



**2019 UTAH EARTHQUAKE WORKING GROUP MEETINGS
BASIN AND RANGE PROVINCE EARTHQUAKE WORKING GROUP
AGENDA**

Wednesday, February 6, 2019

**Utah Department of Natural Resources Building, Auditorium (1st floor)
1594 West North Temple, Salt Lake City, Utah**

The Utah Geological Survey (UGS) has reactivated the Basin and Range Province Earthquake Working Group (BRPEWG) due to the general lack of other Basin and Range Province (BRP)/ Intermountain West (IW) state earthquake working groups and the need for effective communication and collaboration in applied earthquake-hazard research within the region. BRPEWG was previously convened in 2006, 2011, and 2018 in response to U.S. Geological Survey (USGS) National Seismic Hazard Map update issues, and was hosted by the UGS. The meeting is open to all interested.

- 8:00 Refreshments
- 8:30 Welcome and Overview of Meeting: Emily Kleber, Utah Geological Survey
- 8:45 Update on the U.S. Geological Survey (USGS) External Grants Program and Topics Across the Intermountain West Region: Ryan Gold, USGS Geologic Hazards Science Center
- 9:00 State Presentations on Technical Issues Facing the Basin and Range Province (20 minutes)
 - 9:00 – Idaho: Zach Lifton, Idaho Geological Survey
 - 9:20 – Montana: Petr Yakovlev, Montana Bureau of Mines and Geology
 - 9:40 – Nevada: Rich Koehler, Nevada Bureau of Mines and Geology
- 10:00 Break (20 minutes)
 - 10:20 – Utah: Emily Kleber, Utah Geological Survey
 - 10:40 – Wyoming: Seth Wittke, Wyoming Geological Survey
 - 11:00 – Soil, Fluid, and Rock Properties Derived from Seismic Data: Hazard and Resource Assessments in the Intermountain West: Lee Liberty, Boise State University
 - 11:30 – Updates from Programs not Present, Emily Kleber, Utah Geological Survey
- 12:00 Lunch (1 hour, register at <https://uewg2019.eventbrite.com> for on-site hot lunch)
- 1:00 Discussion – Quaternary Fault Databases
- 2:30 Break (30 minutes)
- 3:00 Discussion – Quaternary Fault Databases, continued
- 4:00 Discussion – Basin and Range Province Earthquake Hazards Issues and Investigation Priorities

- How do we want to move forward as a working group?
- Cross-border Quaternary fault issues (fault trace mapping discrepancies, lack of mapping, fault parameter discrepancies, and poorly defined or lack of parameter data).
- Quaternary fault investigation priorities in the region outside Utah.
 - Existing state priorities
 - Nevada: http://www.nbmj.unr.edu/docs/Earthquakes/NBMG_priorities_NEHRP.pdf
 - Utah: https://geology.utah.gov/docs/pdf/NEHRP-2018_Priorities.pdf
- Possible development of consensus-based Quaternary fault slip-rate and recurrence interval parameters for the region modeled after the Utah consensus parameters.
- Coordination and funding opportunities for acquiring new lidar data, such as the USGS 3D Elevation Program (3DEP) and multi-state/multi-agency partnerships.
- Interest in paleoseismic investigation best practices to assist those states with limited expertise.
 - Such as a short course similar to that at the Basin and Range Province Seismic Hazards Summit III (https://ugspub.nr.utah.gov/publications/misc_pubs/mp-15-5/mp-15-5_short_course.pdf)?

5:00 Adjourn

Working Group Members

Steve Bowman	Utah Geological Survey
Chris DuRoss	U.S. Geological Survey, Earthquake Hazards Program
Ryan Gold	U.S. Geological Survey, Earthquake Hazards Program, Intermountain West Coordinator
Adam Hiscock	Utah Geological Survey (BRPEWG UGS Liaison)
Andy Jochems	New Mexico Bureau of Geology and Mineral Resources
Emily Kleber	Utah Geological Survey (BRPEWG Co-Chair)
Rich Koehler	Nevada Bureau of Mines and Geology (BRPEWG Co-Chair)
Zach Lifton	Idaho Geological Survey
William Lund	Utah Geological Survey, Emeritus
Matt Morgan	Colorado Geological Survey
Phil Pearthree	Arizona Geological Survey
Gordon Seitz	California Geological Survey
Mike Stickney	Montana Bureau of Mines and Geology
Seth Wittke	Wyoming Geological Survey

Publications

While the BRPEWG has changed focus somewhat, previous meeting (I and II) agendas, presentations, and published papers are available at https://geology.utah.gov/?page_id=6503. If states have publications of interest to the group, please forward these to the UGS and we will add them to this section.

