

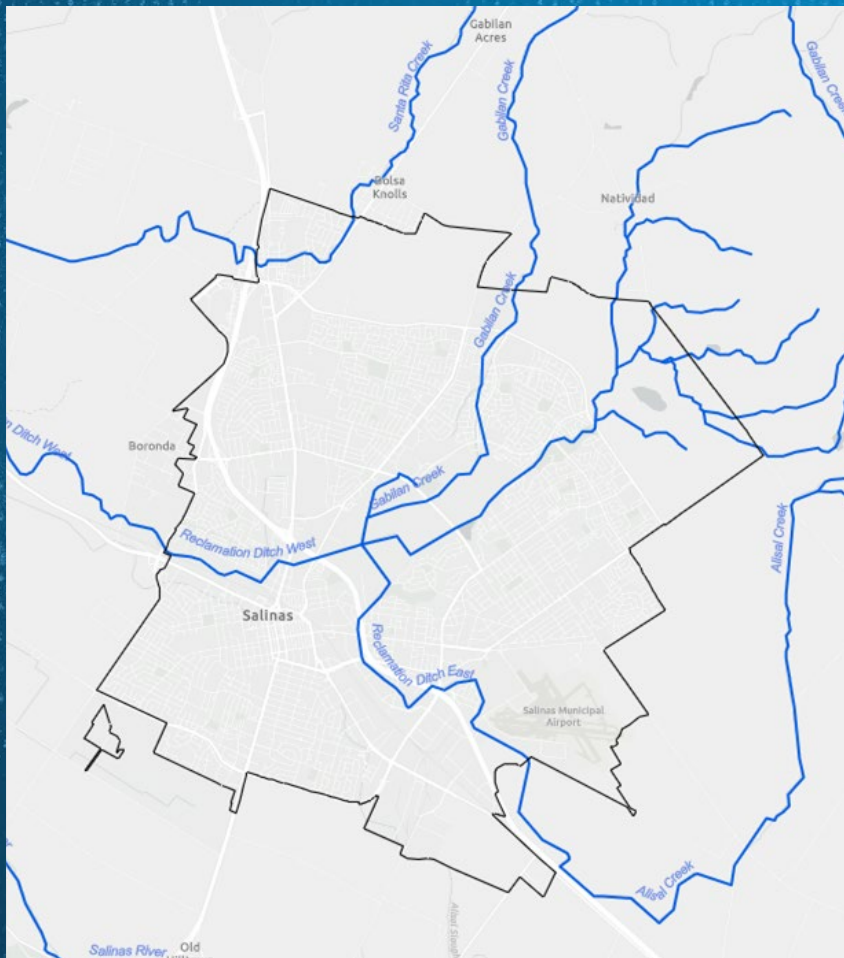
Street Sweeping Route Revisions and Initial Signage Program Update

June 3, 2025

Heidi Niggemeyer
**Stormwater Program
Manager**

Agenda

- Importance of street sweeping
- Revisions to current sweeping routes
 - Rationale for street sweeping
 - Process for revising routes
 - Outcomes
- Initial area for parking restrictions
 - Sampling and Analyses
 - Selection criteria
 - Outreach and Awareness



15 miles

of streams in the City of
Salinas

100%

are polluted per EPA
standards

TMDLs

Each stream is listed and
has multiple Total Maximum
Daily Loads

NPDES MS4 Stormwater Permit



NPDES MS4 Stormwater Permit Requirements

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL COAST REGION

895 Aerovista Place, Suite 101, California 95670-6114
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[Central Coast Water Board Website](http://www.ccrwb.org)

ORDER R3-2019-0073
NPDES NO. CA0049981

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT AND WASTE DISCHARGE REQUIREMENTS FOR CITY OF SALINAS MUNICIPAL STORMWATER DISCHARGES

The municipal discharges of stormwater and non-stormwater by the City of Salinas from all municipal separate storm sewer system (MS4) discharge points within the City of Salinas are subject to waste discharge requirements as set forth in this Order:

Discharger – City of Salinas

Name of Facility – City of Salinas MS4

Facility Address – 200 Lincoln Avenue, Salinas, CA 93901, Monterey County

MS4 Classification – The United States Environmental Protection Agency (USEPA) and the Central Coast Regional Water Quality Control Board (Central Coast Water Board) have classified the City of Salinas MS4 as a medium MS4 pursuant to 40 Code of Federal Regulations section 122.2.

Order Adoption Date – September 20, 2019

Order Effective Date – October 1, 2019

Order Expiration Date – September 30, 2024

Report of Waste Discharge File Date – The Discharger shall file a Report of Waste Discharge as an application for reissuance of waste discharge requirements in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than 180 days prior to the Order expiration date.

Terms and Conditions for Expired Order – In accordance with section 2235.4 of Title 23 of the California Code of Regulations, the terms and conditions of an expired permit are automatically continued pending issuance of a new permit if all requirements of the federal NPDES regulations regarding continuation of expired permits are complied with.

City of Salinas MS4 Discharges

Order No. R3-2019-0073

Table of Contents

FINDINGS	4
ORDER PROVISIONS	
A. Discharge Prohibitions	20
B. Effluent Limitations	22
C. Receiving Water Limitations	23
D. Standard Provisions	23
E. General Provisions	23
F. Pollutant Load Reduction Plan	27
G. Information Management and Program Assessment	33
H. Legal Authority and Enforcement	38
I. Asset Management	41
J. Fiscal Analysis and Cost Reporting	43
K. Monitoring	44
L. Trash Management	45
M. Municipal Maintenance	48
N. Illicit Discharge Detection and Elimination	55
O. Commercial and Industrial	57
P. Construction Site Management	61
Q. Post-Construction	65
R. Public Education and Involvement	68
S. Annual Reporting	71

