

Great Salt Lake Advisory Council

6th Annual Report to the Utah State Legislature
Natural Resources Appropriations Subcommittee
February 2016



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“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 10,000 students have learned about the Lake’s ecology through The Nature Conservancy’s Wings and Water Program. © Stuart Ruckman

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.”*

2015 Tasks and Activities of the Great Salt Lake Advisory Council

During 2015, the Great Salt Lake Advisory Council addressed all five of its primary work plan tasks and objectives, as follows:

- 1) ADVISE** — The Great Salt Lake Advisory 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 development of an Integrated Water Resource Management model, conditions for modification of the Union Pacific Railroad causeway, staffing for the Council, the GSL 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 bi-directional flow, from water quality to water management, and on numerous other issues.
- 5) REPORT** — The Council prepared and provided its 5th 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 2015, with briefings, updates, reports, discussions and counsel on topics including causeway modification, water resource modeling, invasive species, air quality, lake elevation, Great Salt Lake (GSL) research, and other GSL-related topics. The major 2015 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

Research Focus: Integrated Water Resource Management

Three years ago, the Great Salt Lake Advisory Council (Council) recommended the development of an Integrated Water Resource Management (IWRM) model. The purpose is to define and understand how variable precipitation and water management in The Great Salt Lake's watershed influences the lake's water levels, salinity, and the resources the lake supports.

The Council's recommendation was summarized in a paper that provided an overview, identified research objectives, recommended IWRM as a priority, identified research partners, and estimated cost and timeframe to develop such a model. The Council recommended funding in the FY 2015 budget. \$400,000 was approved by the Legislature. The contract for IWRM was awarded in 2015. The project is a two-phase, two-year project, to be completed in early 2017.

Funding Focus: Phragmites Control

Non-native Phragmites has a significant negative impact in the Great Salt Lake (GSL) ecosystem. It reduces native wetlands and associated species, limits use by native wildlife, excludes favorable forage and nesting plant species, traps sediments, and limits lake access for recreation, research and rescue. The Great Salt Lake Advisory Council (Council) has participated in briefings, discussions, tours and other investigations, resulting in the Council position that eradication of Phragmites from the GSL ecosystem is a priority.

Last year the Council played a key role along with the Utah Division of Forestry, Fire and State Lands, in support of funding for Phragmites control. During its 2015 session, the Utah State Legislature appropriated \$500,000 for Phragmites control.

New Focus: Lakebed Impacts on Air Quality

Declining Great Salt Lake (GSL) elevation has exposed hundreds of square miles of lakebed, adding to the intensity of dust storms, and to the adverse effects of dust deposition along the Wasatch Front. The Great Salt Lake Advisory Council (Council) is studying and discussing harmful effects of dust emissions from the dry lakebed of GSL, including presentations from state regulators and private researchers on air quality impacts.

Field work for a project, funded by the Utah Division of Forestry, Fire and State Lands, is underway. Final field and laboratory work will be completed by June 2016. At that time the Council will consider possible responses to the problem of dust emissions from the dry lakebed of GSL.

Future Focus: Great Salt Lake Surface Elevation

In 2015, the surface elevation of Great Salt Lake (GSL) declined to near the historic low for the South arm of the lake and to a new historic low for the North arm. "Sustainable use, protection and development" of GSL are impacted by fluctuations in its surface elevation. Concerns have been raised that elevation cycles are trending towards lower overall lake levels. Continuing low lake levels would seriously impact lake-related commercial activities, wildlife populations, and health of the lake's ecosystem.

The Great Salt Lake Advisory Council (Council) is concerned about the possibility of chronic low lake levels. The declining elevation will be further impacted by changing weather patterns, greater upstream consumption, and proposed water diversions. The Council is studying causes, trends, characteristics and impacts. A future Council focus is to better understand varying lake levels, appropriate management tools, and possible responses.



Lower lake levels have led to dust storms affecting air quality on the Wasatch Front. The GSLAC has highlighted the need to study the dry lake bed's impact on local air quality. © Ogden Standard Examiner



Controlling Phragmites, an invasive species which is choking native vegetation and harming wetland habitat, is an important policy goal of GSLAC. Wetland managers are beginning to use heavy equipment to do the job. © KUER

January 21, 2015 — U.S.U. Extension Service / Utah House

- Update on Integrated Water Resources Management Model by Advisory Council
- Review of Utah Water Quality Strategy by Utah Division of Water Quality
- Presentation on Assessing Effects of Withdrawing Water for Mineral Extraction on the Levels of Great Salt Lake by National Audubon Society
- Approval of Great Salt Lake Advisory Council 2015 Annual Report by Council Members
- Preparation for 2015 Legislative Session by Council Members and Staff
- Discussion of Great Salt Lake Advisory Council 2015 Areas of Focus by Members of the Council

March 4, 2015 — Legacy Events Center / Davis County

- Legislative Session Report by Advisory Council and Division of Forestry, Fire and State Lands
- Detailed Review of Five-Year Strategic Plan by Utah Division of Forestry, Fire and State Lands
- Presentation on Phragmites Treatment, including Methods, Prioritization and Future Funding Needs, by Division of Forestry, Fire and State Lands

May 6, 2015 — Davis County Administration Building

- Report on Statewide Survey – Your Utah, Your Future – by Envision Utah
- Review of Great Salt Lake Comprehensive Management Plan for Low Lake Levels by Division of Forestry, Fire and State Lands
- Discussion on Great Salt Lake Advisory Council Governance and the Development of Bylaws by Council Members

July 1, 2015 — Davis County Administration Building

- 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, 2015 — Davis County Administration Building

- Report on Utah Precipitation, Weather Forecasting, and Impact on Great Salt Lake by U.S. Department of Agriculture's Natural Resource Conservation Service
- Presentation of Low Lake Level Management Strategies and Fiscal Year 2017 Building Block Requests by Utah Division of Forestry, Fire and State Lands
- Review, Discussion and Adoption of Bylaws by Council Members
- Update on Union Pacific Railroad Modifications to the Great Salt Lake Causeway by Utah Division of Forestry, Fire and State Lands

Great Salt Lake Advisory Council

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Box Elder County
Commissioner
Jeffrey Scott

Davis County
Commissioner
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Salt Lake County
Julie Peck-Dabbling

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Conservation Interests
David Livermore

Migrating Bird Protection Area
Jeff Richards

Extractive Industry
Todd Bingham

Aquaculture
Don Leonard

Publicly Owned Treatment Works
Leland Myers

For information contact: Jake Vanderlann, jvander@utah.gov, 801-536-4350 or Laura Vernon, lauravernon@utah.gov, 801-538-5530