



## GOAL

The goal of the Great Salt Lake (GSL) Salinity Advisory Committee (SAC) is to provide recommendations for long-term management of the salinity of GSL to the Utah Division of Forestry, Fire and State Lands (FFSL) and the Utah Division of Water Quality (UDWQ) that maximize the benefits of GSL in accordance with the public trust doctrine and protect the designated uses of GSL in accordance with the Utah Water Quality Act.

## PURPOSE

Union Pacific Railroad's (UPRR) approved Comprehensive Mitigation and Monitoring Plan (CMMP) (2015) was prepared to meet regulatory requirements for replacement of the aquatic functions provided by the east and west culverts in UPRR's GSL causeway before they were closed. The CMMP defined a new bridge, berm and channel to be constructed at the causeway, monitoring requirements to confirm that the approved performance standards are met, and adaptive management measures.

The purpose of the SAC is to review and interpret results from GSL salinity research and monitoring activities and make recommendations to FFSL and UDWQ regarding potential modifications to the UPRR causeway opening, berm or channel and long-term management of the salinity of GSL.

## OBJECTIVES

1. Create a partnership among stakeholders to:

- a. Better understand the needs, goals and objectives of GSL's stakeholders;
- b. Share, coordinate and participate in ongoing scientific research and management efforts;
- c. Prioritize issues of concern and questions of interest;
- d. Identify and provide access to available expertise and experience;
- e. Identify and coordinate available sources of funding for collaborative efforts;
- f. Facilitate communication with stakeholders and the public;
- g. Gain broad acceptance of process and results; and
- h. Understand potential consequences from different management and policy decisions.

2. Guide the process of developing the scientific understanding of GSL salinity:

- a. Identify gaps in the scientific understanding of the effects of salinity and factors that influence the salinity in both the South Arm and the North Arm of GSL;
  - b. Recommend a common method to measure salinity and harmonize and interpret salinity data;
  - c. Provide recommendations regarding scientific studies that will be required to fill gaps in the scientific understanding of salinity in GSL;
  - d. Recommend a process and oversee the development of a GSL salinity research and monitoring plan; and
  - e. Prioritize and recommend timing for lake salinity research and monitoring activities.
3. Guide the process of evaluating the science and make recommendations to FFSL and UDWQ on:
- a. A process to review proposed salinity research or monitoring workplans and resulting work products;
  - b. The benefits and impacts of different salinities and potential uncertainties in data;
  - c. An appropriate salinity range for various conditions in both the South Arm and the North Arm that maximizes the benefits of GSL in accordance with the public trust doctrine and protects the designated beneficial uses per the Utah Water Quality Act;
  - d. The long-term management of water and salt transfer through the UPRR GSL Causeway including:
    - i. Interpretation of salinity data from the South and North Arms of GSL on a bi-annual basis;
    - ii. Recommending an appropriate causeway opening and berm geometry; and
    - iii. Identifying other possible actions for managing salinity.
  - e. A science-based, long-term management plan for the salinity of GSL that can be used to make sound and informed management decisions for the future of the lake in accordance with the public trust doctrine and the Utah Water Quality Act.

## MEMBER DUTIES

1. Participate in no less than four (4) SAC meetings per year for an initial five-year period. Meetings may initially be held more frequently as salinity research and monitoring activities are discussed and developed and as recommendations are made to UDWQ and FFSL.
2. Support an open and constructive environment for diverse perspectives and ideas to achieve the stated objectives of the SAC
3. Serve all members of the SAC as they work together toward achieving science-based, consensus recommendations for UDWQ and FFSL
4. Review and interpret pertinent materials to guide the development and evaluation of lake salinity research and monitoring activities;
5. Provide input and recommendations to UDWQ and FFSL on plans, activities, progress, quality and significant findings from ongoing salinity research and monitoring activities
6. Recruit the active involvement of and encourage ongoing collaboration and communication among governmental and nongovernmental entities, the private sector, and citizens working to achieve the protection and use of GSL;
7. Consider feedback, comments, and recommendations from stakeholders (including the Tech Team, GSL Advisory Council, agencies and the public)
8. Periodically review SAC membership and recommend adjustments or additional expertise needed
9. To the maximum extent possible, the SAC should seek to integrate this work with other research efforts on GSL to work toward an integrated research agenda for GSL.
10. Review and interpret results from GSL salinity research and monitoring activities and provide science and management recommendations to FFSL and UDWQ

## COMPOSITION

The GSL Salinity Advisory Committee will include up to nine (9) voting members reflecting the range of scientific or technical disciplines and interests required to achieve the proposed objectives. Anticipated disciplines that should be represented on the committee include experts in the abiotic (geochemistry, limnology, salt balance, nutrient dynamics, hydrology, contaminants) and biotic

(shorebirds, waterfowl, brine shrimp, aquatic ecology, microbes and algae) factors of the GSL ecosystem.

The committee will include, at a minimum, one representative from FFSL, UDWQ, USGS, UGS, the brine shrimp industry, and one South Arm and one North Arm mineral extraction company. Committee members should be actively conducting or coordinating scientific or technical work on GSL that includes monitoring of salinity. Candidates may be from the public or private sector but must serve on the SAC in the capacity of an expert and not simply as a representative of their employer. Any members shall disclose any potential conflicts of interest relating to GSL. FFSL and UDWQ will request input from the committee and stakeholders on membership and seek to replace members with a similar discipline or expertise as the member who departs. FFSL and DWQ will approve committee composition and membership.

Each member shall designate a specific alternate member to serve in their absence. Only committee members or their designated alternate will be able to vote. Each committee member or designated alternate is expected to attend all regularly scheduled meetings. FFSL and UDWQ will serve as co-chairs, non-voting members and coordinators of the committee, providing administrative support as required.

## MEETINGS

Meetings will generally be held at the Utah Department of Natural Resources building at 1594 West North Temple Drive, Salt Lake City, Utah. Meetings will be held no less frequently than four (4) times per year. Meetings will be open to the public, will comply with the Utah Open and Public Meeting Act (UAC §52-4-102), and will be scheduled with at least twenty (20) working day notice of each meeting provided to SAC members. Input from the public will be facilitated by the SAC chairperson. Meeting recordings, minutes and other materials will be maintained on project website by FFSL.

## DECISIONS

The goal is to work toward consensus in making recommendations. Both a majority and minority opinion may be forwarded to FFSL and UDWQ for consideration.

A quorum is defined as 2/3 of the members of the SAC (e.g., 6 of 9). Procedural issues, e.g., motion to adjourn, membership changes, change of meeting location, etc., require the support of 2/3 of the members present in a meeting.