2026 BASIN AND RANGE PROVINCE EARTHQUAKE WORKING GROUP MEETING SUMMARY

Tuesday, February 10, 2026

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

WELCOME AND INTRODUCTION

Working group chair Adam I. Hiscock (Utah Geological Survey [UGS]) called the 2026 Basin and Range Earthquake Working Group (BRPEWG) meeting to order at 8:30 a.m. Mountain Standard Time (MST). This meeting was held at the Utah Department of Natural Resources building auditorium, with an additional hybrid virtual component using the Google Meet platform. After welcoming Working Group members and guests, he summarized the agenda for this year's meeting and BRPEWG's past activities, purposes, as well as goals for the future.

BRPEWG Purpose and Goals

- Establish and coordinate earthquake-hazard research agenda in the Basin and Range Province (BRP), especially collaborative work across state lines.
- Provide a space and resource for Basin and Range states to determine and discuss technical issues related to fault behavior in the Basin and Range Province.
- Share best practices and reports of ongoing work in research programs in the Basin and Range.
- Identify and prioritize BRP cross-border Quaternary faults and future paleoseismic investigations to attribute fault characteristics in each respective state's fault database across the Basin and Range and the USGS Quaternary Fault and Fold Database of the United States.

U.S. Geological Survey (USGS) Update

Chris DuRoss, Intermountain West (IMW) Regional Coordinator for the U.S. Geological Survey (USGS) Earthquake Hazards Program (EHP) gave an update on the status of the External Grants Program for the last (fiscal year [FY] 2025) and current (FY2026) fiscal year funding cycles, as well as information on the upcoming (FY2027) funding announcement for proposals. The FY2027 funding announcement is expected to come out in mid-March 2026, with proposals due in mid-May 2026. He mentioned the USGS is currently soliciting feedback on the External Grants process and IMW research priorities, and to reach out to him via email (cduross@usgs.gov) with feedback. Chris also gave an update on the USGS's Intermountain West EHP group and some recent projects they have been working on. In addition, he summarized the January 22, 2026, M4.7 earthquake near Evanston, Wyoming.

Updates from Basin and Range State Geological Surveys

Presentations available at BRPEWG website:
https://geology.utah.gov/hazards/info/workshops/working-groups/basin-and-range-earthquakes/

- Arizona Geological Survey: Jeri Young Ben-Horin (Virtual)
- Colorado Geological Survey - Paleoseismology Update: Jim McCalpin (Virtual)
- Colorado Geological Survey - Seismic Network Update: Enrique Chon (Virtual)
- Idaho Geological Survey: Zach Lifton
- Montana Bureau of Mines and Geology - Geohazards Program Update: Yann Gavillot
- Montana Bureau of Mines and Geology - Seismic Network Update: Andres Felipe Pena Castro
- Nevada Bureau of Mines and Geology: Rich D. Koehler
- New Mexico Bureau of Geology and Mineral Resources - Paleoseismology Update: Dan Koning
- New Mexico Bureau of Geology and Mineral Resources - Seismology Update: Urbi Basu
- Utah Geological Survey - Geohazards and Paleoseismology Update: Adam I. Hiscock

- University of Utah Seismograph Stations - Seismology Update: Emily Morton
- Wyoming Geological Survey: James P. Mauch
- U.S. Bureau of Reclamation Updates: Ellen Lamont, U.S. Bureau of Reclamation

PRIORITY FAULTS FOR INTERMOUNATIN WEST STATES

Group chair Adam I. Hiscock led a discussion in the afternoon addressing the "Top 5" faults of concern that the group established in the 2025 meeting. Several states mentioned their "Top 5" faults in their updates, but no states mentioned any urgent update to their lists. The group collectively decided not to update their lists of "Top 5" faults for the next year. The original "Top 5" faults of concern were compiled at the 2025 BRPEWG meeting and submitted to Chris DuRoss (USGS) for inclusion into a citable USGS ScienceBase data release, which will not be updated and stay the same for the upcoming year. Information on this data release is below:

- DuRoss, C.B., 2025, Priority faults for improving seismic hazard models in the Intermountain West region, version 1.0: U.S. Geological Survey data release, https://doi.org/10.5066/P13XVWR7.
- USGS ScienceBase Data Release: https://www.sciencebase.gov/catalog/item/67912c5ad34ea6a4002bf899

This data release includes a list of high-priority hazardous faults and associated spatial data for the IMW region of the United States. These are the top five faults or regions of concern per IMW state, based on the 2025 (version 1.0) meeting of the BRPEWG. In general, the list includes important, understudied faults where additional research would help to improve regional earthquake rupture forecasts and hazard modeling, reduce earthquake risk, and expand our knowledge of earthquake processes in the IMW region. This information will be used to guide IMW-specific priorities for research included in the USGS Earthquake Hazards Program external research priorities.

