

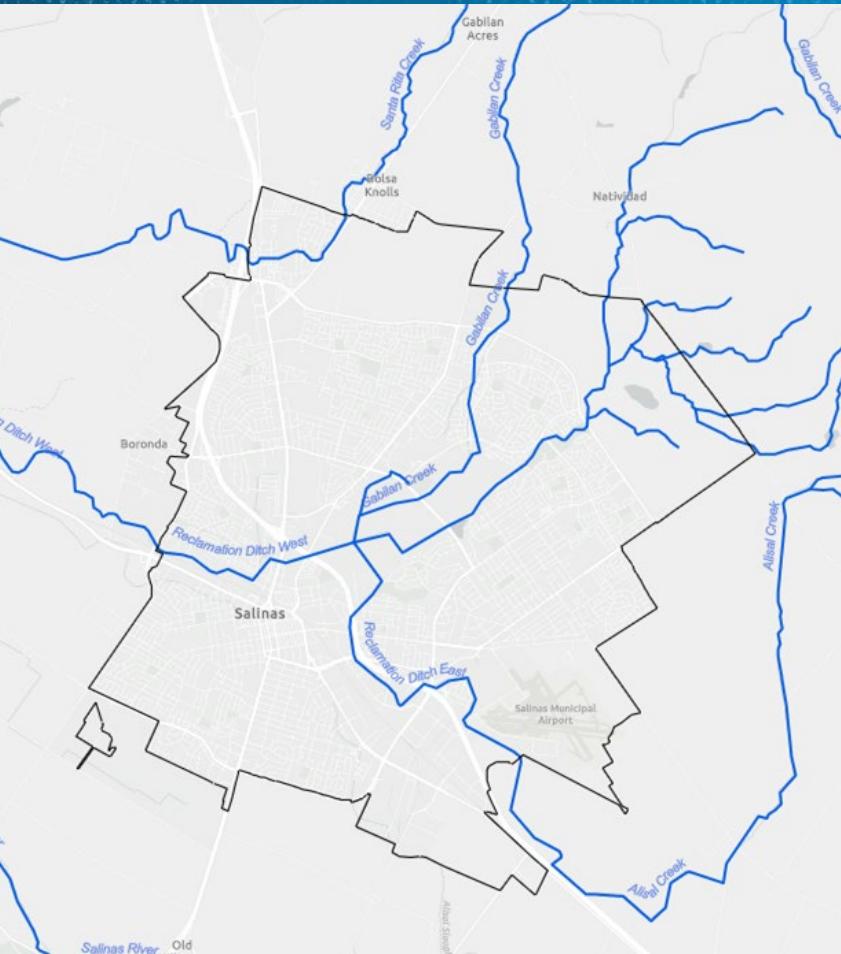
# Street Sweeping Route Revisions and Initial Signage Program Update

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

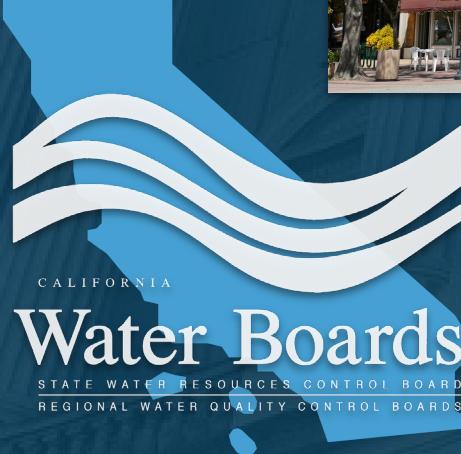
# TMDLs

Each stream is listed and has multiple Total Maximum Daily Loads



## CLEAN WATER **SALINAS**

# 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  
Phone (805) 549-3147 • Fax (805) 543-0397  
[Central Coast Water Board Website](#)

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

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# 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)



