

# Great Salt Lake Advisory Council

2nd Annual Report to the Utah State Legislature  
Natural Resources Appropriations Subcommittee  
February 2012



©Gary Crandall Photography

*“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.

## 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.”*



The Great Salt Lake supports important aquaculture industries. Brine shrimpers at work during harvest time. ©Don Leonard

## 2011 Tasks and Activities of the Great Salt Lake Advisory Council

During 2011, the Great Salt Lake Advisory Council addressed all four of its primary work plan tasks and objectives, as follows:

- 1)** The Council contracted for a comprehensive economic benefit report on Great Salt Lake, entitled “Economic Significance of the Great Salt Lake to the State of Utah.”
- 2)** The Council contracted for an initial report on lake health, entitled “Definition and Assessment of Great Salt Lake Health.”
- 3)** The Council reviewed a report entitled “Great Salt Lake Water Budget” from a researcher at Utah State University, outlining the sources and uses of water in the Great Salt Lake watershed.
- 4)** The Council directed its lake health contractor to begin the process of creating a list of Great Salt Lake research needs, a task that will continue in 2012 to complete and prioritize the research needs.

The Council further fulfilled its statutory responsibilities to advise, assist, recommend and report by holding nine formal meetings in 2011, with briefings, updates, reports, discussions and counsel on topics including: GSL Technical Team (its role and composition); water quality standards for Willard Spur; UPDES Permits by Utah Division of Water Quality; Jordan Valley Water Conservancy District UPDES permit application; GSL Comprehensive Management Plan by Utah Division of Forestry, Fire and State Lands; underwater topography of GSL; history of GSL causeways and their effects; Army Corps of Engineers regulatory program and local permits; spread of phragmites around the lake; Union Pacific causeway culvert closure and bridge permit application; and GSL science panel meetings.

The two major Council reports (on economic impacts and lake health) are summarized, below.



Evaporation ponds are used by mineral industries to collect brine on the Great Salt Lake. ©Great Salt Lake Minerals

## Report: “Economic Significance of the Great Salt Lake to the State of Utah” \*

This study reports on the regional economic significance of industrial, aquaculture and recreational uses of the lake within one consistent model of the Utah economy, based upon actual, primary data rather than estimates and interpolation. The contributions are measured in total output, employee compensation and employment. Additionally, the indirect and induced effects of GSL economic activity (i.e. multiplier effect) are estimated.

This report also addresses the “net economic values” associated with GSL activity, a measure of economic value associated with the GSL resource that is not measured through traditional models. Secondary sources of value associated with GSL are used to describe possible linkages between the lake and other Utah economic activity. Finally, a narrative in the report presents possible “passive use values” identified during the course of the study.

Based on the analysis of economic activities, the report concludes that GSL provides significant economic benefits to Utah. GSL-based industries are among the world’s principal sources of brine shrimp eggs, magnesium and sulfate of potassium, and are important producers of salt and other products. GSL also provides important economic benefits to Utah through tourism (including visits to three state parks), recreational services (such as waterfowl hunting, bird watching, boating, and general recreation), lower cost cycling of discharges from publicly owned treatment works and municipal and industrial wastewater, and other economic benefits.

\* Prepared for the Council by Bioeconomics, Inc., an economic research and consulting firm.

## Report: “Definition and Assessment of Great Salt Lake Health” \*\*

This study and report provides a first iteration of a definition of health for Great Salt Lake based upon the best science available as of December 2011. The term health refers to the ecological health of the lake and its associated ecological targets based on the lake’s current physical form, including dikes and causeway that segment the lake into four bays and impounded wetlands.

The information provided in this report is objective, based on science, and draws on the scientific expertise of leading lake researchers. The science panel for this project consisted of a group of prominent scientists with extensive experience and knowledge of the varied GSL ecosystems and species.

The method used to develop the definition of health is based on the Conservation Action Planning process. Areas of consideration include, but are not limited to identification of key ecological targets, their essential attributes, what indicators to use to measure GSL health, current conditions, stresses on chosen targets, scientific recommendation on desired condition, and a monitoring program to track key indicators over time.

