

2014 ANNUAL REPORT

Utah Chapter

of the Earthquake Engineering Research Institute

Report Date: March 31, 2015

Utah
Chapter



This report summarizes the membership and activities conducted by the Utah Regional Chapter of the Earthquake Engineering Research Institute during 2014.

MISSION & GOALS

Chartered in 2012, the Utah Chapter is the 10th regional chapter of the Earthquake Engineering and Research Institute (EERI). We hope to advance EERI's goals of promoting the advancement of the science and practice of earthquake engineering, improving understanding of the impact of earthquakes, and advocating comprehensive and realistic measures for reducing the harmful effects of earthquakes by:

- Being a source of collective expertise on seismic hazards and risk reduction
- Partnering with other organizations and agencies involved with seismic-risk issues
- Being an advocate for seismic safety at the State and local government levels
- Increasing awareness through education and lecture opportunities
- Promoting student chapters and activities

Involving members through participation in committee work.

MEMBERSHIP SUMMARY

The Utah Regional Chapter had a total of about members at the end of 2014.

OFFICERS

The Board consisted of the following members:

Role	Name	Affiliation	Email
President	Les Youd	Retired, Brigham Young University	Youd1132@comcast.net
Secretary-Treasurer	Kevin Franke	Brigham Young University	Kevin_franke@byu.edu
President Elect	Brent Maxfield	The Church of Jesus Christ of Latter-day Saints	maxfieldba@ldschurch.org
Past President	Pete McDonough	Questar	Pete.McDonough@questar.com
Board Member	Kristine Pankow	University of Utah Seismograph Stations	pankow@seis.utah.edu
Board Member	Rob Snow	AECOM	Robert.w.snow@aecom.com
Board Member	Jerod Johnson	Reaveley Engineers & Associates	jjohnson@reaveley.com

Board meetings were held monthly during 2014, usually during the first week of the month, and via telephone conference call.

BUDGET & FINANCIALS

Briefly describe the chapter budget and financials, with text description or any tables and charts as needed.

CHAPTER ACTIVITIES

Regular Chapter Meetings

The Utah Chapter did not hold regular meeting during the year. Special activities are listed below.

Short Course on Liquefaction

The Utah Chapter organized and sponsored a one-day short course on April 9, 2014 on liquefaction. The featured lecturer was W. D. Liam Finn, University of British Columbia.

Other speakers were Loren Anderson, Steve Bartlett, Mathew Francis, Jerod Johnson, and Les Youd. Topics covered included:

- Fundamentals of liquefaction hazard evaluation
- Procedures using SPT, CPT, and Vs
- Consequences of liquefaction
- Methods for estimating lateral ground displacement
- Methods for estimating settlements
- IBC requirements
- Mitigation of liquefaction hazard
- Structural mitigation
- Site mitigation

About 70 engineers attended the course. Fees paid by participants covered the cost of the event plus about \$3,000 in revenue, which supported chapter activities throughout the year. Because of the success, both financially and by fulfilling chapter goals, the Utah Chapter plans to develop and sponsor an annual short course.

Seminar on 2010-2011 Christchurch, New Zealand Earthquakes

The Utah Chapter of EERI and the Structural Engineers Association of Utah (SRAU) jointly sponsored a free seminar at the University of Utah on October 16, 2014 entitled: *Structural and Geotechnical Lessons Learned from the Christchurch Earthquake*. Invited instructors were Dan Bech, S.E., Principal at Holmes Culley in San Francisco, and Russell A. Green, PhD, Professor of Civil and Environmental Engineering at Virginia Tech. About 105 people from various disciplines attend the event, including some remotely in distant parts of the state. The seminar was well received by attendees, and the chapter and SEAU plan to jointly sponsor similar seminars of general interest in the future to accomplish the goals of the two societies.

