CLEAN WATER SoCAL

CREATING SUSTAINABLE SOLUTIONS

Collection Systems Committee Meeting

October 7th, 2026

LOS ANGELES COUNTY
SANITATION DISTRICTS
Converting Waste Into Resources

An Overview of LACSD's I&I Reduction Efforts

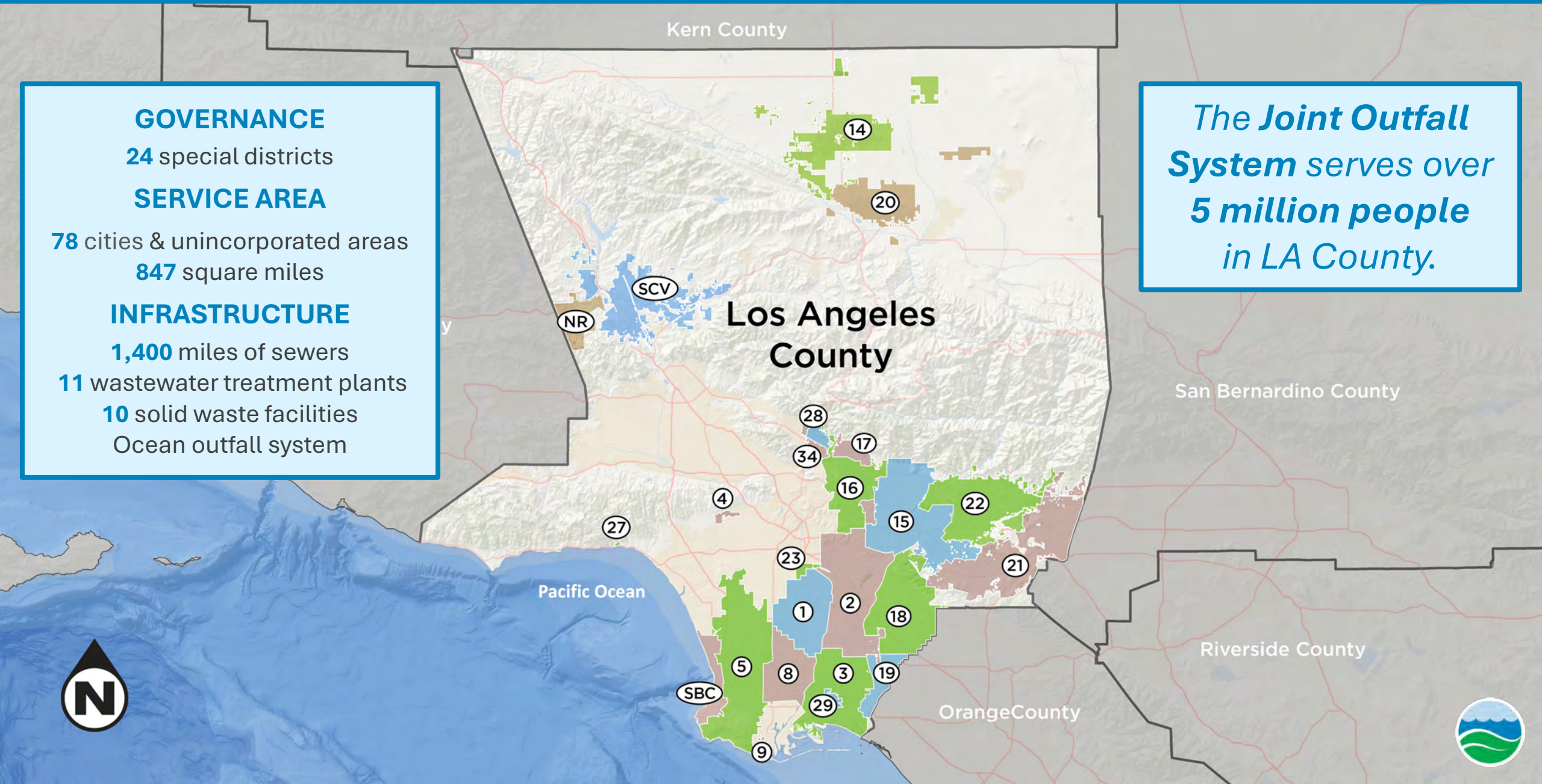
Presented by:

Liana Olivas, Project Engineer

Helen Luu, Senior Environmental Compliance Inspector



LA County Sanitation Districts' Service Area



GOVERNANCE

24 special districts

SERVICE AREA

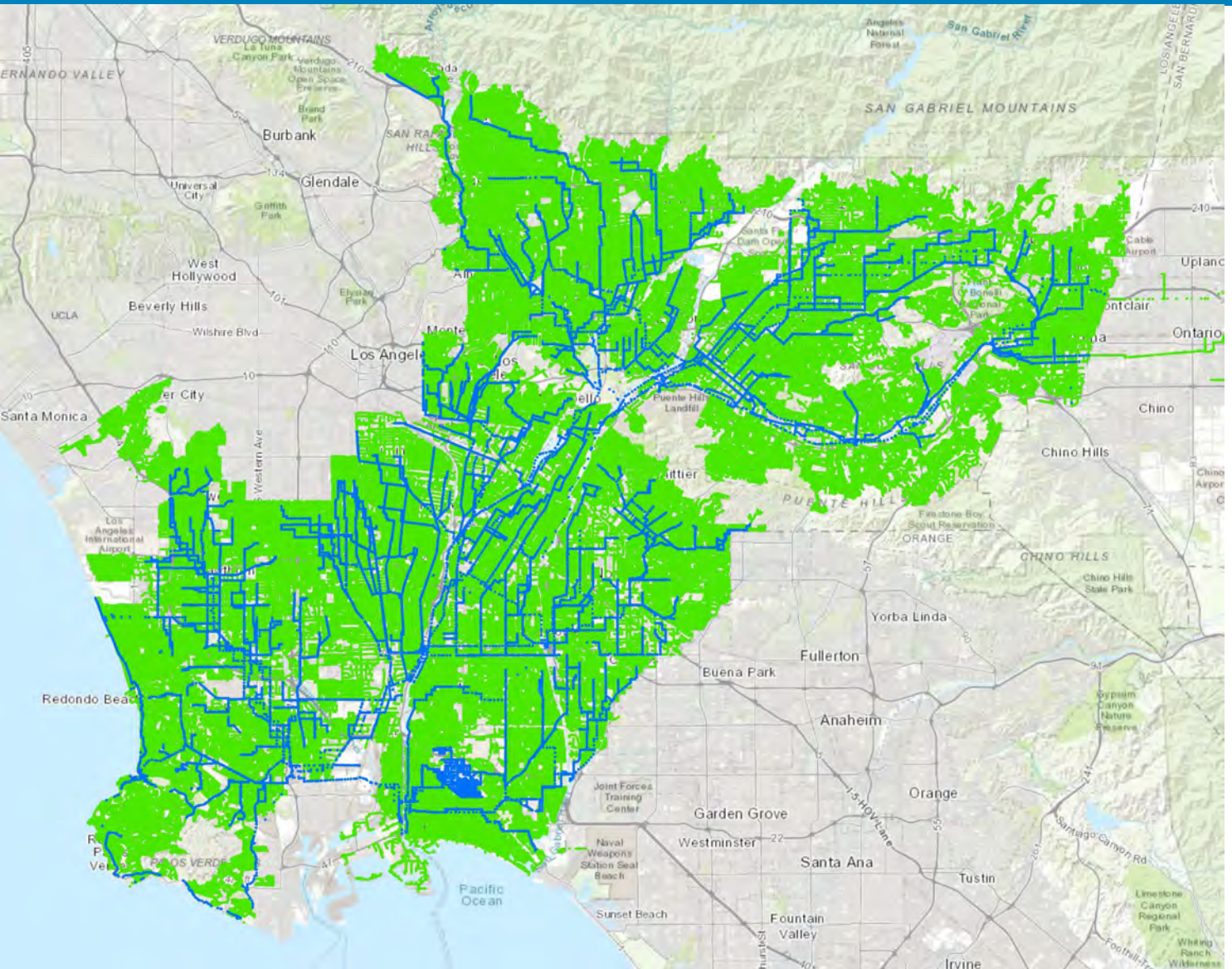
78 cities & unincorporated areas
847 square miles

INFRASTRUCTURE

1,400 miles of sewers
11 wastewater treatment plants
10 solid waste facilities
Ocean outfall system

