

FEMA Earthquake Program Update – April 2015

Agency Overview
Budget Update
Recent Accomplishments
2015-2016 Plans

Edward M. Laatsch, P.E.
Chief, Building Science Branch



FEMA



Agency Overview

Building Science *for Disaster-Resilient Communities*



Mitigation
Works

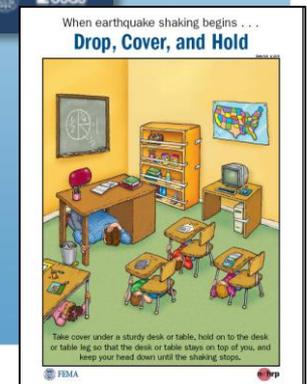
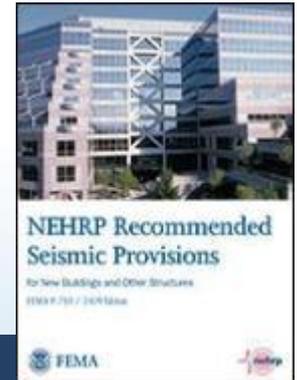
NHERP Goals

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



FEMA NEHRP Priorities

- Building Codes and Standards
- Guidance and Tools (books, software, training)
- Program Implementation and Outreach (awareness campaigns, media, articles, initiatives)
- Consortia Partnerships
- Support for Regional EQ Program Managers
- Disaster Support (SME, post-event studies)
- Critical Infrastructure (not doing this)



FEMA NEHRP HQ

Edward Laatsch, P.E. – Branch
Chief

Vice Walsh – *Guidance
Development/Losses
Avoided/Resilience*

Mike Mahoney – Codes/Special
Projects (PBSD, R Factors,
Tsunami, etc)

Mai Tong – PhD. - EQ New
Buildings Guidance/Building
Science

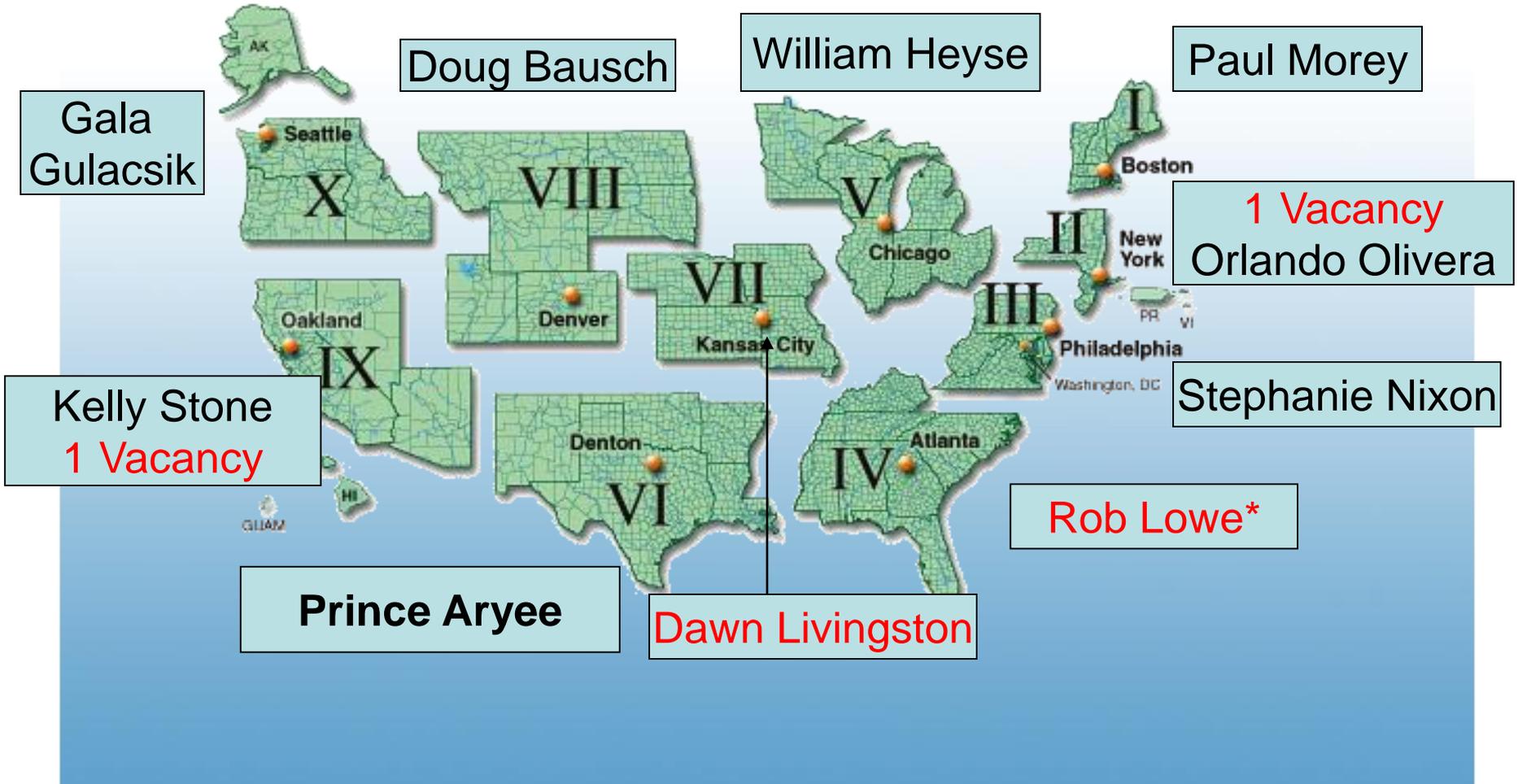
Wendy Phillips –
Consortia/Implementation &
Outreach

