



## **iUTAH—Celebrating 5 Years of Research, Training, Education, and Outreach for Utah’s Water Future**

**iUTAH 2017 Annual Symposium and Summer All-Hands Meeting  
Utah State University, Logan, Utah**

### **Agenda**

**Thursday, 13 July 2017**

**8:00 am to 12:30 pm**

**Eccles Conference Center Auditorium (ECC 216)**

8:00 am      **Registration**

8:00 am      *Informal networking and light refreshments*

9:00 am      **Welcome, Introduction and Announcements**

Dr. Michelle A. Baker, Project Director and Principal Investigator, iUTAH EPSCoR,  
Utah State University

9:15 am      **Plenary Session “Critical Outcomes, Lasting Impact”**

- *Innovations and integration in social and engineering water science*  
Dr. Courtney Flint, Utah State University
- *Transcending system boundaries through integrative ecohydrologic research*  
Dr. Zachary T. Aanderud, Brigham Young University
- *Coupling the human-natural water system: five years of participatory modeling and innovative visualization*  
Dr. Courtenay Strong, University of Utah
- *Cyberinfrastructure to support large scale, collaborative water research in Utah: critical outcomes from the iUTAH project*  
Dr. Jeff Horsburgh, Utah State University
- *Advancing a water-literate workforce and citizenry for Utah*  
Dr. Mark W. Brunson, Utah State University

- *iUTAH research assessment: building a statewide collaboration network*  
Dr. Alan Porter, Georgia Institute of Technology

10:45 am *Break and liquid refreshments*

11:00 am **Plenary Session “Expanding Horizons, Diverse Journeys”**

- *iUTAH’s mission, vision, and strategies for success*  
Andreas Leidolf, Assistant Director, iUTAH EPSCoR, Utah State University
- *Out of the museum and into the fire*  
Dr. Jacqualine Grant, Southern Utah University  
Introduction by Andreas Leidolf
- *Show up and say yes: two things that got me here*  
Dylan Dastrup, Brigham Young University  
Introduction by Dr. Zachary T. Aanderud
- *iUTAH: Shaping the future one scientist at a time*  
Ka-Voka Jackson, University of Nevada  
Introduction by Dave Eiriksson, University of Utah
- *From PhD to tenure track: becoming a leader in hydrology through iUTAH experiences*  
Dr. Greg Carling, Brigham Young University  
Introduction by Dr. Paul Brooks, University of Utah
- *How do we answer questions scientists can’t answer?*  
Julia Kelso, Utah State University  
Introduction by Dr. Michelle A. Baker

**12:30 pm to 1:45 pm**

**Eccles Science Learning Center Atrium**

12:30 pm **Poster Session and Lunch**

- 2017 undergraduate iUTAH iFellows
- iUTAH researchers and Education, Outreach and Diversity partners
- *Movie Screenings: Desert water: A new water ethic / Desert water: Climate change and the future of Great Salt Lake*  
Dr. Hal Crimmel, Weber State University

**2:00 pm to 5:00 pm**

**Eccles Conference Center, Various Locations**

2:00 pm

**Concurrent Sessions**

- Water Quality along Mountain-to-Urban Transitions (ECC 205/207)

**Chair: Paul Brooks, University of Utah**

*Persistent urban impacts on surface water quality via impacted groundwater in Red Butte Creek* (Rachel Gabor, University of Utah)

*Utah Water Watch—Citizens monitoring for the future* (Ellen Bailey, Utah State University)

*A microfluidic device for oxygen quantitation in anoxic water* (Chris Monson, Southern Utah University)

*Bacteria and GAMUT: Urban infrastructure shapes bacterial communities* (Erin Jones, Brigham Young University)

*Tracking urban water flow using stable isotopes of water* (Yusuf Jameel, University of Utah)

*Investigating temporal and spatial variations of trace metal loading to Utah Lake, UT (USA)* (Weihong Wang and Henintsoa Rakotoarisaona, Utah Valley University)

- Collaborative Approaches to Communicating Water Science: Cyberinfrastructure, Visualization and Broader Impacts (ECC 201/203)

**Chair: Stephanie Reeder, Utah State University**

*Taking Learning Outdoors with the Natural History Museum of Utah* (Laura Beck and Julie Koldewyn, NHMU)

*iFellows Undergraduate Research Program* (Ellen Eiriksson, Utah State University)

*Weber State's iFellows: a model for workforce development through continued engagement* (Carla Koons Trentelman, Weber State University)

*iUTAH Summer Research Institutes: Supporting the STEM pipeline through engagement of High School, undergraduate and graduate students, secondary teachers, and university faculty in authentic, joint research experiences* (Louisa A. Stark, University of Utah)

*Social water science data in iUTAH: Dimensions, data management, and visualization* (Amber Spackman Jones, Utah State University)

- Urban Water Systems (ECC 303/305)

**Chair: Taya Carothers, Utah State University**

*Getting urban food production off the ground: Improvement of drought tolerance using native soil microbial communities* (Bridget E. Hilbig, Weber State University)

