

National Earthquake Hazards Reduction Program

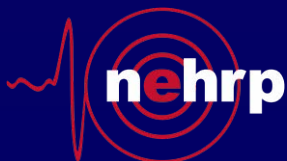
... a research and implementation partnership

Program Update

Presentation to Advisory Committee on Earthquake Hazard Reduction

23 November 2009

Shyam Sunder – NIST BFRL Director and ACEHR Designated Federal Officer
Jack Hayes – NEHRP Director



FEMA

NIST
National Institute of
Standards and Technology

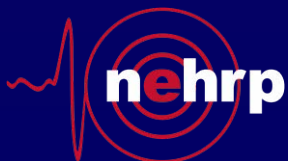


USGS
science for a changing world

national **earthquake** hazards reduction program

Presentation Outline

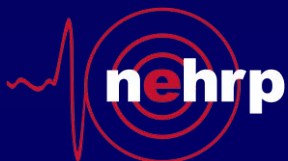
- NEHRP Reauthorization Status
- Program Budgets
- Status of Strategic Plan Implementation
- Status of Annual Report Preparation
- Agency Responses to 2009 ACEHR Input Letter
- National Research Council Study Status
- Management Plan Development Status



NEHRP Reauthorization

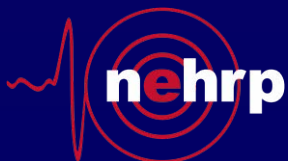
- “Old” authorization (PL 108-360) expired on 9/30/09.
- Agencies are continuing NEHRP “business as usual,” within budget constraints, while reauthorization activity proceeds.
- House S&T Committee conducted reauthorization hearings in June – thanks to Jim Harris, Mike Lindell, and Tom O’Rourke for their testimony!
- Current indications are that House & Senate are considering different approaches to reauthorization.
 - Agencies do not have details about current Senate approach.
 - Published version of draft HR 3820* provides insights into current House approach.
 - Draft HR 3820 seems to endorse directions set forth in NEHRP Strategic Plan.

* See <http://thomas.loc.gov/cgi-bin/query/z?c111:H.R.3820/>



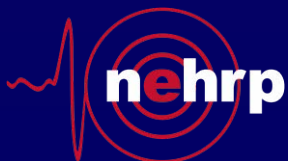
NEHRP Reauthorization: Draft HR 3820

- General Changes:
 - NEHRP included as Title I (of 5 titles) of new *Natural Hazards Risk Reduction Act of 2009*
 - Other titles:
 - II: Wind
 - III: Interagency Coordinating Committee on Natural Hazards Risk Reduction
 - IV: National Construction Safety Team Act Amendments
 - V: Fire Research Program
 - NIST also established as lead agency for other hazards
 - Agency NEHRP authorization levels reduced by varying percentages
 - Requirements for all agencies to support NSF report that led to NEES development eliminated (since NEES is underway)



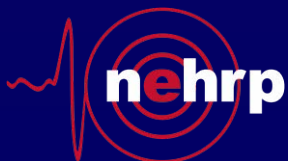
NEHRP Reauthorization: Draft HR 3820

- Significant Agency Role Changes:
 - Lead Agency (NIST):
 - ✓ Increased emphasis on social sciences
 - ✓ Lead for post-earthquake investigations (PIMS not mentioned)
 - ✓ Increased emphasis on issuing recommended model code changes and reporting on their adoption (note: historically a FEMA lead role)
 - Agency Program Responsibilities:
 - ✓ FEMA, NIST largely unchanged
 - ✓ NSF – increased emphasis on multi- and inter-disciplinary research, and on social sciences
 - ✓ USGS – legacy NEIC library functions removed



NEHRP Reauthorization: Draft HR 3820

- Significant Committee Structure Changes:
 - Interagency Coordinating Committee:
 - ✓ Becomes earthquake + wind, with NOAA membership
 - ✓ Required meetings reduced from 3 to 2 per year
 - Advisory Committee on Earthquake Hazards Reduction:
 - ✓ Function and composition largely unchanged
 - ✓ Parallel committee on wind hazards established
 - ✓ NIST Director has authority to establish other advisory committees



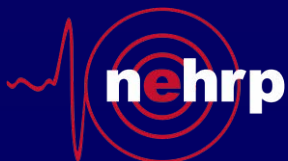
NEHRP Reauthorization: Draft HR 3820

- Significant Reporting Changes:
 - Biannual report on program (instead of annual reports)
 - Program budget report to be submitted in years when no annual report is required
 - New strategic plan is required (appears to combine previous requirements for strategic and management plans in new strategic plan format)



