



ARKSTORM EXERCISE IN EMERGENCY RESPONSE



Presentation to the
Ventura River Watershed Council
By the Ventura County
Watershed Protection District
February 7, 2013





Objectives of Today's Presentation

1. ArkStorm Background
2. What is ArkStorm / What ArkStorm is Not
3. ArkStorm Tabletop Exercise
4. Mechanics of the Tabletop Exercise





What is ArkStorm?

Ar - Imagine an Atmospheric River across the Pacific Ocean.

k - It comes around only once every 1000 years.

Storm - It lasts for 40 days and 40 nights.



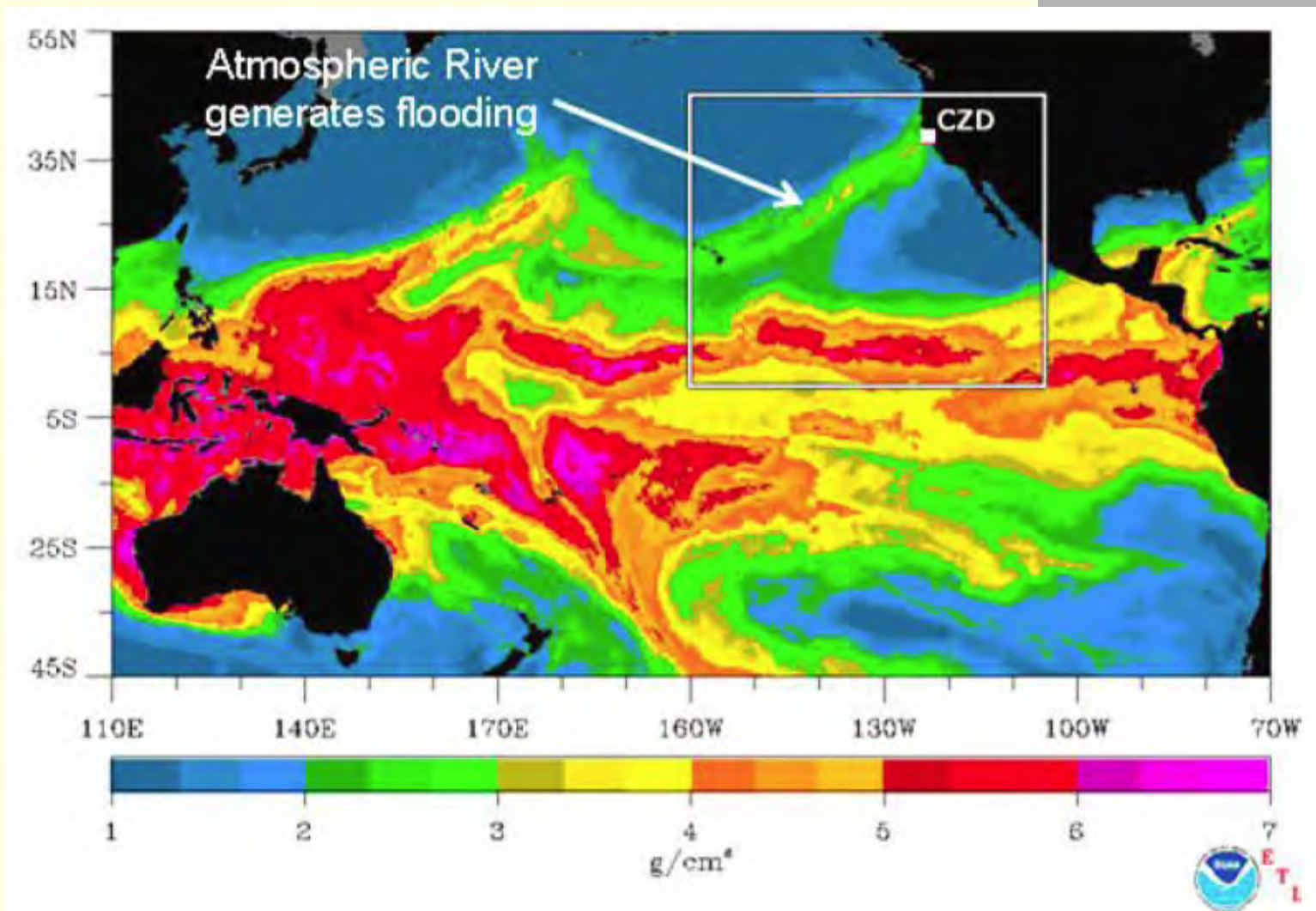