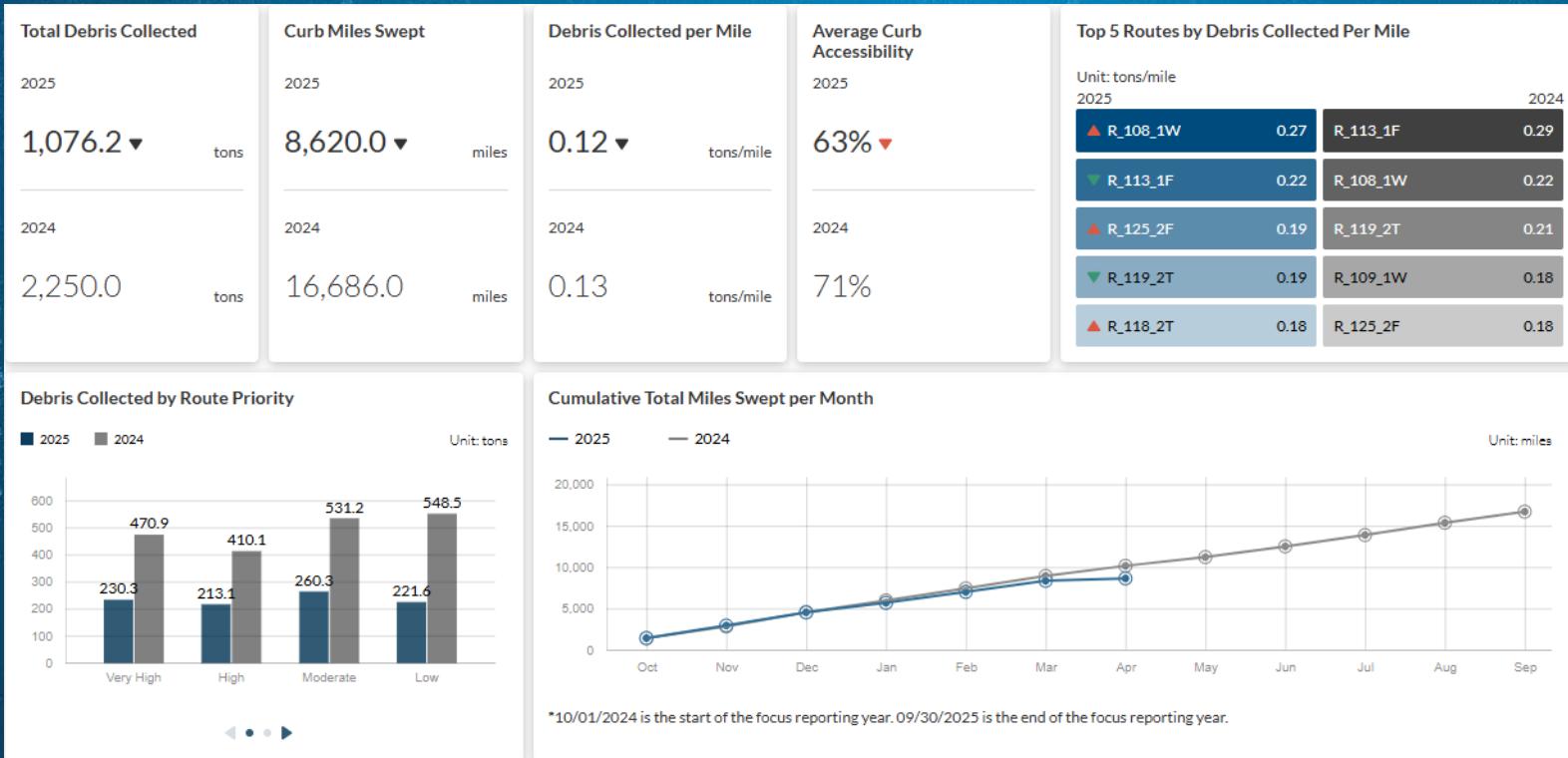
# The challenge: only stormwater down the drain



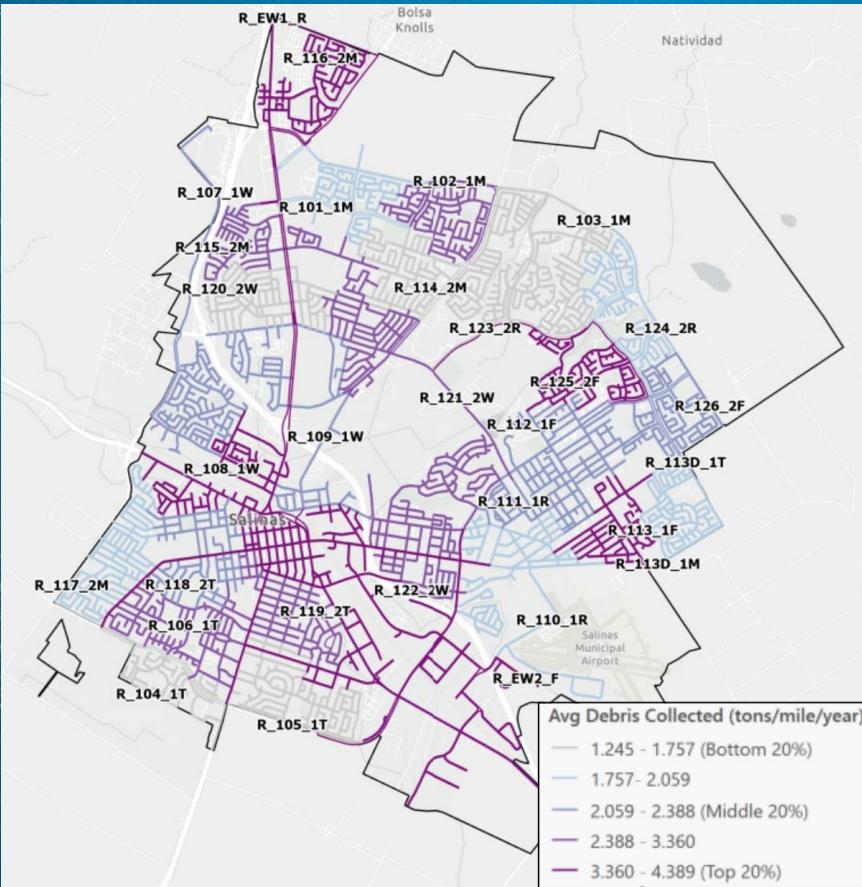
# Street sweeping timeline

- 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)

