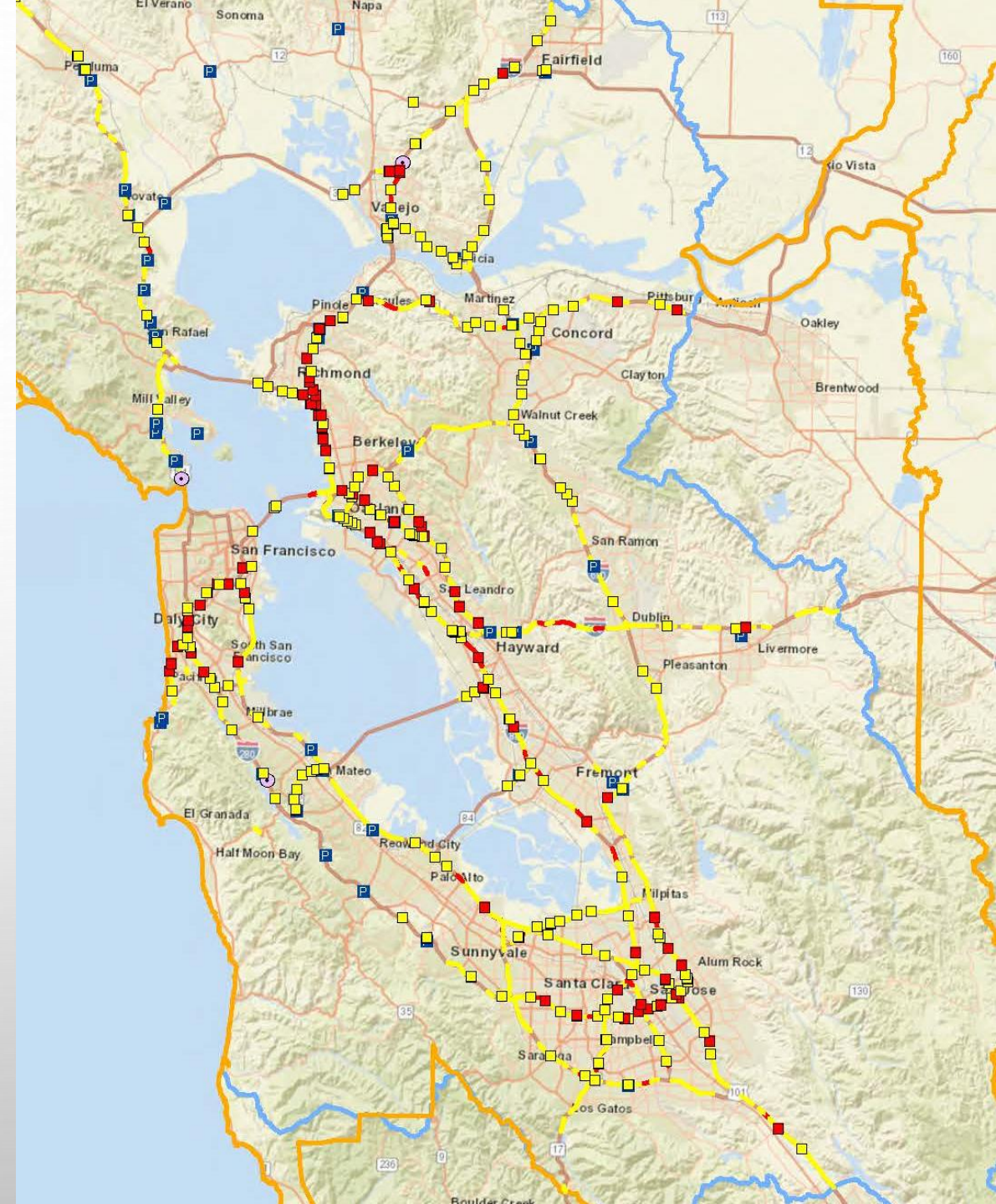


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TRASH WORK PLAN

- STRUCTURAL TRASH CONTROL DEVICES
 - ON HIGHWAY SYSTEM
 - OFF HIGHWAY SYSTEM PARTNERSHIPS
- NON-STRUCTURAL CONTROL
 - STREET SWEEPING
 - LITTER PICK-UP (FIELD MAINTENANCE, ADOPT-A-HIGHWAY PROGRAM, DEPT OF CORRECTION)
 - PUBLIC EDUCATION
- ON-GOING DEVELOPMENT
 - ENHANCED MAINTENANCE (FULL TRASH CAPTURE EQUIVALENT)
 - ENHANCED ENFORCEMENT
 - VEGETATION CONTROL



Compliance Actions

Summary of Caltrans Current and Potential Compliance Actions Summary

Action Type	Control Type	Planned Acreage Treated by June 30, 2020	Planned Acreage Treated by June 30, 2022	Planned Acreage Treated by June 30, 2024	Planned Acreage Treated by June 30, 2026
Caltrans ROW treated through retrofit projects ¹	Structural Trash Control Measure ²	103	221	888	1,005
Caltrans ROW treated through Caltrans funded local projects ³	Structural Trash Control Measure ³	1,100	1,373	1,500	1,500
Caltrans ROW treated through existing local projects ⁴	Structural Trash Control Measure ²	813	813	813	813
Caltrans ROW treated by planned local projects ⁵	Structural Trash Control Measure ²	0	TBD 1,093	TBD 2,298	4,500 4,982
Enhanced Maintenance ⁶	Non-structural Trash Control Measure ⁷	500	500 + TBD	500 + TBD	500 + TBD
Existing Vegetation Controls	Non-structural Trash Control Measure ⁷	TBD	TBD	TBD	TBD
Public Education	Non-structural Trash Control Measure ⁷	TBD	TBD	TBD	TBD
Alternative Compliance Credits (ACC) – Local ROW treated through Caltrans funded local projects ⁸	ACCs ⁹	TBD	TBD	TBD	TBD
Total	-	2,516	2,907 4,000	3,702 6,000	8,327 8,800
CDO Area Benchmark Acreages	-	2,000	4,000	6,000	8,800

~ 20% max. = ON SYSTEM RETROFITS

~ 70% = OFF SYSTEM RETROFITS

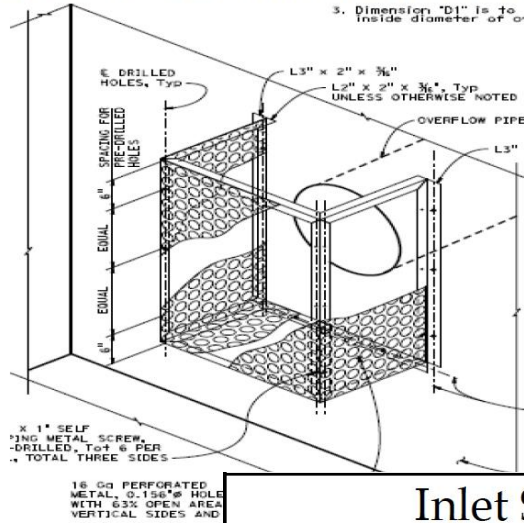
10% max. = NON-STRUCTURAL

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- **ON SYSTEM RETROFITS**
- OFF SYSTEM RETROFITS WITH EXAMPLE
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- CONTACTS

ON SYSTEM – RETROFITS (BY CALTRANS/OTHERS)

Outlet Screen – Austin Vault Sand Filter



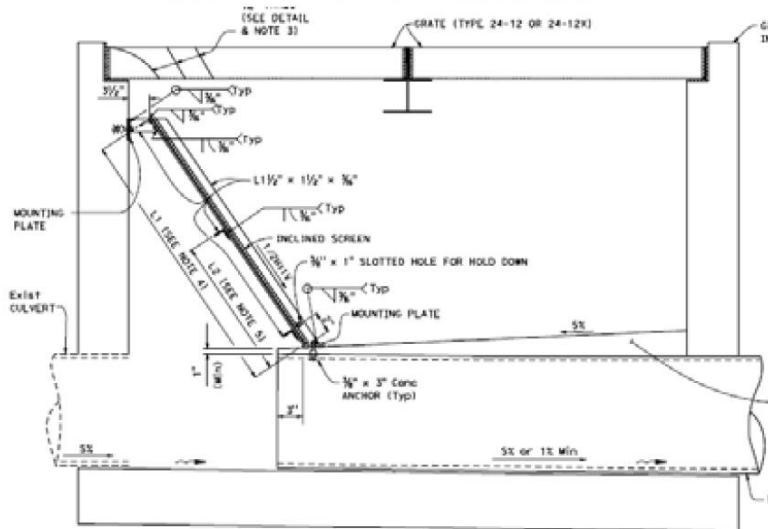
GSRD – Linear



Trash Nets



Inlet Screen – Inclined



Outlet Screen - Water Quality Riser

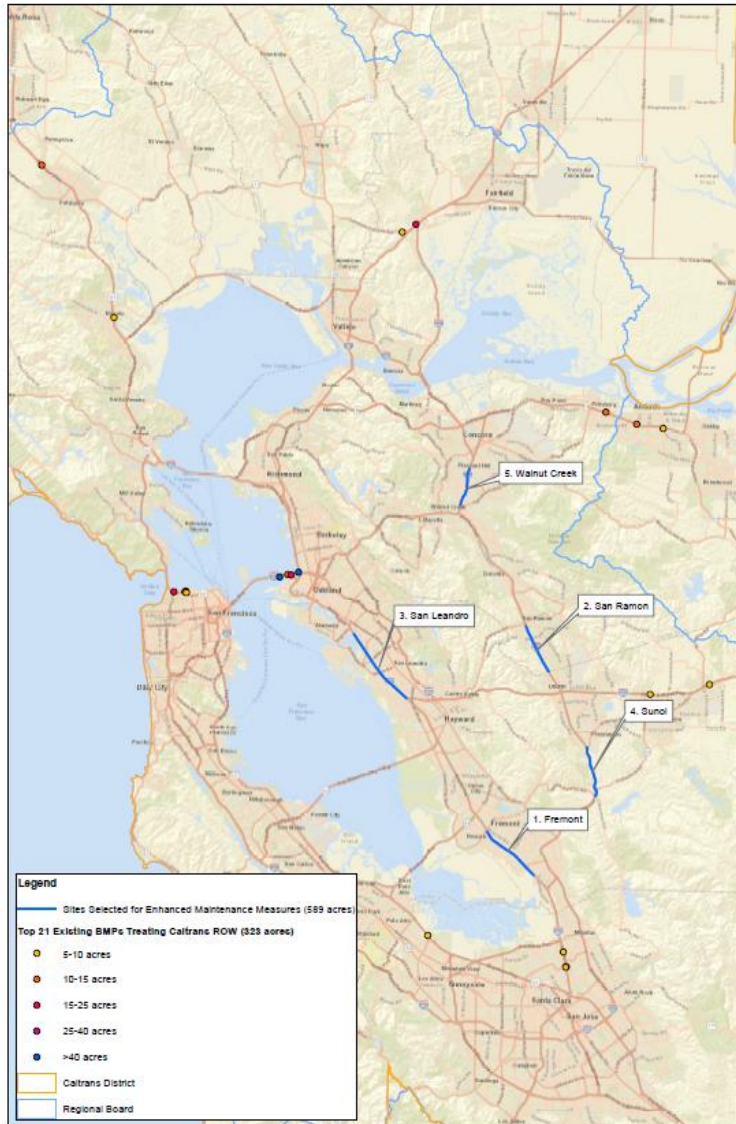


ON SYSTEM – ENHANCED MAINTENANCE

Roadside litter pick up on roadside and existing treatment BMPs



Pavement Sweeping



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Existing Vegetation Controls	Non-structural Trash Control Measure ⁷	TBD	TBD	TBD	TBD
Public Education	Non-structural Trash Control Measure ⁷	TBD	TBD	TBD	TBD
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~ 20% max.

