

CIRIS Wins “Best of New York 2008”

The New York State Office of Cyber Security and Critical Infrastructure Coordination is very honored to receive the 2008 Government Technology “Best of New York” Award in the Project Best Advancing Department/Agency Business Objectives category.

CIRIS, the Critical Infrastructure Response Information System, is a secure, web-based Geographic Information System (GIS) and text inquiry system that provides easy access to the State’s critical infrastructure data repository. CIRIS contains tools for searching, analysis, evaluation and mapping that can easily and quickly support decision-makers and analysts in law enforcement, counter-terrorism and emergency response – for both natural and man-made events. CIRIS uses a custom search engine to find specific data among nearly 500 datasets using plain English words and phrases. CIRIS also allows data owners to upload data remotely, including emergency event data, and make it available to system users in minutes. CIRIS is truly innovative in that it turns traditional data warehousing techniques upside down by using a data catalog to create a standardized view of disparate data instead of making all of the data conform to a standard database structure, saving time when it matters most.

If you would like more information on the CIRIS application please contact Robert Gehrer (Robert.gehrer@cscic.state.ny.us)



Project Best Advancing Department/Agency Business Objectives is presented to CIRIS (Critical Infrastructure Response Information System), NYS Office of Cyber Security & Critical Infrastructure Coordination. Accepting the award from Michael Hogarth, National Director, State/Local Government Markets, ESI International, is Robert Gehrer, CIRIS Project Manager.

The National Geospatial Technology Center at Niagara County Community College (NCCC)

NCCC has become a center for Advanced Technological Education in Geospatial Technology with new funding from the National Science Foundation. NCCC is a partner with seven other selected colleges and four universities across the USA, with the headquarters being at DelMar College in Corpus Christi, Texas. Robert Lord, Director of the National Geospatial Technology Center: Northeast, has received letters of support from five regional employers who require staff with geospatial skills. Conestoga Rovers Associates, ATSI Engineering Inc., Bergmann and Associates, Wendel Duchscherer architects and engineers and Ecology and Environment are these regional employers. These companies will interact with the NGTC staff to keep the courses in line with industry needs and provide support for program development. Other organizations that support the development of the NGTC, over the next four years are Niagara County, Erie County, Buffalo State College and SUNY Geneseo.

Professor Lord is now establishing a network of academic partners across New York State to meet the professional training needs of K-14 teacher educators over next four years. The first college to join the network is Cayuga Community College, where Professor Abu Badruddin directs the geotechnology program. It is hoped that links will be made with the CUNY system in Manhattan and with SUNY Plattsburgh to cover those parts of the State.

NCCC offers six different courses in Geography and geospatial technology, varying from introductory geography courses to courses in remote sensing and even advanced geotechnology project-based courses. Students, in the Fall 2008, will be able to earn a one year certificate course in geospatial technology and be able to seek employment with 150+ organizations using geotechnology in Niagara and Erie counties; there almost 3,500 state-wide. Professor Lord hopes to able to re-train many adults with these in-demand skills and boost economic activity in western New York over the next four years. The NSF grant is renewable until 2020 for these purposes. In the future, NCCC hopes to offer an Associate's Degree in geospatial technology for students who wish to study for two years and then go on to either employment or a four-year school that has established a transfer agreement with NCCC.

The demand for geospatial skills is amongst the highest in the nation and offers a lifelong career with excellent opportunities for advancement and substantial salaries. The demand for GIS technicians is explosive. *US News and World Report* redlists GIS as "One of the twenty Top Hot Job Tracks for the next decade." GIS can be applied to many different subjects and problems and can lead to a number of GIS related occupations. GIS technicians are in demand in the following fields: Geology, Geography & Oceanography, Physical and Life Sciences, Economics & Marketing Research Analysis, City and Regional Planning, Engineering and Transportation Management, Property and Real Estate Management, Communications and Utility Operations, Surveying and Mapping Services, Landscape Architecture, Real Estate Broker Appraisal, Police, Fire & Ambulance Dispatch, Environmental Planning, Natural Resource Management.

Professor Robert Lord states that his goals will be to meet local and regional needs by building geodatabases that benefit western New York and particularly Niagara County. These geodatabases might include agri-tourism, eco-tourism and heritage tourism as well as original maps of features such as the Niagara Escarpment or the means to develop a greenway between the Niagara Gorge and the Genesee Valley near Rochester.

Submitted by Robert Lord, formerly of Niagara County Community College

Editor's Note: It is with great sadness that we inform the reader that Rob passed away over the 2008 Labor Day weekend. Those who knew or had even met Rob only once can easily attest that he brought much energy and enthusiasm to the field of GIS and geographic education and that he will be missed.

