NEHRP Interactions with Other Hazards Activities

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Important Role for NEHRP

- Disaster and risk mitigation, including earthquakes, is a Federal priority
- Goal: Outline where the NEHRP effort fits into the overall picture
  - Many interrelated activities ongoing within the disaster space, particularly:
    - Part I: NSTC Committees and Outcomes
    - Part II: PPD-8 and PPD-21
    - Part III: Other Interagency Coordination Groups
Part I: National Science and Technology Council

• Established in 1993, this Cabinet-level Council is the principal means within the executive branch to coordinate science and technology policy across the Federal R&D enterprise.

• Organized in five primary committees
  – Environment, Natural Resources and Sustainability;
  – Homeland and National Security;
  – Science, Technology, Engineering, and Math (STEM) Education;
  – Science; and
  – Technology
NSTC Committee on Environment, Natural Resources and Sustainability

Committee Members

- Department of Agriculture
- Department of Commerce
- Department of Defense
- Department of Energy
- Department of Health and Human Services
- Department of Homeland Security
- Department of the Interior
- Department of Justice
- Department of State
- Department of Transportation
- Environmental Protection Agency
- Federal Emergency Management Agency
- National Aeronautics and Space Administration
- National Science Foundation
- Smithsonian Institution

Subcommittees

- Air Quality Research
- Critical and Strategic Mineral Supply Chains
- **Disaster Reduction**
- Ecological Services
- Global Change Research
- Ocean Science & Technology
- Water Availability & Quality
- Toxics & Risks
- **US Group on Earth Observations**
Subcommittee on Disaster Reduction (SDR)

- SDR provides a Cross-Agency Federal forum for:
  - information sharing;
  - development of collaborative opportunities;
  - formulation of science- and technology-based guidance for policy makers;
  - and dialogue with the U.S. policy community to advance informed strategies for managing disaster risks.

Subcommittee Members *(NEHRP Agencies Highlighted)*
- Agriculture
- Commerce
- Defense
- Energy
- Environmental Protection Agency
- Federal Energy Regulatory Commission
- Health and Human Services
- Homeland Security
- Housing and Urban Development
- Interior
- National Aeronautics and Space Administration
- National Geospatial-Intelligence Agency
- National Science Foundation
- Nuclear Regulatory Commission
- State
- Transportation
SDR Produced a Grand Challenges Report

• In 2005, SDR published the Grand Challenges for Disaster Reduction
  – Grand Challenges is a ten-year national strategy document for prioritizing Federal investments in science and technology to reduce disaster risks and promote resilient communities.

http://www.sdr.gov/grandchallenges.html
In 2008, SDR published the Grand Challenges Implementation Plans for 15 specific hazards, including earthquake:

- Coastal Inundation
- Drought
- **Earthquake**
- Flood
- Heat Wave
- Human and Ecosystem Health
- Hurricane
- Landslide and Debris Flow
- Space Weather
- Technological Disasters
- Tornado
- Tsunami
- Volcano
- Wildland Fire
- Winter Storm
The purpose of the USGEO is to:

(1) coordinate, plan and assess Federal Earth observation activities in cooperation with domestic stakeholders;

(2) foster improved Earth sharing system data management and interoperability throughout the Federal Government;

(3) engage international stakeholders by formulating the U.S. position for, and coordinating U.S. participation in, the intergovernmental Group on Earth Observation (GEO).

Departments and Agencies

- Agriculture
- Commerce
- Defense
- Energy
- Environmental Protection Agency
- Homeland Security
- Interior
- National Aeronautics and Space Administration
- National Science Foundation
- Smithsonian
- US Agency for International Development
• Sustained Observations for Public Services
  – Tier 1 Observations: These measurement groups represent the highest priority measurements in the category of sustained observations for public services:
    • Priority 3: Elevation and geo-location: Observations in this measurement group support food and later security, hazard and risk mapping, and natural-resource management. These observations particularly include topography and bathymetry, surface modeling, hydrologic data, and ecosystems-related data as derived from radar and laser sensors on satellite-based, airborne, and terrestrial platforms, as well as positioning, navigation, and timing satellites, such as those used for the Global Positioning System (GPS).
  – Tier 2 Observations: These measurement classes are of next-highest priority and importance in the category of sustained observations for public services.
    • Geo-hazard monitoring for earthquakes, volcanoes, landslides, regional and local subsidence (e.g., sinkholes), inundation, and tsunamis
Part II: PPD-8 / PPD-21 and the National Planning Frameworks

