Great Salt Lake, February 26, 2018

41 Resolute Members,
Four Years,
93 Recommendations,
One State Water Strategy Report

2018 Great Salt Lake Issues Forum
Lake Elevated: Keeping the Lake Great
Fort Douglas Officers Club
May 9 - 11, 2018
Early November, 2012: Presented Gov. Herbert with copies of this King Ranch Institute white paper on agriculture and water policy.
Summer 2013

• The “Gang of Six”
• Eight facilitated town hall meetings & breakout discussions
• 800 written comments
• White papers on six designated topics
Governor Herbert’s Request: Oct. 2013

- Your Utah, Your Future Process
- Water Strategy Advisory Committee
  - Develop 50-year water plan
  - Solicit and evaluate broad input for water management strategies
  - Provide framework for public involvement
  - Develop strategies and recommendations
Task Forces

- Air Quality (Oct. 15 launch)
- Water (Oct. 30 launch)
- Housing and Cost of Living
- Economic Development
- Education
- Transportation and Communities
- Natural Lands, Agriculture, and Recreation
- Energy
Assumptions

• Utah’s population will double by approximately 2060.
• Existing water infrastructure wearing out.
• Water is a finite and variable resource that is affected by climate.
• Utah values agriculture.
• Utah values a vibrant economy.
• Water quality is important.
• Utahns value water as part of the natural environment.
• Need will drive technology, which will drive change.
• Wise and efficient use of water will be necessary (conservation).
• The cost of water will continue to increase.
• Weather patterns/climate changes

Key Policy Questions

How will we supply water to 6 million Utahns?

Issues

Municipal supply development and conveyance

Related large infrastructure

Repair and replacement of existing

Construction of new

Methods

Water efficiency (conservation programs)

Conversion of agricultural supplies

Construction of new water supply projects

Large-scale funding mechanisms

Preservation of existing funding sources

Innovation

Funding mechanisms

Capital asset management plans

Innovation

Funding mechanisms

Innovation
Strawman draft summarizing WSAT meetings

Revision process with committees and team

Final public input, team debate, redrafting

WSAT committee's draft "final" version of Key Policy Questions

Public and WSAT comment on draft

Final report to Gov. Herbert
Key Policy Questions

1. **Conservation**: What is the role of water conservation and efficiency?
2. **Water Supply**: Can we supply water to meet competing and demands?
3. **Ag and Food**: How does Utah provide water for food production?
4. **Natural Systems**: What should we do to preserve natural systems?
5. **Water Quality**: How do we protect and enhance water quality?
6. **Infrastructure**: How will Utah plan for, fund, and build replacement and new infrastructure?
7. **Sustainability**: How can we optimize our water resources to sustain the economy, environment, and quality of life for Utah’s future?

8. **Science, Research, Technology**: Will we use good science, research, and technology to address our water needs?

9. **Climate**: Can we adapt to changing weather and climate patterns?

10. **Law and Policy**: What is the best water law and policy framework for Utah?

11. **Policy Leaders**: What roles do policymakers play at all levels of government, industry, and academia?
Nature rules!
Basic Science

The Water Cycle

- Condensation
- Evaporation
- Evapotranspiration
- Sublimation
- Desublimation
- Fog and dew
- Surface runoff
- Plants
- Animals
- Freshwater
- Streamflow
- Seepage
- Spring
- Infiltration
- Groundwater flow
- Groundwater storage
- Vents and volcanoes
- Oceans
- Ice and snow
- Snowmelt runoff
- Precipitation
- Volcanic steam
Open and Closed River Systems

Exorheic - Open

Exorheic or Endorheic?
The Utah Hydrosphere

• All terminal river systems - none reach the ocean.
• Including the mighty Colorado.
In a Land of Closed River Systems?

- Human use has lowered the lake level by 11.1 feet (agriculture accounts for 7.0)
- About 50% of lake bed is exposed
- “Efficient” systems or water reuse influence the river system
- How will we balance all interests?

Courtesy Friends of Great Salt Lake
Lessons Learned

\[(HC)^2\]
<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
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<tbody>
<tr>
<td>2017</td>
<td>3,123,607</td>
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<tr>
<td>2065</td>
<td>5,827,810</td>
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</tbody>
</table>
Maslow’s Hierarchy: What Will These People Need?

