

# Santa Rosa Water Fire Disaster Update



OUR FUTURE IN EVERY DRÖP

# Fire Disaster Update

- Emergency Response
- Recovery
- Watershed Protection
- Subregional Impacts
- Revenue Impacts



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# Emergency Response

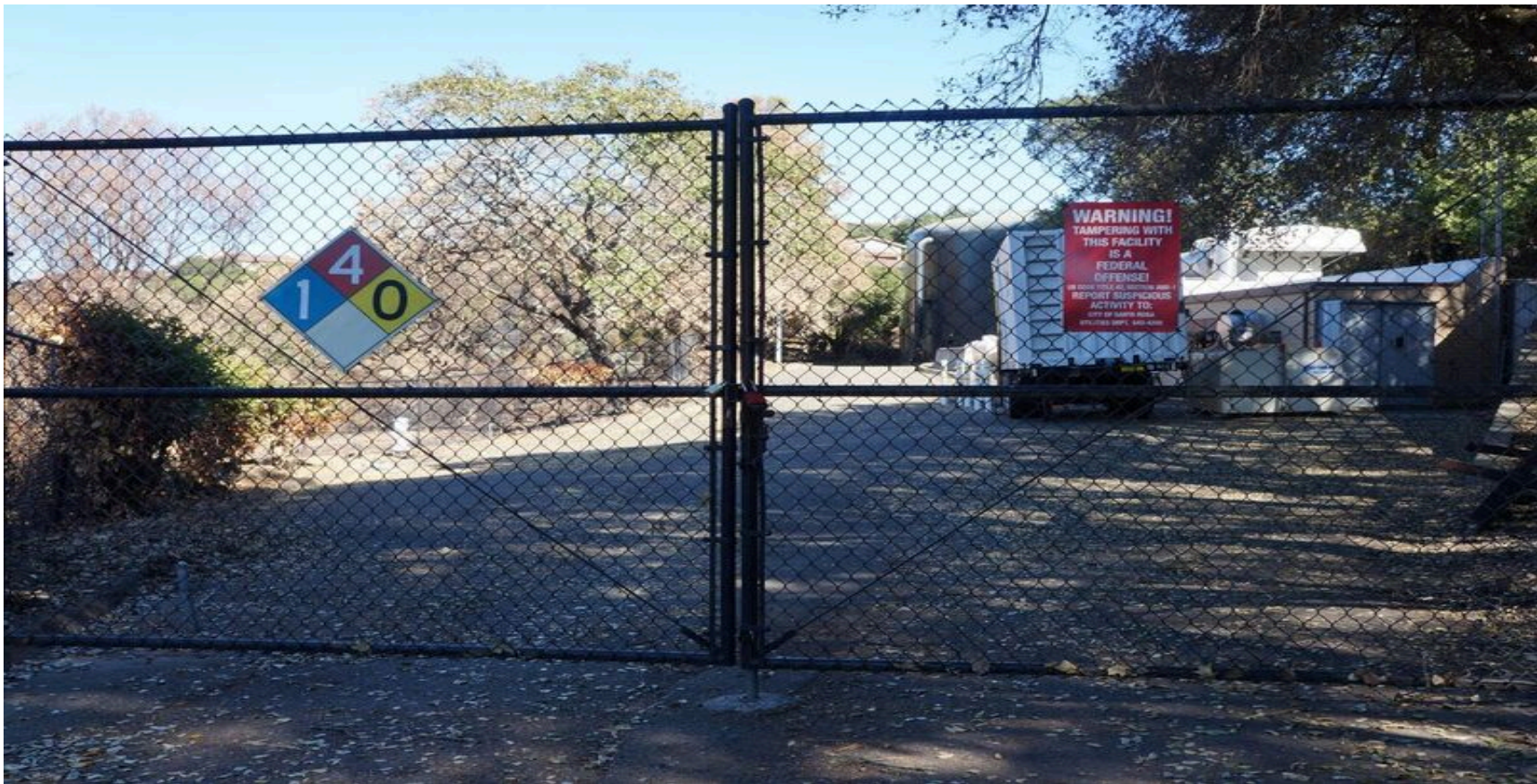
Water Department Activated DOC at 3:30am, Oct. 9, 2017

During the first hours of activation:



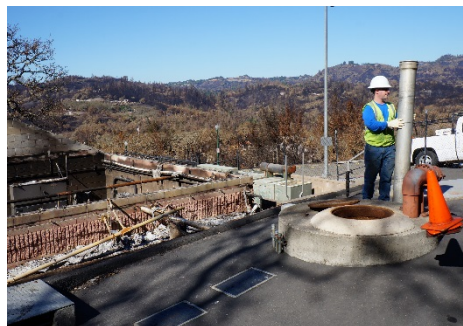
# Emergency Response

As the emergency continued:



# Emergency Response

A team effort:



# Emergency Response

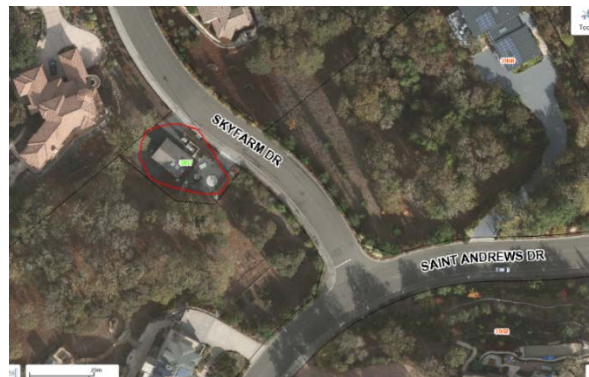
Where are we today?



