2018 Great Salt Lake Issues Forum: 
Lake Elevated: Keeping the Lake Great

May 10, 2018
University of Utah
Officers Club
Great Salt Lake
Brine Shrimp Cooperative, Inc.
EXECUTIVE ORDER

Creating the Great Salt Lake Advisory Council

25th day of August, 2008

• Develop a vision for the future of the GSL.
• Consider management structures used for other internationally significant water bodies such as the Chesapeake Bay, Great Lakes and Puget Sound.
• Recommend how a permanent entity might be staffed and funded.
RECOMMENDATIONS ON THE ESTABLISHMENT OF A GREAT SALT LAKE COMMISSION

From the Great Salt Lake Advisory Council         April 28, 2009
2010 GENERAL SESSION
STATE OF UTAH

Chief Sponsor: Ben C. Ferry Senate Sponsor: Peter C. Knudson

LONG TITLE
General Description:
2 This bill enacts the Great Salt Lake Advisory Council Act to create the Great Salt Lake Advisory Council and address related issues.

Highlighted Provisions:
This bill:
defines terms; creates the Great Salt Lake Advisory Council;
requires designated departments to provide staffing; and
outlines the duties of the council.

Monies Appropriated in this Bill: None

Other Special Clauses: None

Utah Code Sections Affected:
ENACTS:
  73-29-101, Utah Code Annotated 1953
  73-29-102, Utah Code Annotated 1953
  73-29-201, Utah Code Annotated 1953
  73-29-202, Utah Code Annotated 1953
  22 Be it enacted by the Legislature of the state of Utah:
Economic Significance of the Great Salt Lake to the State of Utah

Report for Great Salt Lake Advisory Council

Bioeconomics, Inc.

January 26, 2012
### Estimated Total Economic Impact

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<th>Statistic</th>
<th>Direct Economic Effect</th>
<th>Indirect Economic Effect</th>
<th>Induced Economic Effect</th>
<th>Total Economic Effect</th>
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<td><strong>Total Economic Output (millions of 2010 $)</strong></td>
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<td>Recreation Sector</td>
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<td><strong>Total Employment (Full and Part-time Jobs)</strong></td>
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<td><strong>TOTAL ALL SECTORS</strong></td>
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<td><strong>7,706</strong></td>
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Research Priority Database

2012 & 2017
Phragmites Project
A Part of the Invasive Weed Control
Habitat Project for Waterfowl
Management Areas in Northern Utah

Utah Division of Wildlife Resources
Presented by Randy Berger
August 4, 2010
Integrated Water Resource Management Model
“No Net Loss of Salt from South to North”
2016: Great Salt Lake Elevation
Aral Sea
Was the 4th largest lake in the world (26,300 sq. miles)
• Commercial fishing catches fell from 43,430 tons in 1960 to zero in 1980, destroying the local economy.
• Loss of wetlands, biodiversity.
• Weather changes (less humidity, hotter summers, colder winters).
• Windblown salts, metals, pesticides, PCBs.
• Harm to native vegetation and agriculture fields.
• Infant mortality spike (highest in the region); anemia; breast-feeding discouraged.
• Some of the highest rates of respiratory illnesses/deaths in the world.
Owens Lake -1913

• 12 miles long x 8 miles wide (108 sq. miles)

• Average depth 23-50 ft.

• Approximately the same size as Lake Sevier prior to settlement.
Owens Lake - Today
Largest source of particulate pollution in U.S.
Mitigation Costs

- $2.1 billion by June 2018
- Estimated $75 million/year to maintain
- Roughly 1/3 of a person’s water bill in L.A.
- Partial solution (at best)
Could we be next?
GSL Elevation = Clear Downward Trend
The Advisory Council believes GSL water levels are in a long-term decline.
What can we do about it?
Compile strategies to maintain or increase the surface elevation of Great Salt Lake.
Process to Compile Strategies:

• Open, Inclusive Process - any and all can participate
  • “The strategies ... comprise submissions from a wide range of individuals and organizations, including water suppliers, water users, conservation interests, state and local governments, industry and commercial interests, non-governmental organizations, and members of the general public.”