Based on the definition of health developed for each of eight ecological targets, GSL is overall currently in relatively good health. However, there is insufficient current data for many of the indicators developed as part of the definition of health. As a result, current health rankings have a degree of uncertainty. On-going research on the lake and its surrounding habitats will help modify and improve the definition and the assessment of lake health in the future.

\*\* Prepared for the Council by SWCA Environmental Consultants, an environmental planning, compliance and resource management firm.



The Great Salt Lake is a key destination for sportsmen and waterfowl enthusiasts yielding millions in tourist dollars annually. ©W.F. Kubichek

# Great Salt Lake Advisory Council Summary of 2011 Council Meetings

## January 5, 2011 – Davis County Court House

- Discuss Great Salt Lake Advisory Council (Council) Vision and 2011 Action Plan
- Consider Economic Benefits from Lake, Indicators of Lake Health, Research Needs
- Recommend Appointment to Willard Spur Steering Committee

## February 2, 2011 – Day-Riverside Library

- Review Legislative Briefing and Approve 1st Annual Report
- Consider Great Salt Lake (GSL) Technical Team Role and Composition
- Update on Development of Water Quality Standards for Willard Spur

## March 16, 2011 – Central Weber Sewer District

- Report on Great Salt Lake Water Budget from Utah State University
- Briefing on UPDES Permits on GSL by Division of Environmental Quality (DWQ)
- Update on Jordan Valley Water Conservancy District UPDES Permit Application

## April 20, 2011 – Salt Lake County Building

- Update on GSL Comprehensive Management Plan Lands (GSLCMP) by Division of Forestry, Fire and State (FFSL)
- Consider GSL Technical Team and Provide Advice to FFSL
- Discuss Grant Process for GSL Project Proposals with DWQ

## June 1, 2011 – This is the Place Heritage Park

- Briefing on Railroad Causeway by Union Pacific
- Report on Underwater Topography of GSL by U.S. Geological Survey
- Review Lake Health and Economic Benefit Project Proposals

## July 6, 2011 – Great Salt Lake Marina

- Report on History of GSL Causeways and their Effects
- Briefing on Regulatory Program and Local Permits by Army Corps of Engineers (ACE)
- Finalize Lake Health Project Grant Proposal

## August 1, 2011 – Kaysville City Hall

- Briefing on Scope of Project for Developing a Scientific Definition of Health of GSL by SWCA
- Discuss Parameters for Economic Impact Analysis and Grant
- GSL Comprehensive Management Plan Update by FFSL



Wetland education programs are offered by The Nature Conservancy at the Great Salt Lake Shorelands Preserve. ©Stuart Ruckman

## October 5, 2011 – Day-Riverside Library

- Report on Phragmites Meeting by SWCA
- Update on GSL Comprehensive Management Plan by FFSL
- Review of UP Causeway Culvert Closure and Bridge Permit Application by ACE

## November 2, 2011 – Multi Agency State Office Building

- Report on GSLCMP Lake Level Management Strategies by FFSL
- Briefing on GSL Sociological Research from Weber State University
- Update on GSL Science Panel Meeting by SWCA

## Great Salt Lake Advisory Council

**Chair:** Leland Myers

**Box Elder County**  
Commissioner  
Ryan Tingey

**Davis County**  
Commissioner  
Louenda H. Downs

**Salt Lake County**  
Julie Peck-Dabling

**Tooele County**  
Dan Tuttle

**Weber County**  
Commissioner  
Jan M. Zogmaister

**Salt Lake City**  
Councilman Carlton  
Christensen

**Conservation Interests**  
David Livermore

**Migrating Bird  
Protection Area**  
Jeff Richards

**Extractive Industry**  
Todd Bingham

**Aquaculture**  
Don Leonard

**Publicly Owned  
Treatment Works**  
Leland Myers

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