Tammy Roy – Management
Analyst – partial support

**FEMA's National Earthquake
Hazards Reduction Program**



Regional EQ Program Managers



What is the FEMA Regional Role?

- The purpose is to carry out FEMA's statutory role in the National Earthquake Hazards Reduction Program.
 - Act as program lead with States, local jurisdictions and other groups
 - Coordinate with Headquarters on program implementation and outreach on EQ hazard mitigation
 - Support training delivery and coordination of state assistance activities
 - Provide support for impacted regional EQ manager(s) after an EQ

FEMA Regional Role Cont.

- Be a partner, coordinator, and leader in raising awareness of earthquake hazards for Region.
- Strengthen partnerships with State/local governments, professional groups, private-sector organizations, and multi-state consortia.
- Foster working relationships with academia, research communities, code enforcement officials, and design professionals.
- Serves in an operational capacity in the FEMA Regional Response Coordination Center during emergencies and disasters.

Agency Overview

- Support for the Building Code Development Process
- Promoting and Monitoring the Adoption of Building Codes
- Guidance and Tools
- Training
- Outreach and Implementation

Building Codes & Standards

Nation's disaster resistant building codes are a Cornerstone of effective mitigation

Administrator Fugate understands the importance of strong codes “... make sure we don't add to existing risk by continuing to build in hazardous areas or constructing new development to inadequate/unenforced codes...”

