

Great Salt Lake Research Priorities

Great Salt Lake Advisory Council

June 6, 2012

Erica Gaddis, Ph.D.
SWCA Environmental Consultants, Inc.



BR 2077

2156

Research Topic Survey

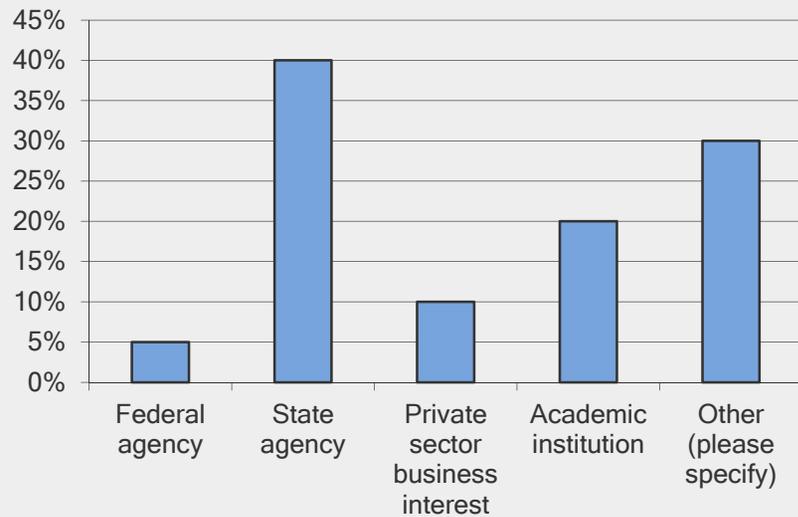
38 Research Topics in 7 categories

Questions

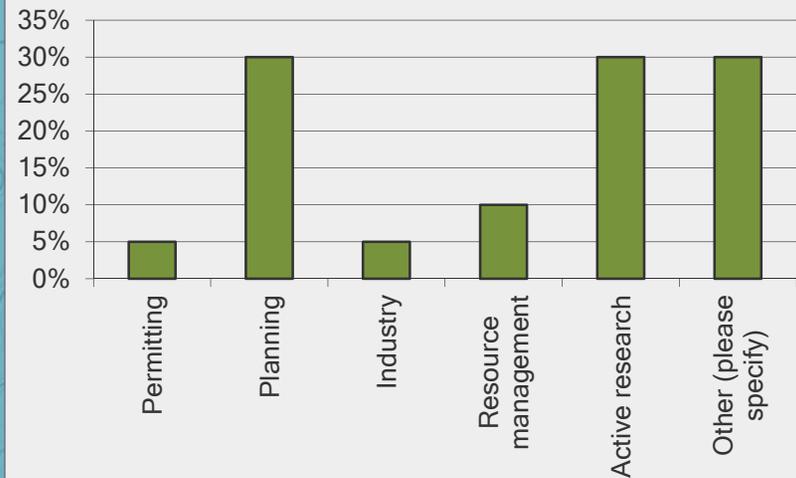
1. The research would help to answer critical questions related to permitting activities around GSL.
2. This research would answer primary scientific questions about fundamental lake processes or characteristics.
3. The results from this research would directly influence and/or improve lake management and planning.
4. Estimated project cost
5. Current funding sources

24 Respondents

With which group would you currently associate yourself, regarding the Great Salt Lake?



What is your primary function within the group you selected in the previous question?



New Topics



1. Economic values of GSL at various lake levels
2. Loading of nutrients, toxics and CECs
3. Causes and impacts of odors from the Great Salt Lake
4. Reclamation of solar ponds

Urgency Rating

Used responses from first three questions equally

- permitting activities
- primary scientific questions
- improve lake management and planning

Questions	0	1	3	4	5
Planning	Unsure	Strongly Disagree	Neutral	Agree	Strongly Agree
Primary Science	Unsure	Strongly Disagree	Neutral	Agree	Strongly Agree
Management	Unsure	Strongly Disagree	Neutral	Agree	Strongly Agree

Small group (Jodi, Laura, and Erica) changed a few rankings and ranked new topics