New York State Ocean and Great Lakes Atlas

Environmental Conservation Law (ECL) Article 14 - the New York Ocean and Great Lakes Ecosystem Conservation Act (Act) created the New York Ocean and Great Lakes Ecosystem Conservation Council (Council) made up of nine state organization heads (Department of Environmental Conservation – Chair, Department of Agriculture and Markets, Department of Transportation, Empire State Development, NYS Energy and Research Development Authority, Office of General Services, Office of Parks, Recreation and Historic Preservation, State University of New York and Department of State – Executive Director). Section 14-0111, part 4 of the Act calls for creation of “...an ocean and coastal resources atlas to make information available to the public and decision makers;”. Department of State, Division of Coastal Resources (DCR), acting as staff to the Council, established a Technical Working Group (TWG) made up of GIS representatives from Council member agencies. In coordination with the TWG DCR staff has been working on developing this Atlas since September 2006, including data collection efforts, application development and infrastructure to deliver the application via the internet.

The New York Ocean and Great Lakes Atlas (Atlas) is designed to provide New York residents and decision makers with valuable spatial information as directed by the Act. Under direction from the TWG, the Atlas has grown from an idea to a live site with downloadable data www.nyoglatlas.org. Currently available information includes elevation, shorelines, nature preserves, infrastructure, and biota. By providing this information New York citizens will be able to answer the question: What is in my backyard?

The Office of Cyber Security and Critical Infrastructure Coordination (CSCIC) generously provided the initial code from the Digital Orthophotography application (DOApp) as a springboard for building the Atlas. Troy Web, Inc., the original developers of the DOApp, built upon and transformed that code into the current Atlas. Without strong partnerships and cooperation between numerous entities, the Atlas would not be where it is today. For instance, Stone

(Continued on page 5)

NYS GIS Help Desk

The New York State GIS Help Desk, <http://www.gishost.com/gishelpdesk/> is administered by the NYS Office of Cyber Security & Critical Infrastructure Coordination and sponsored by the New York State GIS Coordination Program. This web-based help desk is intended to provide support for both general GIS questions and specific questions regarding the technical use of the following GIS software products:

ArcGIS Desktop: ArcView
ArcGIS Desktop: ArcEditor
ArcGIS Desktop: ArcInfo
ArcInfo Workstation
ArcView GIS 3.x
ArcIMS (v 9.1 and later)
MapInfo Professional
MapXtreme (2005 and Windows)

Recent enhancements to the GIS Help Desk include those made to the Knowledge Base search function. These include the ability to search for any text in the Subject Line (this is the default option) and/or Answer provided by the Help Desk staff and/or Question originally submitted to the Help Desk. The Knowledge Base search can also be further refined by selecting the version number of the software product (e.g. ArcGIS Desktop: ArcView 9.2, MapInfo Professional 8.5, etc.)



Visitors can search the online **Knowledge Base** to view previously submitted questions and answers or view the Help Desk's most **Frequently Asked Questions**. Residents of New York State may **Submit** GIS technical questions which will be answered within one (1) business day. All questions and answers will also be included in the searchable knowledge base. For assistance in the use of the NYS GIS Help Desk, visitors can select **Help** from the options on the left.

(Great Lakes Atlas...Continued from page 4)

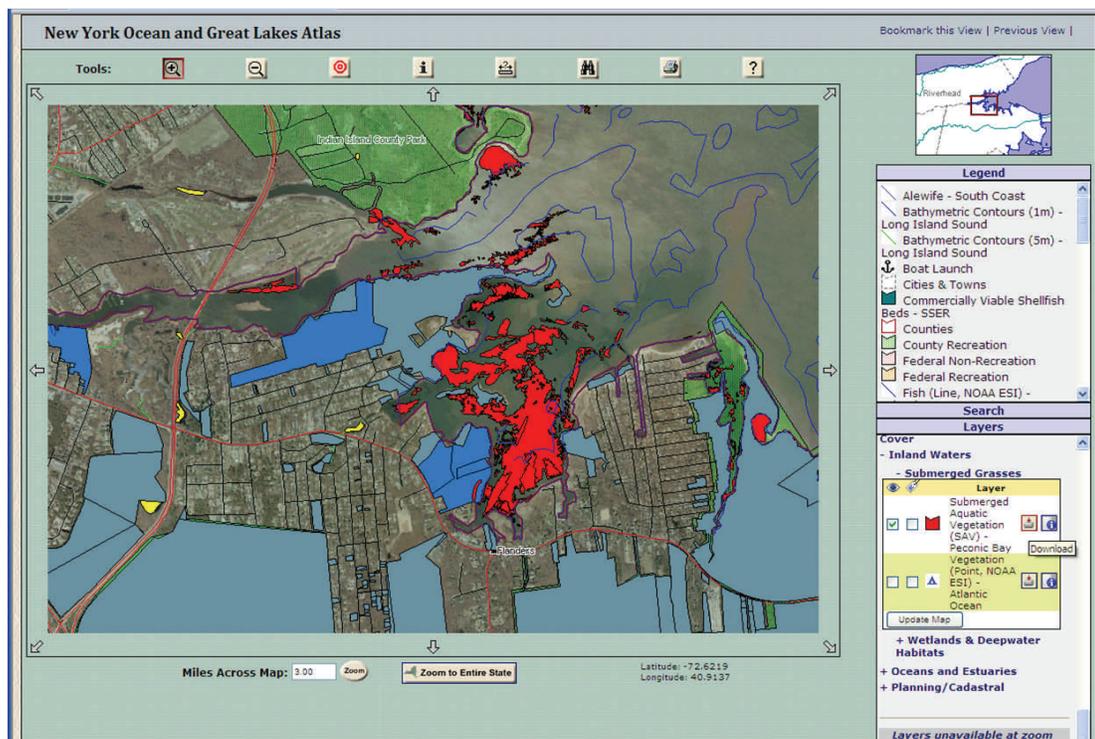
Environmental, Inc. (Stone) carrying out a significant data collection effort, reached out to over 57 entities for data. Over 1,000 data sets have currently been collected, reflecting the cooperative nature of the GIS community.

