

# ReGIS

A Regional Geographic  
Information Systems (GIS)  
Initiative



# The Chesapeake Science and Security Corridor (CSSC)

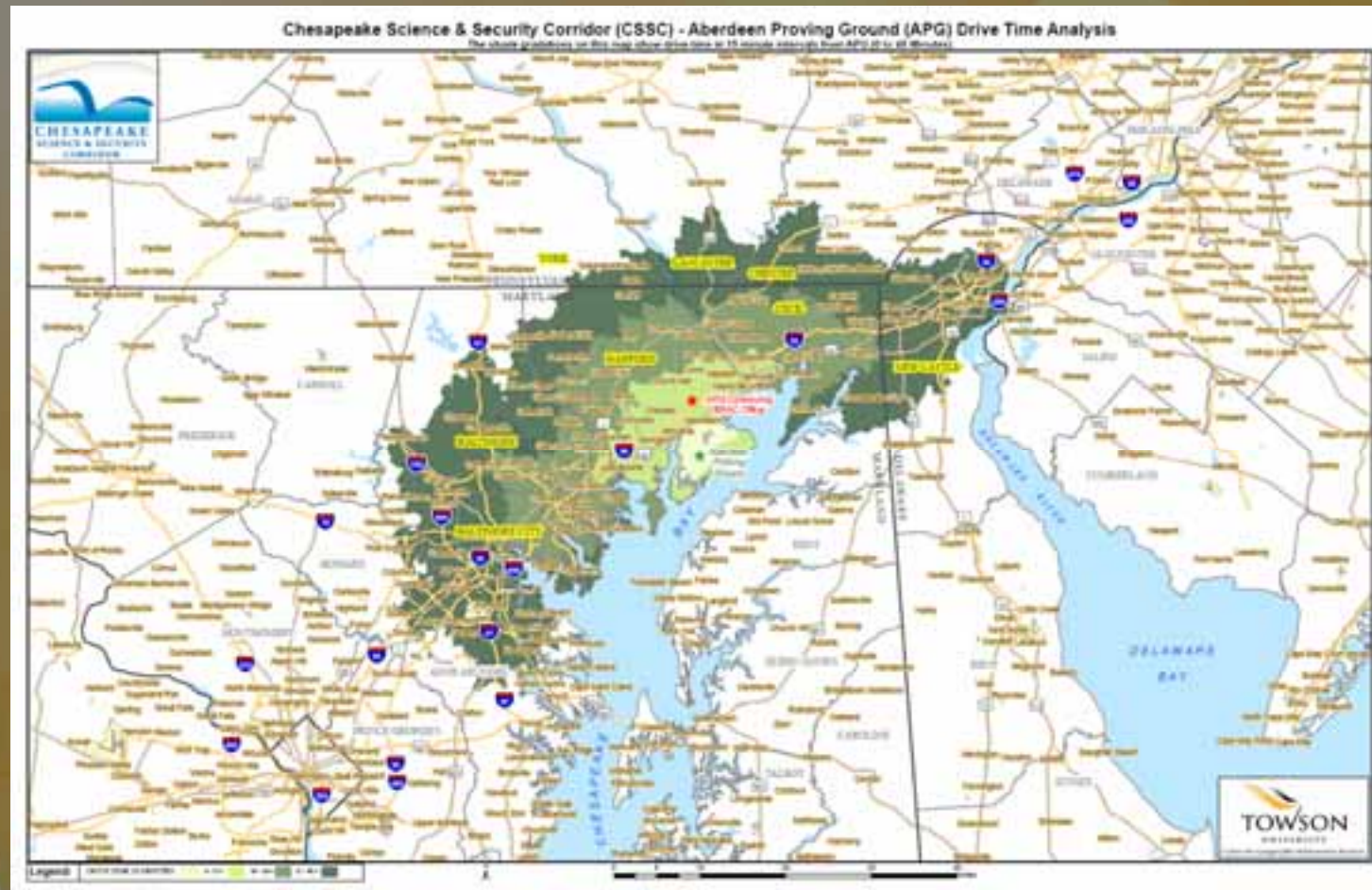
Established to help communities surrounding the Aberdeen  
Providing Ground prepare for Base Realignment and Closure  
(BRAC)

