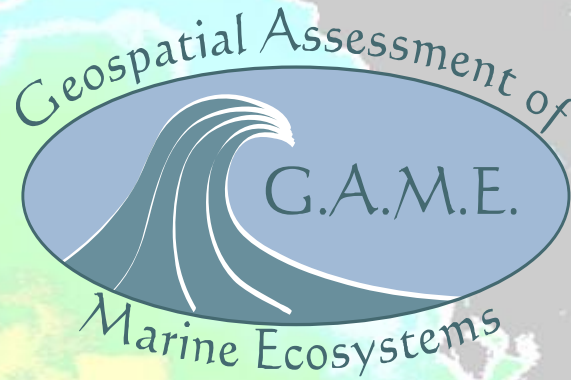


Florida G.A.M.E.



Presentation to the
FL Water Resources Monitoring
Council



By Kathleen O'Keife
Florida Fish and Wildlife Conservation Commission

March 22, 2007

Ecosystem Approach to Management

- The major ocean policy commissions have been unanimous in their call for new, ecosystem approaches to management of the oceans:
 - links among living and nonliving resources
 - human influences
 - match the scale of governance to the scale of ecosystem processes



Ecosystem Approach to Management

- Is location-based
- Uses familiar concepts from land to implement planning in an unfamiliar part of the country
- Puts conservation within the appropriate context of multiple uses
- Is based on the best available science while setting the stage for increases in scientific understanding

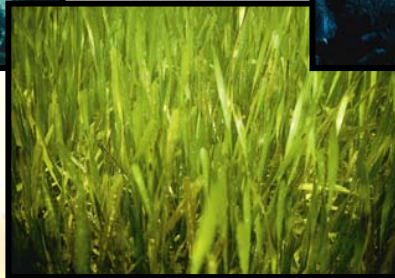


Ecoregion Definition

An area constituting a natural ecological community with characteristic flora, fauna and environmental conditions and bounded by natural rather than artificial borders.

GAME's ultimate goal

Identify ecoregions to support management decisions concerning coastal waters, commercial and recreational uses, resource conservation areas, and monitoring programs, all based on and guiding scientific research



Phase I objectives (through June 2007)

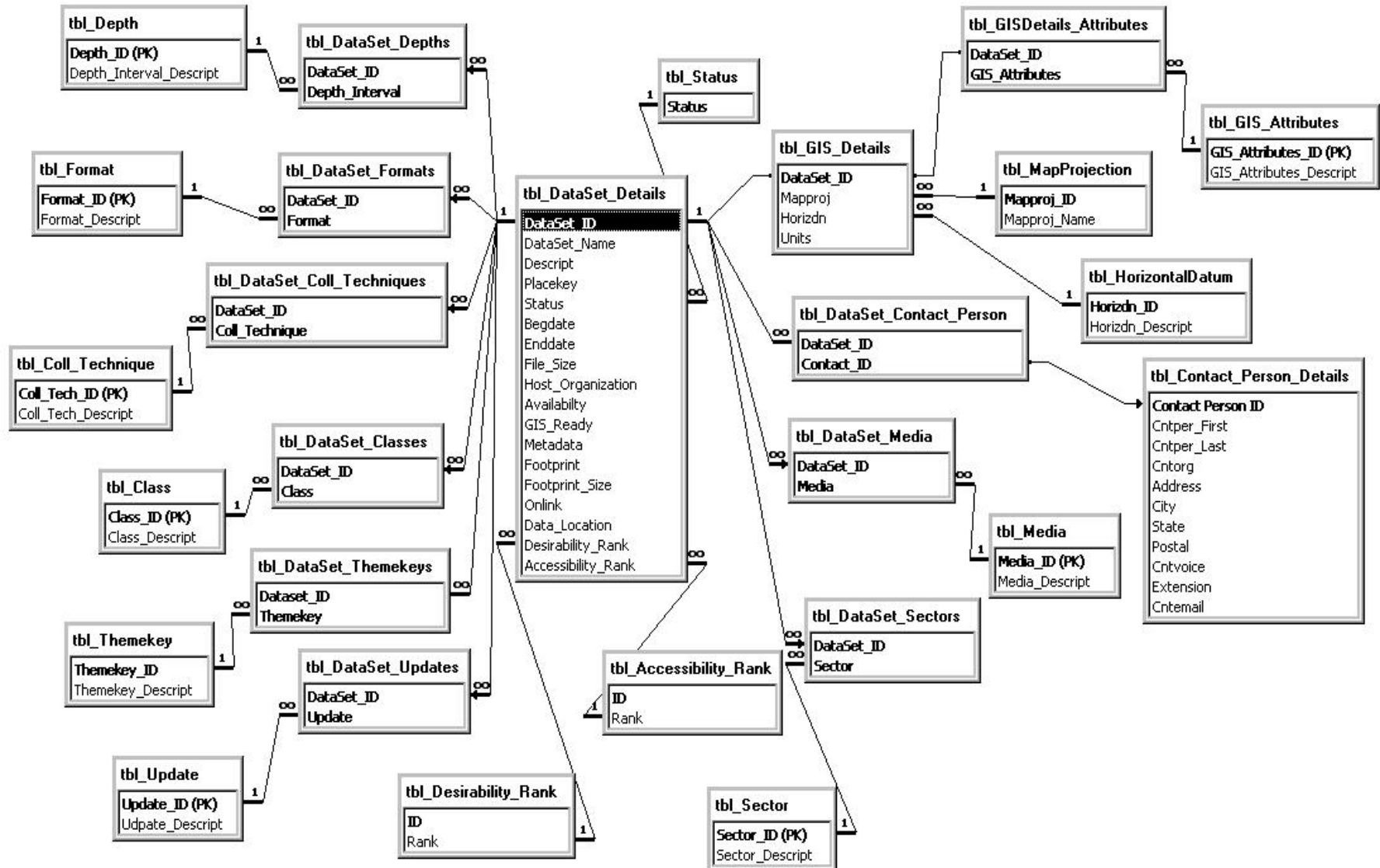
- **Data discovery:** identify and catalog geological, physical, biological, chemical, and human use data pertaining to the coastal ocean of Florida and the adjacent waters of the Gulf of Mexico, Caribbean and South Atlantic Bight
 - Develop a comprehensive data management strategy
 - Develop a GIS-based map of collected information and subsequent gap maps
- **Develop an ecoregion definition plan**

GAME Catalog

- A relational database describing key features (metadata lite) for each data set
- Broad definition of each class; detailed information can be found in associated metadata
- The utility of the catalog is that it will allow for searching of the entire database, and point to data sets of interest

GAME Catalog Structure

Snapshot of relationship diagram



GAME Website



FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
FISH AND WILDLIFE RESEARCH INSTITUTE

MyFWRI

Home About FWRI Contact FAQs Locations Search Site Map

Search: GO Explore:

Home : Features : Geospatial Assessment of Marine Ecosystems

FEATURES



Geospatial Assessment of Marine Ecosystems

Florida's economy and quality of life depend on the quality of coastal and marine ecosystems, which are under increasing pressure due to land development, pollution, recreational use and commercial activities. The Geospatial Assessment of Marine Ecosystems (GAME) is a project that aims to define and describe Florida's marine ecosystems to assist management of coastal and marine waters.