Currently more than 200 data sets are available to the public and can be downloaded in formats suitable for MapInfo and ESRI products, or even directly into GoogleEarth. Only data sets with metadata that meet Atlas requirements are available via the web mapping application. Where possible, Stone is attempting to create missing metadata.

Stone also carried out three rigorous data gap analyses which will help identify missing information needed for Council's efforts. The first analysis consisted of examining datasets collected over a six month period and identifying information yet to be collected or datasets that were collected but were found inadequate either in resolution or quality. For the second effort Stone conducted an online survey that was distributed to the NYS GIS user community via the GIS listserv and finally Council staff and Stone held a Data Needs and Priorities workshop in April of this year. A report collating the results of these three efforts has been written and is currently available by request and eventually will be accessible via the Council website www.nyoglecc.org

While the current Atlas is providing information on New York to stakeholders and decision makers, plans are underway to go beyond simple information visualization and download. Future versions of the Atlas will be more robust and adaptable to technological and data advances. Council staff and the TWG, are collaborating with CSCIC, and entering into partnerships with ESRI, and Stone to develop an infrastructure that allows the Atlas to serve as a Portal. Data will both be uploadable to and downloadable from other web sites with this new technology. Publishing and ingesting information through web mapping services (WMS) and web feature services (WFS) will also increase Atlas usability. Plans for the future Atlas also include robust data searches that will allow users to quickly and easily find information that they want. Additional Atlas functionality will include providing real time data and links to observation systems. In Atlas V3.0 or V4.0 applications such as inundation models, build out analyses and nonpoint pollution models are envisioned to be provided through web application services (WAS). In short, the Council is making strides to ensure the Atlas continues to grow and evolve to meet expected and unknown data requirements for the future.

Submitted by Jeff Herter (Jeff.Herter@dos.state.ny.us) and Rebecca Newhall (Rebecca.Newhall@dos.state.ny.us), New York State Department of State, Division of Coastal Resources



GPS Data Collection Guidelines: Available Resource Online

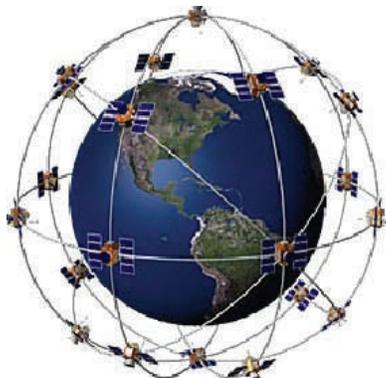
In 2008 a new "GPS Data Collection Guidelines" resource developed by the NYS GIS Standards & Data Coordination (S/DC) Work Group received final approval and was posted on the NYS GIS Clearinghouse.

Available online at the NYS GIS Clearinghouse, this document is intended to provide a means of quality control and accurate documentation of GIS data sets created with Global Positioning System (GPS) technology.

The GPS Data Collection Guidelines seek to accomplish the following specific objectives:

- (1) Establish methodology for collecting GPS data for use in a GIS;
- (2) Provide guidelines for reporting metadata about GPS collected data and methods/means used to collect such data;
- (3) Supply GPS users with definitions of GPS terms and abbreviations; and
- (4) Eliminate or reduce known and potential systematic errors.

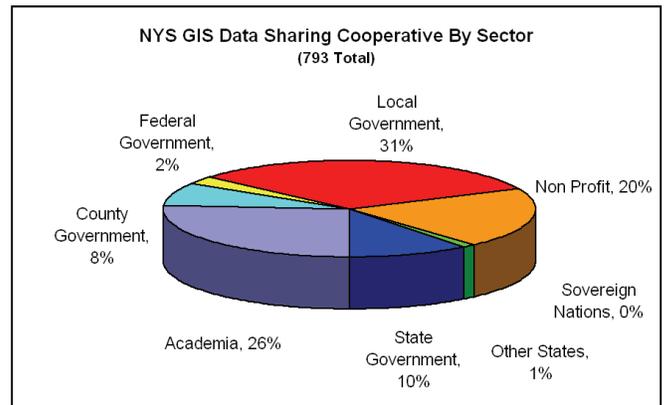
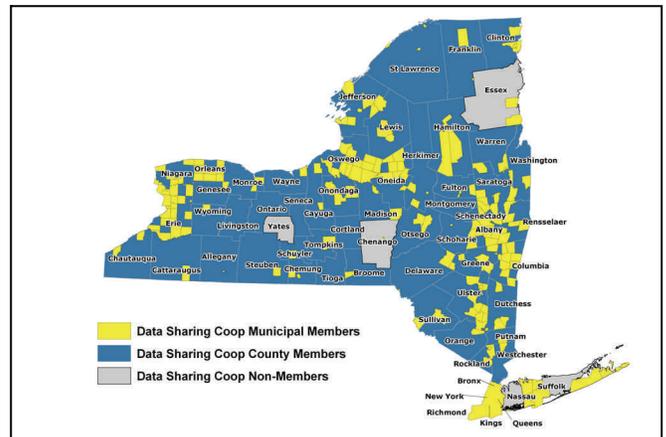
Recognizing the rapid technology changes in this field, the subcommittee recommended a periodic review of the Guidelines. The subcommittee will be reconvening later this year to discuss a review of the Guidelines. If you would like to participate in the review or learn more about the NYS GIS Standards and Data Coordination Work Group, please contact work group Chairperson Cheryl Benjamin at Cheryl.Benjamin@cscic.state.ny.us.