Brings together local government partners in three states:

- City of Aberdeen, MD
- Baltimore County, MD
- Baltimore City, MD
- Cecil County, MD
- Harford County, MD
- Chester County, PA
- Lancaster County, PA
- York County, PA
- New Castle County, DE
- Baltimore Metropolitan Council
- WILMAPCO



# The Chesapeake Science and Security Corridor (CSSC)



# Overview

Needed to help community and potential residents adjust to change from BRAC implementation

Solution: a web-based mapping system to help understand geographic characteristics of area and make informed planning decisions

This application needed to be supported by the best available geographical data shared from local government partners.

# Success Through Collaboration

Initiative assisted by:

- Funding provided by the Office of Economic Adjustment
- Technical vision, support, and data from local governments
- IT partnership with Towson University of Maryland Center for GIS and State of Maryland
- Consultant services provided by Dewberry and ESRI



# ReGIS Initiative Stages

## Initiative Stages:

- Formation of partnership – CSSC
- MOA between CSSC partners
- Procurement of grant from OEA
- Requirements written
- Bidding and award to Dewberry
- Project development lifecycle

# Challenges

Needed simple way to continually share data with:

- Different coordinate systems
- Different field names
- Overlaps and gaps
- Proprietary use of data
- Not all partners had the data requested
- Some data still needs to be created

# Meeting Objectives and Challenges

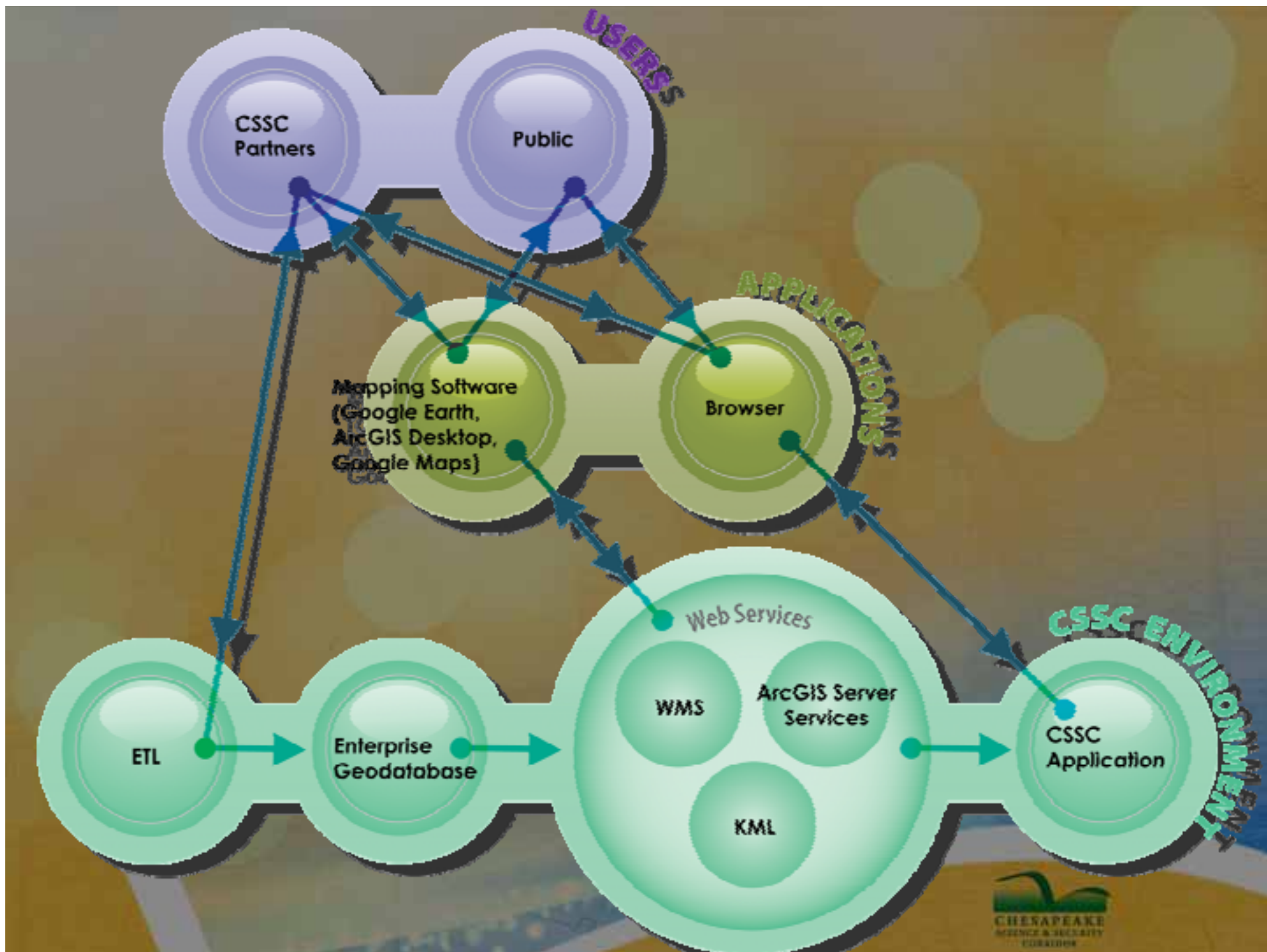
- Partnered with ESRI to bring the best in GIS software developers and industry experts
- Requirements workshops to solicit ideas and expectations of the finalized products
- Developed system and application design documents to specify the plans for developing the applications
- Developed and implemented the application under stringent quality testing protocols