Mitigation has an MOU with the International Code Council

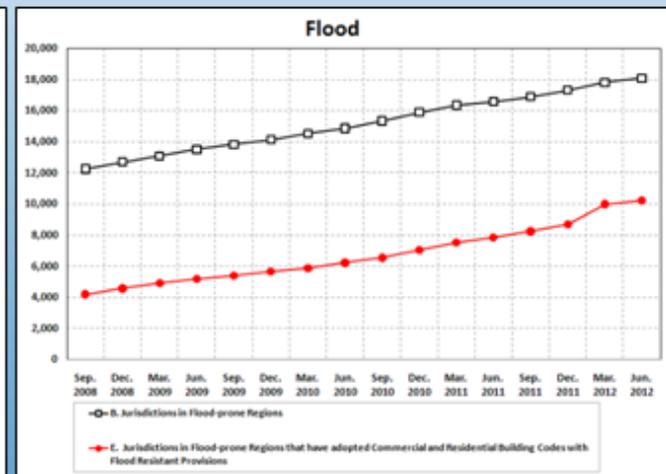
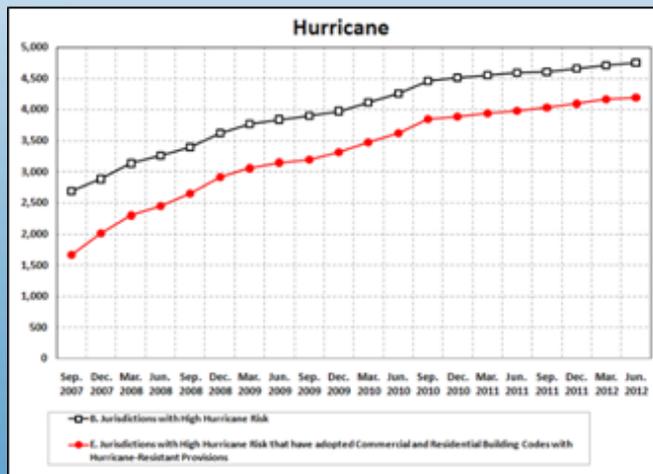
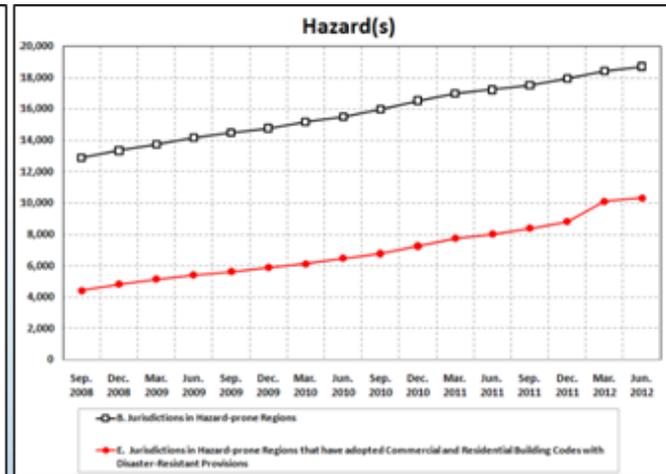
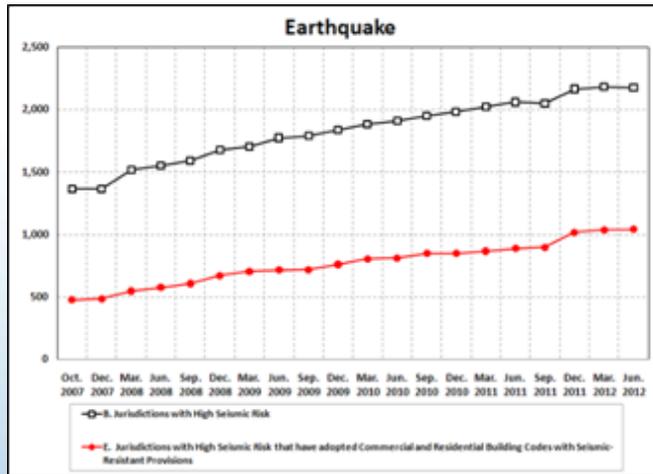
Every year the number of jurisdictions in hazard-prone regions that have disaster resistant codes grows