• Anonymous Submissions...without attribution
  • To encourage a broad range of submissions and to encourage those with institutional constraints to submit strategies.
Broad Categories of Strategies

• **Coordination** -- data collection, modeling, etc.
• **Environmental** - supply/demand management strategies
• **Legal** -- changes to law that could benefit the lake
• **Policy** -- regulatory standards, water rates
• **Operational** - technology
• **Structural** -- physical infrastructure
72 potential strategies to maintain and/or increase the surface elevation (water levels) of GSL.

Prepared for Great Salt Lake Advisory Council

Compiled by SWCA
September 2017
1. Distill down to the most promising strategies (from 72 -> 18).

2. Council polled to prioritize those most promising (or preferred) strategies.
TOP COUNCIL PRIORITIES
#2 - Split Season Leases

Example:

• Farmer foregoes marginal final cutting of alfalfa.
• Paid for net value of that crop.
• Conserved water available for other uses.
• Proven effective at scale (e.g., SCPP in the Colorado) *IF* water can be shepherded downstream.
#4 - Meter All Secondary Water

- 20-30% savings by simply installing meters (not changing cost structure)

- Challenge: cost ($1000-1800/hookup to retrofit an existing home)
#5 - Continue to support IWRM/GSLIM

• Tool for decision makers
• Informs policy
• Helps prioritize resources
#6 - Create and Empower Basin Councils

• Proven successful elsewhere.
• Often can achieve positive outcomes without changing underlying legal regime.
#7 - Water Conservation (residential, commercial, institutional, agricultural) to increase flows to GSL
#10 - Increase the efficiency of agricultural irrigation to deliver more water to GSL.

• Agriculture accounts for roughly 80% of diverted water.
• If successful, greater potential to increase flows to GSL.
#8 - Incorporate best management practices for watershed planning into policy making decisions.

• Need to understand all the moving pieces.
• Conservation measures must be deployed at scale.
#9 - Allow entities other than state agencies to hold instream flow rights.

- Currently only DWR and State Parks + “fishing groups” for native trout
- Extremely limited
- Expanding that authority could augment flows to GSL.
#15 - Expand state agency acquisition of instream flows

- Current authority exists, but is little utilized.
- Offers the potential for a robust instream flow program.
#12 - Complete an analysis of the public health effects of the exposed sediments.

• Loss of terminal lakes = huge air quality problems.
• What would loss of GSL mean for the Wasatch Front?
#13 - Vegetation Control

- Remove non-native phragmites, etc.
- Replace high transpiring plants with lower transpiring plants
Some ideas weren’t prioritized (not top 18)

- Reduce lawn and turf grass use and promote xeriscaping.
- Reduce water use by golf courses.
- Pass legislation to set minimum flows or lake levels.
- State mandated conservation pool using the Public Trust Doctrine.
• Mine groundwater to augment supply to GSL.
• Create an in-lake storage reservoir.
• Increase the capacity of existing reservoirs.
• Buy and dry farmland to benefit GSL.
• Expand the Lake Powell Pipeline to GSL.
#1 and #3 -- Find ways to shepherd conserved water downstream to Great Salt Lake

• Current law makes it difficult (if not impossible) to shepherd water downstream.

• If not addressed, little incentive (or benefit) to find and fund upstream efficiencies and savings.
“72 potential strategies to maintain and/or increase the surface elevation (water levels) of GSL.”

Prepared for Great Salt Lake Advisory Council

Compiled by SWCA

August 2017
Where from here?

Further refine strategies - (e.g. priorities, feasibility, etc.)
Evaluate advocacy options - (e.g. narrow or omnibus?)
“No one can whistle a symphony. It takes a whole orchestra to play it.” H.E. Luccock
“Individually, we are one drop. Together, we are an ocean.”
Ryunosuke Satoro
QUESTIONS