GIS Data Sharing Cooperative Still Growing

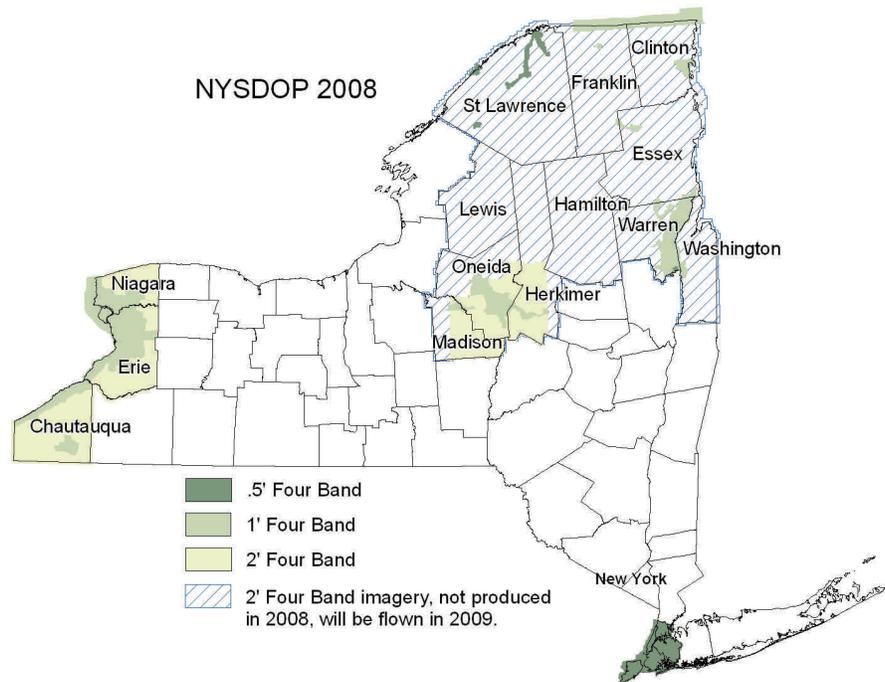
Membership in the NYS Data Sharing Cooperative has shown a steady increase with more and more governmental entities, not-for-profits, and academic institutions signing the Data Sharing Agreement, allowing each other to share their GIS data sets. The number of Cooperative Members is at the time of this publication an all-time high of 793.

To learn more about benefits of participating in the NYS GIS Data Sharing Cooperative, visit <http://www.nysgis/gis/datacoop.htm> or contact Sharon Oskam at NYS CSCIC at (5 1 8) 4 7 4 - 5 2 1 2 o r sharon.oskam@cscic.state.ny.us.



NYS Digital Orthoimagery Program Update

For the first time in its eight years of existence, the NY State-wide Digital Orthoimagery Program will be unable to produce the complete extent of orthoimagery planned for a year. While all of NYC and the western area of Chautauqua, Erie, and Niagara Counties were completely flown, portions of the Adirondack Region were not completed during the spring 2008 flight window due to weather-related issues. All of the Adirondack Region's urban (0.5-ft and 1-ft resolution orthoimagery) areas were flown, but only a small portion of the rural (2-ft resolution orthoimagery) area was flown in the Adirondacks.



The remaining rural areas in the Adirondacks will be flown as part of the spring 2009 flight program. NYS CSCIC is working with its NYSDOP contractor to help ensure a successful 2009 flying season.

To check on the status of the 2008 orthoimagery, plans for 2009, or to view and download orthoimagery from the first seven years of the NYSDOP, please visit the Orthoimagery portion of the NYS GIS Clearinghouse at <http://www.nysgis.state.ny.us/gateway/mg/>. Starting in 2008, the default orthoimagery will be delivered with four bands: red, green, blue, and near-infrared. The red-green-blue combination creates the familiar natural color imagery, while near-infrared-red-green combination creates the false color infrared imagery (CIR) which was only available as an optional upgrade in previous years of the NYSDOP. A single file can be displayed as natural color or CIR, depending on which 3-band combination is displayed. NYSDOP orthoimagery from 2008 will be delivered to counties in January and February 2009, and it should be available through the Clearinghouse in early spring, 2009.



