

# Geographic Information Science and Data Management

## Remote Sensing

Satellite and aerial photo interpretation  
Image processing

## Geographic Information Systems (GIS) Analysis

Publication-quality cartography  
Elevation and land cover/land use data analysis  
Watershed delineation and characterization  
Spatial data production, analysis, modeling, and visualization  
Metadata design and training  
GIS custom tool development



GIS analysis



Landscape characterization



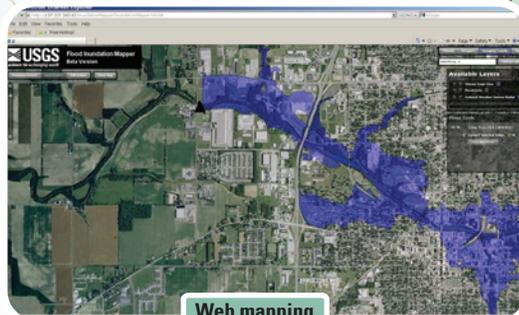
Field mapping

## Data Management and Data Science

Database development and management  
Data inventory, assessment, and integration  
Database tutorial and standards development  
Database hosting  
Computer programming (Python, Perl, VB.NET, VBA, Javascript, MATLAB, R)  
Data mining and statistical analysis

## Web Services and Web Mapping

Web-based data management  
Web-based mapping application development  
Web design  
Mobile application development



Web mapping

**MISSION:** To provide reliable, impartial, timely information that is needed to understand the Nation's water resources.

The Water Resources Discipline actively promotes the use of this information by decision makers to

- Minimize the loss of life and property as a result of water-related natural hazards, such as floods, droughts, and land movement
- Effectively manage groundwater and surface-water resources for domestic, agriculture, commercial, industrial, recreational, and ecological uses
- Protect and enhance water resources for human health, aquatic health, and environmental quality
- Contribute to wise physical and economic development of the Nation's resources for the benefit of present and future generations

Web Page: <http://tx.usgs.gov/GIS>

The U.S. Geological Survey (USGS) Texas Water Science Center works in cooperation with approximately 100 municipalities, river authorities, groundwater districts, and State and Federal agencies in Texas to provide reliable, impartial scientific information to resource managers, planners, and other customers. This information is gathered by the USGS Texas Water Science Center to minimize the loss of life and property from natural disasters, to contribute to the conservation and sound economic and physical development of the Nation's natural resources, and to enhance the quality of life by monitoring water, biological, energy, and mineral resources.

If you have any questions or concerns with which we can assist you, contact us or visit our Web site at <<http://tx.usgs.gov>> or the national Web site at <<http://www.usgs.gov>>. We look forward to serving you in the near future.

**Key contacts of the USGS Texas Water Science Center:**

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## Texas Water Science Center Locations