CATEGORIES:

Data Set Catalog

This section contains links to the online survey and the searchable database. Individuals can search the Geospatial Assessment of Marine Ecosystems (GAME) Catalog based on multiple criteria.

Project Details

A general overview of the GAME project as well as links to other informative ecoregion Web sites.

Home : Contact : Site Map : Accessibility Statement : Careers : Customize : EEO/AA/ADA
Event Calendar : Locations : Press Releases : Privacy Statement : Site Search : Subscribe

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- Careers
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- Outreach
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- Press Room
- Resources and Publications

Research:

- Florida Manatee
- Florida Panther
- Freshwater
- GIS and Mapping
- Habitat
- Red Tide
- Saltwater
- Wildlife

Featured Articles:

- ▶ [Red Tide Current Status Statewide Information](#)
- ▶ [Stone Crab Fishery-Independent Monitoring Program Annual Report 2006](#)
- ▶ [News Announcement Right Whale Calf Dies off Jacksonville](#)
- ▶ [Fish Kill Database Directory](#)
- ▶ [Press Release FWC Reports 416 Manatee Deaths](#)
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<http://research.myfwc.com/game>



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Featured Articles:

- ▶ [Red Tide Current Status
Statewide Information](#)
- ▶ [Coloration Characterization of
Postsettlement Juvenile Stone
Crabs \(genus *Menippe* De Haan,
1883\) in the Gulf of Mexico](#)
- ▶ [Commercial Fisheries – American
Eel](#)
- ▶ [Press Release
FWC Announces Annual Manatee
Synoptic Survey Numbers](#)
- ▶ [Stone Crab Fishery-Independent
Monitoring Program Annual
Report 2006](#)

[See More Articles...](#)

Search: GO

Explore:

[Home](#) : [Dataset Catalog](#) : [GAME Survey](#)

GAME Survey

Welcome!

The Florida Institute of Oceanography (FIO) is coordinating a pilot project called Geospatial Assessment of Marine Ecosystems (GAME). This project aims to assemble existing data and information pertaining to the coastal ocean of Florida and the adjacent waters of the Gulf of Mexico, Caribbean and South Atlantic Oight.

GAME will lay the groundwork for ecosystem-based management of Florida's estuaries and marine waters.

Phase I – Information Survey – seeks to locate, catalog, acquire and synthesize existing data on marine habitats. This includes near-shore, coastal and shelf areas as well as the human uses of our waters. The project will assemble the many sources of physical, geomorphological, biological, chemical, and ecological data in a Geographic Information Systems (GIS) format.

Please complete our short survey. All data are important – we may help digitize your data at no cost. Your data are critical to our state.

An * (asterisk) indicates a required field.

*Data set name: CSC - Apalachicola Bay Benthic Infauna Data Set

*DataSet ID: 50

*Review Status: Reviewed

*Accessibility Rank: Very high

*Desirability Rank: Very high

*Data set description:	This data set represents the benthic community information gathered from grab sampling. Grabs were collected at 136 stations throughout the bay. For the same project the Apalachicola Bay and the lower portions of four distributaries were mapped using
------------------------	--

Keywords: (Please select all that apply)

To select make multiple selections hold down the CTRL button while making a

— CURRENTLY SELECTED —
Benthic communities

<http://research.myfwc.com/game/survey.asp>

Search - Example



FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

FISH AND WILDLIFE RESEARCH INSTITUTE

MyFWRI

Home About FWRI Contact FAQs Locations Search Site Map

Search: GO Explore:

Home : Dataset Catalog : GAME Dataset Search

GAME Dataset Multiple Criteria Search

You may select as many or as few search criteria as you like. To choose more than one, hold down the CTRL key while making your selection.

Keyword	Data Collection Techniques	Status
ALL KEYWORDS Aerial photography Air-sea fluxes Algae	ALL TECHNIQUES Acoustic Optical Photographic	ALL STATUSES Complete In Work Planned

Class	Sector
ALL CLASSES Biological Chemical Earth Measurements/Geomorphological	ALL SECTORS East East (Georgia border) Panhandle

GIS Ready

☐ GIS Ready Only

Dataset ID (range)

From: To:

Contact Person

First Name Last Name

Organization:

View Organization Acronyms

Search

Search by Sector

Home : Contact : Site Map : Accessibility Statement : Careers : Customize : EEO/AA/ADA
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Research:

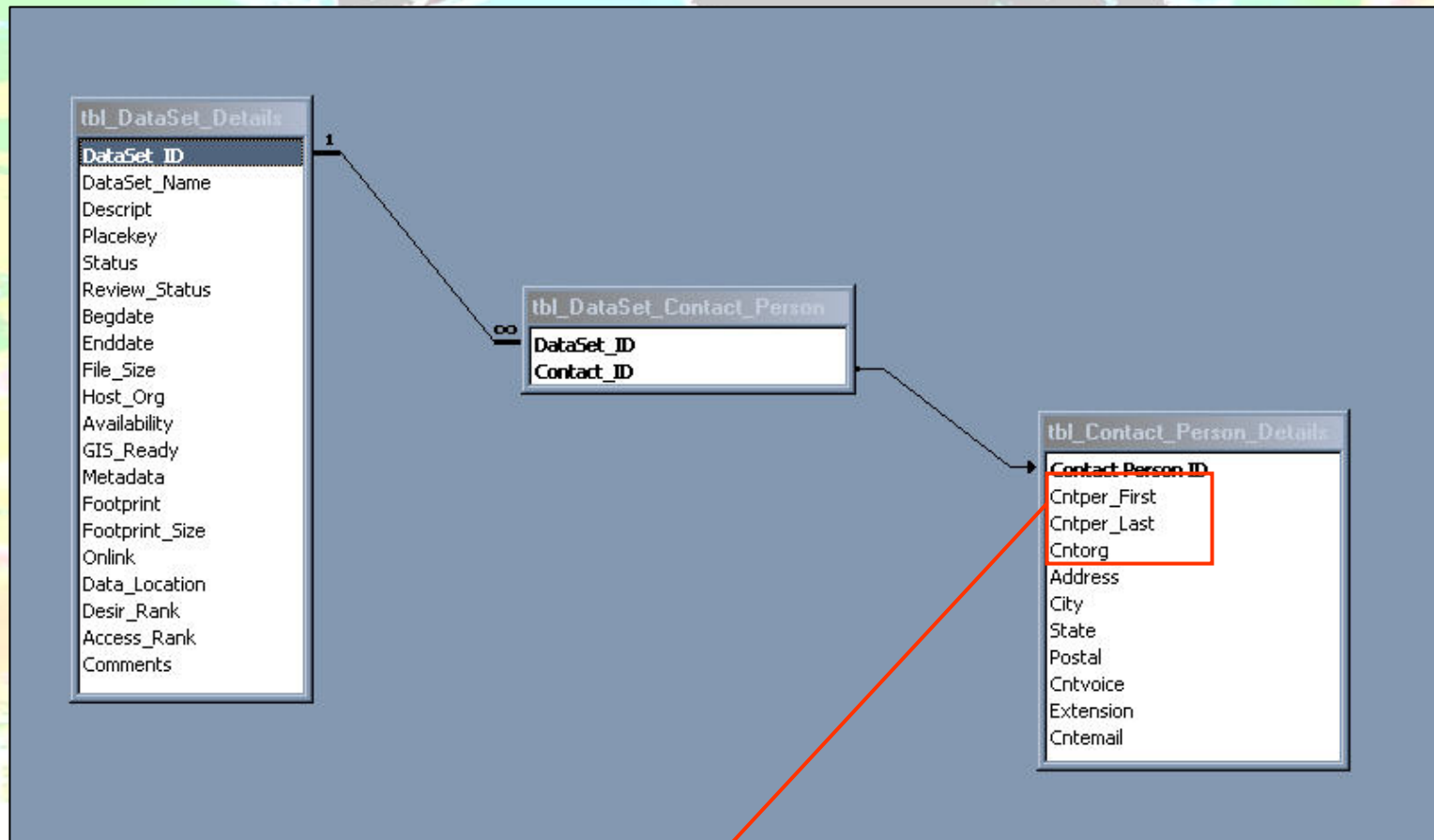
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- Florida Panther
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- [See More Articles...](#)

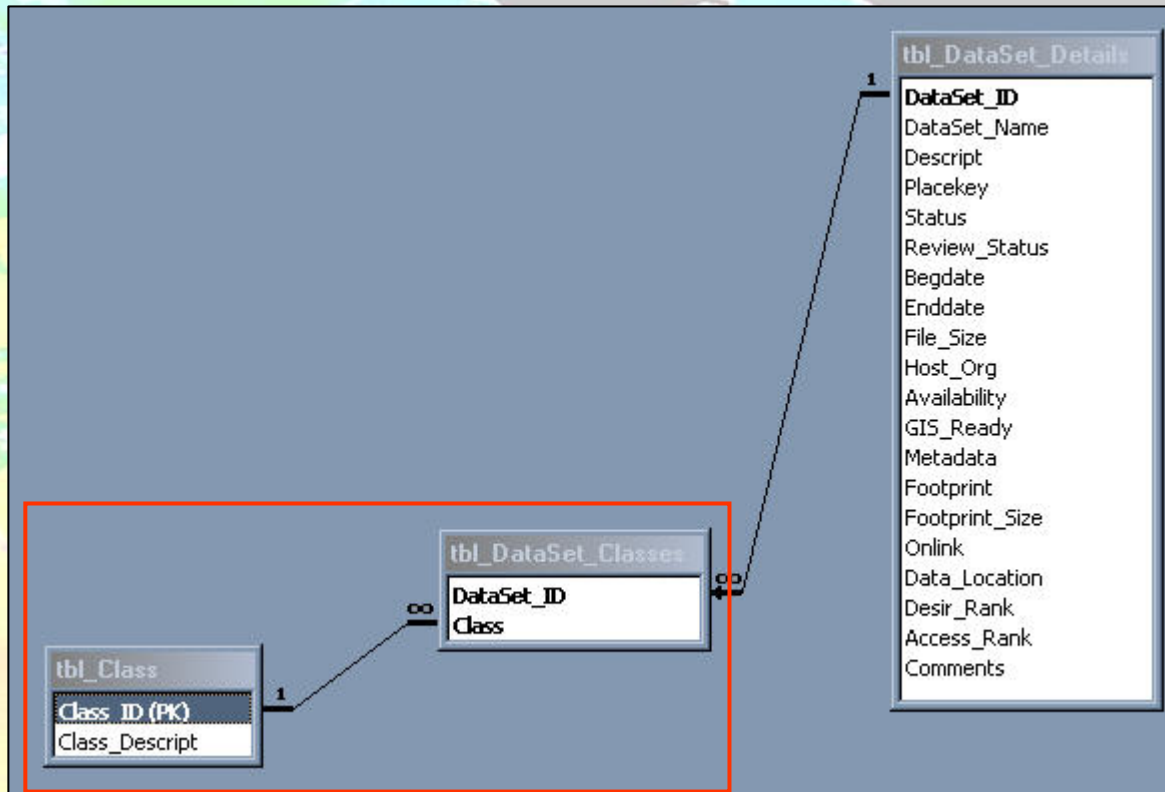
<http://research.myfwc.com/game/search.asp>

Web Interface



Contact person	
Name:	Christi Santi
Organization:	FWC-FWRI

Web Interface



General Information	
Dataset ID:	207
Dataset Name:	FWRI - Assessment of Boat Propeller Scar Damage within the Greater Charlotte Harbor Region
Class:	Human Use Activities
Keyword(s):	Human influence, Boating
Sector:	South, West
Place keyword:	Charlotte Harbor National Estuary