ATTACHMENTS

Attachment A – Acronyms	A-1
Attachment B – Definitions	B-1
Attachment C – Water Quality-Based Effluent Limitations	C-1
Attachment D – Monitoring and Reporting Program	D-1
Attachment E – Standard Provisions	E-1
Attachment F – Summary of Milestones and Deadlines	F-1
Attachment G – Economic Considerations	G-1
Attachment H – Fact Sheet	H-1

NPDES MS4 Stormwater Permit Requirements

- ii) Parking restrictions – By the end of Year 3, the Permittee shall revise and commence implementation of its parking restriction strategy, including parking restrictions and public outreach, to ensure that street sweepers can access and sweep gutters for all High and Medium Priority Streets and to increase the effectiveness of sweeping operations for the entire roadway width. By the end of Year 5, the Permittee shall complete implementation of the revised parking restrictions. The Permittee may propose an alternate strategy for reducing pollutants in areas with parked cars, so long as the Permittee can demonstrate the alternate strategy will result in an equivalent or greater reduction in pollutant loading.

***2021-2022 was Year 3, 2023 -2024 was Year 5**

Why street sweeping?

- Beautifies neighborhoods
- Very effective stormwater BMP
- Adaptive
- Helps the City to potentially meet water quality discharge requirements (TMDLs)