PPD-8 National Preparedness
PPD-21: Critical Infrastructure Security and Resilience

National Prevention Framework
National Protection Framework
National Mitigation Framework
National Response Framework
National Disaster Recovery Framework

Mitigation Framework Leadership Group
Emergency Response Function Leadership Group
Recovery Support Function Leadership Group
Mitigation Framework Leadership Group (MitFLG)

- Presidential Policy Directive 8 (PPD-8) on National Preparedness established the mitigation mission area for the first time.
- FEMA released the National Mitigation Framework in May 2013.
- The Framework in turn established the Mitigation Framework Leadership Group (MitFLG).

The Mitigation Framework Leadership Group (MitFLG) is a central coordination point for Federal Mitigation activities. Core capabilities include:

- Threats and Hazard Identification
- Risk and Disaster Resilience Assessment
- Planning
- Community Resilience
- Public Information and Warning
- Long-Term Vulnerability Reduction
- Operational Coordination

**Membership includes:**

- Department of Agriculture
- **Department of Commerce**
- Department of Defense
- Department of Energy
- Environmental Protection Agency
- General Services Administration
- Department of Health and Human Services
- **Department of Homeland Security**
- Department of Housing and Urban Development
- **Department of the Interior**
- Department of Justice
- Small Business Administration
- Department of Transportation

Source: FEMA Mitigation Federal Interagency Operational Plan Information Sheet
Part III: Other Interagency Groups

In addition to the National Earthquake Hazards Reduction Program (NEHRP):

- National Tsunami Hazard Mitigation Program (NTHMP)
- Interagency Committee on Seismic Safety in Construction (ICSSC)
- National Space Weather Program (NSWP)
- National Windstorm Impact Reduction Program (NWIRP)
- U.S. Global Change Research Program (USGCRP)
National Tsunami Hazard Mitigation Program

• Reduce the impact of tsunamis through
  – hazard assessment
  – warning guidance
  – mitigation

• A partnership
  – NOAA
  – USGS
  – FEMA
  – NSF
Interagency Committee on Seismic Safety in Construction

- Established in 1978 (before national consensus building codes and standards were available) as a part of NEHRP
- Purpose: Assist Federal departments/agencies involved in construction develop and incorporate earthquake hazards (risks!) reduction measures in their construction programs
- With advent of International Building Code ~ 2000, immediate needs of Federal agencies in this area decreased
- Now focused primarily on developing standards for agencies to manage their existing building inventories (e.g., ICSSC RP-8, briefed by Jack Hayes, earlier today)
- FEMA, NIST, & USGS remain involved in ICSSC activities, and NEHRP Director chairs ICSSC
Questions?
In 2004, Congress created the National Windstorm Impact Reduction Program (NWIRP) to reduce the loss of life and property from windstorms. The purpose of NWIRP is to improve the understanding of windstorms and windstorm impacts through research and investment and to develop and encourage implementation of cost-effective mitigation measures to reduce those impacts.
The U.S. Global Change Research Program (USGCRP) coordinates and integrates federal research on changes in the global environment and their implications for society. The USGCRP began as a presidential initiative in 1989 and was mandated by Congress in the Global Change Research Act of 1990 (P.L. 101-606), which called for "a comprehensive and integrated United States research program which will assist the Nation and the world to understand, assess, predict, and respond to human-induced and natural processes of global change."
National Space Weather Program

- The National Space Weather Program (NSWP) is an interagency initiative to speed improvement of space weather services. It emerged in 1994 from the efforts of several U.S. government agencies to prepare the country to deal with technological vulnerabilities associated with the space environment. The overarching goal of the NSWP is to achieve an active, synergistic, interagency system to provide timely, accurate, and reliable space weather warnings, observations, specifications, and forecasts.