

El-6: Preparing your HHW Program for Natural Disasters

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Objective

To briefly examine HHW roles in Disaster Operations.

- In California the disaster is coming to your jurisdiction some day:
 - Fire
 - Earthquake
 - Flood
 - Tsunami
 - Riots



Disaster Three R's

- Response
- Resources
- Recovery



What is a Disaster

- **Definition**

- A sudden event, such as an accident or a natural catastrophe, that causes great damage or loss of life.
- The US Federal Emergency Management Agency (FEMA) describes it as "An occurrence of a natural catastrophe, technological accident, or human caused event that has resulted in severe property damage, deaths, and/or multiple injuries."

The real answer

- Dr. Kathleen J. Tierney (Director, Disaster Research Center, University of Delaware) puts the matter in a different perspective:
 - "Many people trying to do quickly what they do not ordinarily do, in an environment with which they are not familiar."

Disaster Priorities

- Rescue
 - Fires
 - Looting
 - Food/Water
 - Sanitation
 - Shelter
-
- Utilities
 - Recovery

Response



California Debris Costs <15 years

\$151 M

Disaster No.	Debris	Disaster Type
1203	\$43,411.00	Flooding
1498	\$13,279,635.00	So Cal Fires
1505	\$45,000.00	San Simeon Eq
1577	\$41,961,429.00	Winter Storms
1585	\$19,287,339.00	Winter Storms
1628	\$12,287,842.00	Winter Storms
1646	\$3,839,791.00	Spring Storms
1689	\$0.00	Severe Freeze
1731	\$1,749,153.00	So Cal Fires
1810	\$5,780,000.00	Wildfires
1884	\$38,465,643.00	Winter storms
1911	\$1,827,830.00	Baja Eq
1968	\$12,960,860.00	Japan Tsunami
Total	\$151,527,933.00	

Largest Cost in a Disaster?

Answer: Debris



Perception in disasters

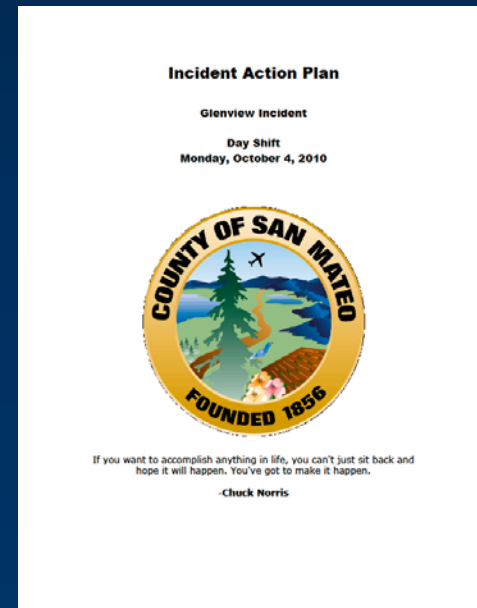
- What are your family concerns?
- What are your safety concerns?
- What are your community concerns?
- What do you see as the primary issue for your agency?

Disaster Operations

- **Transitions from Response to Recovery**
 - **How do you manage this transition?**
 - **What is the scope and size?**
 - **What exemption are available?**
 - **What exemptions are required?**
 - **What does the plan say?**
 - **Who is available?**
 - **What resources are available?**
 - **Who is FUNDING the removal?**

Debris Plans

- Got one?
- No one does!
 - No City, County, or Jurisdiction has an approved FEMA Debris Plan as of 12/2014
 - Sac County did but FEMA has new requirements now



No Plan. Now What?

- *How fast can you mobilize and implement resources*
- Can you establish protocols
- Exemptions
- Communications
- Public Safety
- HHW type, amount, staging, location

Debris Removal?

- **What are your normal procedures now?**
- **Disposal costs, who is paying for them?**
- **Exemptions (Ca Haz, DOT, Asbestos)**
- **Hazardous waste vs OSHA exposures**
- **Community exposures**
- **Biggest concern? Contractors, Dust Control, Storm Water, Body Recovery, Trucking, LF Space, Etc.**

Staging Areas

- Planning
 - Where?
 - Limitations?



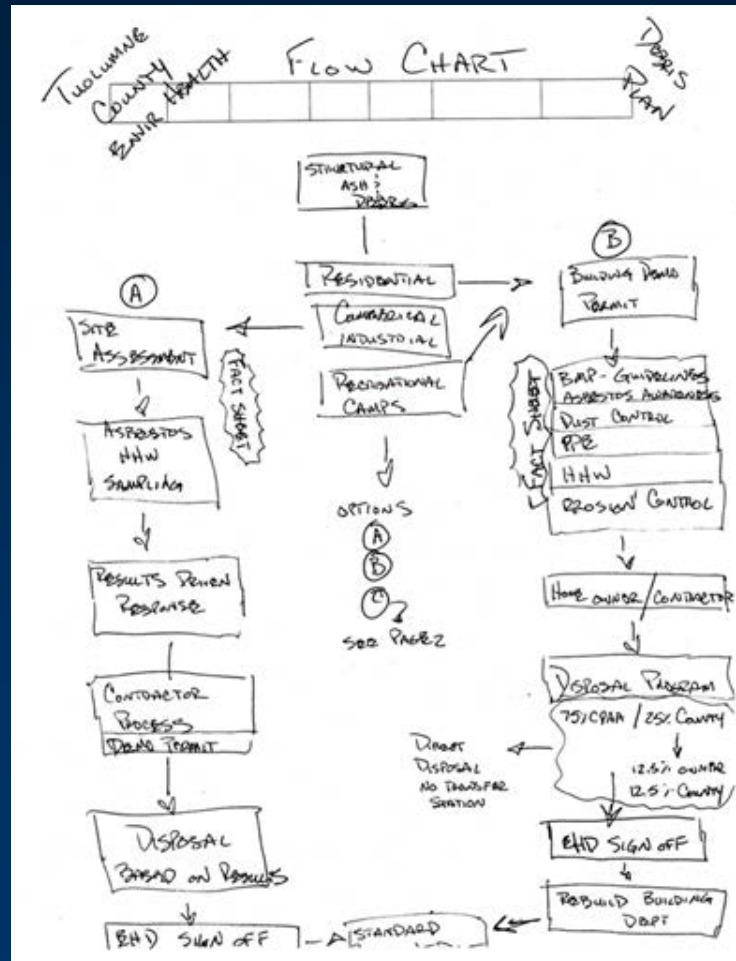
My Experience

- **Providing a leader to the incident who is responsible and in charge of operations**
- **Using a Plan and understanding the waste**
- **Using local resources, waste management haulers, subcontractors**
- **Using a predefined contractor**
- **Using Incident Command System (ICS)**

Steps

- What is your current process?
 - Do you have a super size process
- Write a plan
 - It will change
 - Daily
 - It will be wrong
 - Fix it
- Understand your hazardous and exemptions

What does this look like in 30 seconds?



Have Contingencies Plans

- UXO
- Radiological Monitoring
- Ammo
- Recovered memories
- Drug Waste



Haz Mat Operations

- How do you protect your work force?
- Health and Safety Plan



Lessons Learned

- No disaster plans
- No leadership or debris teams for recovery
- State* and Federal disaster programs do not agree on eligible funding
- Lack of funding for local governments
- Lack of training for local and state gov.
- No local or state established disaster teams

Your Plan Your Lead Your Community



- Thank you. Questions?
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