



# USGS 2018 NSHM Update Workshop

## Day 1: CEUS GMMs

Presented by Mark Petersen and the NSHMP

USGS, Golden, CO

USGS 2018 NSHM Update Workshop

Wednesday, March 7<sup>th</sup>, 2018

# Welcome/Agenda

9:00 am – 9:30 am	Overview and Motivation for the 2018 NSHM Update ( <i>M. Petersen, N. Luco and S. Rezaeian</i> )
9:30 am – 10:00 am	Update of the CEUS GMMs in the 2018 NSHM ( <i>M. Petersen</i> )
10:00 am – 10:30 am	Overview of the NGA-East Project ( <i>C. Goulet</i> )
10:30 am – 11:15 am	Updated NGA-East Seed GMMs and Concerns about the NGA-East GMMs ( <i>S. Pezeshk, V. Graizer, and A. Frankel</i> )
11:15 am – 11:30 am	<i>Break</i>
11:30 am – 12:30 pm	Proposed 2018 NSHM CEUS GMMs ( <i>S. Rezaeian, D. McNamara, and M. Petersen</i> )
12:30 pm – 1:00 pm	<i>Lunch</i>
1:00 pm - 1:30 pm	Proposed 2018 NSHM CEUS GMMs: Results and Discussion ( <i>A. Shumway</i> )
1:30 pm – 2:00 pm	NGA-East Amplification Model ( <i>J. Stewart</i> )
2:00 pm – 2:15 pm	Implementation of NGA-East Amplification Model: Results and Discussion ( <i>E. Thompson</i> )
2:15 pm – 2:30 pm	<i>Break</i>
2:30 pm – 3:30 pm	Consensus on Update of the CEUS GMMs in the 2018 NSHM
3:30 pm – 4:30 pm	Additional 2018 NSHM Modeling Details and Discussion ( <i>P. Powers</i> )
4:30 pm	Adjourn

# Overview and Motivation for the 2018 NSHM Update

Mark Petersen

USGS, Golden, CO

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# 2018 NSHM Update and Schedule

CEUS	WUS	Conterminous US
<ul style="list-style-type: none"><li>GMMs (i.e., NGA-East)</li></ul>	<ul style="list-style-type: none"><li>WUS Sedimentary Basin Effects</li><li>Reweighting of GMMs</li></ul>	<ul style="list-style-type: none"><li>Seismicity Catalog</li><li>Code Updates</li></ul>

- Deadline for publication of peer-reviewed models was March 2017
- Finalize and submit 2018 NSHM to journal by June 30<sup>th</sup>, 2018
- Public comment period to review draft model after June 30<sup>th</sup>, 2018
- Peer review of 2018 NSHM by journal and Steering Committee
- Hope to publish 2018 NSHM in journal by summer of 2019

# 2020 NSHM Update

CEUS	WUS	Conterminous US
<ul style="list-style-type: none"><li>• M2.7 or M3.0 for Seismicity Catalog?</li><li>• Declustering?</li><li>• b-value Zones?</li><li>• Basin Effects?</li></ul>	<ul style="list-style-type: none"><li>• National Crustal Model</li><li>• Magnitude-Area Relationships</li><li>• 3D Simulations (M9 and CyberShake)</li><li>• Update of Geologic and Geodetic Models</li><li>• NGA-Subduction</li><li>• Directivity</li><li>• GK15 GMM for WUS Crustal Sources</li></ul>	<ul style="list-style-type: none"><li>• Seismicity Catalog</li><li>• Code Updates</li></ul>

- Please submit your published, peer reviewed models by June 30<sup>th</sup>, 2018 for consideration in the 2020 NSHM Update!