ArkStorm: The Pineapple Express



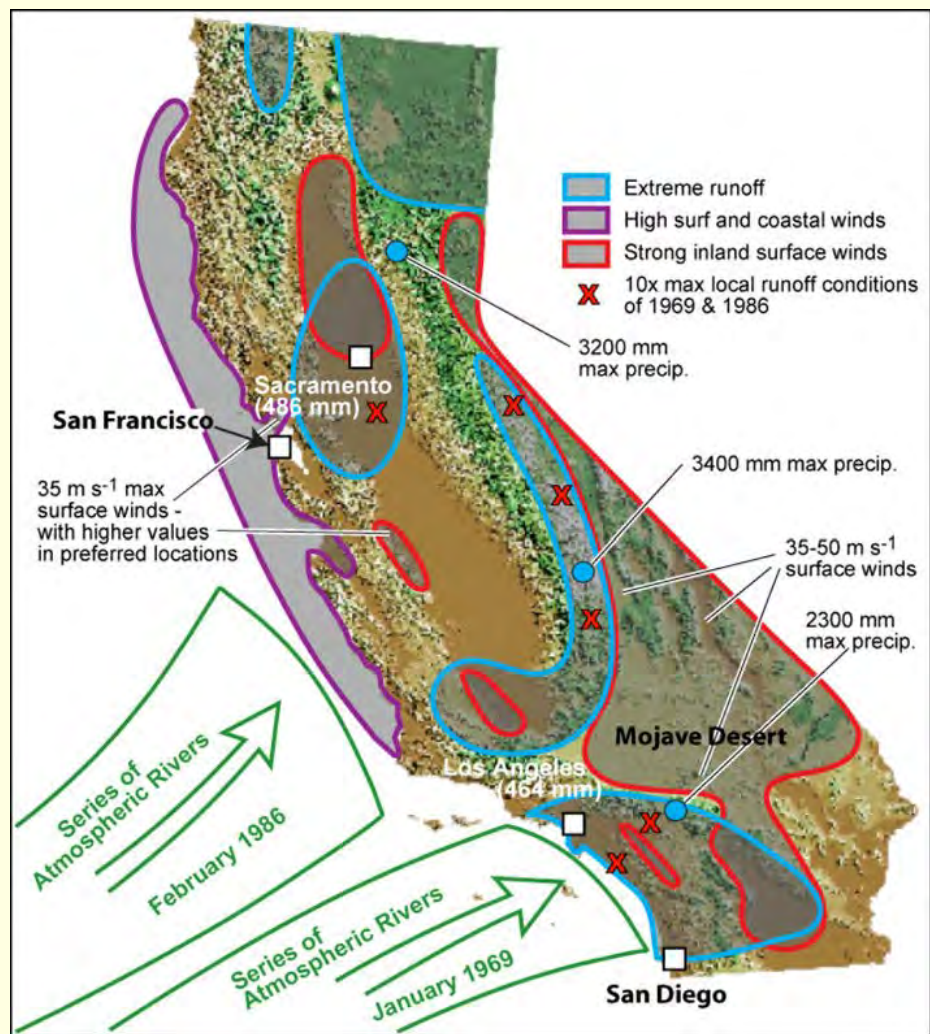


USGS ArkStorm Precipitation Model





USGS ArkStorm Precipitation Model





What is ArkStorm / What ArkStorm is Not

What is ArkStorm?

- A Tabletop exercise that tests the effectiveness of current emergency response practices during a major storm event.
- A storm simulation created by USGS based on observed rainfall from Jan. 1969 and Feb. 1986 storms in California.
- County / City teams to develop actions to respond to flooding impacts on critical community facilities and infrastructure.



