



Utah challenges that EPSCoR can address



- Utah has limited water resources
- Utah's climate is changing
- Utah's population is growing
- How do we achieve future water sustainability?



What We Need

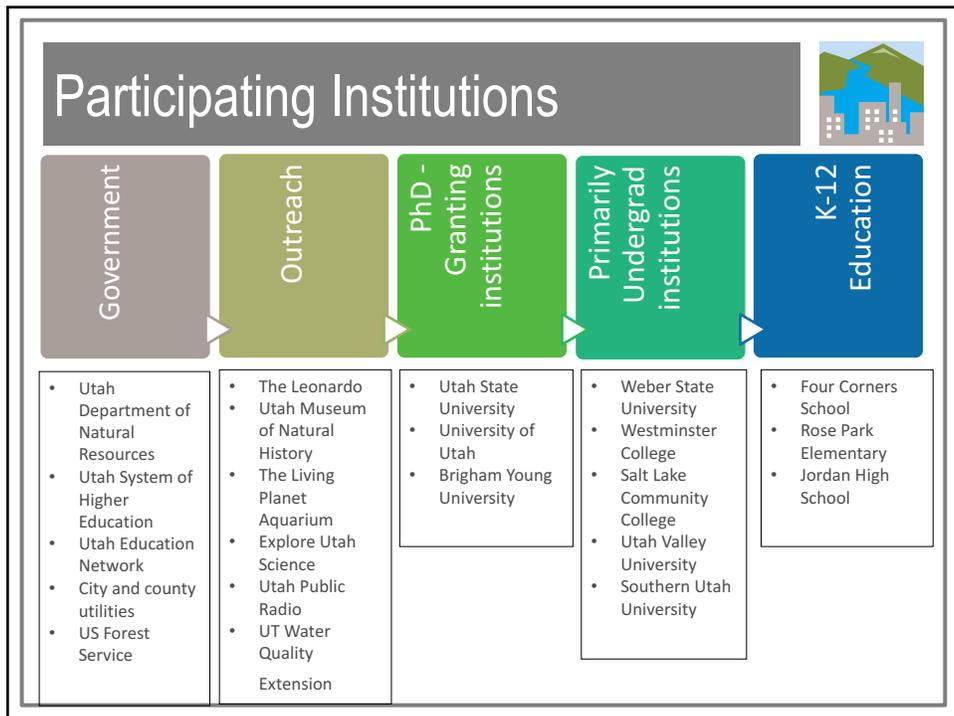
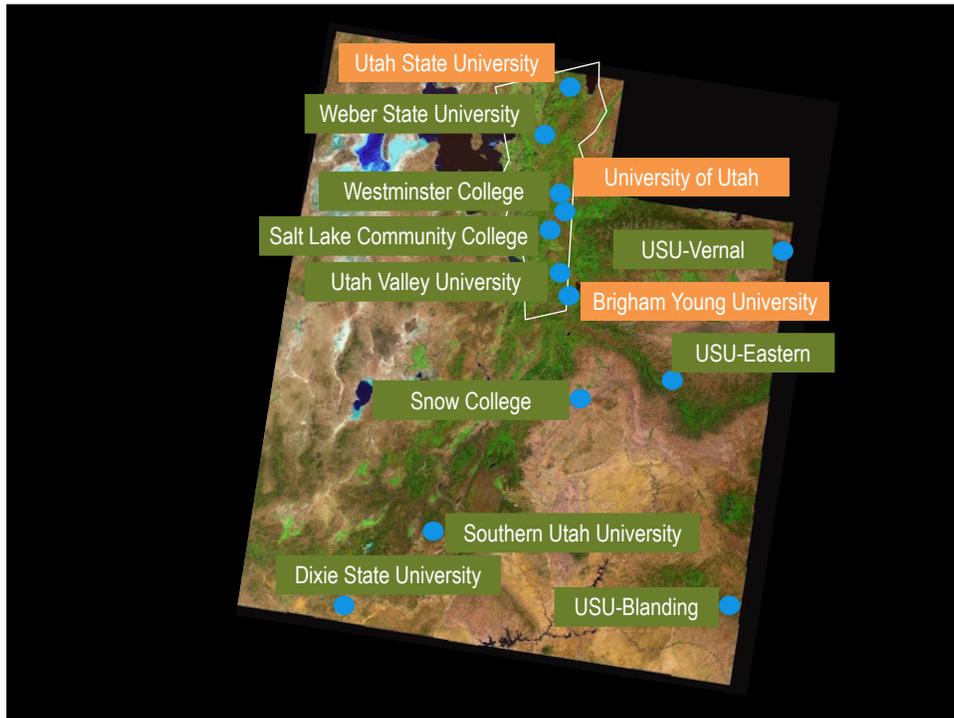