~ 70% OFF SYSTEM RETROFITS

10% max.

OFF SYSTEM RETROFITS – DEVELOPING LOCAL PARTNERSHIPS

- COMPLIANCE NEED ~ 5,000 ACRES OF CALTRANS RIGHT OF WAY
- SCOPING:
 - DEVICE TREATMENT TRIBUTARY AREA MUST INCLUDE CALTRANS RIGHT OF WAY
 - DEVICE TECHNOLOGY MUST QUALIFY FOR FULL TRASH CAPTURE OR MUTLI-BENEFIT TRASH TREATMENT FOR TMDL COMPLIANCE
- CALTRANS TO PROVIDE :
 - CONNECTION POINTS TO LOCAL STORM DRAINS
 - TECHNICAL REVIEW OF PROPOSAL TO PROVIDE INPUT ON BUILDABILITY
- LOCAL MUNICIPALITIES TO PROVIDE:
 - VERIFY THAT TRIBUTARY DRAINAGE AREA INCLUDES CALTRANS ROW
 - ENSURE TECHNOLOGY MEETS FULL TRASH CAPTURE REQUIREMENTS OR MULTI-BENEFIT TRASH TREATMENT SYSTEMS
 - PROPOSAL – SCOPE, COST AND SCHDULE
- CALTRANS HANDOUT:
 - LOCAL MS4&CALTRANS – INDIVIDUAL AGREEMENTS FOR STORMWATER TREATMENT PROJECTS....

LOCAL MS4s & CALTRANS — PARTNERSHIP OPPORTUNITIES FOR STORMWATER TREATMENT PROJECTS

The Caltrans NPDES Permit issued by the State Water Resources Control Board encourages Caltrans to partner with local municipalities and to provide funding for regional water quality treatment facilities in TMDL watersheds in which Caltrans is identified as a responsible party, or in significant trash generating areas (STGA) identified in the Caltrans Statewide Trash Implementation Plan. Caltrans receives Waste Load Allocation reduction credits or STGA treatment credits for contributions to regional projects. Caltrans also receives one Compliance Unit credit for each \$88,000 contributed to the project.

Caltrans has two partnership programs:

Cooperative Implementation Agreement (CIA) – CIAs provide capital and support funding for planning, design, environmental studies, right of way acquisition (easement only) and construction of stormwater treatment facilities. Treatment of runoff from Caltrans right of way (ROW) is required. The amount of funds in this program varies from year to year. Project details (as described below) must be submitted to the appropriate Stormwater Coordinator prior to March 1. Projects under consideration are prioritized and funding determinations are made by June of each year. Regional Water Board approval of the proposed project is required.

Financial Contribution Only (FCO) – FCOs provide funding for capital construction costs (labor and materials) only of stormwater treatment facilities. Treatment of runoff from Caltrans ROW is required. Basic project details (brief project scope, location, tentative schedule and estimate) must be submitted to the District NPDES Coordinator by May 1 of even years to reserve funds. Additional details of the project (as described below) must be submitted by March 1 or earlier of odd years for Caltrans to develop a Project Initiation Report. Projects will be prioritized and if approved, funds are typically available within two years. Exceptions to the dates noted may be granted for high priority projects. Project plans and specifications, environmental document and permits, ROW acquisition, contract advertisement, award, and administration (with Caltrans oversight) is the responsibility of the local municipality. Projects must be federalized unless an exception is obtained from Caltrans. Regional Water Board approval is required.

Projects not selected remain eligible for funding in following years. Reimbursement for treatment facilities already constructed is also possible under each program.

For projects with multiple components (e.g., Green Streets, flood control, etc.), only components directly related to construction of the BMPs or restoration of areas disturbed by construction of the BMPs are eligible.

Maintenance and operation costs under each program must be solely borne by the local MS4.

Information required to be submitted for project consideration:

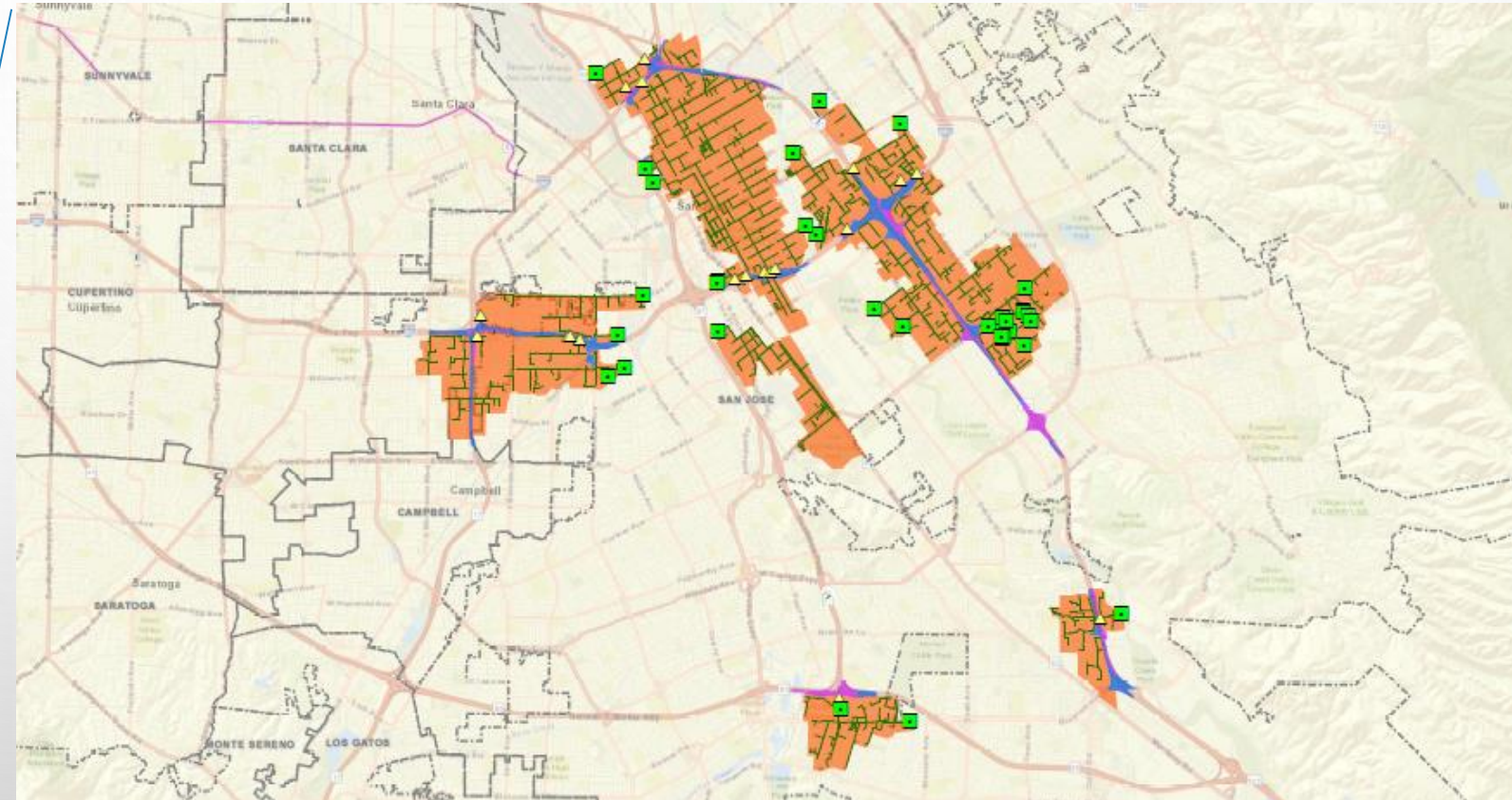
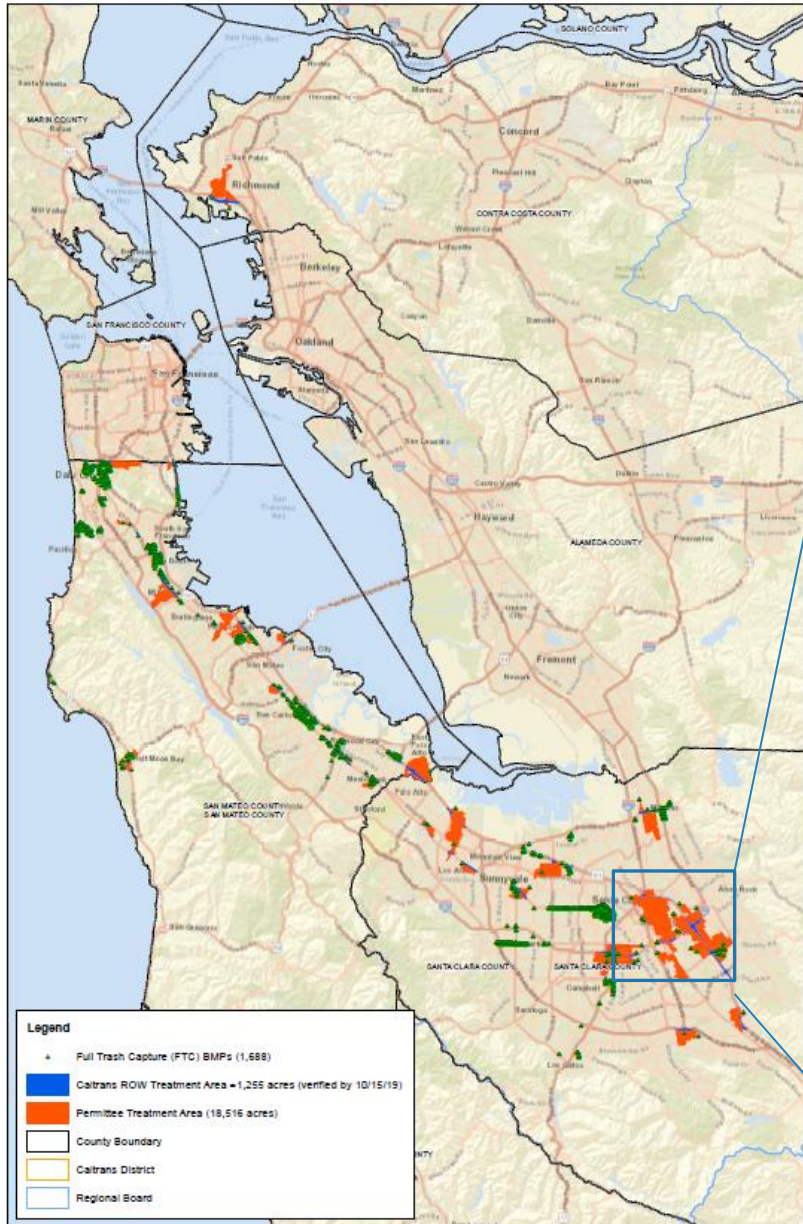
- 1. Waterbody reach the project is located in and where on the Reach Prioritization Inventory List it lands**
The list is available on the Caltrans Stormwater Program website under “Tools”: www.dot.ca.gov/env/stormwater
- 2. Pollutant categories treated and the Waste Load Allocation reduction for each (for TMDLs) or acres of STGAs (for Trash) provide by the project**
Priority is given to projects that address STGAs or multiple TMDLs.
- 3. Phase the project is in (i.e., conceptual, environmental studies, design), tentative schedule and funding requested**
Status of environmental documents, permits, design. Provide project schedule and total funding (show funds broken down by fiscal year and phase).
- 4. Number of Stakeholders benefitting from the project and Lead Agency (individual MS4, JPA, or stakeholder group).**
- 5. Type of BMP(s) to be built and number of acres treated**
Provide sizing and tributary drainage area calculations and mapping for dry and wet weather flow acres being treated for Caltrans and each MS4.
- 6. Status of Regional Water Board approval (e.g., WQIP, WMP, EWMP or Executive Officer)**
- 7. Status of authority to enter into a CIA/FCO agreement (e.g., City Council Resolution).**

