

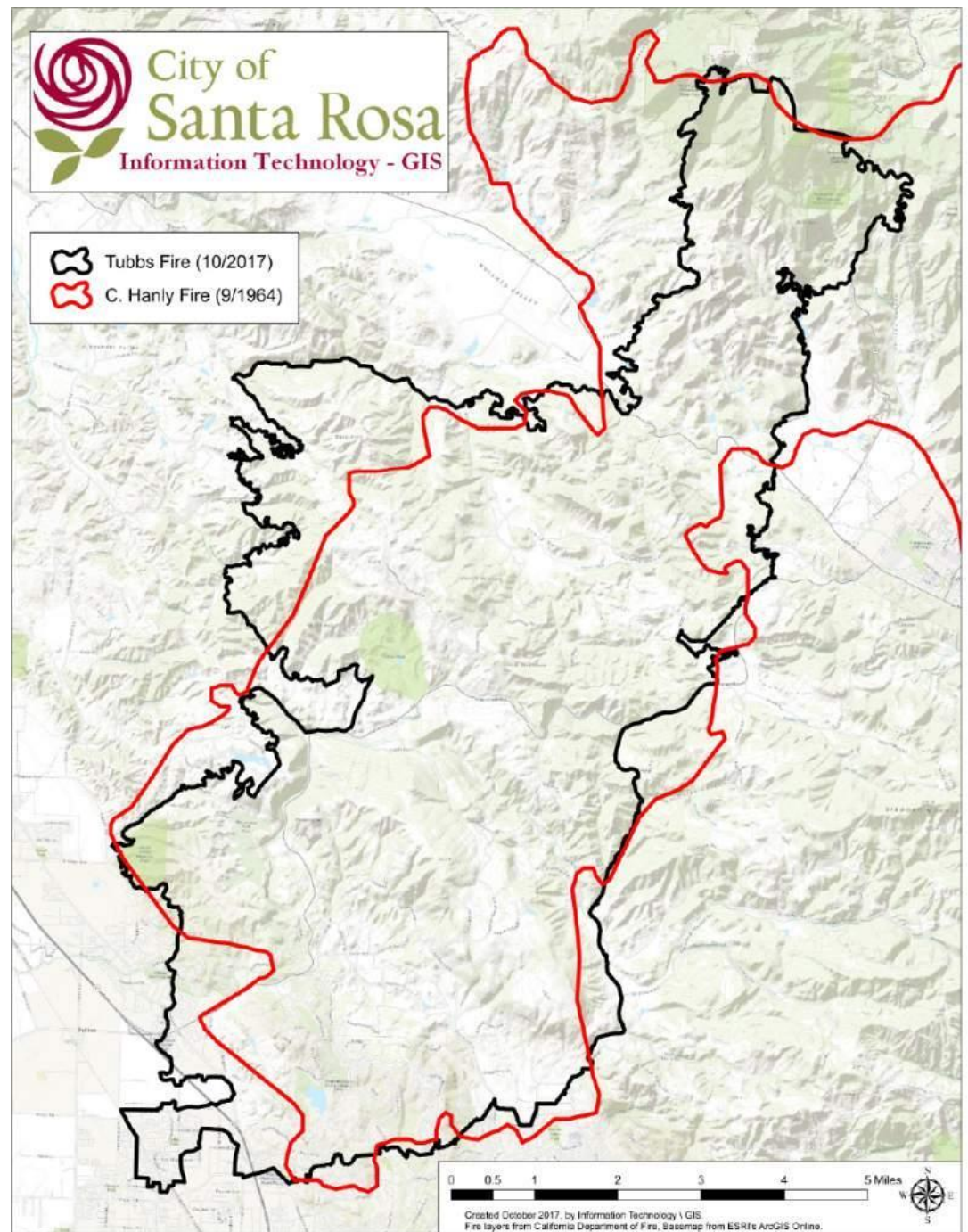


Sifting Through the Debris/Data:

Recovery & Resiliency in Santa Rosa

Tubbs Fire

- ▶ Tubbs fire crossed into Santa Rosa early on October 9, 2017





Impacts

- The most destructive fire in California history
 - \$9.27B in insured losses (Sonoma & Napa Counties)
 - 24 fatalities countywide (9 within City limits)
 - 3,096 structures destroyed in City limits
 - 36,807 acres burned (Sonoma & Napa Counties)

Debris Removal



- ▶ 2.2 million tons of debris were removed from Sonoma, Lake, Mendocino and Napa counties
- ▶ Equal to the weight of more than two Golden Gate bridges
- ▶ 1.9 of the 2.2 million were from 3,674 parcels in Sonoma County alone

