



## From the CT GeoDESK

Summer Edition 2011  
Volume 4, Issue 2

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These articles are published for the education and enjoyment of the GIS community, and may be edited to fit space available.

The CT Geospatial Council does not endorse or recommend any software programs.  
[www.ct.gov/gis](http://www.ct.gov/gis)

## Mapping Emergency Sirens in Lyme and Old Lyme By Peter Sandgren

GIS saves field work in locating sirens at highest elevation. The Emergency Management Directors (EMDs) of Old Lyme and Lyme recently asked for maps of their towns showing the locations of the old siren system for Millstone Station in Waterford. Those sirens are being removed as they have already been replaced by a network of more powerful sirens. The towns are planning on increasing the efficiency of their emergency radio system by mounting radio repeaters on the poles that sit at some of the highest elevations. *Continued on page 3.*



## Japan Tsunami Debris Tracking

National Oceanic and Atmospheric Administration

NOAA's National Environmental Satellite, Data, and Information Service (NESDIS) has been tracking the debris fields over time. Soon after the tsunami, fields of debris were visible from satellites. Over time the debris dispersed, and as of April 14, NESDIS could no longer detect debris in satellite imagery. They are convening scientists to review available data, including modeling output, and provide insight on debris fate and transport.

NOAA has run a model using OSCURS (Ocean Surface Current Simulator). Below shows the results of the NOAA Ocean Surface Current Simulator model. (Courtesy of J. Churnside).



*Japan* Above, the mass of debris stretches for miles off the Honshu Coast soon after tsunami. Over time and distance, the debris patches dispersed. (Photo courtesy of the U.S. Navy)



## Marine Debris TRACKER

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By Jenna Jambeck PhD, Faculty of Engineering, University of Georgia

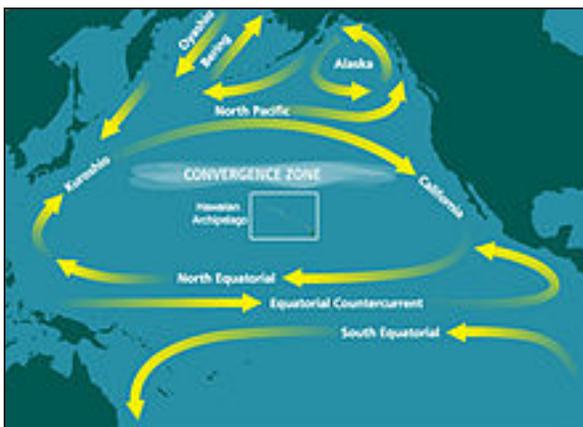
Marine Debris Tracker is a joint effort of the NOAA Marine Debris Division and the Southeast Atlantic Marine Debris Initiative (SEA-MDI) out of the University of Georgia Faculty of Engineering.

The *Marine Debris Tracker* mobile application allows you to help make a difference by checking in when you find trash on our coastlines and waterways. You can easily track and log marine debris items from a list of common debris items found on the beach or in the water. The app records the debris location through GPS and you can view the data on your phone and submit to the Marine Debris Tracker Website for viewing and download later (requires registration, which you can do from the app). Your username is shown on the website for only the most recent 5 items tracked, but GPS coordinates are not shown. All downloadable and mapped data with GPS coordinates is shown anonymously to the public. More information is available on the website under "How do I Start Tracking?"

The Mobile App *Marine Debris Tracker* is a joint partnership of the NOAA Marine Debris Division and the Southeast Atlantic Marine Debris Initiative <http://sea-mdi.engr.uga.edu/>, located within the Faculty of Engineering at the University of Georgia. A primary goal of SEA-MDI is to use innovative technologies and unique expertise to add culturally relevant outreach tools and information to the current NOAA Marine Debris Division. *Marine Debris Tracker* is the first product of this initiative. It is our hope that it will spread awareness of marine debris, as well as serve as an easy to use and simple tool for marine debris data collection. Please feel free to provide feedback to us individually or at [sea.marine.debris@gmail.com](mailto:sea.marine.debris@gmail.com). Need a customized Marine Debris App? *Marine Debris Tracker* will likely soon serve your needs or contact us for more details on how that can be done.

Marine debris has been, and continues to be, a persistent and pervasive pollution source. *Marine Debris Tracker* allows for really fast and efficient data collection, which is critical to designing plans to prevent marine debris. Another part of the solution is to get people to even notice (and then pick up) debris. This app is one way we are trying to reach people to have them take notice and then help mitigate the issue... and if you are noticing trash, you are also much less likely to litter (although debris comes from other sources too). While this app collects data that people can use in various ways to assess the issue, one of the primary goals is to get the app out to educate as much of the public, in a culturally relevant way, about marine debris and its harmful impacts.

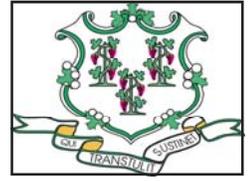
*Marine debris is a global problem affecting everything from the environment to the economy; from fishing and navigation to human health and safety. Marine debris also comes in many forms, from a cigarette butt to a 4,000-pound fishing net.*



Map of the North Pacific Subtropical Convergence Zone (STCZ) within the North Pacific Gyre. Also the location of the Great Pacific Garbage Patch.



