

# NEESC & USSC

## 2008 Wells Earthquake Meeting

- Major Learning Opportunity for the individuals in these advisory councils,
- Encourage putting what you see in context of other communities in Utah and Nevada,
- How do we promote the successes into the future?
- How do we enhance our seismic safety in the future?

**February 21, 2008**  
**Wells, Nevada**  
**Earthquake**

# 2008 Wells, Nevada Earthquake

- Nevada's 23<sup>rd</sup> historical earthquake of magnitude  $\geq 6$ ,
- Background earthquake (small unmapped fault, no surface rupture),
- Rural community impacted,
- Successful response,
- Successful recovery (still ongoing).

# Wells Profile

- Great people; population 1657,
- Cross roads Interstate 80 and Highway 93,
- About 450 homes, 80 buildings,
- 1997 UBC building codes used,
- 64% low-income housing.

# Seismic Hazard Profile

- Relatively low hazard part of the state,
- Portrayed on National Geographic map in late 90s as “no hazard” for a number of natural hazards (local’s knowledge),
- Seismicity usually poorly recorded.

# Earthquake Profile

- Magnitude 6; epicenter 5.5 mi N., ruptured to within 1-2 mi of town, normal dip slip movement,
- Three homes lost, >60 chimneys damaged,
- 35 buildings damaged,
- 3 natural gas leaks (1 liquid, 2 gas),
- 3 minor injuries, no deaths.

# Some new information

- Mapped new faults; one rupture <130 ka,
- Nice “footprint” of the earthquake in geodetic InSAR satellite data,
- High-quality portable seismic array rapidly installed to record aftershocks (UNR, UUSL, USGS),





# Community and Individuals Key

- Pioneering spirit; getting at the situation, having the wherewithal to accomplish the task at hand, and getting the job done,
- People from Elko County, Nevada, Utah, and Idaho all helped,
- Media coverage was good and provided an important communication service.

# Earthquakes are the Ultimate Laboratory

- Need to learn how to better survive future Earthquakes that are *inevitable*,
- Need to scrutinize the event and learn lessons for our future populations,
- Need to engage those lessons into our communities (really improve, not just talk about improving)

# Today's Presentations

- **Seismicity** – Ken Smith
- **Building Damage** – Craig dePolo
- **Emergency Response** – David Prall
- **Local Awards in Excellence** – Council
- **Walking Tour** – dePolo, Palmer, Supp
- **Recovery** – Craig dePolo
- **Lessons Learned** – Councils
- **Implementing the Lessons Learned** -  
Councils