*The **Joint Outfall System** serves over **5 million people** in LA County.*

Sewer Systems Tributary to the Joint Outfall System



Districts' Assets

21,600 District manholes

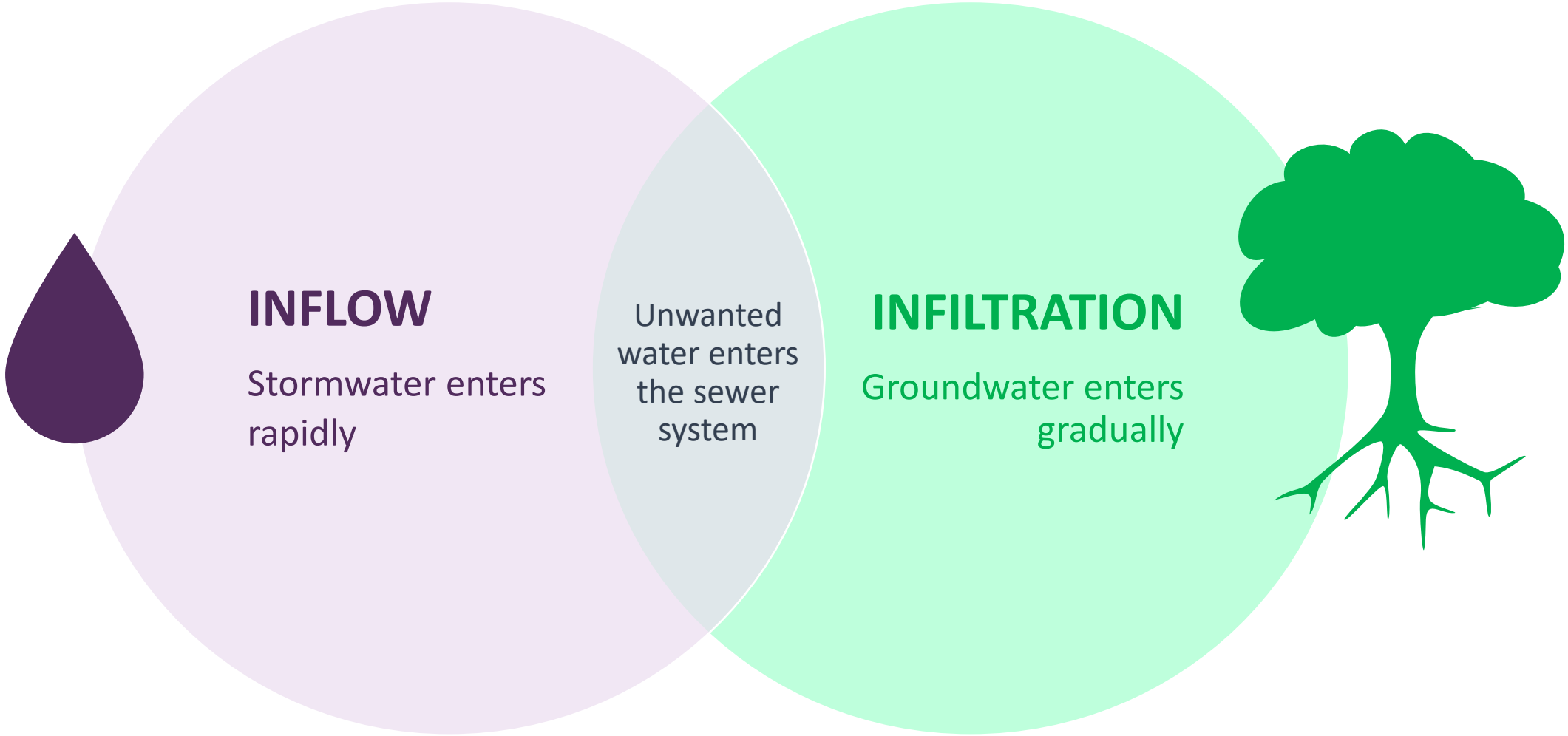
1,200 miles of trunk sewer

Local Assets

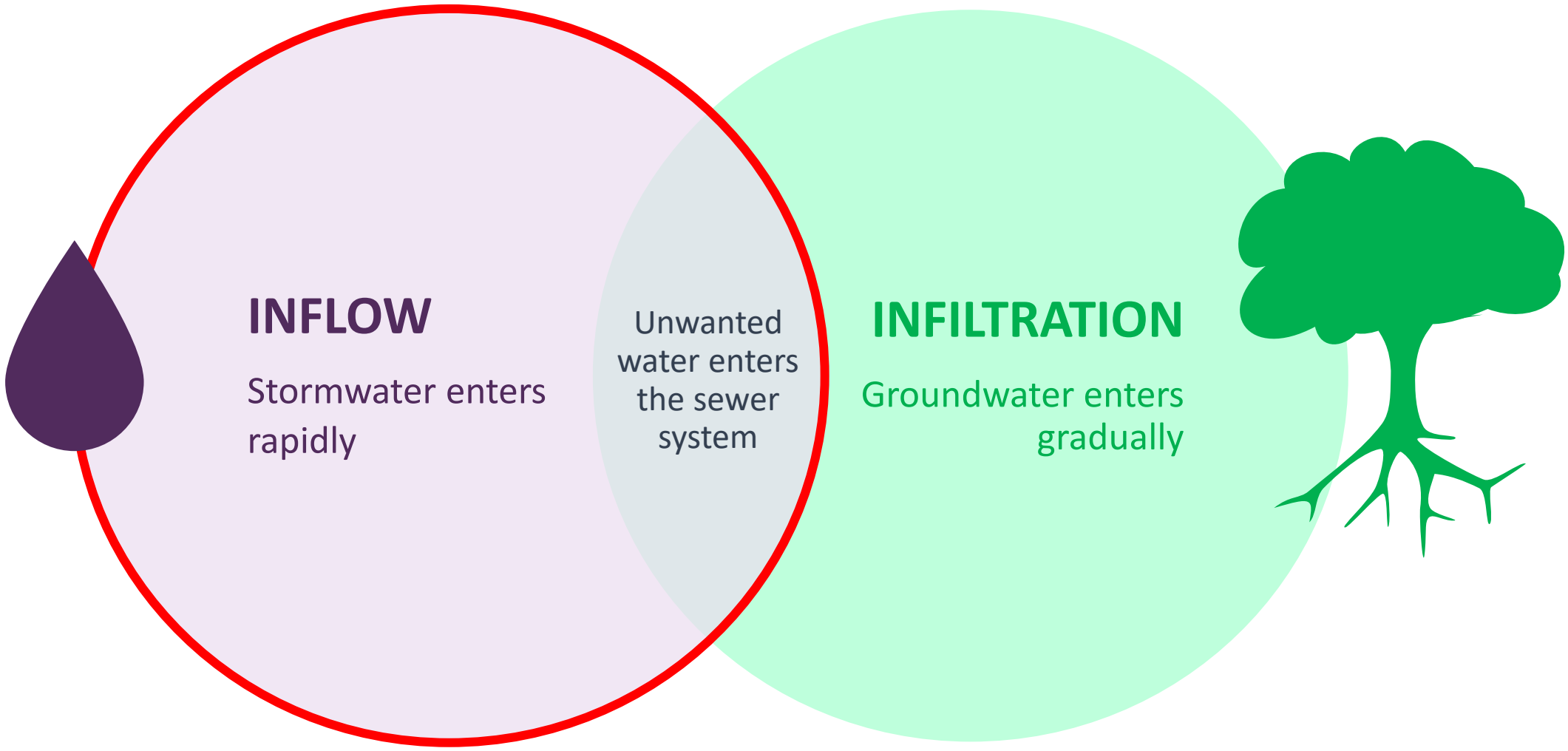
202,389 local manholes

8,900 miles of tributary sewer

Inflow & Infiltration



Inflow & Infiltration



Sources of Rainwater Inflow





PUBLIC INFASTRUCTURE

LACSD's
I&I Reduction Program

February 2024 Storms



Sanitary Sewer Overflows

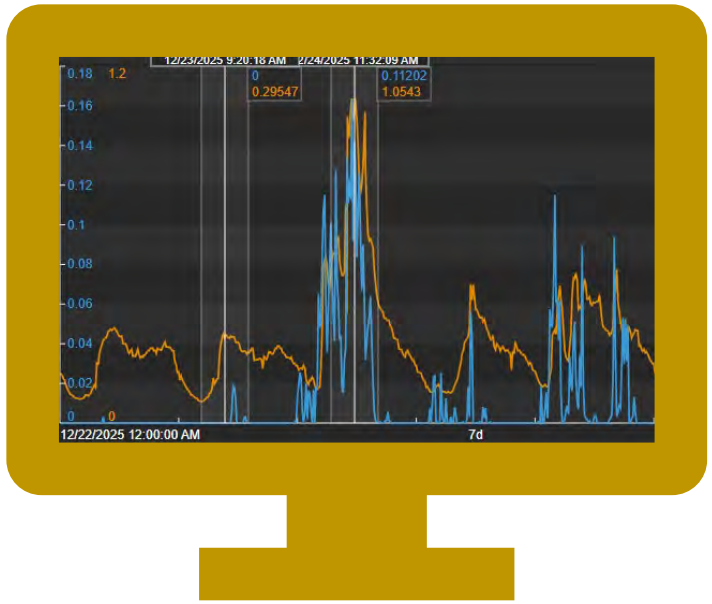
CAUSE: STORMWATER INFLOW



9 Spill Locations
8.3 Million Gallons

I&I Investigations:
A Collaboration between Sections

Wastewater Collection Systems



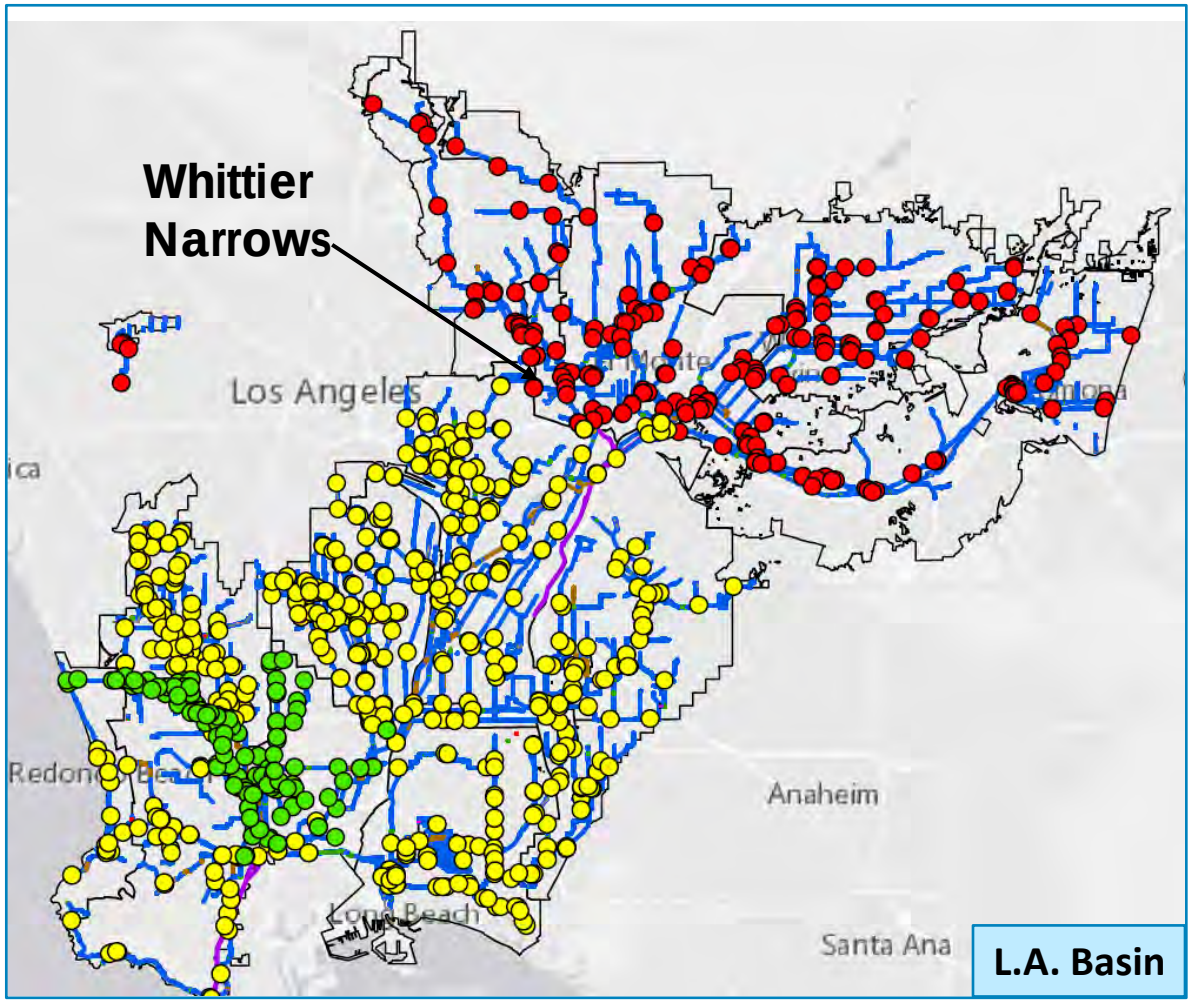
- Identify areas of high I&I
- Flow data analysis

