

JEFFRY T. NIERMEYER  
DIRECTOR

# SALT LAKE CITY CORPORATION

DEPARTMENT OF PUBLIC UTILITIES  
WATER SUPPLY AND WATERWORKS  
WATER RECLAMATION AND STORMWATER

RALPH BECKER  
MAYOR



July 12, 2012

Ms. Jodi Gardberg  
Utah Division of Water Quality  
PO Box 144870  
Salt Lake City, Utah 84114



Subject: Great Salt Lake Water Quality Strategy Comments

Dear Ms. Gardberg,

Thank you for the opportunity to comment on the Great Salt Lake Water Quality Strategy. We agree with the general premise and findings of the reports: that the Great Salt Lake (GSL) is extremely important, it is one of a kind in the world and very complex, and that there are significant data gaps which need to be filled in to appropriately manage and regulate the resource into the future. Due to the unique ecological and other characteristics of the GSL, it appears to be significant that we need to further identify the indicators of impairment, to establish those prior to beginning to attempt to identify causes of impairments.

The reports and the proposed Great Salt Lake Water Quality Strategy recognize that there is a significant gap in available data to both define the beneficial uses, and any impairment to those uses. With the very unique characteristics of the GSL and the areas surrounding it, comparisons to other water bodies are futile. The GSL varies significantly based on elevation and location in the water body, in its salinity and beneficial use designation. Water quality constituents considered detrimental pollutants in any one segment may be beneficial in another connected or "downstream" segment of the lake. The segments must be analyzed independently but the lake needs to be viewed as a whole, all segments are interrelated.

It is important that significant research will be necessary to assure that potential water quality issues and lake management concerns are based on good scientific data. The proposed water quality strategy developing numeric and narrative standards for zones of water qualities (salinity) in the GSL starting with fresh water to estuary, to hyper-saline is a reasonable approach. Since some of the respective lake management and regulatory approaches being discussed could have very high costs to implement, their impact to not only the segment of concern but the entire lake needs to be assessed. For example, native species such as brine shrimp (artemia) require nitrogen and phosphorous for a healthy ecology, and would be adversely impacted if nutrient were limited from upstream sources. In the case of the GSL, it is both accurate and important to recognize that a healthy GSL ecosystem requires algae and blooms, which is unique and contrary to most if not all fresh water bodies.

We strongly feel that starting out with standards from other geographic areas and applying them to the zones in the GSL is unsuitable. We believe it is important to develop GSL specific data and supporting science to characterize and establish the beneficial uses and “healthy” ecology of the lake. The GSL is such a unique water resource where standards applicable to an estuary in California may not have the same scientific underpinnings. The concentration of salt and all other minerals is highly dependent on the lake elevation, which varies dramatically; consequently the “natural” ecology of the lake varies dramatically with water level. Therefore, the ecology and beneficial use requirements of the lake vary with lake elevation, and any proposed standards may require a link to lake elevation.

We believe the State and related stakeholders should invest appropriate resources in time and money to fill in the data gaps sufficiently to understand the lake and its complex interrelationships before any dramatic changes in management or regulation occurs.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'TKW', with a long horizontal flourish extending to the right.

Thomas K. Ward, P.E.  
Deputy Director

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C: file, Florence Reynolds, Dale Christensen, Jeff Niermeyer