


Developing an Arizona Water/Wastewater Agency Response Network (AZ WARN)

The Path to Obtaining Immediate Help and Resources in a Water Sector Emergency





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Presentation Outline

- Who and what is a WARN?
- Why Mutual Aid for the Water Sector?
- National drivers for WARN
- The need for written WARN agreements
- Why consider an AZ WARN?
- Status of WARN nationwide and in Arizona





Emergency repair of sinkhole, Seattle, 2007

WARN

Water/Wastewater Agency Response Network

to support and promote statewide emergency preparedness, disaster response, and mutual assistance for water and wastewater utilities



A Network of Utilities Helping Utilities

- WARN organizes utilities within a state through mutual aid agreements
 - To provide assistance with personnel and resources in emergencies
 - Natural disasters
 - Human-caused disasters
 - Requests and responses are voluntary
 - Each responder is reimbursed for labor, materials etc. by the requesting utility
- WARN is not a corporation or a governmental unit


Mutual Aid Agreements

A Mutual Aid Agreement is an agreement between jurisdictions to assist in disaster preparedness and response. The jurisdiction of the agreement can be an individual jurisdiction or a group of jurisdictions. Mutual aid agreements are developed by utilities. Mutual aid agreements are not a contract.


- The agreement is written and signed by all parties to the agreement.
- The agreement is requested by the Applicant.
- The request is made to the utility member that has the resources and capability to provide the requested assistance.
- The utility that received the aid may request that the request be made to the utility member that has the resources and capability to provide the requested assistance.
- The agreement is not contingent upon declaration of a major disaster or emergency.
- The utility can provide documentation of work and support for agencies or agencies.

The jurisdiction of the utility providing supplemental assistance may request reimbursement for the cost of the assistance. Mutual aid agreements are not a contract.

Why Consider Mutual Aid for the Water Sector?



Water main break in Phoenix, 2006



Emergency repair after flooding, Tucson, 2005

Lessons from Past Disasters

- Past disaster responses teach us:
 - Utilities must be self-sufficient
 - Utilities must fill the gap between disaster onset and arrival of other government aid
 - Utility operations are specialized



Black Mountain Complex
Photo by Bill Dekker

Specialized Operations

Systems and Instrumentation

Specialized Operations

Distribution/Collection System Dynamics

Specialized Operations

Certified Personnel

Photo by Portland Water Works

Specialized Operations

Human Health Ramifications

In Gulfport, Miss., Joe Dobson, left, and Roderick Stapleton attempt to change a valve on a drinking water line that had burst. AP Photo/Washington Post/MJ Sanchez

Specialized Operations

Toxic/Explosive Ramifications

(U) Louisville, Kentucky: In February 1981 an illegal discharge of thousands of gallons of hexane gas from an industrial plant into a 12-foot diameter sewer exploded, destroying two miles of city streets and creating extensive damage to homes and businesses. The damaged sewer and street took more than two years to repair.

Federal Initiatives for WARN

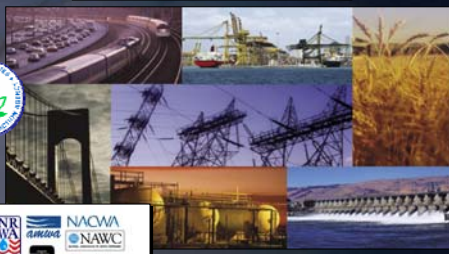
Presidential Directives






- HSPD-5: Management of Domestic Incidents
 - National Incident Management System (NIMS)
 - National Response Plan (NRP)
- HSPD-8: National Preparedness Goal

December 2004
Homeland Security

National Drivers for WARN

National Infrastructure Protection Plan



Environmental Protection Agency (EPA)

- EPA tasked with National Infrastructure Protection Plan (NIPP) Water Sector oversight
- EPA has funded/participated in the development of WARN background documents


NIPP Assignments of Responsibility

Sector-Specific Agency	Critical Infrastructure/Key Resources Sector
Environmental Protection Agency	Drinking Water and Wastewater Treatment Systems

GOAL 1 ⇒ EPA will work with the states, tribes, drinking water and wastewater utilities (water utilities), and other partners to enhance the security of water and wastewater utilities.