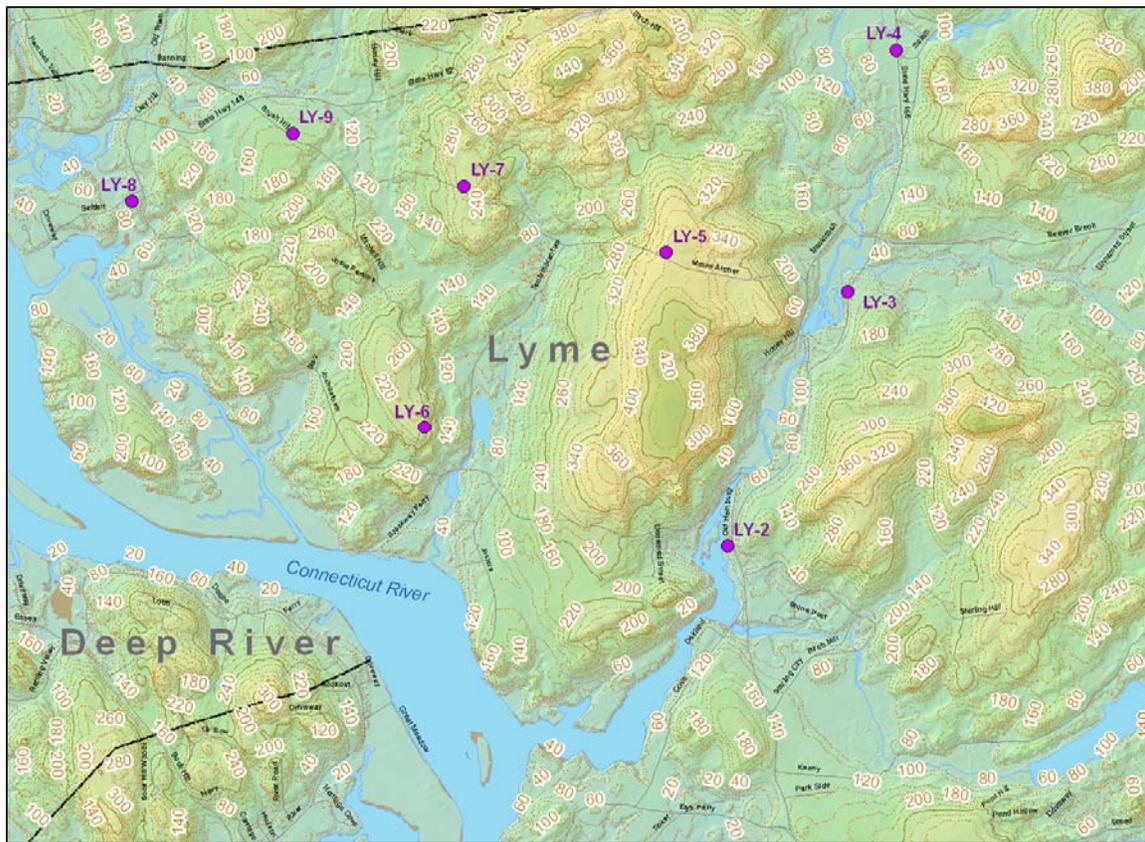
Marine debris on the Hawaiian Coast



*Continued from page 1.*

The Old Lyme EMD spoke to Millstone and asked if the plant could leave a few poles when they removed the old sirens, and Millstone contacted the Department of Emergency Management and Homeland Security (DEMHS). The next day maps were created for both Old Lyme and Lyme showing the old sirens, and elevation contour lines and shaded relief, resulting in a product that made the topography of these towns easy to visualize.

Credit also goes to map services from CT ECO [www.cteco.UCONN.edu](http://www.cteco.UCONN.edu). (P. Sandgren, DEMHS)



*Sirens are maintained and routinely tested. Some communities routinely test their sirens and some use them as part of their fire warning systems.*

There are approximately 80 sirens located in the communities within Millstone's Emergency Planning Zone. These communities are East Lyme, Groton City, Groton Town, Ledyard, Lyme, Montville, New London, Old Lyme, Waterford, and Fishers Island, NY. These sirens can alert the public to a nuclear power plant emergency, natural disaster, or other major emergency. Each community's officials, as necessary, activate their own sirens. Sirens alert the public to tune to their local emergency alert stations (radio or television) for emergency information or instructions.

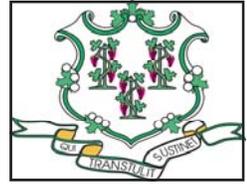
**Primary Emergency Alert Systems Radio Stations**

- |                |                |                 |
|----------------|----------------|-----------------|
| WTIC-1080 A.M. | WDRG-1360 A.M. | WCTY- 97.7 F.M. |
| 96.5 F.M.      | 102.9 F.M.     |                 |

**Emergency Alert Systems TV Stations**

- |                 |                 |                  |
|-----------------|-----------------|------------------|
| WFSB channel 3  | WTNH- channel 8 | WHPX- channel 26 |
| WVIT-channel 30 | WTIC-channel 61 |                  |

# Invasive Aquatic Plants



## Using GIS to Fight Connecticut's Invasive Aquatic Plant Problem By Gregory J. Bugbee, UCONN Department of Environmental Sciences