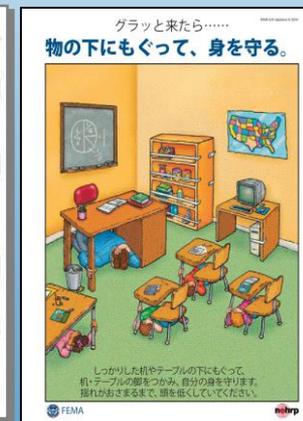
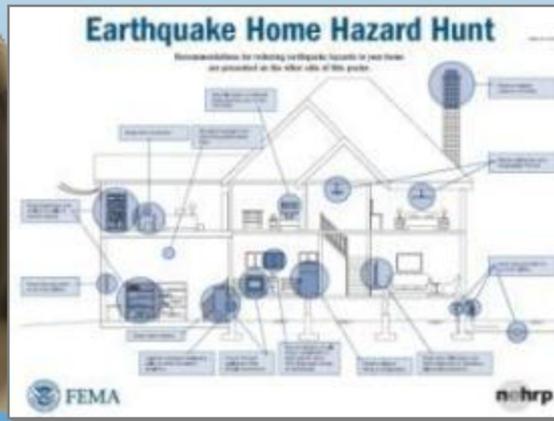
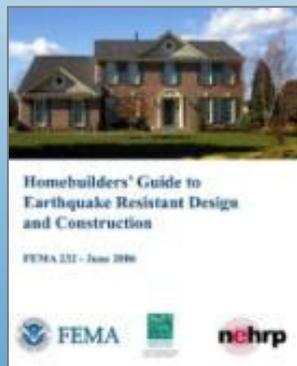
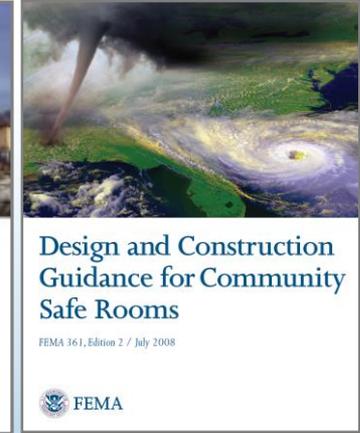
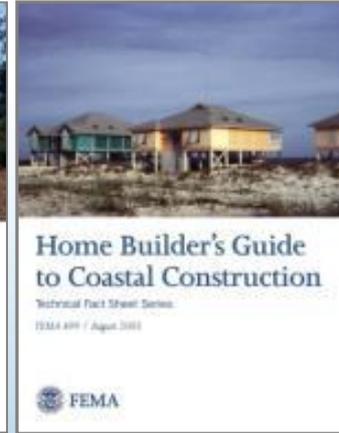
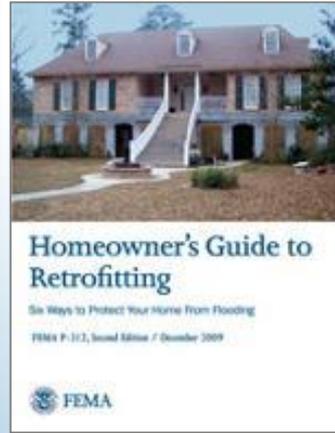
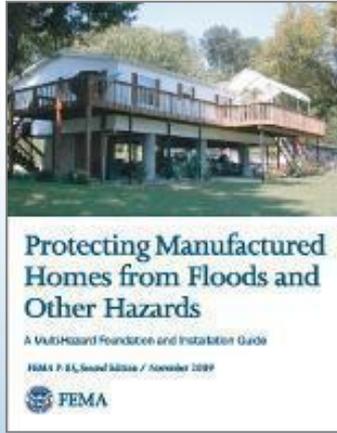
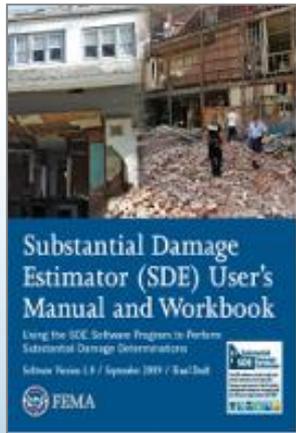
Building Code Development Process

1. Through partnership with ICC, standards groups and industry, FEMA NEHRP successfully defended multiple proposed changes to the International Building and Residential Codes during the 2012 cycle which enhanced integration of disaster resistant provisions. By Fall 2013, FEMA complete evaluation of current IBC and IRC and develop/submit proposed changes for the 2015 editions.
2. Also reviewed code recommendations for ICC 700 (National Green Building Standard) Public Comment Draft and participated in the October 2011 International Green Construction Code Final Action hearings.

