

Contact Information

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What is the Kentucky Geological Survey?

The Kentucky Geological Survey (KGS) traces its roots back to 1838 and has been part of the University of Kentucky since 1948.

Our mission is to support the sustainable prosperity of the Commonwealth, the vitality of its flagship university, and the welfare of its people. We do this by conducting research and providing unbiased information about the geology and natural resources of Kentucky.

We focus on issues relevant to the economic prosperity, environmental quality, and practical well-being of the Commonwealth and its people: the things that can make Kentucky a compelling place to live, work, and do business.

What data resources do we provide?

The KGS website (kgs.uky.edu) provides free public access to our databases, digital map layers, and reports. Interactive online map services with point-and-click web browser interfaces make much of our data available to nonspecialists without specialized mapping software.

KGS maintains a repository—open to the public—of **2,870 rock cores, 16,609 sample sets** from oil and gas wells, **more than 8,000 limestone samples, and more than 5,000 coal samples** from Kentucky that are invaluable for resource exploration, environmental protection, and engineering studies.

The **KGS Groundwater Data Repository** contains information about **more than 92,000 water wells, 5,100 springs, and 58,000 suites of water-quality analyses**.

KGS databases also contain information about landslides, sinkholes, oil and gas wells, earthquakes, mines, and quarries in Kentucky.

How do we work with government, industry, and community stakeholders?

KGS provides technical support to the Kentucky Transportation and Energy and Environment Cabinets, the Kentucky Public Service Commission, Kentucky Emergency Management, the Kentucky Geographic Information Advisory Council, the Interagency Technical Advisory Committee on Groundwater, the Kentucky Agriculture Water Quality Authority, the Kentucky Board of Registration for Professional Geologists, and a host of local, county, and federal agencies. We also interact with stakeholders from a wide range of community, industry,

environmental, and educational groups. KGS regularly meets with our 12-member, governor-appointed advisory board. As part of a project funded by the National Academy of Sciences, KGS is reaching out to identify, engage, and better serve nontraditional stakeholders.

What does KGS do to benefit Kentuckians?

- Operation of statewide **seismic and groundwater monitoring networks**.
- Development of **indoor radon maps**, which save lives and money, in collaboration with the UK College of Nursing's BREATHE program.
- Evaluation of the unconventional **oil and gas potential of the Rogersville Shale in eastern Kentucky**.
- Production of **surficial geologic maps** for planning, engineering, and geologic hazard assessment in rapidly developing areas.
- **Evaluation of landside risks** to improve emergency response capabilities and public safety.
- Collaborative research to improve **edge-of-field agricultural water quality** in western Kentucky.
- Development of new methods to leverage the value of Kentucky's **investment in statewide airborne LiDAR coverage**—a detailed 46-billion-point laser scan of the entire state—for natural resources studies and geologic hazard assessments.

What is the value of geologic information?

Kentucky's statewide geologic mapping program, which cost \$90 million and took 22 years to complete, has already **delivered benefits of \$2.25 to \$3.42 billion (1999 dollars)**. Economic analyses of other geological surveys and geologic mapping programs show similarly impressive cost-benefit ratios for publicly available geoscience information. KGS's **indoor radon potential maps save Kentuckians an estimated \$2.9 to \$7.7 million per year** in health care costs by helping to reduce lung cancer occurrences. Other published studies show that publicly available geologic information provides an excellent return on investment.

Our recurring budget is approximately \$4.5 million per year and is supplemented with grants and research contracts that bring nearly \$1 million per year to Kentucky from sources such as the U.S. Department of Energy, U.S. Geological Survey, and U.S. Department of Agriculture.