

Karst Science

Karst Water-Resource and Water-Quality Evaluation

Monitor and transmit spring and stream discharge and groundwater level data real time

Analyze spring-discharge and well water-level hydrographs and chemographs

Use advanced statistical techniques to analyze continuous data

Quantify and refine water budgets for groundwater flow models

Design karst monitoring programs that integrate baseline and storm-response geochemistry

Interpret breakthrough curves of integrated geochemical constituents for source identification

Model geochemical processes of mixing and surface-water/groundwater interaction

Interpret age-tracer data to assess groundwater residence time

Interpret geochemical evolution and flowpath characterization

Characterize aquifer properties with surface and borehole geophysical methods

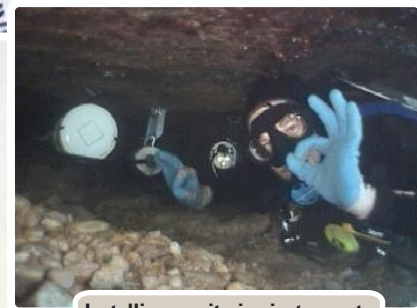
Create geodatabases that link karst features with geochemical and hydrologic data

Apply statistical techniques to reexamine historical data in a present-day context

Link climate and hydrologic models to forecast changes in spring flow and groundwater levels



Water-quality sampling



Installing monitoring instruments



Inspecting a real-time data-collection platform



Entering a karst recharge feature

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

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 <<https://www.usgs.gov/texas>>, or the national Web site at <<https://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