What is ArkStorm / What ArkStorm is Not

What ArkStorm is Not

- Not to be used to develop new floodplain mapping, new flood zones, or new flood elevations.
- Not to be used to identify new properties that require flood insurance.
- Not to be used to establish new flood insurance rates.



ArkStorm Tabletop Exercise Objectives

1. To test the response of emergency response agencies from the County and Cities during an ArkStorm event.
2. To review communication flow between County and City organizational units for storm related impacts.
3. To demonstrate the capabilities and limitations of WebEOC.
4. To enable County and City agencies to identify field resources required to deal with a major storm event.
5. To identify critical community facilities and infrastructure that may be impacted by an ArkStorm event.



What Happened?

On Oct. 25 2012, PWA held an exercise to test readiness and communication in the event of an “ArkStorm” size event.

All PWA Divisions, Sheriff OES, and Cities of Ventura, Oxnard, Santa Paula, and Fillmore participated and the exercise followed the NIMS organization and communication model.

Designed for all levels of local government response - from field staff to Director.





ArkStorm and the Santa Clara River



SHEET1_ANIMATION.exe

ArkStorm Critical Facilities and Infrastructure

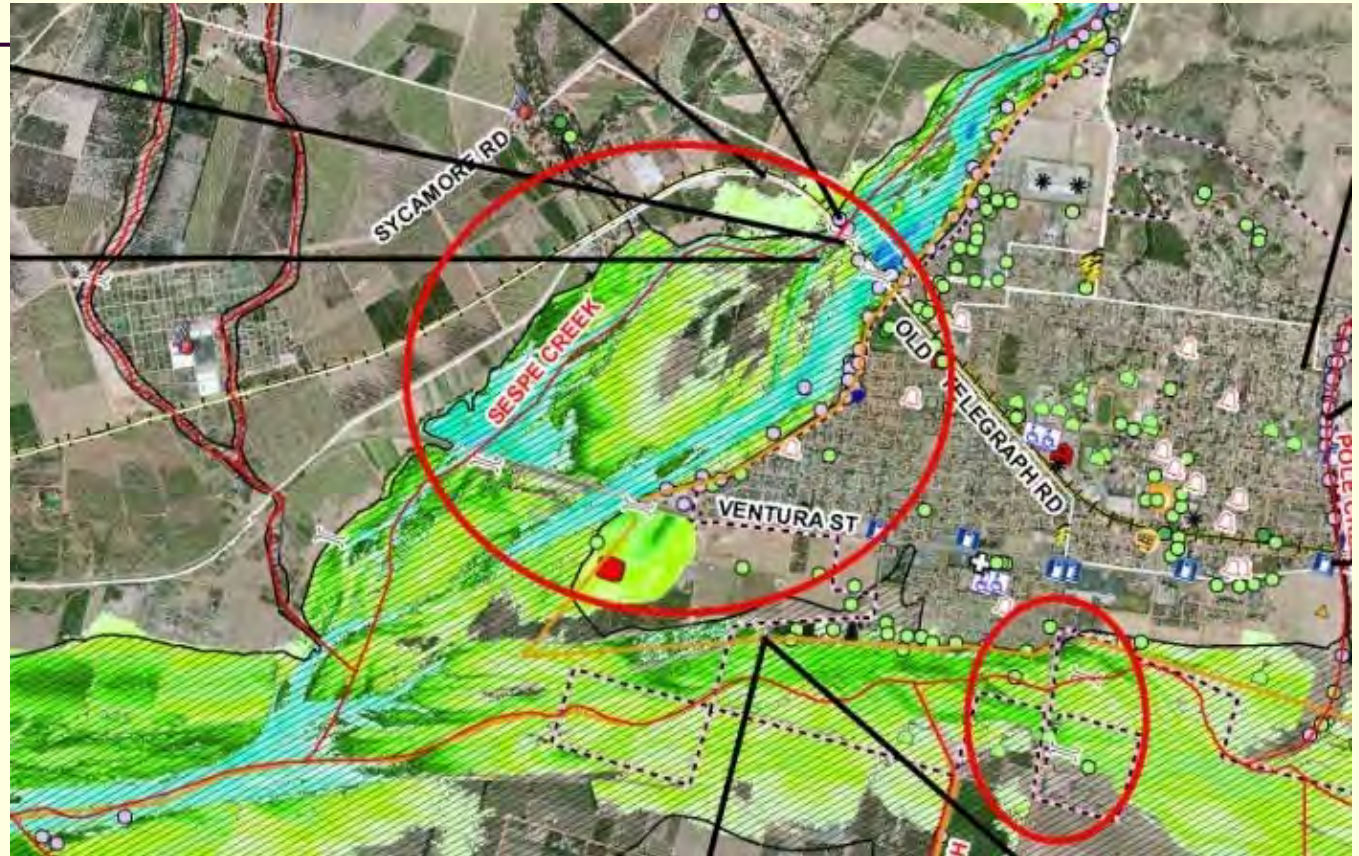


LEGEND:

- Jurisdictional Channel
- Street
- ▨ 100 Year Floodplain
- - - City

Ventura County Critical Facilities

- △ Religious Facility Property
- 📡 Communication & Electrical Facility
- 🚒 Fire Station
- ⊙ Flood Control Facility
- 🚰 Gasoline Infrastructure
- 🏛️ Government Property
- 🏠 Sewage Treatment Facility
- ☠️ Hazardous Chemicals
- ⚙️ Industrial/Manufacturing Facility
- 🏥 Medical Facility
- 👮 Military
- 🔥 Natural Gas Facility
- 🛢️ Oilfield
- 🌳 Park
- 👮 Police Station
- 📬 Postal Facility
- ♿ Rest/Corv Homes
- 🚽 Sanitary and Sanitation
- 🎓 School
- 🛒 Shopping Center
- 💧 Water Facility
- Major Liquid Oil and Gas Pipelines
- Liquid Oil and Gas Pipelines
- △ Debris Basin
- Detention Basin
- ★ State Size Dam
- Desilting Basin
- Other
- Levees
- 🚂 Railroad
- 🌉 Bridge (Caltrans/County)





