

California Water/Wastewater Agency Response Network

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MUTUAL AID AND ASSISTANCE IN THE WATER SECTOR

2019



Critical Infrastructure Web

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Goal of CalWARN

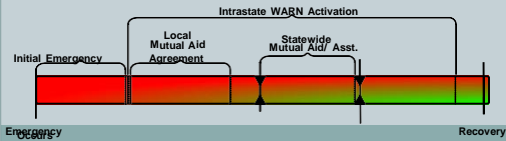
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FORMALIZES EXISTING CAPABILITIES TO PROVIDE MUTUAL AID AND ASSISTANCE TO ENHANCE THE WATER AND WASTEWATER SECTOR RESILIENCY AGAINST NATURAL AND HUMAN-MADE DISASTER TO ENSURE CONTINUITY OF SERVICE TO OUR SECTORS CUSTOMERS.

Why Sign?



- **Loss of water and wastewater services:**
 - Severely impairs the ability of the community to return to normal
 - Impacts public health and safety
 - Restoration is essential for fire suppression and medical services
- **CalWARN Reduces the response “gap”**



What does the agreement do?



- **Expedites response to disasters with local resources by**
 - Providing access and ability to share specialized resources
 - Includes personnel and equipment
 - Applies to both Public and Private utilities
 - Can be used for large service impacts
 - No requirement for a Disaster Declaration
- **Deployed resources**
 - Remain under the authority of the sending utility
 - Can be recalled at any time by sending utility
- **Indemnification and worker compensation to protect participating utilities**
- **Voluntary response - there is no obligation to respond.**
- **Coordination with other agreements/programs**
 - The agreement does not supersede existing systems
 - Complements existing state and local emergency management programs
 - Works within State and National Programs
- **Interstate aid is facilitated by the nationally adopted Emergency Management Assistance Compact (EMAC) in alignment with the National Response Framework.**

Management of CalWARN



- **Utility-based volunteer organization**
 - Formalized by a Mutual Aid and Assistance Agreement
 - Signed Agreements are held by the Municipal Water District of Orange County as the formal documentation
 - 403 Signatories in CA
 - Estimate that more than 85% of water population is covered
 - Mobilization is governed by an Operational Plan
- **CalWARN State Steering Committee**
 - Broken into 6 regions (CA Mutual Aid Regions)
 - Co-Chairs for each region
 - Voted on by Region every 2 years
 - Meet monthly
- **Host meetings & trainings @ AWWA Cal-NV Conferences**

CalWARN State Steering Committee

- **State Chair**
 - Raymond Riordan, (925) 830-9180, rriordan@comcast.net
- **Southern Region I**
 - Kelly Hubbard, (714) 593-5010, khubbard@nwdoc.com
 - Dave Lopez, (562) 570-2486, david.lopez@fbwater.org
- **Coastal Region II Chair**
 - James Wollbrink, (408) 279-7804, Jim.wollbrink@sjwater.com
- **Northern Region III Chair**
 - Conrad Toms, (530) 227-4124, ctoms@ci.redding.ca.us
- **Inland Region IV Chair**
 - Brandy Hancock, (916) 853-3639, Brandy.hancock@gswater.com
 - Lisa Beklinski, (916) 808-1309, LBeklinski@ci.vf.sacramento.org
- **Valley Region Chair V**
 - Gerald Simon, (408) 367-8586, Gsimon@cabwater.com
- **Southern Region VI**
 - Dave Smith, (951) 685-7434 x124, dsmith@jpsd.us
 - Gary Sturdivan, (909) 668-5974, gsturdivan@me.com

California Regions



Resources for Water/Wastewater Utilities


www.calwarn.org
www.nationalwarn.org

- **Agreement & Contact Form**
- **Signatory List**
 - Contact info
 - Limited resource info
- **Operational plan**
- **Tools and resources**
 - Response Considerations Checklist
- **State Steering Committee contact list**

- **National WARNInfo**
 - WARN FAQ Sheet
 - The WARN Initiative - The Big Picture
- **National Success stories**
 - Economic Benefits of Forming & Participating in WARN
- **Operations plan/Job aids**
 - WARN Tabletop Exercise: Facilitator Guide
 - AWWA Resource Typing Manual
 - AWWA Resource Typing Manual Cost Development Spreadsheet
- **USEPA Resources**
 - USEPA EMAC Tip Sheet for Water Sector (PDF)
 - USEPA Water Sector Mutual Aid & Assistance Fact Sheet (PDF)
 - USEPA Small Water Systems & WARN (PDF)
 - USEPA Tribal Water Systems & WARN (PDF)




