

Great Salt Lake Advisory Council

7th Annual Report to the Utah State Legislature
Natural Resources Appropriations Subcommittee
February 2017



© Stuart Ruckman

“The Great Salt Lake Advisory Council is playing a vital role in helping to balance the many important uses of the Great Salt Lake. Now is the time to ensure this valuable natural treasure is protected for future generations.”

— Governor Gary Herbert



Great Salt Lake Advisory Council

BACKGROUND

The Great Salt Lake Advisory Council (“Council”) was established by House Bill 343 in the 2010 session of the Utah State Legislature. Council members were appointed by Governor Herbert, with consent of the Utah Senate, in June 2010. Governor Herbert kicked off the initial Council meeting on June 30, 2010.



Fourth grade students visit the Great Salt Lake Shorelands Preserve. Over 11,000 students have learned about the Lake’s ecology through The Nature Conservancy’s Wings and Water Program. © Charles Uibel

Duties of the Great Salt Lake Advisory Council

Legislation creating the Great Salt Lake Advisory Council identifies five specific “duties” of the Council:

- 1) ADVISE** the governor, the Department of Natural Resources (“DNR”), and the Department of Environmental Quality (“DEQ”) *“on the sustainable use, protection, and development of the Great Salt Lake” (“GSL”) “in terms of balancing: (i) sustainable use; (ii) environmental health; and (iii) reasonable access for existing and future development.”*
- 2) ASSIST** the Division of Forestry, Fire and State Lands (“FFSL”) in its statutory responsibilities for the Great Salt Lake (i.e. to prepare and implement a comprehensive management plan, initiate and publish studies of the lake, coordinate activities of DNR divisions with respect to the lake).
- 3) RECOMMEND** appointments to the GSL technical team and utilize technical support from that team.
- 4) ASSIST** DNR and DEQ and their boards in their responsibilities for the Great Salt Lake.
- 5) REPORT** *“annually”* to the Natural Resources Appropriations Subcommittee *“on the council’s activities.”*

2016 Tasks and Activities of the Great Salt Lake Advisory Council

During 2016, the Council addressed all five of its primary work plan tasks and objectives, as follows:

- 1) ADVISE** — The Council briefed and advised the Executive branch, including meetings with representatives of the Governor’s Office, Agency Directors, and Department and Agency managers.
- 2) ASSIST** — The Council met frequently with officials of the Utah Division of Forestry, Fire and State Lands to assist in and provide support for the Division’s statutory responsibilities and priorities.
- 3) RECOMMEND** — The Council shared its recommendations regarding funding of Phragmites control, specific aspects of the Integrated Water Resource Management model, impacts from declining elevation of Great Salt Lake, the Great Salt Lake Technical Team’s research funding, and other priorities.
- 4) ASSIST** — The Council worked with both the Utah Department of Natural Resources and the Utah Division of Water Quality on Great Salt Lake issues ranging from non-native invasive plants to air quality, from water quality to water management, and on numerous other issues.
- 5) REPORT** — The Council prepared and provided its 6th Annual Report to the Utah State Legislature Natural Resources, Agriculture, and Environmental Quality Appropriations Subcommittee.

The Council further fulfilled its statutory responsibilities to advise, assist, recommend and report by holding five (5) formal meetings in 2016, with briefings, updates, reports, discussions and counsel on topics including causeway modification, water resource modeling, water development impacts, invasive species, air quality, lake elevation, GSL research, and other GSL-related topics. The major 2016 Council activities are summarized, below.



A valuable resource for industry, aquaculture, recreation, conservation and water treatment, Great Salt Lake adds \$1.3 billion annually to Utah's economy. © Don Leonard

Funding Support: Phragmites Eradication

Continued expansion of non-native Phragmites has a significant negative impact on the GSL ecosystem. It reduces native wetlands, limits use by wildlife, excludes favorable forage and nesting plant species, traps sediments, poses fire danger, consumes excessive water, and limits lake access for recreation, research and rescue. In 2012 the Council recommended eradication of Phragmites from the GSL ecosystem as a priority. The Council supports continued funding (\$500,000 for FY 2017-2018) for Phragmites research and eradication.

Program Support: Council Staffing

The Council is holding regular public meetings, initiating updates, preparing reports, facilitating priority research, responding to requests for input, providing comments, and undertaking substantive activities in support of GSL. The Council receives limited staff support from the state employees already fully dedicated to agency responsibilities. The Council requests a dedicated full-time employee to help administer our work and fulfill our statutory responsibilities.

Program Launch: Integrated Water Resource Management Model

Four years ago, the Council recommended development of an Integrated Water Resource Management ("IWRM") model to define and understand how variable precipitation and water management in GSL's watershed influences the lake's water levels, salinity, and the resources the lake supports. Funding was approved by the Legislature and model development is now complete, with model launch in early 2017. The Council is providing input to state agencies on how to launch, utilize and maintain the model to maximize its use and benefits.

