

National Earthquake Hazards Reduction Program

... a research and implementation partnership

Strategic Plan 2008 – 2012

Update for NEHRP ACEHR Meeting

10-11 April 2008



FEMA

NIST
National Institute of
Standards and Technology



USGS
science for a changing world

national **earthquake** hazards reduction program

Strategic Plan Outline

- Executive Summary
- Introduction - Background
- Vision / Mission / Strategic Planning Principles
- Goals / Objectives / Outcomes
- Strategic Priorities
- Summary
- Appendices



Background

- Brief history – but most history and organization is in appendices
 - Short overview explaining nature of problem, current approaches and their shortcomings, new technical ideas, and agency capabilities and statutory activities
- Listing of major program advances / outcomes / impacts
 - For example: adoption of NEHRP recommended provisions in national model building codes, benefits of advanced instrumentation for earthquake notification/early warning, new technical solutions (base isolation, improved steel moment frames)



National Vision Statement

The Program is driven by a national vision for the future:

*A nation that is earthquake-resilient
in public safety, economic strength, and national security.*

This vision gives rise to the NEHRP Mission Statement (see next slide).



NEHRP Mission Statement

To develop, disseminate, and promote knowledge, tools, and practices for earthquake risk reduction – through coordinated, multi-disciplinary interagency partnerships among the NEHRP agencies and their stakeholders – that improve the nation’s earthquake resilience in public safety, economic strength and national security.



Strategic Goals

- A. Improve understanding of earthquake processes and impacts.
- B. Develop cost-effective measures to reduce earthquake impacts on individuals, the built environment, and society-at-large.
- C. Improve the earthquake resilience of our communities nationwide.

Goals closely parallel three major statutory program activities.



Strategic Planning Principles

... including ...

- Program impact through effective development and transfer of knowledge, tools, and practices
- Evolutionary approach
- Interagency coordination / cooperation / synergy
 - Includes coordinated budget development
 - Emphasizes that progress towards all Plan goals and objectives presented in this Plan will be made, but not all of the outcomes will be fully realized during the Plan period of 2008 – 2012
- Adoption of nine Strategic Priorities that support Program goals and objectives



Strategic Planning Principles (cont'd)

- Close partnerships with stakeholder communities
- Exploitation of ANSS, GSN, NEES
 - Includes emphasis on facility utilization by program
 - Includes recurring support for operating key research and data collection facilities (e.g. ANSS, NEES), providing the necessary foundation for achieving Plan goals and objectives
- Multi-disciplinary approach
- Multi-hazard leveraging awareness
- Linkages with broader Federal policies, plans, and priorities
- Increased international cooperation



Strategic Plan Structure

- NEHRP goals: broad and long-term with expected impacts, that should be realized, in full or in part, during the five year planning period; serve to guide and focus NEHRP planning and activities to accomplish the NEHRP Mission.
- NEHRP objectives: specific achievements towards broad goals, with expected outputs and outcomes, that should be realized, in full or in part, during the five year planning period.

Note:

1. Fulfilling many of the objectives will contribute to more than one goal. Objectives are listed under the goal to which they principally contribute.
2. Statute also requires an Implementation Plan, which will contain more agency-specific data. That plan will be developed following Strategic Plan completion.



Goal A: Improve understanding of earthquake processes and impacts

- Objective 1: Advance understanding of **earthquake phenomena and generation processes**
- Objective 2: Advance understanding of **earthquake effects** on the built environment
- Objective 3: Advance understanding of **social, psychological, and economic factors** linked to implementing risk reduction and mitigation strategies in the public and private sectors
- Objective 4: Improve **post-earthquake information management**



Goal B: Develop cost-effective measures to reduce earthquake impacts on individuals, the built environment, and society at large.

- Objective 5: **Assess earthquake hazards** for research and practical applications
- Objective 6: Develop **advanced loss estimation and risk assessment tools**
- Objective 7: Develop tools to improve the seismic performance of **buildings and other structures**
- Objective 8: Develop tools to improve the seismic performance of **critical infrastructure**



Goal C: Improve the earthquake resilience of our communities nationwide

- Objective 9: Improve the accuracy, timeliness, and content of **earthquake information products**
- Objective 10: Develop comprehensive **earthquake scenarios** and risk assessments
- Objective 11: Support development of **seismic standards and building codes** and advocate their adoption and enforcement



Goal C: Improve the earthquake resilience of our communities nationwide

- Objective 12: Promote the implementation of earthquake-resilient measures in **professional practice and in private and public policies**
- Objective 13: Increase **public awareness** of earthquake hazards and risks
- Objective 14: Develop the nation's **human resource base** in earthquake safety fields



Strategic Priorities

Describes 2006 ICC examination of “gaps” & emphasizes the 9 strategic priorities (presented in order of first association with goals and objectives):

- Fully implement Advanced National Seismic System (ANSS)
- Improve techniques for evaluating & rehabilitating existing buildings
- Further develop Performance-Based Seismic Design (PBSD)
- Increase consideration of socio-economic issues related to hazard mitigation implementation
- Develop a Post-Earthquake Information Management System (PIMS)
- Develop advanced risk mitigation technologies & practices
- Develop earthquake-resilient lifeline components and systems
- Develop & conduct earthquake scenarios for effective earthquake risk mitigation
- Facilitate improved earthquake mitigation at state & local levels



Summary

- General “wrap-up”
- Emphasize future development of Program Management Plan, following adoption of Strategic Plan



Appendices

- Abbreviations / acronyms
- Glossary of key terms
- NEHRP today (brief program description)
 - Includes amplifying tables tying goal-objective relationships to agency statutory program activities



Updated Plan Development Schedule

(All dates on or about)

- 3 April: ICC clears public release of draft Plan for public comment, including ACEHR review
- 9 May: Public comment period ends
- 30 May: PCWG submits final draft for formal approval to ICC and interagency clearance by OMB
- 30 June – 31 July: ICC releases final plan to public (largely governed by interagency reviews and date of next ICC meeting).