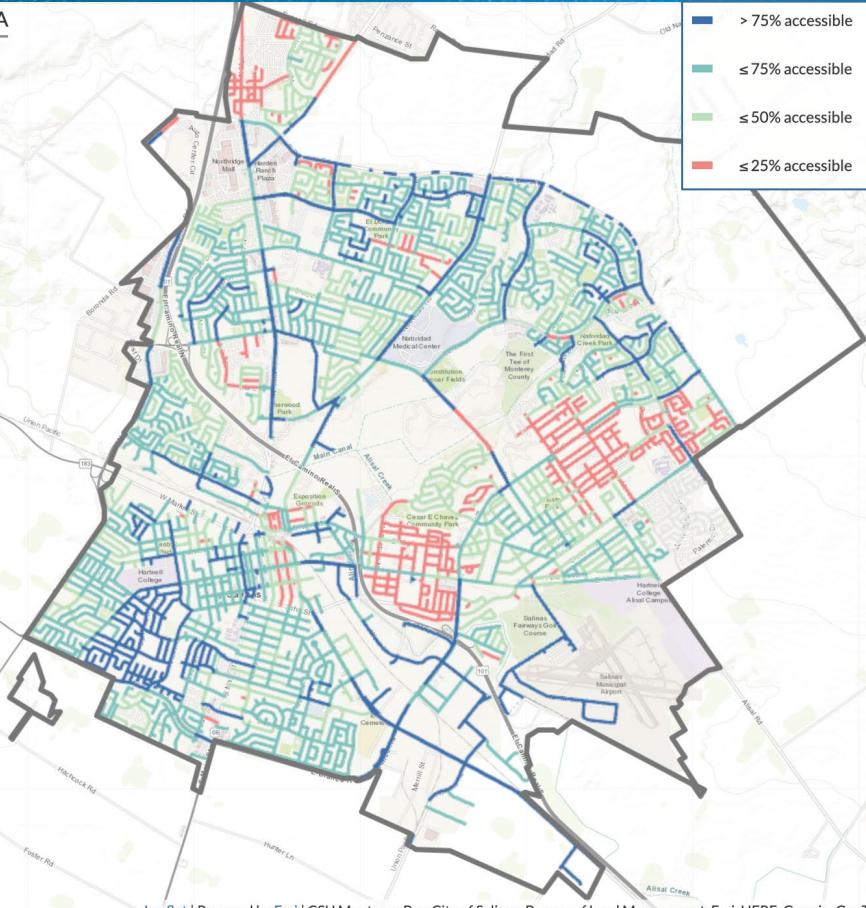
# Street sweeping is highly effective at removing pollutants BEFORE they enter the stormwater system



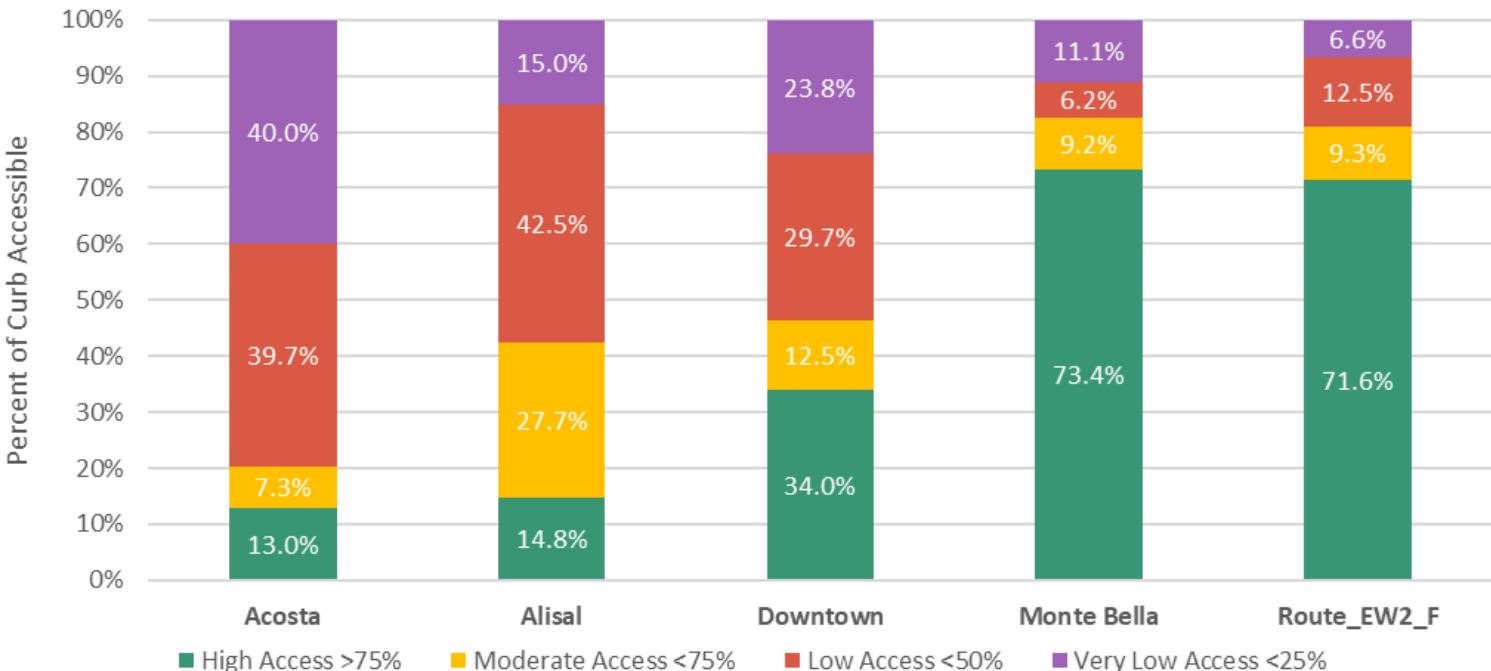
# Street sweeping isn't equally effective everywhere



