



Association of American State Geologists

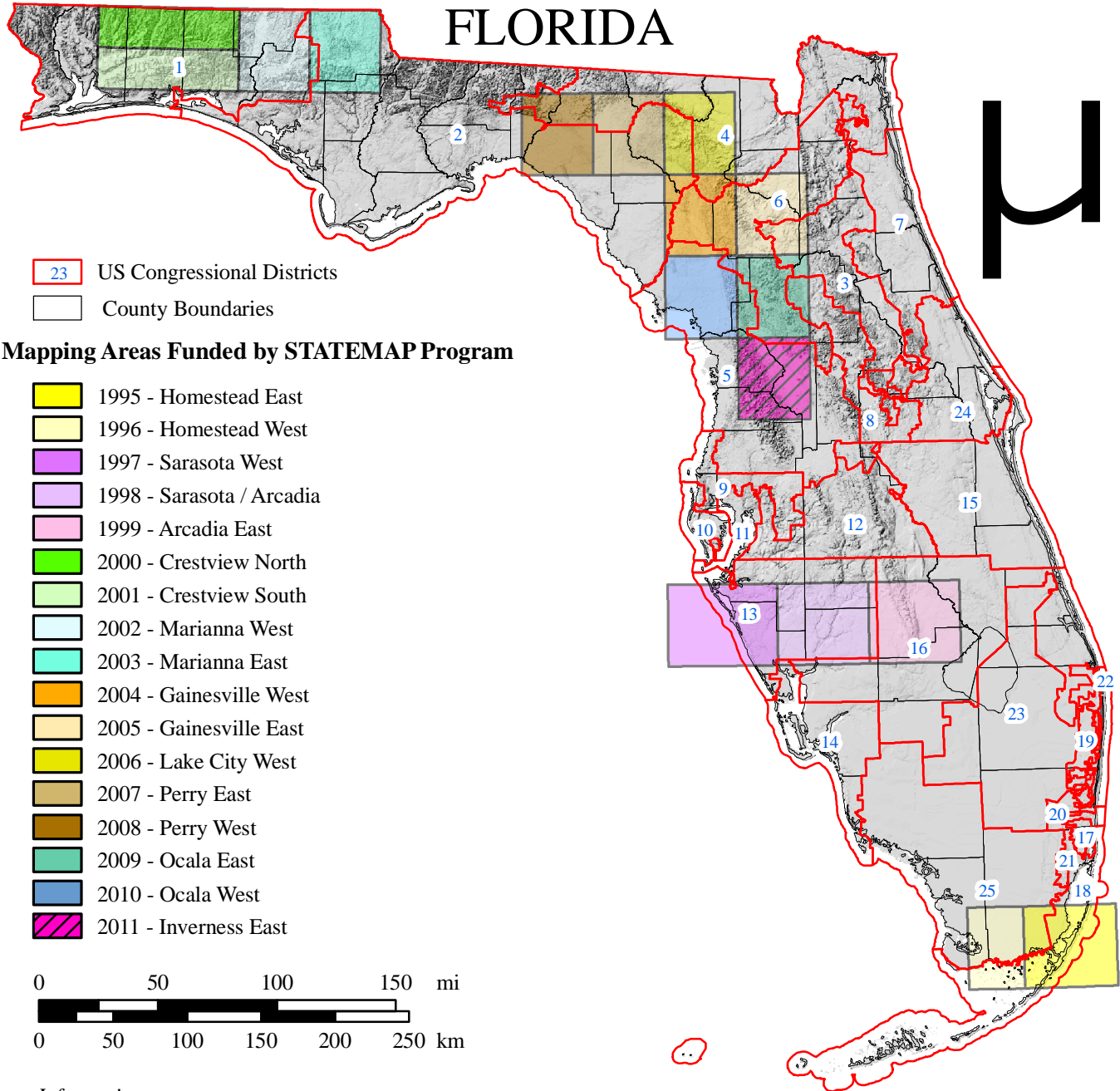
in cooperation with

United States Geological Survey



# National Cooperative Geologic Mapping Program

STATEMAP Component: States compete for federal matching funds for geologic mapping



## Contact Information

**Department of Environmental Protection  
Florida Geological Survey**

*Director and State Geologist:*  
Jonathan D. Arthur (850/488-4191)

*STATEMAP Program Manager:*  
Richard C. Green (850/488-4191)

<http://www.dep.state.fl.us/geology>



**United States Geological Survey  
Geologic Mapping Program Office**

*Program Coordinator:*  
Peter T. Lyttle (703/648-6943)

*Associate Program Coordinator:*  
Randall C. Orndorff (703/648-4316)

