Florida's Strategic Plan For Statewide Geographic Information Systems (GIS) Coordination

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Prepared By
Florida's National Spatial Data Infrastructure
Cooperative Agreements Program
Steering Committee

Project Hosted By
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TABLE OF CONTENTS

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FREAC LABINS - Digital Raster Graphic of NW Florida (map background)/ *SFWMD Photo Database* - background: mangroves at Everglades National Park; clockwise from top left: sawgrass at a nutrient removal site, West Palm Beach Intracoastal Waterway, Lake Okeechobee and Everglades Agricultural Area, American Alligator, NOAA image of Hurricane Frances, Florida Panther, City of Miami night skyline, boardwalk through a cypress swamp; center: marina at Key West/ *Exploring Florida website, by University of South Florida* - Space Shuttle launch, NASA GRIN Image 93PC-0885/ *Florida's Division of Historical Resources website* - Great Seal of the State of Florida

1 EXECUTIVE SUMMARY

Hurricanes. Tornadoes. Floods. Rising sea level. Water shortages. Traffic congestion. Overcrowded schools. Urban sprawl. Unstable real-estate market. Increasing cost of living. Limited funding.

These are some of many realities we continually face in the State of Florida. To more effectively manage these challenges, while fostering sustainable and vibrant economic growth, Florida needs to share geographic information across all levels of government and all business sectors, in a reliable and efficient manner. That is the vision of this strategic plan:

To improve the quality of life in Florida by optimizing the use of geographic information through communication, coordination, and collaboration.

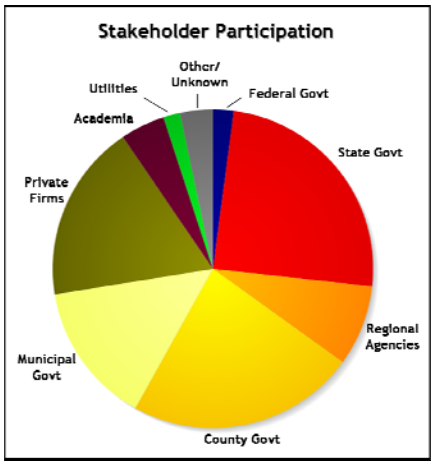
Geographic information systems (GIS) technology has been used for years across Florida. Many in the public and private sectors have successfully used this technology and the data it produces to help manage our natural resources, predict the impacts of urban development, and respond to emergencies. However, the unprecedented hurricane seasons of 2004 and 2005 brought to light the unequal access to and usage of this technology. Those events also accentuated many of the quality, interoperability, and accessibility issues associated with Florida's geographic data. These include inconsistency from location to location, duplication across many levels of government, and lack of availability when needed.

> "One lesson from Hurricane Katrina is clear—if the tactical alliances had existed for geospatial information resource sharing … the recovery support effort would have moved faster, saving money and lives."
>
> *Twyla McDermott, GIS Manager, Katrina relief volunteer*
> *(Quote from FGDC's 2006 publication, "The Urban Frontier: A Call to Action."*

Effective and sustainable GIS statewide coordination *maximizes the return of Florida's tax dollars*, increases the *availability of reliable geographic data* that *equally benefits all regions* of the state, and *improves the quality* of critical government services. ***Effective statewide coordination is essential*** for improving Florida's ability to:

- Protect health, safety, and welfare
- Mitigate against the impacts, prepare for, respond to, and recover from emergencies
- Promote economic development and ensure sustainable growth
- Protect and manage natural resources
- Manage infrastructure

This strategic plan presents the vision and overarching goals that will successfully improve statewide coordination and sharing of geographic information for the benefit of all stakeholders in the State of Florida. This plan is the product of a process overseen by a 21-member steering committee that included representatives from all levels of government, academia and the private sector, from various regions of the state. The Committee used several methods to engage as many stakeholders as possible in the planning process. The stakeholder community provided the details needed to understand the current status of



geographic data sharing and coordination, as well as the availability and usage of GIS within the state. They also offered specific suggestions to improve the availability of current and accurate GIS data vital to decision makers, program managers, and the GIS user community. Their valuable input helped the Committee determine what is required to successfully improve statewide GIS data coordination throughout Florida.


maps increase economic development

The Committee identified several positive examples of coordination currently underway. It also identified champions in the community that are doing what they can with limited funding to improve the accessibility and quality of geographic data within their region of influence. As commendable as these localized efforts are, more formal steps must be taken to ensure that the citizens of Florida fully realize the benefits of reliable and readily available GIS data and related technologies.