The challenge:
only stormwater down the drain

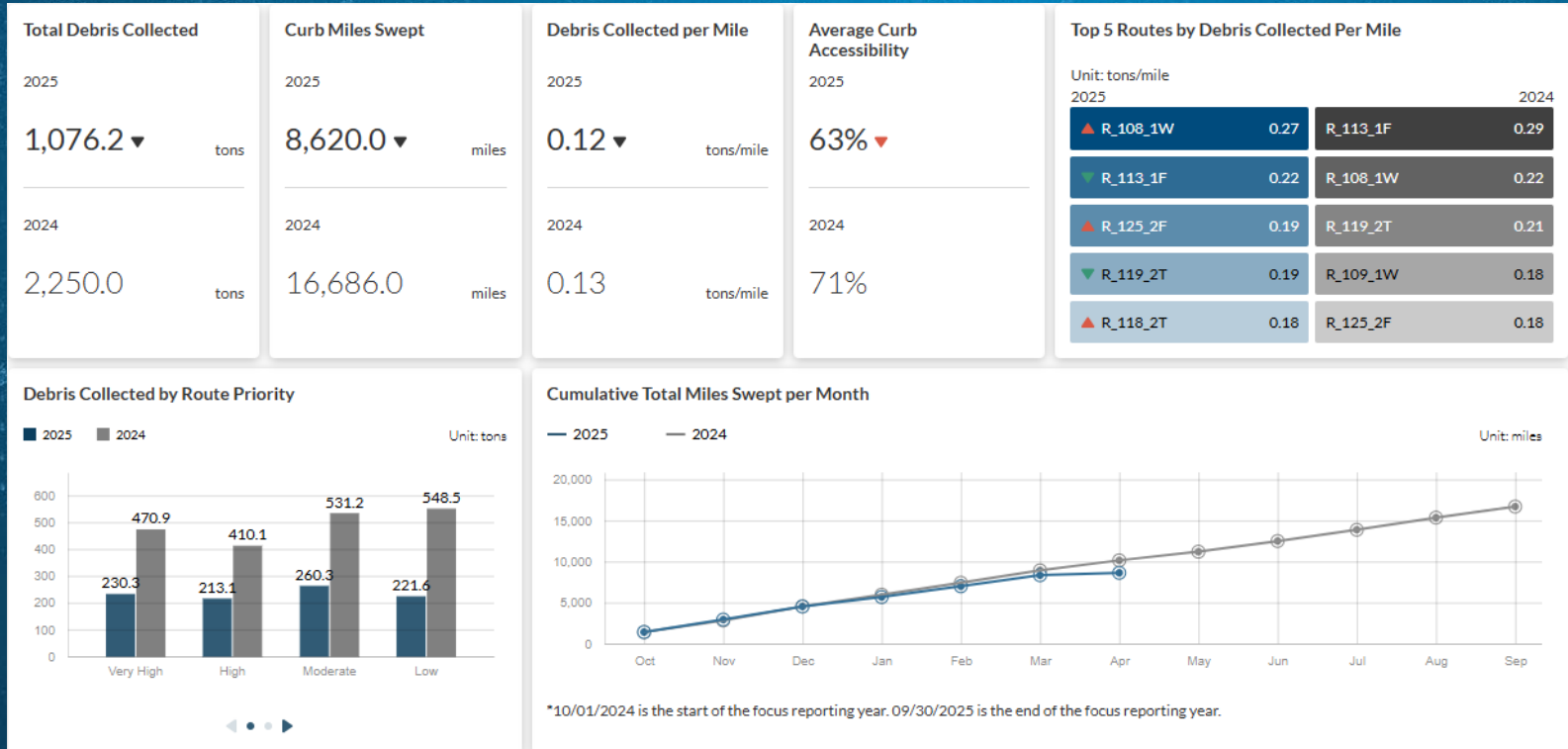


Street sweeping timeline

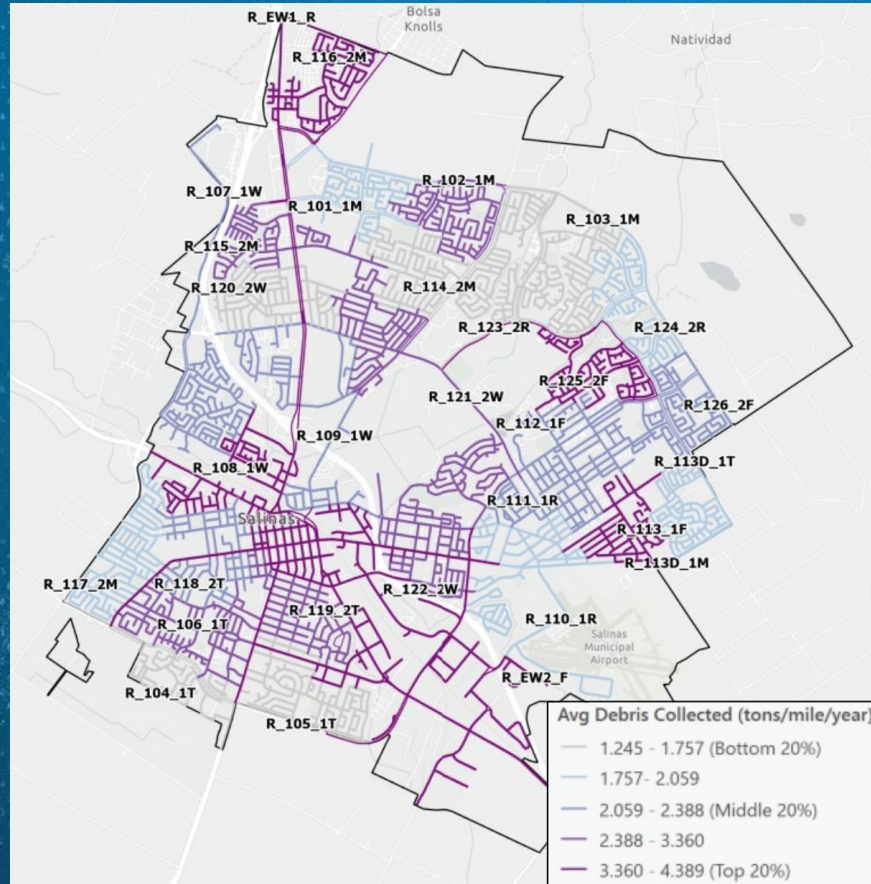
- 2012: Prior sweeping program initiated; both sides of road swept same day
- 2018: Existing water quality monitoring sites established and trash assessments begun
- 2020: Clean Water Salinas website revisions made
- 2017/2021: Studies to determine curb access (areas for improvement)
- 2022: Sweeper truck debris data collection effort began
- 2023: Outreach efforts began, including event at Closter Park, regular blogs, social media posts
- 2023-2024: Refined analysis of the sweeping data, road debris condition, and road sediment quantity and constituents
- 2024: Sweeping route revisions begun and signage cost estimates determined
- Oct 2024: Council approval of new routes and implementation of parking restrictions
- April 2025: No Parking signs installed in initial signage area
- May 2025: Enforcement of new No Parking signs begins (Warnings for 90 days; Citations)



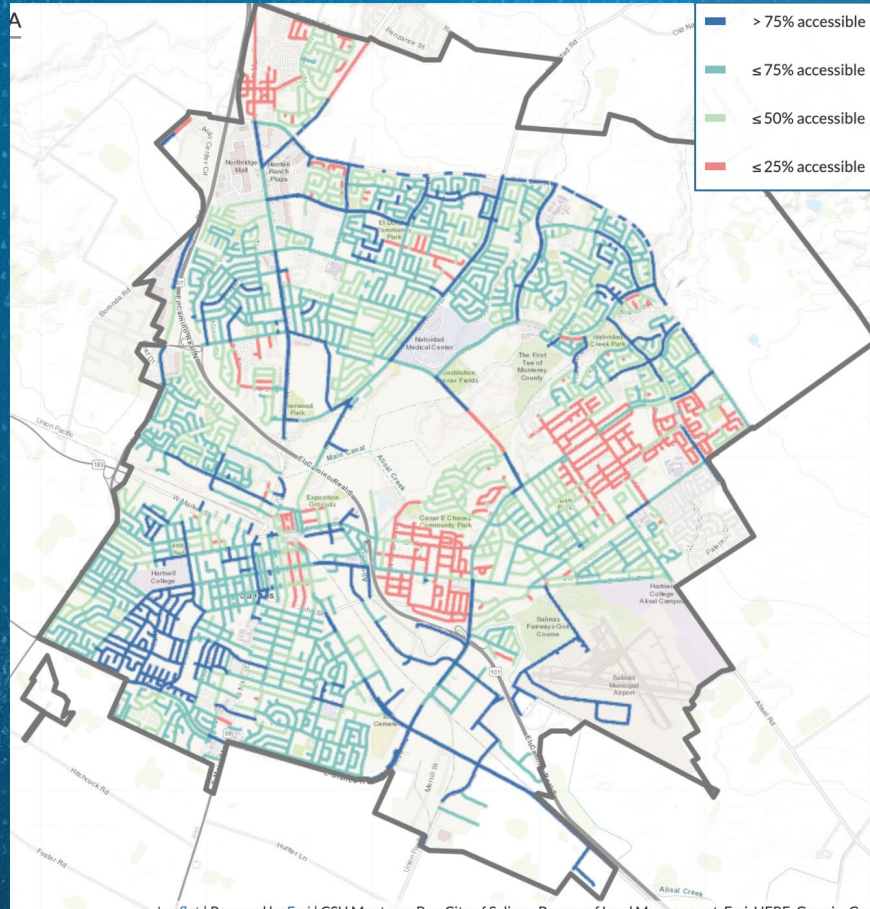
Street sweeping is highly effective at removing pollutants BEFORE they enter the stormwater system