Other ranking factors

- **GSL Health Unknowns**
 - related to an indicator marked as TBD or w/o data in GSL health report
- **GSL Health Highly Ranked Future Stresses**
 - related to stresses ranked as high or very high
- **GSL Economic Value**
 - Figure 1 in GSL Economic report
- **Current funding sources**
 - survey and refined by small group
- **Project cost**
 - survey and refined by small group

Highest Ranked Topics

1. Mapping wetland types, management units, and surface water inputs to GSL wetlands.
2. Hydrologic model of GSL basin
3. Identification of toxic pollutants for specific aquatic and aquatic dependant GSL species based on salinity classes
4. Nutrient sources, loading, cycling and influence on GSL ecology

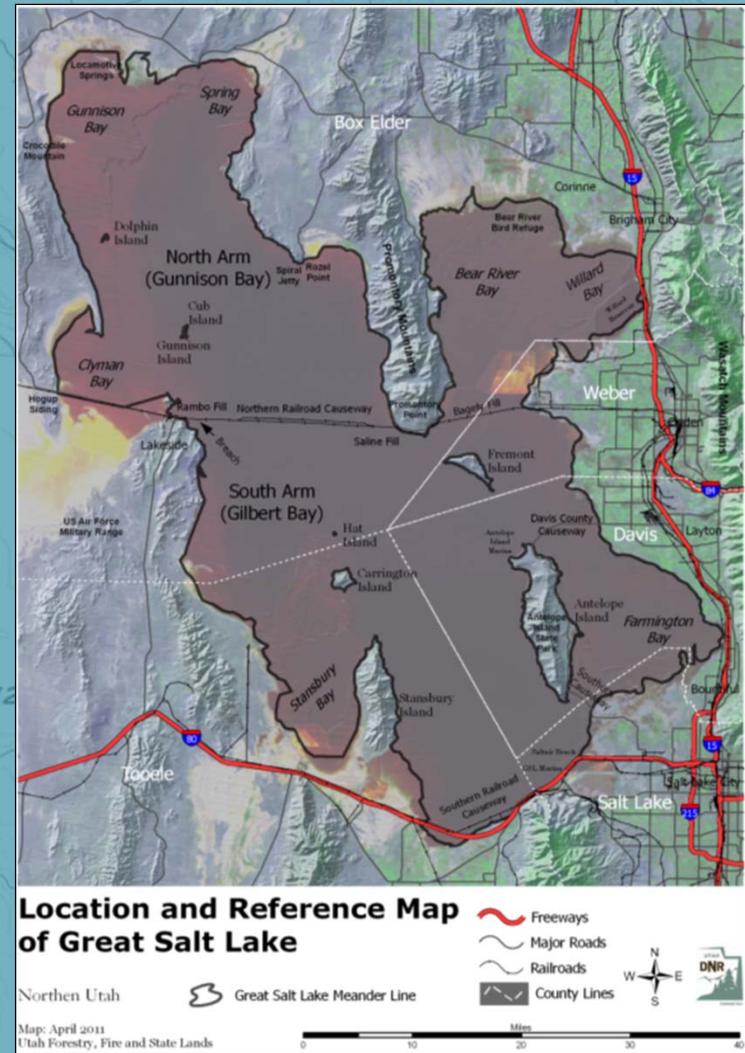
(Based on GSL Health Unknowns and Urgency)



Other Highly Ranked Topics

1. Drivers and control of *Phragmites* invasion around GSL
2. Deep brine layer dynamics
3. GSL hydrodynamic model
4. Updated salt balance of GSL and development of planning horizon for mineral extraction

(Based on Urgency)



The background of the slide is a topographic map with contour lines and various elevation markers. The map is rendered in shades of blue and white. A horizontal line is drawn across the top of the map, just below the title. The title 'Next Steps' is written in a large, white, sans-serif font in the upper right quadrant. Below the title, there is a bulleted list of three items in white text. The map features numerous contour lines and numerical values such as 2198, 2141, 2100, 2055, 2168, 2150, 2127, 2136, 2107, 2100, 2127, 2158, 2164, 2100, 2150, 2100, 2150, 2156, and 2156. There are also some larger numbers like '21' and '27' scattered across the map. A small crosshair symbol is visible in the lower-left area of the map.

Next Steps

- Refine rankings based on council comments following time to review
- Draft report
- Seek funding!