The State of Florida has hundreds of agencies that produce and/or rely on GIS data. These include 67 counties, over 400 municipalities, 5 water management districts, 11 regional planning councils, 26 metropolitan planning organizations, and scores of other private, public, tribal, academic and non-profit organizations.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In 1994, a Presidential Executive Order highlighted the critical necessity of GIS data coordination for the entire nation and ordered the creation of a sustainable ***National Spatial Data Infrastructure*** (NSDI) to work in cooperation with all levels of government and the private sector to avoid "**… duplication of effort and promote effective and economical management of resources**".

The Federal Geographic Data Committee (FGDC) is assigned the responsibility of overseeing development and implementation of the NSDI. As a result of this executive order, federal agencies must ensure that all collected or produced GIS data meet FGDC standards, "…prior to obligating funds for such activities". This includes GIS data collected via grants provided to, or in partnerships with, other non-federal agencies, such as state and local agencies in Florida.

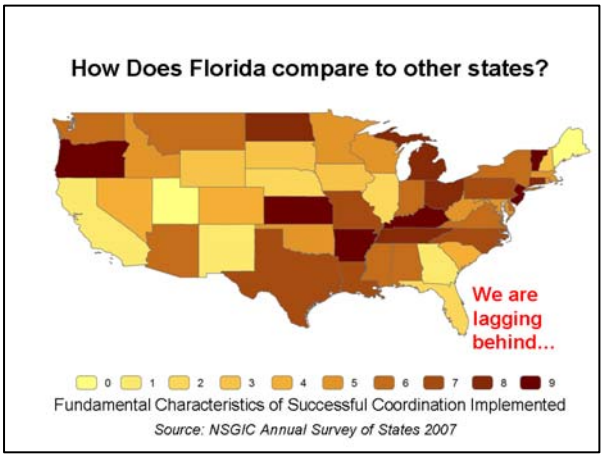
To make it possible to achieve this overarching and critical mission, FGDC, in partnership with the National States Geographic Information Council (NSGIC), started a national program referred to as the "*Fifty States Initiative*". This program recognizes that "**it will not be possible to build the NSDI without taking advantage of the day-to-day efforts of all levels of government**".

This initiative is helping states, including Florida, to fulfill their role in building the NSDI and in meeting nine fundamental characteristics for effective statewide coordination identified by NSGIC.

Florida is lagging behind. Our state is consistently ranked lower than most in the coordination of GIS.

As of 2007, Florida is barely meeting two of the nine success criteria. ***What does this mean?*** It means that Florida does not have in place a statewide GIS coordination program to effectively maximize the return on invested tax dollars. We may not have easy access to reliable information that can facilitate sustainable economic growth, protection of our natural resources, and response to emergencies.

This strategic plan highlights crucial steps that the State of Florida should take to coordinate the effective investments and use of geographic information, to improve its services to citizens, and to play a role in contributing to the NSDI.



1.1 Strategic Goals

To improve services to citizens and maximize investments in GIS technologies it is essential that the State of Florida:

- **Provide leadership** for coordination of GIS efforts across all levels of government throughout the state.
- **Invest in GIS infrastructure** by supporting the development of coordinated GIS data clearinghouses that provide the foundation for effective data discovery and sharing.
- **Communicate and educate** all concerned about the benefits and capabilities achieved by investments in GIS to support effective decision making.

1.2 Key Recommendations

To achieve successful GIS coordination, this strategic plan recommends the following specific actions:

- Establish a formal GIS coordination framework, either by executive order or legislation, that includes:
  - A **Geospatial Programs Office** (GPO) in the Agency for Enterprise Information Technology, headed by a full time **GIS Coordinator** and other supporting personnel to implement the required coordination activities and lead the communications and collaboration efforts of the GIS stakeholder community.

  - A **Geographic Information Council** consisting of high-level officials appointed by the Governor to provide the GPO with high-level guidance on policy, standards, priorities and budget issues.
  - **Technical Advisory Committees** to provide opportunities for the broad GIS community to make recommendations on standards, guidelines, policies, and other coordination issues.

- **Formalize, sustain and expand** existing publicly available **data clearinghouses.**

- **Formalize geospatial data stewardship activities**, including the establishment of a formal Florida Board on Geographic Names.

- Develop a **Statewide GIS Coordination Business Plan** to address implementation of the strategic goals including resources, timeframes, budget needs, and anticipated return on investments.

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