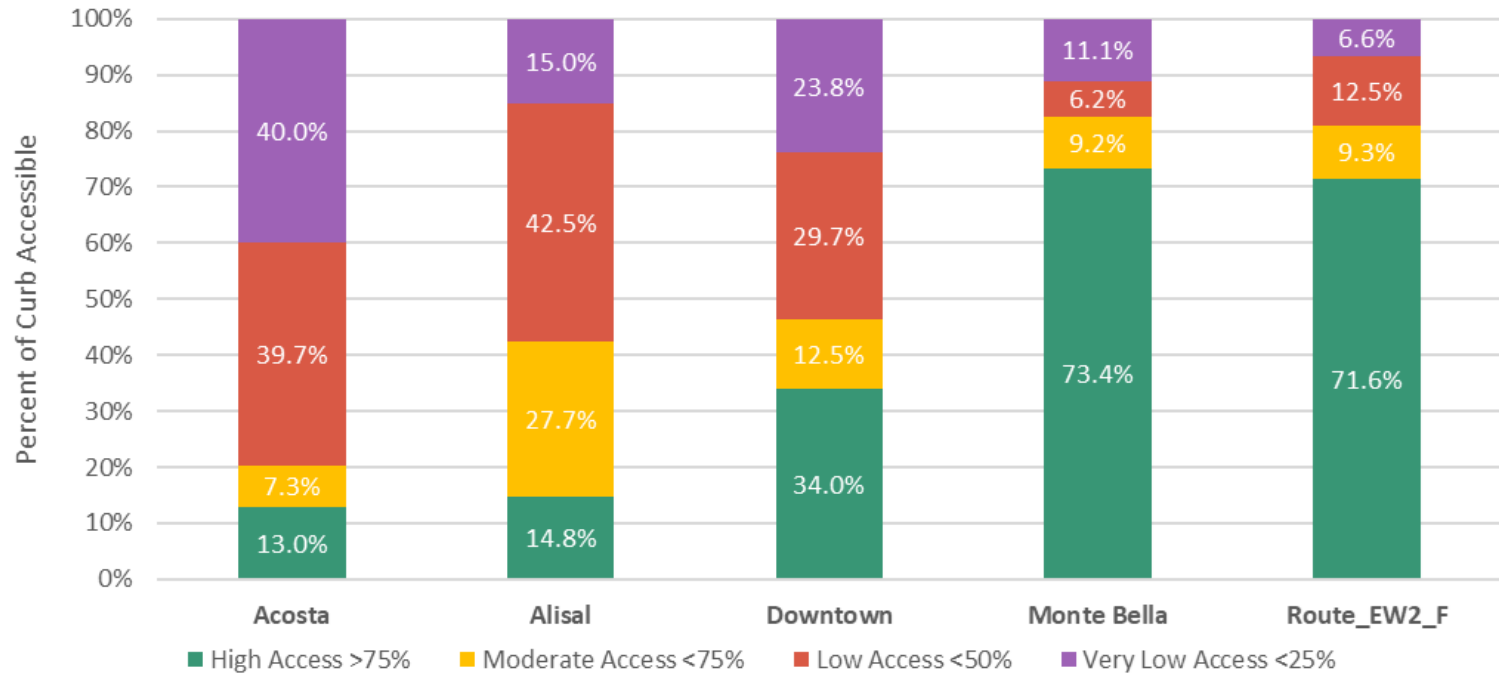
Street sweeping isn't equally effective everywhere



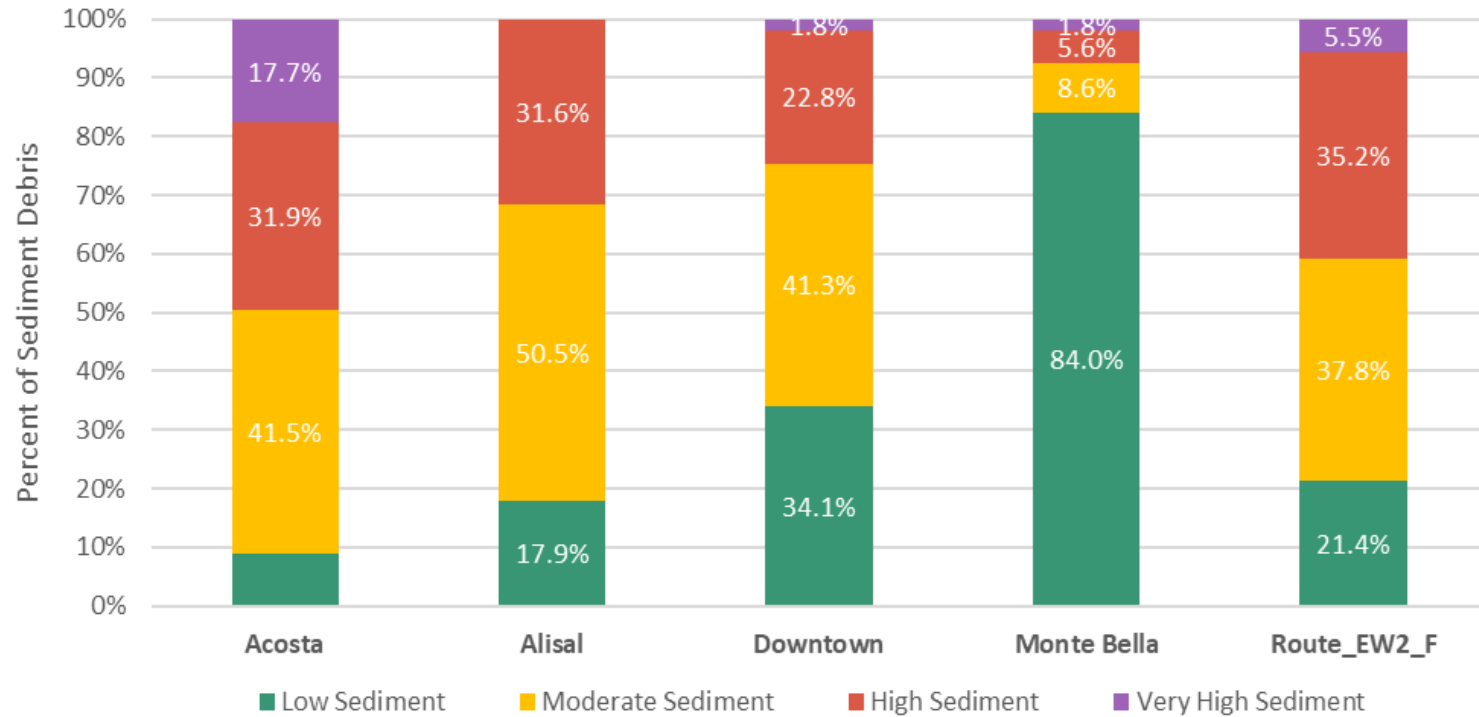
Curb access is a problem in several areas