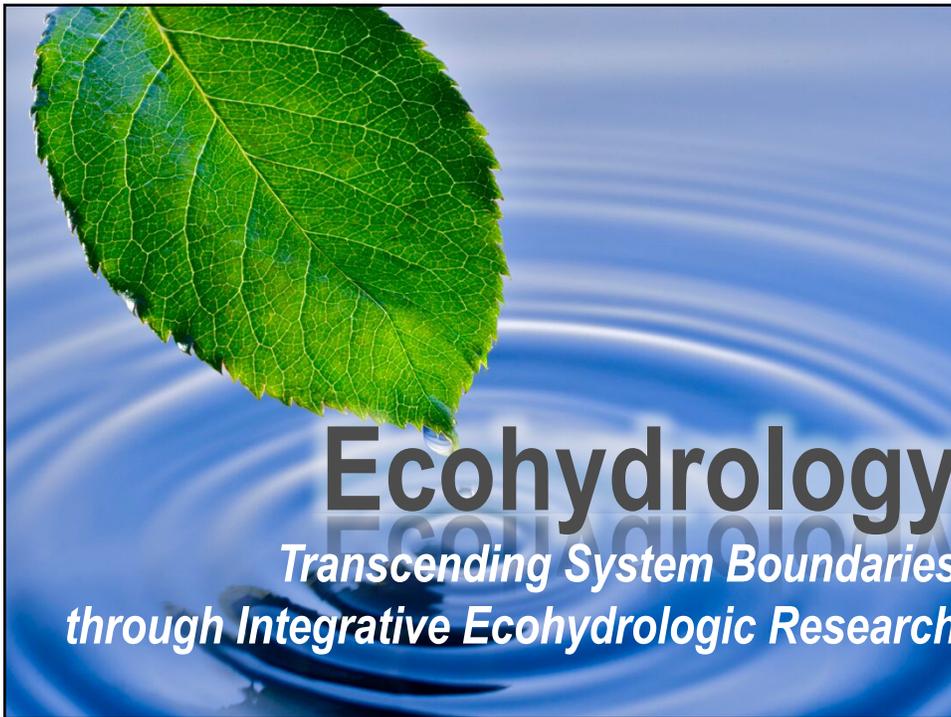
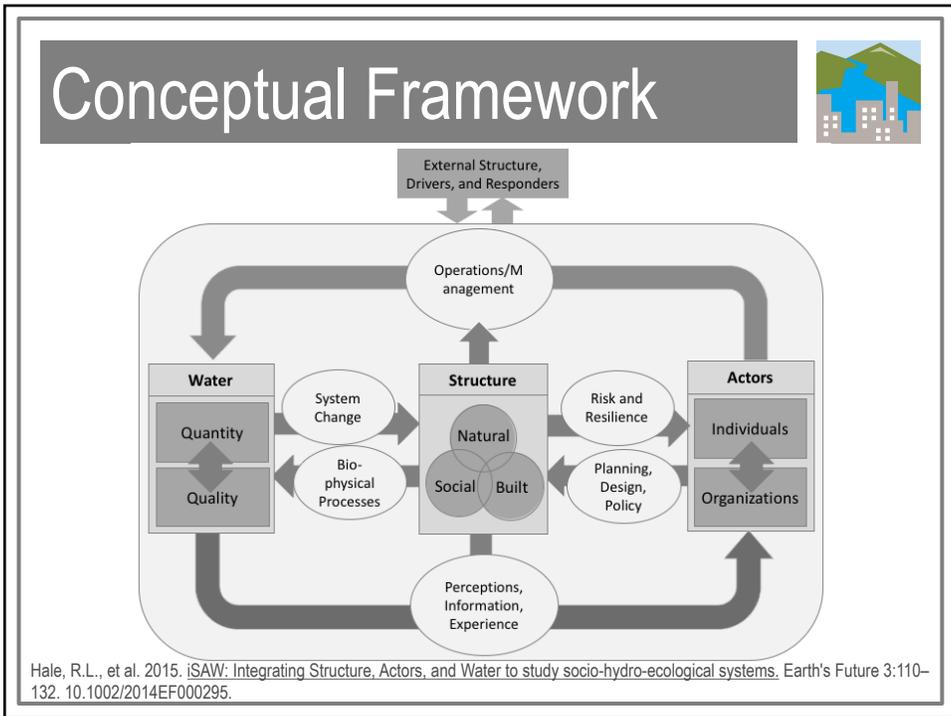
Science	Education	Understanding
<ul style="list-style-type: none">• Human dimensions• Water cycle• Coupled systems	<ul style="list-style-type: none">• K-12 STEM• Undergrad research• Grad students/postdocs	<ul style="list-style-type: none">• Urbanization• Water decisions• Water quality policies

