

# Mississippi Water and U.S.G.S. Facts

## Information Taken From:

National Water Summary On Wetland Resources -- Selected Articles  
By U.S. Geological Survey

U.S. Geological Survey Bookmarks

U.S. Geological Survey Programs in Mississippi  
By U.S. Geological Survey

## **General Mississippi Water Facts**

- There are 15 major aquifers in Mississippi that are used to supply freshwater for domestic and industrial supplies.
- Mississippi has an abundant supply of fresh groundwater. Freshwater occurs at some locations in Mississippi at depths greater than 3,000 ft.
- Groundwater supplies most of the water used in Mississippi. Only two municipalities get water from surface-water sources.
- Most groundwater in Mississippi occurs in sand beds below the surface of the Earth.
- About 2 billion gallons per day of freshwater are withdrawn from the Mississippi River alluvial aquifer in the Delta.
- The city of Jackson pumps about 41 million gallons per day from surface-water and ground-water sources. This amount would cover a football field 122 feet deep.
- Tupelo is the major user of surface water for drinking water supplies.
- About 200 gallons of water are required to raise a 2-pound catfish.
- A shower uses about 5 gallons of water per minute: a 5-minute shower uses about 25 gallons of water.
- An average-sized hog drinks about 3 gallons of water per day.

## **U.S. Geological Survey Programs**

- **Bridge-Site Evaluations**  
The Mississippi Department of Transportation (MDOT) uses information from streamflow records, hydrologic analyses of basins, and hydraulic analyses of flooding potential at proposed highway bridge sites to design and build those bridges.
- **Surface-Water Investigation**  
Since 1899, the U.S. Geological Survey has collected surface-water data in Mississippi. Stored in computerized local and national data bases, this information is distributed to cooperators, educational institutions, private organizations and the public via published reports and the

Internet. In 1995 the USGS applied satellite transmitter technology to develop a real-time Surface Water Data page at <http://water.usgs.gov/swr/MS/>.

- **Ground-Water Investigations**

Ground water supplies 80 percent of Mississippi freshwater. The USGS, in cooperation with State and local agencies, investigates ground-water resources in Mississippi. A digital model of the Eutaw-McShan aquifer and the Tuscaloosa aquifer system is being used to simulate flow in the aquifer system to understand the resource and its capacity.

- **Erosion Control**

Demonstration watersheds were established after 1984 for studying erosion and sedimentation in agricultural watersheds. The project evaluates plans to alleviate erosion, sedimentation and flooding problems in the Delta.

- **Water-Quality Assessment**

The National Water-Quality Assessment Program is intended to describe trends in the quality of a large part of the Nation's water resources and to identify the major natural and human factors that affect the quality of these resources.

- **Ecological Research**

The USGS recently began a project with the U.S. Environmental Protection Agency that will use GIS to assist Federal, State, and local agencies to prioritize their wetlands restoration efforts.

- **Topographic Mapping**

The USGS produces 1:24,000-scale topographic maps depicting basic natural and cultural features of the landscape, such as lakes and streams, highways and railroads, boundaries and geographic names. Mississippi is covered by 850 maps at this scale. These maps have long been favorites with the general public for outdoor uses.

- **Geologic Information**

The U.S. National Seismograph Network monitors nationwide seismicity, provides early notification of seismic events to national-level emergency-services personnel, maintains an archive of high-quality digital data on national seismicity, and provides public information.

- **Oil and Gas Assessment**

Much of southern Mississippi lies in the Gulf Coast region which has a long history of producing large amounts of petroleum. The USGS recently began a study of subsurface salt structures, which can trap petroleum deposits, to understand how they were formed and to evaluate their potential for containing trapped petroleum.

- **National Coal Assessment**

The USGS will work with the Mississippi Office of Geology to identify the location and quality of coal resources, including coal that may be suitable for export, on public and private lands.

- **Agricultural Management-Systems Evaluation**

The Mississippi Delta Management Systems Evaluation Area project is an interagency 5-year study to assess how agricultural activities affect the water resources in the Delta. The study is being conducted at sites within three Delta oxbowlake watersheds.

- **Geologic Mapping**

The USGS, in cooperation with the Surface Geology Division of the Mississippi Office of Geology, is working through the STATEMAP program to map the subsurface geology in north-central Mississippi. This mapping will help evaluate the possible effects of a proposed lignite strip mine and an electric power generating plant.

- **Digital Mapping**

The USGS and National Park Service have established an interagency agreement to produce digital raster graphics for barrier islands along the Mississippi Gulf Coast.