Curb Access by Study Area



Sediment Debris by Study Area



Goals of Sweeping Revisions

- **Revise** sweeping routes to sweep opposing sides of the street on different days
- **Collect** data on sweeper effectiveness through drivers' data entry and curb access and debris accumulation analyses
- **Implement** parking restrictions in a high priority area of the City to improve curb access for sweepers
- **Leverage** long-term water quality monitoring station and road debris condition observations to see if impacts of sweeping can be measured
- **Build** awareness of actions residents can take, like moving their cars, to keep Salinas waterways clean

Revise sweeping routes

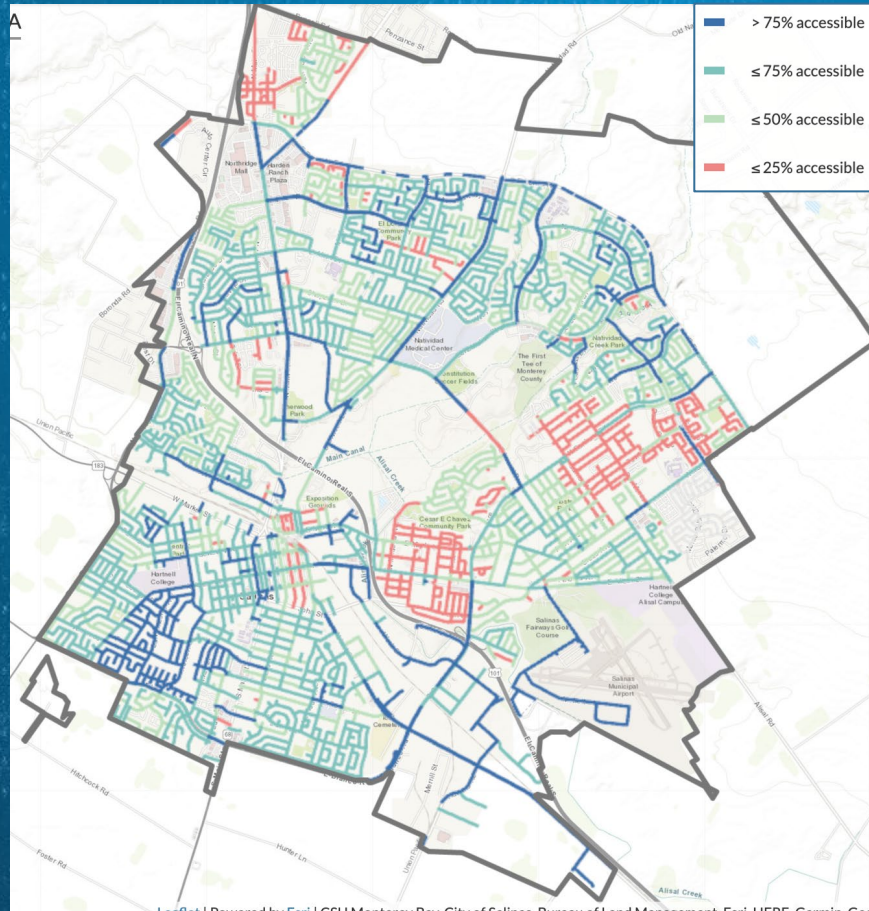


The City used RouteSmart software to develop routes, provide drivers with directions, and track sweepers.

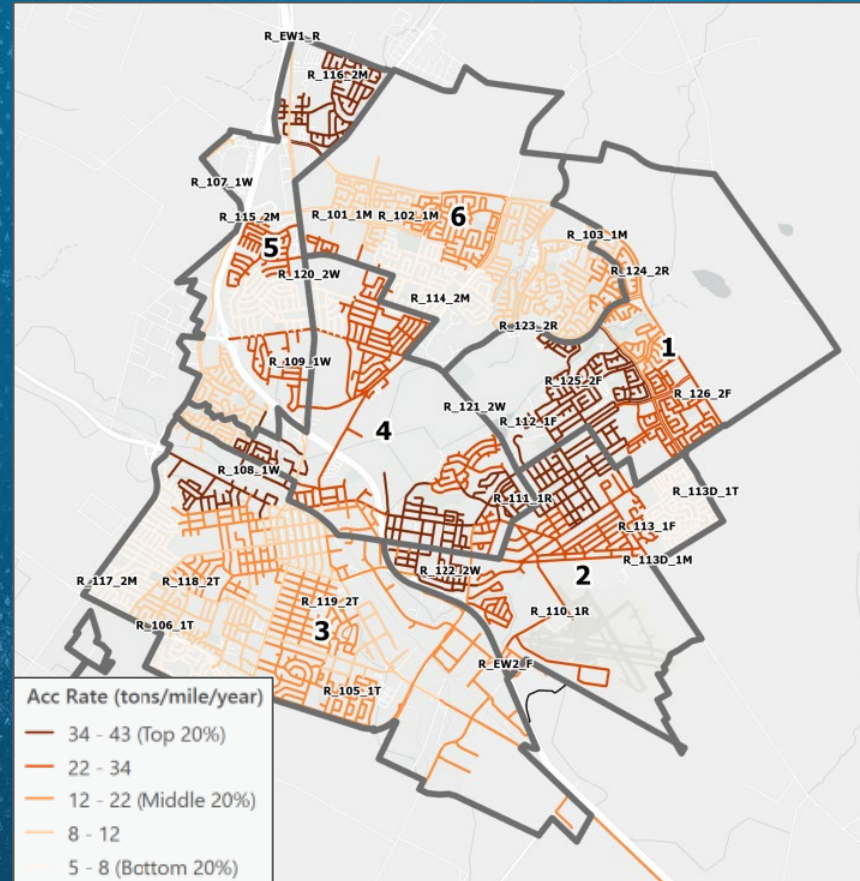
Routing capabilities include:

- Generating geographically balanced and compact routes
- Creating routes to service opposite curbs on different days
- Modeling travel time between dump facilities and routes
- Calculating route metrics to determine efficiency

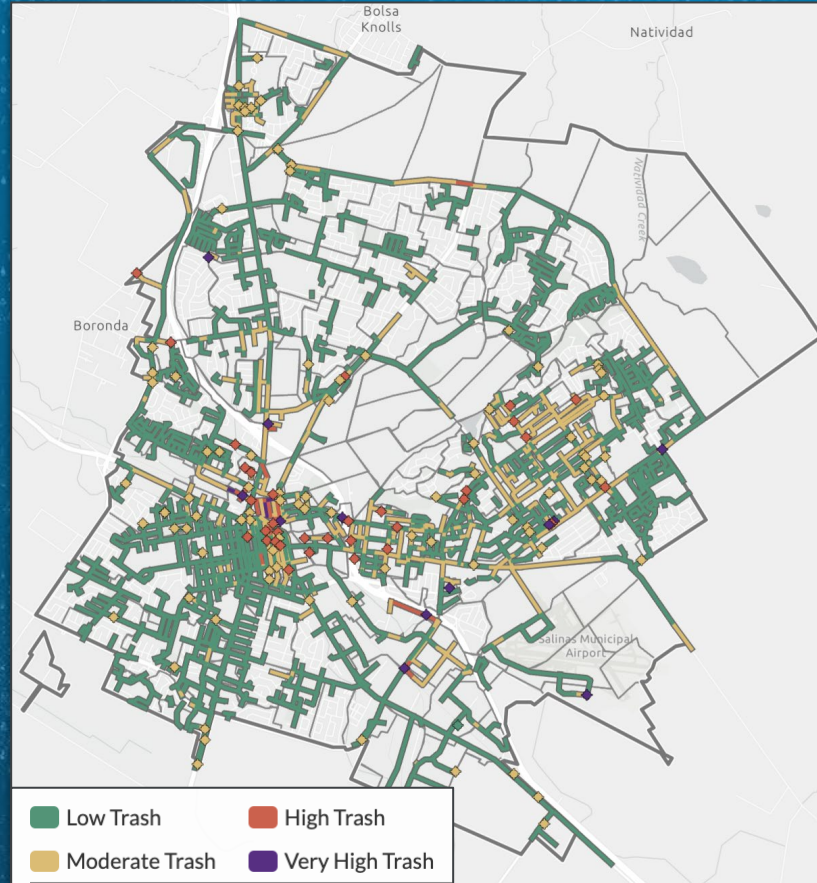
Collect curb accessibility - Sweeper entry



Collect road debris accumulation data



Collect trash condition data



Collect sediment samples – pollutant analyses

Sampling Location	Bifenthrin	Cyfluthrin	L-Cyhalothrin	Cypermethrin	Fenpropathrin (Danitol)	Esfenvalerate	Permethrin (cis+tran)
	ng/sq-ft	ng/sq-ft	ng/sq-ft	ng/sq-ft	ng/sq-ft	ng/sq-ft	ng/sq-ft
Downtown_COM_072523	16.828	ND	3.519	3.519	ND	ND	ND
EW2_F_CUL1_072523	33.318	2.066	10.662	2.532	0.733	1.932	139.936
Acosta_MFR_072523	94.988	2.137	3.503	8.311	54.618	ND	17.217
Alisal_Closter_OTH_072523	ND	ND	ND	ND	4.794	ND	ND
MonteBella_SFR_072523	ND	ND	ND	ND	ND	ND	ND

Acosta drainage area sediment contained some of the highest pesticide concentrations.



Implement parking restrictions

Goals:

- Improved curb access
- Measurable improvements in road debris conditions and runoff water quality
- Minimal disruption to residents

Criteria:

- Low curb access
- High concentration of pollutants and trash on roads
- Located in monitoring station drainage so water quality impacts can be measured
- Narrow time interval needed for parking restrictions (4-hr intervals)