*University-municipal collaborations lead to insights on drivers of water use in the Wasatch Front* (Douglas Jackson-Smith, Ohio State University)

*Building an engaged-relationship with Utah's water systems: A 4<sup>th</sup> grade journey to water activism and sustainability* (Joel Arvizo, University of Utah, and Rose Yazzie)

*Greenroof plant composition influences invertebrate biodiversity* (Jacqualine Grant, Southern Utah University)

*What influences a person's propensity of engaging in water saving behavior?* (Pratiti Tagore, University of Utah)

*Having your water and drinking it too: a method for visualizing sensitive, spatially explicit water-use data using synthetic geographies* (Martin Buchert, University of Utah)

- Water Resources Planning and Management (ECC 307/309)

**Chair: Kay Parajuli, Utah State University**

*The potential for markets to preserve water supply to the Great Salt Lake* (Eric Edwards, Utah State University)

*Economic insights from Utah's water efficiency supply curve* (Coleman Gerdes and Michelle Jones, Utah State University)

*Using survey data to determine a numeric criterion for nutrient pollution* (Paul M. Jakus, Utah State University)

*Shifting water use patterns in response to the conversion of irrigated agricultural lands* (Ennea Fairchild, Utah State University)

*Housing tenure as a driver of water use and conservation attitudes and decisions* (Matthew Barnett, The Ohio State University)

*Coupled modeling of the hydrological and socio-technical systems: Lessons learned from Utah's Water Resources analysis* (Krishna B. Khatri, University of Utah)

3:30 pm

*Break and light refreshments*

3:45 pm

## Concurrent Sessions

- Impacts of Dust on Water and Air Quality (ECC 205/207)

**Chair: Mark Brunson, Utah State University**

*Wildfire ash and Great Salt Lake dust as sources of heavy metals to Utah's aquatic ecosystems* (Frank Black, Westminster College)

*Composition of aeolian dust deposition to mountains in northern Utah and Nevada, USA* (Dylan Dastrup, Brigham Young University)

*Modeling the impacts of a desiccating Great Salt Lake on future air quality along the Wasatch Front* (Derek Mallia, University of Utah)

*Dust in airsheds and not pollution chemistry influence the bacteria dispersing in snow* (Scott Collins, Brigham Young University)

*Tracing changes in water chemistry during spring runoff using  $^{87}\text{Sr}/^{86}\text{Sr}$  in Upper Provo River* (Colin Hale, Brigham Young University)

- Critical Zone Processes (ECC 201/203)

**Chair: Rachel Gabor, University of Utah**

*Constraining physical controls on snow hydrology along the Wasatch Front* (S. McKenzie Skiles, Utah Valley University/University of Utah)

*Classification scheme for reconstructed streamflow droughts in northern Utah (1430-present)* (James Stagge, Utah State University)

*Initial assessments of the geomorphic impacts of two late Holocene, drainage-damming landslides within the City Creek and Little Cottonwood Creek watersheds* (Nathan A. Toke, Utah Valley University)

*A Utah soil moisture monitoring and forecast network for improved water resource management and risk prediction* (Scott B. Jones, Utah State University)

- Bioretention in Natural and Experimental Settings (ECC 303/305)

**Chair: Hilary Hungerford, Utah Valley University**

*Green infrastructure optimization to achieve near natural hydrology in a semi-arid urban catchment* (Hessam Tavakoldavani, University of Utah)

*Impact of *Phragmites australis* control on Utah Lake water quality* (Arthur Evensen and Eddy Cadet, Utah Valley University)

*Evaluation of bioretention media performance at the Salt Lake City Public Utility Site* (Trixie Rife, Utah State University)

5:00 pm

**Conference ends**

**Friday, 14 July 2017**

**8:00 am to 12:15 pm**

**Jon M. Huntsman Hall, Perry Pavilion**

8:00 am *Informal networking and light refreshments*

9:00 am **Welcome**

Andreas Leidolf, Assistant Director, iUTAH EPSCoR, Utah State University

9:10 am **Opening Addresses**

- *Project Director's Reflection—Celebrating Five Years of Research, Training, Education and Outreach for Utah's Water Future*

Dr. Michelle A. Baker, Project Director and Principal Investigator, iUTAH EPSCoR, and Professor, Department of Biology and Ecology Center, Utah State University

- *A Word from EPSCoR*

Dr. Denise M. Barnes, Section Head, Established Program to Stimulate Competitive Research, National Science Foundation

10:00 am **Guest of Honor**

Tami W. Pyfer, Education Advisor, Utah Governor's Office

10:20 am **Keynote Address**

Dr. Tamara L. Goetz, Executive Director, Utah STEM Action Center

10:45 am *Break and liquid refreshments*

11:15 am **Congratulations, Awards and Honors**

**12:15 pm to 2:30 pm**

**Jon M. Huntsman Hall, Courtyard**

12:15 pm *Outdoor Luncheon*