Adoption of Building Codes



Guidance & Tools Development



Training and Technical Assistance

- Earthquake Engineering Research Institute
 - Technical training and workshops
 - Academic Partnership
- National Earthquake Technical Assistance Program (NETAP)
 - Training development and delivery
 - Trains over 2,500 local officials annually in over 25 States and territories
 - Technical assistance
 - Special projects & Pilots

Collaborating with Other Organizations



Cooperative Agreements

- **Earthquake Consortia**
 - Northeast States Emergency Consortium (NESEC)
 - Central U.S. Earthquake Consortium (CUSEC)
 - Cascadia Regional Earthquake Workgroup (CREW)
 - Western Seismic States Policy Consortium (WSSPC)
 - Southern California Earthquake Consortia (SCEC)
- **Federal Alliance for Safe Homes (FLASH)**
 - Grassroots outreach and partnership (Disney, ICC, etc.)
- **Southern California Earthquake Consortia (SCEC)**
 - Nationwide support for Shake Out and EQ Country Alliance

Outreach & Implementation



Budget Update

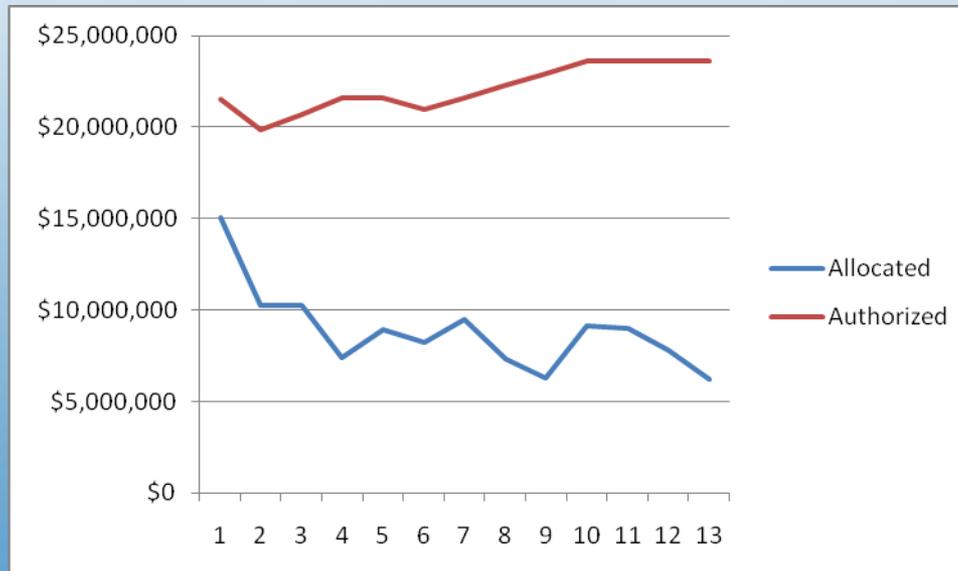
Building Science *for Disaster-Resilient Communities*



Mitigation
Works

FY 2015 Budget

- \$8.5M allocated FY 2015 NEHRP (incl S&B)
 - \$8.89M program funding in FY 2012
 - \$8.89M program funding in FY 2013
 - \$8.50M program funding in FY 2014



FY 2015 Staffing

- One position at HQ frozen/lost due to agency reductions in S&B
- One Regional position frozen/lost to agency reductions in S&B
- Several Regional EQ Program Manager positions vacant

Accomplishments

Building Science *for Disaster-Resilient Communities*



Mitigation
Works

Historical Accomplishments

1. Nation's disaster-resistant building codes (EQ, Flood, and Wind)
2. NEHRP Recommended Provisions
3. Technical Subject Matter Experts/Technical Services Bureau (FIMA, FEMA, DHS, other Agencies)
4. Regional Consortia, Quake Smart and outreach partnerships
5. Over 250,000 documents distributed annually
6. 6 guide books completed or revised and over 3,000 trained in FY 2014