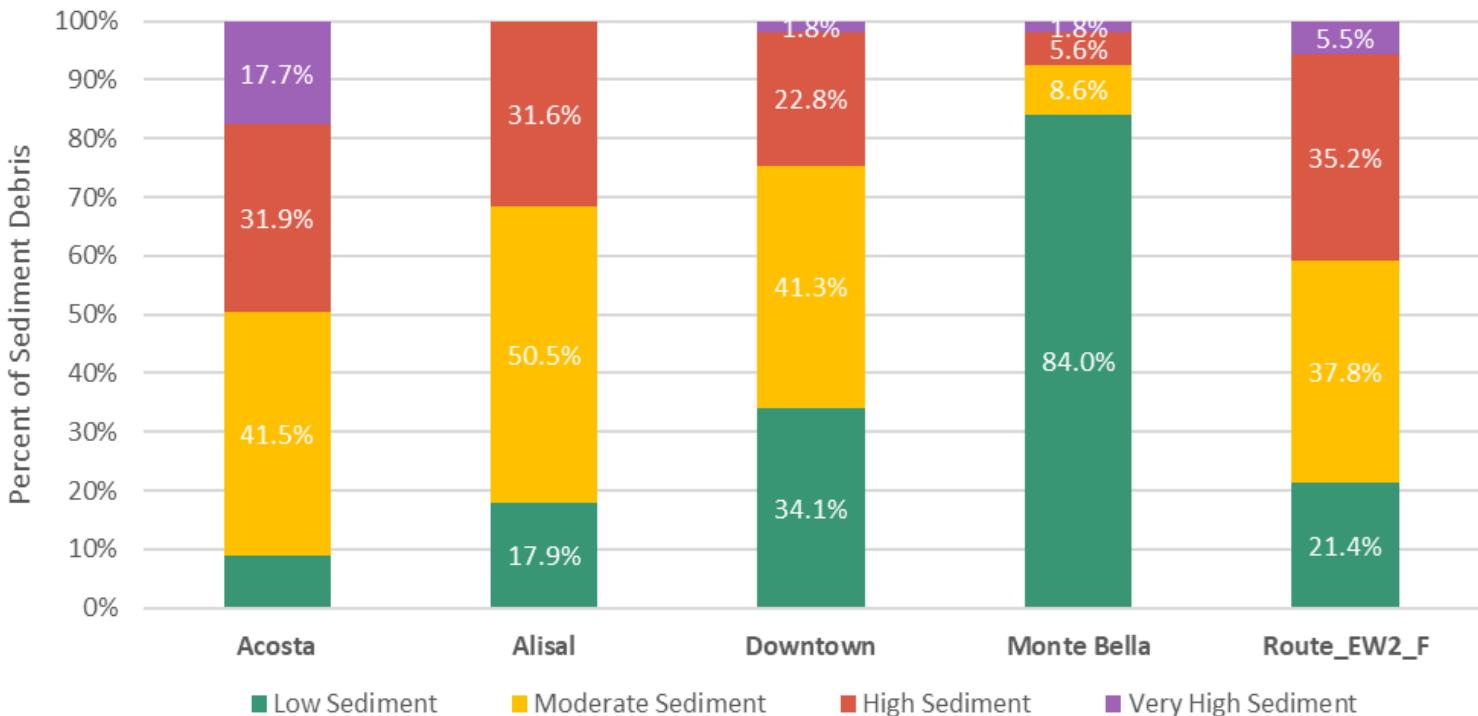
## Curb access is a problem in several areas