1

Lean into
everything

2

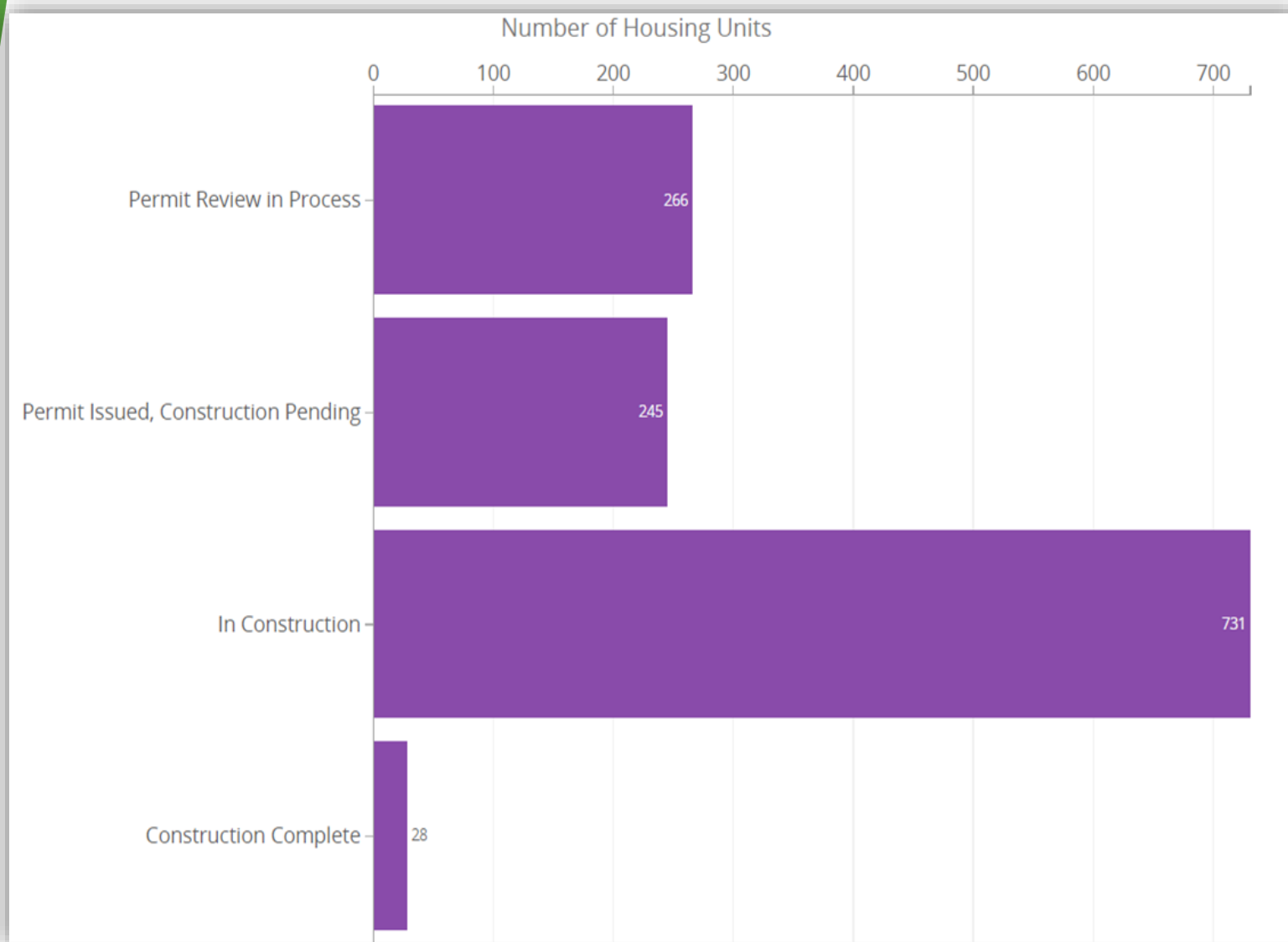
Make decisions by
putting yourself in
their place