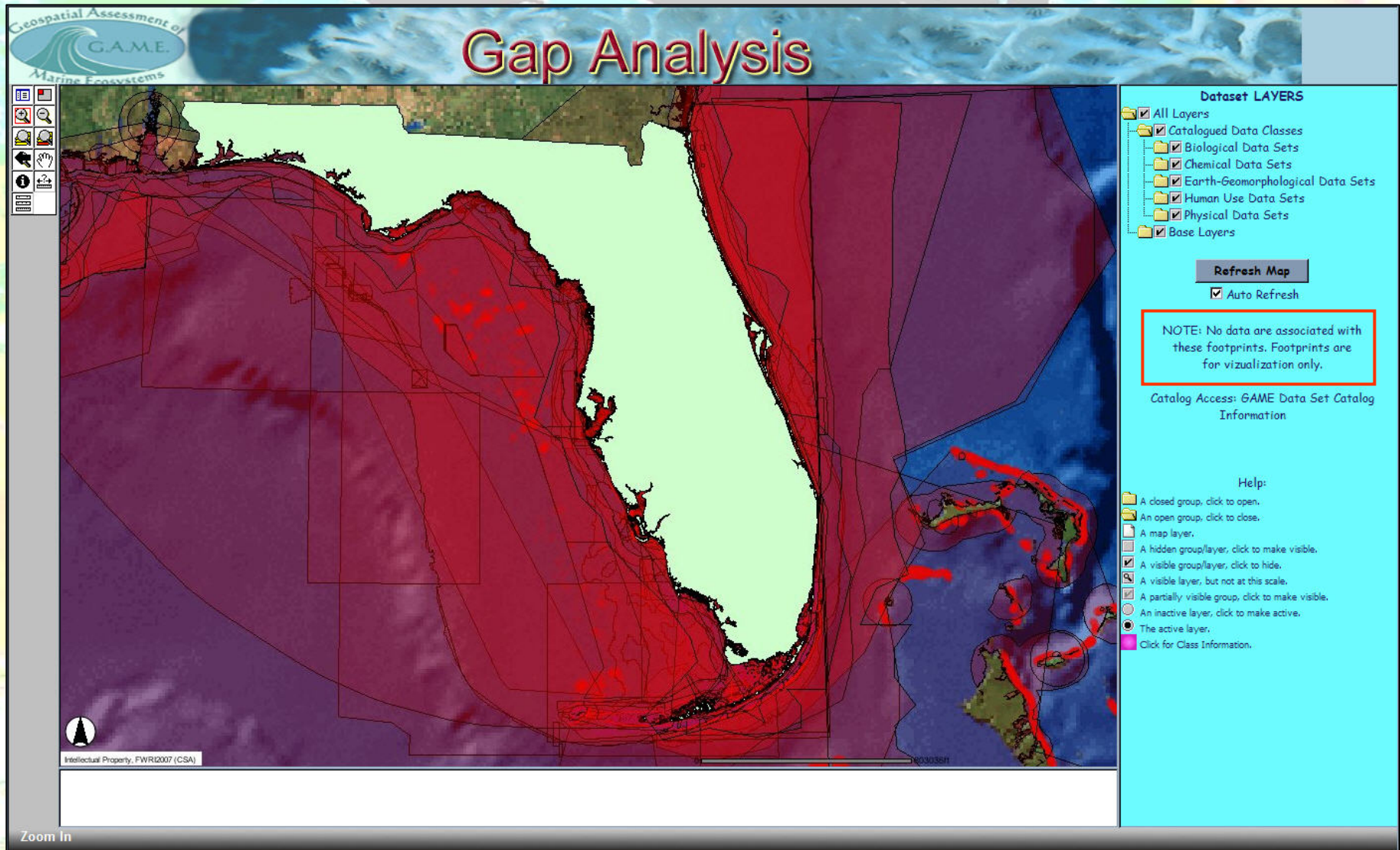
GAME IMS

Many of the data sets required for the cataloging effort are not immediately available for a number of reasons:

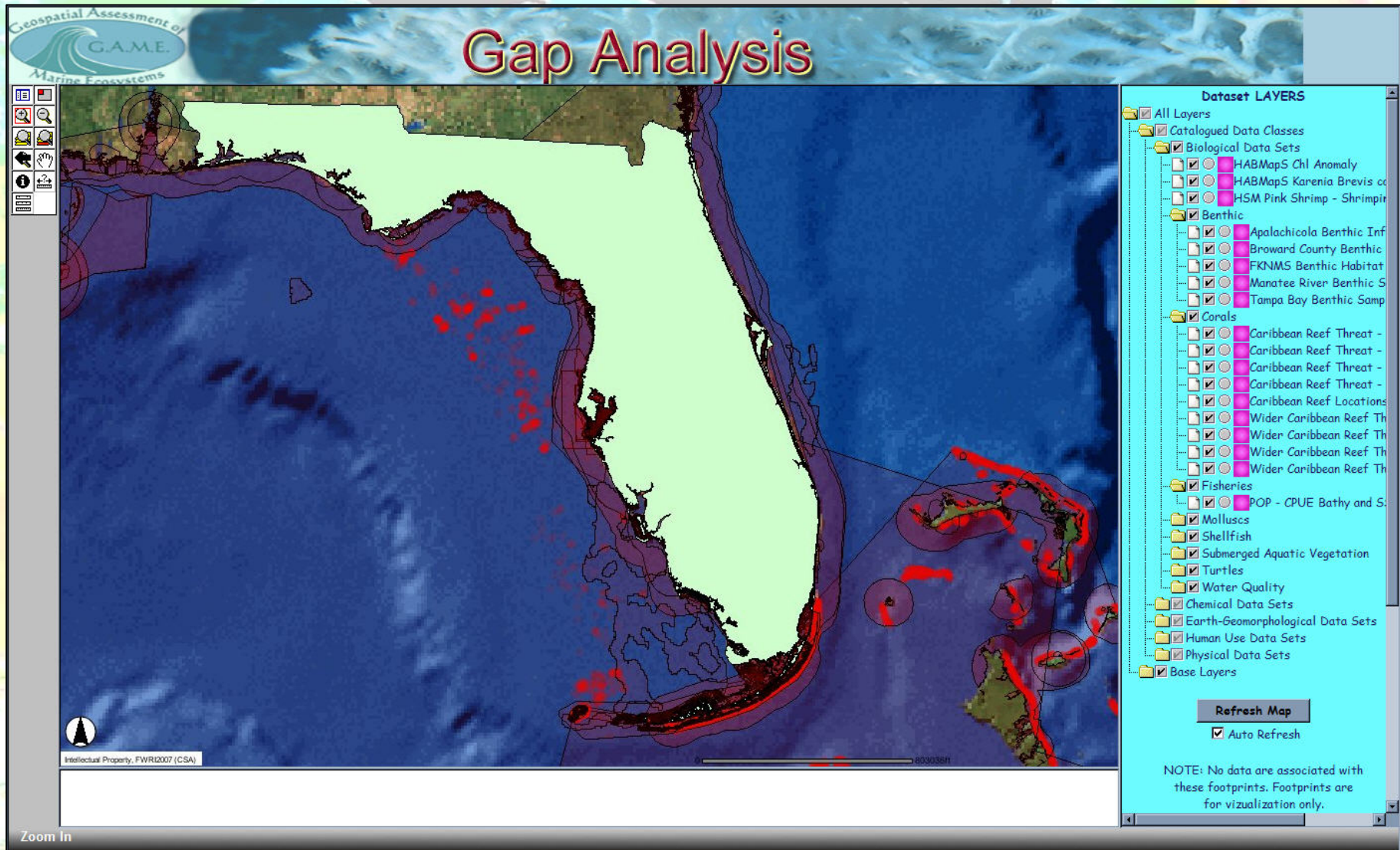
- non-publication
- proprietary restrictions
- lack of digitization