# CSSC Regional GIS (ReGIS)

Dewberry /ESRI helped achieve these goals by developing:

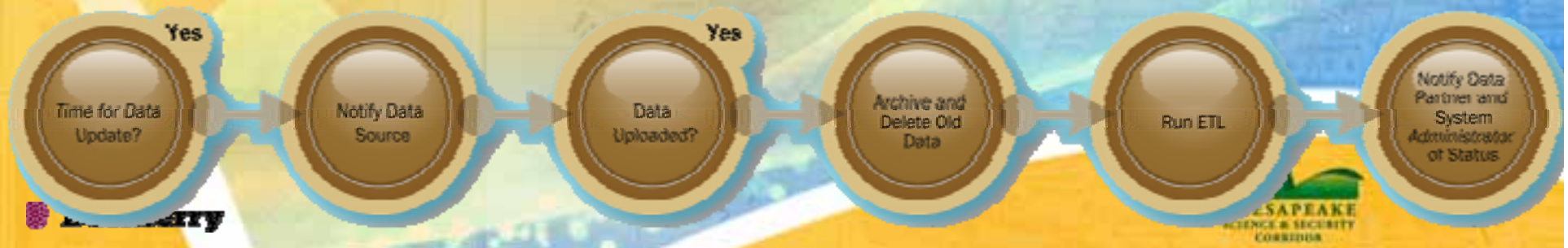
- An Extract-Transform-Load (ETL) tool to allow easy sharing of data between CSSC partners for use in system
- A centralized data repository for storing regional data in a standardized manner
- Web Services for serving data in a Service Orientated Manner
- A web mapping site for display and analysis of geographic information for the region



# Extract-Transform-Load (ETL) Tools

Set of Server-side Tools to Aid with Sharing Data:

- Automatically Send Email to Data Providers of Scheduled Data Uploads
- Detect Source Data Uploads to FTP Site
- Extract Data From Source Data, Transfer Into CSSC Data Schema, and Load Into Enterprise Database
- Email Status of Data Processing To Data Providers and Administrators