National Water Sector Organizations

- Joint Policy Statement endorsing WARN
 - 8 major water/wastewater organizations
 - Encourages the creation of intrastate mutual aid and assistance networks
 - Provides for greater water sector resiliency against natural or human-caused events



Utilities Helping Utilities

Joint Policy Statement on Mutual Aid & Assistance Networks

The water sector is comprised of a "Utilities Helping Utilities" concept and a robust network of mutual aid and assistance programs to provide assistance during natural and human-caused events. This document provides a framework for the development of mutual aid and assistance networks, and encourages the creation of intrastate mutual aid and assistance networks. The development of such networks will be a critical component of the water sector's resilience and recovery efforts.

Katrina as a Driver for WARN



The Need for Written WARN Agreements








Written WARN agreements are essential when a quick response is needed

Benefits of Written WARN Agreements

- Regulatory benefits
 - Sets terms and conditions for assistance
 - Helps with FEMA reimbursement
 - Establishes emergency contacts and protocols
- Practical benefits
 - Rapid assistance
 - Similar knowledge base
 - Certified personnel



Source: Wikimedia

AZ WARN is for Arizona

(Example) Without a written agreement – Portland mobilization for Katrina took 40 days

Katrina Photo by Portland Water Works

AZ WARN is for Arizona

(Example) Response with WARN Agreement – Florida mobilized assistance to Mississippi in 3 days via WARN & Governor to Governor Agreement

Florida WARN provides assistance in Mississippi

Why Consider an Arizona WARN?

- Is there a need for a WARN Program?
 - Fires?
 - Floods?
 - Earthquakes?
 - Other?

Source: Wikimedia

Fires

Aspen Fire, Tucson, 2003

2006 map showing fire hazard areas in the Southwest

Arizona wildland fires making "most serious in U.S. History" List			
Year	Name	Acres	Description
June 1990	Dude Fire	24,174	6 lives lost, 63 homes destroyed
June 2002	Rodeo-Chediski	462,000	426 structures destroyed
June 2005	Cave Creek Complex	248,310	11 structures destroyed

Source: National Fire Information Council

Fire is Arizona's largest and most frequent natural or human-caused hazard

2006 Brins Fire • Sedona, Arizona
Photo by David Sunfellow

Contrary to popular belief the original WARN program (CALWARN) was started due to the huge strain on water systems during wildfires, not due to the threat of earthquakes

Simi Valley fire, CA October 2003
Photo by Reuters/Lucy Nicholson

Fire and Water

Fire Near Whiteriver, AZ
Photos by Matt York, AP



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Floods

Widespread, damaging floods in Arizona - 1978, 1983, 1993, 2006



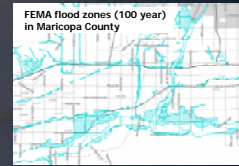
Pima County



Pima County



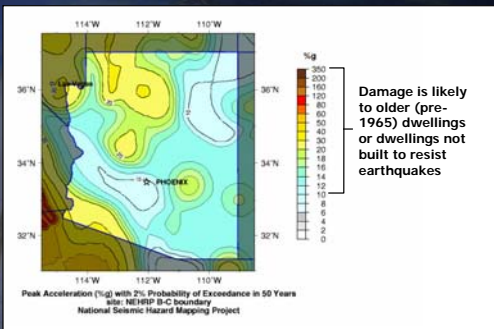
Pima County



FEMA flood zones (100 year)
in Maricopa County

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Earthquakes



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Infrastructure Failures



Emergency repairs to
sinkhole, Tucson,
2002



Sinkhole, Brooklyn, NY, 2006

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Security Concerns

Terror from the Right?
Almost 60 terrorist plots uncovered in the U.S.