Public Works Agency

Coordination of County Resources
PIO

Web Posting

Coordination of Agency Resources

Storm Updates

Coordination of Department Resources
Web Posting

Storm Patrols
Reporting
Emergency Response

Emergency Operations Center

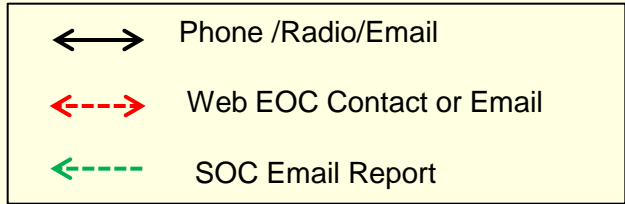
Web EOC

Storm Operations Center | **Agency Operations Center**

WPD O&M Operations

Department Field Crews

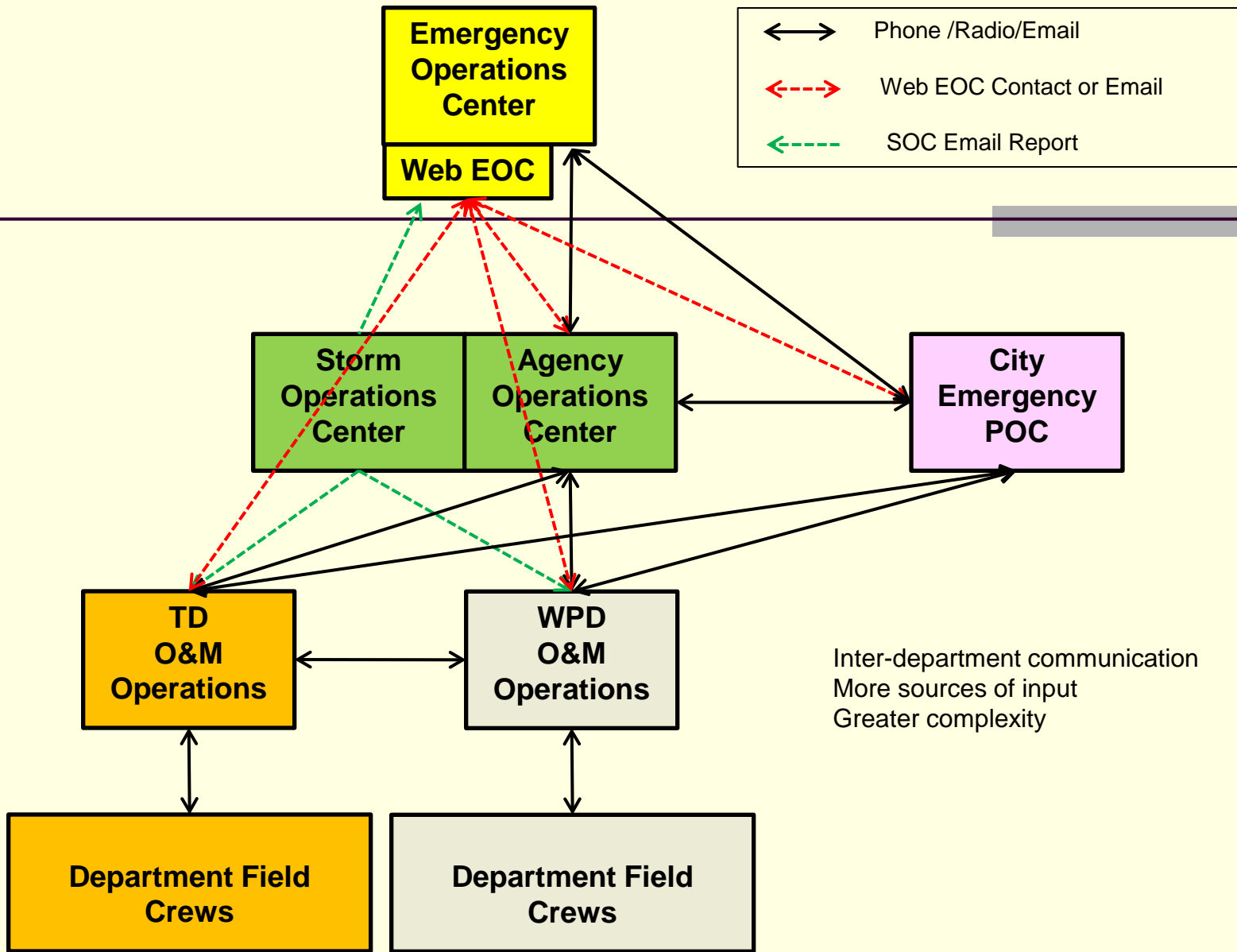
City Emergency POC



“NIMS” for WPD



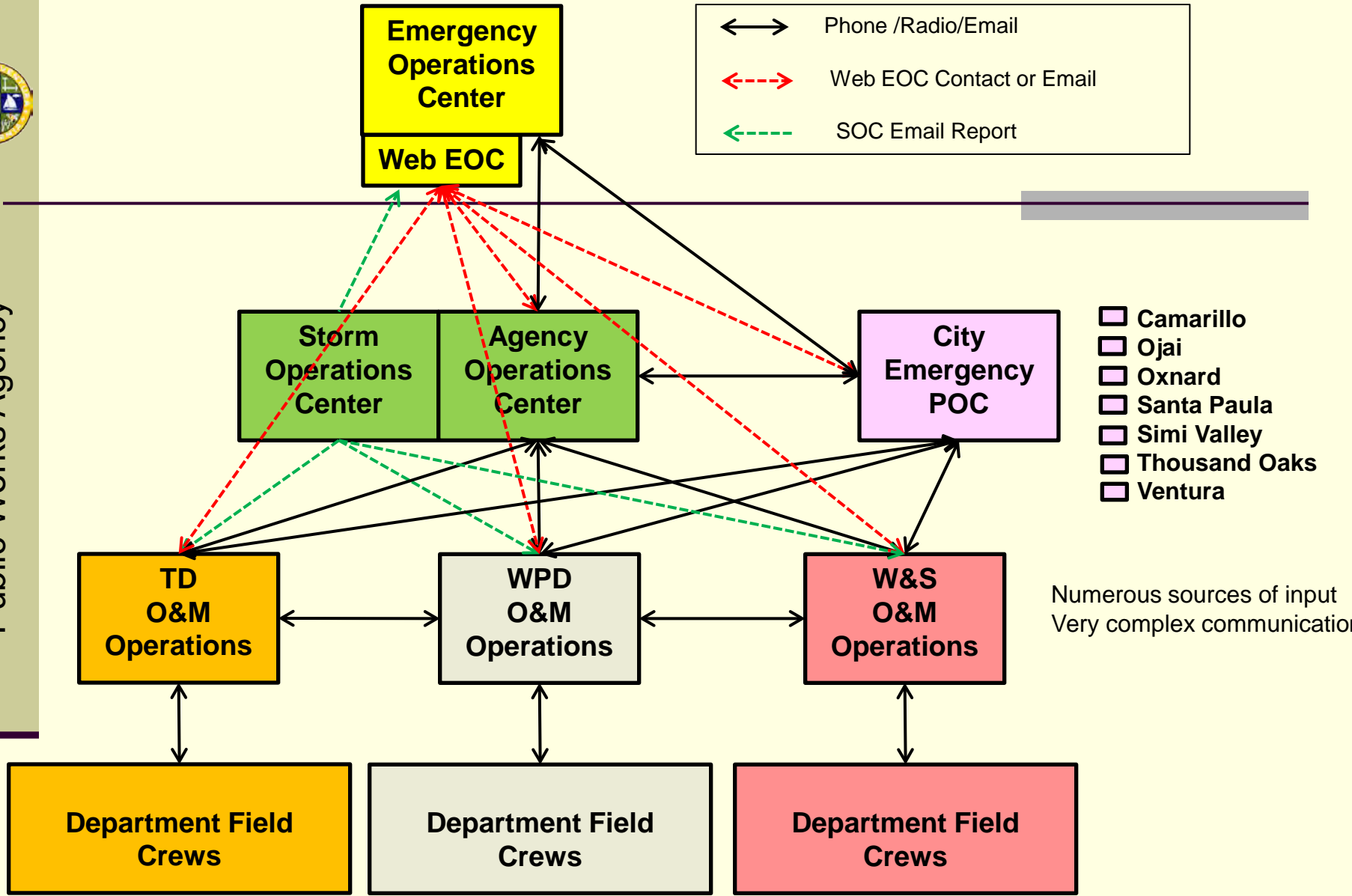
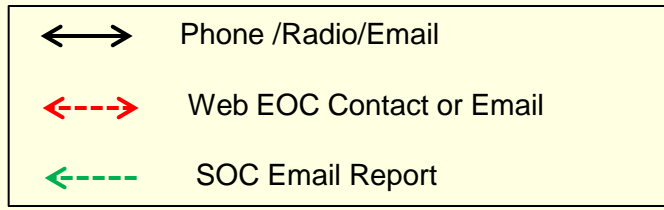
Public Works Agency