Utilizing WARN for Response



Activating WARN

- **Who Activates CalWARN**
 - YOU
 - Cal OES
 - County Operational Areas
- **What is activated**
 - Water Sector Position
 - CalWARN Chair/Co-Chair for impacted region
- **When**
 - Small Incidents
 - Catastrophic Incidents
- **Why**
 - Coordination of information & resources
 - First responder coordination
 - Coordination of needed resources
- **How**
 - Call any CalWARN Chair



CalWARN Coordination

- **Small Events**
 - Utility to Utility
- **Large events**
 - Coordinated by Water Sector Specific Position @ County/Operational Area EOC
 - CalWARN Region Chair/Co-Chairassists
 - Works within the CA Emergency Response Structure (ICS/NIMS)

What resources are shared with WARN?

- **Qualified Personnel and Equipment (Portable)**
 - Operations
 - Maintenance
 - Treatment
 - Management
 - Customer Service
 - Laboratory
- **Only ONE Limitation**
 - Commodity



CalWARN Response Coordination Goals

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- **Liaison for all impacted water and wastewater utilities within the affected area**
- **Coordination of all types of water infrastructure**
 - Potable water, wastewater, recycled water, dams, and levees
 - Works with CalOES Regional EOC and County/OA EOC
- **Guiding Principle**
 - No longer represents their own utility
 - Utilizes Standard Operating Procedures and Forms
 - Recommends priorities and considerations for response

Expansion and Success

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Expanding WARN


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- **A couple successes**
 - Florida experienced 4 hurricanes in 2004
 - Responded into Mississippi after Katrina landfall 8/2005
 - It worked!
- **Associations met Nov 2005**
 - Lessons learned from Katrina
 - How mutual aid had been successful
 - How to facilitate mutual aid
- **Common Understanding**
 - Support the effort
 - Move forward together
 - Mutual aid is key

WARN Went National & International

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- **In 49 States**
- **International**
 - Australia – In Process
 - Canada - Implemented
 - Mexico – In Process



Utilities Helping Utilities

Joint Policy Statement on Mutual Aid & Assistance Networks

The water sector is committed to a "Utilities Helping Utilities" concept and is taking steps to encourage utilities and their professionals to establish disaster mutual aid and assistance networks. The purpose of these networks is to provide a method whereby water/wastewater utilities that have reciprocal obligations that extend to outside events could obtain emergency assistance in the form of personnel, equipment, materials, and other essential services as necessary. Such other utility professionals could be requested to provide such assistance in the form of emergency services to protect the critical operations of the affected water/wastewater utility.

A pre-established agreement among a network of utilities can complement and enhance their capabilities to prepare for and respond to a broad range of events, both natural and man-made. The establishment of such disaster mutual aid and assistance networks is a key principle of the National Preparedness Goal endorsed by the Department of Homeland Security.

Facilitating the existing capabilities to provide mutual aid and assistance provides the water/wastewater sector with a degree of resilience against natural or man-made disasters to ensure continuity of service to our nation's customers.

It is intended that all partners in the water and wastewater community work together to support and enhance the emergency preparedness to develop this concept with goals and take the steps necessary to establish an effective mutual aid and assistance network.

Water/Wastewater Utility Professionals
March 2018

Successful Support

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- **Utility Owner/Operators**
- **Professional Association Representation**
 - (AWWA, NRWA, WEF, sanitation association, etc.)
- **State Water and Wastewater Primary Agency**
 - (State health, environmental protection, etc.)
- **State Emergency Management and/or Homeland Security Agency**
 - (State EMAC coordinator)
- **US EPA Region Representation**

Provides Enhanced Partnerships

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- **Cal EMA**
 - Regional and State Cooperation
 - Representation at Northern and Southern
 - Continued Coordination
- **County/Operational Area**
 - Coordination with Cities, Fire Agencies, and Law Enforcement
 - Recognized need for representation



Recognition

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- **International Association of Emergency Managers**
 - Partners in Preparedness Award, 2006
- **National Emergency Management Association (NEMA)**
 - Recognized WARN as a best practice
 - Emergency Management Assistance Compact (EMAC)
 - WARN occupies seat on Advisory Council
 - International Association of Fire Chiefs and Police Chiefs Association are implementing a "WARN" model
- **Federal Emergency Management Agency**
 - NIMS Integration Center maintains copy of WARN agreement
 - Recognized WARN as model public private integration agreement

