SR530 Landslide and Flooding
March 22, 2014

Snohomish County
Department of Emergency Management

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One of the deadliest landslides in the United States occurred beginning at 10:37 a.m. in Snohomish County, Washington... approximately 35 miles northeast and near the community of Oso.
Q. So, why does the SR 530 disaster near Oso, Washington matter?

A. This incident may best represent a very localized, complex, catastrophic disaster that can occur anywhere, at any time.
Snohomish County is a scenic Mountains-to-Pacific county, with a population of approximately 760,000.

The county is prone to natural disasters and has experienced 8 Stafford Act declarations since its creation in 2006.

A key governing philosophy of the county (and its approximately 3,000 employees) is to become more resilient in the face of natural, economic, and unknown hazards... a relatively rare “front and center” philosophical viewpoint in today’s political climate.
At 10:37 a.m. on March 22 a massive landslide impacted the North Fork of the Stillaguamish River, completely destroyed the Steelhead Haven community, and flooded adjacent properties and homes.

A debris dam blocked the river and instantly backed up water, creating a massive and growing “lake”.

- 43 fatalities
- 45 impacted homes
  (36 destroyed, 9 flooded)

State Route 530 (SR530) was partially destroyed, impassible, and segmented entire interdependent communities for a thirty-mile stretch.
Saturday, March 22, 2014

Steelhead Haven Community
Saturday, March 22, 2014

Steelhead Haven Community
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Only One Week Prior... in the Town of Index, Washington
Saturday, March 22, 2014

Only One Week Prior
Snohomish County Department of Emergency Management (Quick Review)

- Developed in 2006 by the county and staffed by several FEMA Region X officials with a deep appreciation of federal partnerships and capabilities.
- Intense focus on individual and organizational leadership as much as emergency management.
- DEM created a system, *a way of thinking*, designed to minimize the impacts of disasters on life, property, the environment, and the economy.
- The system included frameworks, programs, and protocols that enabled Snohomish County to effectively:

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Prepare - Respond - Mitigate - Recover
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Disaster
Snohomish County DEM conducts emergency management for the unincorporated county and the following 20 contracted towns, cities and tribes:

Index, Gold Bar, Sultan, Monroe, Snohomish, Lake Stevens, Marysville, Arlington, Darrington, Granite Falls, Stanwood, Brier, Woodway, Mountlake Terrace, Mill Creek, Edmonds, Mukilteo, Lynnwood, Tulalip Tribe, Stillaguamish Tribe.

**Fast Fact:**

DEM’s relationship with the **Tulalip** and **Stillaguamish** Tribes is one of the few local government / tribal emergency management inter-local agreements in the nation. This relationship became key to success during the SR530 disaster.
Major Disaster Coordination in Snohomish County

- When incidents/disasters become too large to manage “on scene,” emergency management organizations (usually departments or agencies) begin coordination using either a standard ICS model or, in the case of larger jurisdictions, Emergency Support Functions (ESFs).

- Snohomish County, upon its creation, chose to utilize the ESF structure for managing major disasters. This concept worked extremely well and was very effective…until the SR 530 disaster.

SNOCO Fact

In 2006 DEM became the first local EM department in the Pacific Northwest to adopt and fully use the Hybrid-ESF structure.
SR 530 Emergency Management Challenges

Emergency Management Challenges (very partial)

- **Complexity (a localized catastrophe)**
  Search & rescue, flooding, mass casualty, mass fatality, evacuation, infrastructure failure, missing & unaccounted persons, mental health, volunteers, donations, etc… Every ESF, instantly involved

- **Remote location** with very limited roadways, extremely fragile economy

- Depth and type of debris material

- Weather Uncertainty

- **Cultural / Social impacts**
  Tribes, salmon (ESA), agriculture, hazardous materials

- Public / Media expectations
SR 530 Emergency Management Challenges

Emergency Management Challenges (very partial)

• Tactical search extended for 37 continuous days:
  Primary efforts to find and recover all 43 victims (which was accomplished)
  Extremely successful (science and dogs)
  Extremely demanding (exhaustion on all levels)

• Strategic EOC operations & coordination continued for 44 continuous days (24/7) before finally scaling back to limited operations that continued into recovery