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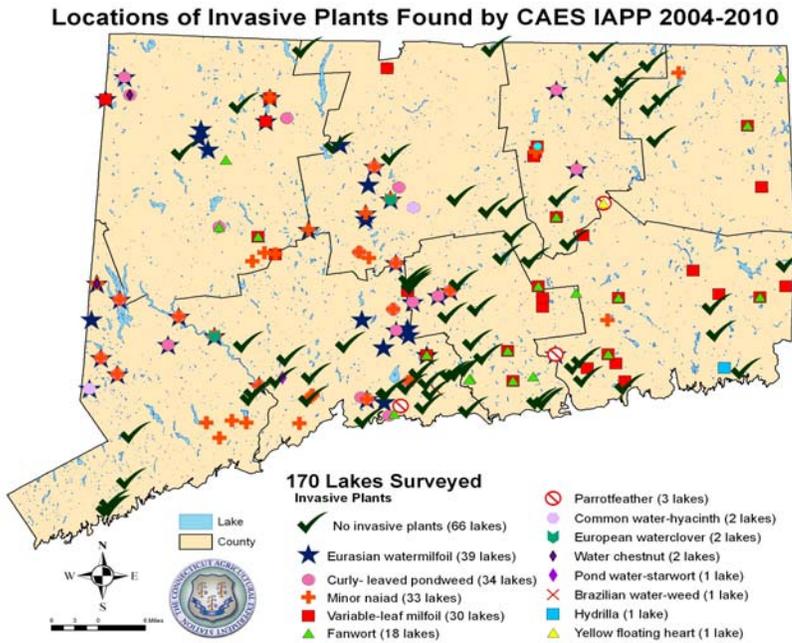
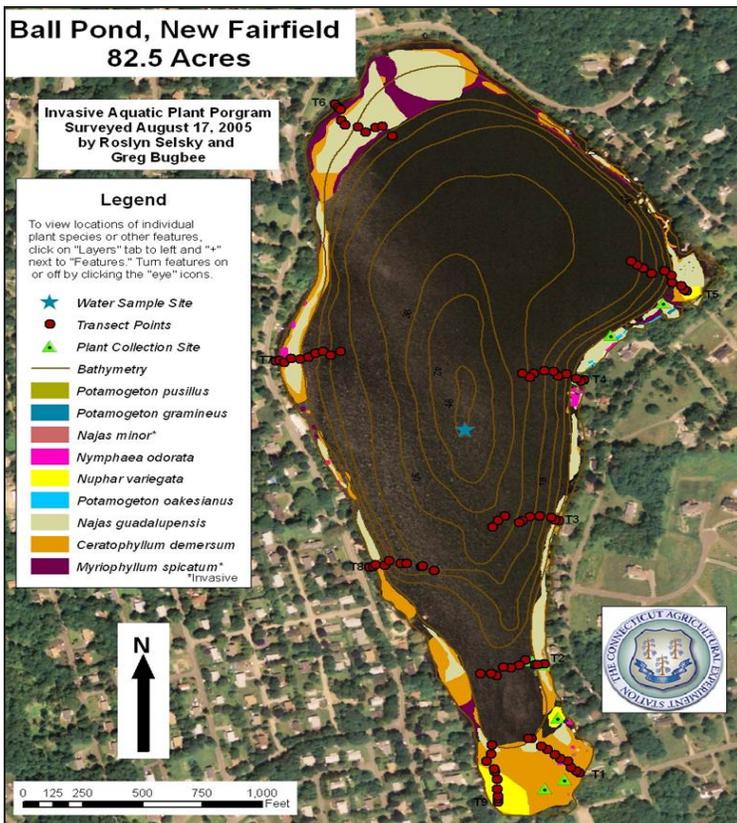


Figure 1. Locations of invasive plants in Connecticut found by CAES IAPP surveys, 2004 – 2010.



Connecticut is home to more than 3,000 lakes and ponds that provide drinking water, wildlife habitat, recreational opportunities, increased real estate values, and hydro-generation of "green" energy. These bodies of fresh water are among the State's most valuable natural resources. One of the greatest threats to our lakes and ponds is non-native invasive aquatic plants. With few natural enemies, these plants can spread rapidly and destroy native ecosystems.

The Connecticut Agricultural Experiment Station Invasive Aquatic Plant Program (CAES IAPP) began surveying lakes and ponds in 2004 to determine the extent of the invasive aquatic plant problem. To date, 170 water bodies have been surveyed (Figure 1). Over 100 plants species have been documented with 13 being classified as non-native invasives. Approximately two-thirds of the water bodies contained one or more invasive species with some lakes and ponds containing as many as four. Geospatial technology plays a critical role in our surveys.

Based on field observations, we create maps showing plant locations using ArcGIS® (Figure 2). We then convert the maps to pdf format and put them on our website ([www.ct.gov/caes/iapp](http://www.ct.gov/caes/iapp)) where the public can utilize the interactive layer feature to select the plants they want to view, zoom in to selected sites, etc. We also set up georeferenced transects, in each lake or pond, with global positioning systems (GPS) that have submeter accuracy (Figure 2). Each transect contains 10 points that are positioned perpendicular to the shore. Plant species, abundance, depth, sediment type etc. are recorded at each point to create a database that documents current conditions and will help track future changes. *Continued on page 4.*

Figure 2. Finished lake map showing locations of native and invasive plant species, transects, etc.





# Invasive Aquatic Plants

Continued from page 3.

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Candlewood Lake, our largest lake, is dominated by a single invasive species called Eurasian watermilfoil. The plant grows nearly 10 feet tall, limits boating, is a hazard to swimmers, and poses a threat to the downstream Rocky River hydrogenerating facility (Figure 3). We do annual surveys of Candlewood Lake using a Trimble ProXT® GPS inked to an onboard computer. All patches of milfoil are circumnavigated, plant abundance, depth, and sediment type are recorded. We find between 200 and 500 acres of milfoil depending on how well the previous winter's water level drawdown acted in controlling the plant (Figure 3). Our data is being used to evaluate the efficacy of each year's drawdown and plan future improvements. We are also investigating using remote sensing to locate the milfoil on