Caption: Two views of a portion of a single 2008 NYSDOP orthoimage are shown. The orthoimage contains 4 bands (Near-IR, Red, Green, and Blue). The natural color view on the left is created by displaying the red band as red, green as green, and blue as blue. The CIR view on the right is created with Near-IR as red, red as green, and green as blue.

NYS Streets & NYS Address Points Data Sets

(formerly the “ALIS Data Sets”)

Data Includes:

Up-to-date Street Centerlines, including:

- Street names & alias/alternate street names
- Primary street names and addresses reflect E-911 addressing
- Route numbers
- Address ranges
- Feature based metadata (geometry source, y/n geometry accuracy, name source, & address source)

Address Points, including:

- Over 3.1 million unique address points
- Classified by TYPE (parcel centroid, building centroid, & street frontage point)

Data Sources:

- Data sets are custom built to NYS specifications
- Customized data build rules for each county
- Initially built from “best available” local and state sources (county parcel boundaries, ORPS parcel centroids, street centerline files, etc.)
- Supplemented with our Data Maintenance Provider’s sources and field collection vehicles
- Initial local/county participation was optional with 27 of the 62 counties providing source data

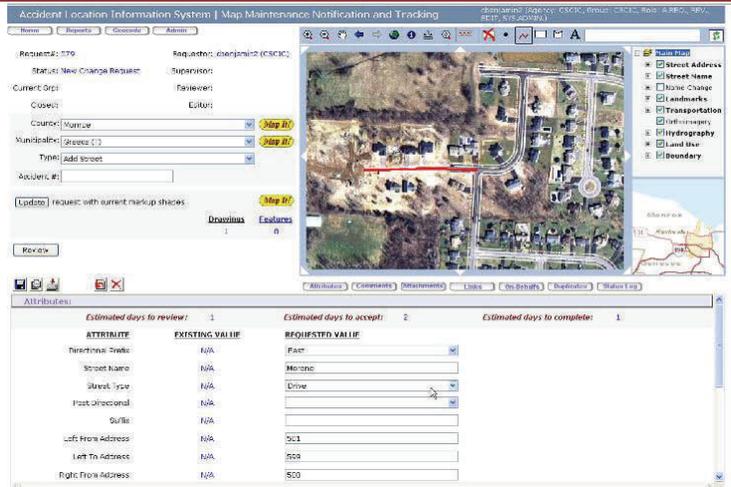
Data Available At No Cost To:

- State Agencies
- NYS Local Governments
- NYS GIS Data Sharing Cooperative Members

Distributed through the NYS GIS Clearinghouse <http://www.nysgis.state.ny.us>

Public version of Streets data now available

Publicly available MapMarker User Dictionaries



On-Going Maintenance:

- New feature extraction and improved geometry realignments utilize NYSDOP Orthoimagery
- Address updates using new or updated local government provided sources including street centerlines and parcel boundary data sets
- County/local government partners are providing:
 - street name and address changes
 - new streets
 - new Address Points
- Civil boundary improvements

Your Help Is Needed!

- Membership in the NYS GIS Data Sharing Cooperative is not required
- Provide new or updated address source data
- Edit street address attributes directly in the NYS Streets file
- Use the new browser based Map Maintenance, Notification, and Tracking (MMNT) application to submit street name and address edits
- Please contact John Borst or Cheryl Benjamin at (518) 474-5212 for more information



The NYS Department of Environmental Conservation's Mapping Gateway

The New York State Department of Environmental Conservation (DEC) recently expanded its public mapping offerings with the addition of the Mapping Gateway (<http://www.dec.ny.gov/pubs/212.html>) to its website. The Mapping Gateway provides DEC's partners and the public with a range of services that improve accessibility to the agency's extensive geographic information on a large variety of environmental topics. The Mapping Gateway consolidates existing applications with new mapping features that can all be easily accessed from a single location. The website's new and enhanced features include: the Map Collection, Interactive Online Mapping, Virtual Globe Data, and the Geodata Inventory.

The Map Collection

The Map Collection is a comprehensive list of printable maps on a range of topics from fishing and recreation to plants and wildlife. These maps have been developed over the years and serve many audiences. Visitors can now easily find links to the maps from a single webpage, reducing the time that users spend searching for information.

