

## AGENDA

### QUATERNARY FAULT PARAMETERS WORKING GROUP

Wednesday, February 15, 2012

Utah Department of Natural Resources Building, Rooms 1040–1050 (1st Floor)  
1594 West North Temple, Salt Lake City

- 8:00 Continental breakfast
- 8:30 Introduction, overview of meeting, review of last year's activities
- 8:40 Technical presentations of work completed or in progress  
8:40 – Penrose Drive site trenching update; Chris DuRoss, UGS  
9:00 – West Valley fault zone trenching update; Mike Hylland, UGS  
9:20 – Utah Lake study update; Ron Harris; BYU  
9:40 – Lake Powell Pipeline Hurricane fault crossing investigation; Dean Ostenna, Fugro, Inc.
- 10:00 Break
- 10:20 Technical presentations of work completed or in progress  
10:20 – Blue Castle nuclear power plant seismic-hazard investigation; Dean Ostenna, Fugro, Inc.  
10:40 – Paunsaugunt fault investigation; Bob Kirkham [written summary provided]  
11:00 – New UGS Nephi segment trenching project; Chris DuRoss, UGS  
11:20 – Update on new Wasatch fault earthquake-timing and recurrence-interval data; Chris DuRoss, UGS  
11:40 – Updated GPS analysis for the Wasatch Front; Christine Puskas, Univ. of Colorado
- 12:00 Lunch
- 1:00 Technical presentations of work completed or in progress  
1:00 – Working Group on Utah Earthquake Probabilities update; Ivan Wong, URS/Bill Lund, UGS  
1:20 – Report on Basin and Range Province Earthquake Working Group II; Bill Lund, UGS
- 1:40 Technical discussion item  
1:40 – East Cache fault zone; Bill Lund, UGS
- 2:00 UQFPWG 2013 fault study priorities (see table 1 for 2012 priority list; see table 2 for original UQFPWG fault priority list)
- 3:00 Break
- 3:20 UQFPWG 2013 fault study priorities continued/meeting wrap up.
- 3:45 Adjourn

**Table 1.** UQFPWG 2012 list of highest priority Quaternary faults/fault segments requiring additional study to adequately characterize Utah's earthquake hazard to a minimally acceptable level, and status of current paleoseismic investigations on all currently identified Utah priority faults/fault segments.

<b>2012 Highest Priority Faults/Fault Sections For Study</b>			
<b>Fault/Fault Section<sup>1</sup></b>	<b>Investigation Status</b>		<b>Investigating Institution<sup>2</sup></b>
Brigham City segment WFZ rupture extent (north and south ends)	No activity		
Long-term earthquake record Nephi segment WFZ	NEHRP grant awarded		UGS
Long-term earthquake record northern Provo segment WFZ	No activity		
Long-term earthquake record southern Weber segment WFZ	No activity		
Penultimate event Provo segment WFZ	Trench site reconnaissance		UGS
West Valley fault zone – Taylorsville fault	No activity		
<b>Other Priority Faults/Fault Sections Requiring Further Study</b>			
<b>Fault/Fault Section</b>	<b>Original UQFPWG Priority</b>	<b>Investigation Status</b>	<b>Investigating Institution<sup>2</sup></b>
Cedar City-Parowan monocline/Paragonah fault <sup>3</sup>	10	No activity	
Enoch graben	11	No activity	
Clarkston fault <sup>3</sup>	13	Black and others (2000)	
Gunnison fault	17	No activity	
Scipio Valley faults	18	No activity	
Faults beneath Bear Lake	19	No activity	
Eastern Bear Lake fault	20	No activity	
Carrington fault (Great Salt Lake)	2007	No activity	
Rozelle section, Great Salt Lake fault <sup>4</sup>	2007	No activity	
Warm Springs fault/East Bench fault subsurface geometry and connection <sup>4</sup>	2010	No activity	
Hansel Valley fault <sup>3</sup>	2011	Fault reconnaissance	UGS
<b>Faults/Fault Sections Studies Complete or Ongoing</b>			
<b>Fault/Fault Section</b>	<b>Original UQFPWG Priority</b>	<b>Investigation Status</b>	<b>Investigating Institution<sup>2</sup></b>
Nephi segment WFZ	1	UGS Special Study 124 USGS Map 2966 UVU study ongoing	UGS/USGS/UVU
West Valley fault zone	2	Study funded 2010	UGS/USGS
Weber segment WFZ – most recent event	3	UGS Special Study 130	UGS/USGS
Weber segment WFZ – multiple events	4	UGS Special Study 130	UGS/USGS
Utah Lake faults and folds	5	Study funded 2009	UUGG
Great Salt Lake fault zone	6	Ongoing	UUGG
Collinston & Clarkston Mountain segments WFZ	7	UGS Special Study 121	UGS
Sevier/Toroweap fault	8	UGS Special Study 122	UGS
East Cache fault zone	12	Ongoing	USU
Wasatch Range back-valley faults	14	Ongoing	USBR
Hurricane fault	15	UGS Special Study 119	UGS
Levan segment WFZ	16	UGS Map 229	UGS
Brigham City segment WFZ – most recent event	2007	Ongoing	UGS/USGS
Bear River fault zone	2007	Ongoing	USGS
Salt Lake City segment WFZ – north end	2009	Study funded 2010	UGS/USGS

<sup>1</sup>Listed in alphabetical, not priority order.

<sup>2</sup>UGS (Utah Geological Survey), USU (Utah State University), USGS (U.S. Geological Survey), UVU (Utah Valley University), UUGG (University of Utah Department of Geology & Geophysics), USBR (U.S. Bureau of Reclamation).

<sup>3</sup>Earthquake source on the USGS National Seismic Hazard Maps.

<sup>4</sup>Previous UQFPWG highest priority fault/fault segment.

**Table 2.** Priority list of Quaternary faults/fault segments identified by the UQFPWG as requiring additional study to adequately characterize Utah's earthquake hazard to a minimally acceptable level.

Fault/Fault Segment	Original UQFPWG Priority (2005)
Nephi segment WFZ	1
West Valley fault zone	2
Weber segment WFZ – most recent event	3
Weber segment WFZ – multiple events	4
Utah Lake faults and folds	5
Great Salt Lake fault zone	6
Collinston & Clarkston Mountain segments WFZ	7
Sevier/Toroweap fault	8
Washington fault	9
Cedar City-Parowan monocline/Paragonah fault	10
Enoch graben	11
East Cache fault zone	12
Clarkston fault	13
Wasatch Range back-valley faults	14
Hurricane fault	15
Levan segment WFZ	16
Gunnison fault	17
Scipio Valley faults	18
Faults beneath Bear Lake	19
Eastern Bear Lake fault	20
Bear River fault zone	2007
Brigham City segment WFZ – most recent event	2007
Carrington fault (Great Salt Lake)	2007
Provo segment WFZ – penultimate event	2007
Rozelle section – East Great Salt Lake fault	2007
Salt Lake City segment WFZ – northern part	2009
Warm Springs fault/East Bench fault subsurface geometry and connection	2010
Brigham City segment WFZ rupture extent (north and south ends)	2011
Long-term earthquake record northern Provo segment WFZ	2011
West Valley fault zone – Taylorsville fault	2011