Eurasian Watermilfoil

Using National Agricultural Inventory Program (NAIP) aerial imagery and the visual spectra we have been able to find about 75 percent of the milfoil detected by our field survey. Controlling invasive aquatic plants is particularly challenging because care must be taken to protect the native plants that are important part of the aquatic ecosystem. CAES IAPP has ongoing experiments using mechanical, biological and chemical controls where GIS technology is vital. By linking our underwater camera to a GPS/GIS system, we can mark patches of invasive species to be controlled and areas of native species to be avoided. Using this technique and a selective herbicide application, we have successfully suppressed milfoil without harming native plants in Bashan Lake and East Had-dam . In Crystal Lake, Middletown, we have sampled vegetation on one second latitude and longitude intervals and proven Eurasian watermilfoil can be nearly eliminated by an herbicide application that is applied in April when native species are less susceptible (Figure 4). For more information on the

CAES IAPP program visit our webpage at [www.ct.gov/caes/iapp](http://www.ct.gov/caes/iapp).

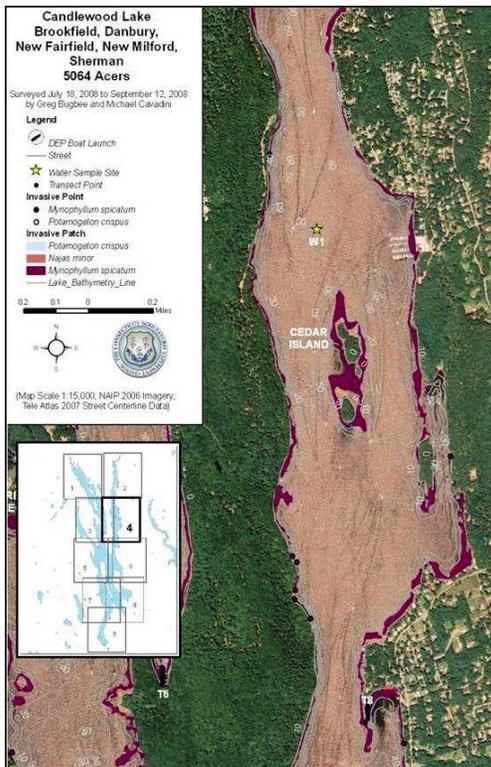


Figure 3. Eurasian watermilfoil clog-ging cove in Candlewood Lake

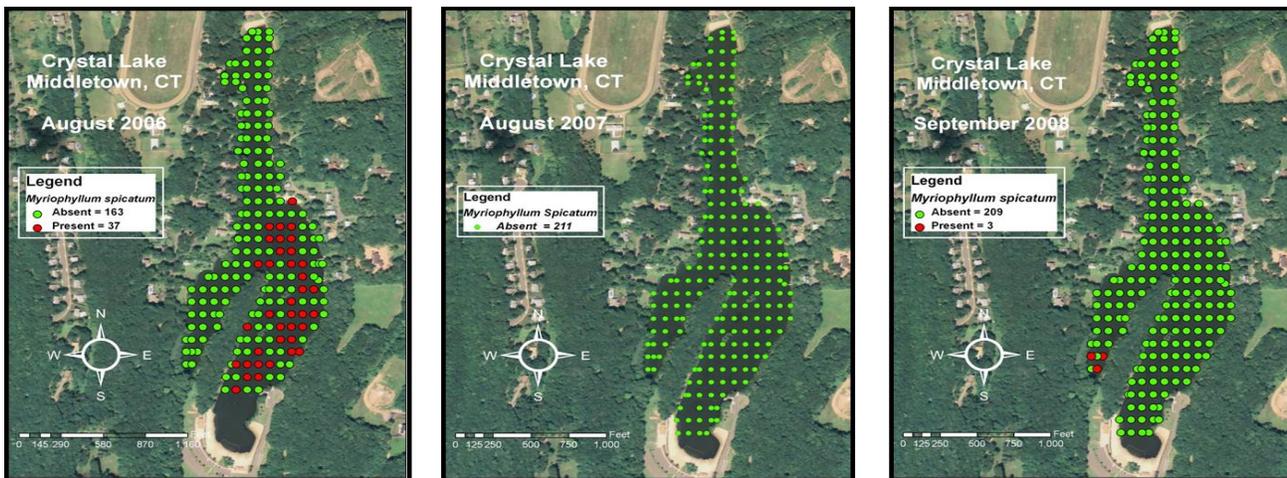


Figure 4. Yearly monitoring of Eurasian watermilfoil in Crystal Lake before (2006) and after herbicide application (2007, 2008) using a latitudinal and longitudinal sampling grid.

# Geo-Tidbits



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**GEORECTIFICATION** The New York Public Library (NYPL) has a web map browser, georectification and tracing toolkit that adds Geographic Information Systems (GIS) functionality to their extensive digital map collection. Upwards of 10,000 maps have been digitized thus far with plans to increase those digitally available to 17,000 by the end of 2013. Those can all be found on the [maps.nypl.org](http://maps.nypl.org).

## Hurricane Season 2011

starts June 1st and ends on November 30th. You can track and map all storm information on National Oceanic Atmospheric Administration (NOAA) at <http://www.nhc.noaa.gov/>



**World Sunrise Map**  
Watch the sun rise and set all over the world on this real-time, computer generated illustration of the earth's patterns of sunlight and darkness. Updated every 3 hours. <http://www.die.net/earth/>



Photo taken at Bradley Point West Haven



### What is your old atlas worth?



The Mercator's Atlas of Europe: Gerardus Mercator was a Flemish cartographer who created the cylindrical world map projection that is still used today. In 1967, a Dutch schoolmaster on vacation in Belgium discovered a stack of old maps bound in folio style. They were later determined to be Mercator's maps of Europe from the 1500s. In 1979, Sotheby's sold this atlas to the British Rail Pension Fund, then it was later sold to the British Library in May of 1997 for a reported

**\$1,243,000**

**The Hunt - Lenox Globe** is a hollow copper globe that measures about 5 inches in diameter. It is two parts, joined at the equator and held together by a wire strung through holes at the poles. It is notable as the only instance on a historical map of the actual phrase *HC SVNT DRACONES* (in Latin *hic sunt dracones* means "here be dragons.") The phrase appears on the eastern coast of Asia and was used to denote dangerous or unexplored territories.