Comments: State Water Strategy Plan

In 2013 Utah Governor Herbert announced the need for a 50-year Water Strategy Plan for Utah and assembled a State Water Strategy Advisory Team to prepare a draft strategy. Recently, the Team released a draft for comment. The Council agreed to prepare comments focusing on GSL. The comments will highlight ecological and economic values of the lake and the desire to hold GSL harmless from negative impacts.

Implementation: Great Salt Lake Adaptive Management Tool

In 2014 the Council adopted an objective of no further net migration of salt from the South arm to the North arm of GSL. In support of that objective, the Council recommended support for the Union Pacific Railroad bridge project, provided it is built to accommodate adaptive management (i.e. control bidirectional flows). Prior to bridge project completion in 2016, the Council began discussions with the Division of Forestry, Fire and State Lands on policies and procedures to utilize the adaptive management tool.

Policy Priority: Great Salt Lake Surface Elevation

In 2016, the surface elevation of GSL declined beyond the historic low. "Sustainable use, protection and development" of GSL are impacted by fluctuations in its surface elevation. Elevation cycles are trending towards lower overall lake levels, seriously impacting lake-related commercial activities, human health and air quality, wildlife populations, and overall health of the lake's ecosystem. In 2016 the Council initiated development of a substantive menu of possible options, tools and responses to address low lake elevation.



On 12/1/16, the Union Pacific Causeway was breached as part of an agreement, brokered by the Council, to help balance salinity levels in the North and South arms. A control berm will facilitate adaptive management. Elevation equilibrium will likely be reached next fall. © Wayne Wurtsbaugh, LimnoVision, pilot: Tom Rollins.

Great Salt Lake Advisory Council Summary of 2016 Council Meetings



Due to ongoing drought and other factors, the level of the Great Salt Lake is near its historic low. In 2017, the Council will review strategies to address lake level and use the State's new Hydrologic Model to better understand how the Great Salt Lake Watershed functions. © Nilauro Markus

March 2, 2016 — Utah Dept. of Natural Resources Building

- Update on Integrated Water Resources Management Model by CH2M Hill
- Presentation of White Paper on Water Development Impacts on Great Salt Lake
- Consideration of Council Membership, including New and Renewing Council Members
- Implementation of Bylaws and Policies and Election of New Officers
- Discussion of Great Salt Lake Advisory Council 2016 Areas of Focus by Members of the Council

May 4, 2016 — Davis County Administration Building

- Culvert Closure and Bridge Project Timeline and Construction Report by Union Pacific Railroad
- Membership Status and Appointments Report by Advisory Council Committee Chair
- Legislative Session Report by Advisory Council and Division of Forestry, Fire and State Lands
- Review of Future Budget Requests by Utah Division of Forestry, Fire and State Lands
- Update on Great Salt Lake Technical Team Research Grants by Division of Forestry, Fire and State Lands
- Status of Integrated Report by Division of Water Quality

July 6, 2016 — Davis County Administration Building

- Report on Membership Status and Appointments by Council Committee Chair
- Report on *Phragmites* Funding by Committee Chair
- Briefing on Sovereign Lands Management Account by Forestry, Fire and State Lands
- Presentation on Consumptive Water Use of *Phragmites* by Division of Water Quality

September 7, 2016 — Antelope Island Visitor Center

- Update on Great Salt Lake Air Quality Impacts by Utah Division of Air Quality
- Presentation on Harmful Effects of Dust Emissions from the Dry Lakebed of Great Salt Lake Relative to Other Regional Dust Sources by Brigham Young University
- Report on Great Salt Lake Bathymetry and the Deep Brine Layer by United States Geological Survey
- Status of Integrated Water Resource Management Model Project by Division of Forestry, Fire and State Lands

November 4, 2016 — Davis County Administration Building

- Status of Agency Budget Requests Relating to Great Salt Lake by Forestry, Fire and State Lands
- Council Guidelines by Assistant Attorney General
- Reports on Lake Elevation Impacts by Commercial Interests (Compass Minerals, U.S. Magnesium, Cargill, Morton Salt, GSL Brine Shrimp Cooperative)
- Report on Impacts of Lake Elevation on Avian Resources by Division of Wildlife Resources
- Presentation and Discussion on Adaptive Management of New Causeway Breach by FFSL
- Planning for Adaptive Management and Salinity by Advisory Council
- Approval of Great Salt Lake Advisory Council 2016 Annual Report by Council Members

Great Salt Lake Advisory Council

Chair: Don Leonard
Vice-Chair: Dave Livermore

Box Elder County
Commissioner
Jeffrey Scott

Davis County
Commissioner
John Petroff

Salt Lake County
Carlton Christensen

Tooele County
Dan Tuttle

Weber County
Commissioner
Kerry Gibson

Salt Lake City
Tom Ward

Conservation Interests
Dave Livermore

Migrating Bird Protection Area
Jeff Richards

Extractive Industry
Todd Bingham

Aquaculture
Don Leonard

Publicly Owned Treatment Works
Leland Myers

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