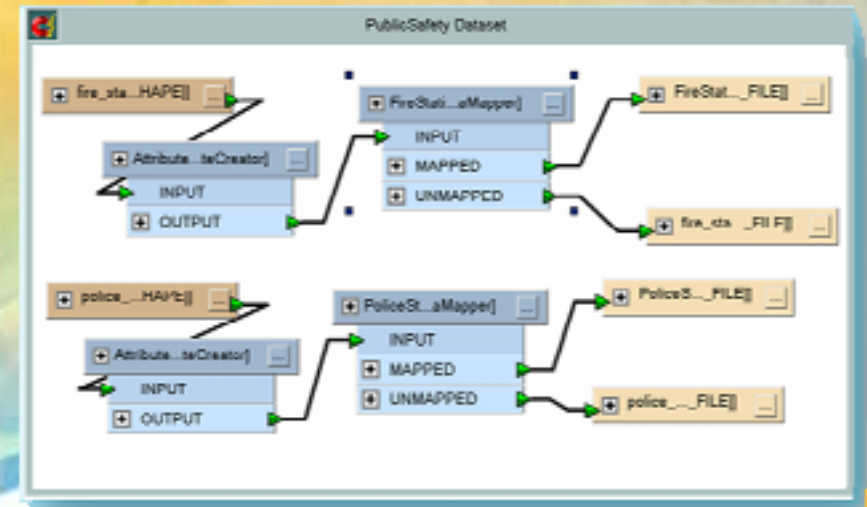
# Extract-Transform-Load (ETL) Tools

Interface Allows for Simple Management of Data Uploads

Build On ESRI's Data Interoperability

Allows for changes in source data to be easily incorporated into the tool

The screenshot shows the 'MainFormSchedule' window of the 'CSSC ETL Administration ETL Management' tool. It features a header with the 'CHESAPEAKE SCIENCE & SECURITY CORRIDOR' logo and title. Below the header, there are four input fields: 'Release Date' (set to 1/21/2010), 'Email Notification 1 Date' (set to 1/21/2010), 'Email Notification 2 Date' (set to 1/21/2010), and 'Jurisdiction Name' (set to New Castle County). At the bottom, there are navigation buttons (back, forward, search, etc.) and a 'Close' button.



# ArcGIS Server Flex Web Application

This application allows users to:

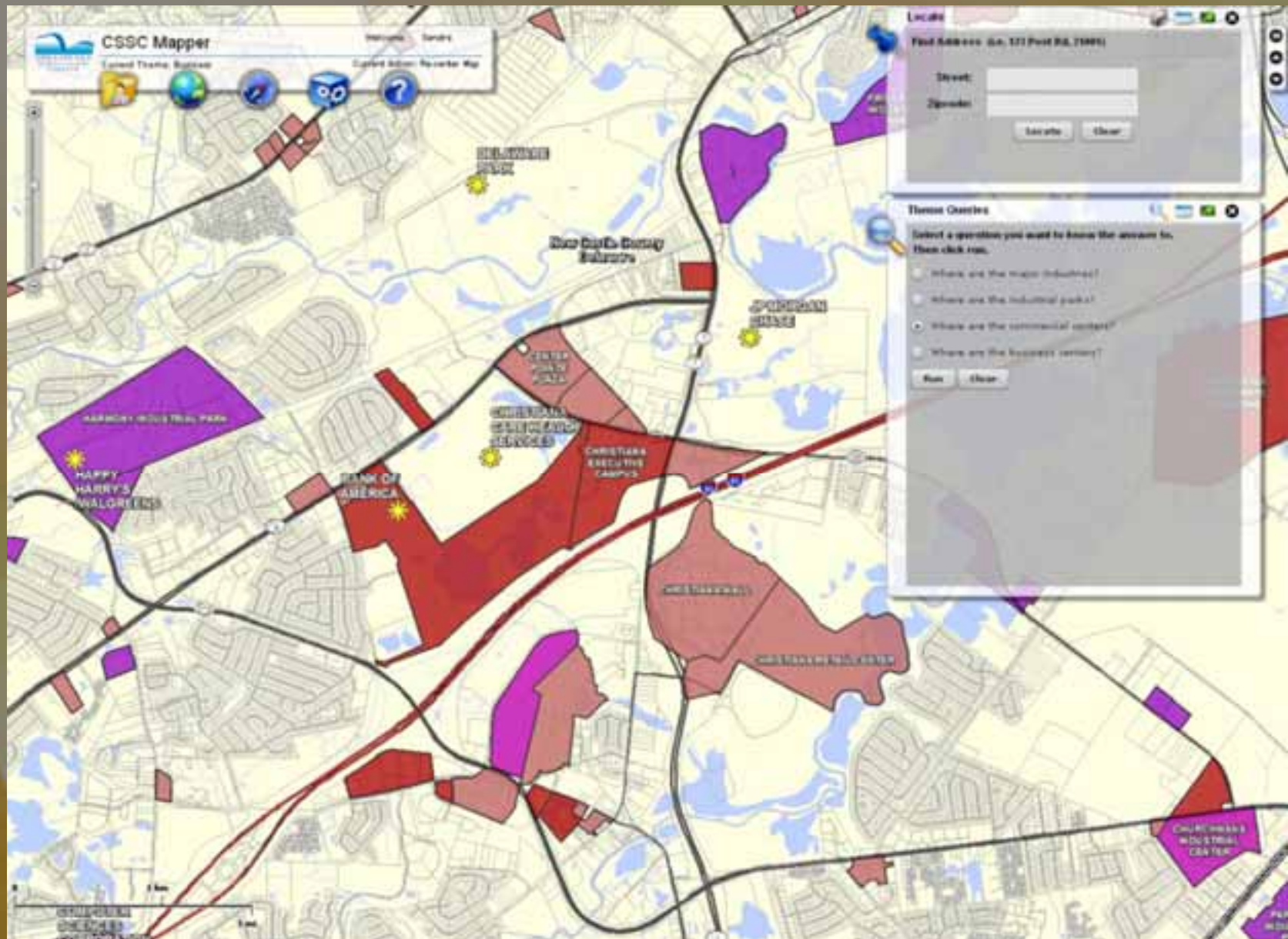
- View map locations of schools, public safety, demographic characteristics, infrastructure, and business opportunities
- Understand suitability for business/ residential relocation, including transportation accessibility, development incentives, neighborhood characteristics, and availability of public services
- Analyze trends in development and determine public service needs of the community