Each Basin and Range state's BRPEWG Priority faults of concern are as follows:

- **Arizona:** Big Chino–Little Chino faults, Needles Graben faults, Toroweap fault, Hurricane fault, and Bellemont fault.
- **Colorado:** Gore Range frontal fault, Williams Fork Mountains fault, Sawatch fault (southern section), Poncha fault, and Uncompahgre Plateau region faults.
- **Idaho:** Lost River–Lemhi–Beaverhead faults, Sawtooth–Boulder Front faults, West Ola Valley–Jakes Creek–Big Flat faults, Long Valley faults, and Grand Valley–Rexburg–Heise fault.
- **Montana:** Bitterroot Valley and Missoula area faults, Butte area and Deer Lodge Valley faults, Helena Valley and Canyon Ferry Lake faults, Mission–Swan–South Fork Flathead faults, and Northwest Greater Yellowstone–Centennial Tectonic Belt faults.
- **New Mexico:** Alamogordo fault, Albuquerque basin region, border faults on the west side of Tularosa basin, Southern Sangre de Cristo fault, and Pajarito fault system.
- **Nevada:** Carson Range front faults, distributed faults in the North Valleys area of Reno, Frenchman Mountain fault, intra-basin faults in Las Vegas Valley, and northern Walker Lane faults.
- **Oregon (IMW portion):** Klamath–Sky Lakes fault system, Chemult–LaPine Graben fault system, Bend Area fault system, Grande Ronde Valley fault system, and Goose Lake Graben fault system.
- **Wyoming:** Rock Creek fault, Grand Valley fault, Southeast Yellowstone region faults, Jackson Hole region faults, and Stagner Creek fault.
- **Utah:** Wasatch fault zone, Cache Valley regional faults, Southern Utah regional faults, Tooele and Rush Valley regional faults, and Great Salt Lake and Utah Lake faults.

WORKING GROUP PRODUCTS AND RELATED DATA

In addition to the IMW priority faults data release available through the USGS, the final agenda, speaker presentations, and this summary document are available on the BRPEWG web page at https://geology.utah.gov/hazards/info/workshops/working-groups/basin-and-range-earthquakes/.

MEETING ATTENDANCE

Registration for the meeting was completed through Eventbrite. Below is a list of in-person and virtual attendees who registered for the meeting. Specific attendance was not taken. Approximately 26 people attended in person, and 33 online.

**Denotes BRPEWG member*

In-Person Attendees:

Adam McKean	Utah Geological Survey
Adam Hiscock*	Utah Geological Survey
Amanda Willingham	Montana Bureau of Mines and Geology
Andres Felipe Pena Castro*	Montana Bureau of Mines and Geology
Brad Sion	Desert Research Institute
Christopher DuRoss*	U.S. Geological Survey
Daniel Koning*	New Mexico Bureau of Geology and Mineral Resources
Darlene Batatian	Utah Geological Survey
Ellen Lamont	U.S. Bureau of Reclamation
Emily Morton*	University of Utah Seismograph Stations
Emily Kleber	Utah Geological Survey
Greg McDonald	Utah Geological Survey
Ivan Wong	Lettis Consultants International
James Mauch	Wyoming State Geological Survey
Kristi Rasmussen	Utah Geological Survey
Mark Zellman	BGC Engineering
Matthew Morriss	Utah Geological Survey
Michael Hansen	RB&G Engineering Inc
Rich Giraud	Utah Geological Survey (Retired)
Rich Koehler*	Nevada Bureau of Mines and Geology, University of Nevada Reno
Steve Bowman	Utah Geological Survey
Torri Duncan	Utah Geological Survey
Urbi Basu*	New Mexico Institute of Mining and Technology
Yann Gavillot*	Montana Bureau of Mines and Geology
Zach Lifton*	Idaho Geological Survey

Virtual Attendees:

Alex Hatem*	U.S. Geological Survey
Ana Vargo	U.S. Department of Agriculture - Natural Resources Conservation Service
Ben Erickson	Utah Geological Survey
Ben Laabs	U.S. Bureau of Reclamation
Carl Ege	Utah Division of Water Resources
Chad Kwiatkowski	Arizona Geological Survey
Chris Bloszies	Lettis Consultants International
Colby Schwaderer	Wyoming State Geological Survey
Collin Jensen	Wyoming State Geological Survey
David Baldazzi	Landmark Testing and Engineering
David Black	Rosenberg Associates
Dru Nielson	Delve Underground
Eduardo Francisco Guerrero*	Oregon Department of Geology and Mineral Industries
Enrique Chon*	Colorado Geological Survey
Ernie Roumelis	UES
Fan-Chi Lin	University of Utah
James Pechmann	University of Utah
Jeri Ben-Horin*	Arizona Geological Survey
Jim McCalpin*	Colorado Geological Survey
Julia Frazier	BGC Engineering
Mark Larsen	Skyline Geological Consulting
Michael Meyers	Landmark Testing & Engineering
Nadine Reitman	U.S. Geological Survey
Nathan Toke	Utah Valley University
Nick Ellett	U.S. Bureau of Reclamation
Patrick Campana	Utah Department of Water Resources
Philip Pearthree	Arizona Geological Survey, University of Arizona
Rachel Adam	Utah Geological Survey
Sofia Agopian	Utah Geological Survey
Stormie Elmer	Utah Geological Survey
Susan Jänecke	Utah State University
Thomas Vick	UES
Tyler Knudsen	Utah Geological Survey
William Lund	Utah Geological Survey (Retired)