“NIMS” for Two PWA Departments



Public Works Agency



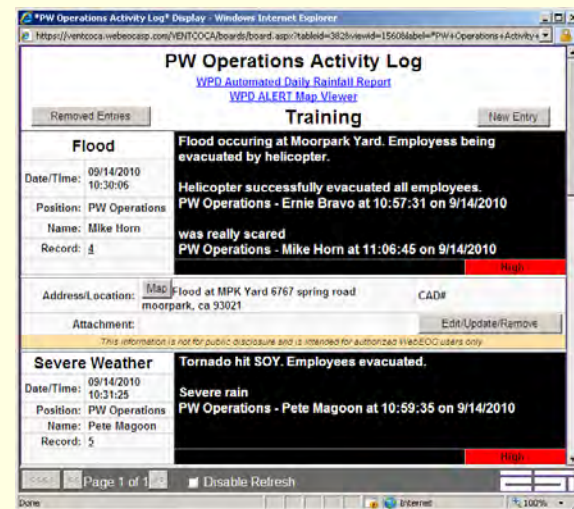
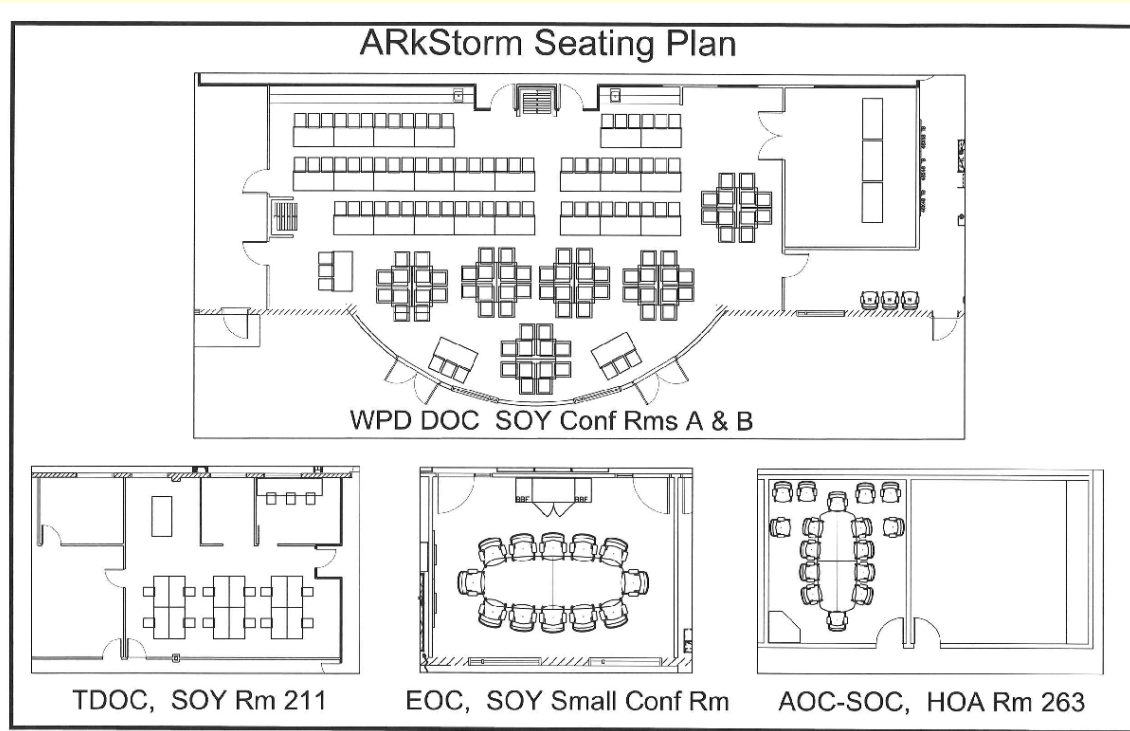
“NIMS” Full PWA Response



ArkStorm Tabletop Exercise Logistics

64 County and 13 City staff
10 FEMA, USGS, and NOAA observers
Located at SOY and the HOA

Public Works Agency



WebEOC scenario injects provided.

Numerous injects submitted at each org level.



Public Works Agency



County of Ventura Management and Field Staff participated.



Public Works Agency



Cities along the Santa Clara River participated.



Cities along the Santa Clara River participated.



FEMA and the U.S. Geological Survey participated.



TV, newspaper, and radio coverage were present.



One-Hour of presentations on ArkStorm and historical flooding was provided.



ArkStorm exercise instructions was provided.



ArkStorm exercise instructions was provided.



Web EOC Station was activated.



Web EOC Station was activated.



Participants worked in teams on (2) one-hour ArkStorm tailored emergency response scenarios.



Field teams responded to scenarios.



Field teams responded to scenarios.



Agency Operations Center tested interoperable communications with County and City emergency response departments.



All groups reported and discussed how to improve community resiliency from an ArkStorm event.



U.S. Geological Survey provided comments at the end of the ArkStorm exercise.



FEMA provided comments at the end of the ArkStorm exercise.



Tabletop Exercise Wrap-Up

A final report will be prepared capturing all lessons learned.

Deficiencies in the following areas will be noted and corrected as feasible before the winter storms:

- Communications
- Staffing
- Equipment
- Vehicles





ARKSTORM EXERCISE IN EMERGENCY RESPONSE

Any
Questions?

<http://www.youtube.com/watch?v=8P-N-HA9iS8>