

December 2009

Welcome to the forty-first edition of the **MassGIS GISette**, a bi-monthly newsletter e-mailed to more than 1,800 of our users and partner agencies to keep them informed of data updates, GIS events, and on-going technology developments. This newsletter will not replace more focused e-mails that many of you currently receive. A page on our website has been created for the [GISette](#). There you will find back issues of the GISette and an [online subscription form](#).

While our primary intent in publishing the GISette is to disseminate information related to MassGIS initiatives and data development in particular, we also see the GISette as a means of communicating public agency GIS news. So we encourage readers to send in updates or announcements concerning public agencies that they would like included in the GISette. We particularly want to encourage submission of announcements concerning data development projects. Announcements should be sent to Paul Nutting at paul.nutting@state.ma.us.

Implementing MassGIS' Strategic Plan

In September 2009, the Secretary of Administration and Finance, Jay Gonzalez, directed the Commonwealth's CIO to convene a Task Force to look at future directions for the MassGIS program and how to fit GIS into the overall program of IT consolidation currently underway. The MassGIS [Strategic Plan](#) was taken as the starting point for this group, which was specifically charged with developing recommendations on 1) how to fund MassGIS' on-going operations and the completion of the state's spatial data infrastructure, 2) where MassGIS should be located in state government and 3) an appropriate governance model. On December 15th, the Task Force's recommendations were presented to Secretary Gonzalez by Anne Margulies, the State CIO and Philip Griffiths, Undersecretary for the Environment in the Executive Office of Energy and Environmental Affairs (EOEEA), MassGIS' current home.

The Task Force identified a diverse mix of funding sources to sustain MassGIS' ongoing operation and to fund development of key data layers as laid out in the Strategic Plan including standardized digital parcel data, orthoimagery on a regular three-year cycle, and detailed elevation data from LiDAR. The Task Force recommended that MassGIS be moved from its present home in the Executive Office of Energy and Environmental Affairs to the Information Technology Division (ITD) within the Executive Office of Administration and Finance. The Task Force also recommended re-establishing the Massachusetts Geographic Information Council (MGIC), but with a more formal charge and structure, to serve as the mechanism through which GIS stakeholders would advise ITD on the needs of the Massachusetts geospatial community. Legislation to move MassGIS from EOEEA to ITD has been drafted and is being included in the Governor's budget proposal. If this legislation is passed, the above recommendations would take effect in the state's fiscal year 2011 which starts July 1, 2010.

The GIS Task Force was co-chaired by Susan Parker, Director of Mass.Gov in the Information Technology Division (ITD) and Christian Jacqz, Director of MassGIS. Task force members included staff from ITD as well as representatives from the Executive Office of Public Safety and Security, the Massachusetts Department of Transportation, the EOEEA, and the Metropolitan Area Planning Council. Questions, comments or concerns about this move should be directed to Christian at christian.jacqz@state.ma.us.

Data, Data Everywhere, but Not a Drop to Map (until now!)

Hosted at the Commonwealth's Information Technology Division, the Commonwealth of Massachusetts Open Data Initiative is an effort to make publicly available myriad tabular data created at a variety of State agencies. A [data catalogue WIKI](#) has been created with categories such as Health, Public Safety, Education and many more. MassGIS has created a [Geographic Data heading](#) for linking to our webservice data and for links to several commonly used base layers. More data records are being added to this catalog over time to make it more useful to researchers and those who want to map heretofore unmapped, yet spatially referenced data. If your state agency has data to contribute, create an account and add it right in, or [contact ITD for help](#).

OpenSpace Editing Gains

In 2009, using the large amount of data received from municipalities, regional planning agencies, land trusts and state agencies, the open space staff continued to enhance the [Protected & Recreational Open Space](#) database. Edits affecting nearly 63,000 acres of land with some level of protection in more than 300 municipalities have been completed. Significant progress has been made with the large backlog of [Conservation Restrictions](#) and [Agricultural Preservation Restrictions](#).

Open space editors added new public and private holdings, or otherwise improved the spatial accuracy of many of the state's existing permanently protected open spaces. Hours of research were conducted to ensure the accuracy of attributes. Many parcels previously coded as permanently protected were found to not be permanently protected or vice versa. During this process, while some municipalities "lost" permanently protected open spaces due to erroneous information entered into the database during initial data collection efforts, many other municipalities realized significant gains in the overall acreage of lands recorded as protected in perpetuity.