1. Food – from where?
2. Water – from here.
Why care about future water needs?
Lessons Learned

Water is complex
Task Forces

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Irrigation Water Use in Agriculture, 2010

Utah - 75.10%
Idaho - 81.46%
California - 60.77%

Lessons Learned

Good science, more research
Envision Utah study:
98% of Utahns want to increase food self-sufficiency

- July 30, 2015 Utah Dept. of Ag and Food news release
Lessons Learned

Strong public mandate
In the 2014 values study, Utahns ranked all 11 issues as being important to Utah’s future. The 2015 survey used a sophisticated technique to force a “weighting” of the issues, providing a wider gradation of concern.
Three C’s

- Collaboration
- Change management
- Conflict resolution
Lessons Learned

Three C’s

- Collaboration
  - Change management
  - Conflict resolution
“If you’re not at the table, then you’re on the menu.”
Lessons Learned

Three C’s

• Collaboration
• Change management
• Conflict resolution
People love innovation
People love innovation

Almost as much as they despise change

Courtesy of: Jack A. Bobo | Senior Advisor | U.S. Department of State
Lessons Learned

Three C’s

• Collaboration
• Change management
• Conflict resolution
The best route may not be the most direct one, but it is best to arrive together.
Lessons Learned

Broad stakeholder engagement
Water Strategy Advisory Team
## Co-chairs

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization/Role</th>
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<tbody>
<tr>
<td>Tage Flint</td>
<td>Weber Basin Water Conservancy District</td>
</tr>
<tr>
<td>Tim Hawkes</td>
<td>Great Salt Lake Brine Shrimp Cooperative, Inc. &amp; Utah House of Representatives</td>
</tr>
<tr>
<td>Warren Peterson</td>
<td>FarmLand Reserve, Inc.</td>
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<td>Scott Jenkins</td>
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## Members

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<tr>
<td>Tom Adams</td>
<td>Utah Governor's Office of Outdoor Recreation</td>
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<tr>
<td>Walt Baker</td>
<td>Utah Division of Water Quality</td>
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<tr>
<td>Richard Bay</td>
<td>Jordan Valley Water Conservancy District</td>
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<tr>
<td>Todd Bingham</td>
<td>Utah Manufacturers Association</td>
</tr>
<tr>
<td>Joel Briscoe</td>
<td>Utah House of Representatives</td>
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<tr>
<td>Sterling Brown</td>
<td>Utah Farm Bureau</td>
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<tr>
<td>Charley Bullettes</td>
<td>Paiute Indian Tribe of Utah</td>
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<tr>
<td>Steve Clyde</td>
<td>Clyde Snow Attorneys at Law</td>
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<tr>
<td>Kent Jones</td>
<td>State Engineer</td>
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<tr>
<td>Voneene Jorgensen</td>
<td>Bear River Water Conservancy District</td>
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<td>JT Martin</td>
<td>IWM Integrated</td>
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<tr>
<td>Dan McCool</td>
<td>University of Utah</td>
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<tr>
<td>Eric Mills</td>
<td>Division of Water Resources</td>
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<tr>
<td>Leland Myers</td>
<td>Central Davis Sewer District</td>
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<td>Ralph Oerlund</td>
<td>Utah Senate</td>
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<tr>
<td>Robert Gillies</td>
<td>State Climatologist</td>
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<tr>
<td>Dale Pierson</td>
<td>Rural Water Association of Utah</td>
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<tr>
<td>Jane Whalen</td>
<td>Citizens for Dixie's Future</td>
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<td>Jody Williams</td>
<td>Holland and Hart</td>
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Facilitated by Envision Utah
Lessons Learned

When Great Salt Lake is in peril, Utah is in peril.
Water Policy Development Model

**COOPERATION**

Working for the common good.
Reason for Optimism: Gov. Herbert’s Directive

- GOMB and department heads review
- Understand budgetary impacts
- Publicly develop implementation plans
Reason for Optimism: Legislative Response

- HB 381 (1st Sub)  
  Agricultural Water Optimization Act
- HB97 (1st Sub)  
  Local Food Council Advisory Act
Thank you.
Key Policy Questions

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Key Policy Questions (cont.)

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