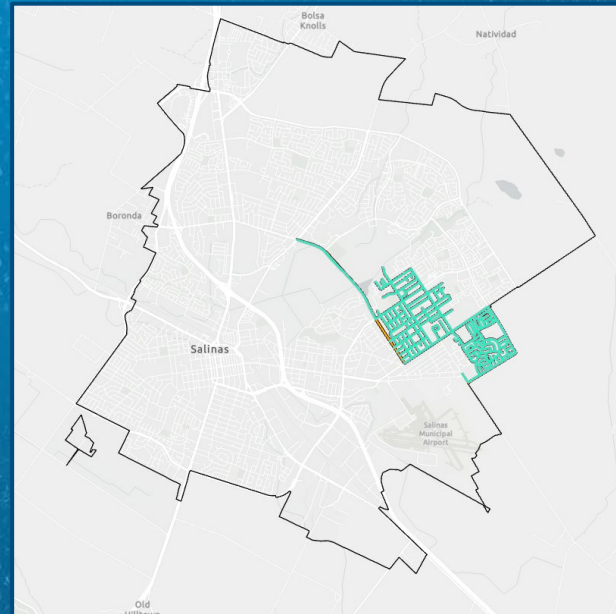
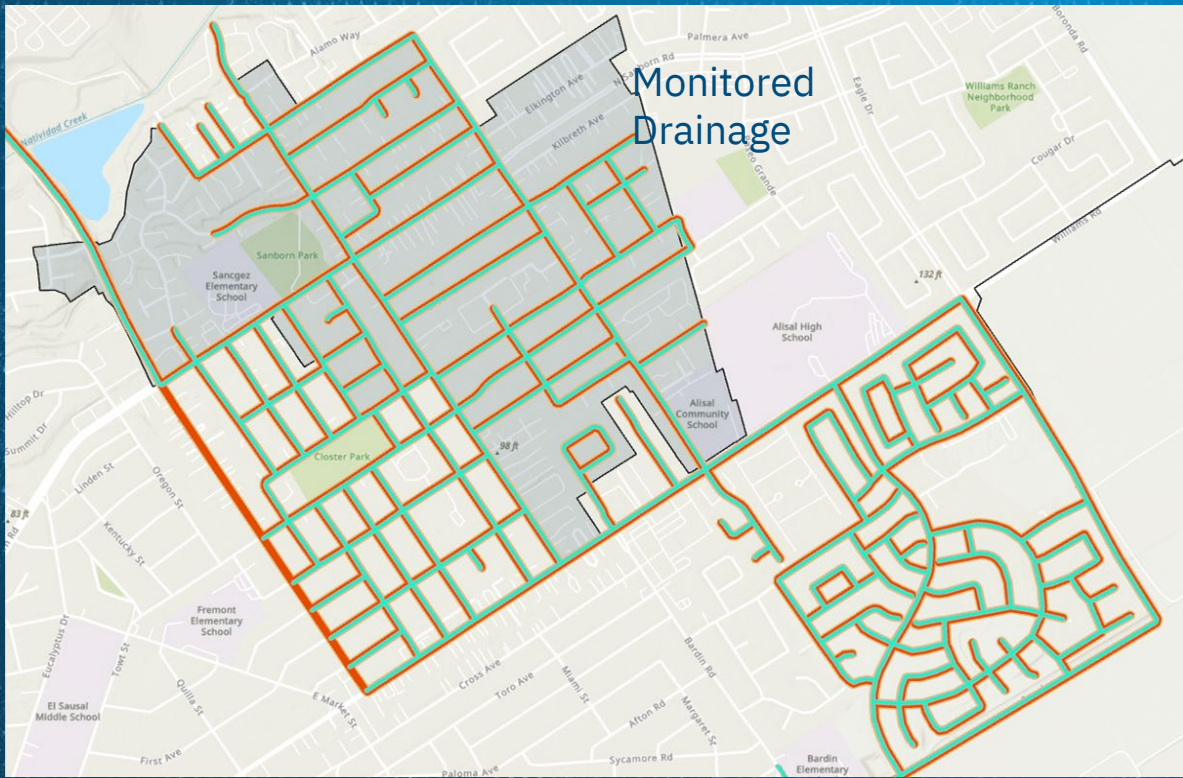
Time of parking restrictions is limited

For each part of the two chosen routes:

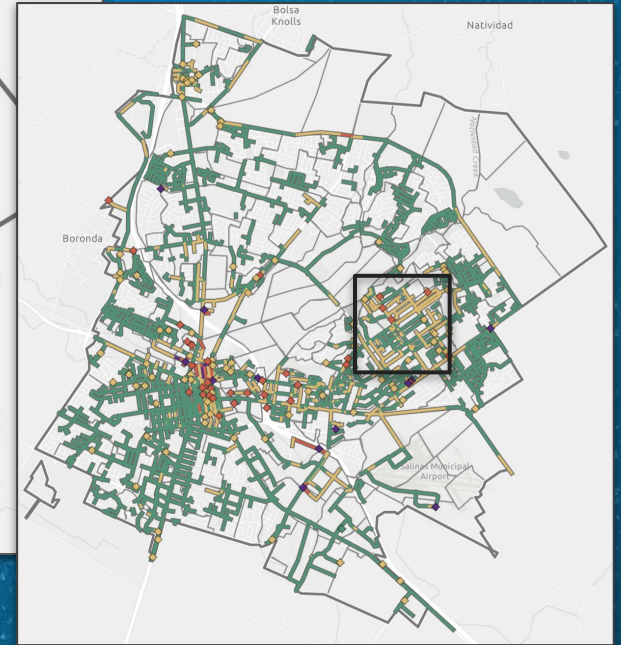
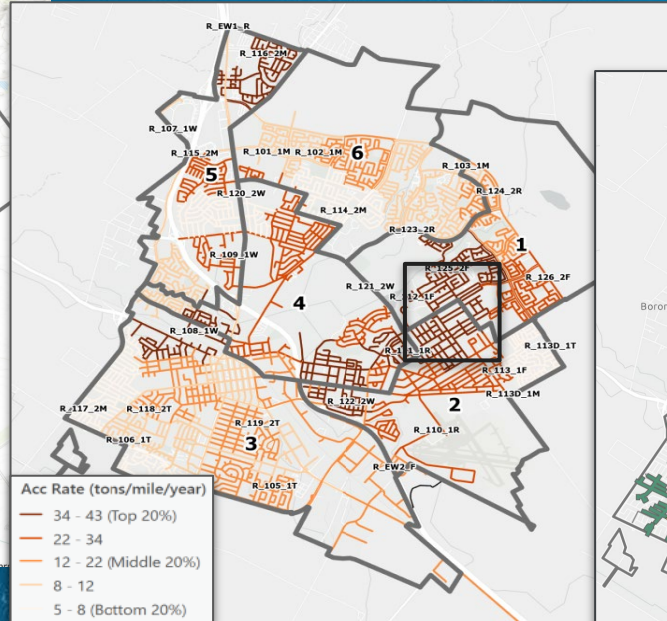
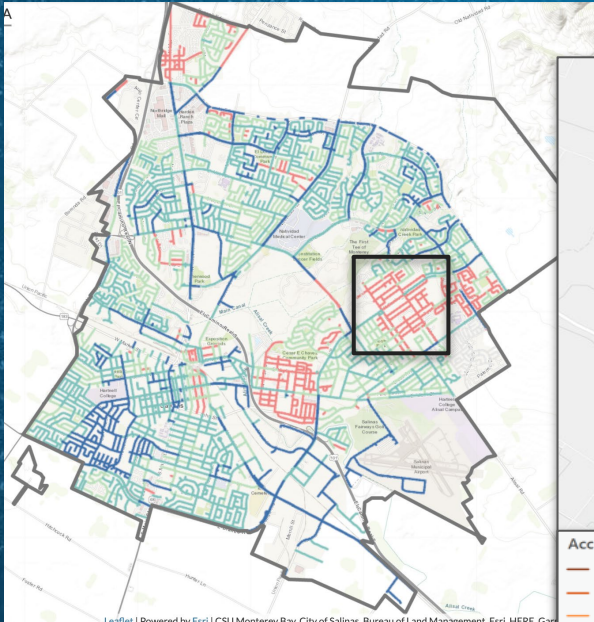
- Swept twice per month
- Window of parking restrictions will be 4 hours
- Only ticketing BEFORE or DURING sweeping, not after; warnings will initially be utilized