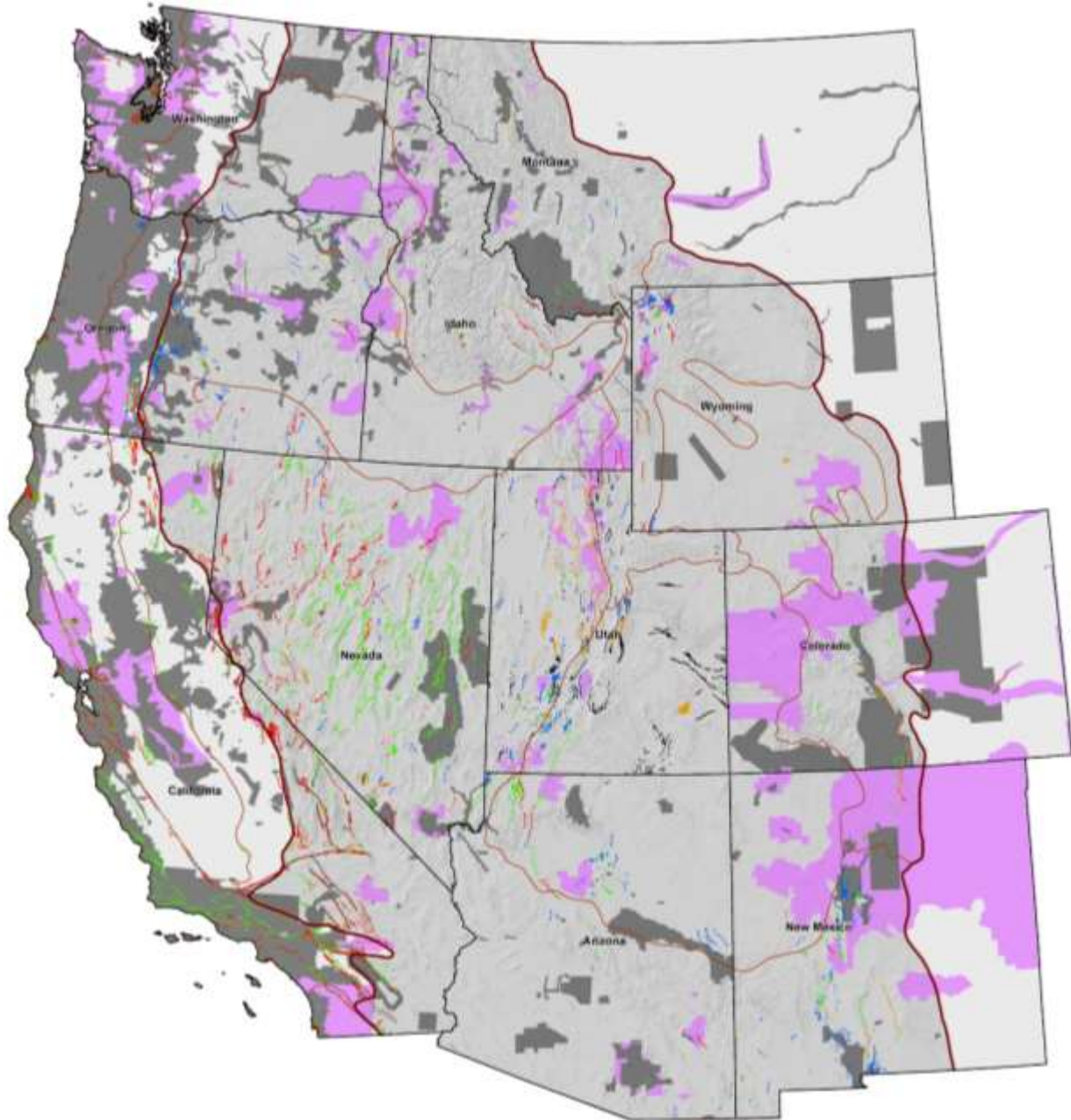


Figure 1. Map of lidar data availability in Basin and Range, and Intermountain West (thick dark red outline) area. Existing USGS QL2 or better lidar data in purple and \geq QL3 in dark gray. Quaternary faults outside Utah from the [Quaternary Fault and Fold Database of the United States](#) (USGS, 2006), and for Utah from the [Utah Quaternary Fault and Fold Database](#); Utah Geological Survey, 2017. Faults colored the same as the [Quaternary Fault and Fold Database of the United States](#). Major physiographic provinces in narrow dark red lines.