<http://ncgmp.usgs.gov>

**STATUS OF STATEMAP GEOLOGIC MAPPING IN FLORIDA**

<b>Fed. FY</b>	<b>Project Title and Scale</b>	<b>Federal Dollars</b>	<b>State Dollars</b>	<b>Total Dollars</b>
1994	Geologic map of the eastern portion of the USGS 1:100,000 scale Homestead quadrangle	\$30,000	\$30,000	\$60,000
1995	Geologic map of the western portion of the USGS 1:100,000 scale Homestead quadrangle	\$30,000	\$30,000	\$60,000
1996	Geologic map of the western portion of the USGS 1:100,000 scale Sarasota quadrangle	\$70,000	\$70,000	\$140,000
1997	Geologic map of the eastern portion of the USGS 1:100,000 scale Sarasota quadrangle and the western portion of the 1:100,000 scale Arcadia quadrangle	\$95,547	\$95,547	\$191,094
1998	Geologic map of the eastern portion of the USGS 1:100,000 scale Arcadia quadrangle	\$104,414	\$104,414	\$208,828
1999	Geologic map of the northern portion of the USGS 1:100,000 scale Crestview quadrangle	\$105,000	\$105,000	\$210,000
2000	Geologic map of the southern portion of the USGS 1:100,000 scale Crestview quadrangle	\$106,021	\$106,021	\$212,042
2001	Geologic map of the western portion of the USGS 1:100,000 scale Marianna quadrangle	\$120,990	\$120,990	\$241,980
2002	Geologic map of the eastern portion of the USGS 1:100,000 scale Marianna quadrangle	\$134,606	\$134,606	\$269,212
2003	Geologic map of the western portion of the USGS 1:100,000 scale Gainesville quadrangle	\$125,761	\$125,761	\$251,522
2004	Geologic map of the eastern portion of the USGS 1:100,000 scale Gainesville quadrangle	\$119,027	\$119,027	\$238,054
2005	Geologic map of the western portion of the USGS 1:100,000 scale Lake City quadrangle	\$108,780	\$108,780	\$217,560
2006	Geologic map of the eastern portion of the USGS 1:100,000 scale Perry quadrangle	\$110,835	\$110,835	\$221,670
2007	Geologic map of the western portion of the USGS 30 x 60 minute Perry quadrangle	\$107,689	\$107,689	\$215,378
2008	Geologic map of the eastern portion of the USGS 30 x 60 minute Ocala quadrangle	\$109,044	\$109,044	\$218,088
2009	Geologic map of the western portion of the USGS 30 x 60 minute Ocala quadrangle	\$107,826	\$107,826	\$215,652
2010	Geologic map of the eastern portion of the USGS 30 x 60 minute Inverness quadrangle	\$105,643	\$105,643	\$211,286
	<b>TOTALS</b>	<b>\$1,691,183</b>	<b>\$1,691,183</b>	<b>\$3,382,366</b>

The Florida Geological Survey (FGS) receives federal funding from the STATEMAP Program, a component of the National Cooperative Geologic Mapping Program, for the purpose of conducting detailed geologic mapping in the state. For the 2010-2011 STATEMAP project, the FGS has been funded to map the eastern half of the Inverness 30 x 60 minute quadrangle.

Like much of Florida, the area in and around the Inverness quadrangle is experiencing degradation of groundwater quality due to urban sprawl of nearby cities. As populations of the cities spread out, development pressure in the region to have many of these areas re-zoned from agricultural use to higher-density urban use is increasing. The lack of detailed geologic mapping in the area poses a problem for planning agencies and resource management and protection. In recently mapped areas, detailed geologic maps have often been used by a variety of agencies and companies to help solve problems in the state.

For example, Advanced Geospatial, Inc. (AGI), a private company working on Floridan Aquifer Vulnerability Assessment (FAVA) models for various state and local government clients, has utilized data from several FGS STATEMAP products in their modeling processes. Data pertaining to control points, new cores drilled for the various projects, and field samples have been made available to the modelers over the last several years' worth of STATEMAP mapping in Florida. AGI personnel have used this data to further refine their models and fill in data gaps in the various study areas.

The primary drinking water aquifer in the region, the Floridan Aquifer System (FAS), is highly vulnerable to infiltration by polluted surface-water runoff in parts of the study area due to the presence of karst (mainly sinkholes) and "swallets" (stream-to-sink features). Mapping under the STATEMAP program will aid in locating and documenting the number and size of such features.

One additional factor in the selection of the Inverness quadrangle for mapping is the need for locating additional mineral resources in order to sustain future growth in the state. Florida is currently utilizing approximately 143 million tons of aggregate material per year, of which 55 million tons come from the "Lake Belt" region in south Florida. In fact, five of the top ten production mines in the country are in this region. A federal lawsuit recently threatened to shut down the "Lake Belt" to mining due to environmental concerns. If this were to occur, the impact on the State's economy would be rapidly felt as aggregate prices soared. Preliminary studies indicate that the proposed study area may have significant reserves of limestone suitable for aggregate material. The detailed geologic mapping resulting from this project, combined with ongoing private efforts, will help delineate these reserves and the potential of this area to become a source for aggregate material for future state needs over the coming decades.