Interactive Online Mapping

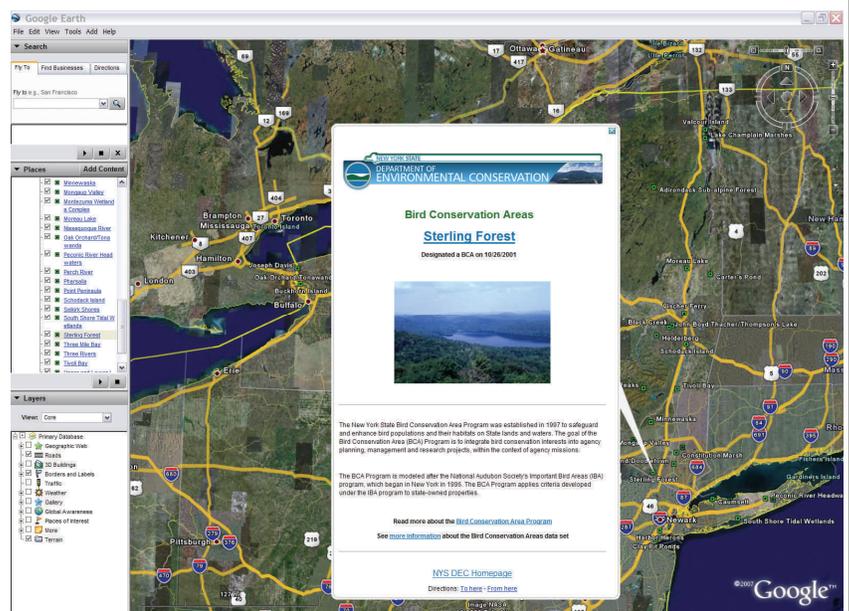
The Interactive Online Mapping applications, which cover a variety of topics, are organized in a single, convenient location. The Interactive Online Mapping page includes interactive applications for state recreational lands, mineral resources, the Hudson River estuary, and several other environmental topics. The interactive applications, developed over the years, allow visitors without GIS software to view and work interactively with DEC's geographic data. Tools are provided that allow users to zoom and pan around the maps as well as measure distances, search for locations, and view features' attributes.

Virtual Globe Data

The Virtual Globe Data collection is an exciting new offering that provides data in KML format, a file type that is viewed in Virtual Globe software like Google Earth or ESRI's ArcGIS Explorer. DEC's virtual globe data files conform to the KML 2.2 Specification recently adopted by the Open Geospatial Consortium (OGC) as the International standard for visualizing data in three-dimensional earth browsers. These standards allow for increased interoperability, user accessibility, and ease of data sharing. By taking advantage of the popularity of Google Earth, the decision to provide data in KML format greatly increases the use of DEC's data by non-GIS users. Bird Conservation Areas, Ecological Zones, New York State Dams, Lakes with Contour Maps, and a detailed North-South Hunting Zone Line are all datasets that are currently available in KML format. Additionally, users can search two databases, containing detailed information on Bulk Storage Facilities and Environmental Remediation Sites, and export their search results in KML format.

In addition to depicting features in a three-dimensional map, the Virtual Globe data files include robust attribute information describing the features. In the New York State Inventory of Dams KML file, detailed information tables are provided for each specific dam. Other KML files include descriptive text or photographs of specific features. Links to FGDC

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Google Earth with the Bird Conservation Areas data

(NYS DEC...Continued from page 9)

compliant metadata for the KML files are also included in all of the agency's KMLs.

A key feature of the Virtual Globe data is their ability to self-update once a user has downloaded a file. Every time a KML file is opened in Google Earth, a new copy of the data is automatically retrieved from DEC's web server. This ensures that public users have accurate, up-to-date information without needing to manually download new files.

Geodata Inventory

The Geodata Inventory is another new feature within the Mapping Gateway. The Geodata Inventory contains tools and interfaces that allow visitors to browse or search metadata records in order to learn about DEC's GIS datasets, and discover how to access the data itself. Many of the datasets are downloadable, as well as viewable in the Inventory's interactive online Map Viewer.

Visitors can select a thematic category (such as Air, Water, or Wildlife) and browse through descriptions of datasets pertaining to that particular subject area.

If visitors are looking for specific information, they may opt to search the inventory with criteria that describe "what," "where," and "when."

The Geodata Inventory's search results provide a short summary describing each dataset. Buttons and links are displayed with the summaries that allow users to download the data, view the data in the online Map Viewer, see more details about the dataset, or see the complete metadata. Experienced GIS users benefit from viewing the full metadata records and downloading the data for use in their own GIS software. Other visitors will benefit from reading summaries of the metadata, viewing data in the online Map Viewer, or downloading the KML files to view data in programs like Google Earth.

Geodata Inventory Search Page

The online Map Viewer provided by the Geodata Inventory is similar in functionality to the other interactive maps contained in the Interactive Online Mapping collection. DEC's data is displayed in the Map Viewer through ArcIMS image services. Tools are provided so users can pan, zoom, search for locations, adjust layer transparency, and view features' attributes.

Users add data to the Map Viewer by selecting the convenient "View Map" feature that is displayed with the dataset summary in the Geodata Inventory. Additional data can be added from within the Map Viewer itself by using the "Add Services" feature from the Map Viewer toolbar. Users then select a thematic category to add all DEC datasets pertaining to that subject area to the map. The Map Viewer also has the capability to display data supplied by other organizations

by way of Web Map Services (WMS). Users can add WMS layers to their map by selecting an organization from a drop-down menu in the “Add Services” feature. This menu contains federal organizations, like EPA and USGS, as well as local GIS servers hosted by counties and municipalities in New York State. Users may also enter the URL of a map service not listed in the drop-down menu to connect to any WMS available on the web. By taking advantage of the hundreds of existing online data sources, Map Viewer users can view DEC data within the geographic context of a range of local, state, and national data sets, greatly adding to the already robust resources that are part of the Mapping Gateway.