For questions regarding either of these programs, contact the Caltrans NPDES Coordinator for the Caltrans District in which the project is located or Tom Rutsch, Stormwater Coordinator-North, (916-753-7396 or tom.rutsch@dot.ca.gov) for projects in Caltrans Districts 1, 2, 3, 4, 6, and 10; or Mauricio Serrano, Stormwater Coordinator-South, (916-712-1303 or mauricio.serrano@dot.ca.gov) for projects in Caltrans Districts 5, 7, 8, 9, 11, and 12.

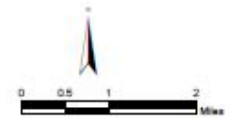
OFF SYSTEM RETROFITS – CALTRANS PARTNERSHIP PROGRAM

- COMPLIANCE NEED ~ 5,000 ACRES OF CALTRANS RIGHT OF WAY
- PRELIMINARY PRIORITIZATION FOR FUNDING ~ 2,800 ACRES
 - TIER 1 = SCOPE READY ~ 400 ACRES
 - TIER 2 = CRITICAL SCOPE INFORMATION MISSING ~ 1,900 ACRES
 - TIER 3 = TREAT LOW TRASH GENERATION AREAS ~ 500 ACRES
- FRAMEWORK FOR PARTNERSHIPS:
 - FUND REIMBURSEMENT – CALTRANS SHARE OF PROJECT DEVELOPMENT ACTIVITIES
 - **COOPERATIVE AGREEMENT:**
 - STATE HIGHWAY OPERATIONS AND PROTECTION PROGRAM (SHOPP)
 - SCOPING TO FUNDING AVAILABILITY = 2 YEAR PROCESS
 - **COOPERATIVE IMPLEMENTATION AGREEMENT (CIA):**
 - YEARLY OPERATIONAL SAVINGS
 - SCOPING TO FUNDING AVAILABILITY = 6 MONTHS PROCESS

OFF SYSTEM RETROFITS - EXAMPLE



SUMMARY	
Total BMPs	36
Caltrans STGA Treated (ac)	498.1
Caltrans Non-STGA Treated (ac)	229.4
Permittee Area Treated (ac)	8072.8
Total Area Treated (ac)	8791.3



CALTRANS DISTRICT 4
EXISTING FULL TRASH CAPTURE TREATMENT SHEDS

City of San Jose
Full Trash Capture Devices (FTCDs)
OVERVIEW MAP
December 31, 2019

OFF SYSTEM RETROFITS - EXAMPLE CIA PROVISIONS

RECITALS

1. CALTRANS and AGENCY, pursuant to California Streets and Highways Code (SHC) Sections 114 and 130, are authorized to enter into a Cooperative Agreement for improvements to the State Highway System (SHS) as a watershed stakeholder within AGENCY's jurisdiction.
2. As per Attachment IV of the Caltrans National Pollutant Discharge Elimination Permit Order 2012-0011-DQW (NPDES Permit), Section I.A, CALTRANS and AGENCY are to collaboratively implement the NPDES Permit requirements as they have been identified as stakeholders in the Total Maximum Daily Load (TMDL) for Phase II Orange Memorial Park Storm Water Capture Project (hereinafter referred to as "PROJECT"). CALTRANS has agreed to contribute an amount not to exceed Six Million Dollars (\$6,000,000) to AGENCY for AGENCY to construct the PROJECT, within the regional area under the jurisdiction of AGENCY to comply with the TMDL. The NPDES Permit (including Attachment IV) is located at:
www.waterboards.ca.gov/water_issues/programs/stormwater/caltrans.html
3. AGENCY has agreed to implement the PROJECT subject to the terms and conditions of this Agreement including all documents attached hereto that are incorporated herein and hereby made a part of this Agreement (collectively referred to as the "AGREEMENT").
4. AGENCY will be responsible for all management, maintenance and operations, including costs of the constructed PROJECT.
5. CALTRANS will be credited with one (1) Compliance Unit (CU) for each Eighty Eight Thousand Dollars (\$88,000) paid to AGENCY. A compliance unit is defined as one (1) acre of CALTRANS's Right-of-Way (ROW) from which the runoff is retained, treated, and/or otherwise controlled prior to discharge to the relevant reach. The financial equivalent as submitted by CALTRANS is One Hundred Seventy Six Thousand Dollars (\$176,000) per CU. The State Water Resources Control Board ("State Water Board") is encouraging collaborative efforts and Cooperative Implementation Agreements, and uses a 50% discount for CU in dollars contributed to the Cooperative Implementation. This sets the CU equivalent at Eighty Eight Thousand Dollars (\$88,000).
6. For NPDES permit compliance, CALTRANS will claim pollutant waste load reductions provided by this project and 68 acres toward trash reduction compliance. CALTRANS intends to use the project waste load reductions to demonstrate equivalent load reductions required to meet its TMDL waste load allocations.

SECTION I

All sections of this AGREEMENT including the recitals are enforceable.

1. AGENCY has agreed to implement PROJECT in accordance with Attachment II-SCOPE SUMMARY. The SCOPE SUMMARY that is attached to and made a part of this AGREEMENT defines in detail the PROJECT's scope of work, description, timeline, location and budget.
2. AGENCY will be responsible for all management, maintenance and operations, including costs of the constructed PROJECT.
3. AGENCY will develop and construct the PROJECT in accordance with the applicable laws, policies, practices, procedures and standards. This applies to all procurements, including land acquisitions, licenses and permits.
4. AGENCY shall prepare initial engineering and geotechnical assessments, and detailed design as well as acquire environmental reviews and ROW needed for the PROJECT. This work is the AGENCY equivalent to CALTRANS process of Project Initiation Document (PID), Project Approval & Environmental Document (PA & ED) and Plans, Specification and Estimate (PS&E). AGENCY will pay for coordinate, prepare, obtain, implement, renew, and amend all any permits needed to complete the PROJECT. AGENCY will prepare CEQA environmental documentation to meet CEQA requirements.
5. AGENCY will advertise, open bids, award, and approve the construction contract in accordance with the California Public Contract Code and the California Labor Code and will be responsible for the administration, acceptance, and final documentation of the construction contract.
6. AGENCY shall be reimbursed for actual costs not exceeding the amount provided in the AGREEMENT herein.
7. CALTRANS shall have the right to inspect the work to be performed hereunder at any time during its progress and to make final inspection upon completion thereof. Failure of CALTRANS to object within 30 days after final inspection shall indicate satisfactory performance of the AGREEMENT by AGENCY.
8. The total amount reimbursable to AGENCY pursuant to this AGREEMENT by CALTRANS shall not exceed \$6,000,000 ("Contract Sum"). Costs incurred by AGENCY for PROJECT work under this AGREEMENT in excess of the Contract Sum will be borne by AGENCY. It is understood and agreed that this AGREEMENT fund limit is an estimate and that CALTRANS will only reimburse the cost of services actually rendered as authorized by the CALTRANS Contract Manager or designee at or below the fund limitation amount set forth in this AGREEMENT and in accordance with the Budget included in Attachment II.