NEHRP Reauthorization: Draft HR 3820

- Significant Reporting Changes, Continued:
 - Subcommittee on Disaster Reduction (SDR) of the Committee on Environment & Natural Resources of the National Science & Technology Council (NSTC) required to report in two years on:
 - ✓ Current Federal R&D and technology transfer activities that address hazard mitigation for natural disasters, including earthquakes, hurricanes, tornadoes, wildfires, and floods
 - ✓ Areas of research common to two or more hazards
 - ✓ Opportunities to create synergies among research activities for different hazards

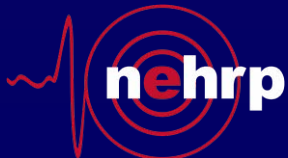


NEHRP Program Budgets

Agency	\$M											
	FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010	
	Authorized ¹	Enacted ²	Authorized ¹	Enacted ²	Authorized ¹	Enacted ²	Authorized ¹	Enacted ²	Authorized ¹	Enacted ²	Authorized ¹	Requested/ Enacted ³
FEMA ⁴	21.0	14.7	21.6	9.5	22.3	7.2	23.0	6.1	23.6	9.1	TBD	9.0
NIST ⁵	10.0	0.9	11.0	0.9	12.1	1.7	13.3	1.7	14.6	4.1	TBD	4.1
NSF ⁶	58.0	53.1	59.5	53.8	61.2	54.2	62.9	53.6	64.7	55.3	TBD	57.0
USGS ⁷	77.0	58.4	84.4	54.5	85.9	55.4	87.4	58.1	88.9	61.2	TBD	62.8
Totals	166.0	127.1	176.5	118.7	181.5	118.5	186.6	119.5	191.8	129.7	TBD	132.9

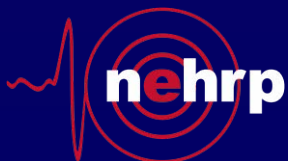
Notes:

- Budgets through FY 2009 authorized by Congress in P.L. 108-360. FY 2010 authorizations to be determined in new authorization.
- "Enacted" budgets reported by all agencies for FY 2005 – FY 2009.
- "Requested" budgets reported for NIST & NSF in President's FY 2010 Budget Request – Continuing Resolution thru 12/18/09.
"Enacted" budgets reported by FEMA & USGS for FY 2010.
FEMA FY 2010 budget is estimated portion of FY 2010 DHS appropriation that will be allocated for FEMA NEHRP activities.
- FEMA FY 2005 budget covered program activities and S&E, but excluded state grants.
FEMA FY 2006 – FY 2009 budgets covered program activities, but excluded S&E and state grants.
- NIST budgets support NEHRP Secretariat and NIST Earthquake Risk Mitigation R&D Program.
- NSF budgets include NEES O&M funds: FY 2005 - \$17.9M, FY 2006 - \$21.0M, FY 2007 - \$20.7M, FY 2008 - \$19.4M, FY 2009 - \$21.0M, FY 2010 - \$22.0M.
- USGS authorization includes for ANSS: FY 2005 - \$30M, FY 2006 and beyond - \$36M per year.
USGS FY 2005 budget includes funds for tsunami warning from emergency supplemental appropriation (\$3.95M for EHP, \$4.15M for GSN).
USGS budgets include GSN funds: FY 2005 - \$7.5M, FY 2006 - \$3.9M, FY 2007 - \$3.9M, FY 2008 - \$4.4M, FY 2009 - \$5.5M, FY 2010 - \$5.8M.
- FY 2009 ARRA funds are not included.



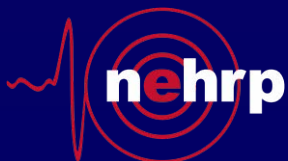
Strategic Plan Implementation Status

- *Agencies will report details during their individual presentations.*
- Highlights include:
 - NSF awarded new NEES Operations cooperative agreement to Purdue University (known as NEES*comm*)
 - FEMA re-established its State Assistance program
 - USGS has initiated major ANSS instrumentation upgrades supported with ARRA funding
 - NIST solicited earthquake research grant proposals supported with ARRA funding
 - NSF received ARRA funding to make additional research awards



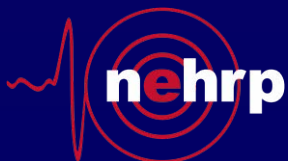
Strategic Plan Implementation Status

- Continued from previous slide.
- Highlights include:
 - FEMA neared completion of the 2009 Recommended Provisions
 - NIST proceeded with its buildup activities, with emphasis on PBSE
 - FEMA and NIST initiated formal interagency meetings to develop closely coordinated research and knowledge transfer activities
 - FEMA, NIST, & USGS presented joint New Madrid overview in Memphis



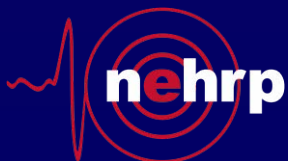
Annual Report Preparation Status

- Consistent with draft HR 3820, and in absence of authorization, agencies intend to report their budgets in 2010, with next report to be a “biannual” 2009-2010 report.