For these reasons, a considerable initial effort is being devoted to determination of data gaps

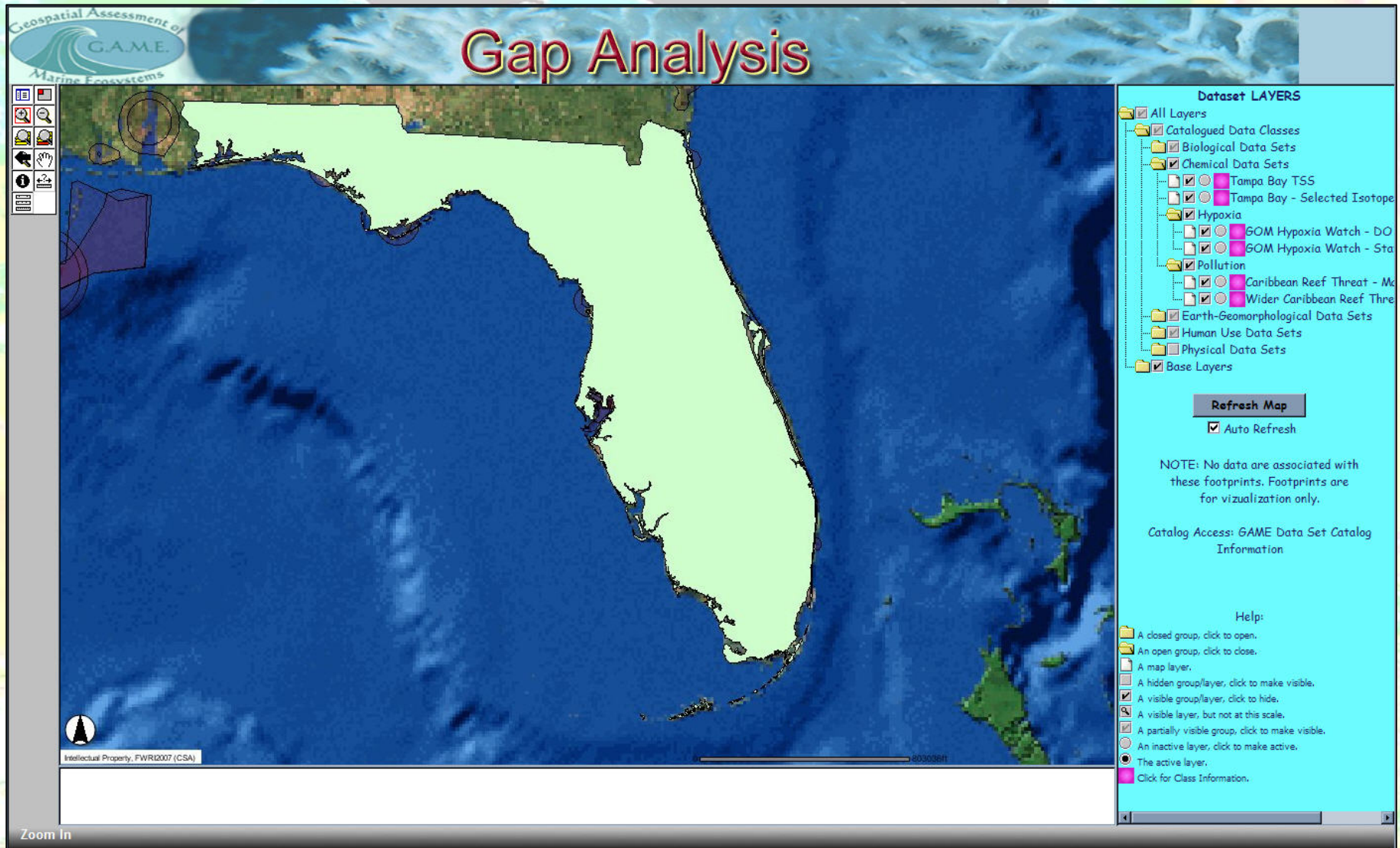
IMS – All Classes Gap Map



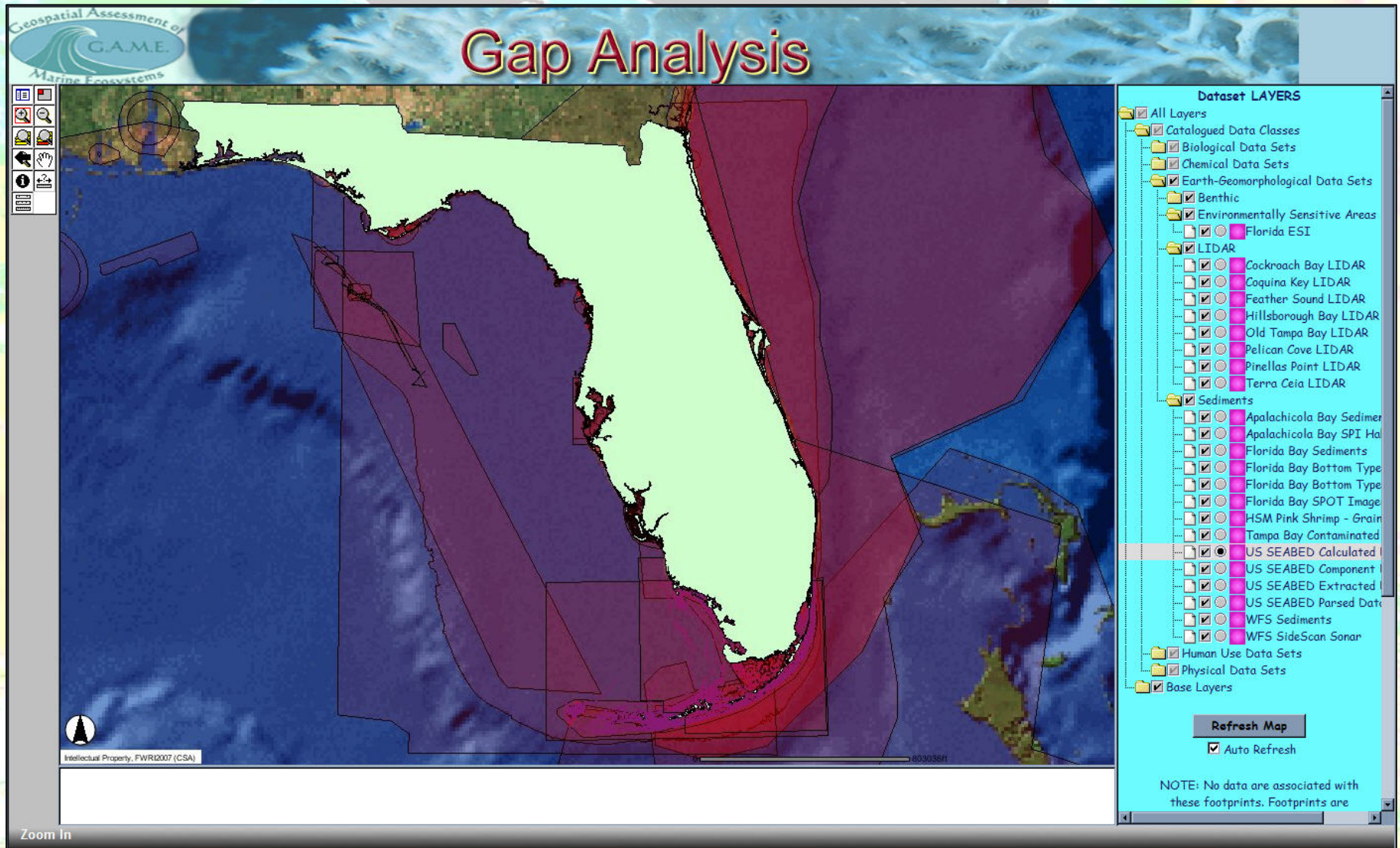
IMS – Biological Class Gap Map