It is among the first cartographic representations of the **Americas** known to geographers. Of the two continents in the Western hemisphere, only South America is actually represented, appearing as a large island with the regional names *Mundus Novus* (the New World), *Terra Sanctae Crucis* (the Land of the Holy Cross), and *Terra de Brazil* (the Land of Brazil). North America is represented as a group of scattered islands.

The globe was prepared around the 1510 by an unknown artist. It was purchased in Paris in 1855 by architect Richard Morris Hunt, who brought it to America and gave it to James Lenox, whose collection became part of the New York Public Library, where the globe still resides.



## Geo-Education Offerings



### University Certificate in Geographical Information Systems Offered

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The Department of Continuing Education and Community Engagement at Central Connecticut State University (CCSU), New Britain, Connecticut, will begin offering courses toward a University Certificate in Geographic Information Systems (GIS) beginning Fall 2011. The GIS Certificate Program is designed for professionals seeking to enhance their knowledge and skills in Geographic Information Systems. It is most beneficial to entry and intermediate level GIS users who lack formal training and education in GIS. There are no prerequisites and no previous work experience in geographic information technologies is required. The program is an evening program. Courses are taught as on-campus instructor-led instruction.

The GIS Certificate Program provides students with broad exposure to principles and applications of GIS. A student who has earned the Certificate in GIS will be well-versed in general GIS theory and will have knowledge and/or practical exposure to the following: 1) hardware and software used in GIS, 2) planning and construction of spatial databases, 3) GIS analyses (performed on data related to the student's area of interest), and 4) representation of data in both mapped and tabular form. Requirements for the Certificate have been designed to parallel skills needed by GIS professionals.

The certificate in GIS provides students with knowledge and experience to work in the field of GIS both in the public and private sectors. The combination of courses focuses on the acquisition, storing, visualization, modeling, and analysis of information on spatial phenomena with some emphasis on geospatial applications.

**For additional information, please contact Richard Cheney at 860-832-2270 or email [cheneyris@ccsu.edu](mailto:cheneyris@ccsu.edu).**

### UConn CLEAR's Geospatial Training Program 2011 Summer/Fall Training Dates

- Mashup Madness: Using Google Tools to Create Maps on the Web - July 12
- Pictures, Points and Places: An Introduction to GPS - July 28-29
- Geospatial Technologies at Work: An Introduction to GIS - October 19-21
- Creating and Using Geospatial Models: Introduction to ModelBuilder - Fall 2011, Date TBD
- Developing Custom Geoprocessing Tools: An Introduction to Python Scripting - Fall 2011, Date TBD

For more information, visit <http://clear.uconn.edu/geospatial> or contact Cary Chadwick at [cary.chadwick@uconn.edu](mailto:cary.chadwick@uconn.edu).

### Yale University Summer Offerings

Spend time this summer at Yale University learning about Africa, East Asia, Europe, Latin America or the Middle East through the Program in International Education Resources. It is being held at the Yale MacMillan Center from July 5th to July 10th. More information at [www.yale.edu/macmillan/pier](http://www.yale.edu/macmillan/pier)

July 5-10 "The Changing Face of a Continent: Democracy and Developments in Contemporary Africa"

July 5-10 "Diverse Landscapes: Exploring the Environment of Silk Road Regions in China"

July 5-10 "Immigration in Europe: Historical Trends and New Challenges"

July 5-9/July 9-16 "Colonial Latin America: Part I Workshop at Yale and NYC, Part II Optional Field Trip to Dominican Republic" (This Summer Institute is Full).

July 5-10 "Religion and Politics in the Middle East"

## Coastal Resilience Project



### GIS helps Coastal Communities in Connecticut Visualize and Plan for Sea Level Rise and Storms

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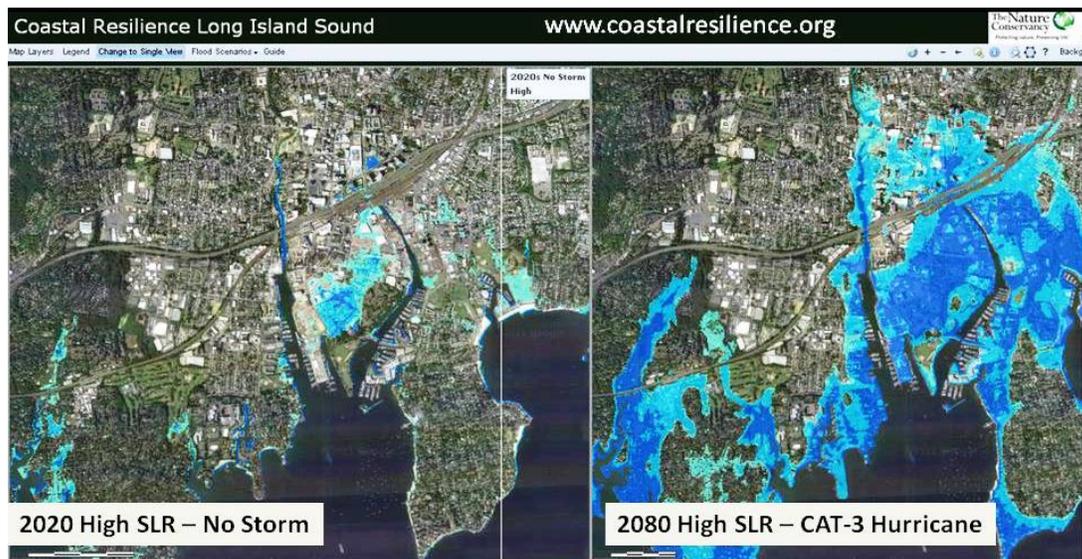
By Dr. Adam Whelchel and Ben Gilmer, The Nature Conservancy