Successful Uses of WARN

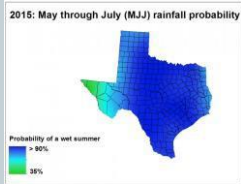
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- **CalWARN**
 - Northridge Earthquake, 1994
 - El Nino Storms, 1998
 - Sonora Fires, 2001
 - Southern California Fires, 2007
 - Baja California Earthquake, 2010
 - 2017, 2018 Fires
- **COWARN**
 - City of Alamosa Salmonella outbreak, 2008
- **FlaWARN**
 - Hurricanes Katrina, Wilma and Rita, 2005
 - Tornadoes, 2007
- **ORWARN**
 - Detroit Blizzard 2008
- **TNWARN, INWARN, KYWARN, AKWARN**
 - Ice Storm February 2009
- **TXWARN**
 - Rain Storms and Hurricane Humberto, 2007
 - Hurricane Dolly and Ike, 2008
 - Drought 2014, Flood 2015
 - Hurricane Harvey, 2017

This list includes only the major documented cases of WARN activation

From Fire to Flood

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San Diego Fires – October 2007

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Firefighter Jason Falarski battles to save a house in Poway on Monday. For many in San Diego County, the scene was reminiscent of the deadly 2003 Cedar fire. Several hundred thousand people evacuated their homes as wildfires flared across the county, but the size of the exodus made escape impossible for some. (Wally Skalij / Los Angeles Times) October 22, 2007



Water System Impacts

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- **Boil Water**
 - 27 water systems in San Diego County
 - 2,522 connections
- **Do Not Use**
 - Ramona Water District
 - Evacuation order included "turn on sprinklers" request
 - No pump power – negative pressure - ground Water intrusion concerns
 - Conflict between State and County Health directions
- **Alternate Uses**
 - Helo pickup at prime water sources
 - Potable water distribution sites

Water Response

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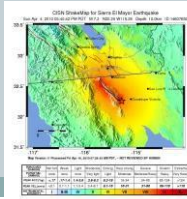
- **San Diego County Water Authority (SDCWA)**
 - Wholesale distributor to 24 utilities
 - Sits at the County Emergency Operations Center during emergencies
 - San Diego based local mutual assistance program
- **Mutual Aid requests managed by SDCWA**
- **Response from the San Diego utilities**
 - E-mail request sent out to county members
 - 20 minutes later 105 resources gathered from 16 unaffected utilities
 - Sufficient resources among the SDCWA member utilities to manage the event

Resource Needs

- Resources provided
 - Staff
 - Operators
 - Mechanics
 - Electricians
 - Water Quality Techs
 - Water buffaloes for firefighting and cattle
- Bottled water distribution
 - County managed
 - Local distribution points established with the utility input
 - State Office of Emergency Services Guidance
 - <https://www.caloes.ca.gov/ICESite/Documents/Emergency%20Drinking%20H2O.pdf>

Easter Sunday Baja Earthquake

- 7.2 magnitude earthquake
- 90 miles south of border
- Damage along rivers that feed the Salton Sea
- Impact on six water/wastewater utilities, most significant:
 - Imperial Irrigation District
 - City of Calexico

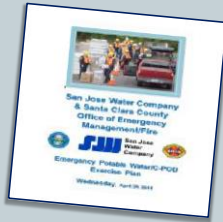


CalWARN Support

- Staffed Water Desk
 - Imperial County Operational Area EOC
 - California EMA Southern Region EOC
- Technical expert
 - Verified damages
 - Coordinated resources
 - Started alternate water supply planning
- Mutual Aid /Resources Coordinated
 - Tank diving team and rover
 - Documentation support
 - Portable treatment systems

Emergency Response Exercise

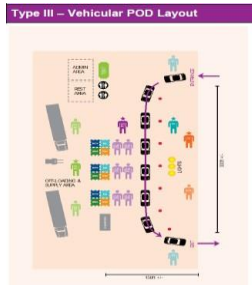
- Key Stakeholders
 - Public Health
 - Local Business
 - Local Fire
 - County, State and Federal Emergency Management
 - State and Federal Regulators