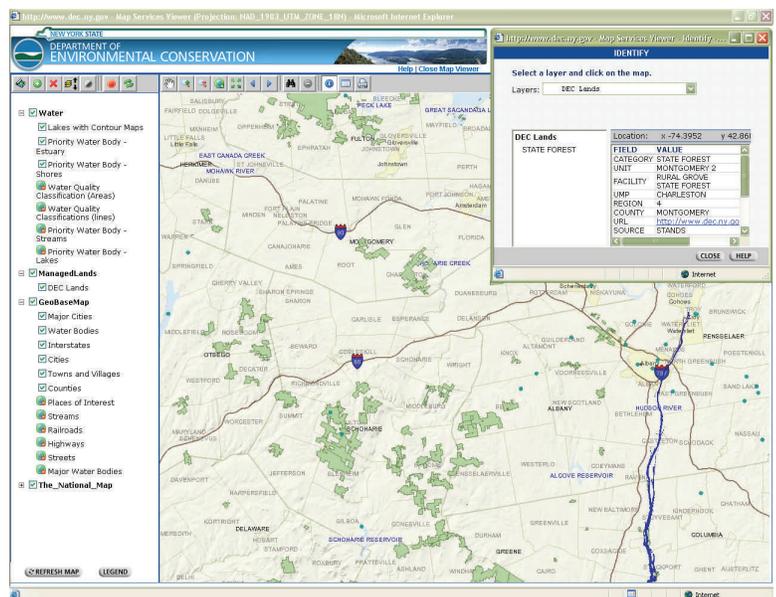
Development

Development of the Mapping Gateway began in 2007 with research on best practices and the assessment of existing online data repositories, clearinghouses, and portals. Existing applications were evaluated based on their functionality, usability, and interface design. Many of the most practical design elements and functionalities used in these applications were eventually incorporated into the Mapping Gateway.

ESRI’s Portal Toolkit 3.1 served as the framework for the Geodata Inventory and Map Viewer. DEC customized and enhanced the features provided by the Portal Toolkit to optimize usability and better meet the agency’s needs. The customizations were made with the goal of creating a tool that could be used intuitively by a wide range of users, regardless of their level of GIS experience. The browsing and searching interfaces were modified to allow for easier discovery of data. The presentation of metadata was enhanced by giving users the opportunity to select different metadata stylesheets. Each stylesheet organizes the components of the metadata differently and shows differing levels of detail. By offering multiple stylesheets, users can view the metadata in the format with which they are most familiar. The Map Viewer was enhanced with consideration for ease of use as well. The overall appearance of the toolbar and windows was streamlined and unnecessary features were removed. The content contained in the user Help pages provided by the Portal Toolkit was heavily edited and supplemented to provide a higher level of user support.

Future Growth

DEC has used GIS technology since the 1980’s and has shared its data with the public through web mapping applications and partnerships with organizations like the New York State GIS Data Sharing Cooperative. The Mapping Gateway improves DEC’s data sharing capabilities by consolidating existing applications with new mapping features that can all be easily accessed from a single location. The information provided by the Mapping Gateway supports the work of researchers and municipalities across the state and has led to increased internal collaboration among DEC’s divisions and regional offices. It has also strengthened and expanded partnerships with other organizations as downloadable data continues to be available through the New York State GIS Clearinghouse and Cornell University’s Mann Library. The Mapping Gateway, officially announced in May of 2008, will continue to grow as the agency generates new geographic data, metadata, and mapping applications.



Geodata Inventory's Map Viewer

Submitted by NYS Department of Environmental Conservation, 625 Broadway Avenue, Albany, New York 12233-2750

Alfred University, Google Earth & Google SketchUp

The process of distributing and interacting with spatial data has matured in recent years. Through novel user-friendly virtual globe programs, information sharing and consumption is open to a wider audience. To explore these new technologies and their applicability to the visualization of environmental data, the Division of Environmental Studies at Alfred University offered a special topic course: “Utilizing Geospatial Technology to Deliver Field Data.”

The class was offered as two seven-week (half-semester) sections and was made up of a mixture of geospatial thinkers. Several students had no formal exposure to geospatial concepts/software prior to this class; however most students had taken courses in desktop GIS. The goal of the course was to find out if a virtual globe platform was an effective resource for geospatial communication.



Research into available virtual globe programs led to a class decision to work in Google Earth and Google SketchUp. This decision was made because Google had a well-established infrastructure supporting new users of its programs as well as an excellent online community. Students felt this would facilitate the course goal of communicating geospatially through the creation and distribution of geospatial content. Research also led the class to recognize the efforts of other colleges to bring positive attention to their campuses using geospatial technology. This recognition, combined with the discovery that Alfred, New York – Alfred University’s home – was poorly represented in Google Earth, led to student interest in joining this geospatial movement by utilizing the latest technology to expand Alfred University’s digital footprint.