CALTRANS DISTRICT 4 – TRASH CONTROL WORKPLAN

- CALTRANS STATEWIDE NPDES PERMIT REQUIREMENTS
- DISTRICT 4 ASSETS
- 2018 VISUAL ASSESSMENTS AND CDO COMPLIANCE BENCHMARKS
- WORKPLAN - SUMMARY OF ACTIONS
- ON SYSTEM RETROFITS
- OFF SYSTEM RETROFITS WITH EXAMPLE
- CURRENT FUNDING TIMELINES
- CONTACTS

CURRENT FUNDING TIMELINES

2020 CIA:

- IDENTIFY CIA CANDIDATES BY 4/1/20
- EXECUTE AGREEMENT BY JUNE 2020 FOR REIMBURSEMENT NO LATER THAN MAY 2022

AMEND 2020 SHOPP:

- IDENTIFY CANDIDATES BY 4/30/20
- TARGET AREA TREATED = 1,100 ACRES
- SECURE FUNDING BY JUNE 2021
- EXECUTE COOPERATIVE AGREEMENTS FOR REIMBURSEMENT BY JUNE 2022

SHOPP 2022:

- IDENTIFY CANDIDATES BY 6/30/20
- TARGET AREA TREATED = 3,900 ACRES
- SECURE FUNDING BY JUNE 2022
- EXECUTE COOPERATIVE AGREEMENTS FOR REIMBURSEMENT BY JUNE 2023

2021 CIA:

- IDENTIFY CIA CANDIDATES BY 12/1/20
- EXECUTE AGREEMENT BY JUNE 2021 FOR REIMBURSEMENT NO LATER THAN MAY 2023

CONTACT INFORMATION

- CALTRANS HQ DIVISION OF ENVIRONMENTAL ANALYSIS
 - TOM RUTSCH (916-653-7396) E-MAIL: TOM.RUTSCH@DOT.CA.GOV
- CALTRANS DISTRICT 4
 - HARDEEP TAKHAR (510-715-6816) E-MAIL: HARDEEP.S.TAKHAR@DOT.CA.GOV
 - WILFUNG MARTONO (510-286-5167) E-MAIL: WILFUNG.MARTONO@DOT.CA.GOV



Santa Clara Valley Transit Authority (VTA) Stormwater Trash Management

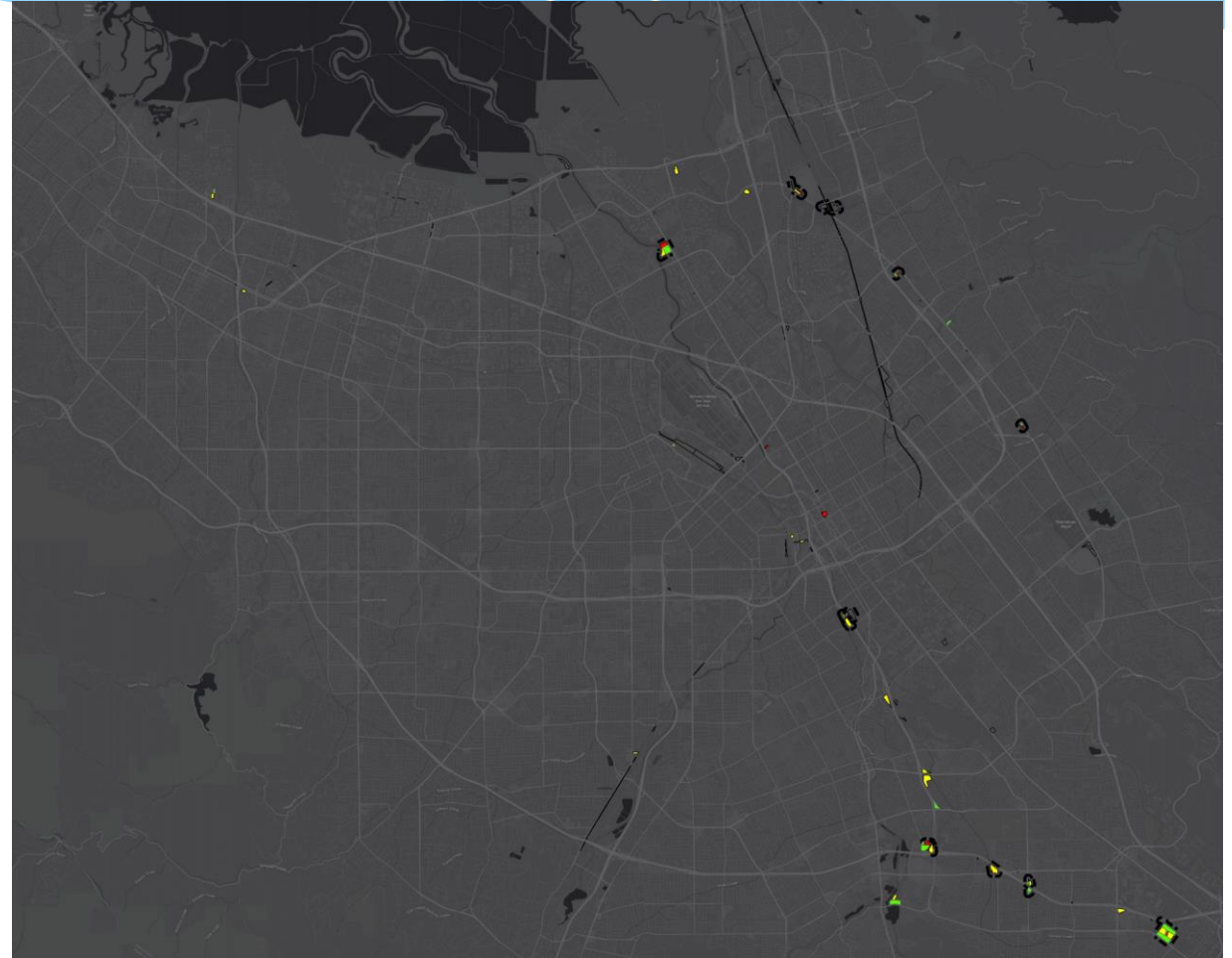
Rachael Keish P.E. & Selena Gonzalez QSP

March 30, 2020



Overview

- * Baseline Assessments & Mapping
 - * Priority Land Uses
 - * Subdividing sites
- * Creating a Trash Implementation Plan
 - * Street sweeping
 - * Full trash capture devices
 - * Operations & Maintenance (O&M)
- * Implementing the “Plan”
 - * Progress Assessments
 - * Trash Control Measures Implemented To-date
 - * Sites requiring coordination
- * Questions



Baseline Assessments & Mapping

Priority Land Uses

- * Determining Priority Land Uses (PLU's)
 - * Traditional Permittees:
 - * land uses defined
 - * Non-Traditional Permittees:
 - * Non-trads are atypical
 - * PLU definition is self-defined
 - * ID land uses that generate substantial amounts of trash



Priority Land Uses

- * **Park and Ride Lots**
- * Administrative Offices & Maintenance Yard Parking Lots
- * Transit Centers
- * BART Stations
- * Properties over Open Water Channels



Priority Land Uses

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- * **Administrative Offices & Maintenance Yard Parking Lots**
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Priority Land Uses

- * Park and Ride Lots
- * Administrative Offices & Maintenance Yard Parking Lots
- * Transit Centers
- * BART Stations
- * **Properties over Open Water Channels**



Non-Priority Land Uses

- * All sites that drain to VTA's MS4 system
 - * NOT bus stops
 - * NOT light rail Right-of-Way
- * Light rail platforms – low trash generating based on On-Land Visual Trash Assessments (OVTAs)



Bus stops and Roadway trash

- * Typically drain to another agencies' MS4 system
 - * Trash is **assessed** as part of quarterly O&M assessments – not part of Trash Implementation Plan
 - * Approach: Visual O&M assessment at 10% of VTA's ~4,000 bus stops assessed per year = 100 stops/quarter
- * **Results:**
 - * All bus stops are at an "A" level after VTA's existing O&M efforts
 - * Not a significant contributor to other agencies' MS4 system trash loads
 - * May be isolated hot spots due to homelessness or public dumping

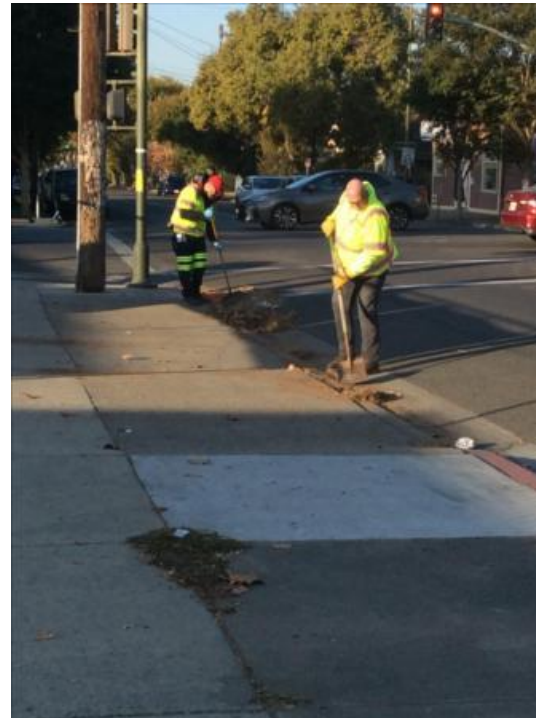
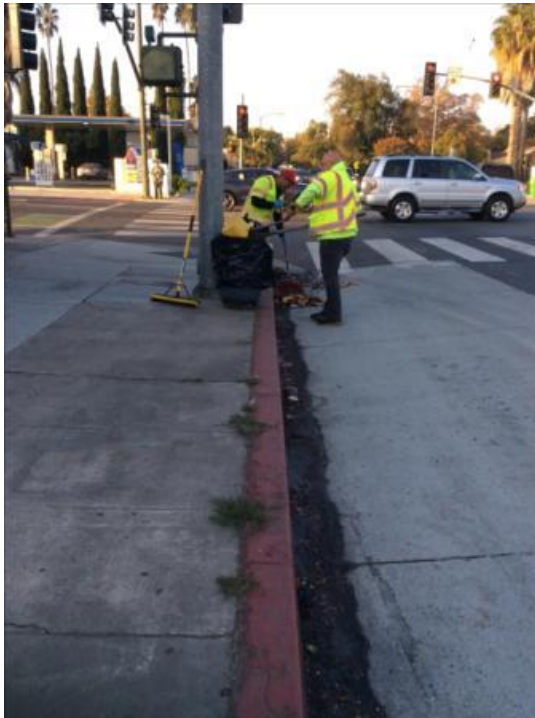


