

Celebrating 25 Years

# Great Salt Lake Water Quality

Great Salt Lake (GSL) is the largest salt water lake in the western hemisphere, the fourth-largest terminal lake in the world, and the 37th-largest lake on Earth. Great Salt Lake is of hemispheric importance as both a refueling stop for millions of migratory birds and a nesting area for others. Eighty percent of Utah's wetlands surround the lake. The mineral extraction industry, duck hunting clubs, and the brine shrimp industry are dependent on the vitality of the lake. Nature enthusiasts flock to the lake because of its ecological importance.

However, it is due to the uniqueness of GSL that the Division of Water Quality (DWQ) was better able to protect when the first numeric water quality standard for selenium was established in November 2008. Public concern over the potential of adding more selenium to the Lake as the result of the South West Jordan Valley groundwater cleanup project brought a renewed focus on the need for numeric standards. This selenium water quality standard of 12.5 mg/kg is a tissue-based standard based on the complete egg/embryo of aquatic-dependent birds that use the waters of Gilbert Bay. Establishing this standard required a comprehensive, \$2.6 million, 4-year process led by a Selenium Steering Committee comprised of prominent stakeholders who were advised by an international scientific panel of selenium experts. DWQ is developing new, less expensive methods to adopt more numeric criteria through extensive literature searches, benchmarking, and prioritizing pollutants.



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