After selecting Google Earth and Google SketchUp as the primary geospatial resources in this project, students set out to acquire knowledge about these programs. The class learned how to use them through online video tutorials and Google community support; however, the technique used most often was trial and error. The class created 3D models of build-

ings and facilities on Alfred University’s campus, Placemarks of local places of interest, Placemarks of videos about AU, Placemarks describing student research projects, and panoramic pictures using Gigapan. The figures below provide examples of student research displayed in placemarks.

As the class produced content throughout the semester, they considered how to distribute this data. Whenever possible existing repositories were utilized, for example the 3D Warehouse for building models. The limitation of the warehouse is that it only accepts 3D models even though other data can be created in Google Earth. However, as no single repository existed for the full range of class content – new base imagery for Alfred, Placemarks, models – students created their own online repository called AUGE or Alfred University in Google Earth (people.alfred.edu/~auge). Figure 3 displays the gallery page of the AUGE website. The AUGE website is intended to distribute and promote the data created to a target audience of current students, prospective students, and local community members. It also became a place to compile helpful information (FAQs) about working with Google Earth and Google SketchUp the AUGE team found hard to come across all in one place. Also recorded in the FAQs are lessons learned from the trial and error approach to creating content.

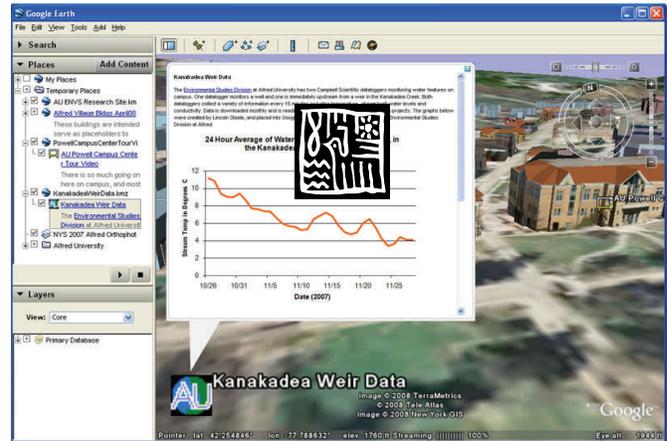
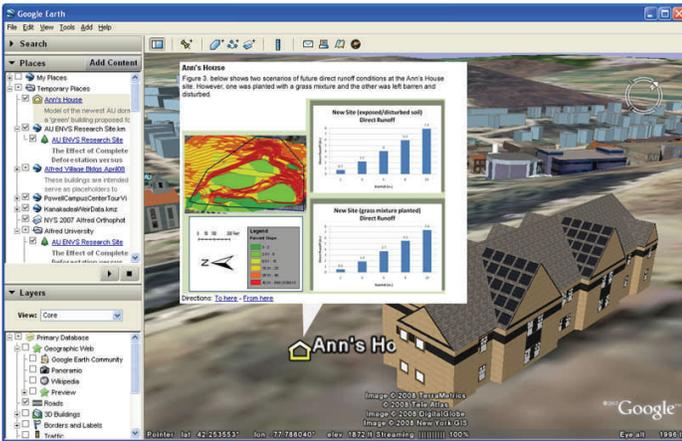
At the conclusion of the semester, students presented their work on Alfred and their own research to Alfred University and Alfred State College faculty and staff, as well as local GIS professionals. Students demonstrated how geospatial technology such as Google Earth and Google SketchUp can be used to deliver a variety of content to

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(Alfred University...Continued from page 12)

a diverse audience. Although Google Earth and Google SketchUp are not traditionally thought of as environmental research-sharing tools, the course demonstrated that they are effective in this capacity, especially when supported by an online repository providing one-stop access to related content.

Submitted by Yaicha Winters, Alfred University Class of 2008, ydw1@alfred.edu. For more information, please contact Justin at griggj@alfred.edu.



(Strategic Plan...Continued from page 1)
the strengths and address the gaps and weaknesses.

“In these challenging times it is more important than ever that we have a plan in place to focus our limited resources in the most effective manner. This Plan supports those needs by identifying cooperative strategies for building and maintaining the State's spatial data infrastructure”, said Director Pelgrin. “I want to thank everyone who participated in the development of the plan for your commitment to improving GIS in New York State. We look forward to your continued involvement as we implement the Plan.”

Save The Date!
2009 NYS GIS Conference

**NYS
GIS
2009**
25th Annual Conference

October 26-27 2009
Crowne Plaza Hotel – Lake Placid, NY
<http://www.esf.edu/nysgisconf/>

Poster
Session

Award
Ceremony

Vendor
Booths

Key Note
Presentation

Workshops

User
Presentations

Special thanks to the contributors to this issue: Yaicha Winters and Justin Grigg (Alfred University), Jeff Herter and Rebecca Newhall (New York State Department of State, Division of Coastal Resources), Rob Lord (Niagara County Community College), the NYS Department of Environmental Conservation (NYSDEC) and to Cheryl Benjamin and Tim Ruhren of the NYS Office of Cyber Security and Critical Infrastructure Coordination