Bus stops and Roadway trash

Before O&M

During O&M

After O&M



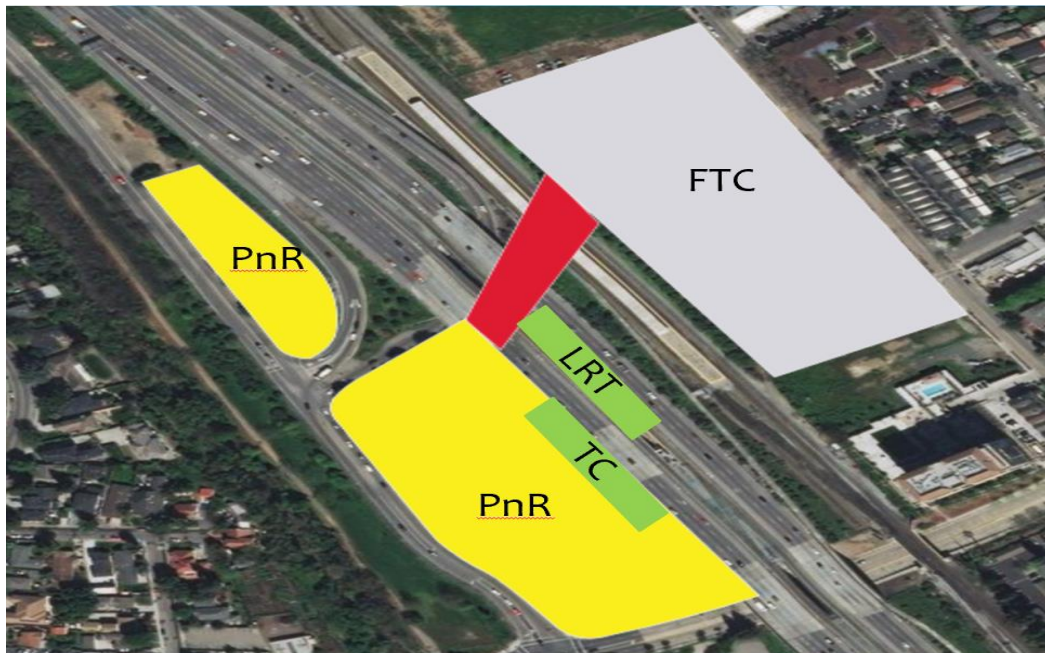
Data Collection- OVTA

- * On-land Visual Trash Assessment (OVTA) Protocols A, B,& C:
 - * Identify existing levels of trash generation
 - * Rating sites from A to D
 - * Recorded data to determine subdivided sites



Baseline Map

- * Mapped the baseline trash grades
- * Looked at localized patterns to create a “Plan” to combat trash
- * Subdividing sites



Creating a Trash Implementation Plan

Creating the “Plan”

- * Review Current O&M at each site in relation to trash grade
- * Are there hotspots present?
- * Propose O&M that will lead to Full Trash Capture equivalency
 - * Types of O&M
 - * Frequency & Feasibility
 - * Cost
 - * Contracts



Observing O&M

- * Observations of current O&M
 - * Weekly litter pick-up at light rail Park-and-Rides



Observing O&M

- * Observations of current O&M
 - * Daily litter pick-up at Bus Transit Centers



Observing O&M

- * Most Effective? Street Sweeping (when done right)



O&M- Maintenance

O&M Assessments & Training



Coordination with Real Estate

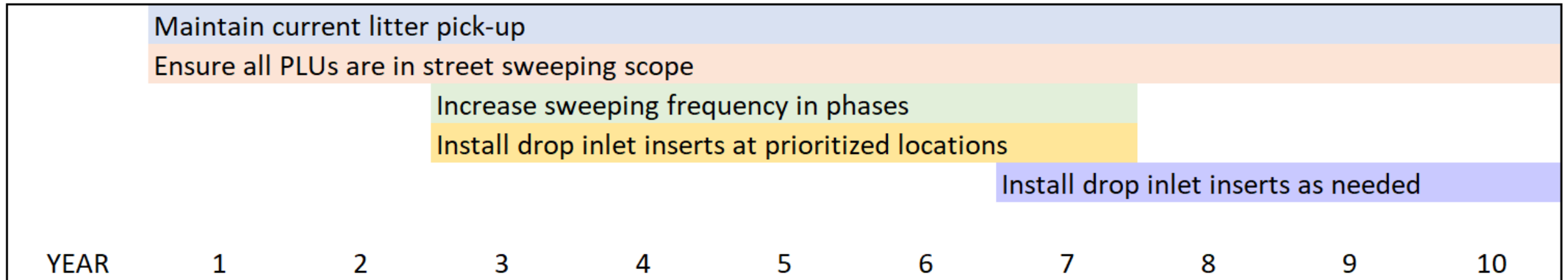


Typical Site Scenario TIP

- * Created 10-year maintenance plan:
 - * Combination approach: O&M and possible infrastructure improvements
 - * Increase street sweeping (and do OVTA)
 - * Potentially install drop inlet filters
 - * Implement in phases
 - * Consider maintenance and structural costs
 - * Allow time in plan for adjustments as needed

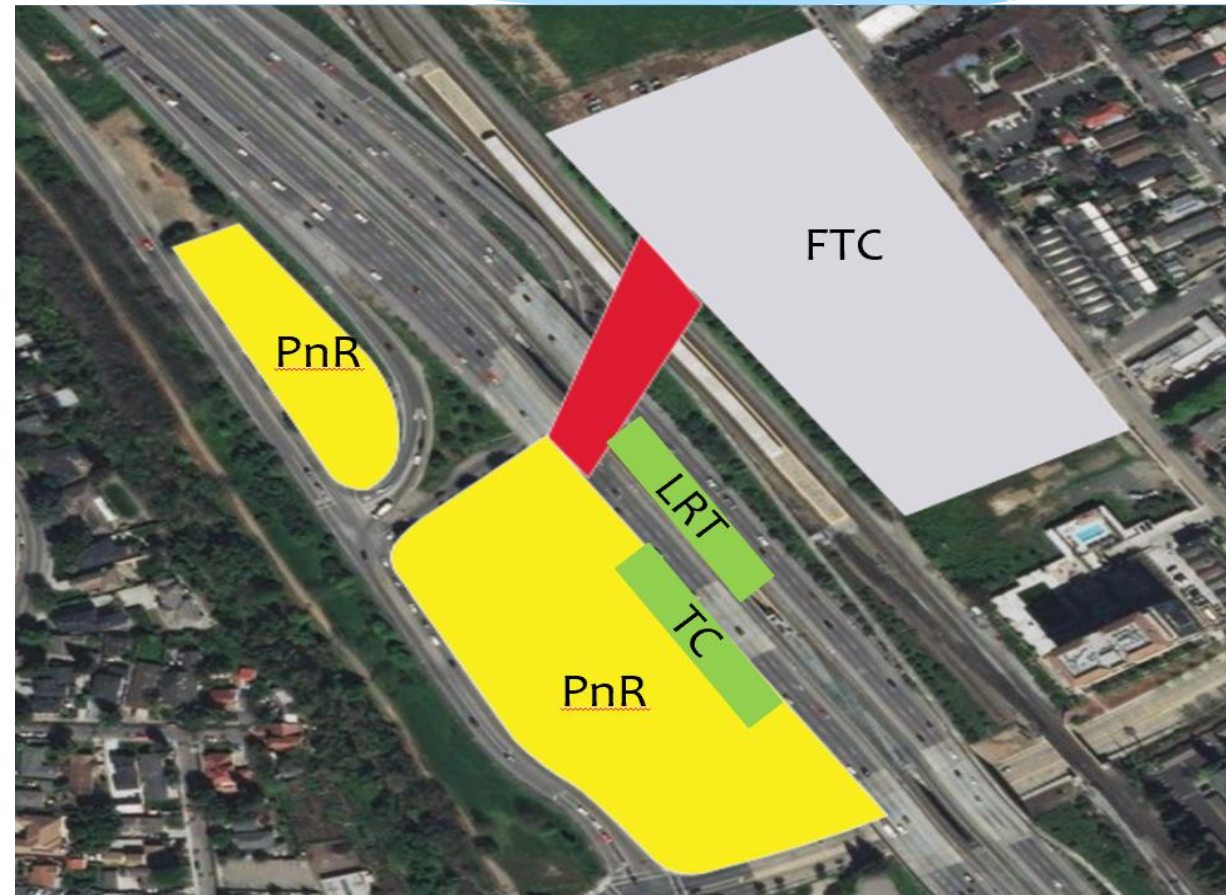


TIP Approach



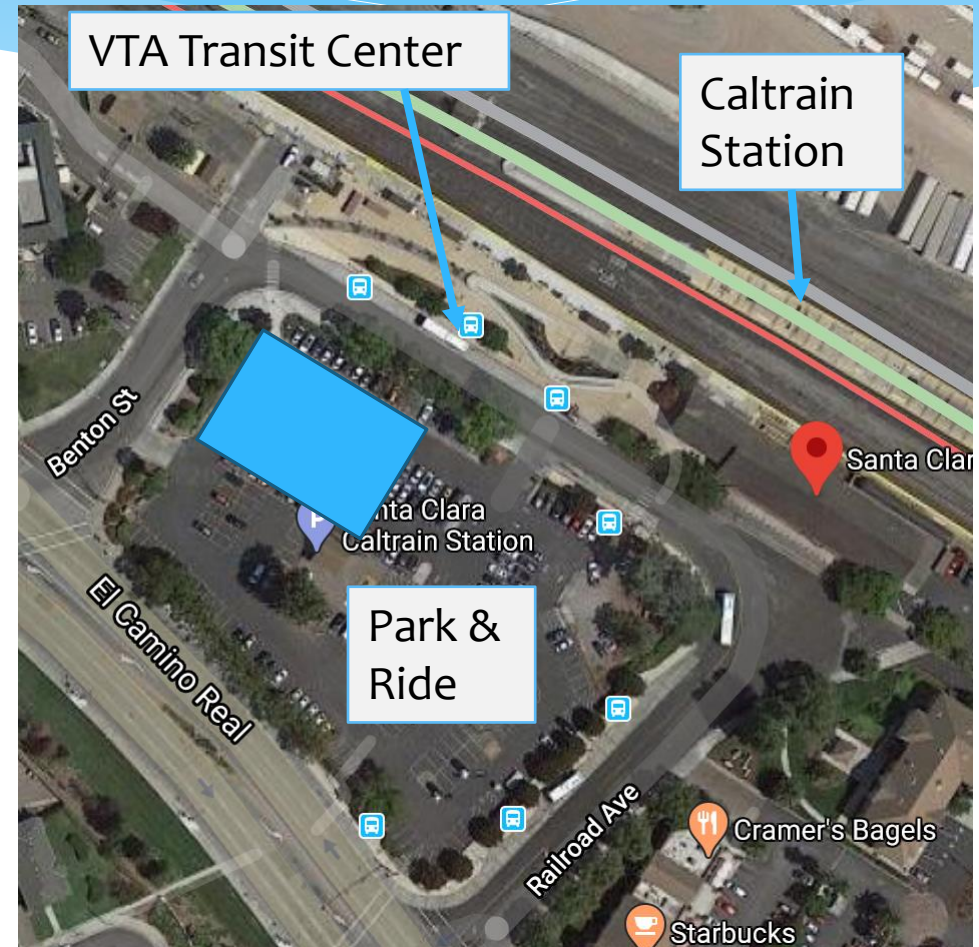
Sites Requiring Coordination

- * Tamien Transit Center & Caltrain Station
 - * Multiple land uses
 - * Different O&M regimes
 - * monthly street sweeping
 - * daily bus O&M
 - * weekly light rail O&M
 - * Roles and Responsibilities:
 - * Coordination Required
 - * Interdepartmental
 - * Other entities- Caltrain & private owner