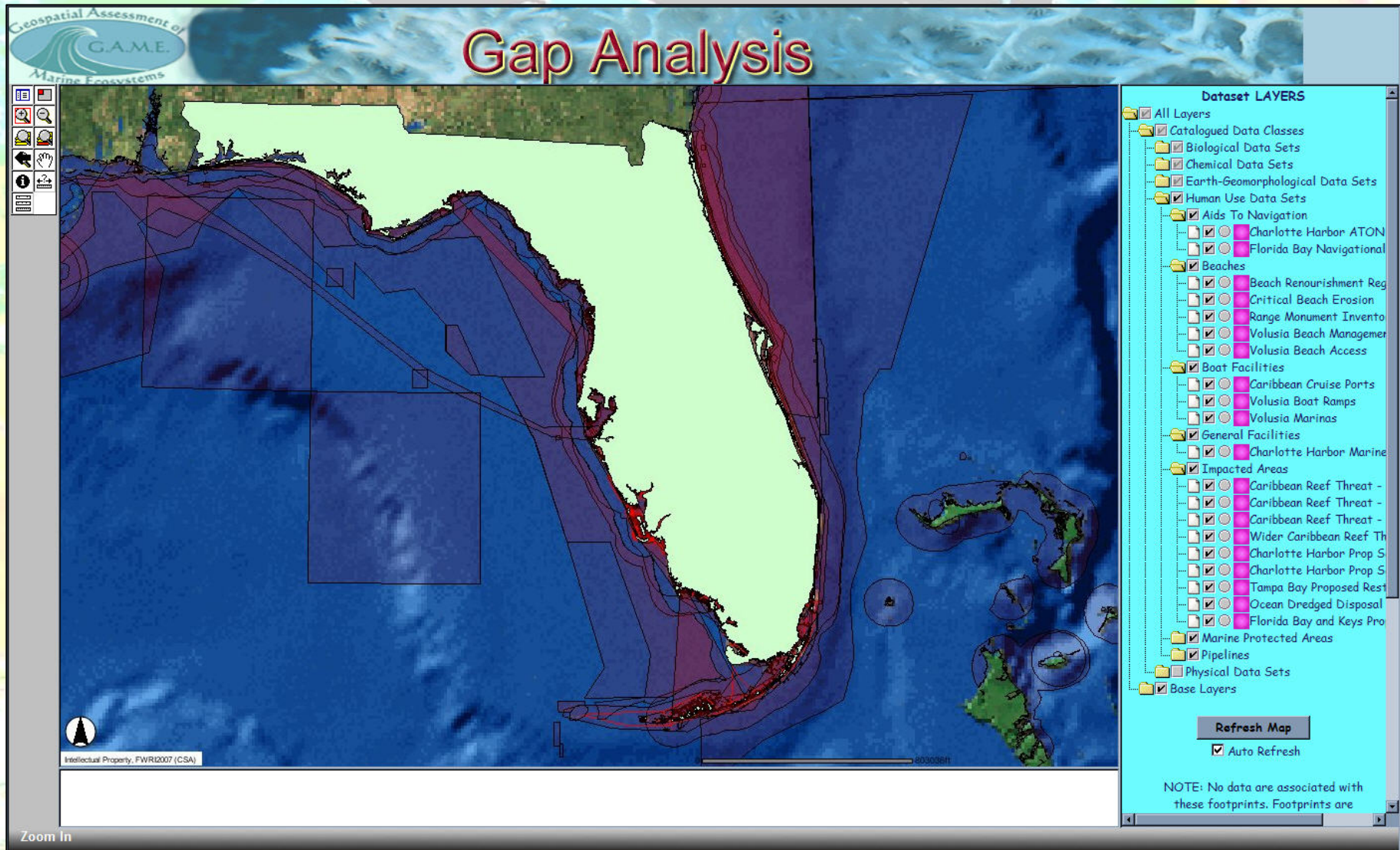
IMS – Chemical Class Gap Map



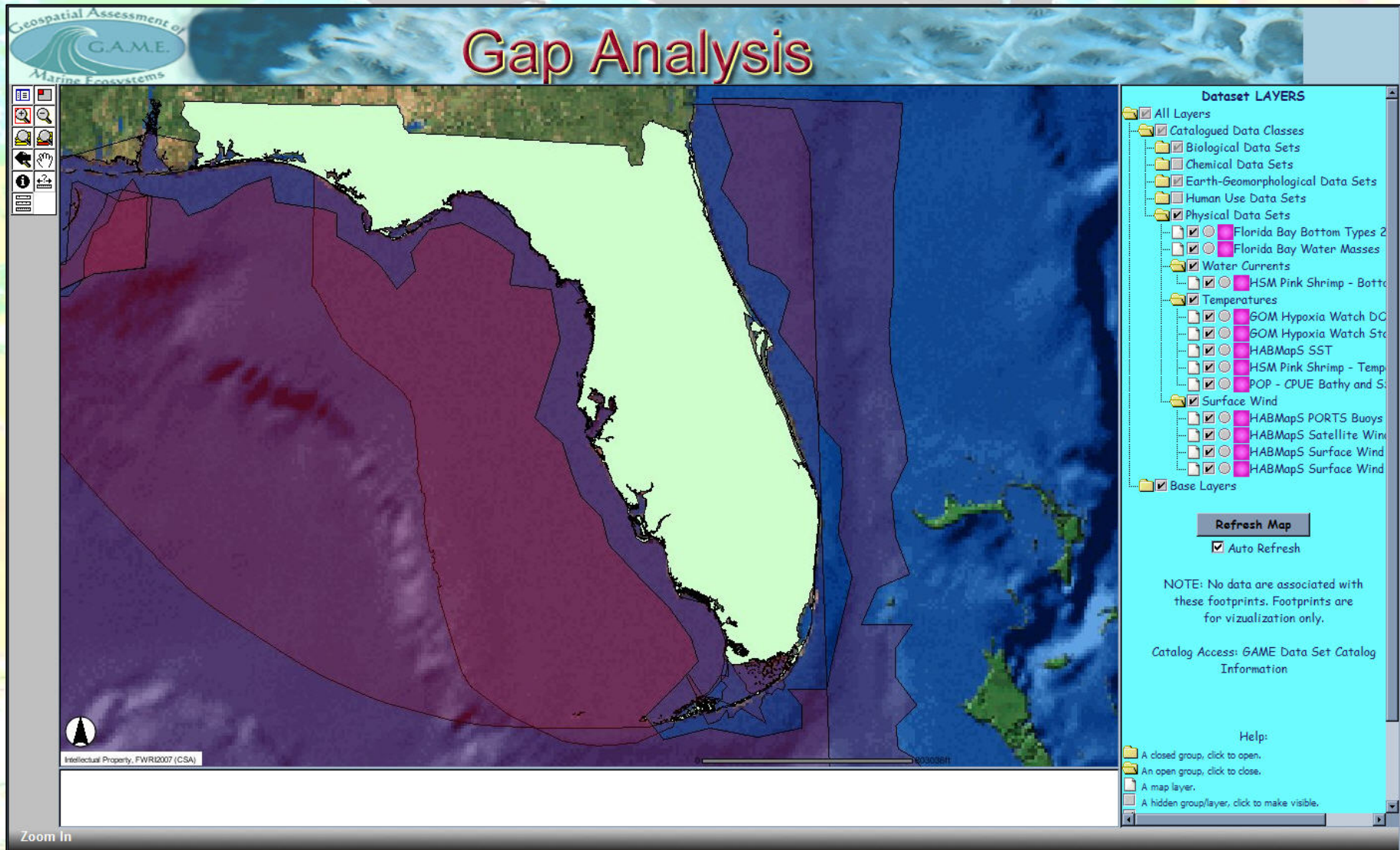
IMS – Geomorphological Class Gap Map



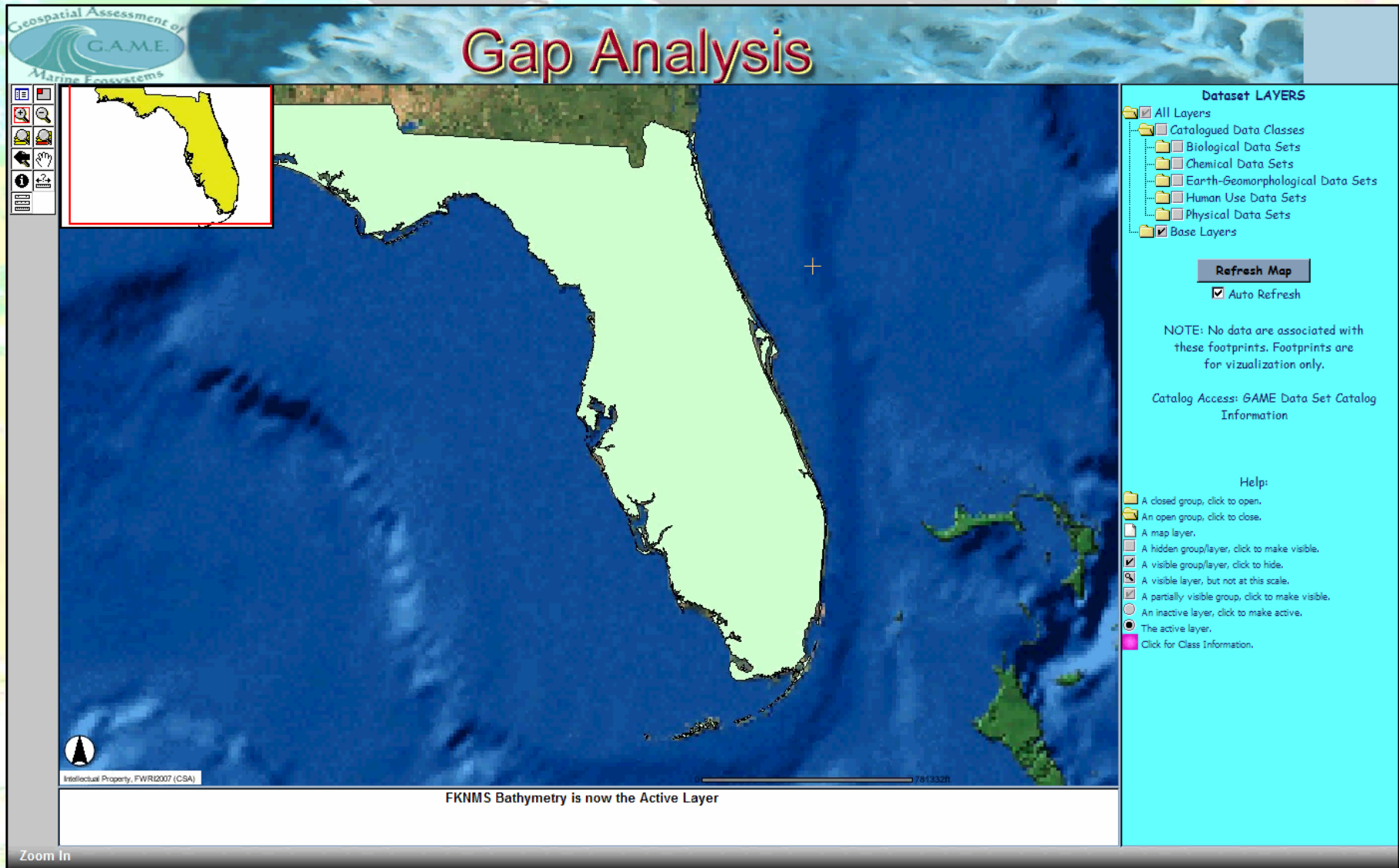
IMS – Human Use Class Gap Map