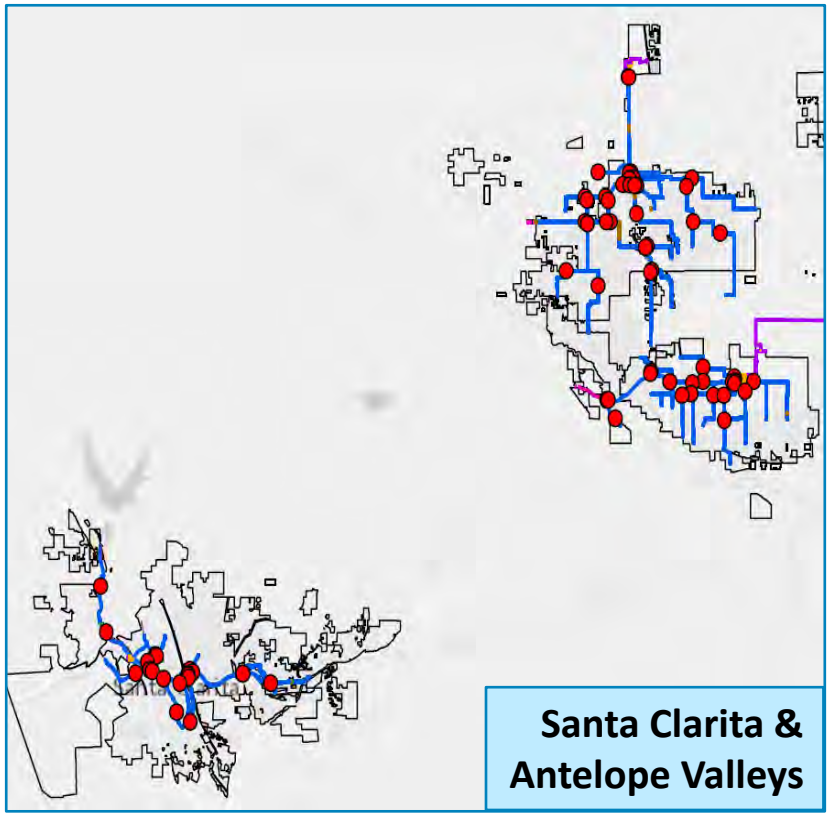
Pretreatment & Source Control



- Investigate sources of I&I in the field
- Toolbelt of methods

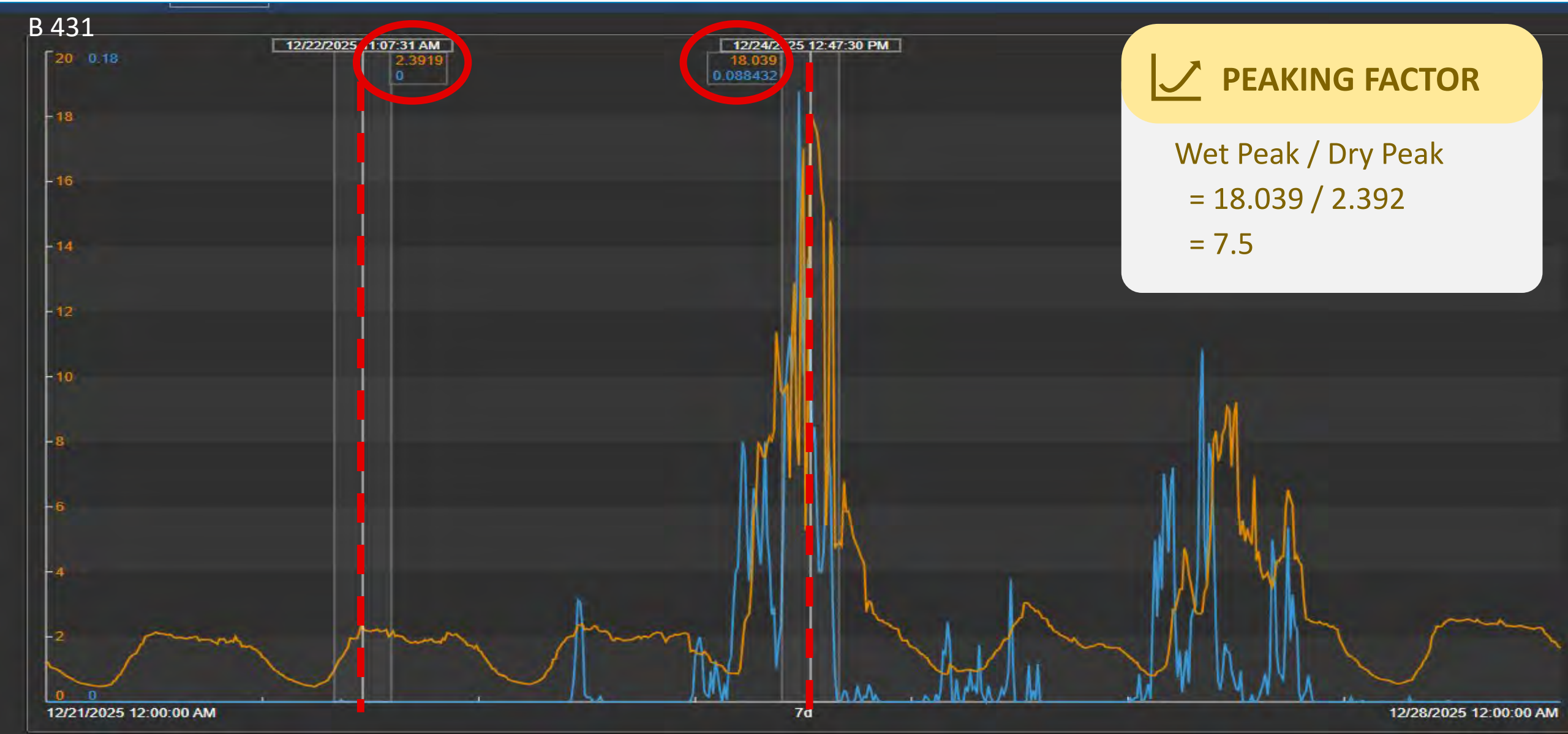
Identification Tools: Flow Monitoring







Identification Tools: Flow Monitoring



PEAKING FACTOR

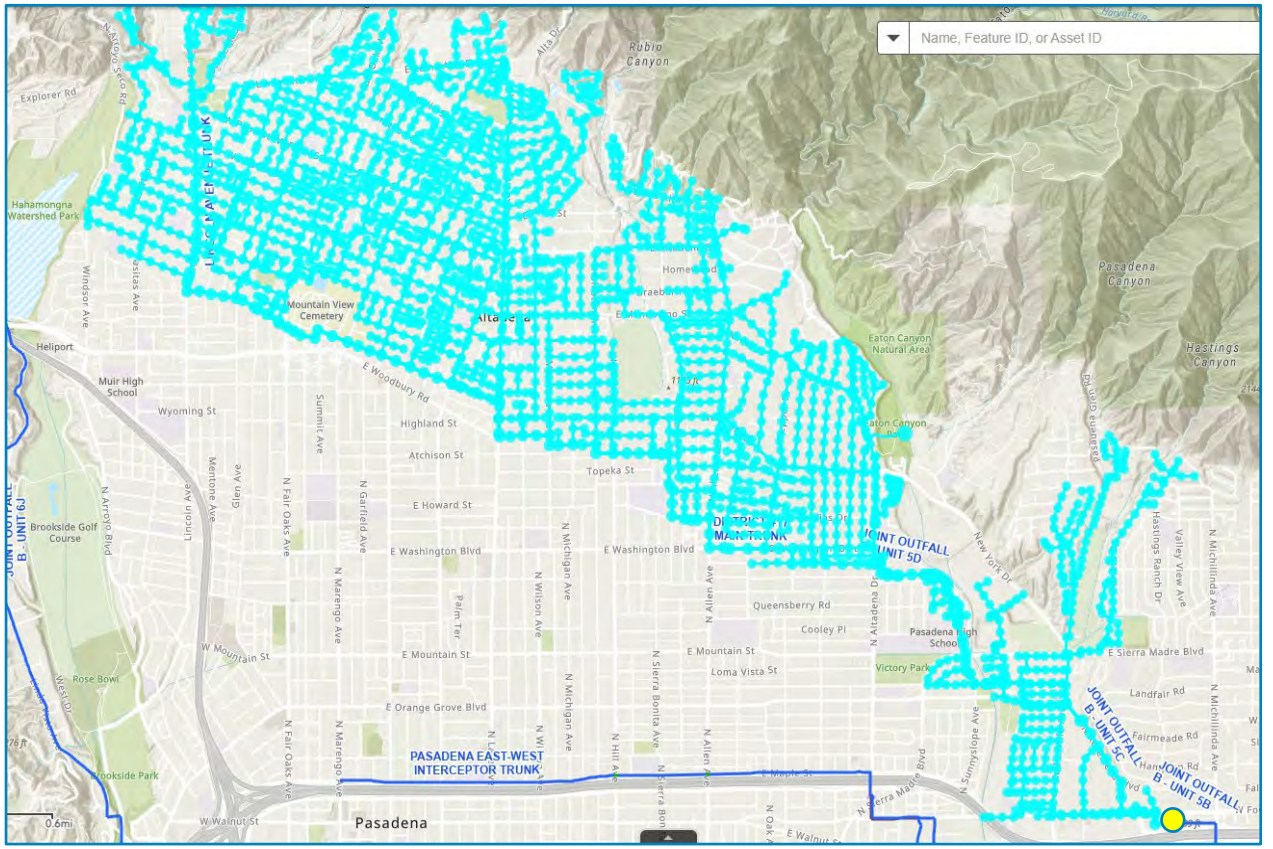
Wet Peak / Dry Peak

= 18.039 / 2.392

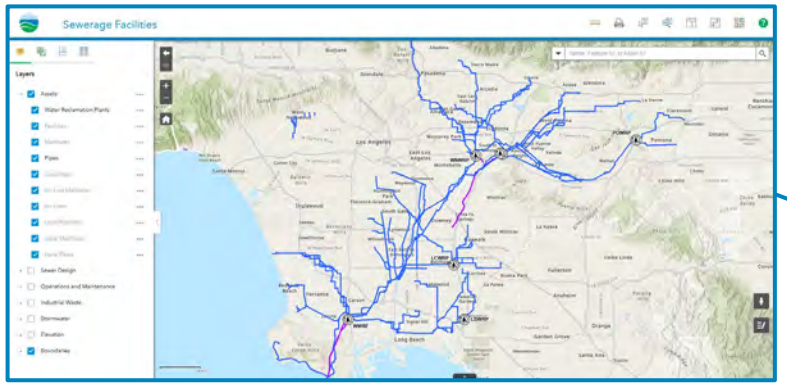
= 7.5

I&I Investigation Criteria

- Peaking Factor ≥ 3
- Near Edge of System
- Area small enough for staff to field canvas

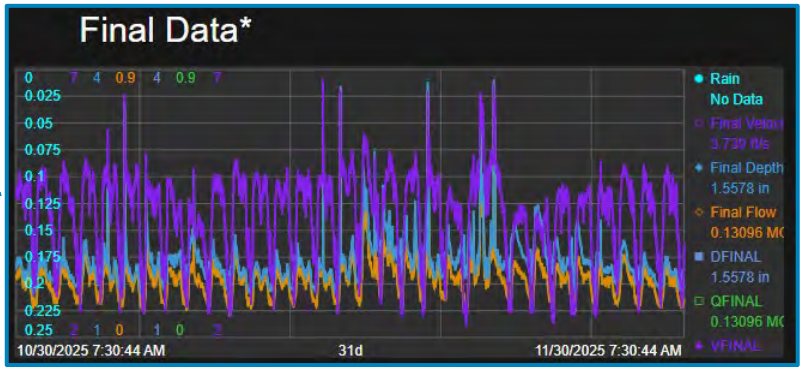


What's in our toolbelt?



Geographic Information Software





Flow Meters



Inspection Staff



Trail Cameras



Clear Sphere



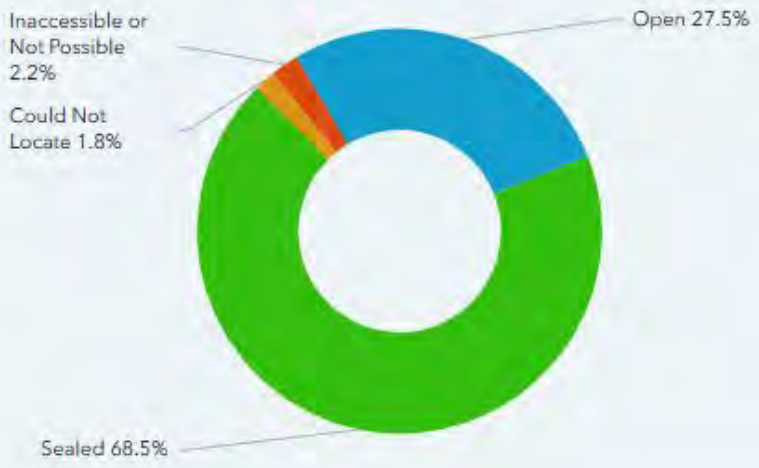
Stormwater Policy

Manhole Sealing Program

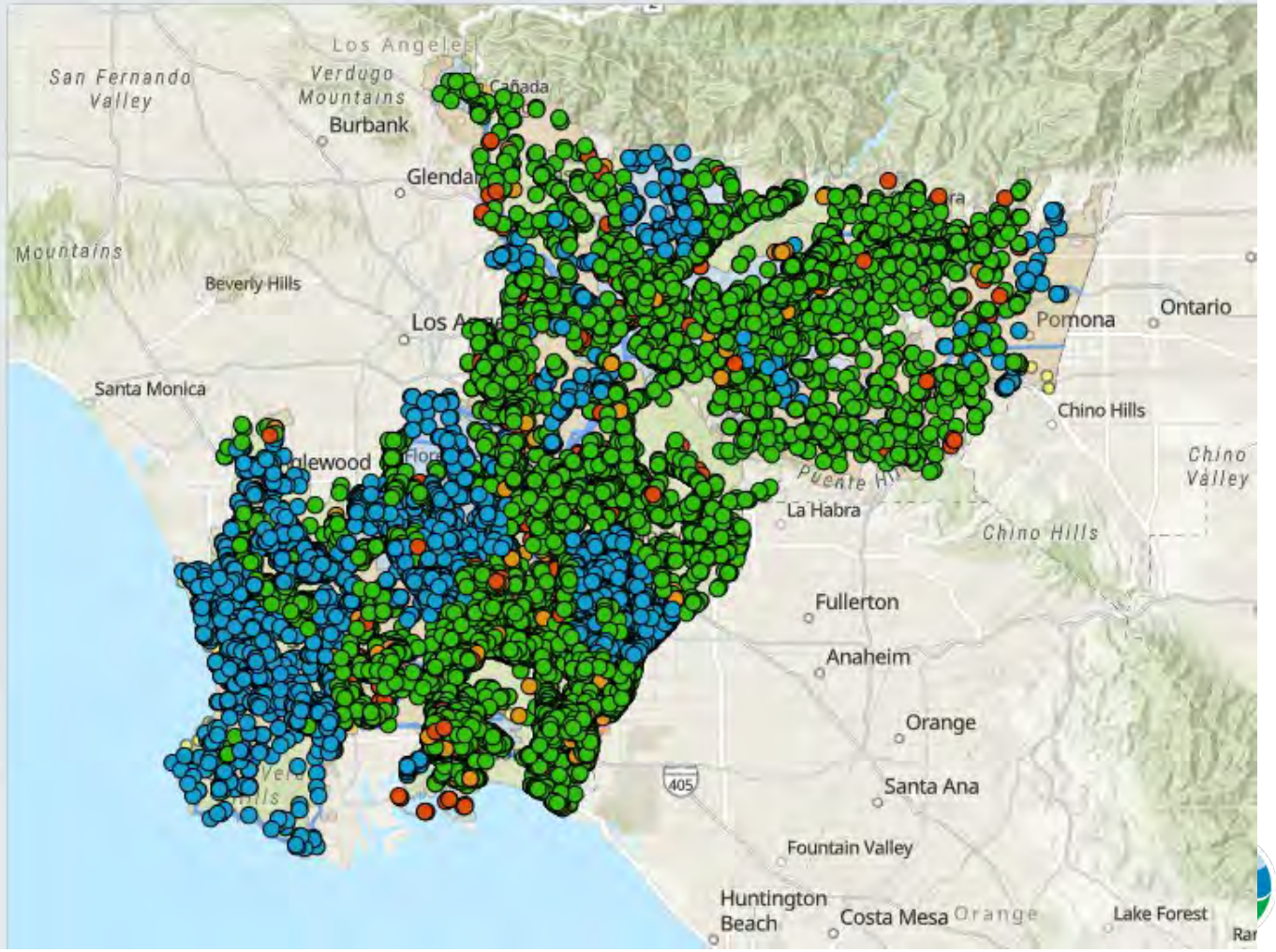
Local Manhole Sealing Map

Sealing Status
Filter by status

Sealing Status



Status (%) | Status (n)