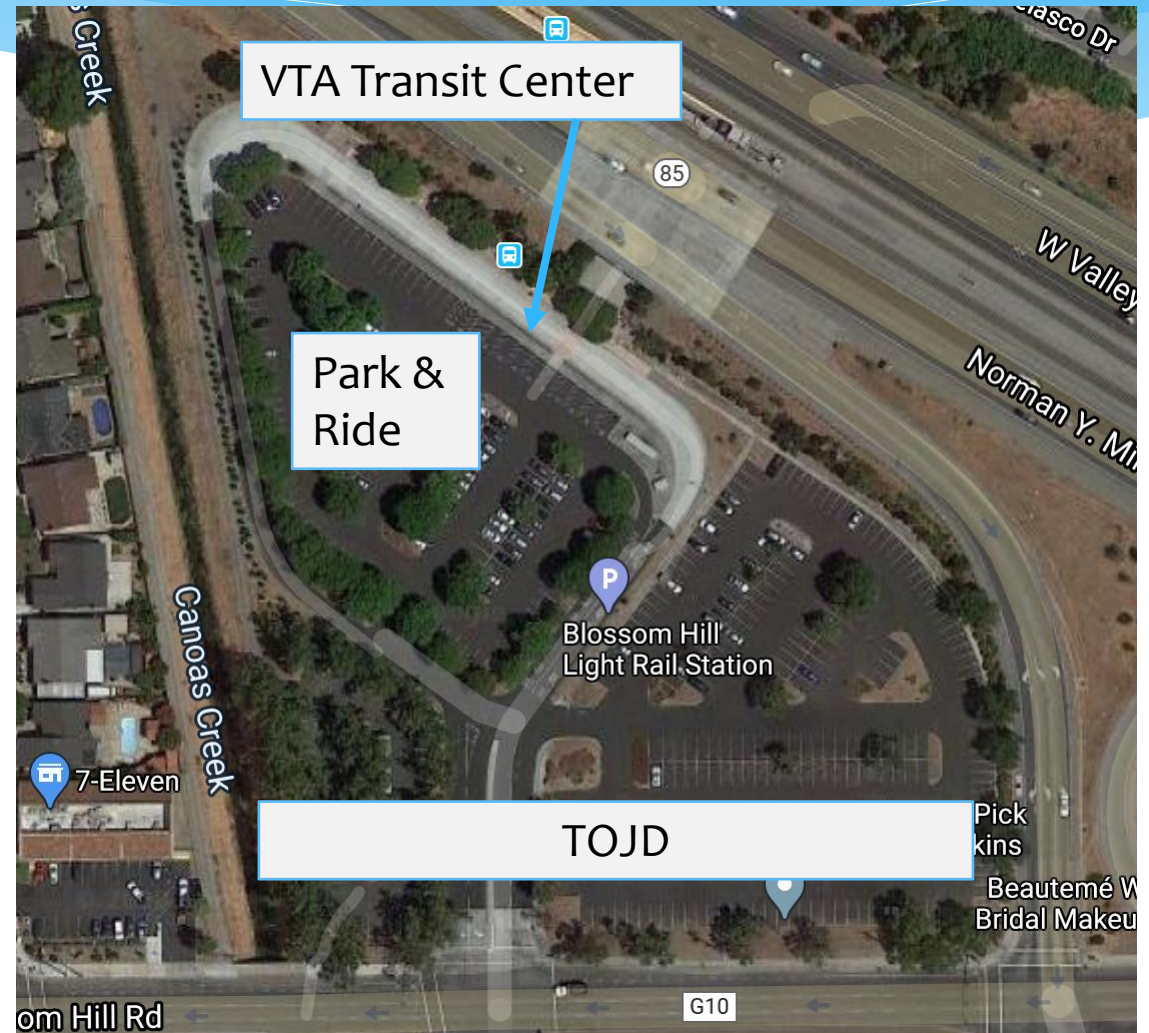
Sites Requiring Coordination

- * Santa Clara Transit Center/ Caltrain Station
 - * VTA owns part of Park and Ride (in blue)
 - * VTA provides landscaping along bus loop perimeter
 - * VTA maintains bus shelters and lights that are 20ft. and below
 - * Caltrain provides primary maintenance here



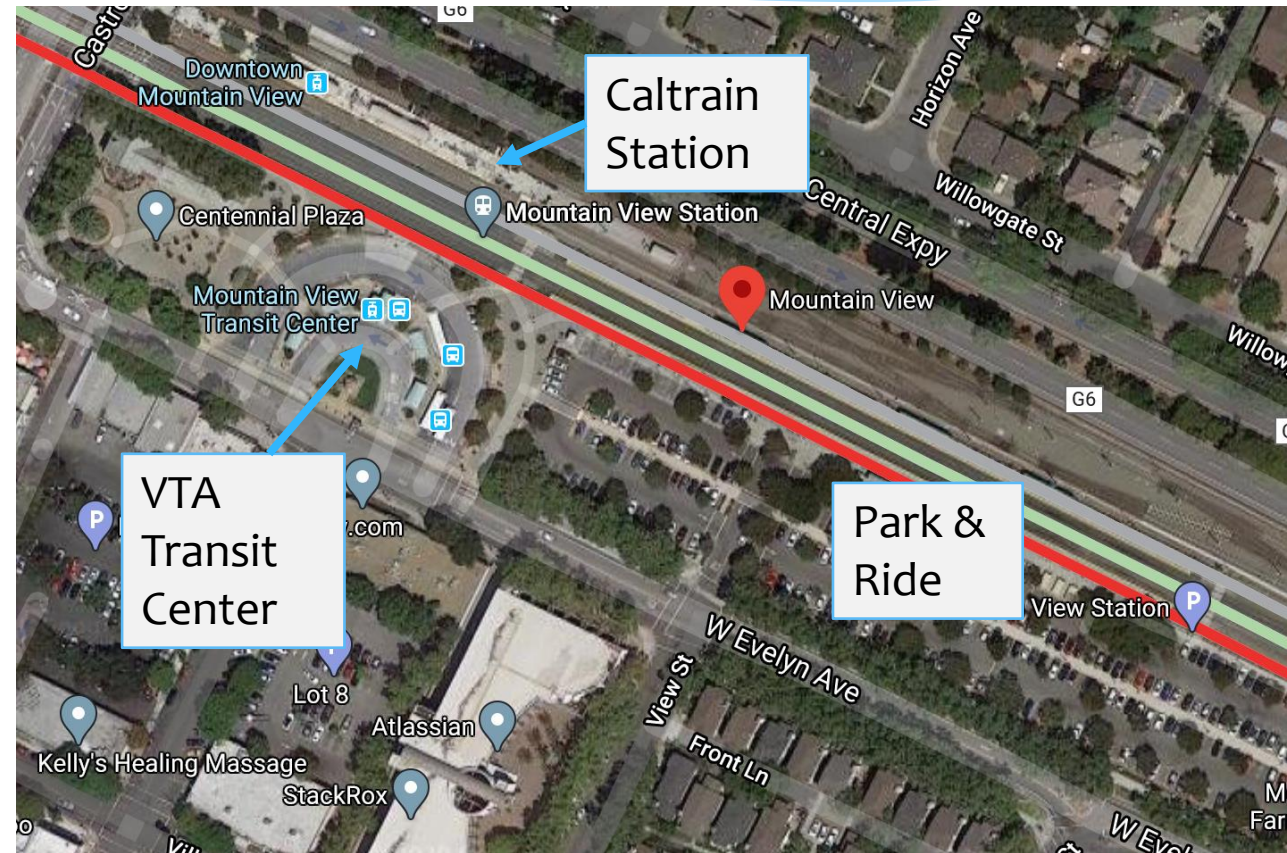
Sites Requiring Coordination

- * Blossom Hill Park & Ride
 - * VTA provides street sweeping 1x per month
 - * Apartments planned for this location
 - * Coordination with City of San Jose