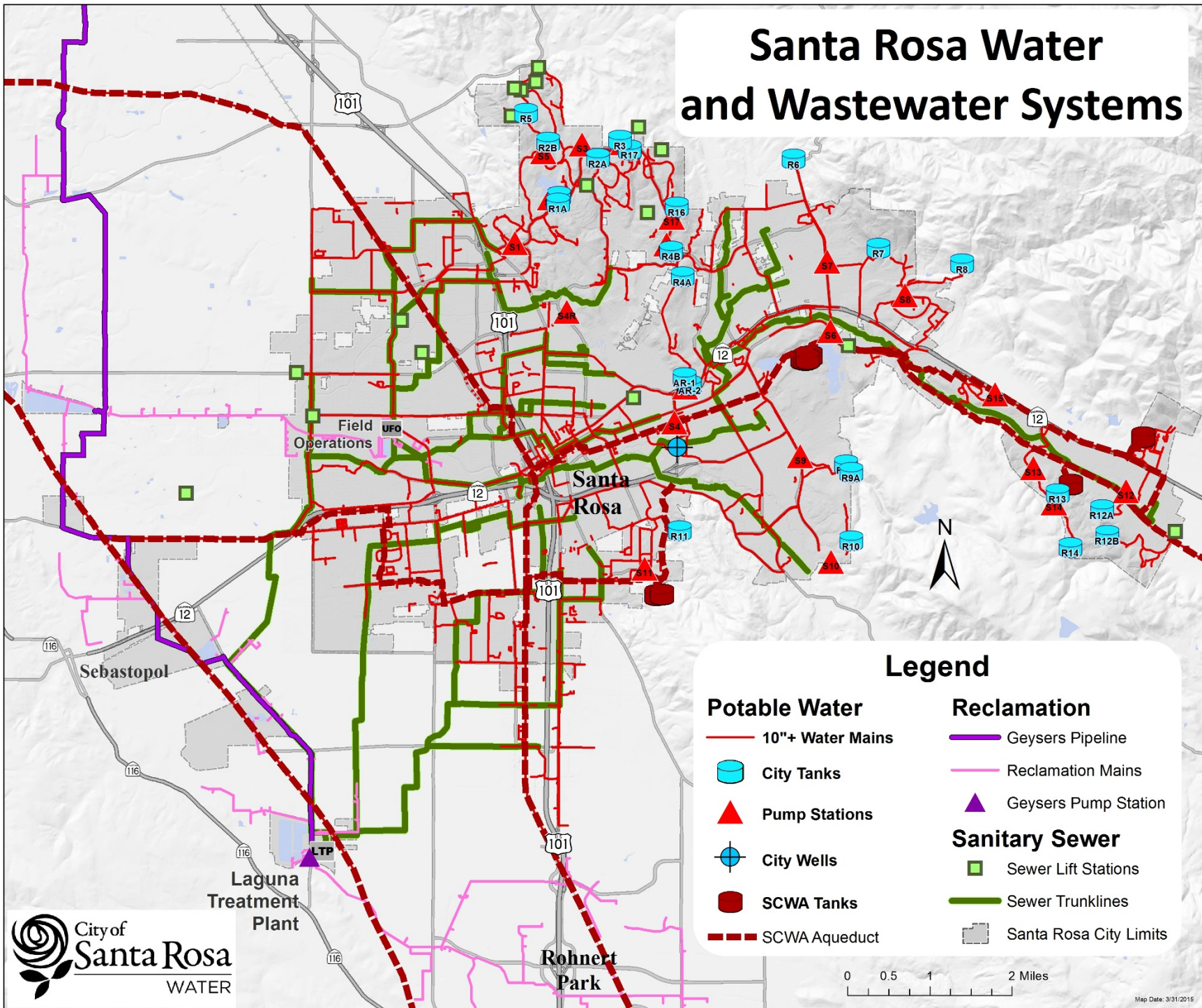
# Recovery

## Assessing Damage:

- Skyfarm A Sewer Lift Station
- Hansford Court Sewer Lift Station
- Stagecoach Sewer Lift Station



# Santa Rosa Water and Wastewater Systems





# Recovery

## Skyfarm A



# Recovery

## Hansford Court



# Recovery

## Stagecoach



# Recovery

## Estimated Damage Assessment

- 4 additional lift stations
- 5 water pump stations
- 4 reservoirs
- Service lines, meters, meter boxes, valves
- Anticipate modifications to the water and sewer system
- Rough estimate of total damage: \$10-15 Million+



# Recovery

## Debris Cleanup

- EPA Inspections
- Army Corps of Engineers – Debris cleanup and sewer lateral capping
- Emergency contract to address 3 sewer lift stations