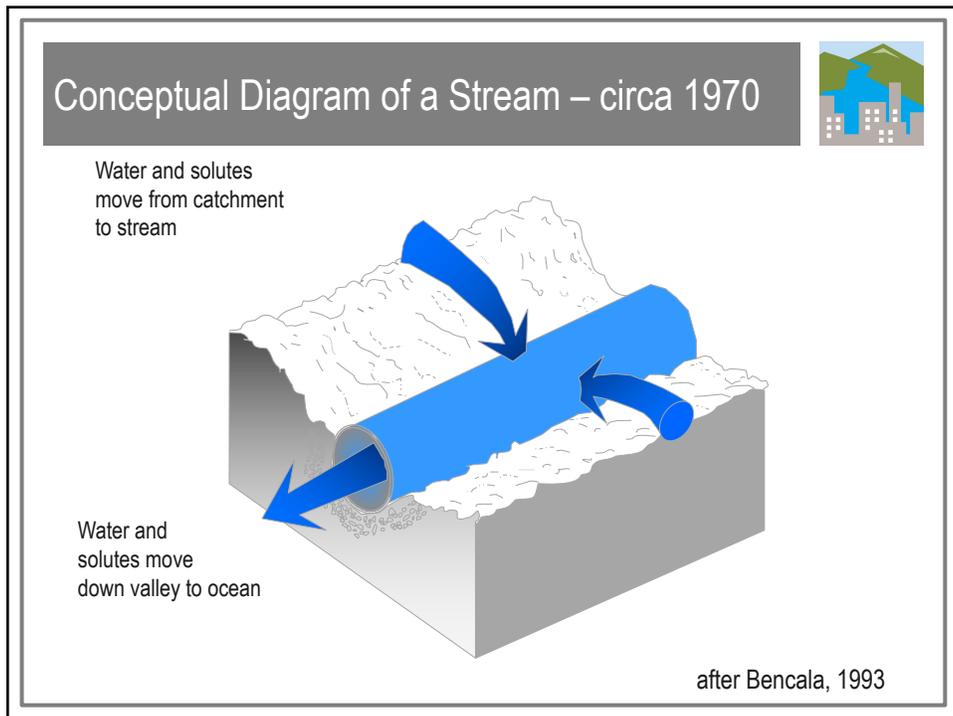
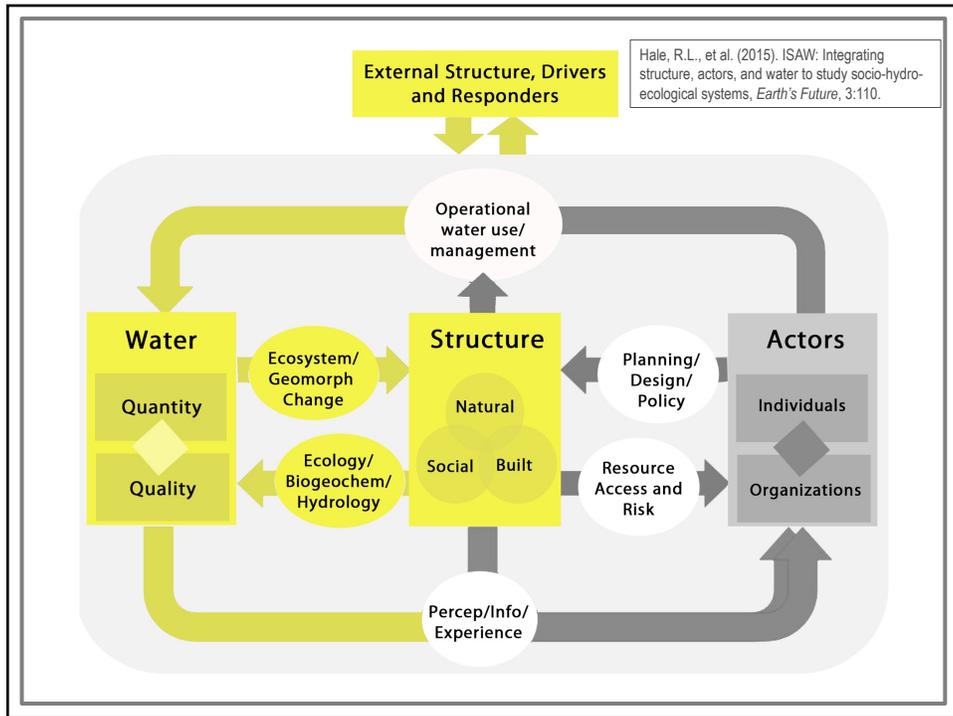
iUTAH Project Goals