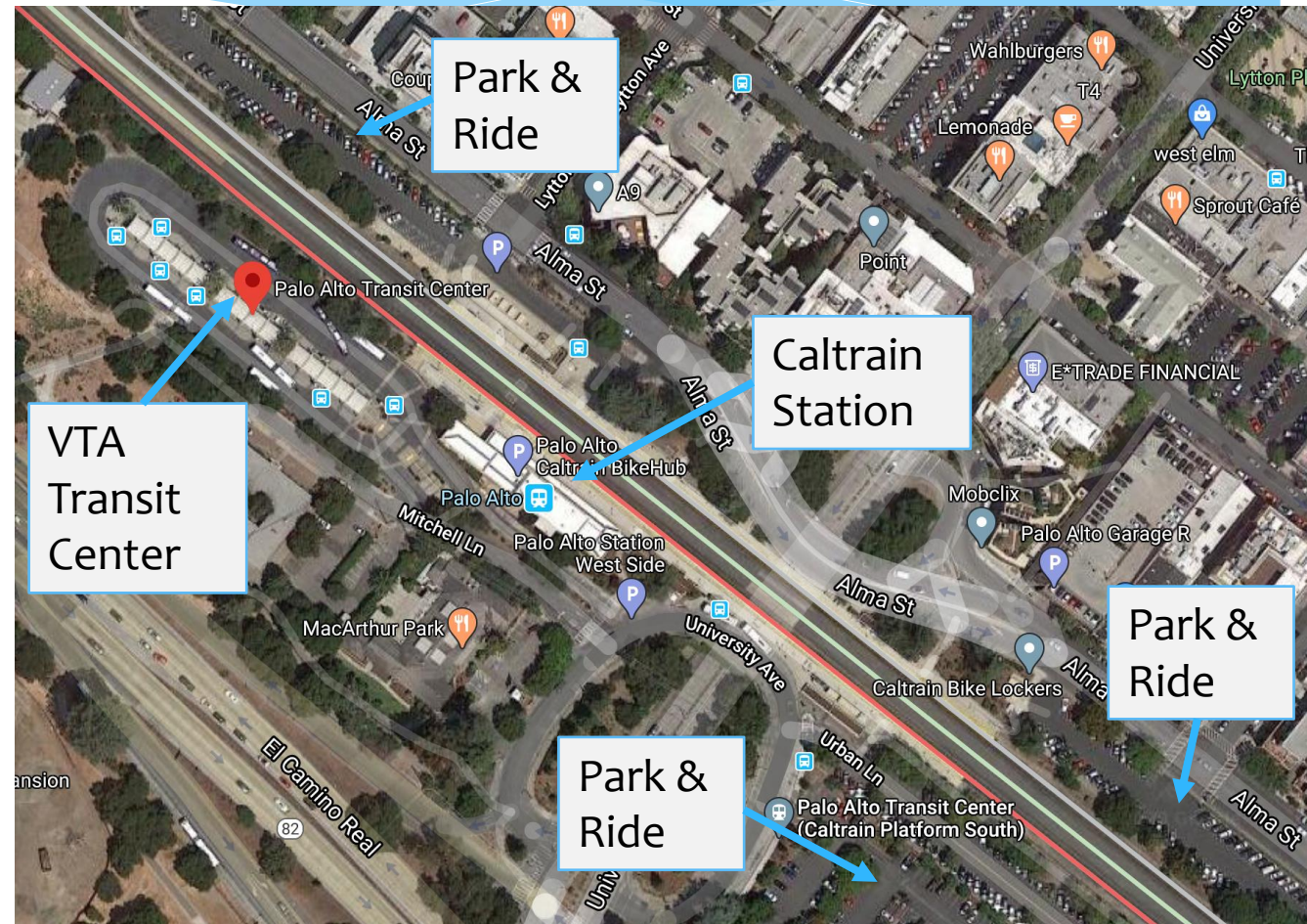
Sites Requiring Coordination

- * Mountain View Transit Center/
Caltrain Station
 - * Transit Center loop is maintained by VTA (street sweeping, litter pick up, shelter maintenance)
 - * Caltrain owns property



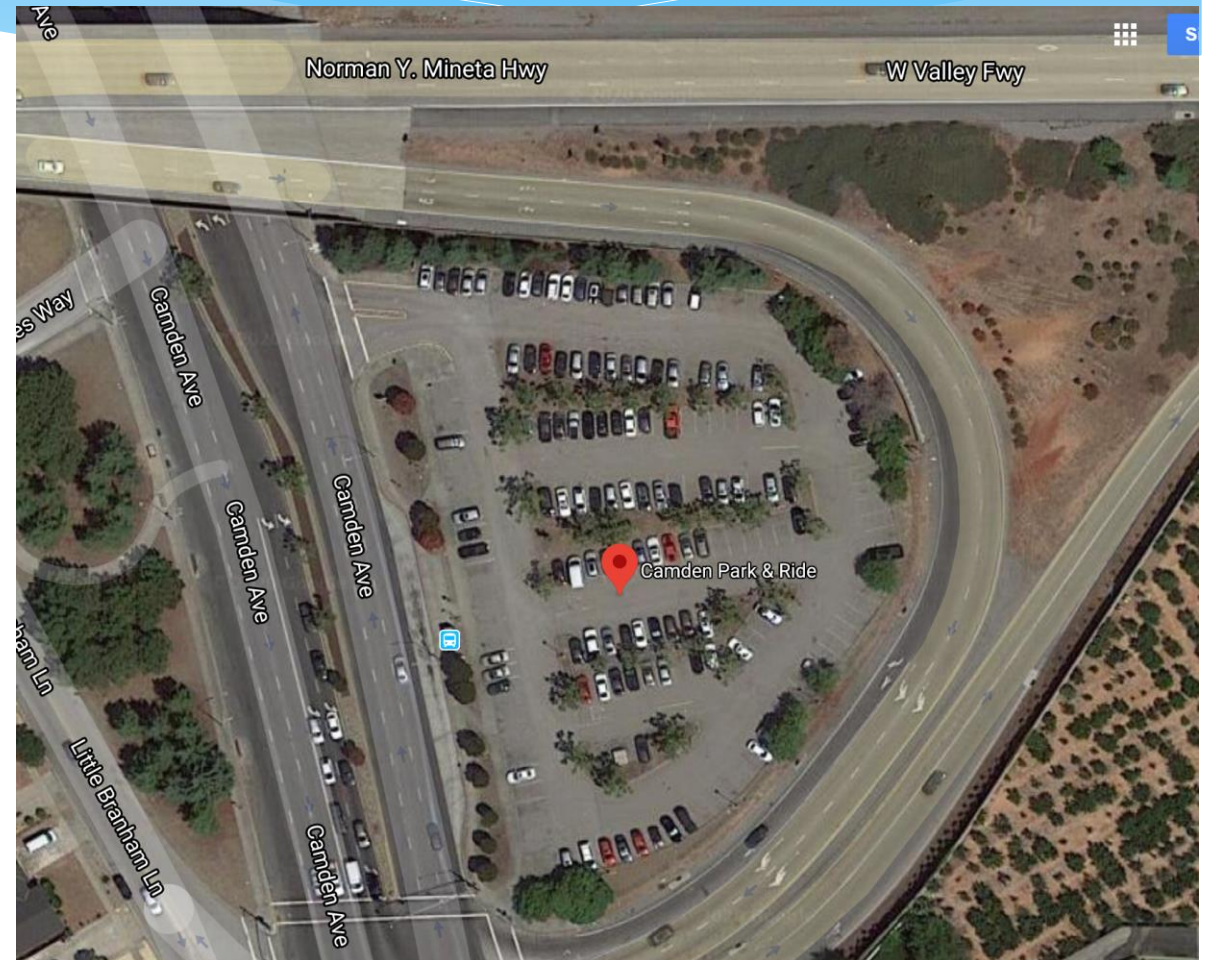
Sites Requiring Coordination

- * Palo Alto Transit Center/
Caltrain Station
 - * Caltrain owns/maintains parking- north lot, southwest lot, and southeast lot
 - * VTA provides street sweeping at bus loop and 3 associated lots



Sites Requiring Coordination

- * Camden Avenue Park and Ride
 - * Caltrans owned property
 - * VTA street sweeps here 1x per month



Questions?

Contact Information



Rachael Keish, CEO

PE, QSD/P, QISP, CGP & IGP ToR, ENV SP, ISI Verifier

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www.keishenv.com

DBE, WBE, SBE (Micro)



Selena Gonzalez, Environmental Specialist

QSP, QISP, CESSWI, ENV SP, LEED Green Associate

Selena.Gonzalez@vta.org

(925) 642-6505



Caltrain MS4 Program Update for Municipal & Transportation Agency Coordination Meeting

March 30, 2020

Baseline Assessments



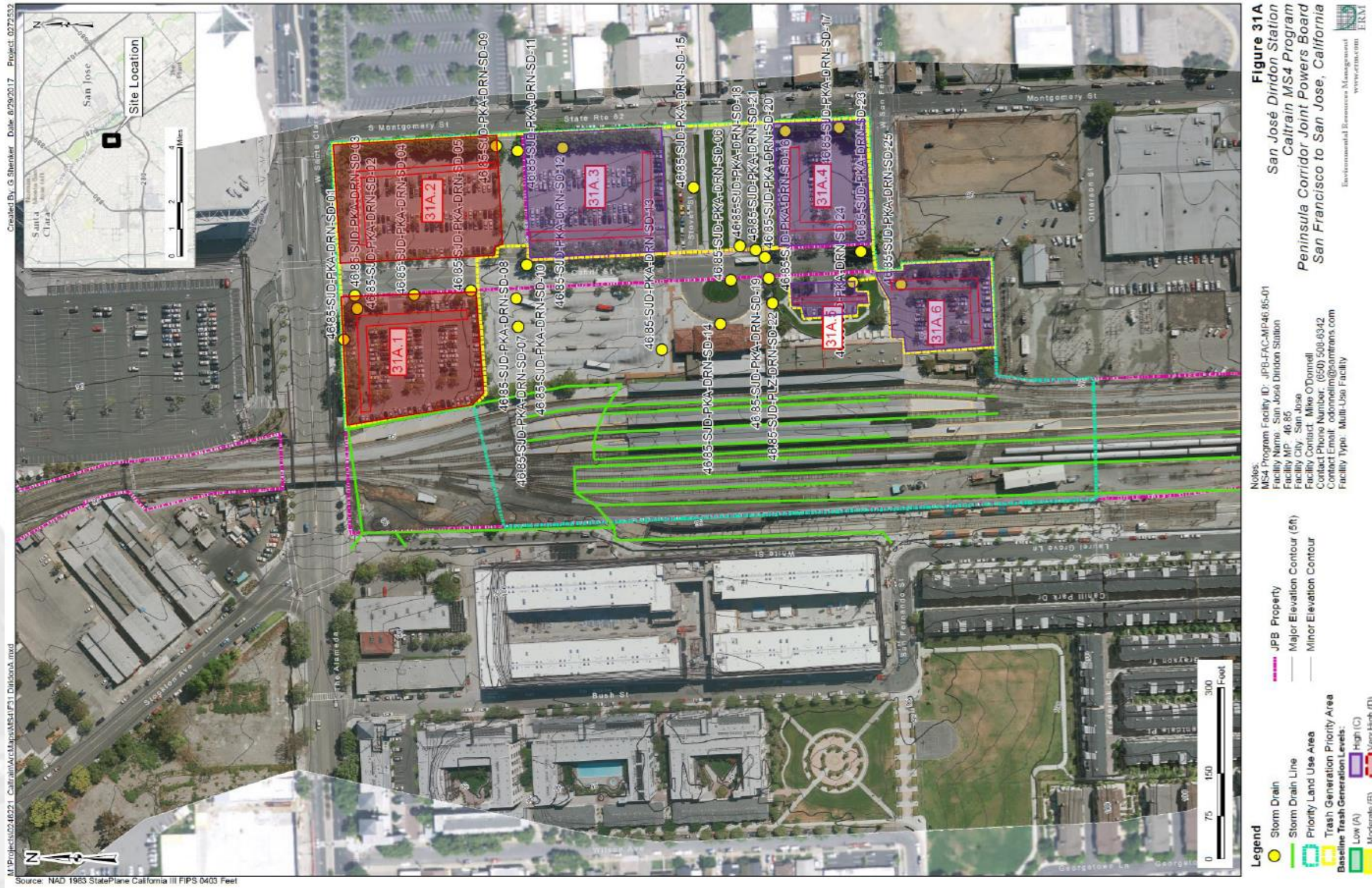
Created By: G. Shenker Date: 8/29/2017 Project: C272352
 M:\Projects\0246221_Caltrain\Mapas\MS4\F26_Sunnyvale.mxd