Recent Accomplishments

- New & Revised Publications, Guidance, Advisories, Tools – 10
- GovDelivery Announcements – 2
- Presentations @ Conferences & Mtgs – 12
- Training Courses & People Trained – 25 & 1,400
- 48% of EQ-prone jurisdictions have adopted disaster-resistant codes

Recent Accomplishments

- FEMA DR-4193-RA1, *South Napa Earthquake Recovery Advisory on Repair of Earthquake Damaged Masonry Fireplace Chimneys.*
- FEMA P-1024, *Performance of Buildings & Non-structural Components in the 2014 South Napa EQ.*
- In partnership with CalOES & CEA, SCEC created an Earthquake County Alliance website page for *Staying Safe Where the Earth Shakes* booklet.
- FEMA Region IX - *Calculating Economic Losses from Earthquakes Using Hazus* paper.

Recent Accomplishments

- FLASH conducted 5th in-person meeting of **Texas State Collaborative (TSC)** held March 31st in Austin, TX.
- Presentation on trends that emerged from the in-depth building code analysis conducted for the ten most populous TX jurisdictions.
- Received a briefing on 2015 legislative issues regarding building codes and resilience measures.

Recent Accomplishments

- NETAP – 25 courses trained over 1,400
 - Training was often supported by the FEMA Regions for states incl. Vermont, New Hampshire, Massachusetts, Arkansas, Oklahoma, Alaska.
- NETAP training materials updated
 - FEMA P-154 and FEMA P-155, Third Edition of *Rapid Visual Screening of Buildings for Potential Seismic Hazards* – conducted 10 times.
 - Webinar for FEMA P-50 and P-50-1, *Simplified Seismic Assessment of Detached, Single-Family*.
 - FEMA 395, *Incremental Seismic Rehabilitation of School Buildings*.

Recent Accomplishments

- FLASH presented *The Intersection of Housing and Disaster - Building Back Better* at The Salvation Army [Partners In Message, Mission and Ministry Conference](#) in GA
 - 20 Salvation Army Territorial Managers from across the United States attended the session.
- FLASH, Simpson Strong-Tie, & Safe-T-Proof provided QuakeSmart Community Resilience Program training
 - *Seven Steps to Seismic Safety for Businesses and Organizations.*

Recent Accomplishments

- FLASH hosted **QuakeSmart** Business Summit in St. Louis, Missouri
 - Feb 6th - Eve of historic 1812 New Madrid EQ anniversary.
 - Speakers included: Missouri State Emergency Agency Dir; FEMA Region VII Administrator; St Louis Emergency Management Agency Commissioner; Missouri Seismic Safety Commission Chairman; & USGS
 - 85 business owners, emergency officials, risk managers, safety officers & others attended including: Ameren Energy, Edward Jones Financial, Monsanto, State Farm and Walgreens.
 - Program featured an interactive Tweet Chat to share earthquake mitigation and preparedness information beyond the onsite attendees and news outlets.

Recent Accomplishments

- ATC Resiliency Workshop in Washington, D.C.
 - CUSEC Exec Dir one of 50 participants.
 - Objective of workshop was - “obtain input to increase the nation’s resilience against natural disasters by identifying strategies and approaches to encourage state and local adoption of current disaster-resistant building codes and standards including related actions that could be undertaken by Federal agencies.
 - Recommendations, strategies & approaches will be described in a report for internal use by FEMA.

FY 2015 & FY 2016 Plans

Building Science *for Disaster-Resilient Communities*



Mitigation
Works

FY 2015 Priorities

- Issue 2015 NEHRP Recommended Provisions
- Ongoing support for Building Codes & Standards
- Ongoing Shake Out Support
- MitFLG Federal Seismic Risk Reduction Standard
- MitFLG Building Codes Work Group
- Re-visit direct EQ State/Territory support

FY 2016 Priorities

- Ongoing Support for Building Codes & Standards
- Ongoing Shake Out Support
- Complete National Losses Avoided Study
- Continue focus on program Outreach & Implementation



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