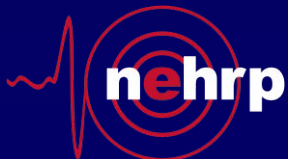
Agency Responses to 2009 ACEHR Input Letter

- Formal response from NEHRP ICC now in final stages of staffing
- Key highlights of responses:
 - **Transfer of post-EQ lead agency:**
 - ✓ Legislation is key – current legislation places USGS in lead role
 - ✓ ACEHR recommendation to transfer lead role for post-EQ investigations is in draft HR 3820
 - **Enhance collaboration and advancements in lifeline engineering:**
 - ✓ Regulatory oversight of nation's lifelines is beyond NEHRP scope, but NEHRP will explore ways to focus national attention
 - ✓ NEHRP will support increased activity as resources permit
 - ✓ NSF actively cites the Strategic Plan in its solicitations



Agency Responses to 2009 ACEHR Input Letter

- Key highlights of responses, continued:
 - **Promote synergistic activities:**
 - ✓ Conducted Meeting of Interagency Committee on Seismic Safety in Construction (ICSSC) in August – progress hinges on NEHRP Director's capacity to work issues
 - ✓ Briefed NSTC SDR at its November meeting – interest in NEHRP cooperation expressed by FHWA and NASA
 - **Support interdisciplinary research activities:**
 - ✓ NSF already substantially engaged
 - ✓ FEMA & NIST efforts depend on resource availabilities
 - **Continue multi-hazard demonstration projects:**
 - ✓ USGS continues to work in this area



National Research Council Study Status

- Project well underway
- National workshop conducted at UC Irvine, August 2009
- Committee met in Chicago in October 2009
- Committee's last meeting to be held in DC in early December 2009
- Final report anticipated by late spring to early summer 2010

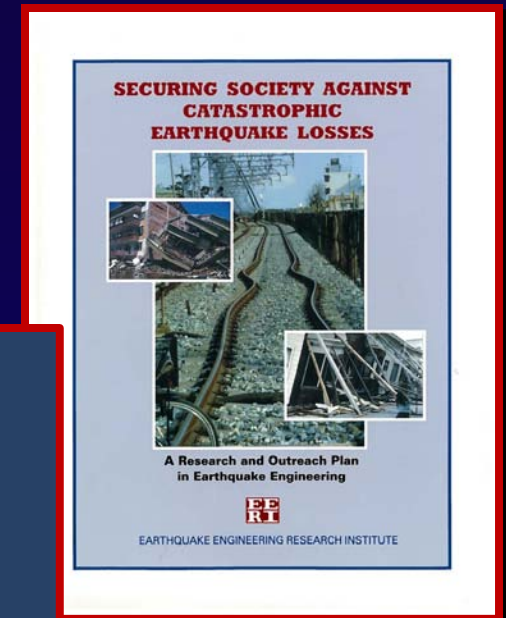
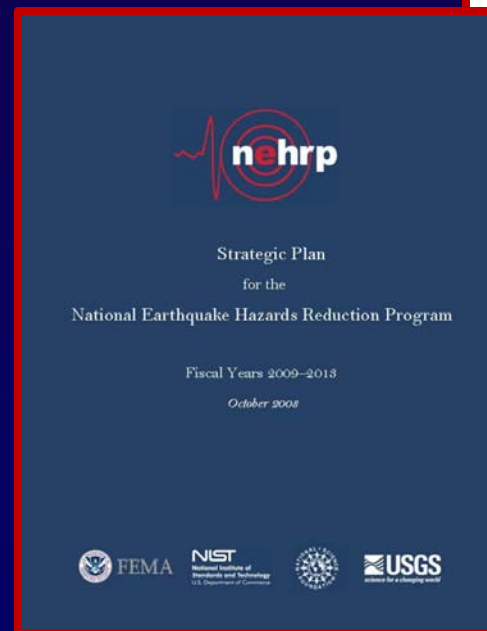
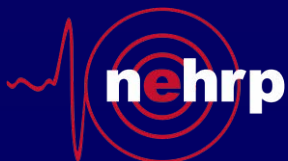


Figure courtesy of EERI



Management Plan Development Status

- Agencies have awaited final seating of Administration Interagency Coordinating Committee (ICC) leaders to establish detailed direction
- (Meanwhile) New draft reauthorization seems to combine features of management plan with strategic plan
- Results of NRC study should be available by mid-2010

