

THE GREAT SALT LAKE

Today the Great Salt Lake covers approximately 2,300 square miles in north central Utah. The surface elevation of the lake has been as high as 4211.85 feet (45 feet deep) in 1986 and 1987 and as low as 4191.30 feet (25 feet deep) in 1963.

Ten islands ranging from Badger Island measuring 6 acres to Antelope Island measuring 23,000 acres are features of the modern lake.

Islands of the Great Salt Lake

Antelope
Badger
Carrington
Cub
Dolphin
Egg
Fremont
Gunnison
Hat (Bird)
Stansbury

4 1/2 billion tons of salts are contained in the Great Salt Lake. However the salt distribution in the lake is variable. A railroad causeway built by the Southern Pacific Railroad in 1959 divides the lake. Culverts that once allowed lake water to flow between the 2 arms have solidified over the years to create a near solid wall that restricts water exchange dramatically. 3 of the lake's major tributaries flow into Gilbert Bay bringing more fresh water to the south than the Bear River can supply to Gunnison Bay. The north arm of the lake, **Gunnison Bay**, can have as much as **28%** salt making it the most saturated part of the lake.

The south arm of the lake, **Gilbert Bay**, can have as little as **5%** salt making the water in this area far less dense. The **oceans**, by comparison, contain about **3%** salt. Satellite imagery shows the dramatic difference between the 2 major arms of the lake. The Utah Department of Natural Resources is currently studying the effects of the causeway on the lake in order to make recommendations for a solution to the imbalance of mineral saturation.

Smaller causeways and dikes have sectioned off other parts of the lake for commercial uses such as salt production and mineral harvesting. The Great Salt Lake abounds with resources that make it an important part of Utah's economy. Tens of thousands of jobs have been created by industries extracting salt, metals, brine shrimp eggs, chemicals and minerals. Job opportunities also exist in the areas of recreation, tourism, hunting, maintenance, transportation and natural resource management. Resources from the lake provide everything from salt, soaps and fertilizers used everyday to products used in medical research and treatment.