In response to increasing concerns associated with sea level rise and storm surge along the Connecticut coast, The Nature Conservancy and partners (NOAA Coastal Services Center, Columbia University, NASA, Association of State Floodplain Managers, Pace Land Use Law Center) have launched a web-based interactive website and decision support tool known as Coastal Resilience ([www.coastalresilience.org](http://www.coastalresilience.org)). The Nature Conservancy's Coastal Resilience program responds directly to the needs of local decision makers who often lack the tools to transparently examine and balance different management objectives such as coastal hazards and conservation. Critical information shortfalls limit the ability of coastal communities to address climate change-related risks. The Coastal Resilience program is designed to provide a decision support platform and information to better inform local decision making and implementation of coastal solutions that incorporate natural resources and their benefits to communities.

The Coastal Resilience program involved the construction of a website, the development of a "what can be done" resource to provide communities approaches for adapting to coastal change and reducing losses for people and ecosystems, and a geospatial database and interactive web mapping application (Future Scenarios Map). The web mapping application integrates a great deal of geospatial information that characterize such features as land use/cover, housing, transportation, commercial infrastructure, and human population demographics and social vulnerability. Outreach to coastal communities to increase awareness of Coastal Resilience and the issue. If you have interest in hosting an informational session please contact Adam Whelchel ([awhelchel@tnc.org](mailto:awhelchel@tnc.org)).

Several original data layers are included: "downscaled" sea level rise projections for Long Island Sound, projected replacement costs of structures under different sea level rise and/or storm surge scenarios (FEMA's HAZUS-MH tool), and "advancement zones" for upslope migration due to sea level rise of critical natural resources (i.e., salt marsh). Coastal inundation scenarios are constructed upon high resolution LiDAR (Light Detection and Ranging remote sensing) elevation data used to generate digital elevation models and map sea level rise and/or storm surge. The "downscaled" sea level rise projections follow the four-factor IPCC method which includes thermal expansion, land ice melt, spatial change in dynamic topography, and land subsidence.

The development of this information relied on GIS software to estimate projected impacts and opportunities as described via meta-data embedded with each layer within the mapping application. The web mapping application includes a great deal of functionality such as split screen viewing to allow for side-by-side comparison of various sea level rise and/or hurricane scenarios.



Stamford Harbor is shown on the left.



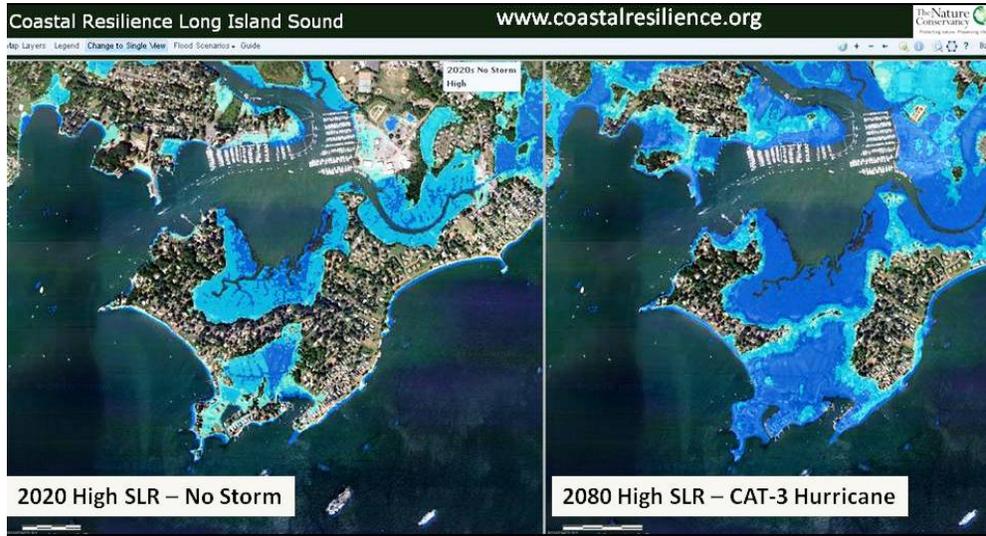
*Continued on page 9*



*Continued from page 8.*

The Coastal Resilience program's website and mapping application is intended to advance adaptive land use action and policy, natural resource management, emergency response and planning when considered and applied in accord with the needs of coastal communities in Connecticut and New York. While the presentation and free access to this information is a critical first step, actions to increase the resilience of communities will require substantial changes in the way think about and manage the coast line of Long Island Sound. The Nature Conservancy and partners are conducting outreach to coastal communities to increase awareness of Coastal Resilience and the issue. If you have interest in hosting an informational session please contact Adam Whelchel (awhelchel@tnc.org).

Branford Harbor is shown on the left.