IMS – Physical Class Gap Map



IMS – Data Layer Example



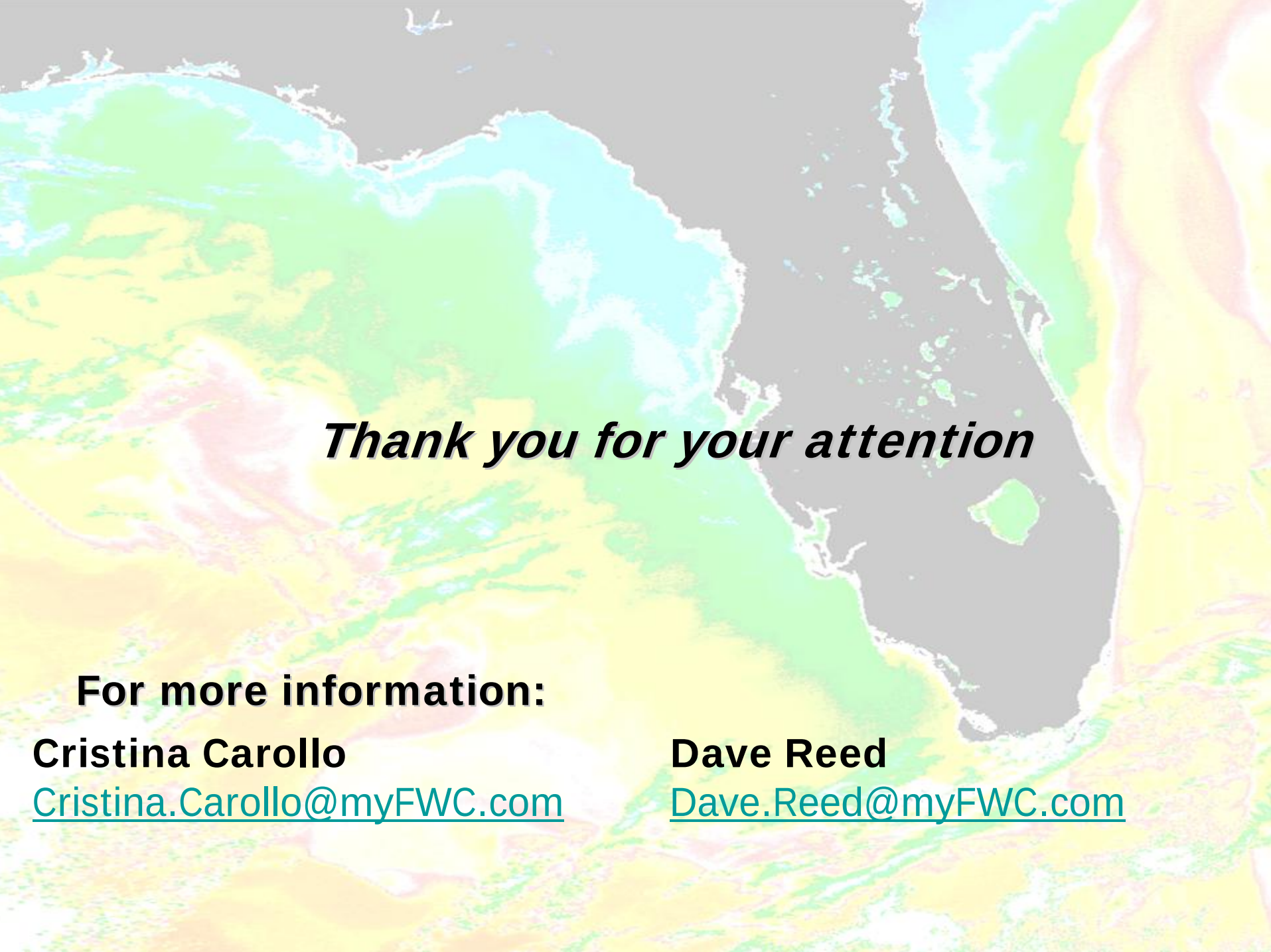
What's next...

PHASE II – PROCESS STEPS:

- Data acquisition
- Data development
- Ecoregion model assessment and development
- Issue of scale (CMECS and others)

PHASE III:

- Identification/delineation of marine ecoregions



Thank you for your attention

For more information:

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Dave Reed

Dave.Reed@myFWC.com