Louisiana Geological Survey

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Cooperative Agreement Programs with the U.S. Geological Survey

Since the late 1980s the Louisiana Geological Survey (LGS) has sustained ongoing mapping of the state's surface geology with a view toward ultimate production of a new geologic map of the state. Cooperative agreements between the USGS and LGS were begun in 1989, initially under the COGEOMAP program, with the compilation of the geology of the Shreveport 1:250,000-scale quadrangle in northwestern Louisiana.

Since then, study areas of cooperative agreements have proceeded southward and eastward, and have permitted LGS to complete initial compilation of new, intermediate-scale coverage of the state's upland landscapes and alluvial bottoms above the coastal zone. Streambottom deposits, young terrace deposits, and escarpments associated with active surface faults of the coastal plain are mapped from new, high-quality 7.5-min. topographic quadrangles, aerial photographs, and other types of imagery, and then spot-checked in the field; other elements of the geology are compiled from various sources and from field checking. New technologies, such as Geographic Information System (GIS) and Global Positioning System

The Value of Geologic Mapping

Geologic mapping in Louisiana has a multitude of uses that are of great importance to many timely issues.

- A critical problem in our state is coastal land loss; geologic maps provide basic information applicable to the guidance of development in Louisiana's coastal zone. Detailed mapping of permeable and impermeable sediments in the coastal zone and the lower Mississippi River flood plain is crucial in the effort to rationally plan the permitting of activities in the coastal zone in ways that minimize the threat of land loss.
- It is essential to the proper location of waste-treatment facilities relative to