Municipalities with the ten largest increases in 2009 include:

Williamsburg	1,672 acres
Plymouth	1,517 acres
Granville	1,198 acres
Westford	1,087 acres
Winchendon	989 acres
Westport	956 acres
Falmouth	862 acres
Ashfield	835 acres
Sandwich	829 acres
Fitchburg	805 acres

The 2009 statewide gain of 42,334 acres coupled with the statewide "loss" of 13,507 acres means a net gain of 28,827 permanently-protected acres in the database. (By comparison, the Quabbin Reservoir surface is approximately 24,706 acres.) More importantly, however, the efforts of the open space staff have substantially improved the database. There is every expectation that, as the efforts described above continue, the database will include 1.2 million acres of land protected in perpetuity by the early part of 2010.

Other Database Updates

- **[OpenSpace Updated](#) - 12/29/2009**
See article above. Since the last GISette, work has been performed in nearly 100 municipalities affecting more than 6,100 acres. Municipalities with significant changes include Andover, Carver, Harwich, Northborough, and Princeton. A new shapefile and personal geodatabase have been placed on our ftp site, representing data updated as of 12/18/09.
- **[C21E and AUL Point Layers Updated](#) - 12/28/2009**
MassDEP has updated the Tier Classified Oil and/or Hazardous Material Sites (MGL c. 21E) and Oil and/or Hazardous Material Sites with Activity and Use Limitations (AUL) layers. For the C21E layer, 121 sites were added and 229 were removed. For the AUL layer, 57 sites were added and three were removed.
- **[Lighthouses Layer Updated](#) - 12/11/2009**
This layer now includes skeleton tower-type lights identified by the Geographic Names Information System (GNIS) which appear on NOAA charts. In addition, several edits were made to the lighthouses originally included in this dataset.
- **[DEP BWP Major Facilities Layer Updated](#) - 12/8/2009**
This update brought the total number of features to 1,717 and included updated classification information presented in the "major" fields: AIR, GWD, HWR, LQG_MA, LQG_RCRA, LQTU, TSDF, SWD. Currently 62% of Large Quantity Generators of MA Regulated Waste (LQG_MA) and 100% of all of the other "major" categories have been located.
- **[Public Utilities Table Updated](#) - 12/7/2009**
Lakeville, Middleborough and Russell had the ELEC (electricity) field set to 'Municipal'.

- [Ice Rinks Layer Updated](#) - 11/30/09, 10/22/2009
In October a few points had their positions and/or attributes modified and the Butler rink in Hyannis was added. In addition, the LEGIS, FACIL_STAT, and LABEL fields were added. In November the Vietnam Veterans Memorial Skating Rink in North Adams (RINK_ID 257) was rededicated and its point attributes were modified.
- [New Interior Forest Layer](#) - 11/23/2009
The Massachusetts Division of Fisheries and Wildlife interior forest GIS dataset identifies extensively forested portions of the Massachusetts landscape where forest cover is relatively un-fragmented by human development. Other natural features such as wetlands and open water are included in this dataset as non-fragmenting features.
- [Geographic Place Names Layers Updated](#) - 10/30/2009
All three annotation feature classes (hydrography, hypsography, place name labels) have been reviewed and updated by MassDEP GIS Group. MassGIS is distributing them inside a personal geodatabase. Shapefiles representing the location, orientation and curvature of the annotation have been re-created and are available for those who cannot work with geodatabase annotation.

What's New on the MassGIS Web Site

GIS Education Section - 12/7/2009

This section of the website formerly hosted lessons and information about our ArcView 3x Runtime Dataviewer, which we cannot replicate in ArcGIS 9 because of licensing issues. Therefore, to fill an apparent need, based on a number of inquiries, this page now hosts a list of GIS educational opportunities in and near Massachusetts.

Online Mapping Applications

OLIVER Documentation Updated

The documentation for [OLIVER](#), [MORIS](#) and [SPOLIVER](#) has been streamlined and rewritten. Since OLIVER was first launched in August 2004, previous documentation regarding Java Web Start had become out of date.

Where's the Wind?