Case Studies

Case Study #1

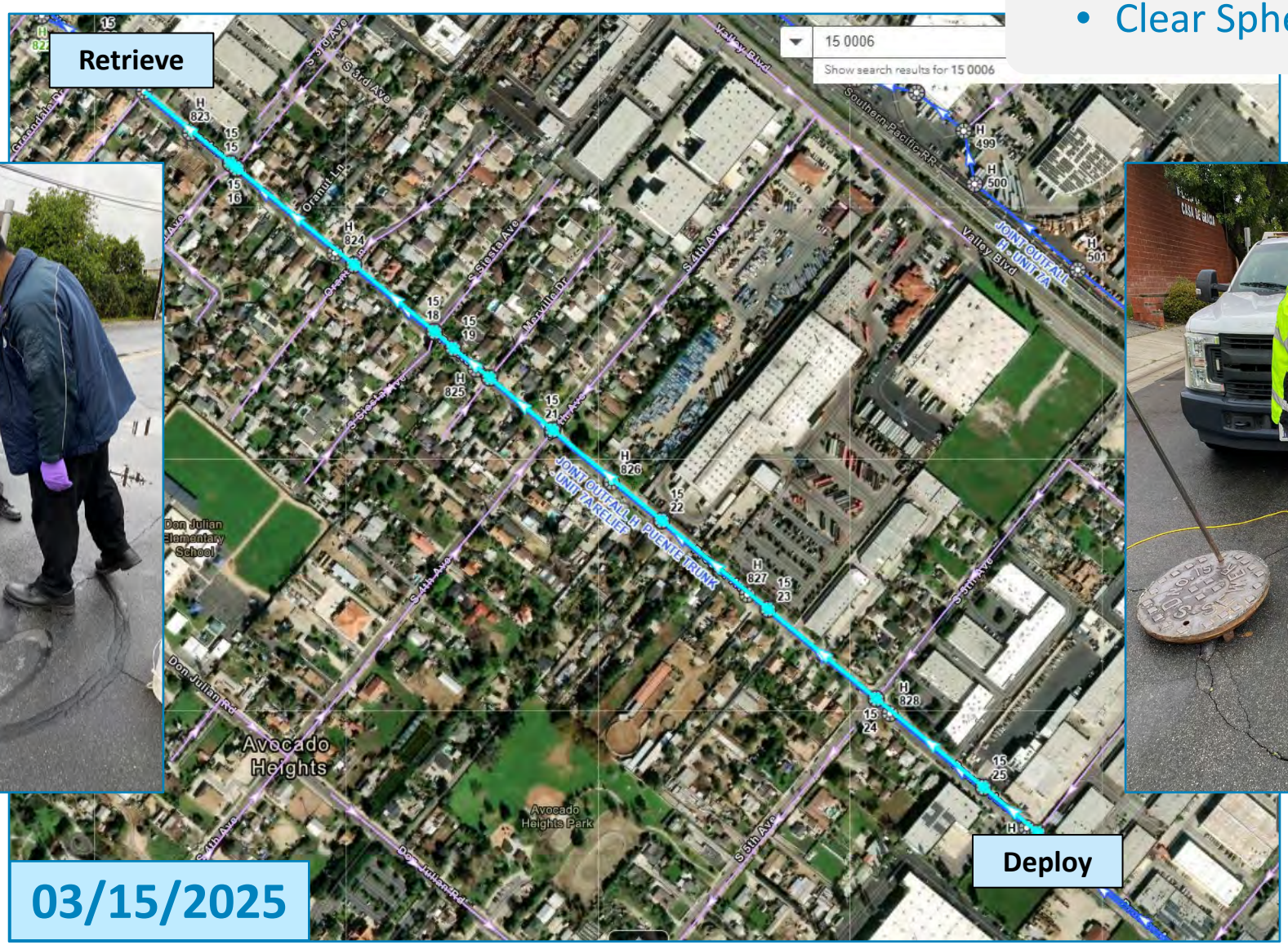
Puente Trunk

APPLIED TOOLS

- Inspection
- Clear Sphere



Retrieve





Deploy

03/15/2025

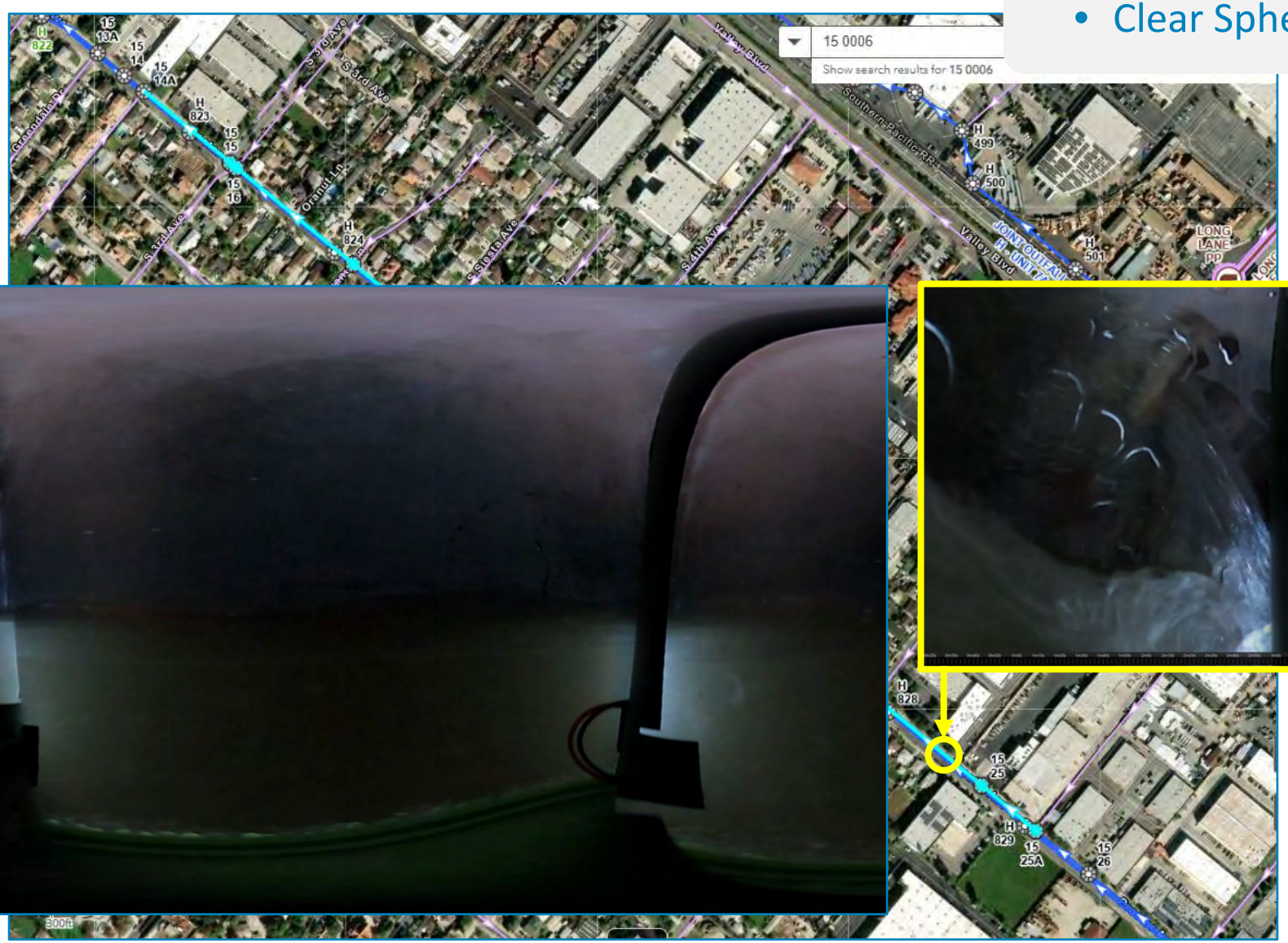
Case Study #1

Puente Trunk

APPLIED TOOLS

- Inspection
- Clear Sphere

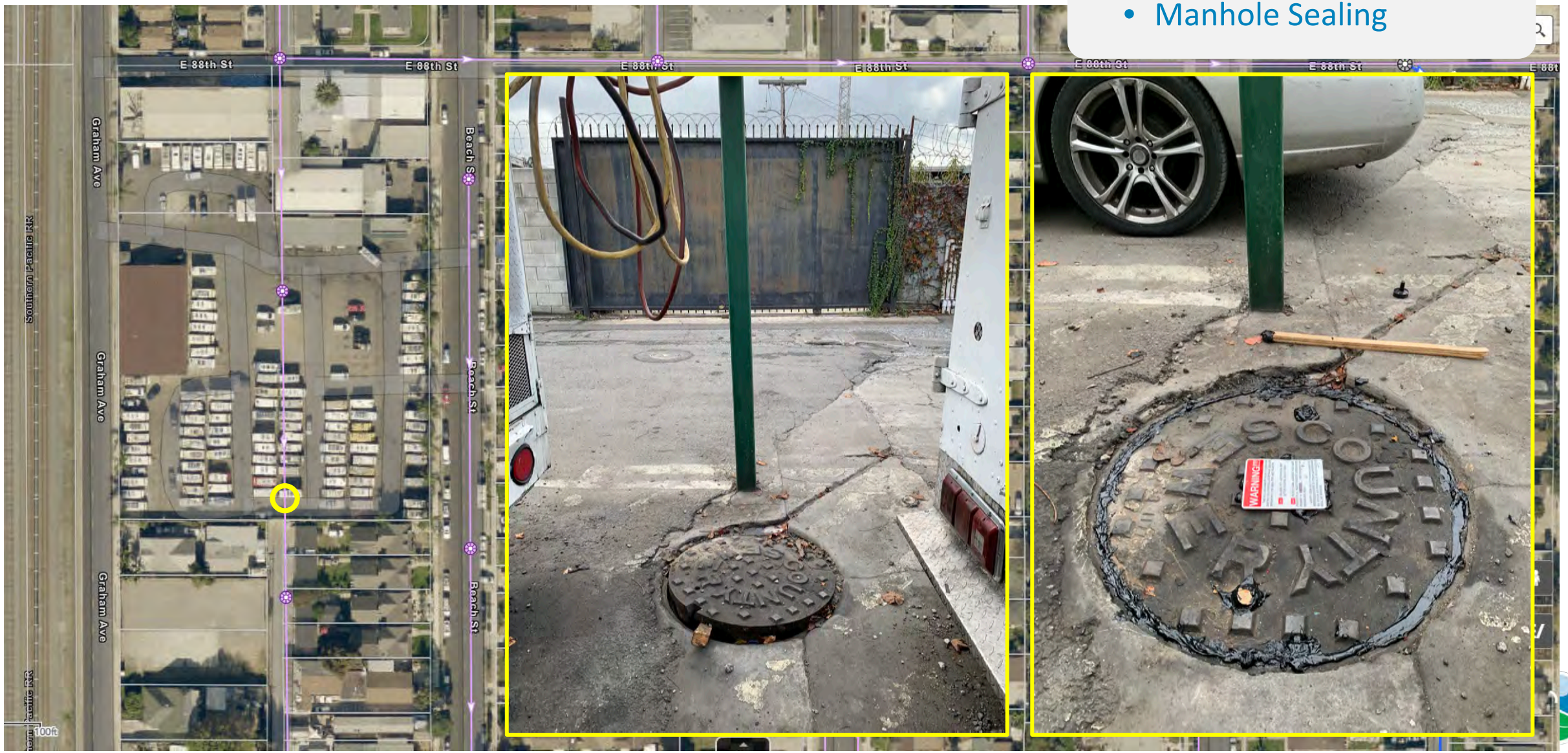




Case Study #2
Catering Yard

APPLIED TOOLS

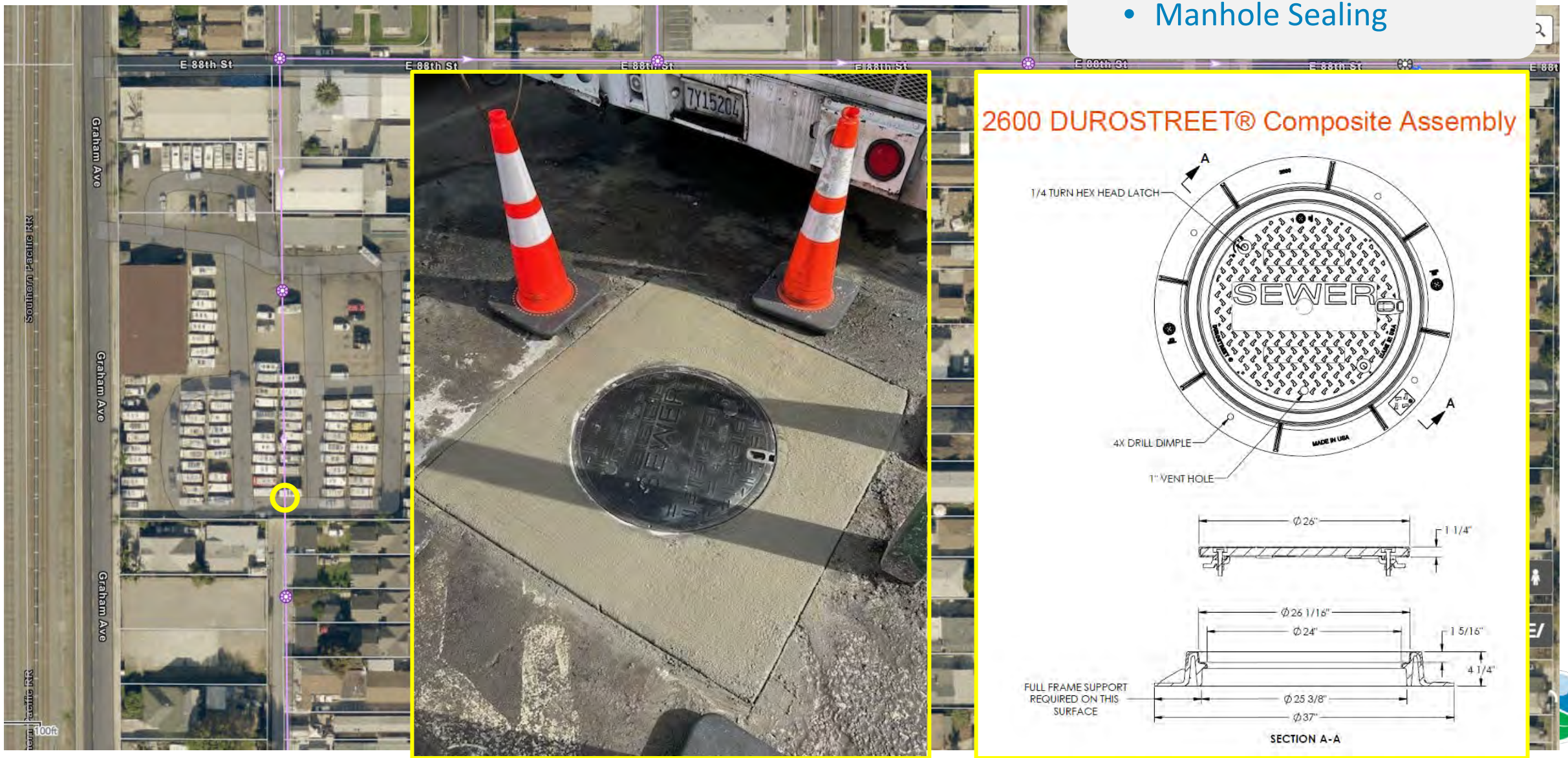
- Inspection
- Manhole Sealing



Case Study #2
Catering Yard

APPLIED TOOLS

- Inspection
- Manhole Sealing



Case Study #2
Catering Yard

APPLIED TOOLS

- Inspection
- Manhole Sealing



Case Study #3

Lift Rental Yard