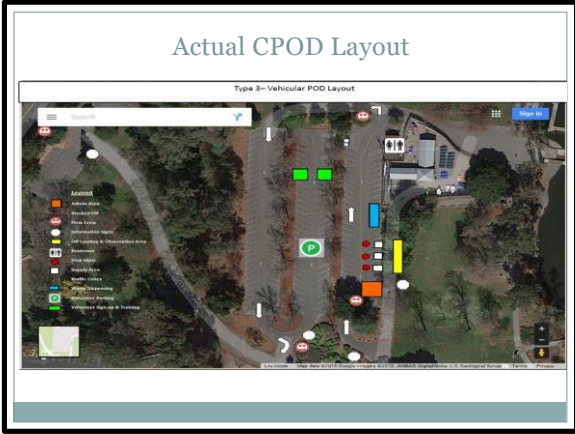


Vasona CPOD Loading/Supply Area



Santa Clara County CPOD Plan





WSSP – The Concept

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- Emergency Management Success for Water Issues Relies on
 - Representation at State
 - Representation at Region
 - Representation at County (Op Area)
- Liaison for all impacted water and wastewater utilities within the affected area
- Communicate and Coordinate all types of water infrastructure
 - Potable water, wastewater, recycled water, dams, and levees
- Guiding Principle
 - No longer represents their own utility
 - Standard Operating Guidance
 - Recommended priorities for response

*Emergency Operations Center
Water/Wastewater Facilities
Operational Area
Standard Operating Procedures
Template*

UtI ities Helping UtI ities

WSSP – The Concept

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WSSP The Genesis

- Golden Guardian Exercise 2008
 - Identified need
 - Encouraged by Cal OES
- Working Group
 - Water sector and emergency management representatives
 - 3 hours of brainstorming = 20+ work items
- Primary Objectives
 - Partnerships
 - Utility Operation Concepts
 - Utility Operation Details
 - Training and Exercises
 - Miscellaneous Concerns

UtI ities Helping UtI ities

WSSP – The Development



- **2009 – Stakeholders Meeting**
 - Lessons Learned
 - Brain Storm
 - Joint Water Task Force Meets Monthly
- **Develop Standard Operating Procedures**
 - 2009-2010 REOC Completed
 - 2010-2011 Op Area Completed
 - 2011-2013 Op Area to Utility Level (Santa Clara County)
 - 2016 Update All Documentation



WSSP - The Process



- Collect and verify situational awareness
- Monitor, track, and coordinate resource needs
- Assess and recommend alternate drinking water resources
- Recommend priorities in concert with the water utilities, local government or Counties
- Coordinate and resolve issues arising from events
- Coordinate with State agencies as needed

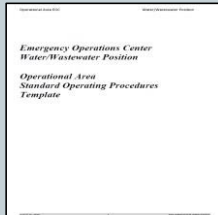


Utli Rites Helping Utli Rites

WSSP - The Implementation



- **Set up to self sustaining**
 - User/Practitioner Training
 - Train the Trainer
 - Table Top Exercise



Utli Rites Helping Utli Rites

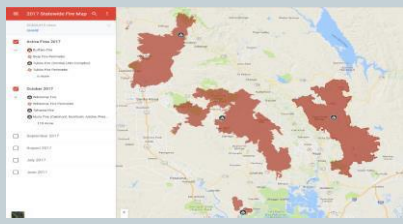
CalWARN Support to Napa EQ 2014

- o 0320hrs: Earthquake strikes
- o 0438hrs: Text message to Phil Brun of City of Napa – request for call if help needed
- o 0637hrs: Text returned
- o 0700hrs – 1000hrs: SF Bay Area WARN agencies communicating - sharing damage assessments – discussing possibility of request for assistance from Napa
- o 0820hrs: Returned call from P. Brun - still assessing system damage - no assistance requested at this time
- o 0955hrs: Call for assistance from P. Brun – CalWARN agreement need to be signed – Use of AWWA Resource Typing Manual outlined
- o 1006hrs: Email SF Bay Area WARN agencies for request
- o 1100hrs – 1830hrs: 4 conference calls held to coordinate mutual assistance – also many emails
- o 1930hrs: 5 mutual assistance crews from three agencies set for deployment to Napa early morning 08/25/2014

Northern & Southern CA Fires



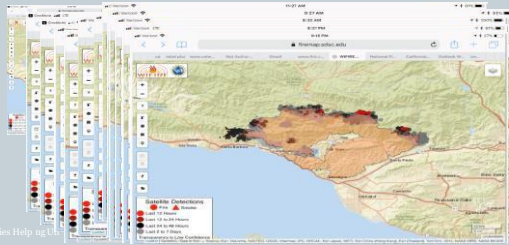
Napa Sonoma Fires



Area	Agency	Start Date	End Date	Status	Structures Destroyed/Damaged
Adelphi	Napa/Sonoma	10/04/2017	10/04/2017	Contained	6 structures destroyed, 40 damaged
Adelphi	Napa/Sonoma	10/05/2017	10/05/2017	Contained	27 structures destroyed, 1,040 structures damaged
Adelphi	Sonoma	10/05/2017	10/06/2017	Contained	Merged with the Northern, Adelphi, Patella, Peltola, and Calwood Fires. 3 structures destroyed
SP	Sonoma	10/05/2017	10/05/2017	Contained	
Patella	Sonoma	10/05/2017	10/05/2017	Contained	