The [EEA Wind Energy Site Screening Tool](#) is now available. The tool contains a wide variety of datalayers of interest to those concerned with developing a wind turbine project. This tool is the result of many months of study at EEA and MassGIS.

Follow the Money

MassGIS is currently supporting an application provided by ESRI to the state's [Information Technology Division](#) and the MA Recovery Team on the [Massachusetts Recovery website](#). Built with ESRI's ArcGIS Server, and using [MassGIS' web mapping services](#), this site allows users to monitor how stimulus money is being spent and its geographic distribution. Site users have the option of viewing mapped information at either a Municipal or County level. Clicking on individual towns provides pie charts of spending categories.

An Ocean of Data

Select MassGIS / [CZM datalayers](#) are being used in the Northeastern Regional Association of Coastal Ocean Observing Systems (NERACOOS) [Map and Model Viewer](#). In the list of layers on the right side, scroll down to the "Mass. GIS / CZM" section. NERACOOS is an organization with a mission that includes leading the development, implementation, operation, and evaluation of a sustained, regional coastal ocean observing system for the northeast United States and Canadian Maritime provinces; it is part of the United States Integrated Ocean Observing System (IOOS). MassGIS / CZM involvement in a broader regional data library shows the power of data integration with web mapping services.

A Boatload of Maps

[The Office of Fishing and Boating Access](#), within the [Department of Fish and Game](#), publishes an atlas of boat ramp locations throughout the Commonwealth. Those boat ramp location maps have long been available online as PDF's but have now been replaced with a Google user interface. This improvement will provide a familiar front end for users, will print from all browsers, and will allow for easy updates by [GIS staff](#). Take a look – [OFBA Boat Ramps](#), click the Facility Name to see the associated map.

Online Mapping- Behind the Scenes Tidbits

MassGIS tested the free and open source desktop GIS called [Quantum \(or QGIS\) version 1.3.0](#) with the MassGIS GeoServer-based WMS and WFS. The product worked well and instructions to connect are [here](#). MassGIS tries to test products that claim to connect to WMS/WFS systems to see how well they work with our services and to document the steps involved in using the services. Since the lyceum site is a wiki, feel free to add more documentation on products that are not yet written up or send info on products to be tested to Aleda.Freeman@state.ma.us.

A user-defined projection has been successfully added to MassGIS' GeoServer. The MassGIS GeoServer web mapping services currently serve data in almost 4,000 projections, but if there is another that you need just let us know. The site <http://spatialreference.org/> is a useful reference for projections.

[OpenGeo](#), the geospatial division of [The Open Planning Project](#), has published a [case study about MassGIS' use of GeoServer](#) to support online mapping for various state and federal agencies.

Using funding provided by the [Massachusetts Ocean Partnership](#), MassGIS has been working with [OpenGeo](#) to improve GeoServer to SDE connection efficiency when using rasters. This project is almost finished and should speed up raster drawing considerably. MassGIS is studying GeoServer version 2.x as we will need to upgrade to take advantage of the improved raster capabilities.

Staff Announcements

Every year, the Executive Office of Energy and Environmental Affairs acknowledges a few key staff (out of hundreds) who excel in performing their jobs by awarding the [Performance Recognition Award](#). MassGIS is proud to announce that this year Aleda Freeman was selected to receive this award. She was also nominated for the Manuel Carballo Governor's Award for Excellence in Public Service. Aleda is the third member of the MassGIS staff who has won this award. Both Michael Trust, in 2007, and Philip John, in 2006, received this award. Congratulations, Aleda!

Since last April, Claire Palmer has worked at MassGIS on the NAVTEQ geocoding data project. The funding for this position has expired and so Claire is no longer at MassGIS. During her tenure, she became very knowledgeable about the project's data model and made some significant enhancements. One of those was the addition of mile markers to the linear data, which was indispensable in a recent, well-publicized kidnapping car chase episode. We wish Claire well in her future endeavors.

Any comments or suggestions about the GISette are welcome – send to paul.nutting@state.ma.us.

MassGIS-The Commonwealth's Office of Geographic and Environmental Information is located within the Executive Office of Energy and Environmental Affairs and is charged with the collection, enhancement, storage and dissemination of the Commonwealth's geographic data.

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