APPLIED TOOLS

- Inspection
- Stormwater Policy

07/17/2025



10/14/2025



Case Study #4
Textile Manufacturer

APPLIED TOOLS

- Inspection
- Stormwater Policy



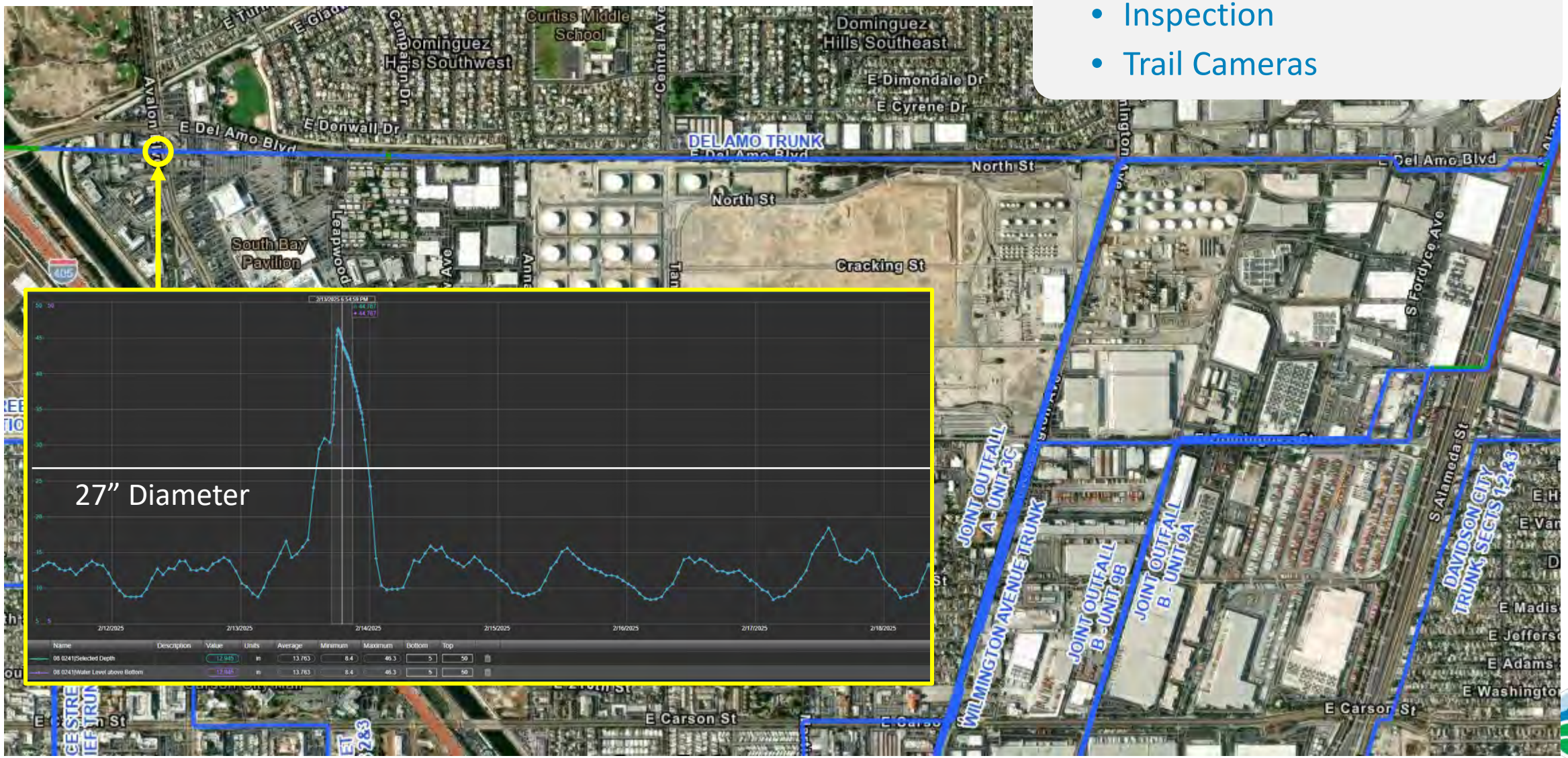


Case Study #5

Large Tank Farm

APPLIED TOOLS

- Flow Meter
- Inspection
- Trail Cameras

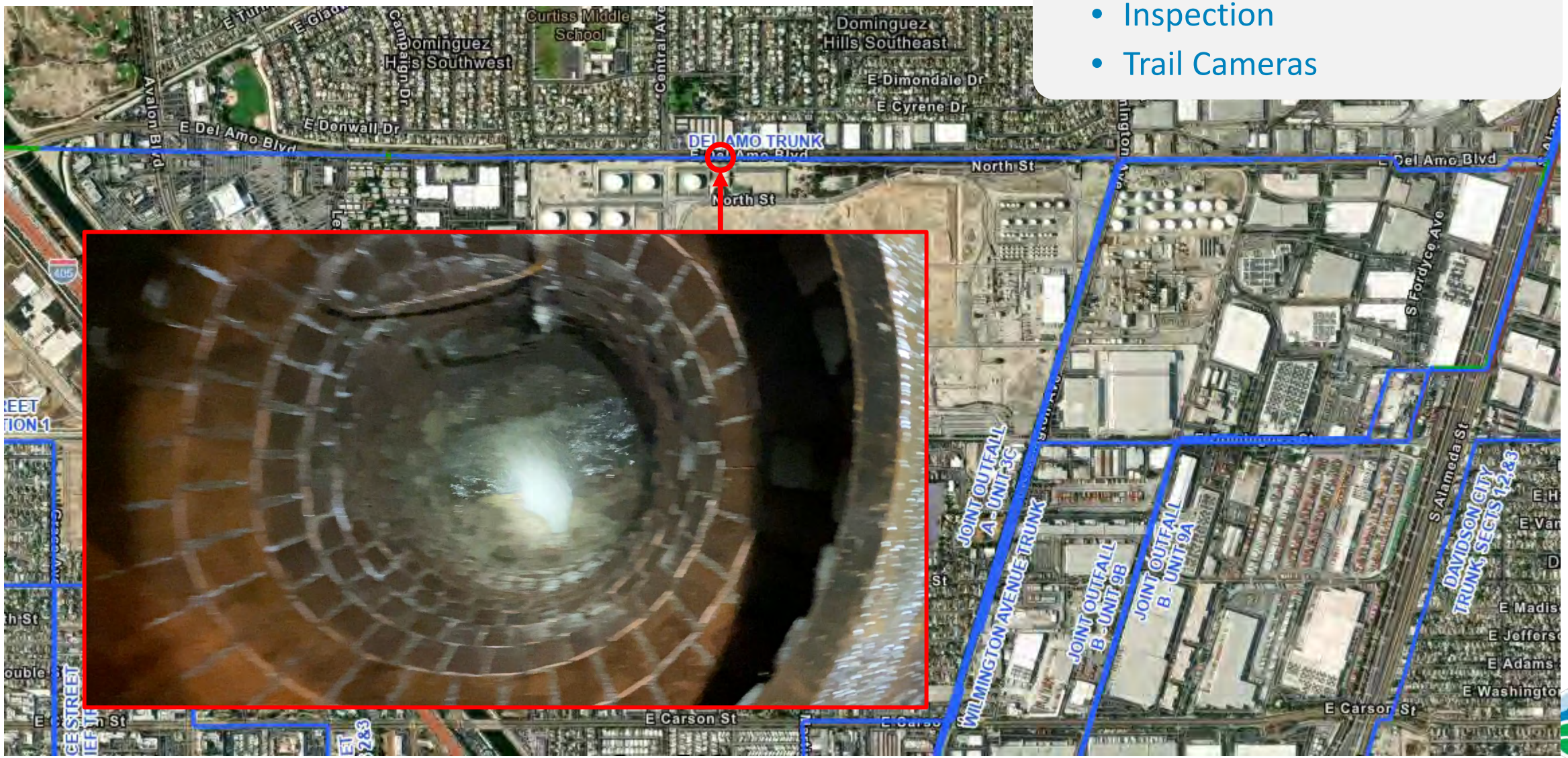


Case Study #5

Large Tank Farm

APPLIED TOOLS

- Flow Meter
- Inspection
- Trail Cameras



Trail Camera Set-Up







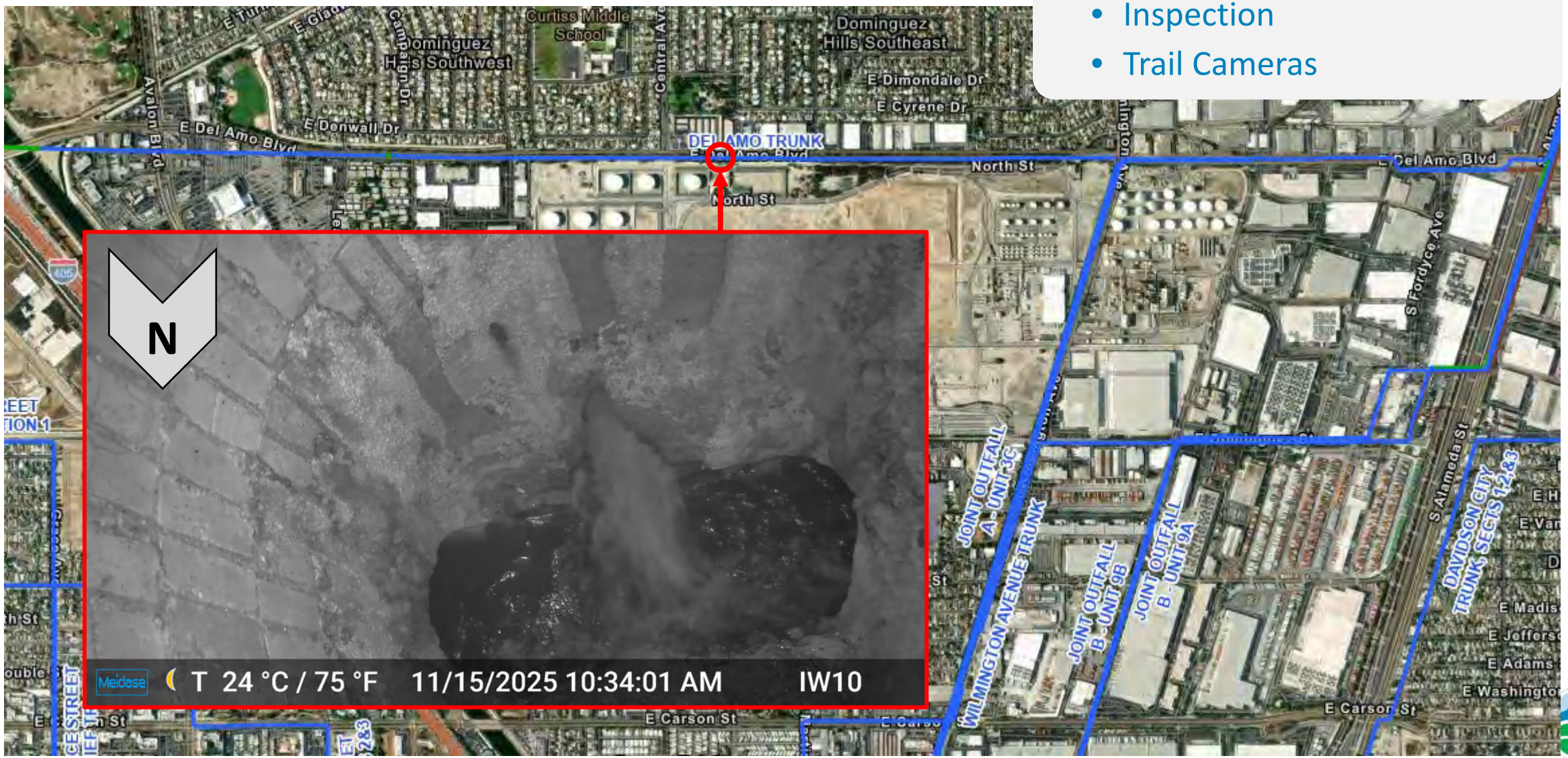


Case Study #5

Large Tank Farm

APPLIED TOOLS

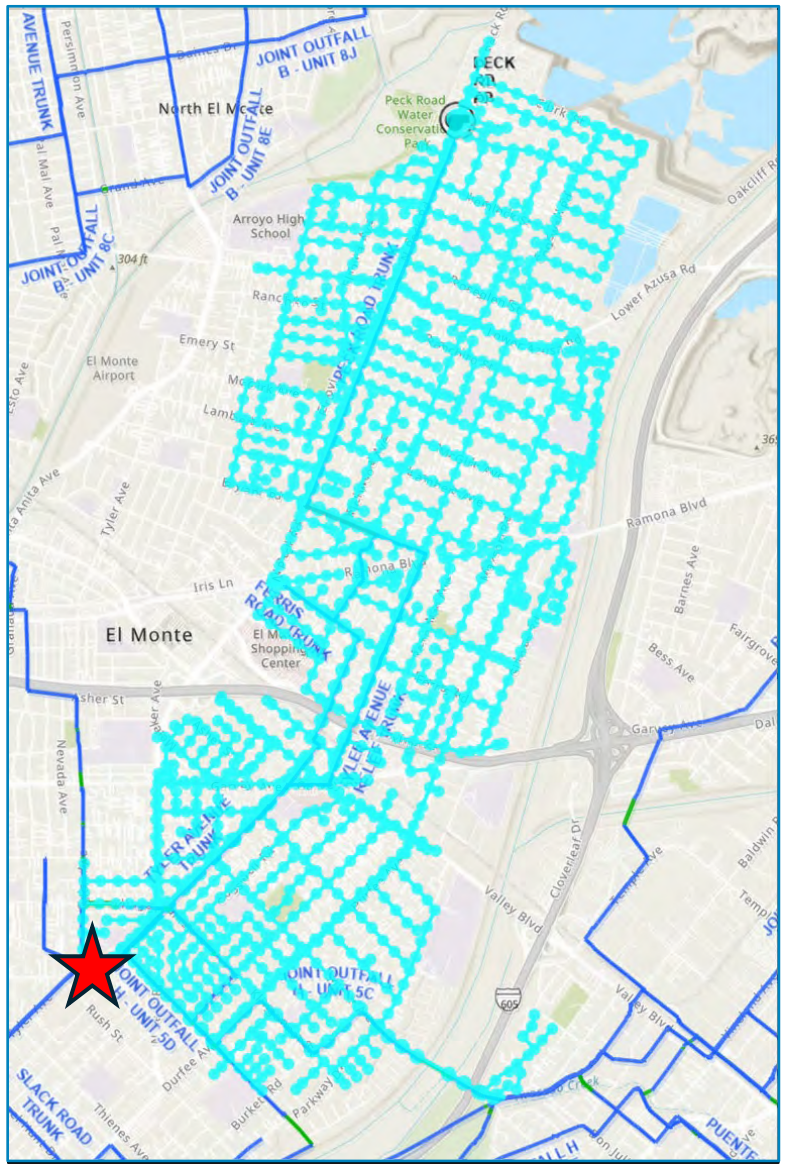
- Flow Meter
- Inspection
- Trail Cameras