Earthquake Scenario

With financial assistance from FEMA through EERI, the Utah Chapter was asked to develop a scenario earthquake hazard assessment for the Utah State Seismic Safety Commission. During the fourth quarter of the year, a committee was formed to develop the scenario. The committee consisted of Kristine Pankow, chair, Brent Maxfield, Peter McDonough, Les Youd, Barry Welliver, and Bob Cary. The committee decided that the scenario would be based on a simulated magnitude 7 earthquake on the Salt Lake segment of the Wasatch

fault. Preliminary work on the scenario during 2014 including preparation of draft write-ups for the major hazards, including fault rupture, ground shaking, liquefaction, and damage estimates for structures and facilities, including residential and commercial unreinforced masonry buildings and lifelines. Final scenario development and reporting will occur during the first few months of 2015.

2015 Short Course on Seismic Ground Motions

A committee to develop a 2015 short course on Design Ground Motions was formed with Brent Maxfield, chair, and Chris Pankow, Jared Johnson, and Rob Snow as members.

Nomination for EERI Alfred E Alquist Special Recognition award

A nomination for chapter member Walter Arabasz for the EERI Alfred E. Alquist Special Recognition Award was completed and submitted to EERI.

Organization of Committees

The following committees to foster chapter goals were setup during the year:

- Web Site and Publicity Committee with Rob Snow as chair with Brent Maxfield as board contact member for the committee. The purpose is to maintain the chapter website and update it with pertinent new information monthly, and to assist with publicity for all chapter events, such as the spring short course, upcoming lectures, etc.
- Student Outreach Committee with Kevin Franke as chair and Les Youd as board contact. The is to involve students with an interest in earthquake engineering in chapter and national EERI activities
- Chapter Newsletter Committee with Brent Maxfield as chair. The purpose is to compile and distribute a monthly newsletter informing members and professionals in other societies interested in earthquake issues of chapter and national activities, initiatives, earthquake reconnaissance reports, and other news on earthquake issues.
- Chapter Governance Committee with Brent Maxfield as chair with past presidents Les Youd, Peter McDonough, and Barry Welliver as members. The purpose is to correct and update the chapter bylaws as needed.
- Membership Committee with Ron Dunn as chair. The purpose is to assist in recruiting new chapter members with interests in earthquake engineering.
- Spring Short Course Organizing Committee with Brent Maxfield as chair. The purpose is to develop and organize a short course for earthquake professionals in Utah on ground motion assessment for engineering design.
- Earthquake Scenario Committee with Kristine Pankow as chair and Brent Maxfield, Peter McDonough, Les Youd, Barry Welliver, Steve Bowman, and Bob Cary as members. The purpose is to prepare a scenario earthquake report for the Salt Lake City segment of the Wasatch fault.

COMMUNICATIONS

The Utah Chapter began publishing a Newsletter in October 2014. It is meant to grow into a monthly letter. Only 1 issue was made in 2014.

STUDENT CHAPTER COORDINATION

The Student Chapter at Brigham Young University is an active chapter. We have begun discussions with the University of Utah to try and generate interest in a student chapter. The support from the Civil & Environmental Engineering Department has been at best luke-warm. We will strive to develop interest from the student level.

ELECTION & ELECTION RESULTS

An election for officers was held in November 2014. The table below shows the new officers elected to the Chapter board who will take office on January 2015.

Role	Name	Affiliation	Email
President	Brent Maxfield	The Church of Jesus Christ of Latter-day Saints	maxfieldba@ldschurch.org
Secretary-Treasurer	Kevin Franke	Brigham Young University	Kevin_franke@byu.edu
Past President	Les Youd	Retired, Brigham Young University	Youd1132@comcast.net
President Elect	Ron Dunn	Dunn & Associates	RDunn@Dunn-SE.com
Board Member	Jerod Johnson	Reaveley Engineers & Associates	jjohnson@reaveley.com
Board Member	Bob Carey	Utah Division of Emergency Management	bcarey@utah.gov
Board Member	Bill Lund	Utah Geological Survey	BillLund@utah.gov

LIST OF ATTACHMENTS

Included at the end of this report are various attachments to supplement the information included above. A list of the attachments is included below:

- Short Course Flyer
- October 2014 Newsletter