

# Leveraging Multi-Benefit Observation Networks



## Sixth Annual FIRO Workshop August 8, 2019

Jay Jasperse, Sonoma Water  
Chief Engineer & Director of Groundwater Management



# Hydrometeorology Observation Networks

- A robust network of monitoring systems is a necessary component of a FIRO program
- Watershed-based observations include:
  - Rain gages
  - Stream gages
  - Soil moisture
  - Temperature, wind, rel. humidity, evapotranspiration
  - Radar, wind profilers, AROs



# Breaking Silos to Leverage With Other Resource Management & Public Safety Programs

- Monitoring systems are often low priority for funding
- Resources are limited for everyone – partnerships & coordination is a more effective approach
- Different monitoring programs often have similar needs
- Shared data transmission infrastructure
- Examples of other interests:
  - SGMA
  - Wildfire safety (e.g., fire weather stations, etc.)
  - Flood management
  - Natural resource management
  - Seismic early warning systems



# Wildfires & Floods:

## Monitoring Networks: Situational Awareness & Emergency Response

### Fire Camera Network

Protect reservoir watersheds

Link with “fire weather stations”

Public access: [www.alertwildfire.org](http://www.alertwildfire.org)



### Alert Weather & Stream Gage Network

Community outreach & alert notification option

Public access: <https://Sonoma.onerain.com>

Over 1 million views in first year

### New Radar Systems

Improve near-term storm forecasts:

- Urban flooding
- Emergency response

#### New Radar

#### Existing Radar