Case Study #6

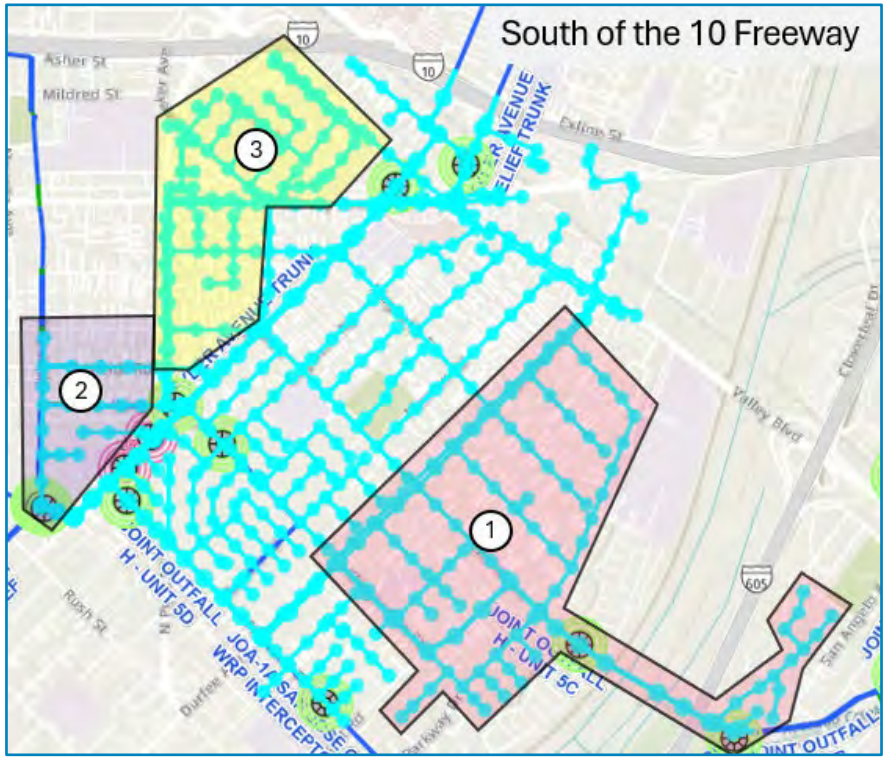
Trail Camera Investigation

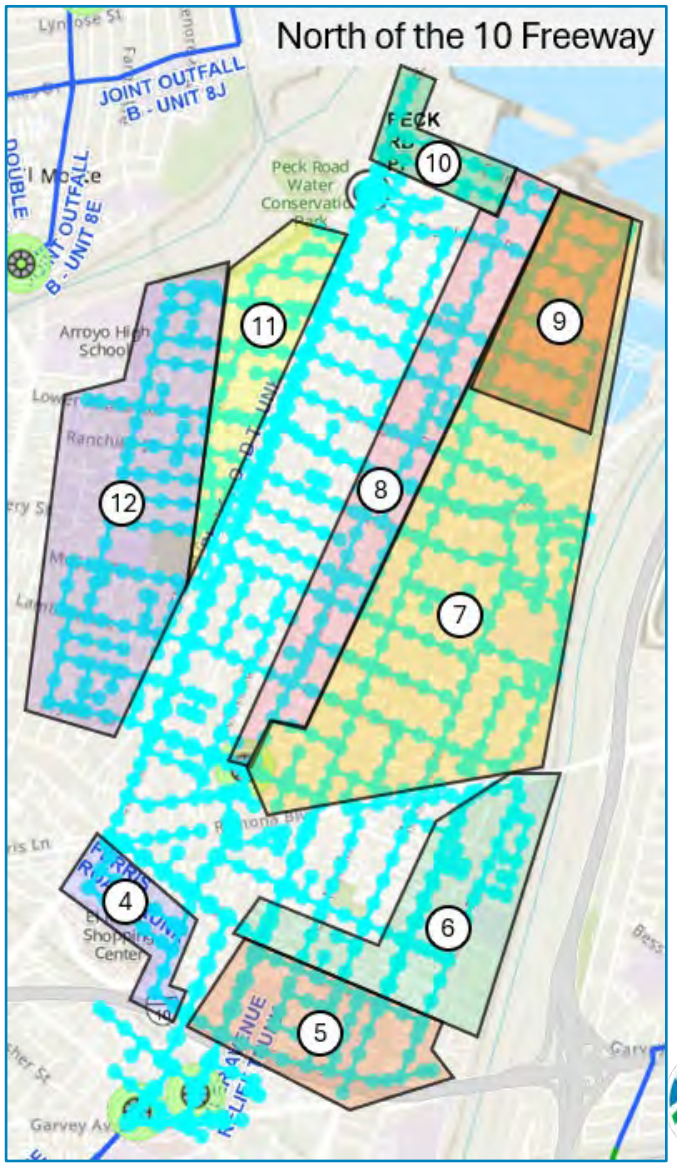
Arcadia
El Monte
South El Monte



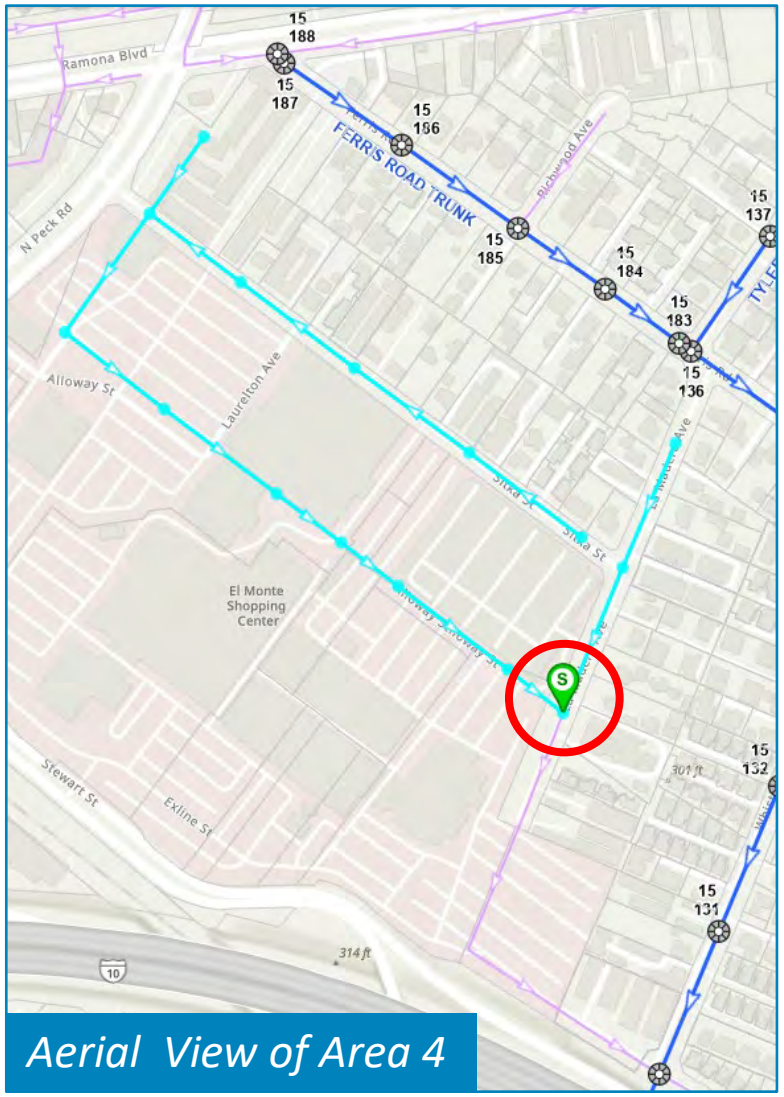
APPLIED TOOLS

- Flow Meter
- GIS
- Inspection
- Trail Cameras

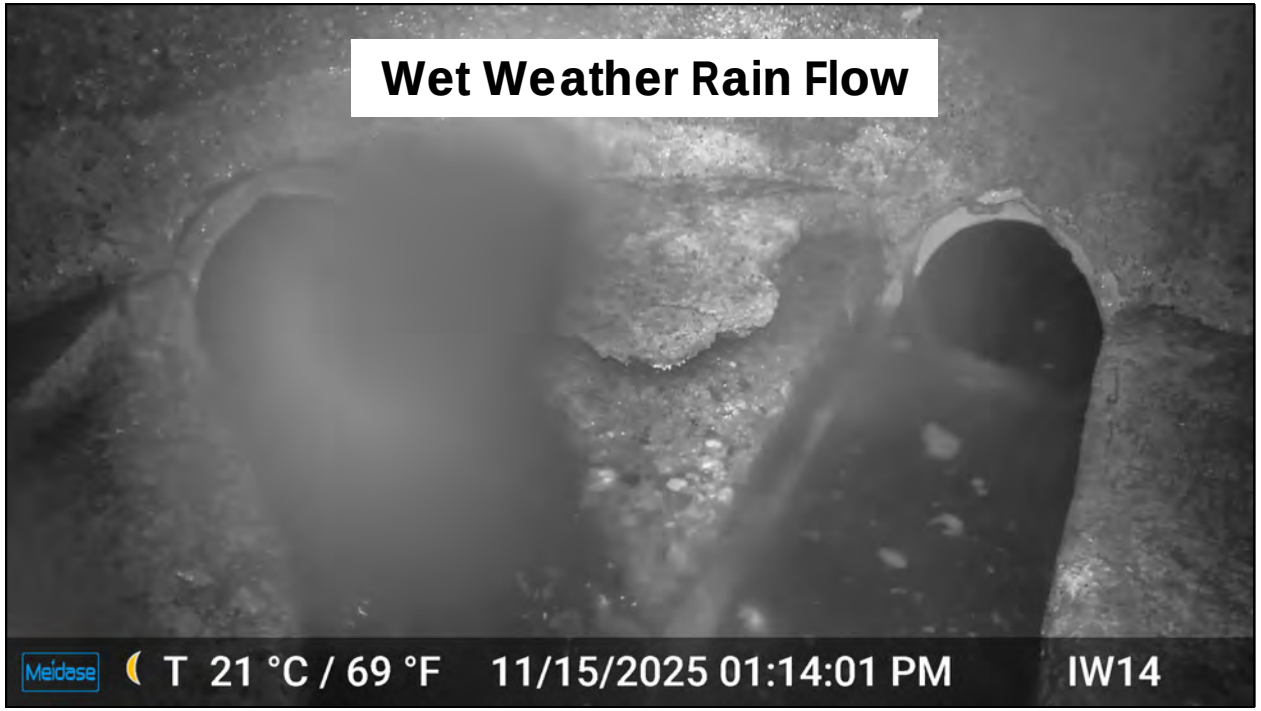


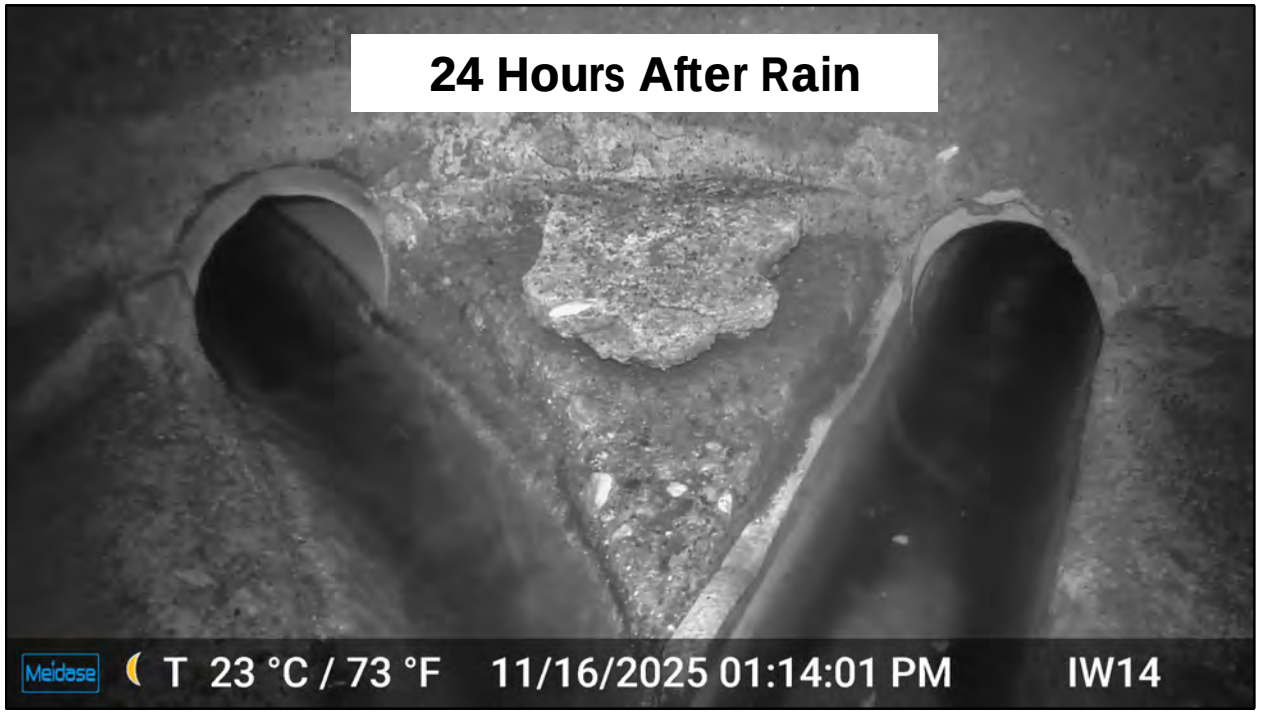


Case Study #6
Trail Camera Investigation



Aerial View of Area 4

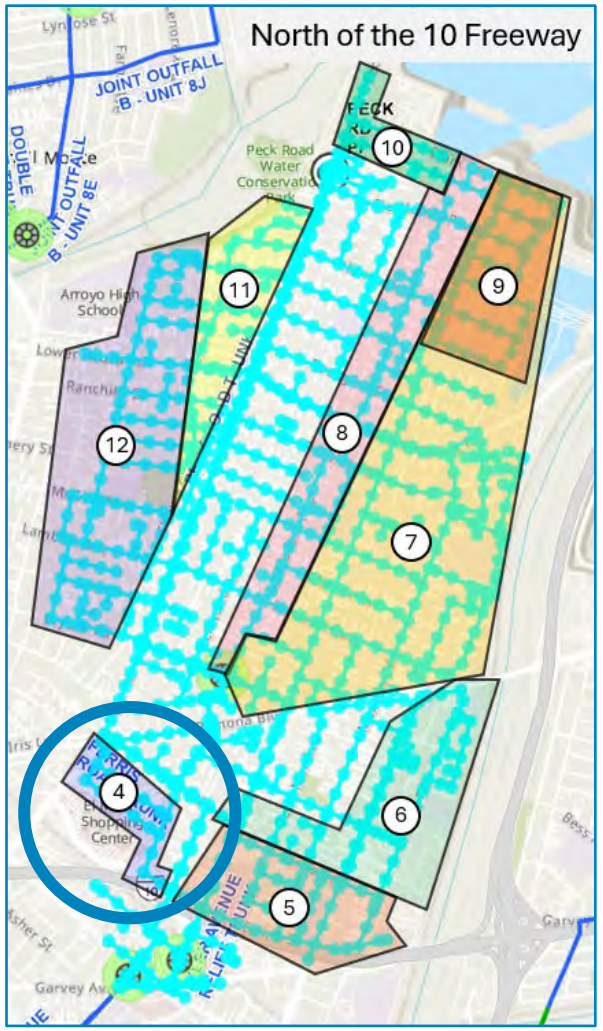




Case Study #6
Trail Camera Investigation

AREA CHARACTERISTICS

- 1 high-flow area
- Only local lines
- 18 manholes
- No permitted industrial users
- Large commercial area





Satellite View of Area 4

Case Study #6
Trail Camera Investigation

CAR DEALERSHIP

- 50 Acre Site
- 6 areas with Rainwater Inflow
- Total Inflow Area of 10,895 ft^2