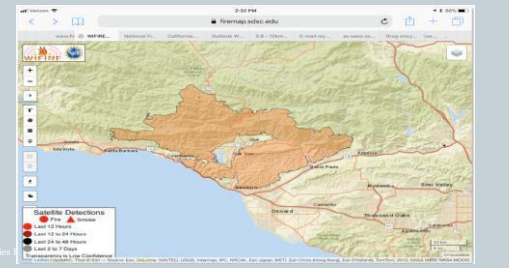
Thomas Fire Progression

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Thomas Fire Final

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Napa Sonoma Fires

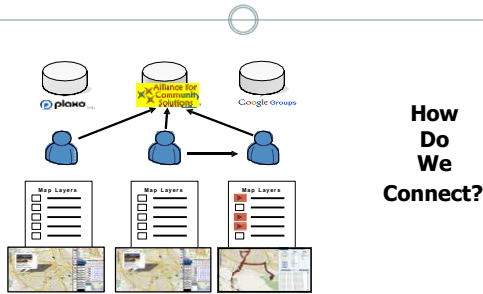
- There was Less Response; More Recovery
- WSSP - Valuable
- Sonoma Yes-Early
- Napa No-Late
- Field Presence at CalFire Coordinators Meeting "A Must"
- Contamination - The Unseen Disaster
- Regular Communications helped
- Determined More is needed in SOP on Recovery
- More is needed to get WSSP installed early

CalWARN Technology: Information to Intelligence

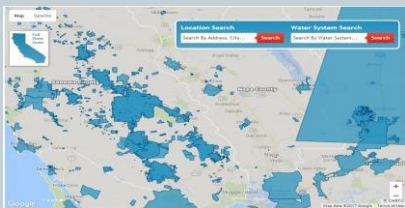
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Emergency Management Social Networking



Division of Drinking Water Boundary Tool

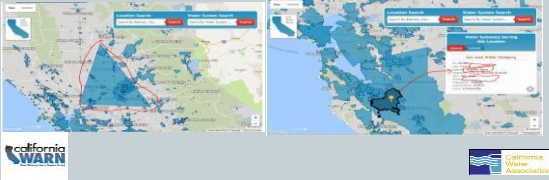


Great Tools Require Maintenance

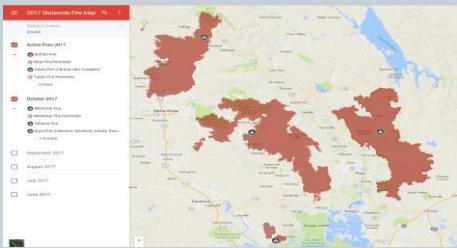


- DDW has developed some great tools
- Tools that need to be maintained to hold their value

Examples:



CalFire – Fire Boundary

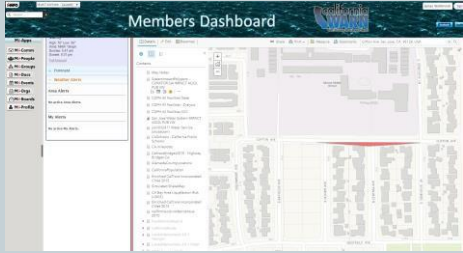


3 Maps = Intelligence!

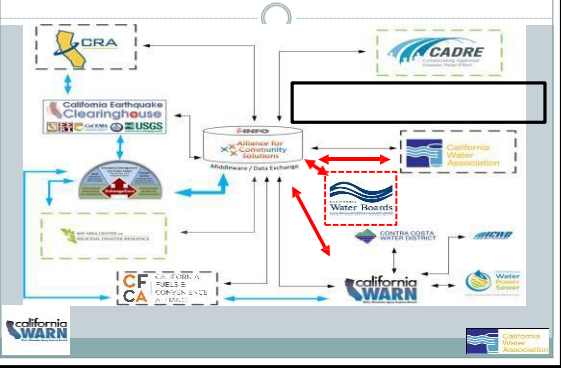


CalWARN Incident Response Page

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CalWARN Incident Response Page



Questions

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OR
CONTACT ANY CALWARN CHAIR

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