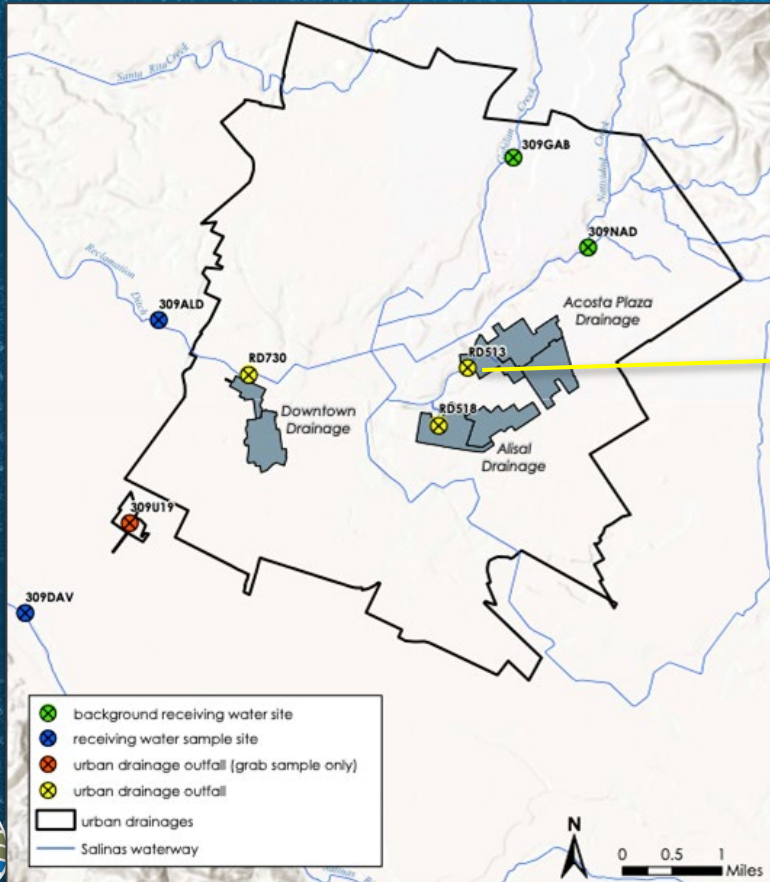
Signage Routes: 121M and 121T



Road debris condition and curb access are poor



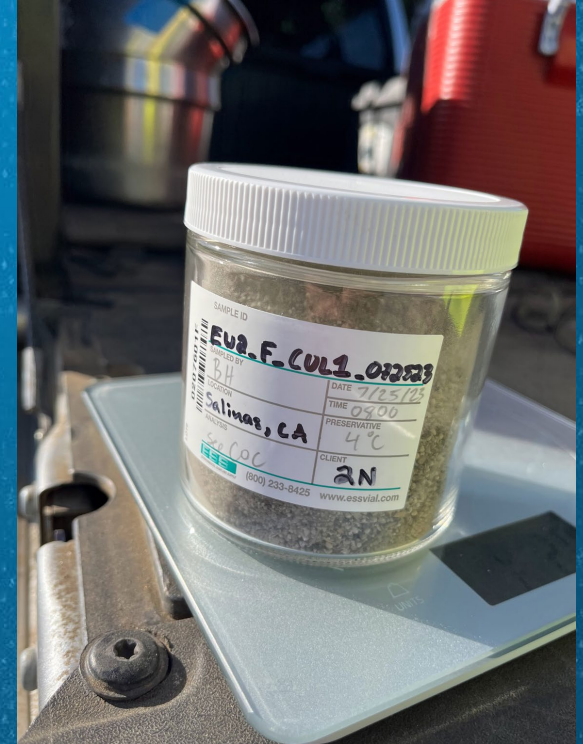
Water quality can be monitored



% of runoff samples that exceeded WQ objectives in WY 17-23

Pollutant	% exceeded
Fecal coliform	87%
Susp. sediment	36%
Turbidity	29%
Copper	2%
Orthophosphate	13%
Bifenthrin	88%
Cyfluthrin	58%

Leverage monitoring data



Build awareness

- Clean Water Salinas website
- In-person tabling and door knocking
- Social media outreach
- Blogging



Current Timing

- **October 2024** – Revised routes and initial signage routes approved by Council
- **December 2024** - Coordinated with Traffic to execute signage installation contract, and coordinate with Parking Enforcement and PD to establish enforcement protocols
- **May 2025** - Signs installed in initial area and sweeping on new City routes begins; enforcement is “Warning only”
- **August 2025** – Enforcement with citations begins (\$45)

Questions?

