



EXPLANATION

- Perennial water body
- Solar evaporation pond or other ephemeral water body
- Wetland
- Mud flat
- Tailings impoundment
- Military reservation or base
- Waterfowl Management Area
- State Park
- Bathymetric contour—Shows altitude of bottom of lake. Dashed where approximately located. Contour interval 1 foot. Hatchures show area of depression
- Bathymetric contour—Shows altitude of bottom of lake. Dashed where approximately located. Contour interval 5 feet
- Land-surface contour—Shows altitude of surface of land. Dashed where approximately located. Contour interval variable
- Interstate highway
- Highway
- Primary road
- Paved road
- Other road
- Railroad
- U.S. Geological Survey streamflow gaging station and site number—Period of record in parentheses

NOT FOR NAVIGATIONAL USE

Manuscript approved for publication August, 2005.
For sale by U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, CO 80225, 1-888-ASK-USGS
Available on the World Wide Web at <http://pubs.usgs.gov/openfile/2005/2894>

The U.S. Geological Survey, in cooperation with the Utah Department of Natural Resources, Division of Wildlife Resources, collected bathymetric data for the south part of Great Salt Lake during 2000–04 using a single beam, high-definition fathometer and real-time differential global positioning system. Approximately 7.6 million depth readings were collected along more than 1,000 miles of survey transects for construction of this map. Sound velocities were obtained in conjunction with the bathymetric data to provide time-of-travel corrections to the depth calculations. Data were processed with commercial hydrographic software and exported into geographic information system (GIS) software for mapping. Because of the shallow nature of the lake and the limitations of the instrumentation, contours above an altitude of 4,193 feet were digitized from existing USGS 1:24,000 source-scale digital line graph data.

For additional information on methods used to derive the bathymetric contours for this map, please see Baskin, Robert L., 2005, Calculation of area and volume for the south part of Great Salt Lake, Utah, U.S. Geological Survey Open-File Report OFR-2005-1327.

Base from U.S. Geological Survey digital line graph data, 1:24,000 and 1:100,000 scales, 1968–89.
Updates to base data from U.S. Geological Survey digital orthophoto quadrangles, 1:24,000 scale, 1993–99.
Additional base data from U.S. Magellan Corporation, Kercock Copper Corporation, The Nature Conservancy, and International Space Station digital photography, March 2005.
Bathymetric contours below 4,193 feet from U.S. Geological Survey real-time, single beam, high-definition fathometer data, collected 2000–04.
Bathymetric contours between 4,193 and 4,198 feet from USGS 1:24,000 scale, 1968–89.
Bathymetric contours between 4,198 and 4,200 feet from USGS 1:24,000 scale, 1968–89.
Cartography by Joseph F. Gardner, U.S. Geological Survey Utah Water Science Center

Bathymetric Map of the South Part of Great Salt Lake, Utah, 2005
By
Robert L. Baskin and David V. Allen