## 20th Annual Connecticut High School Geography Challenge Held at The University of Connecticut

The 20th annual Connecticut High School Geography Challenge was held at The University of Connecticut in Storrs on Tuesday, May 17, 2011. Eighteen teams from public and private high schools around Connecticut competed this year. The teams from Danbury HS, Staples HS of Westport, and Housatonic Valley Regional HS in Falls Village all left before 7 o'clock that morning to be in Storrs in time for the annual competition, while the teams from Edwin O. Smith HS of Storrs went to their first period classes and then walked to the competition.

E.O. Smith HS is the only school to attend all 20 Geography Challenge competitions, and they won the 2011 event. In a close finish Housatonic Valley Regional HS edged out Danbury High School for second place in this year's Geography Challenge. The other schools that competed this year were Bacon Academy of Colchester, Hamden HS, East Lyme HS, Manchester HS, Metropolitan Learning Center of Bloomfield (a CREC magnet school), New Britain HS, Norwich Free Academy, and Notre Dame Catholic HS of Fairfield.

The school teams competed in three morning events centered on the theme of "Fresh Water": Problem-solving, map reading, and orienteering. The problem-solving and map reading activities were held in Homer Babbidge Library. This year the students used GIS applications in two of the map reading activities. In the afternoon the teams competed in a geography bowl event at the Thomas J. Dodd Center on campus, which was followed by an awards ceremony.

To celebrate the 20th anniversary of the first Connecticut high school geography competition in 1992, Edward Lang was the master of ceremonies for the afternoon geography bowl and presented the winning teams with their awards this year. Mr. Lang and the late John Stedman of Manchester High School began the first Connecticut Geography Olympiad to engage students in geography activities and to promote geography instruction in the state.

Congressman Joseph Courtney (D-CT) of the Second Congressional District stopped by and visited with the students competing in orienteering, map reading, and problem-solving. Congressman Courtney is a strong supporter in Congress of geography education, having signed onto HR 885, the Teaching Geography is Fundamental bill.

Registration for the 2012 CT High School Geography Challenge will be sent to all social studies department heads in Connecticut's high schools next January.



## Bee News

**THIRD TIME IS A CHARM** by Submitted by Bill DeGrazia, Connecticut Bee Coordinator

Michael Borecki, a sixth grader from Middlesex Middle School in Darien, took first place in the 23<sup>rd</sup> annual Connecticut Geographic Bee held on April 1. The Bee, a program of the National Geographic Society and sponsored at the state-level by Google™ and Plum Creek, was held on the campus of Central Connecticut State University. Michael, competing in his third Connecticut State Bee final won by answering questions about cultural places, Google™ images on suburbanization, and subduction zones in the Andes among many others.

The winner received a complete digital version of the National Geographic Magazine from 1888-present, a \$100, and an all-expense paid trip to Washington, DC to compete in the finals of The National Geographic Bee on May 24-25.

101 fourth-to eight graders from across the state took part in the Bee. This represented over 200 schools and close to 100,000 students. Samuel Weinberg, a seventh grader from Bristow Middle School in West Hartford finished third. Other top ten finalists were Mairead Deacy of Wilton, William Burns of West Hartford, Justin He of Windsor, Vikram Chaudhuri of Fairfield, Jared Kranc of Colchester, Samuel Berry of New Haven, and Patrick Ambrogio of Shelton. Michael competed in the national competition and scored a perfect score through the first seven rounds before missing two questions and a chance to advance to the top ten. First prize for the National Bee winner, Tine Valenic of Colleyville Middle School in Colleyville, Texas, was a \$25,000 college scholarship, a trip to the Galapagos Islands, and lifetime membership in the National Geographic Society.

Remember it is never too early to think about next year's Bee. Information about the Bee, including registration can be found at [www.nationalgeographic.com/geographicbee/](http://www.nationalgeographic.com/geographicbee/).

## **Learn About GIS in Public Safety— New Training Tutorial By The National Alliance for Public Safety GIS Foundation (NAPSG Foundation)**

NAPSG co-hosted a webcast training session with ESRI that provided a comprehensive overview for how public safety can utilize GIS across agency operations. This training session (titled, "A New Paradigm in GIS for Public Safety") provided law enforcement, fire service, emergency management, and local GIS analysts with a deeper understanding of the evolution and latest innovations in geospatial technology & how it can improve emergency preparedness and response. It covered the following specific knowledge areas & skill sets:

Latest developments in geospatial technology for public safety

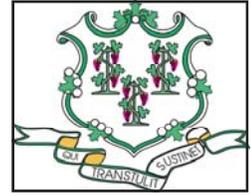
Management strategies for how GIS can be an integral tool in all your agency's daily operations

How to manage staff & resources to maximize your existing GIS investment

Intersections in GIS use across public safety disciplines as a key to being collaboration with your colleagues in fire service, law enforcement, emergency management, etc.

