



2024 UTAH EARTHQUAKE WORKING GROUP MEETINGS BASIN AND RANGE PROVINCE EARTHQUAKE WORKING GROUP SUMMARY

Tuesday, February 6, 2024

Utah Department of Natural Resources Building, Auditorium
1594 W. North Temple, Salt Lake City, Utah

Welcome and Introduction

Adam Hiscock (Utah Geological Survey [UGS]) called the 2024 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 the BRPEWG's past activities, purposes, as well as goals for the future. He noted that this was the first BRPEWG meeting since 2021, when the group met virtually.

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 Basin and Range state fault databases 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] 2023) and current (FY2024) fiscal year funding cycles, as well as information on the upcoming (FY2025) funding announcement for proposals. 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.

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
- Colorado Geological Survey – Enrique Chon and Jim McCalpin
- 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 – Mike Stickney
- Nevada Bureau of Mines and Geology – Rich D. Koehler
- New Mexico Bureau of Geology and Mineral Resources – Dan Koning

- Oregon Department of Geology and Mineral Industries – Lalo Guerrero
- Utah Geological Survey – Adam I. Hiscock
- Wyoming Geological Survey – James P. Mauch

DISCUSSION ITEMS

Adam Hiscock led a discussion in the afternoon addressing topics that were brought up throughout the meeting. Several important topics about the future and roles of the BRPEWG meeting were brought up in the discussion. After the meeting, a follow up email with a poll soliciting feedback and input on the future of the BRPEWG meeting was sent out to all BRP state representatives. The group discussed creating an IMW BRP-wide fault priority list. Each BRP state would submit approximately five faults they would like to see included on this list from their state. This would supplement individual state fault priority lists, such as those created by the Utah Quaternary Fault Parameters Working Group (UQFPWG) for Utah (available at <https://geology.utah.gov/hazards/info/workshops/working-groups/q-faults/>) and a similar list created by Nevada (available at https://nbmg.unr.edu/docs/Earthquakes/NBMG_priorities_NEHRP.pdf). This topic will likely require more discussion and more time to implement.

WORKING GROUP PRODUCTS AND RELATED DATA

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. **Denotes meeting speaker.*

In-Person Attendees:

Adam Hiscock*	Utah Geological Survey
Adam McKean	Utah Geological Survey
Alexandra Hatem	U.S. Geological Survey
Ben Erickson	Utah Geological Survey
Chris DuRoss*	U.S. Geological Survey
Claire Decker	Utah Geological Survey
Dan Koning*	New Mexico Bureau of Geology and Mineral Resources
Eduardo Guerrero*	Oregon Department of Geology and Mineral Industries
Emily Kleber	Utah Geological Survey
Enrique Chon*	Colorado Geological Survey
Greg McDonald	Utah Geological Survey
Ivan Wong	Lettis Consultants International
James Mauch*	Wyoming State Geological Survey
Kristi Rasmussen	Utah Geological Survey
Matthew Morris	Utah Geological Survey

Mike Stickney*	Montana Bureau of Mines and Geology
Nathan Toke	Utah Valley University
Rich Giraud	Utah Geological Survey (Retired)
Rich Koehler*	Nevada Bureau of Mines and Geology/University of Nevada Reno
Skadi Kobe	Utah Geological Survey
Sofia Agopian	Utah Geological Survey
Steve Bowman	Utah Geological Survey
Stormie Elmer	Utah Geological Survey
Yann Gavillot*	Montana Bureau of Mines and Geology
Zach Lifton*	Idaho Geological Survey

Virtual Attendees:

Alba Mar Rodriguez Padilla	California Institute of Technology/Utah State University
Austin Elliott	U.S. Geological Survey
Bob Carey	Utah Division of Emergency Management
Carl Ege	Utah Division of Water Resources
Colby Schwaderer	Wyoming State Geological Survey
Daren Rasmussen	State of Utah
Doug Hawkes	AGEC
Ellen Lamont	U.S. Bureau of Reclamation
Fan-Chi Lin	University of Utah
HyeJeong Kim	University of Utah
Ian Pierce	U.S. Bureau of Reclamation
James McCalpin*	GEO-HAZ Consulting, Inc.
James Pechmann	University of Utah
Jeri Ben-Horin*	Arizona Geological Survey
John Crofts	Utah Division of Emergency Management
Joshua Bregger	U.S. Department of Agriculture - Natural Resources Conservation Service
Julia Frazier	BGC Engineering
Kristine Pankow	University of Utah Seismograph Stations
Michael Cline	U.S. Bureau of Reclamation
Michael Vadman	U.S. Bureau of Reclamation
Nadine Reitman	U.S. Geological Survey
Nick Ellett	U.S. Bureau of Reclamation
Rich Briggs	U.S. Geological Survey
Shadrach Ashton	Utah Geological Survey
Susanne Janecke	Utah State University
Suzanne Hecker	U.S. Geological Survey
Tabor Reedy	U.S. Bureau of Reclamation
Tonie van Dam	University of Utah
Tyler Knudsen	Utah Geological Survey
William Lund	Utah Geological Survey (Retired)