3

Restore trust and
confidence

Tenants of Recovery

Recovery to Date*

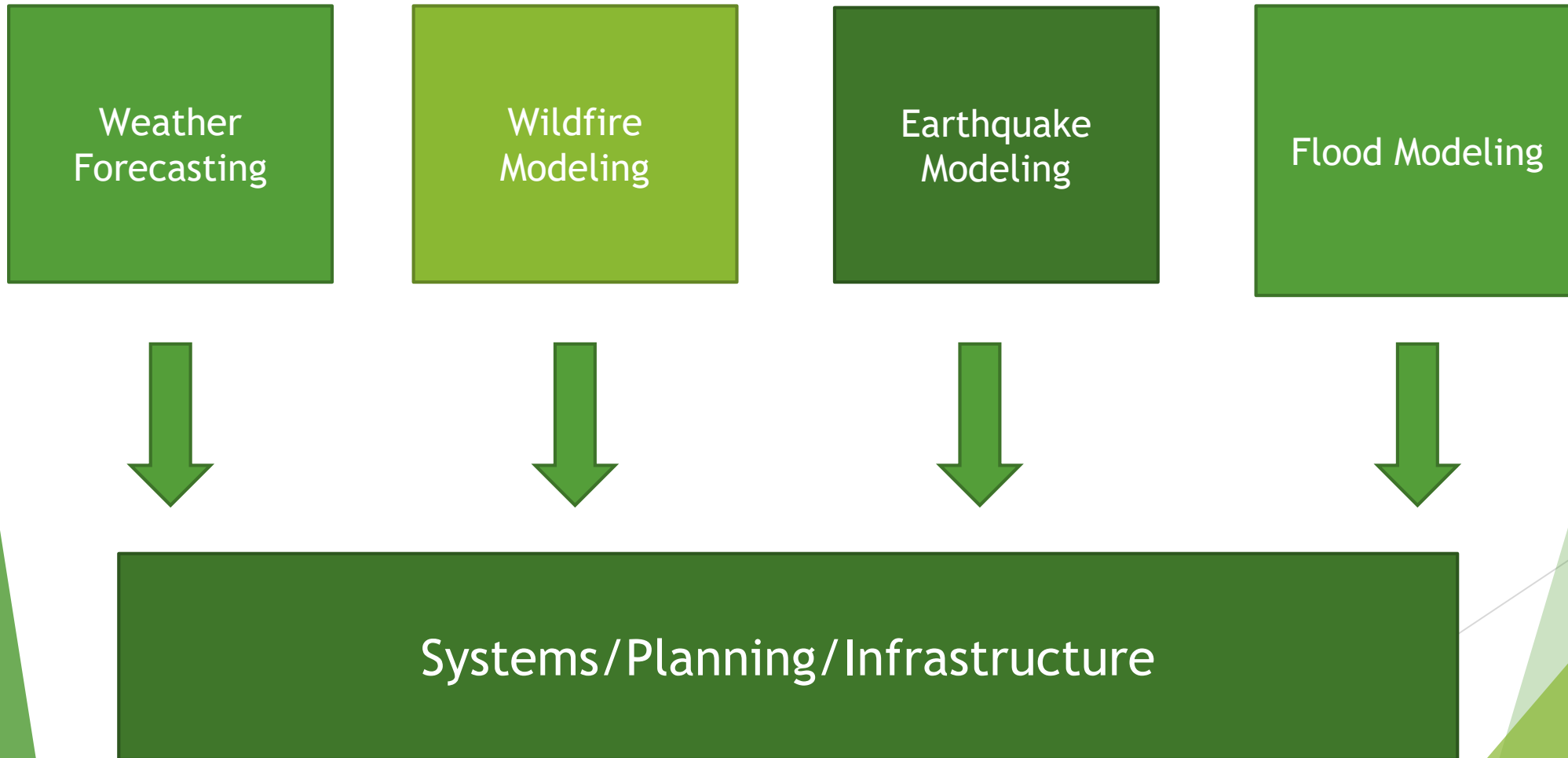


▶ 1270 in the rebuild process

*10/1/18

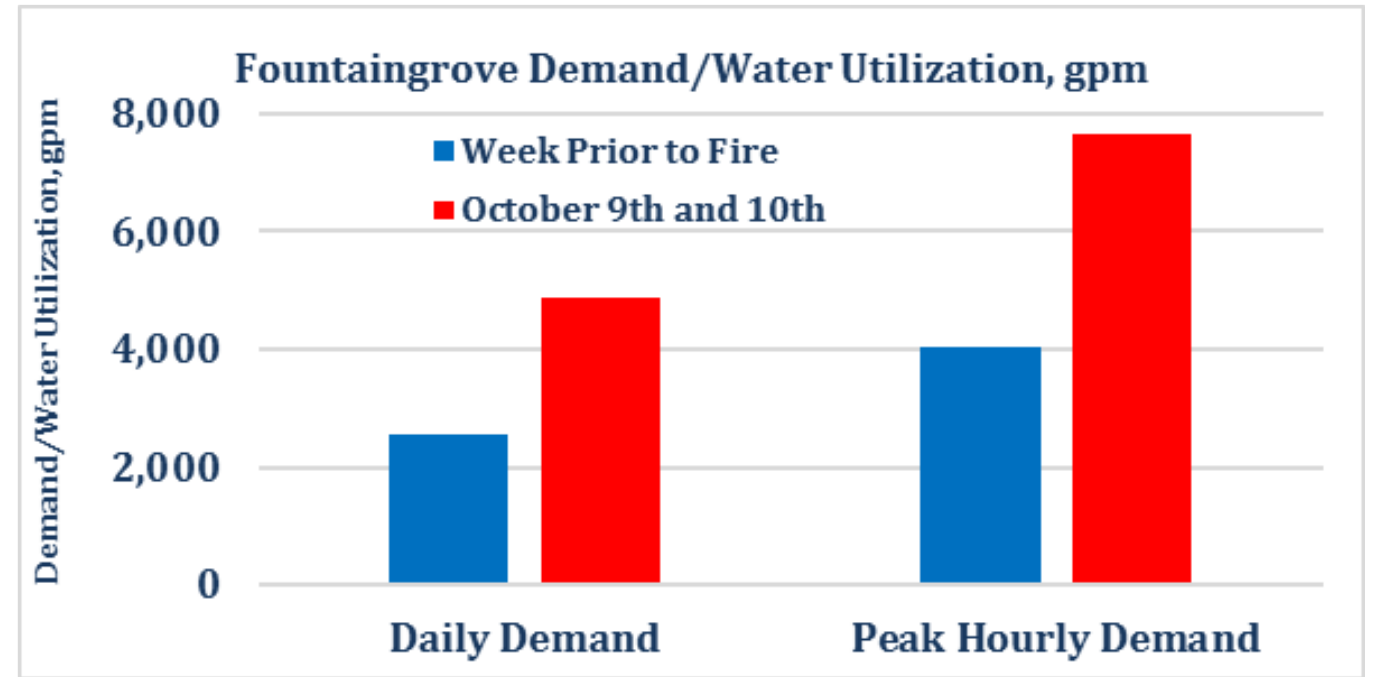
Data = Resiliency

Risk Monitoring & Reporting Tools



Case Study #1: Impact on Distribution System

- ▶ Demand skyrocketed beyond the normal & continued for hours, causing storage to drain quickly
- ▶ Demand came from firefighting efforts, including from residents, supply flowing freely from damaged lines, taps, etc.
- ▶ In most cases pumps continued to pump but could not maintain normal system pressures
- ▶ Supply could not recover until freely flowing services could be identified and closed