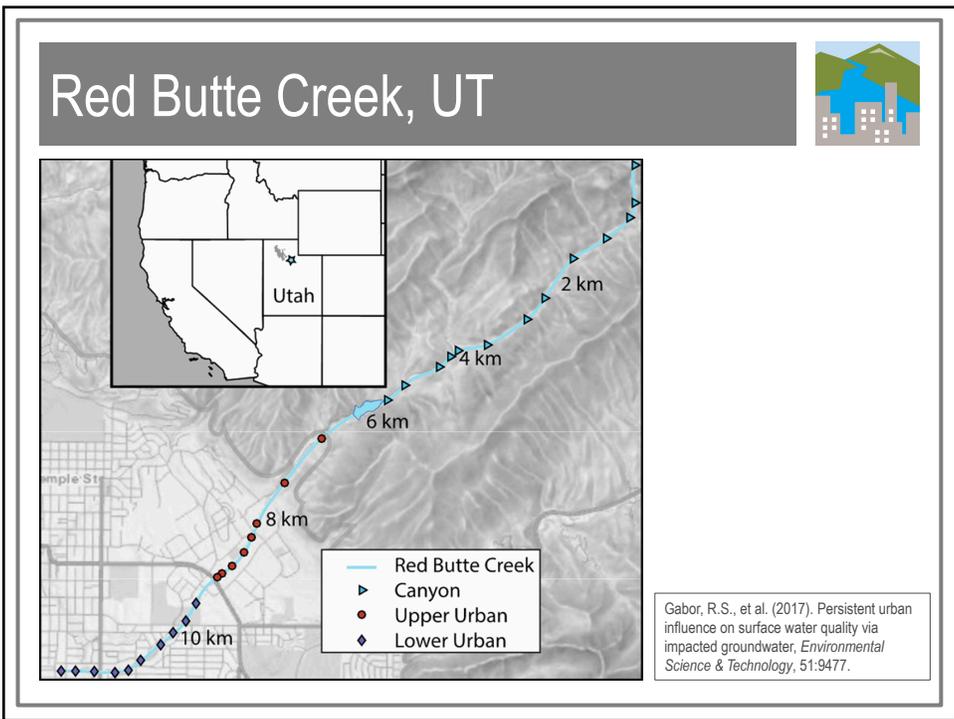
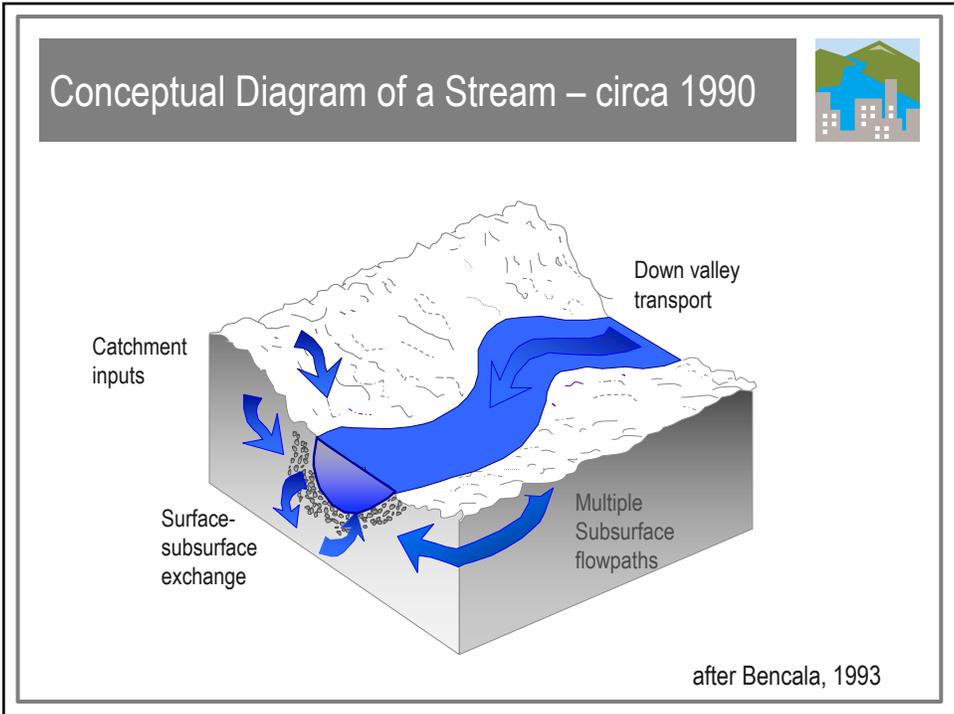