# Themes

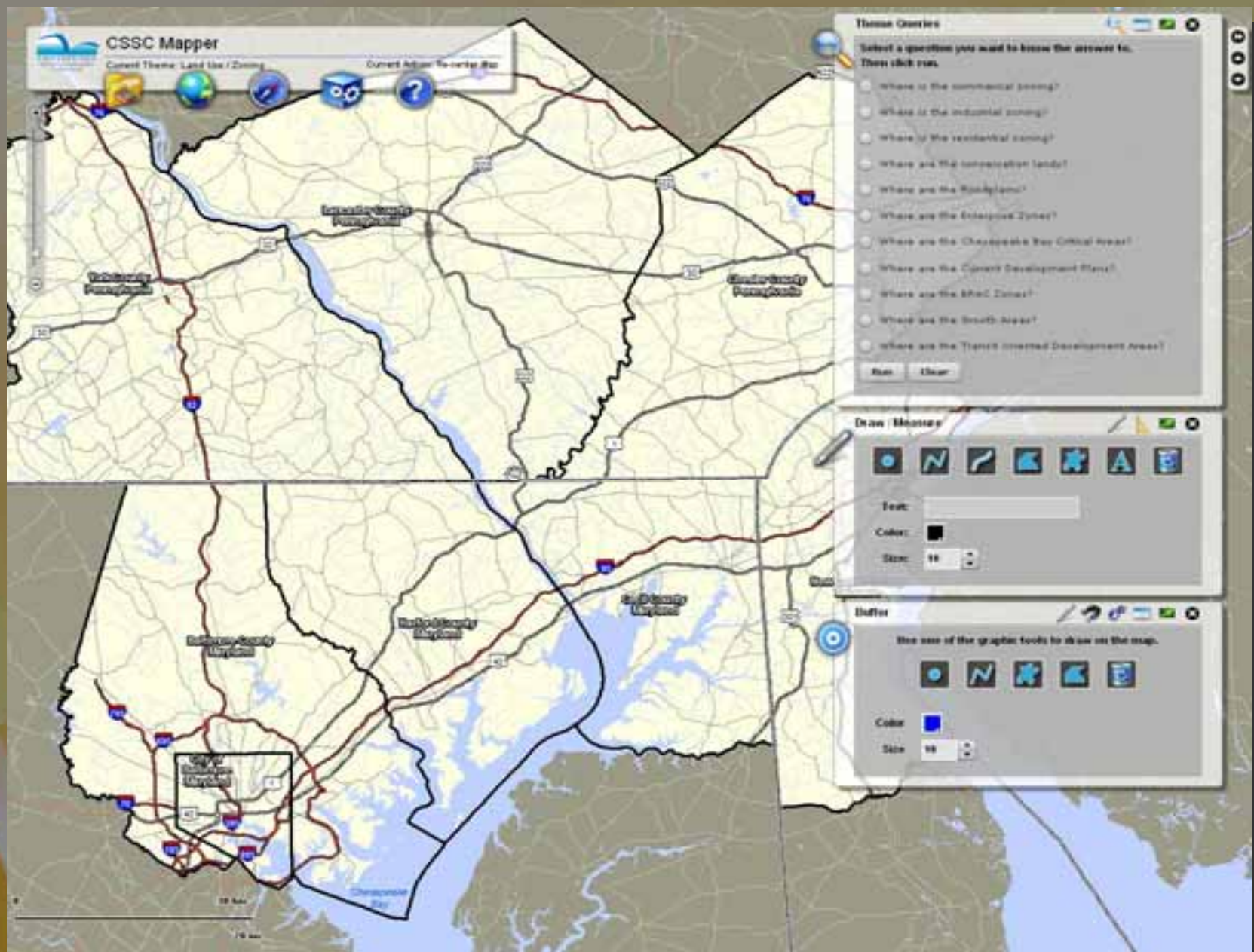
- Business
- Demographic
- Education
- Infrastructure
- Land Use & Zoning
- Public Safety
- Public Services
- Recreation
- Topography
- Soils
- Transportation