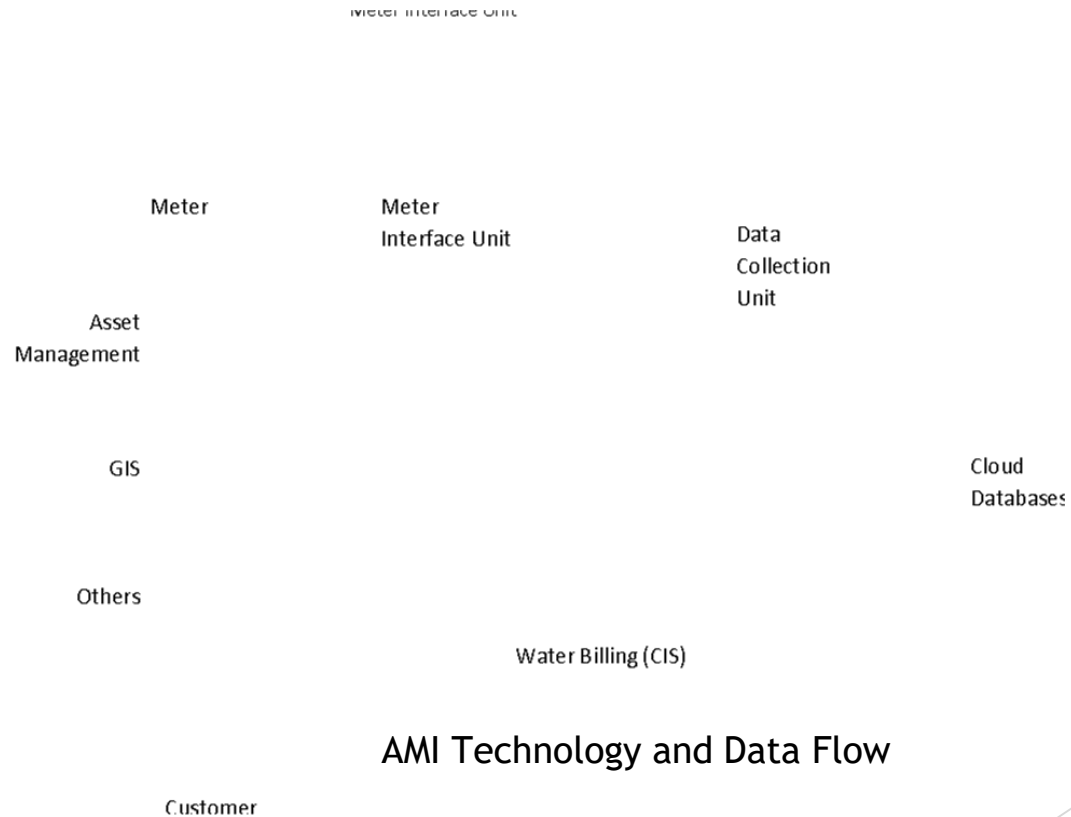




- Water distribution system operated as designed and meets fire flow goals.
- System was pumping, where there was suction head, but could not regain tank levels until flowing pipes were shut-off.

Advanced Metering Infrastructure

- Integrated System
 - Meters
 - Communications networks
 - Data management systems
 - Two-way communication between Santa Rosa Water and meters



Red Flag Conditions

▶ This is the City of Santa Rosa's start to document and identify infrastructure limitations through that period and better communicate those between the Water department and Fire department.