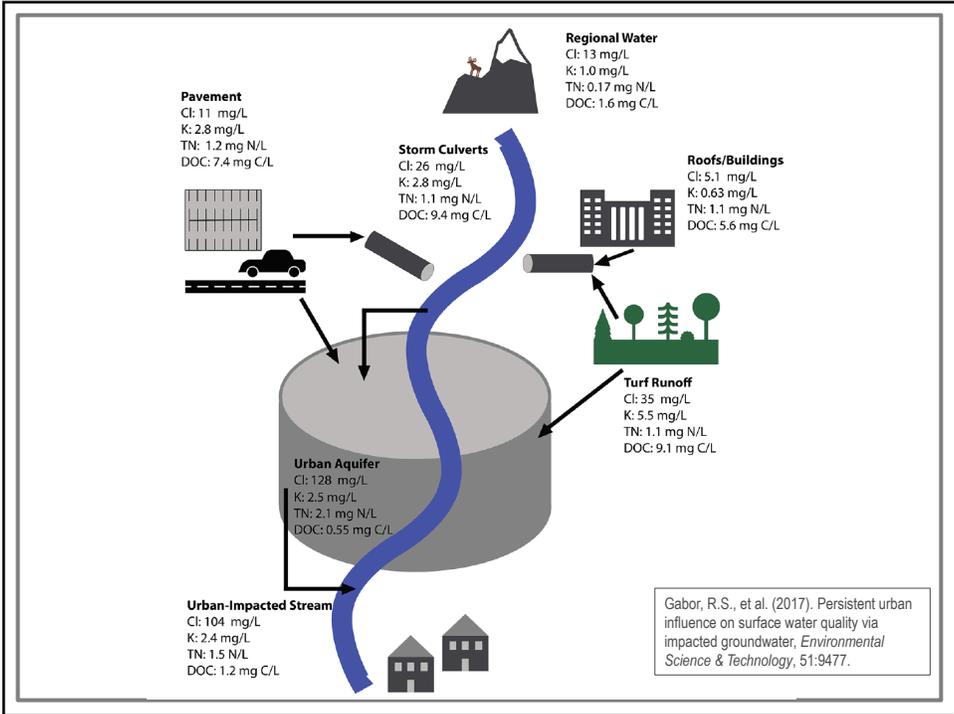
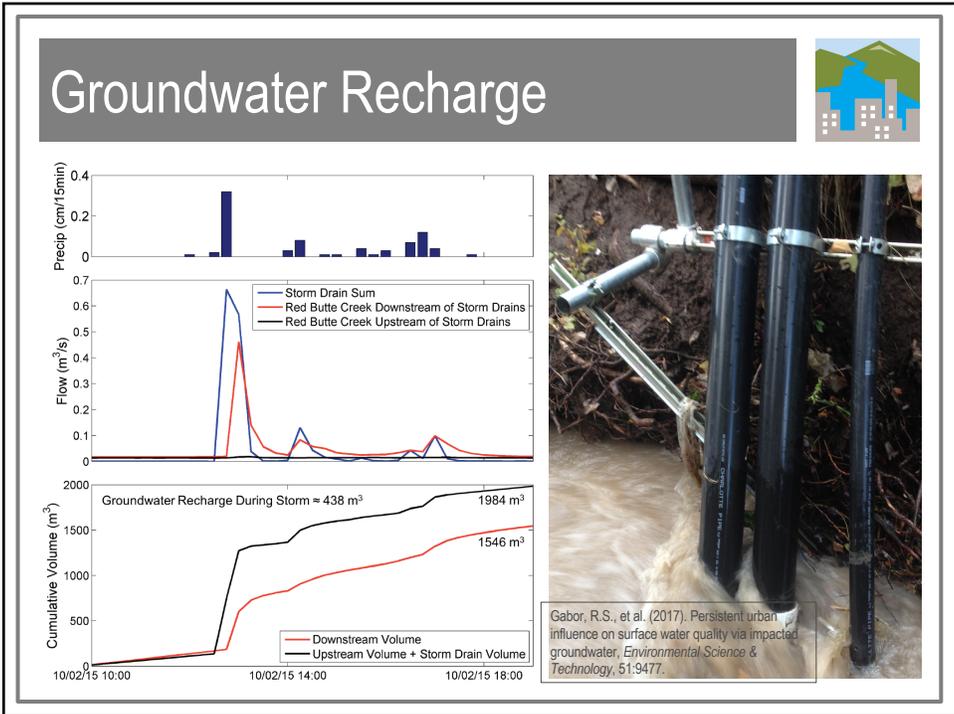
Build statewide research capacity	Strengthen STEM workforce	Enhance economic competitiveness and sustainability
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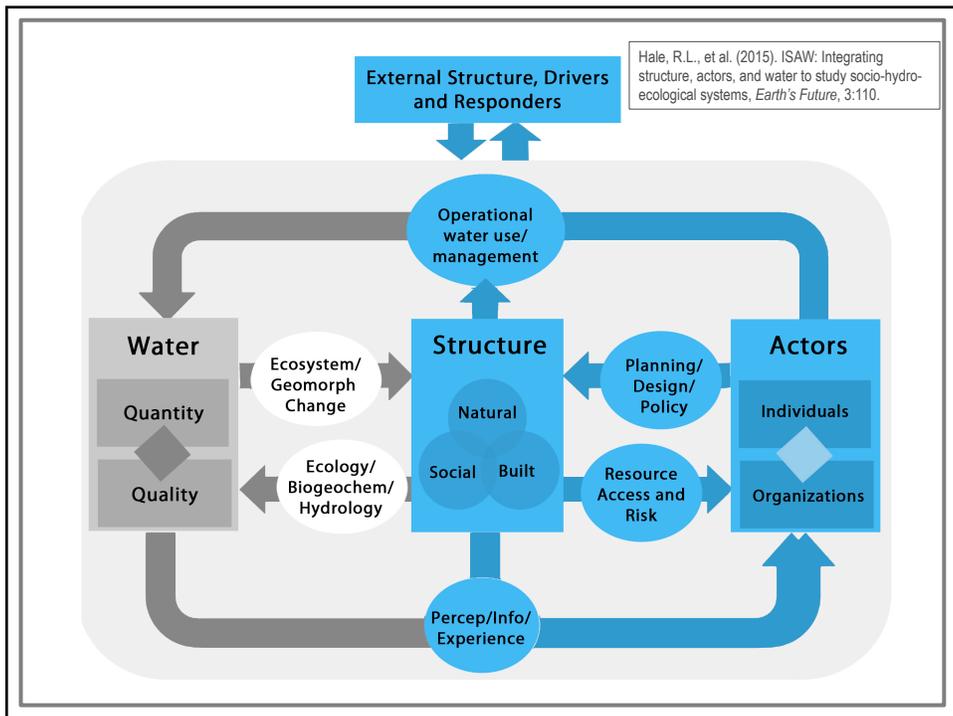