• Long Term Recovery (LTR) started on day 10 of the incident and will continue for years.
SR 530 Emergency Management Challenges

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Emergency Management Challenges
Emergency Support Functions
Snohomish County Coordination Structure

1. Transportation
2. Communications
3. Public Works and Engineering
4. Firefighting
5. Emergency Management
6. Mass Care, Emergency Assistance, Housing, Human Services
7. Logistics Management and Resource Support
8. Public Health and Medical Services
9. Search and Rescue
10. Oil and Hazardous Materials Response
11. Agriculture and Natural Resources
12. Energy
13. Public Safety and Security (Law Enforcement)
14. Long-Term Community Recovery
15. External Affairs (Public Information including Social Media)
SR 530 Emergency Management Challenges

Stepping Back to Analyze What You Have Just Faced

- The physical relocation / unprecedented reassignment of core staff
- Vacuums in Leadership… my directives were very simple
- Still maintaining continuity, situational awareness, a common operating picture… reliance upon the system we’d built
Stepping Back to Analyze What You Have Faced

• Coordinating an organizational structure that included:

  An overarching EOC (117 agencies)
  Approximately 2000 total workers
  Multiple IMTs (local and state)
  A “super” Incident Command Post
  Forward Command Posts
  Joint Information Center / System
  Federal assets… and some federal egos
  Three federally recognized tribes and nationwide cultural awareness
SR 530 Emergency Management Challenges

Stepping Back to Analyze What You Have Faced

- Retirement of a Deputy Director
- Newly appointed Deputy Director who had been deployed the entire first week
- Newest employee (6 weeks) placed in charge of EOC operations, without benefit of understanding culture of DEM
- Ownership of our own incident… unintended federal mission creep
- Relatively new county leadership team (Executive John Lovick)
- Mass Fatality plan that existed but was nonetheless underutilized and not fully understood
SR 530 Emergency Management Challenges

Stepping Back to Analyze What You Have Faced

• International Media Scrutiny (You know its big when…)

• Non traditional roles of anchor components of your organization (Ex. Call Center tasking to reconcile the missing / unaccounted)

• State’s largest, most complex mitigation effort (ongoing)… not many remaining title holders
Executing the Coordinated Approach to Emergency Management

- Without participation from critical partners, Snohomish County would not have succeeded, period. Approximately 300 agencies total, 117 in the EOC alone.

- The traditional phases of emergency management require inclusion of everyone and everything important to Snohomish County and its residents / visitors.

- Snohomish County’s strong relationship with the National Weather Service became integral to critical decision making in the earliest moments following the slide (ex. EAS and ETN while NWS guided us).

Common Sense:

We often hear to not get caught meeting your counterpart from another jurisdiction, or a critical partner within your community, for the first time after the event has already occurred.

DEM had established (and strengthened) trusted relationships with internal and external partners around Puget Sound and around the state, including the NWS and USACE.
SR 530 Operational Successes

Operational Successes

- Loss of life was limited to the initial incident
- Communities (professional and volunteer) came together for one mission
- Political support brought timely and needed resources
- Pre-established and strong, credible working relationships became integral to systemic success
- Partners worked together to support the needs of the community
  - Establishing human services resource centers
  - Coordination of efforts
  - Re-establishing SR 530
Recommendations and Thoughts

- Create a statewide “system” of emergency management (mimic successes in Snohomish County and Puget Sound)
- **Regionalize** the response coordination in Washington
- Develop and launch Emergency Management Assistance Teams (EMATs) to assist smaller impacted jurisdictions
- Establish pre-identified Strategic Advisory Teams (SATs) to support EOCs: Mobile Think Tanks
- Explore the concept of Incidents of Statewide Significance
- Acknowledge (and fund) Emergency Management as a Social Science, not a subset of Public Safety disciplines

**Update:**
The tragic earthquake in Nepal prompted the first US Department of State request for potential EMAT deployment, from Snohomish County. The county is now positioned to become the first EMAT to support wildfire efforts in remote counties of Washington state this summer, working for under-resourced emergency management agencies and with their EM interface with Incident Management Teams (IMT).
No one person is immune from human emotion
March 22, 2014

Questions?

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