Name of Reporting Party *

Title *

Department * Department

Job Title * Job Title

Date of Event *

Incident Reported * Incident Reported

Other Description

Location ID *

Location Address *

Description of issue/problem *

People Notified *

Type of Notification * Email
 City Phone
 Cell Phone
 Voicemail
 Other

Other Type of Notification

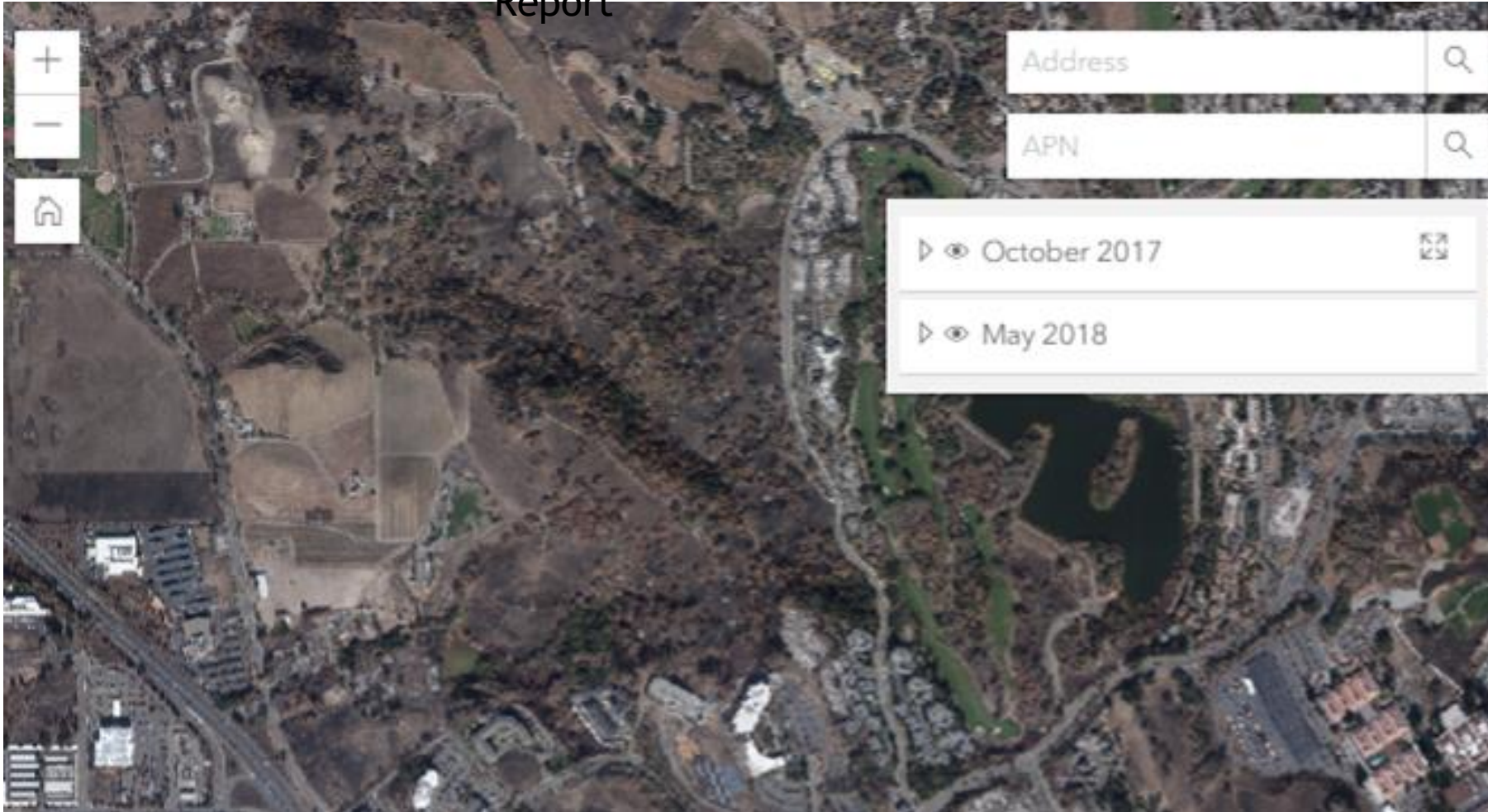
Date Returned to Normal Status

People Notified Returned to Normal

Type of Notification for Normal Status

Tools & Dashboards = Confidence

Resilient City Parcel
Report



Investigative Sampling

Water Quality Sampling Results

- Sample Station
Samples taken at sample stations are representative of drinking water quality supplied to homes and businesses in the area.