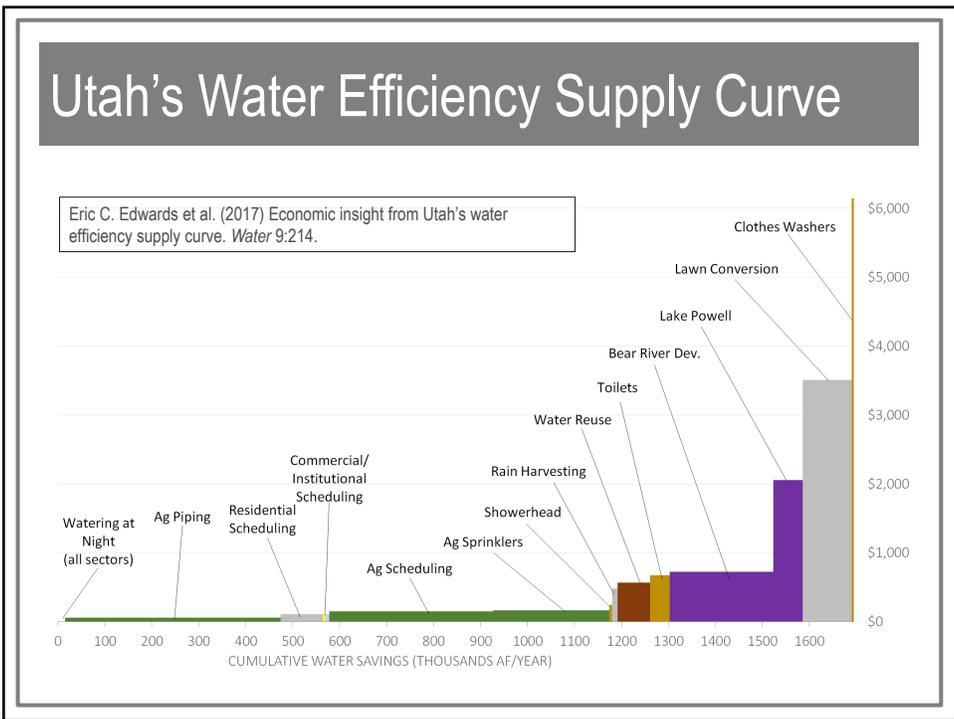
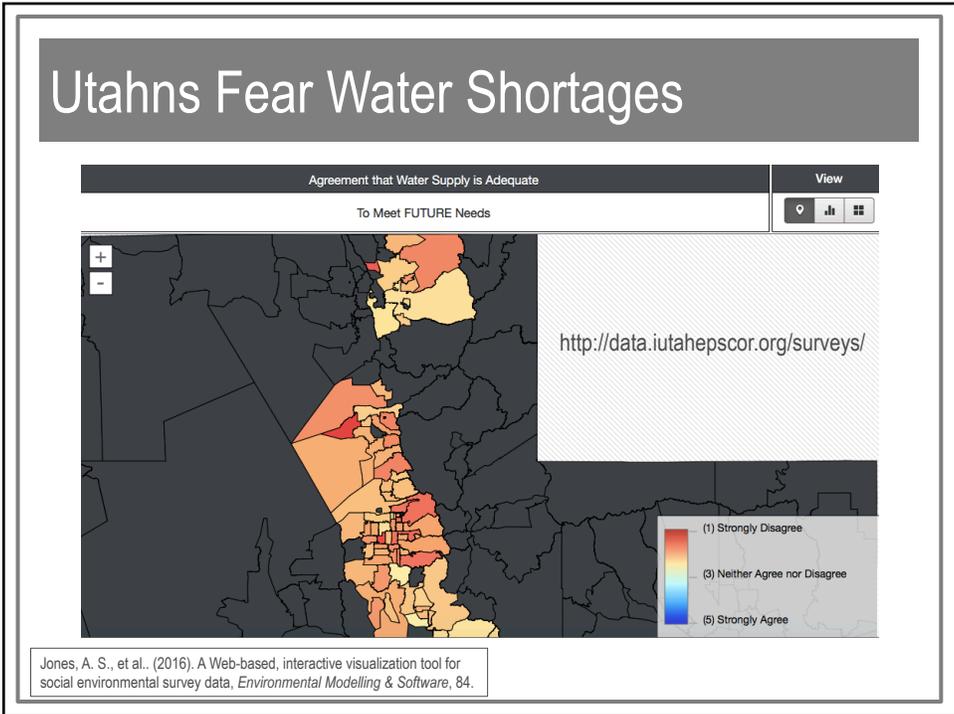










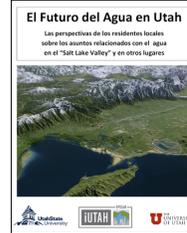
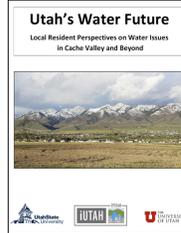


2014 Household Survey



“Utah’s Water Future”

- Neighborhoods represent urban typology in 3 GAMUT watersheds
- **Unprecedented Scale**
 - **2,400 respondents** from 23 neighborhoods across 12 cities
 - **62% response rate**
- Results disseminated to
 - Respondents
 - City staff & leaders
 - Posted on iUTAH website: www.iutahepscor.org/hhsurvey