# Business



# Theme Queries





# Theme Queries

The screenshot displays the CSSC Mapper web application interface. The main map area shows a geographical region with various land use themes highlighted in red. A tooltip for a selected feature reads: "CR Description: Commercial Regional CountyFIPS: 10003".

On the right side, there are two panels:

- Locate**: A panel for finding a location. It includes a "Find Address (i.e., 123 Post Rd, 21001)" field, "Street:" and "Zipcode:" input fields, and "Locate" and "Clear" buttons.
- Theme Queries**: A panel showing a list of features selected by a query. It indicates "Features Selected: 13". The list includes:
  - CR Description: Commercial Regional CountyFIPS: 10003
  - CN Description: Commercial Neighborhood CountyFIPS: 10003
  - CN Description: Commercial Neighborhood CountyFIPS: 10003
  - CN Description: Commercial Neighborhood CountyFIPS: 10003
  - BP Description: Business Park CountyFIPS: 10002
  - CR Description: Commercial Regional CountyFIPS: 10003

The top of the interface shows the "CSSC Mapper" logo, a "Current Theme: Land Use / Zoning" indicator, and a "Current Action: Re-center Map" button. A scale bar at the bottom left indicates 0.5 miles.



# Query Builder

The screenshot displays the CSSC Mapper web application. The main map shows the Chesapeake Bay region with numerous educational institutions marked by colored dots. The top toolbar includes icons for map navigation and a 'Query Builder' panel on the right. The 'Query Builder' panel is currently active, showing a 'Select by Attributes' dialog. The 'Layer' is set to 'Higher Education'. The 'Method' is 'create new selection'. The 'Attributes' list includes 'CountyFIPS', 'Name', 'Type', and 'Designation'. The 'Operations' section shows a grid of logical operators: AND, OR, NOT, and their combinations. The 'Value' field is set to '10001'. The resulting query is displayed as 'CountyFIPS = 10001'. Buttons for 'Run', 'Clear Query', and 'Clear All' are at the bottom of the panel.