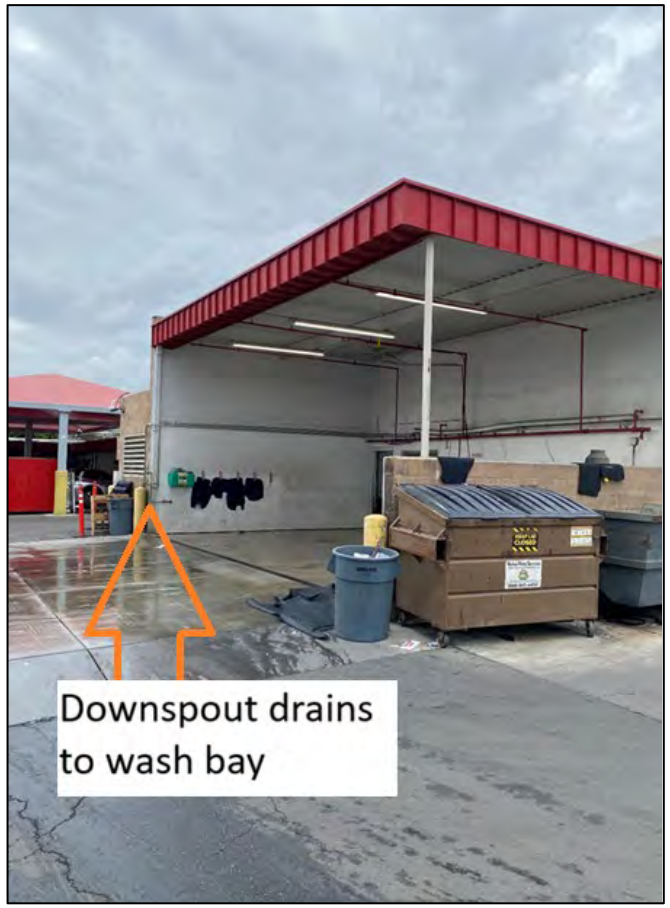


Case Study #6
Trail Camera Investigation

MAIN SOURCES OF INFLOW



Ramp to basement storage







Case Study #7
Altadena

3.5 million gallons of stormwater entered the sewer in Altadena





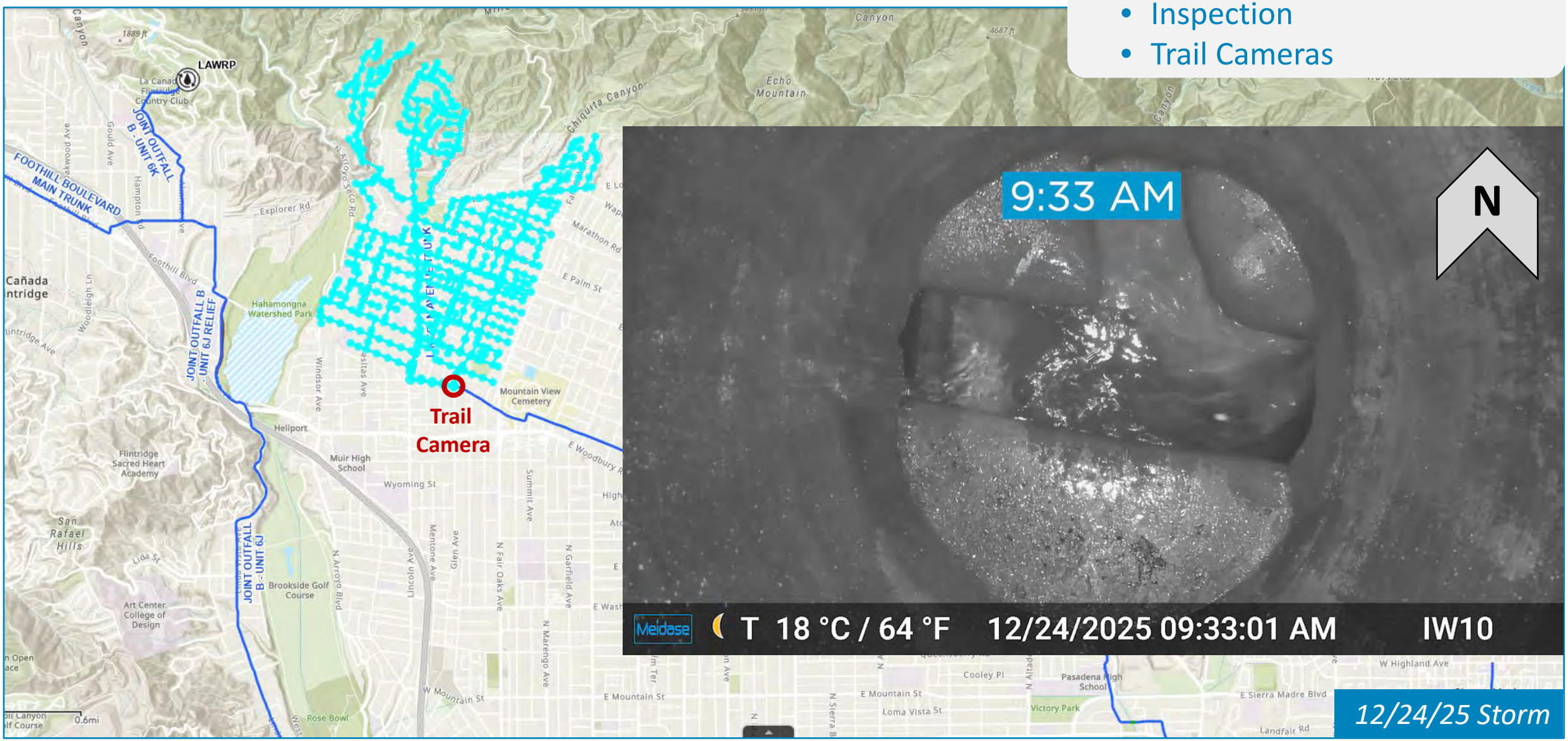
12/24/25 Storm

Case Study #7

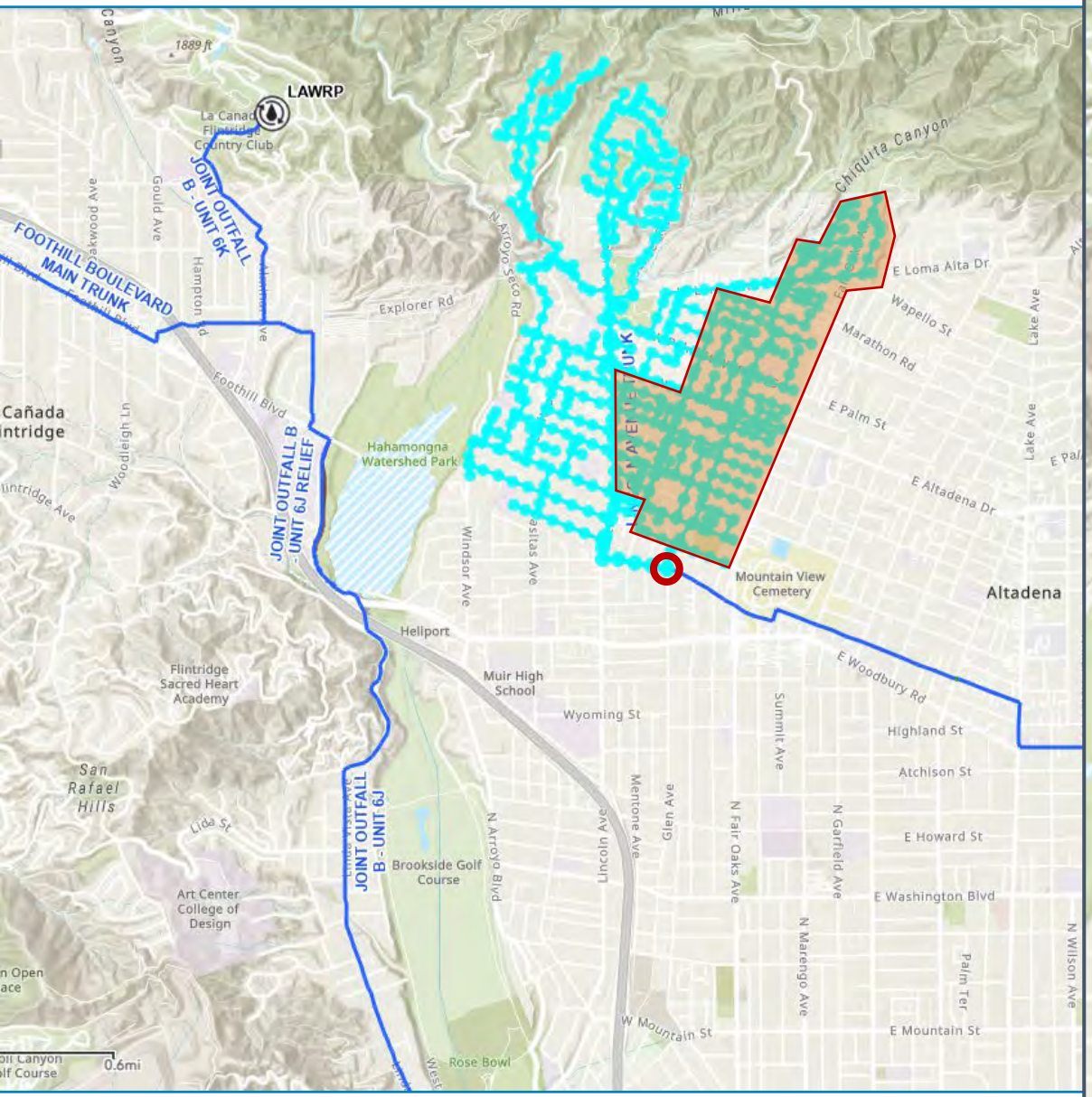
Altadena

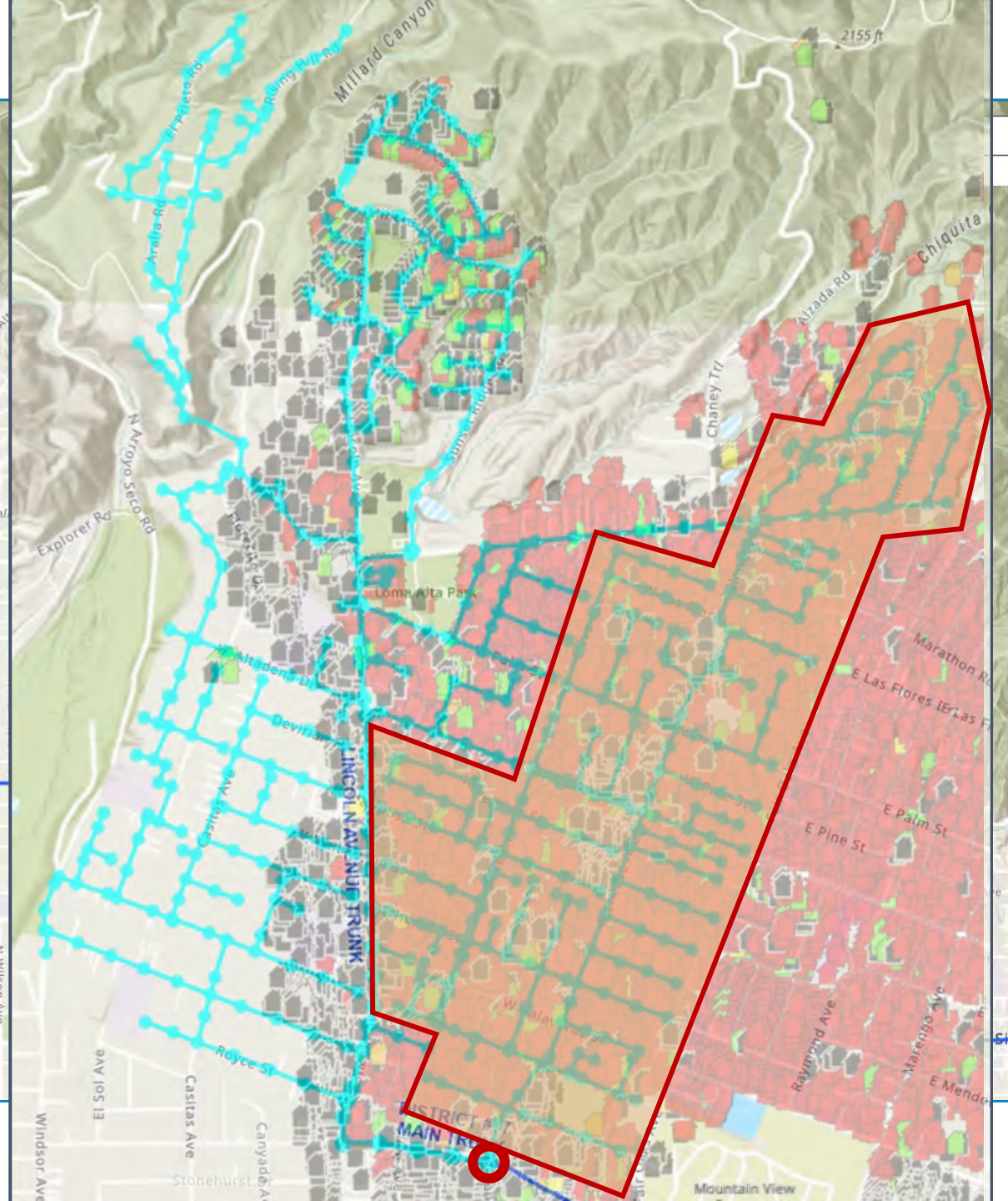
APPLIED TOOLS

- GIS
- Inspection
- Trail Cameras



12/24/25 Storm

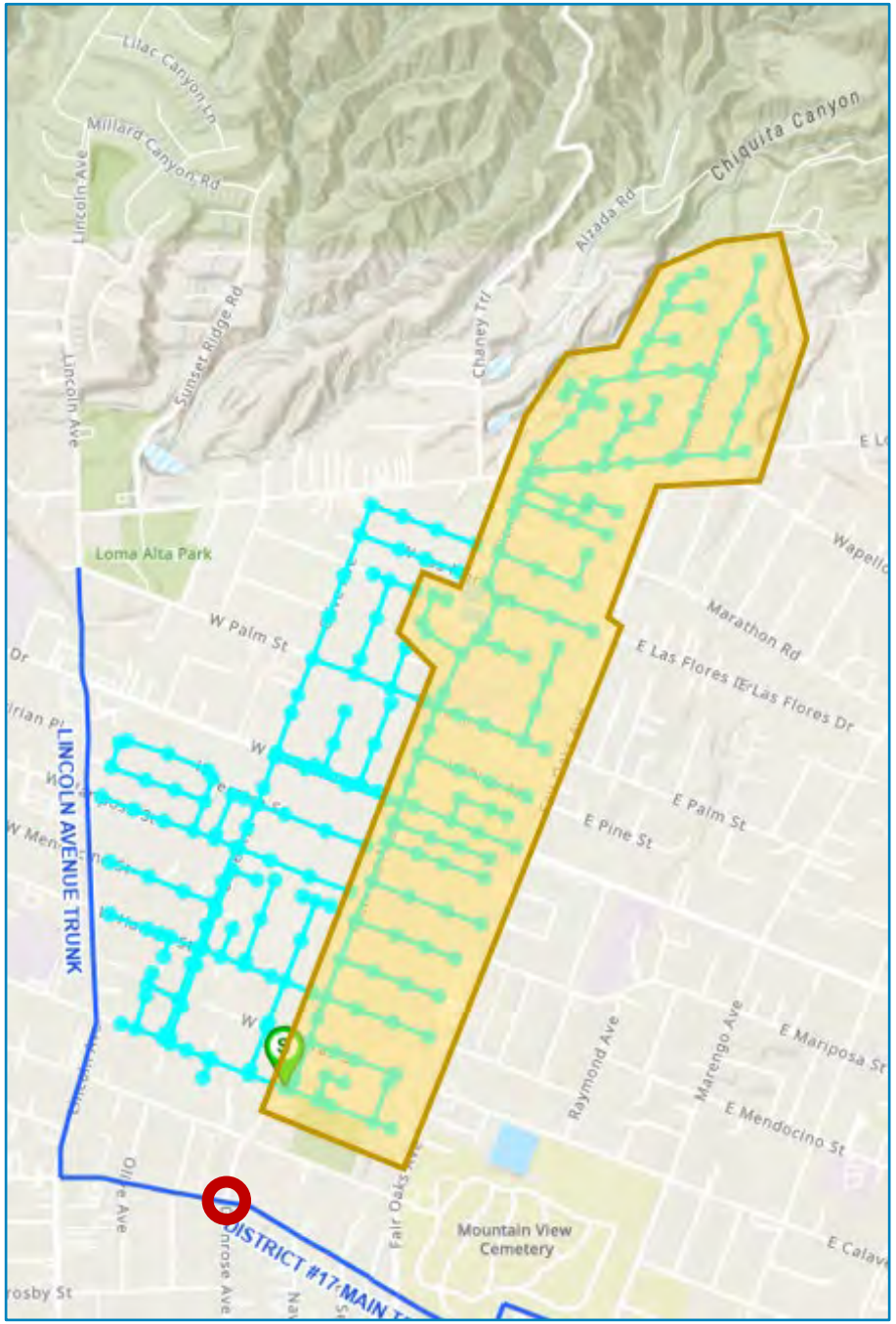

LAWRP
La Canada Flintridge Country Club
JOINT OUTFALL B - UNIT 6K
FOOTHILL BOULEVARD MAIN TRUNK
JOINT OUTFALL B - UNIT 6J RELIEF
JOINT OUTFALL B - UNIT 6J
Chiquita Canyon
Explorer Rd
Foothill Blvd
Hahamongna Watershed Park
Mountain View Cemetery
Altadena
Heliport
Flintridge Sacred Heart Academy
Muir High School
Wyoming St
Brookside Golf Course
Art Center College of Design
San Rafael Hills
Rose Bowl
E Loma Alta Dr
Wapello St
Marathon Rd
E Palm St
E Altadena Dr
E Woodbury Rd
Highland St
Atchison St
E Howard St
E Washington Blvd
E Mountain St
W Mountain St
Lake Ave
Windsor Ave
Lincoln Ave
Mentone Ave
Glen Ave
Summit Ave
N Fair Oaks Ave
N Garfield Ave
N Marengo Ave
Palm Ter
N Wilson Ave
N Arroyo Blvd
N Arroyo Seco Rd
Gould Ave
Hampton Rd
Woodleigh Ln
Lida St
0.6mi


Millard Canyon