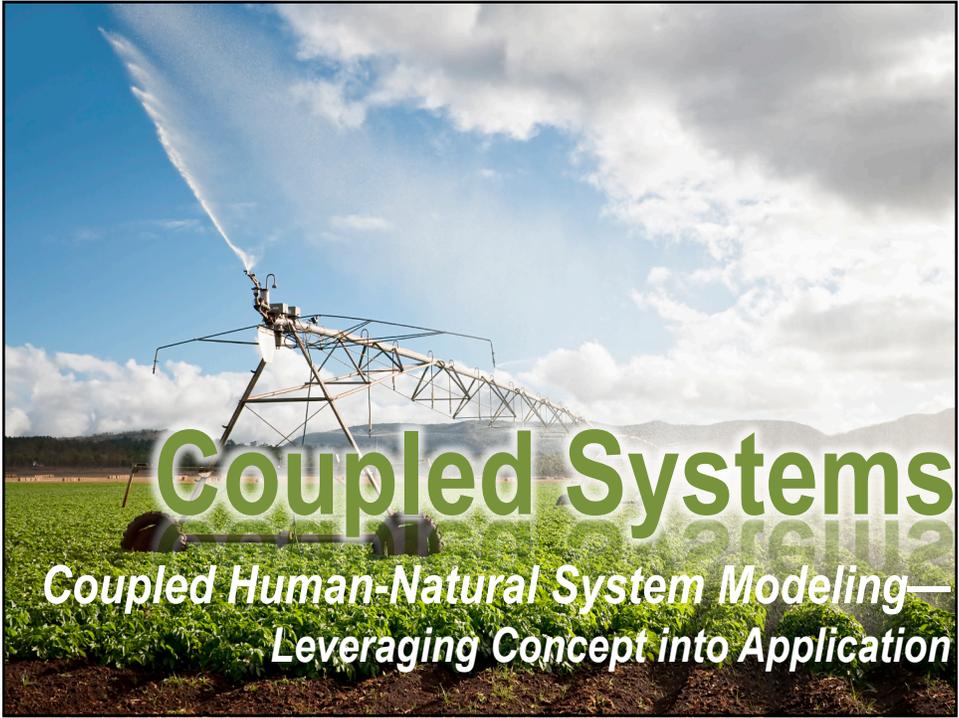
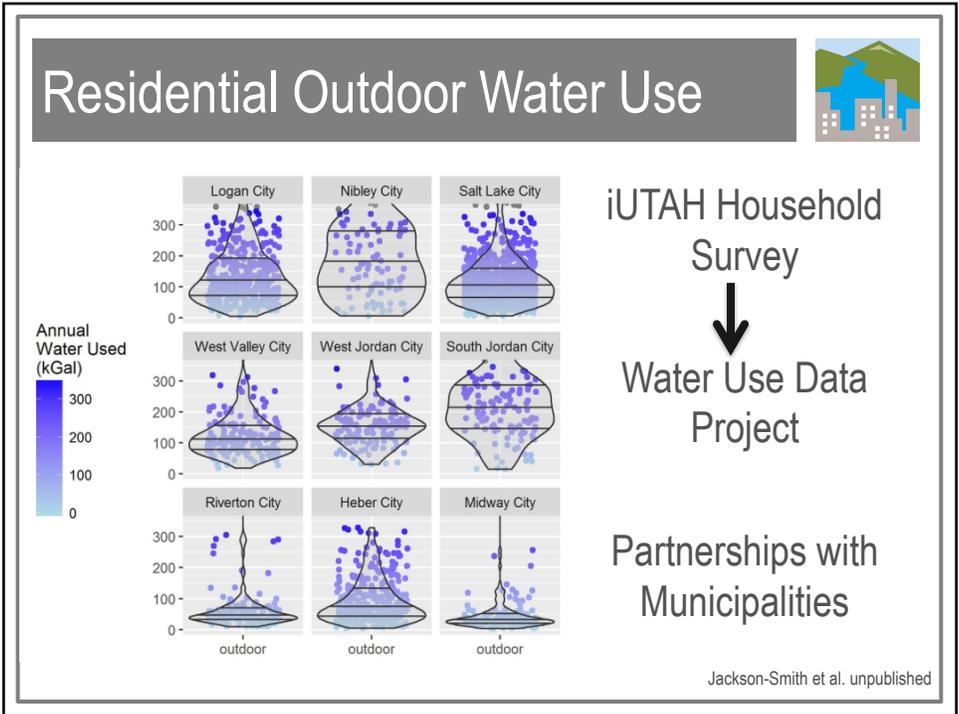


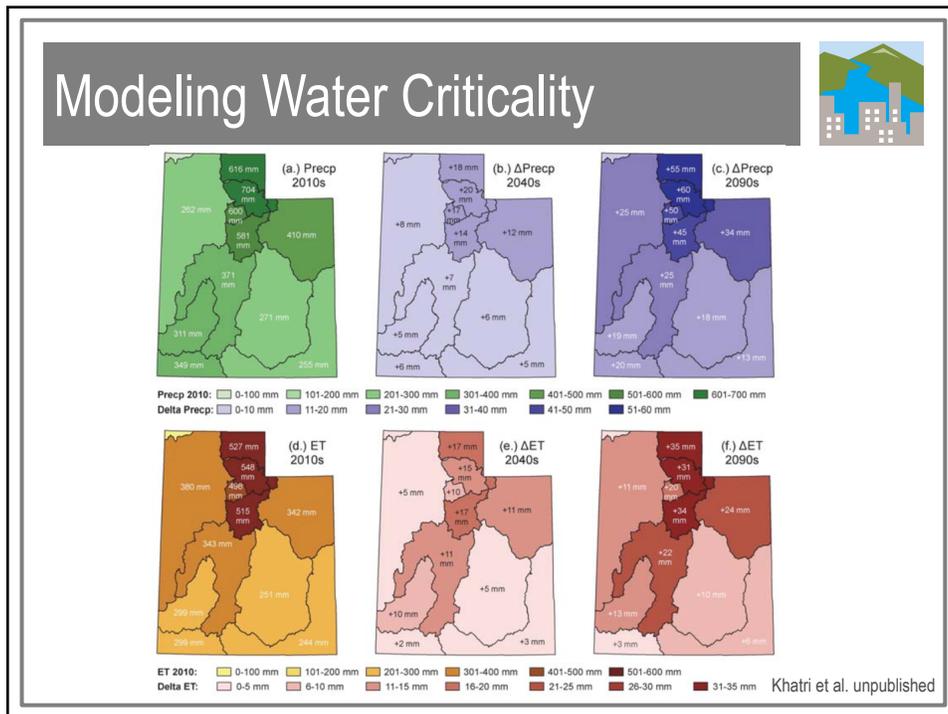
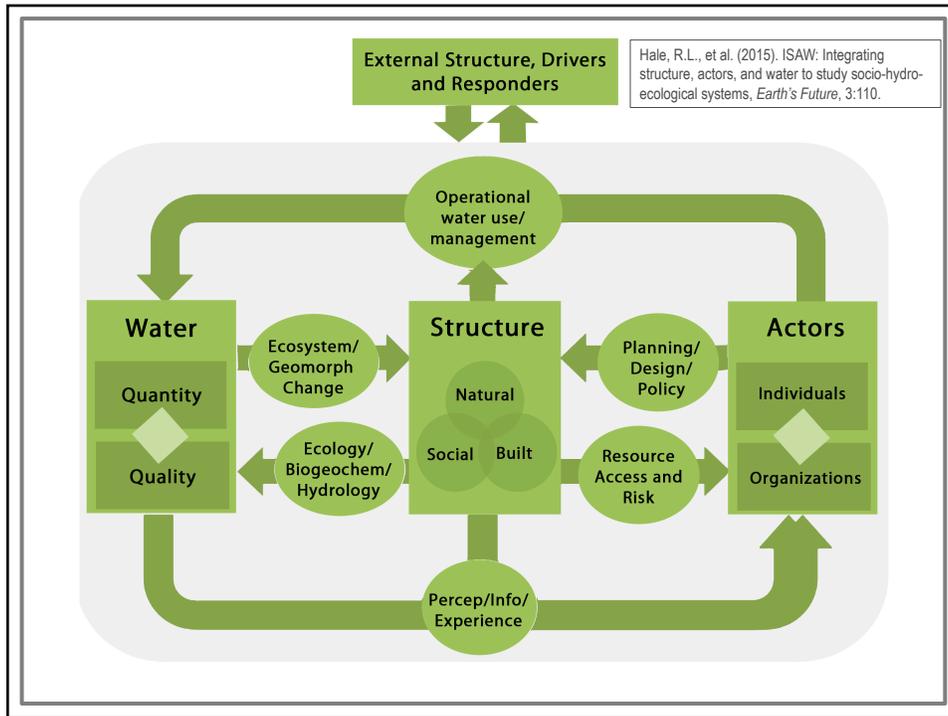
Household Survey Key Findings