**Provided here is a shortened version of it as a video training tutorial. Click on the link below to access the New Paradigm in GIS for Public Safety training tutorial as a video.**

<http://www.napsfoundation.org/blog/news/110-learn-gis-public-safety>

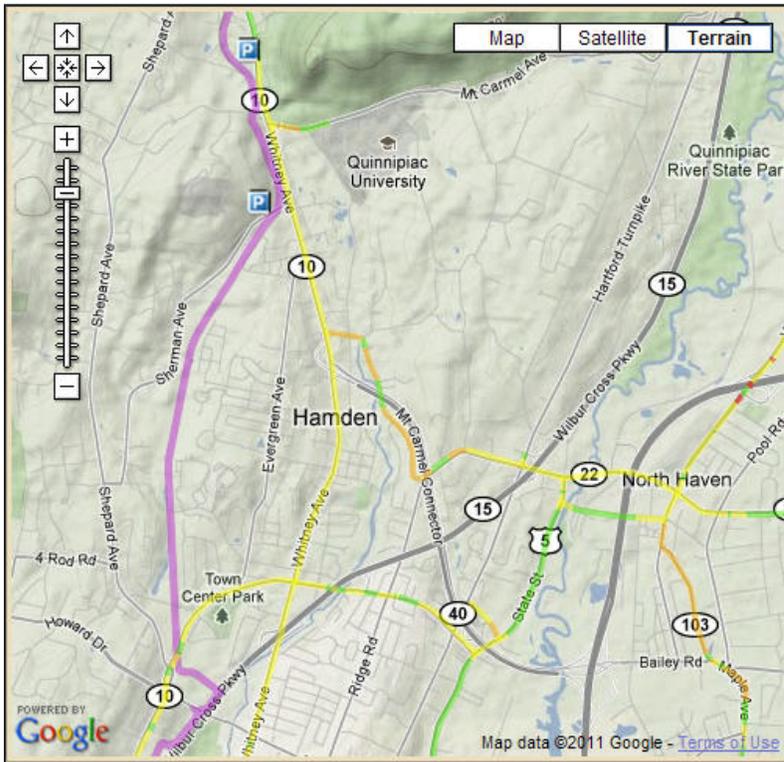


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## DOT Bicycle Map Website

By Katherine Rattan  
Non-Motorized Transportation Coordinator, Connecticut Department of Transportation

The Connecticut Statewide Bicycle Map Website is sponsored by the Connecticut Department of Transportation. CT DOT rolled out a new bike map and bike and pedestrian plan in 2009. These are displayed on a new website, [www.ctbikemap.org](http://www.ctbikemap.org). In addition to the map and plan, the website also offers links to regional information sources such as the regional planning agencies, FHWA and various advocacy groups. Feedback is also collected from this site; there is an opportunity for both general feedback and feedback on accidents and riding hazards.



In an effort to provide the most accurate information to users, CT DOT utilized the Google platform for a new on-line map. Using the Google platform makes the map accessible to users who may not be familiar with other GIS software as well as simplifying the collection and display of regional bike route data collected from various sources.

The benefits of online mapping are numerous. The web based mapping allows us to update the bike infrastructure mapping between bicycle and pedestrian plan updates giving constituents the most accurate information available. The online map allows users to make informed decisions about where they want to ride. In this iteration we have based on color coding of state routes by "suitability". Suitability was determined by shoulder width and average daily traffic. Giving cyclists more information allows them to choose the route that is appropriate for their skill level. The map also has layers for multi-use trails, trail parking and bike accessible ferries. CTDOT is committed to providing information to the public and continues to improve this online mapping tool. The bicycle suitability system was adopted assigning each segment of state roadway one of five classifications, ranging from most suitable to least suitable. A road segment's suitability is based on its traffic volumes, measured in Average Daily Traffic, and shoulder width. Generally, the suitability of a segment increases with wider shoulders and lower traffic volumes. The table left displays the suitability matrix.

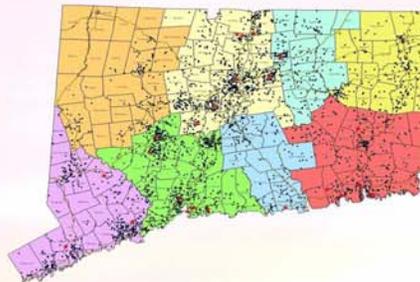
Average Daily Traffic (# vehicles)	Shoulder Width			
	0 Feet	1 - 3 Feet	3 - 6 Feet	Greater than 6 Feet
Less than 2,500	Least Suitable	More Suitable	Most Suitable	Most Suitable
2,500 - 5,000	Least Suitable	Suitable	More Suitable	Most Suitable
5,000 - 7,500	Least Suitable	Less Suitable	More Suitable	Most Suitable
7,500 - 10,000	Least Suitable	Less Suitable	Suitable	Most Suitable
Greater than 10,000	Least Suitable	Less Suitable	Suitable	More Suitable

This years GIS Day will be a great event.  
All are welcome, no registration required.



Save the date!

# GIS Day 2011

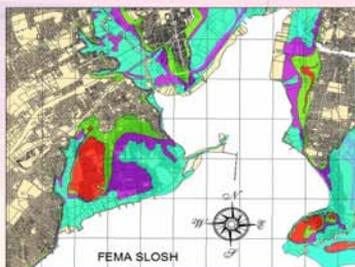


## Let's Take It To The Outer Limits

*Geographic Information Systems brings us beyond  
creativity to analyze the facts of our existence and  
help us better understand the nature of  
phenomena.*

Please use our GIS website in the article as a  
community tool for feedback and to submit your  
suggestions for GIS Day 2011

November 16, 2011  
In Hartford  
Legislative Office Building  
Parking Available



Sponsored by The CT Geospatial Council  
Education and Outreach Working Group

GIS Day is coming this November 16, and the Education and Outreach working group is gathering ideas to make it another successful event for the State of Connecticut. This year, we are looking to you for input! Help us to design GIS Day by going to the IdeaScale web page <http://ctgis-day.ideascale.com/> and post an idea or vote on an existing idea. We want to hear from you! This is your opportunity to exert your influence and let us know what you would like to see. Is there a topic you'd like to see represented? Is there a different spin on something we've done in the past that you would like us to consider? Let us know! How can we make this the best GIS Day yet? Your valuable information will help us provide you with the kind of GIS Day that will make the State of Connecticut the envy of New England!