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Unexpected Hazards




Massive damage to the road and culverts near Tram Stop #8 in Sabino Canyon.
(Photo by Chris Magill, USGS, 8/8/06)

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Implementation of WARN in Arizona

Implementation Actions	Responsible Agency	Start Date	End Date	Status
Develop a WARN plan	Arizona Department of Water Resources	2006	2007	Completed
Develop a mutual aid agreement	Arizona Department of Water Resources	2006	2007	In Progress
Develop a steering committee	Arizona Department of Water Resources	2006	2007	In Progress
Develop a workshop	Arizona Department of Water Resources	2006	2007	In Progress

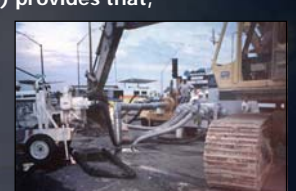


From National Infrastructure Protection Plan

AZ State Regulations Defining State Mutual Aid Requirements

- 26-309(A) allows each in-state governmental unit to develop an emergency plan that can include agreements for mutual aid with other governmental units.
- Subsection 26-309(B) provides that, once an emergency plan is in place, no other agreement is necessary.

Source: Informational Research, PC-CA Office, Charles Wesselhoff





Repair of Pima County Sinkhole, 1999


FEMA and Arizona Regulations


- The state has paved the way with mutual aid regulations
- **BUT** these state regulations don't meet federal requirements for reimbursement during a FEMA qualified emergency
- Among other reasons, FEMA will only reimburse mutual aid costs provided that:
 - “The agreement is written and was in effect prior to the disaster”

Status of WARN Nationwide and in Arizona










States with WARN in Progress

- ~~4~~ 6 states have WARN programs
 - California
 - Florida
 - Texas
 - Louisiana
 - Oregon (new this month)
 - Georgia (new this month)
- 19 states in process
- 13 states making significant progress



Source: Wikimedia

States with WARN in Progress



WARN State
 Agreement Pending
 Steering Committee
 Workshop 2006/2007

Courtesy of Kevin Morley, AWWA, February 2007

Status of WARN in Arizona

- AWPCA Steering Committee Formed
 - **Dave Mansfield** - General Manager, City of Scottsdale - Water Resources
 - **Don Hawkes** - Manager, City of Tempe Water Utilities
 - **Lonnie Frost** - Director, Town of Gilbert Public Works
 - **Mark Stratton** - General Manager Metro Water Tucson
 - **Michael Gritzuk** - Director of Pima County Wastewater President of AZ AWWA
 - **Bruce Johnson** - Deputy Director of Tucson Water
 - **Paul Kinshella** - Superintendent, City of Phoenix Water Services; President of AZ AWPCA
 - **Ron Doba** - Director, Flagstaff Water

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Status of WARN in Arizona

- Tasks
 - Meet with ADEQ and other key agencies
 - Create vision for AZWARN
 - Select "Hands-On" Subcommittee members



Source: Wikimedia

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Status of AZWARN Members of the Working Committee include:

- Harlan Agnew – Pima County Attorney's Office
- Linda Bezy-Botma – Peoria Utilities
- Ron Doba – Flagstaff Utilities Department
- Brian Draper – Mesa Water Division
- Madeline Goddard – Phoenix Water Services Department
- Randy Gottler – Phoenix Water Services Department
- Suzanne Grendahl – Scottsdale Water Resources Department
- Christopher Mitchell – Scottsdale Water Resources Department
- Kal Raman – KUV Consultants
- William Reed – Arizona Department of Environmental Quality
- Steve Ruppenthal – Avondale Water Resources Department
- Steve Shepard – Metro Water District
- Eric Staedicke – Tempe Water Utilities
- Allan Tarket – Tucson Water Department
- Jean Voelkel – Pima County Wastewater Management Department



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The best reason for WARN...

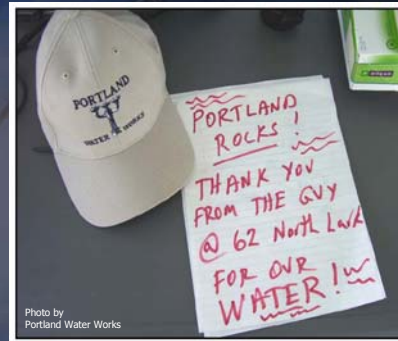


Photo by
Portland Water Works

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