# Recovery

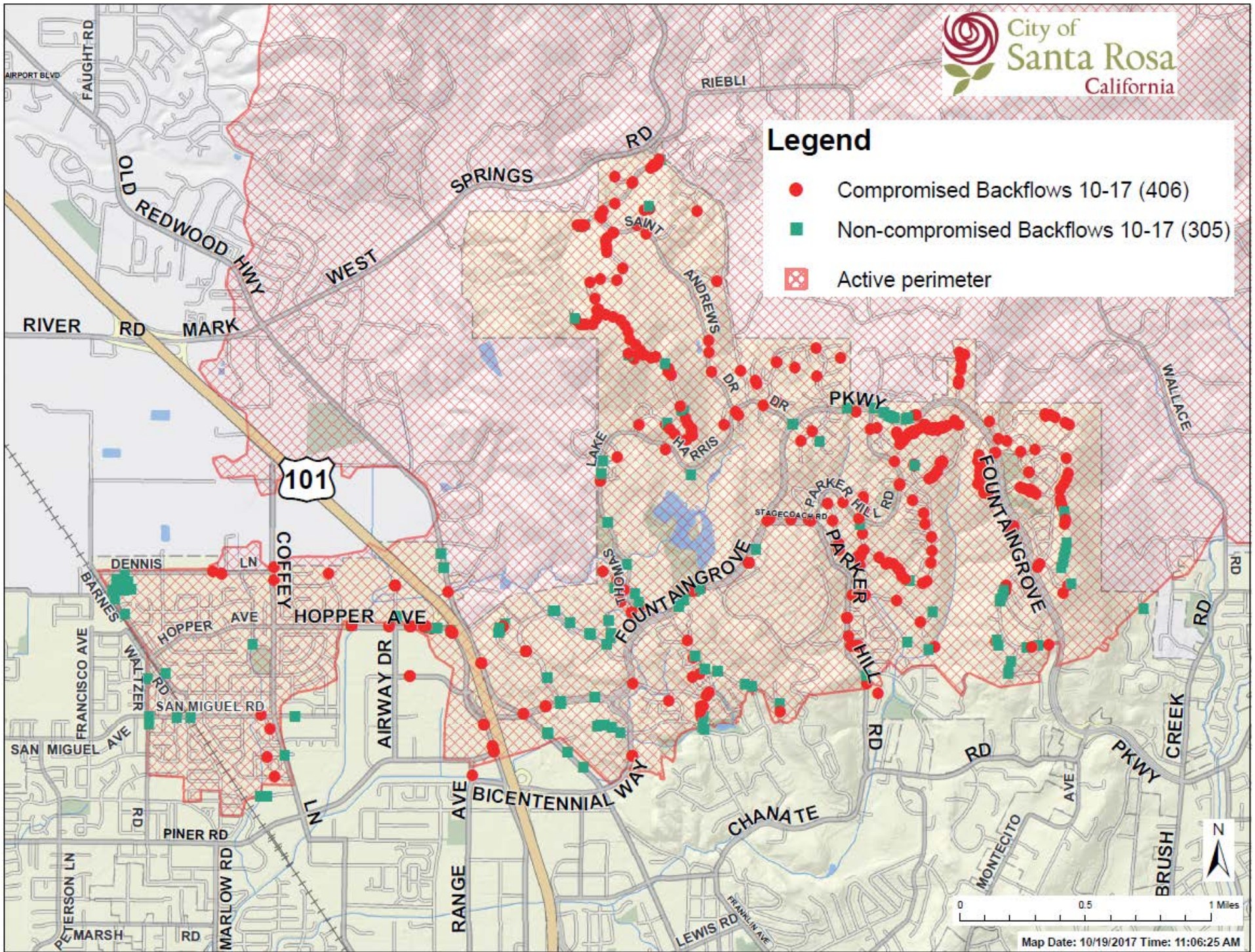
## Protecting Public Water System

- Backflow testing within burned area:
  - Prior to re-entry
  - 48 hours
  - Over 300 backflows tested
  - Water Quality and Local staff
  - 2 vendors



### Legend

- Compromised Backflows 10-17 (406)
- Non-compromised Backflows 10-17 (305)
- Active perimeter



# Recovery

## Protecting Sewer System

- Sewer Lateral Capping
  - Imminent public health threat
  - Inflow and Infiltration
  - Anticipated will be done by Army Corps
  - If needed, contract to address those that opt out of Army Corp cleanup



# Recovery

## Re-entry

- Over 3,000 connections lost
- Water System – Turn over and water quality
- Sewer System – Sediment build-up, odors, possible SSOs
- Treatment Plant – Possibility of debris/ash

## Recovery

- Temporary housing

## Re-building

- Current building code requirements
- Fire sprinklers

# Watershed Protection

Addressing Environmental Impacts:

*How to Reduce Impacts to Water Quality / Habitat / Potential for Landslides?*

- City Coordination with State/Federal Agencies
- Santa Rosa Water's Role/Responsibilities
- Coordination with State – Watershed Task Force



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# Watershed Protection

## Storm Water Pollution

- Storm drain inlet protection
- Straw bale weirs in ravine areas to stop debris flow
- Potential storm water diversion to treatment plant – pilot in Coffey Park



# Watershed Protection

## Potential Storm Water Diversion to Treatment Plant

- Pilot location in Coffey Park

## Evolving Compliance Concerns:

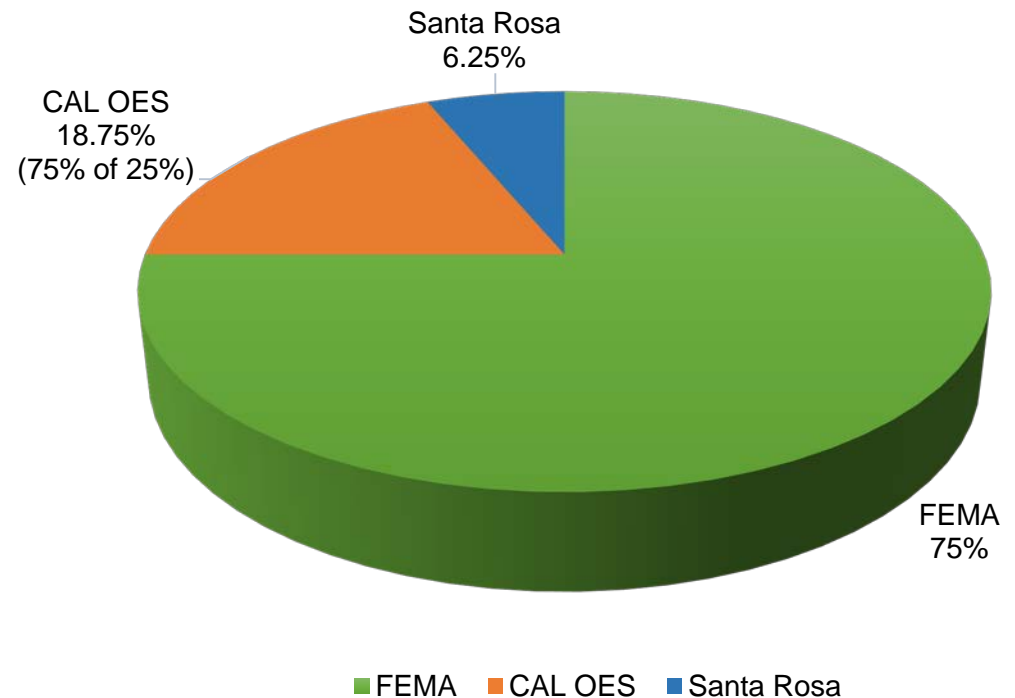
- City Role/Responsibility - Support, Directed by State
  - Operational
  - Regulatory
  - Fiscal