Investigative Sampling Results for Benzene

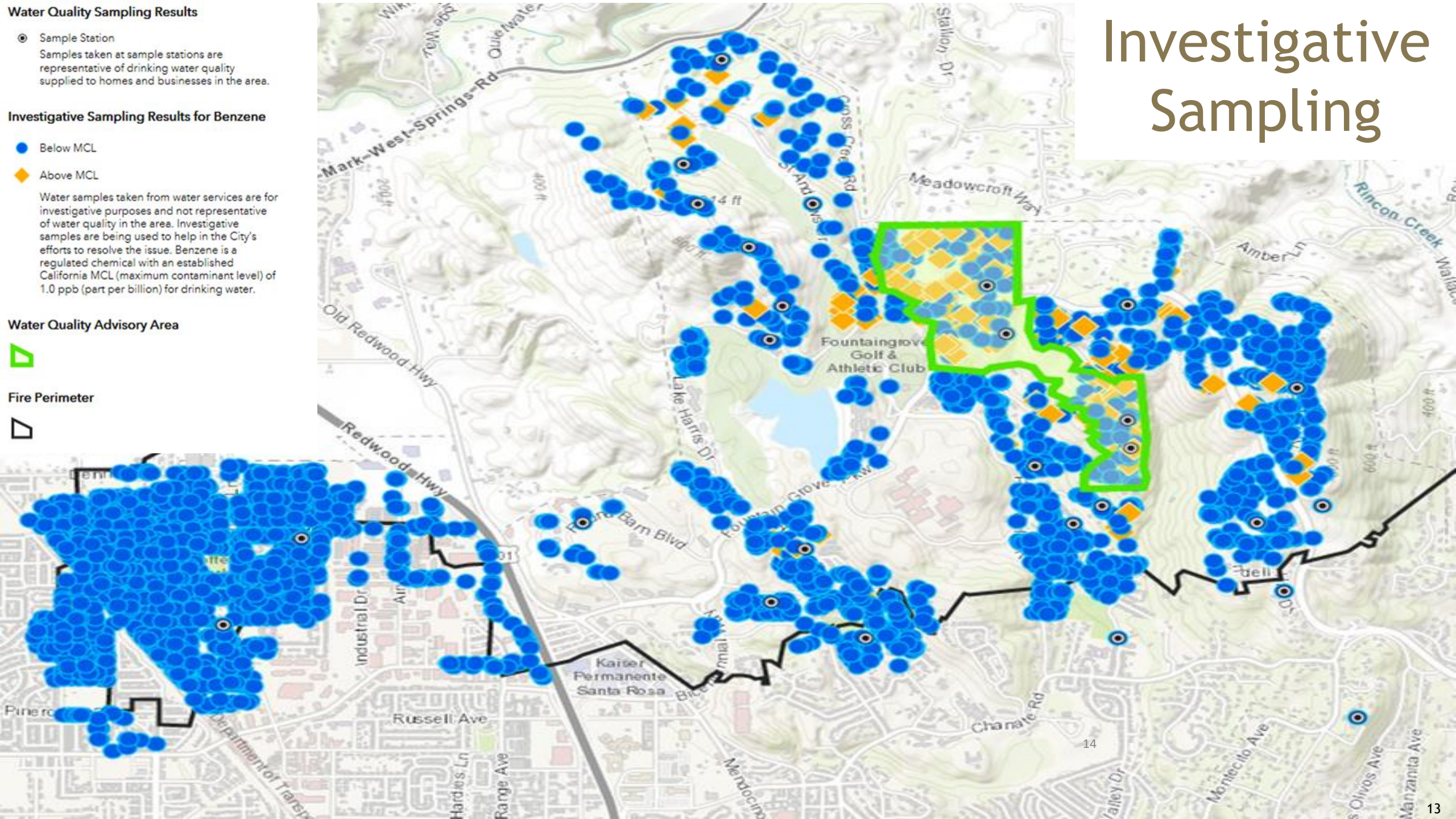
- Below MCL
- ◆ Above MCL

Water samples taken from water services are for investigative purposes and not representative of water quality in the area. Investigative samples are being used to help in the City's efforts to resolve the issue. Benzene is a regulated chemical with an established California MCL (maximum contaminant level) of 1.0 ppb (part per billion) for drinking water.

Water Quality Advisory Area



Fire Perimeter



Knowledge Gaps & Assumptions = ???

Unmet Needs:

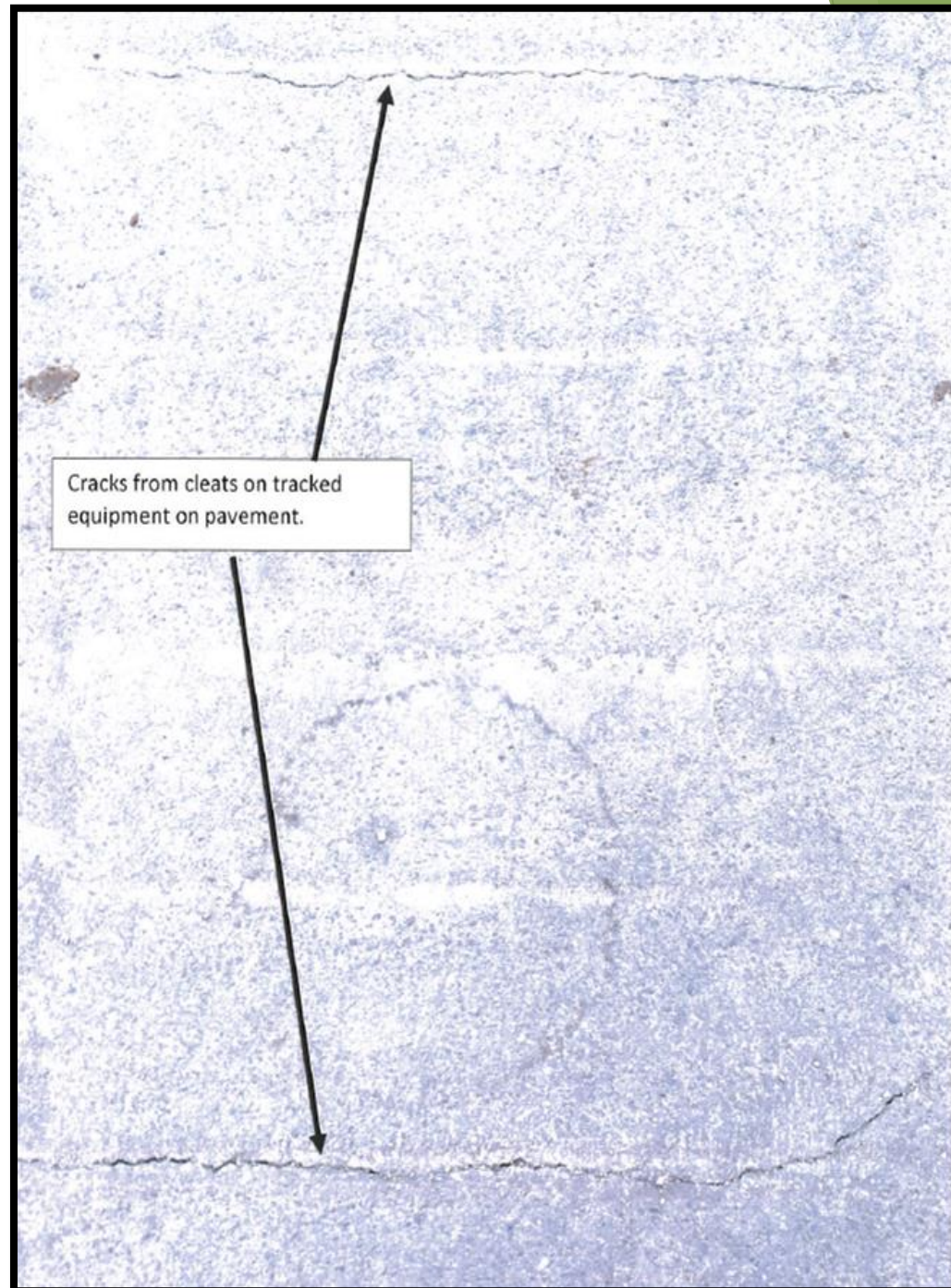
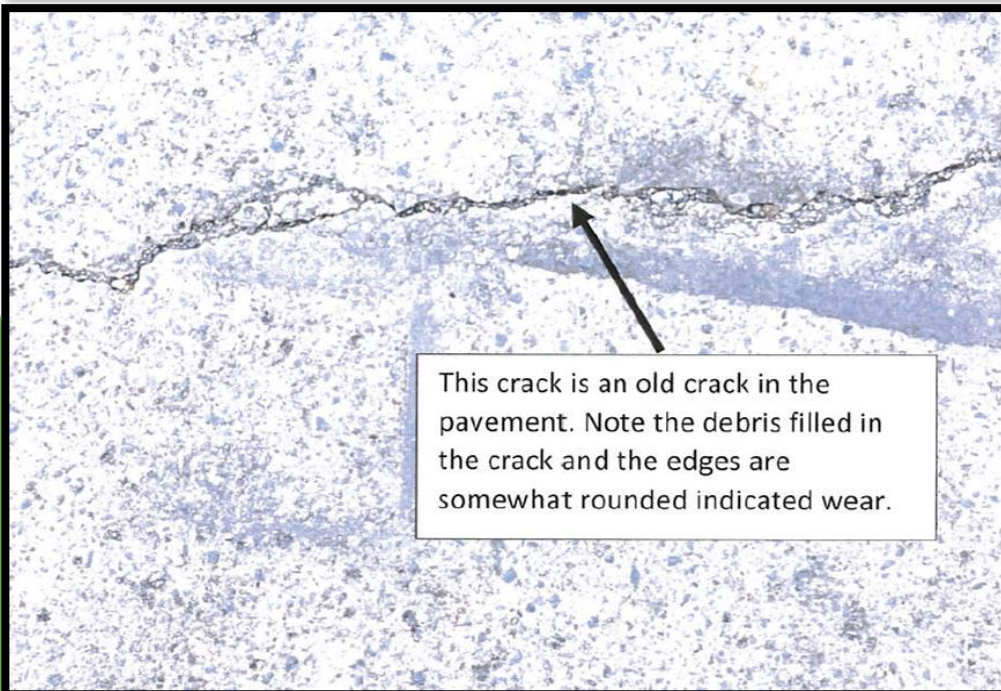
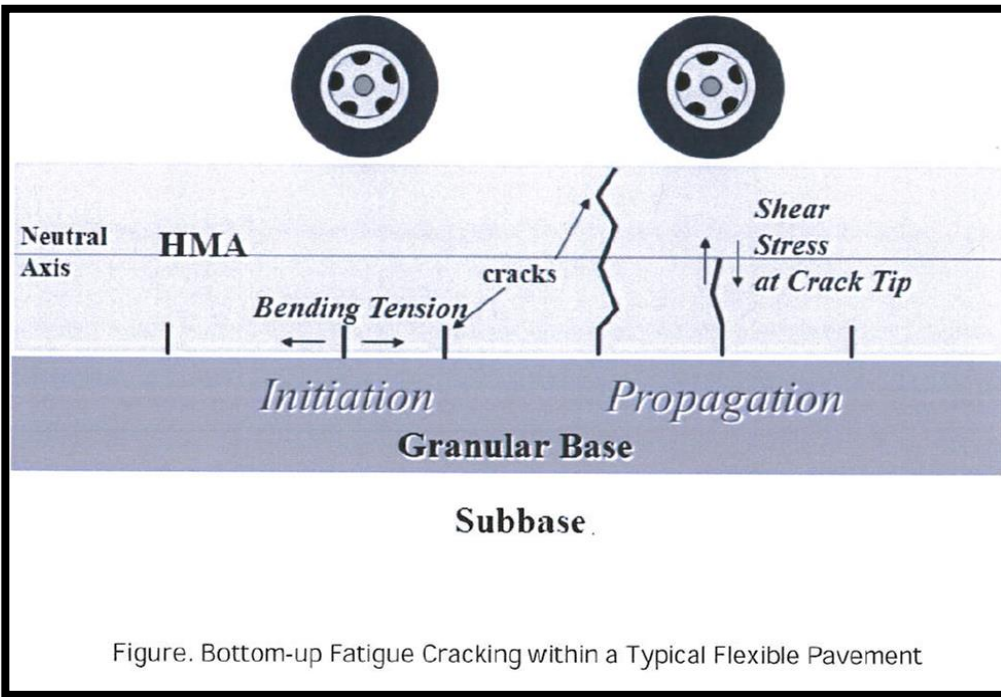
- ▶ Where did people go?
- ▶ What are their challenges?
- ▶ Who got left out?