## 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

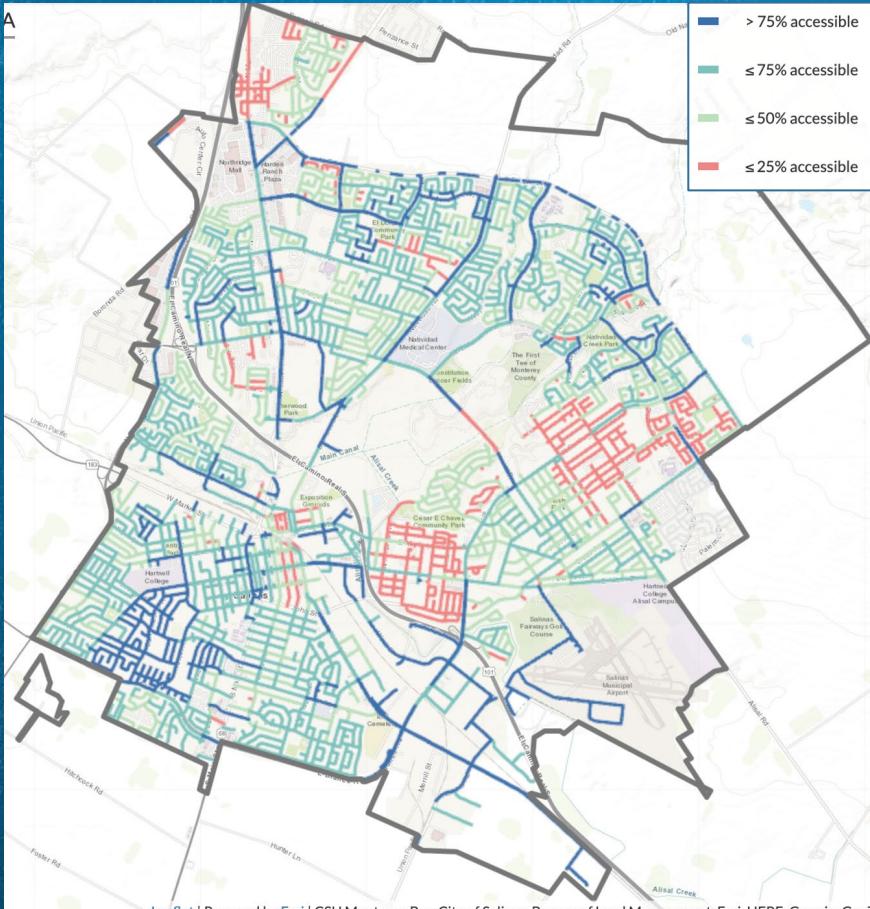


The City used RouteSmart software to develop routes, provide drivers with directions, and track sweepers.

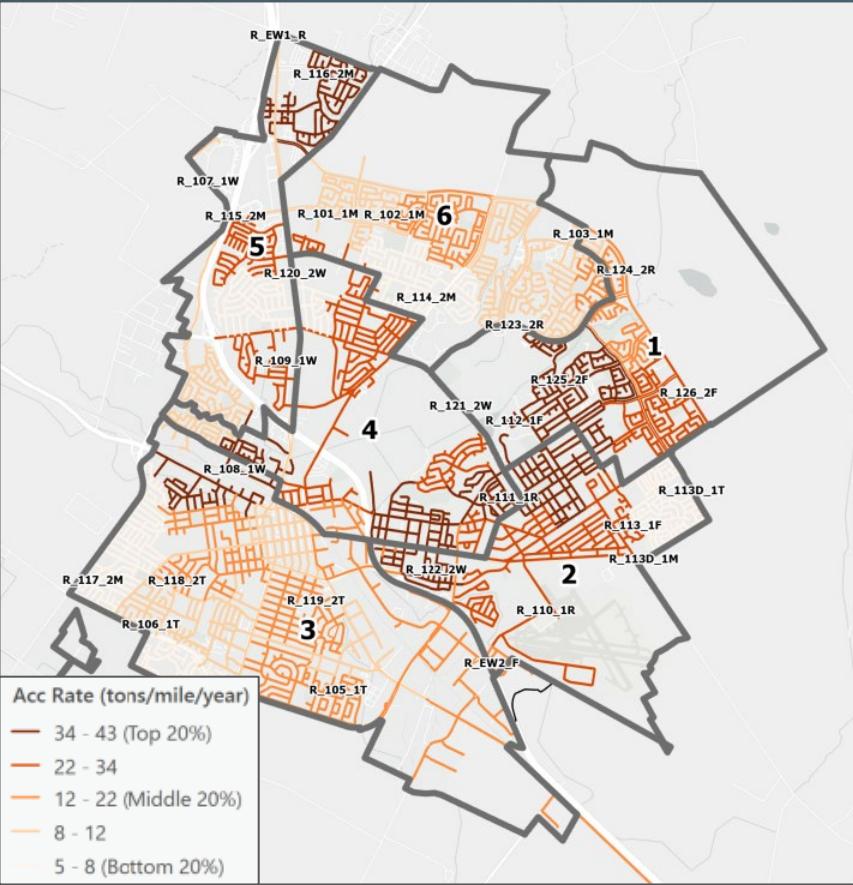
Routing capabilities include:

- 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

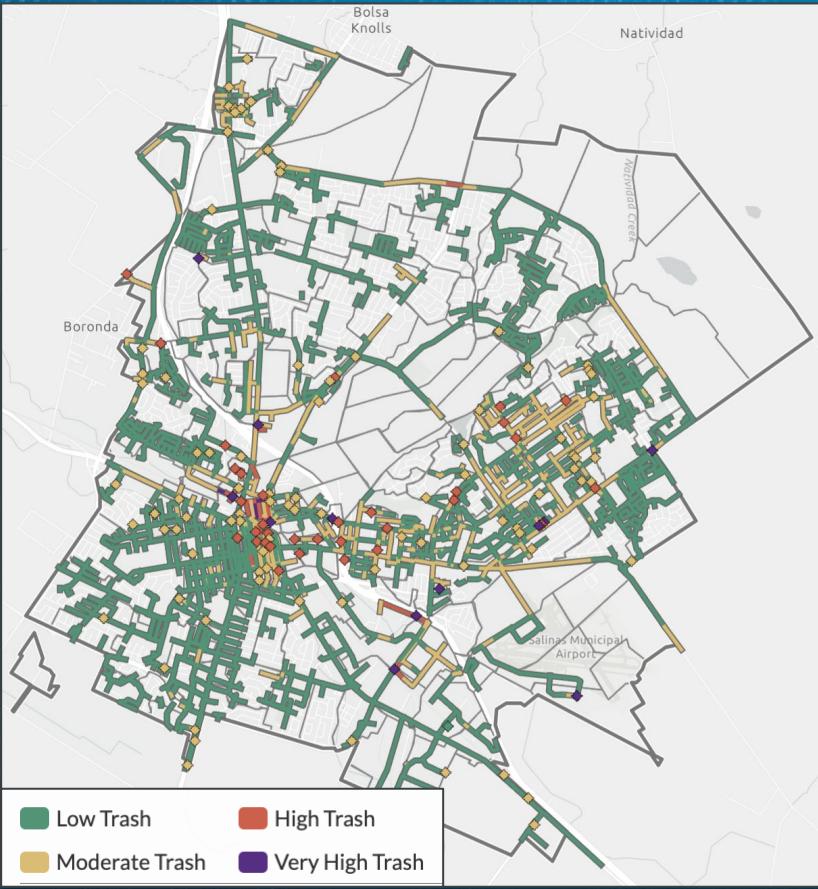
## Collect curb accessibility - Sweeper entry