# Watershed Protection

## Evolving Compliance Concerns:

- Cost
  - FEMA 75%
  - CAL OES 18.75%  
(75% of 25%)
  - Santa Rosa 6.25%
  - **TOTAL: 100%**

Potential Reimbursement  
(as reported by FEMA and OES)



# Watershed Protection

## Next Steps:

- Review Regional Water Board draft order
- Consider storm water pre-treatment pilot testing at Coffey Park
- BPU update

# Subregional Impacts

## Power Fluctuations

### Disinfection system control problems:

- Off spec event – 10/9, 1:30 AM
- Emergency generators put on line
- Geysers offline
- Diesel deliveries required:
  - Dovetailed with Local needs
  - 160 GPH, 27 hours, ½ load

**SUBSTATION**



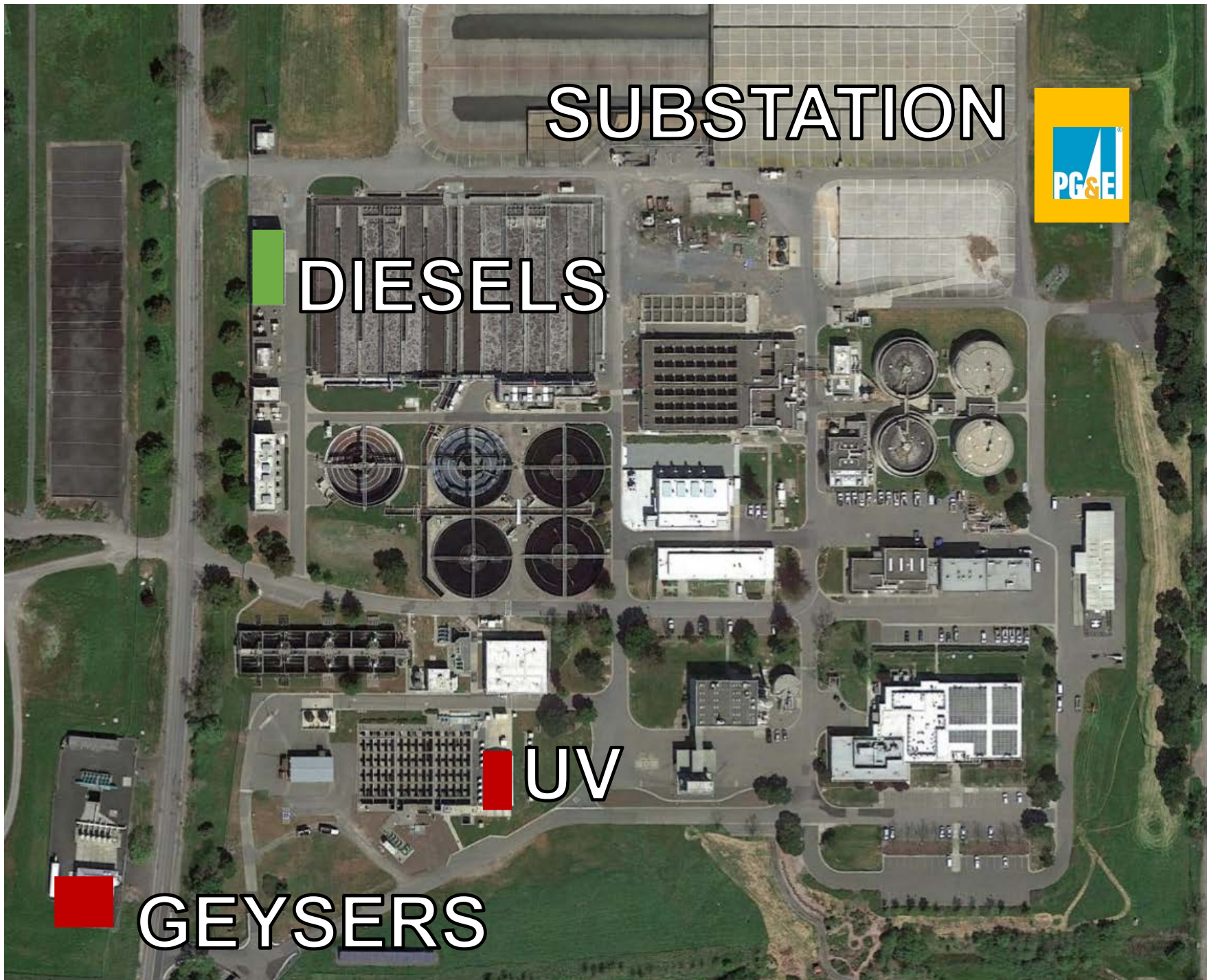
**DIESELS**



**UV**



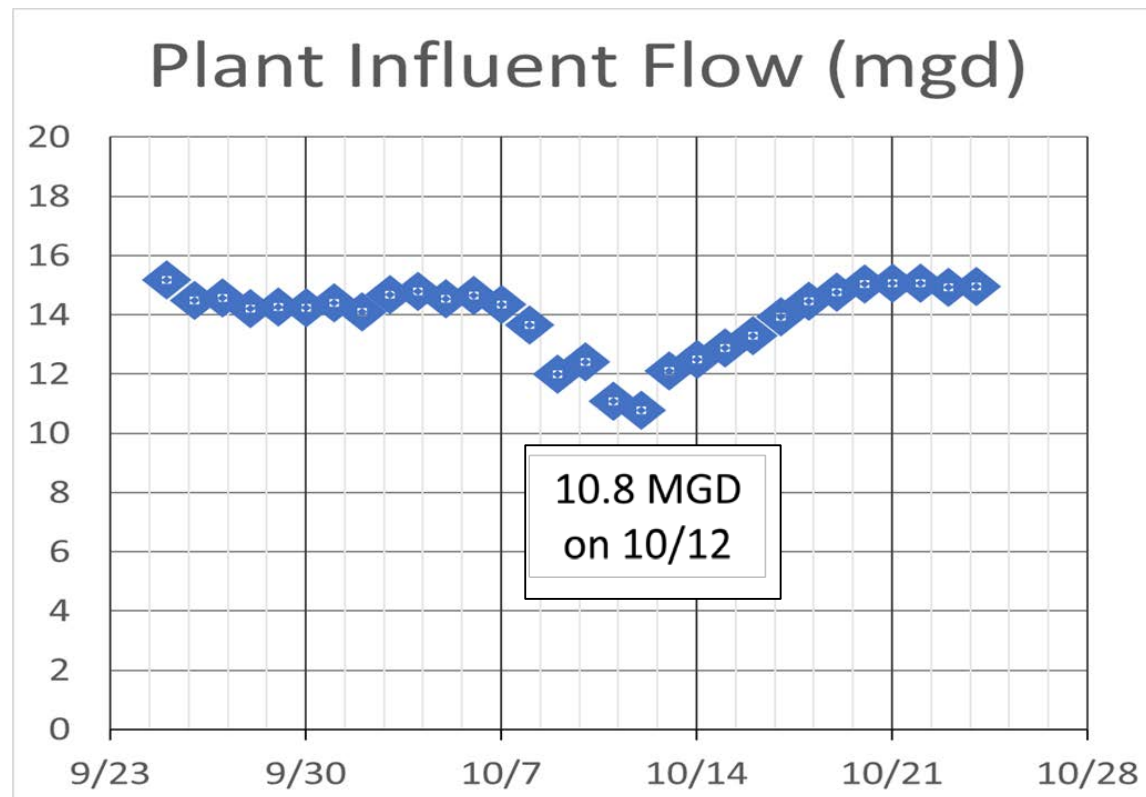
**GEYSERS**





# Subregional Impacts

Geysers force majeure declaration



# Revenue Impacts

Destroyed Properties (*estimated*)

Residential	2,559
Commercial	78
<b>Total Destroyed Properties</b>	<b>2,637</b>

*\*data as of 10/26/17*



# Revenue Impacts

## Estimated Annual Revenue Loss:

- Residential – estimated \$4M
  - Water ~ \$1.7M
  - Waste Water ~ \$2.3M
- Commercial – estimated \$630K
  - Water ~ \$300K
  - Waste Water ~ \$330K
- Total Residential & Commercial – estimated \$4.6M
  - Water ~ \$2M
  - Waste Water ~ \$2.6M

# Revenue Impacts

Estimated Annual Revenue Loss:

- Possible reductions of disaster costs:
  - FEMA reimbursement
  - Insurance coverage on damaged properties owned by Water
  - Lower cost of purchase of water

	Annual Revenue Budget	Estimated Revenue Loss	% of Total Revenue
Water	\$33.0M	-\$2.0M	-6.1%
Waste Water	\$65.6M	-\$2.6M	-4.0%

# QUESTIONS



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