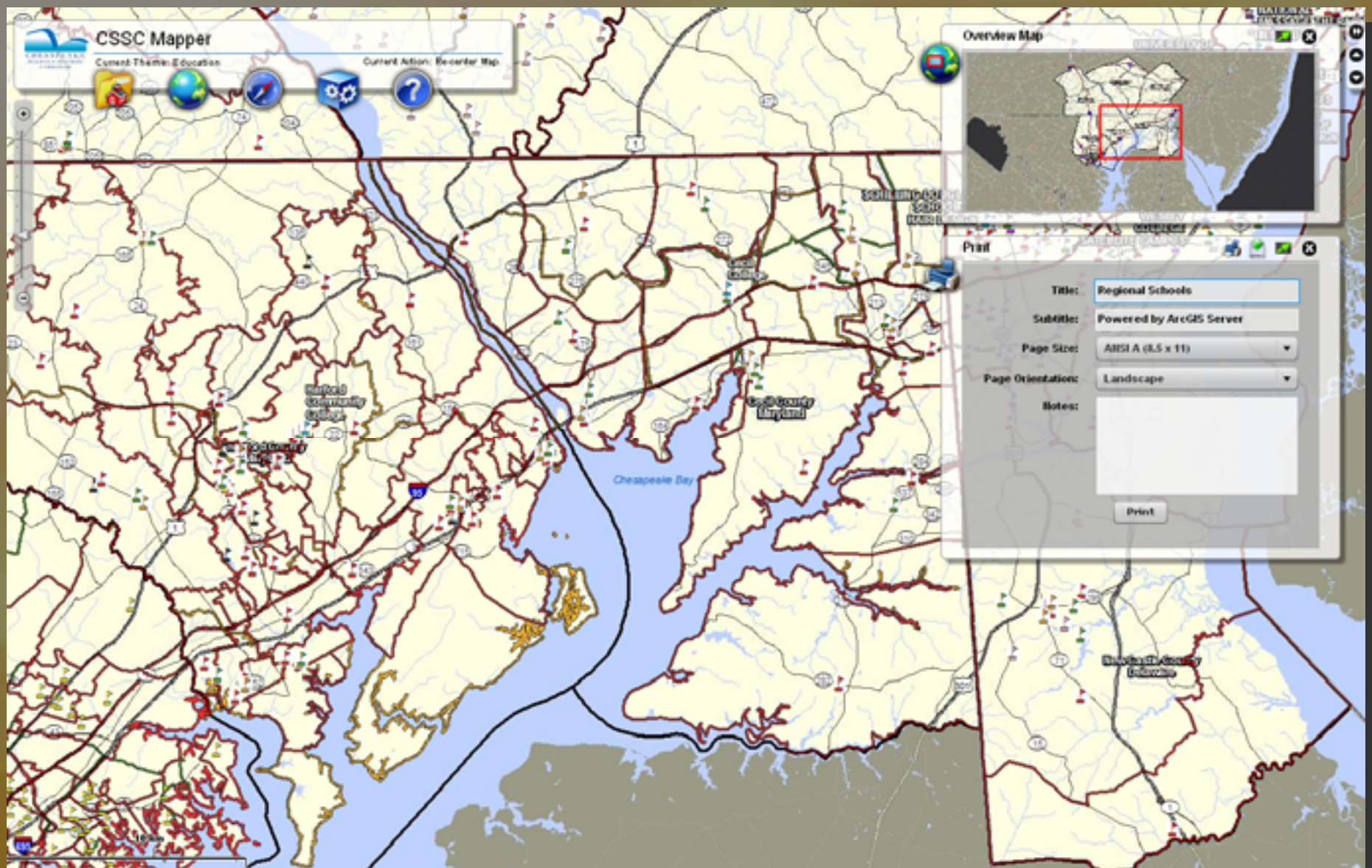
**CSSC Mapper**  
Current Theme: Education  
Current Action: Reverse Map

**Locate**  
Find Address: (La, 123 Post Rd, 21001)  
Street:  
Zipcode:  
Locate Clear

**Query Builder**  
Select by Attributes  
Layer: Higher Education  
Method: create new selection  
Attributes: CountyFIPS, Name, Type, Designation  
Operations: AND, OR, NOT, AND/OR, OR/NOT, AND/NOT  
Value: 10001  
CountyFIPS = 10001  
Run Clear Query Clear All



# Print



# Future

- To serve as a model for other regional & local governments
- Better data sharing across jurisdictions
- Grant funding to keep the site for several years