- | | | |
|--------------------------------|-------------------------------|--|
| Legend | | Baseline Trash Generation Levels: |
| Storm Drain | JPB Property | Low (A) |
| Priority Land Use Area | Major Elevation Contour (5ft) | High (C) |
| Trash Generation Priority Area | Minor Elevation Contour | Very High (D) |
| | | Moderate (B) |

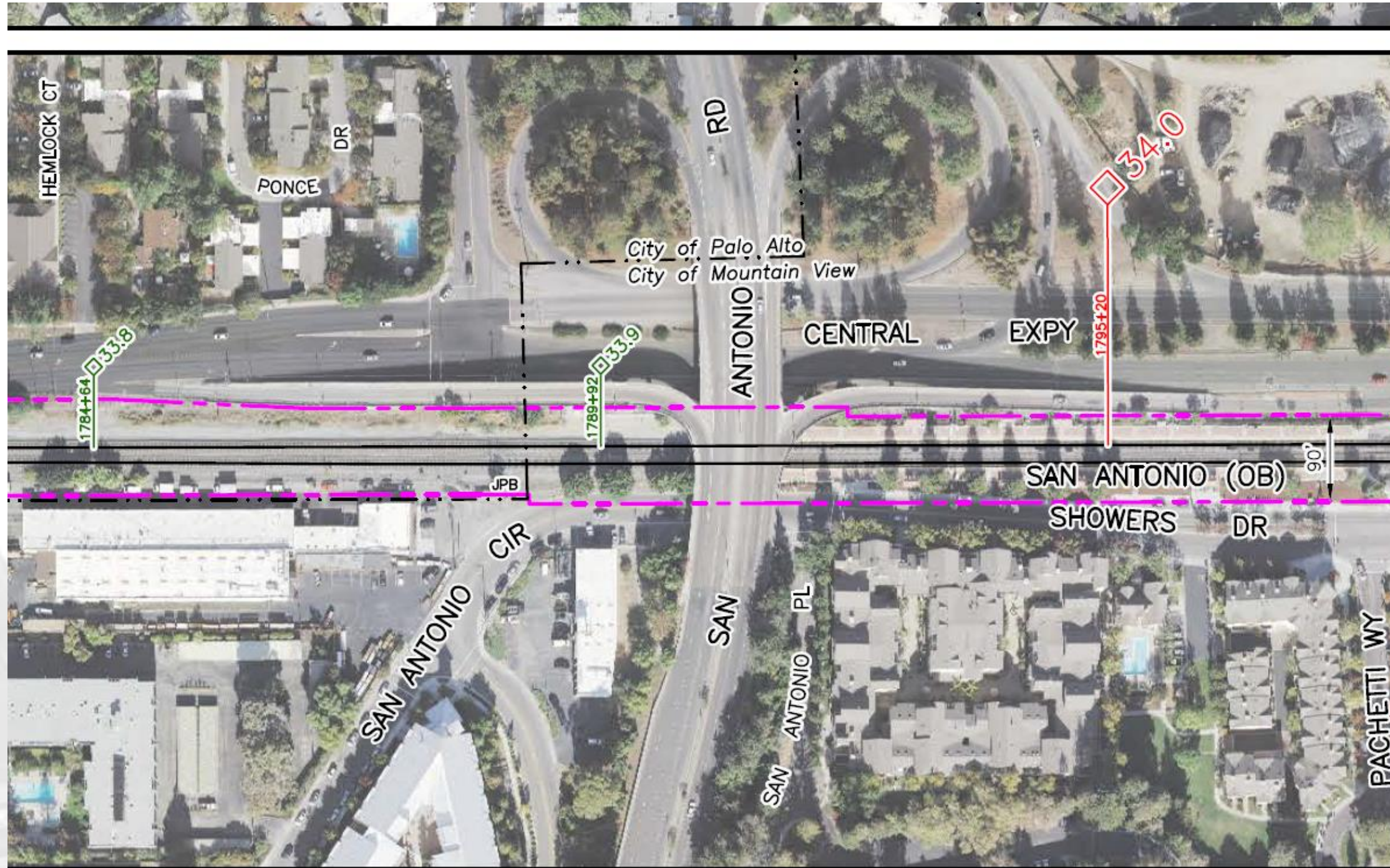
Notes:
 MS4 Program Facility ID: JPB-FAC-MP38.62-01
 Facility Name: Sunnyvale Station
 Facility MP: 38.62
 Facility City: Sunnyvale
 Facility Contact: Mike O'Donnell
 Contact Phone Number: (650) 508-6342
 Contact Email: odonnellm@samtrans.com
 Facility Type: Passenger Station (at-grade)

Figure 26
 Sunnyvale Station
 Caltrain MS4 Program
 Peninsula Corridor Joint Powers Board
 San Francisco to San Jose, California

Baseline Assessments



Co-mingled Boundaries



CONTRACTOR(S) PERFORMS THE SIGNAL AND BRIDGE ORDINARY AND CAPITAL MAINTENANCE AND CAPITAL IMPROVEMENTS. ANNUAL TRACK COSTS ARE THE RESPONSIBILITY OF THE UPRR AND SIGNAL AND BRIDGE COSTS ARE THE RESPONSIBILITY OF JPB. UPRR PAYS FOR ALL EXCLUSIVELY FREIGHT AND INTER-CITY PASSENGER RELATED CAPITAL IMPROVEMENTS INCLUDING TURNOUTS OFF THE MAIN TRACK TO UPRR DESIGNATED FREIGHT YARDS AND INDUSTRY TRACKS.

RIGHT OF WAY

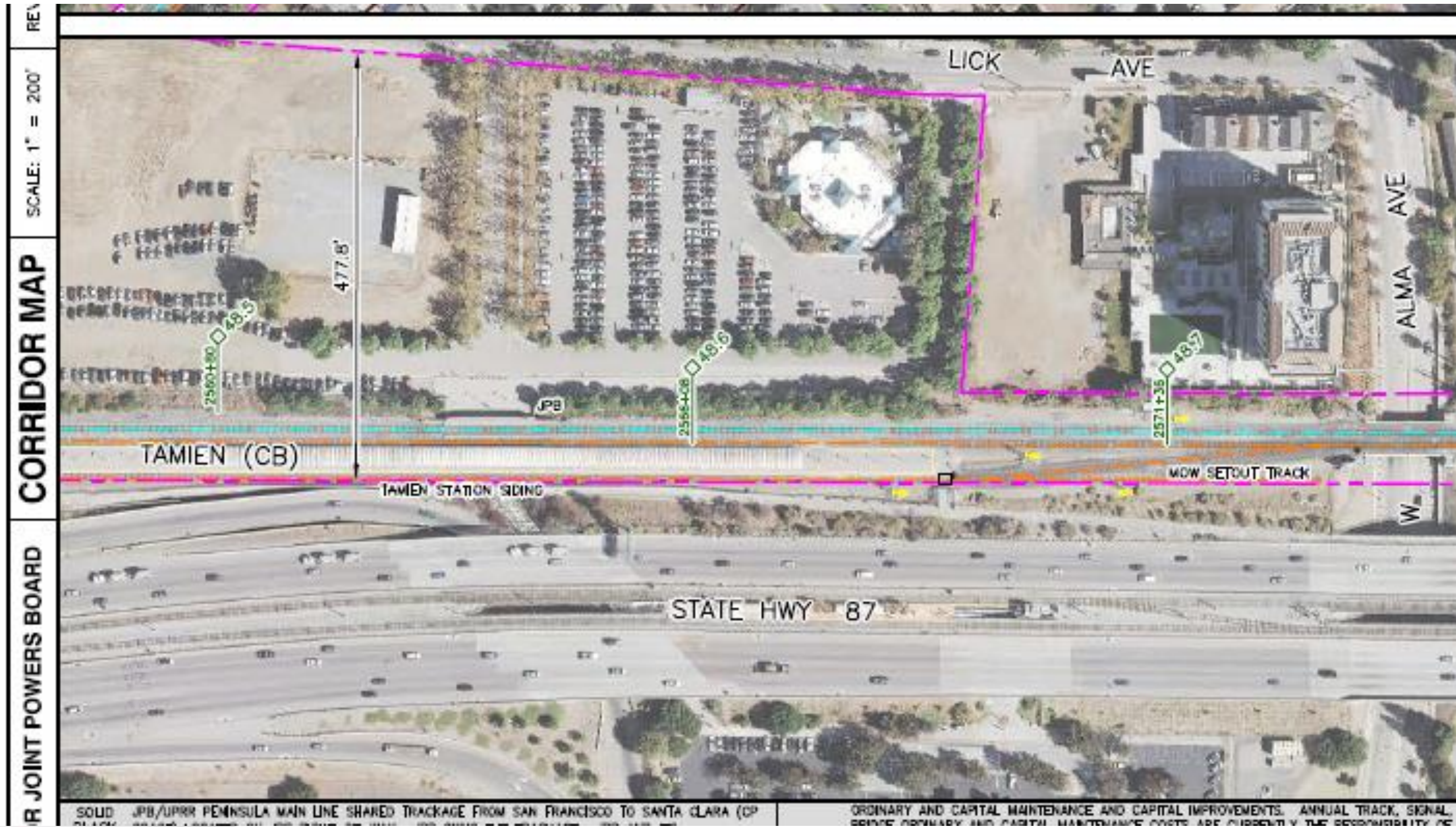
- PCJPB PROPERTY
- PCUPR OPER. ESMT

LEGEND

- SWITCHES
- SIGNALS

SAN FRANCISCO TO LICK AND GILROY LAYOVER YARD - ORTHOPHOTO

Co-mingled Boundaries



Current & Future Trash Control Measures

- **Street sweeping**
- **Routine housekeeping**
- **Data gathering of nearby or shared capture devices already installed**
- **Future Pilot Tests for storm drain inserts**
- **Future Large capture devices unlikely**



Questions and Comments?