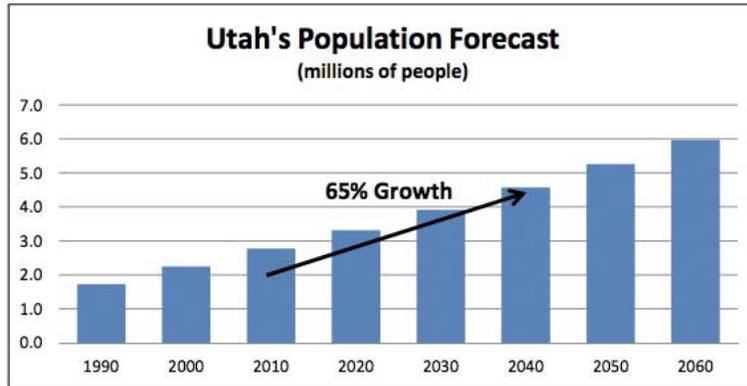
- **PEOPLE = MORE FOCUSED ON INDOOR WATER**
 - *People more focused on indoor water use behaviors; less convinced they can improve outdoor water use (contrary to experts' views)*
- **HOUSING TYPE MATTERS**
 - *Renters and residents of multi-unit dwellings have less control over outdoor landscaping & water use*
- **URBAN TYPOLOGY IMPORTANT**
 - *Water use higher in 'suburban' neighborhoods than 'traditional residential' or 'mixed use'*
- **POLICY IMPLICATIONS**
 - *Targeting education efforts; need to research new housing forms; type/form of urban growth will affect water demand*

Flint et al. (2017) Social and geographic contexts of water concerns in Utah. *Society and Natural Resources* 30:885.
 Jackson-Smith et al. (2017) Effectiveness of the drop-off/pick-up survey methodology in different neighborhood types. *Journal of Rural Social Sciences* 31:35.



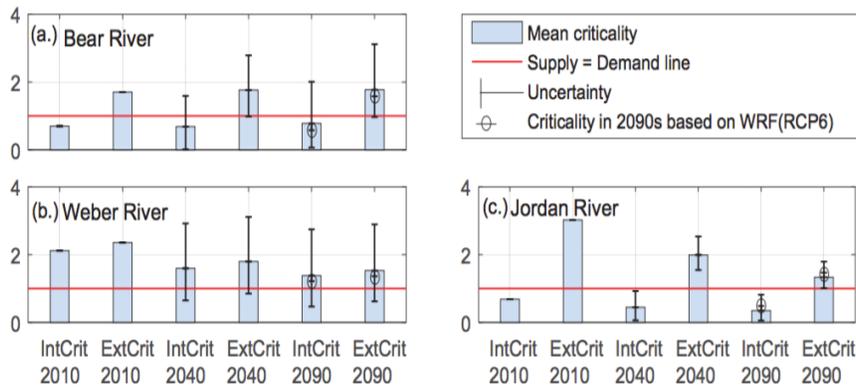


Modeling Water Criticality



Source: "2012 Baseline Projections," Governor's Office of Management and Budget (2012).
<http://gomb.utah.gov/budget-policy/demographic-economic-analysis/>

Modeling Water Criticality



Khatri et al. unpublished

www.iUtahEPSCoR.org