2155 ft
Chiquita
Alzada Rd
Chaney Trl
Sunset Rd
Arella Rd
Rolling Hill Rd
N Arroyo Seco Rd
Explorer Rd
Loma Alta Park
Marathon Rd
E Las Flores Dr
E Palm St
E Pine St
Raymond Ave
Marengo Ave
Casitas Ave
El Sol Ave
Windsor Ave
Royce St
Stonehurst Ave
LINCOLN AVE TRUNK
DISTRICT #1
MAIN TRK
Mountain View


Lookout Point
3384 ft
Little Santa Anita Canyon
N Baldwin Ave
Sierra Madre

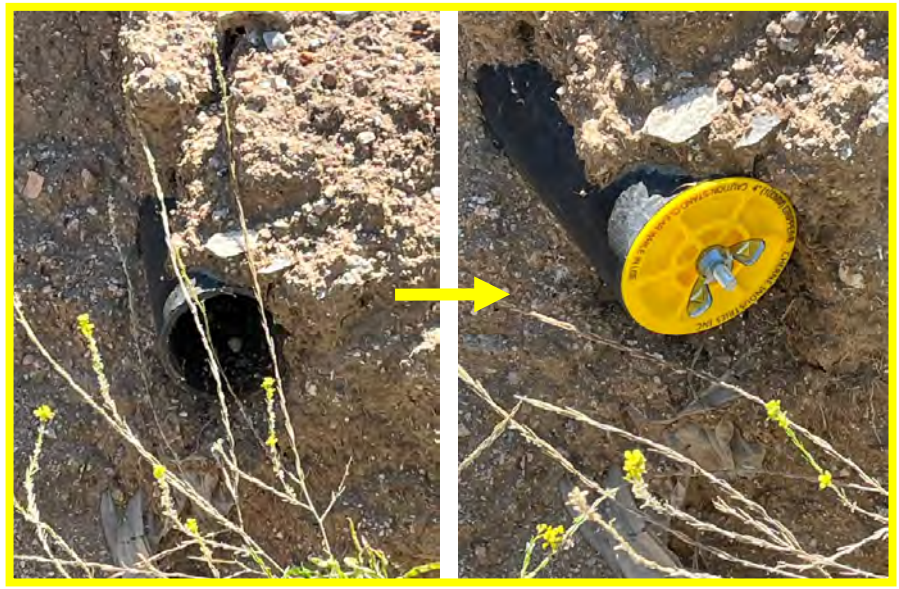

24 Hours Before Rain
N
Meidase
T 19 °C / 66 °F
02/10/2026 01:19:01 AM
IW01

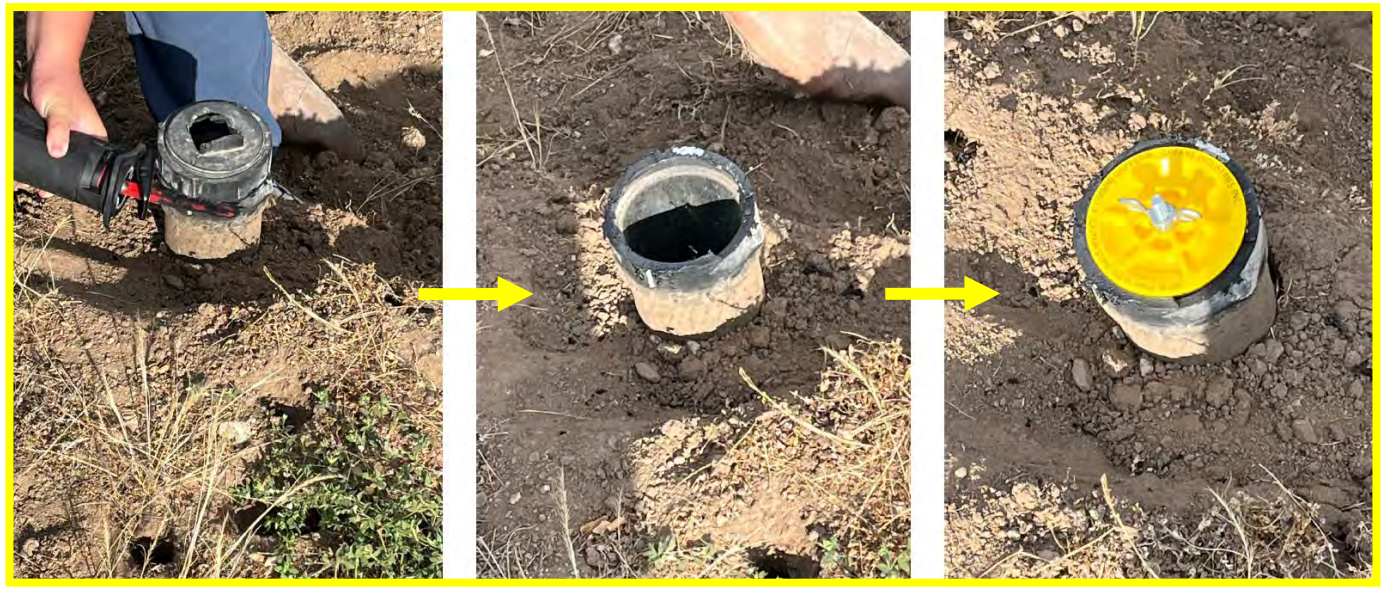

Wet Weather Rain Flow
N
Meidase
T 18 °C / 64 °F
02/11/2026 01:19:01 AM
IW01


Lilac Canyon Ln
Millard Canyon Rd
Lincoln Ave
Chiquita Canyon
Alzada Rd
Sunset Ridge Rd
Chaney Trl
Loma Alta Park
W Palm St
Marathon Rd
E Las Flores Dr
E Palm St
E Pine St
LINCOLN AVENUE TRUNK
Raymond Ave
Marengo Ave
E Mariposa St
E Mendocino St
Fair Oaks Ave
DISTRICT #17 MAIN
Mountain View Cemetery

Case Study #7

Altadena

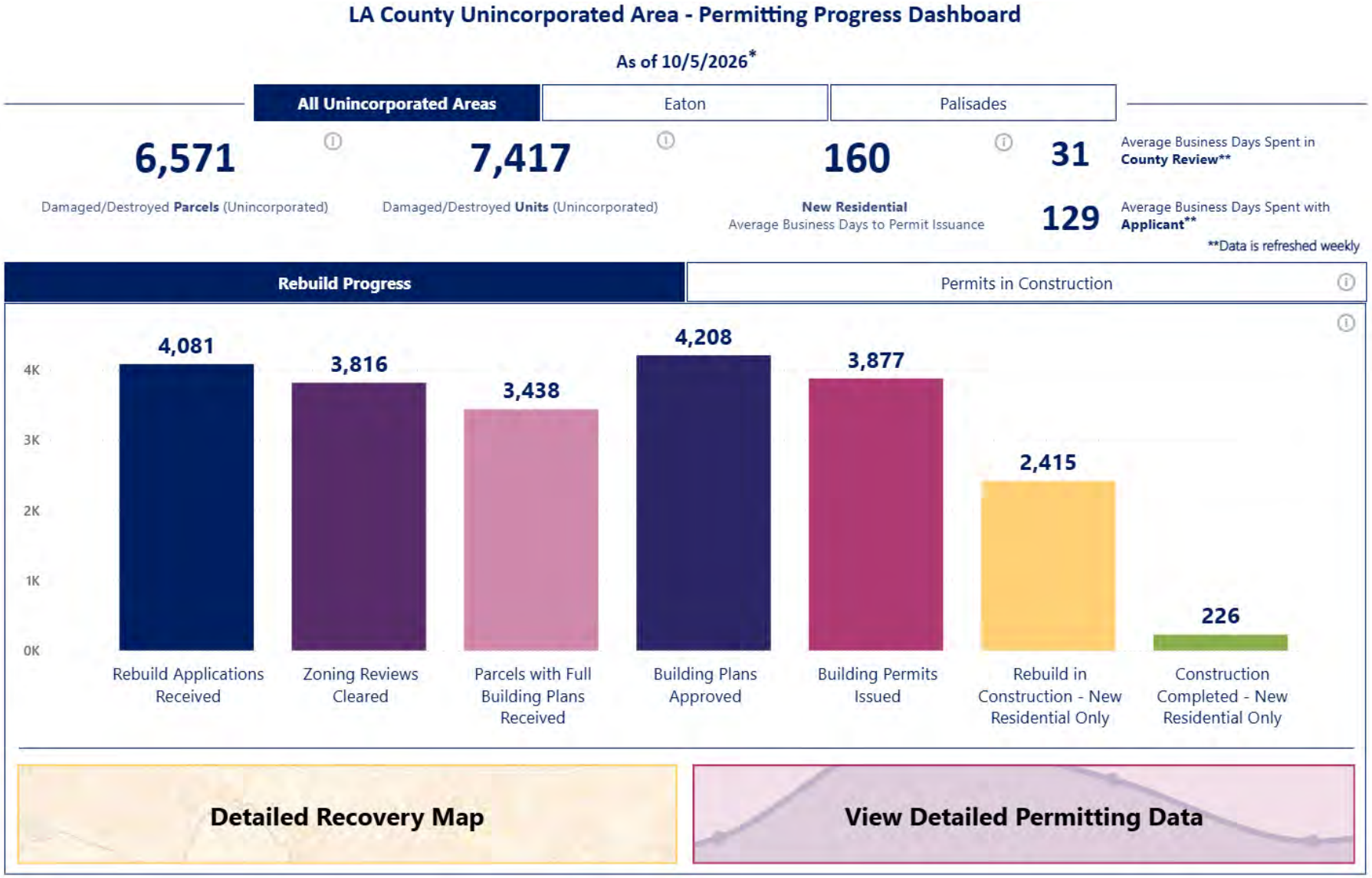








Case Study #7
Altadena




I&I reduction is an ongoing effort

LOS ANGELES COUNTY
SANITATION DISTRICTS
Converting Waste Into Resources

Contact Information

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LOS ANGELES COUNTY
SANITATION DISTRICTS
Converting Waste Into Resources

Questions?