# Collect road debris accumulation data



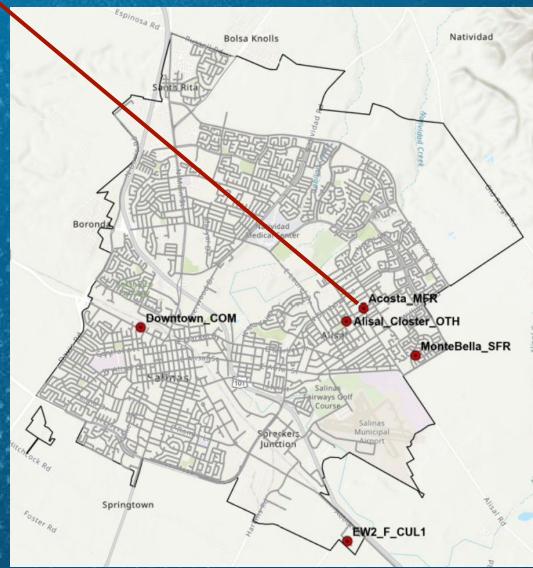
# Collect trash condition data



# 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)



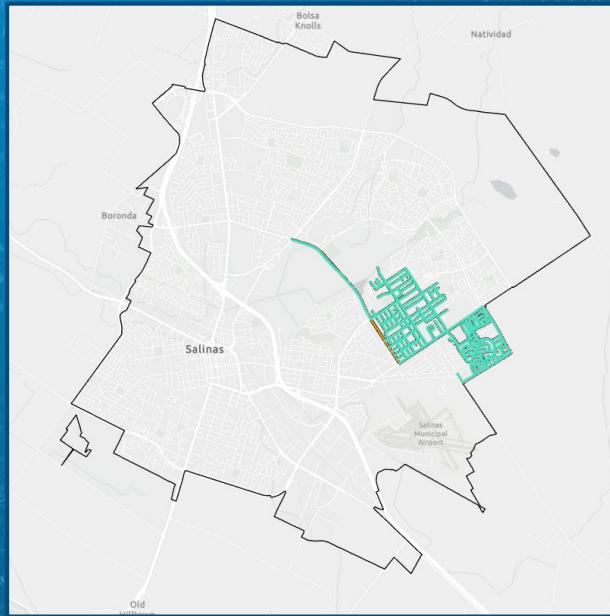
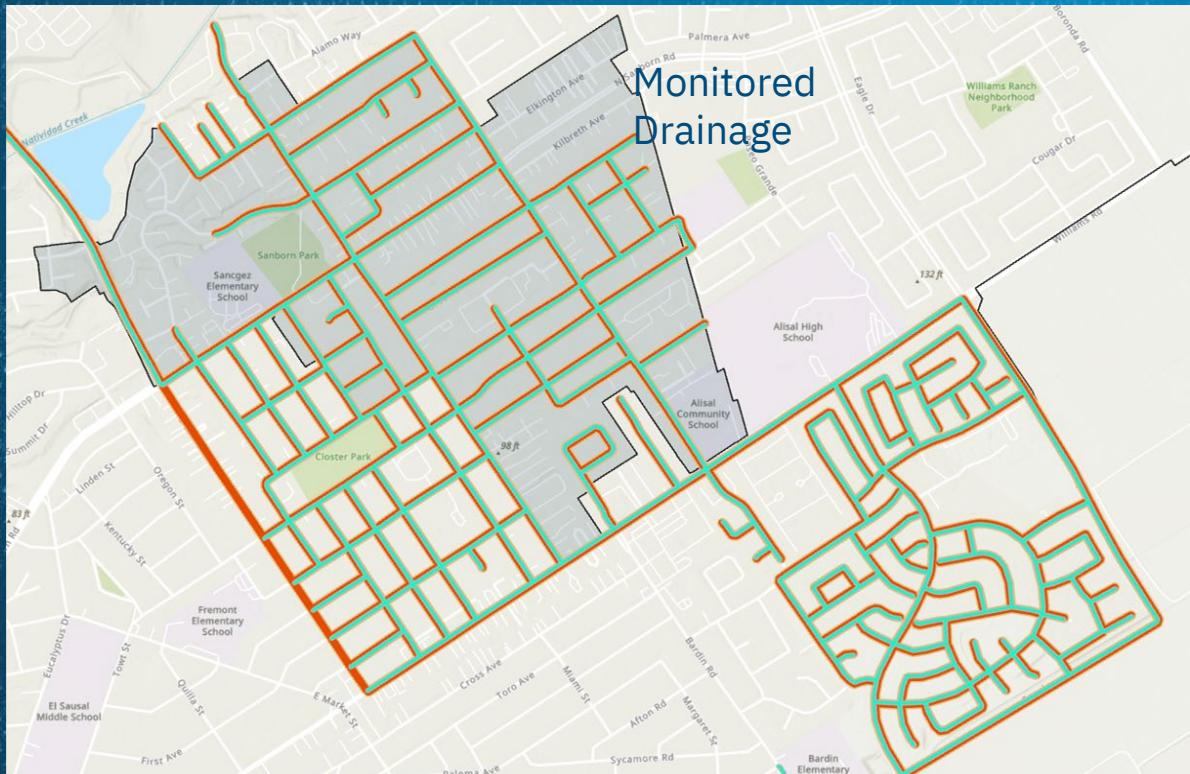
# Time of parking restrictions is limited

For each part of the two chosen routes:

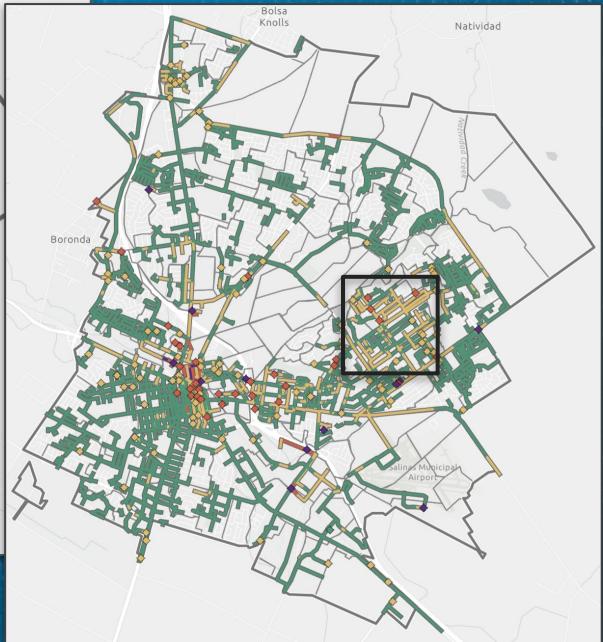
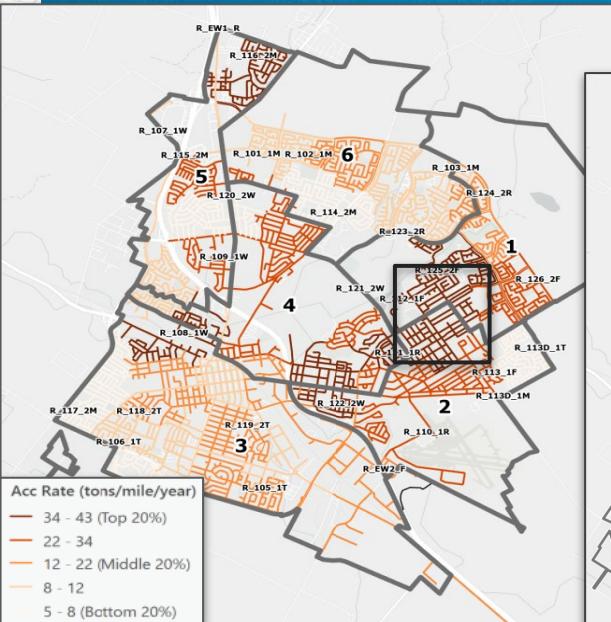
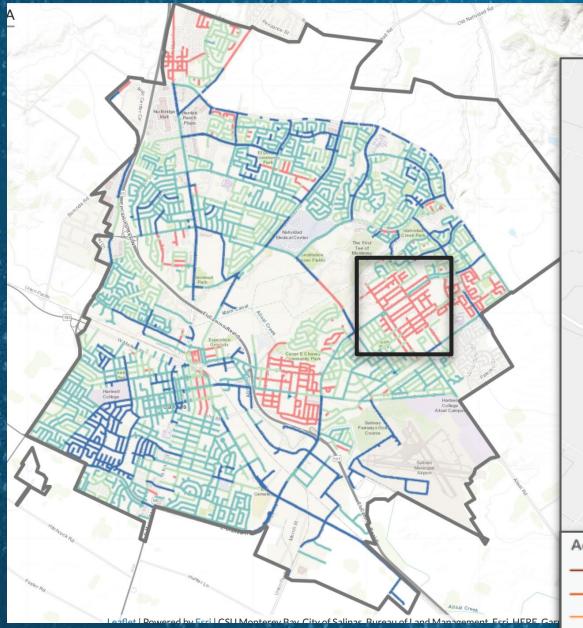
- Swept twice per month
- Window of parking restrictions will be 4 hours
- Only ticketing BEFORE or DURING sweeping, not after; warnings will initially be utilized



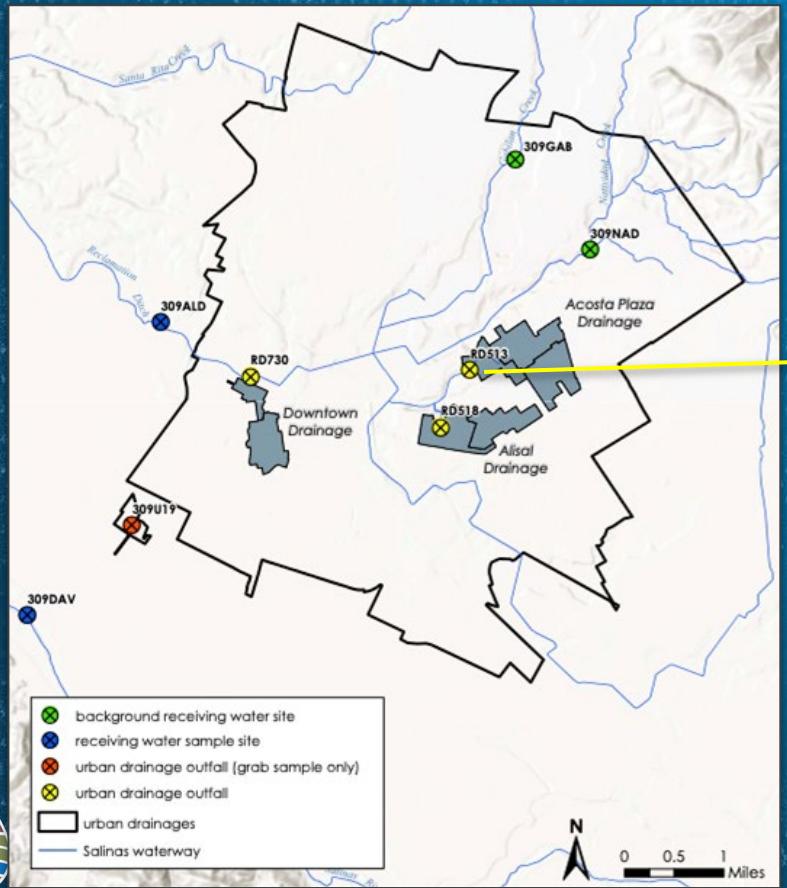
# Signage Routes: 121M and 121T



## 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?