Case Study #2: Roadway Damage

FEMA: “We will
lean into it”

City: “OK.
What do you
need?”

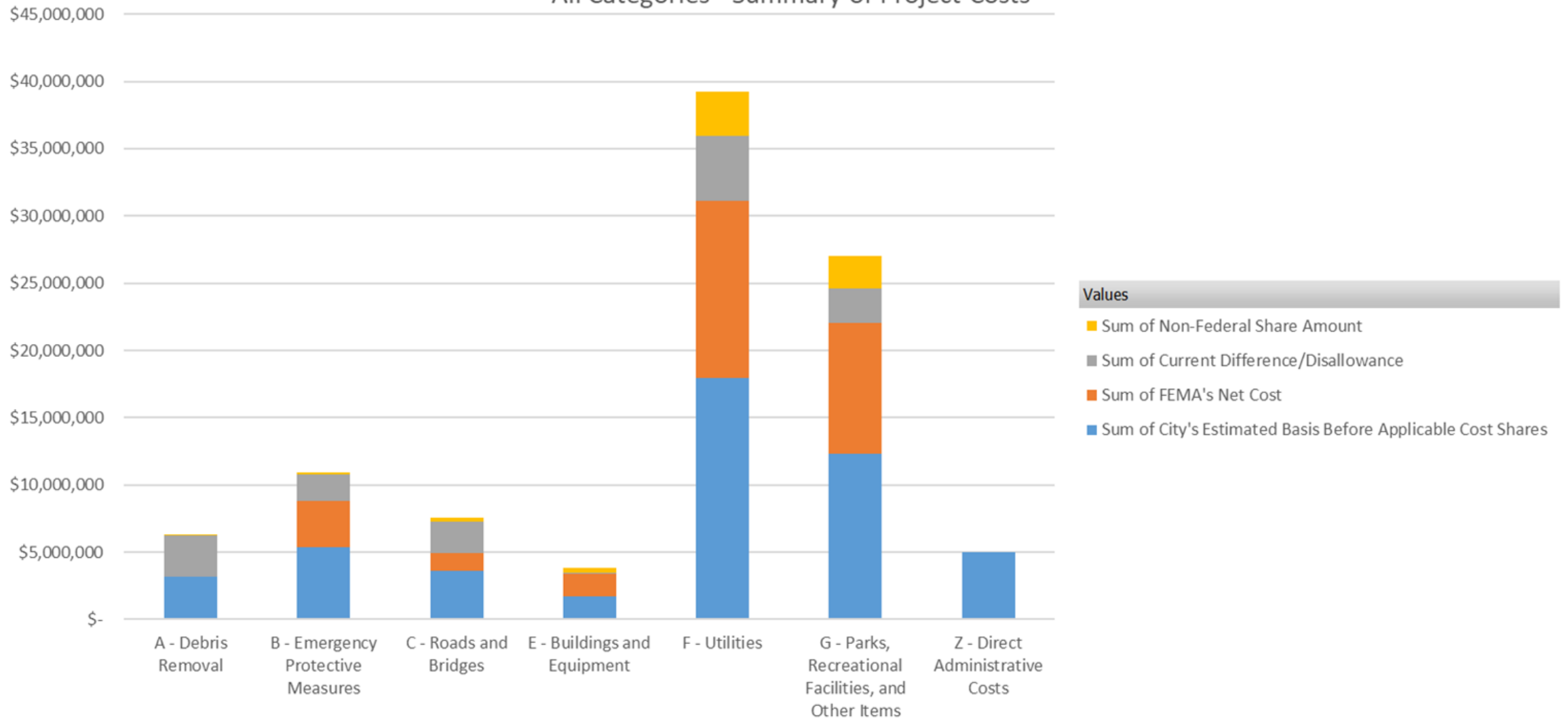
FEMA: “You to
prove it”



PA Project Dashboard

Sum of City's Estimated Basis Before Applicable Cost Shares Sum of FEMA's Net Cost Sum of Current Difference/Disallowance Sum of Non-Federal Share Amount

All Categories - Summary of Project Costs



Future Resiliency Measures

- Rethinking Regional Efforts: Emergency Council and Vegetation Management
- Downtown Specific and General Plans
- Relocation of Fire Station 5



Sean McGlynn
City Manager
Santa Rosa, CA
smcglynn@srcity.org