

June 2009

Welcome to the 38th edition of the **MassGIS GISette**, a bi-monthly newsletter e-mailed to more than 1,700 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. On the [GISette page](#) on our Web site you will find back issues 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.

MassGIS Supports Gov. Patrick's Broadband Initiative

One of Governor Patrick's priorities is eliminating the disparity in Internet access across Massachusetts. Urban and suburban areas typically have high-speed Internet access services available from at least one, and often two or three, service providers. Conversely, many rural areas only have Internet access via slow dial-up services or expensive satellite services. The Governor's broadband initiative was launched in August 2008 when he signed the Broadband Act into law. The Act created the [Massachusetts Broadband Institute](#) (MBI) which has the authority to invest up to \$40 million of state bond funds in new broadband infrastructure. These investments, such as conduit, fiber-optic cable and wireless towers, will be leveraged where possible through public-private partnerships and will help improve Internet access for all citizens.

MassGIS has been assisting this initiative by working with the MBI in several ways. Philip John is supervising the effort to integrate cable "strand" maps and other data from service providers with GIS layers such as roads, parcels, land use, impervious surface and orthophoto to provide geographic detail down to the structure level on residents and businesses unserved. Dan Marrier is providing new estimates of population density based on land use to support this work, which will help establish priorities for investments in broadband infrastructure. Philip is being assisted during this four-month project by Margaret Lowry and Gile Beye, who both bring many years of GIS and computing experience to the effort.

In addition, MBI is asking Internet users, particularly those in the western part of Massachusetts, to give us information on their level of, or lack of, Internet access. Aleda Freeman collaborated with the MBI in May to create an online map-based survey using MassGIS' web mapping services. The respondent's address is geocoded onto a Google base map and linked to a series of questions about Internet access type, speed, and provider. The results are stored in MassGIS's database via web map services. The results can be viewed as points on top of Google maps. There is also a version without a map (for those with very slow connections). [Governor Patrick showed off the survey](#) at a roundtable event in New Salem, MA on May 26th. Since then over 450 people have responded; [go here to take the survey](#).

These efforts are laying the foundation for the implementation of the Broadband Act and future work which will be managed by Cynthia Gaines, MBI's recently hired GIS Project Manager.

Database Updates

2005 Land Use Ready for Download

Now available from MassGIS (finally!) is the 2005 Land Use data layer, a Massachusetts statewide, seamless digital dataset of land cover / land use, created using semi-automated methods, and interpreted from 0.5-meter resolution digital ortho imagery captured in April 2005. The classification scheme, comprising 33 land use codes, is based on the coding schema used for previous Massachusetts land use datasets, with modifications. Since the scale of the base mapping is so much larger, it is problematic to directly overlay 1999 and earlier land use to compute change. We are continuing to refine a "change" layer for use in planning applications and will be

releasing that shortly. We are also planning for the use of 2008 and 2009 imagery in creating the next iteration of statewide land use / land cover data.

For full details and a link to download the free data please visit <http://www.mass.gov/mgis/lus2005.htm>. Data may be downloaded as a statewide shapefile as well as by county-based tiles.

- **New [DCR Pools Layer](#)** - 6/29/2009
This point datalayer contains the location of 45 pools in Massachusetts that are owned and/or operated by the Massachusetts Department of Conservation and Recreation (DCR). Pool types include swimming, wading, diving and spray deck. The layer was developed by the DCR GIS Program and is based on DCR State and Urban Park pool listings as of May 29, 2009.
- **[Assessors' Parcels Added and Updated](#)** - 6/29/2009
Level II parcels for Auburn have been replaced with a new submission from the town representing its FY 2010 data. Level 0 data have been added for Amesbury, Millbury, Southborough and Watertown. Additionally, Level 0 parcels have been updated with newer data for Ashland, Bourne, Dennis, Orleans, Provincetown, Truro, Wellfleet and Yarmouth.
- **[Ground Water Discharge Permits Layer Updated](#)** - 5/26/2009
MassDEP has updated the Ground Water Discharge Permits layer. All discharge locations in MassDEP Northeast Region were revised.
- **[C21E Layer Updated](#)** - 5/26/2009
MassDEP has updated the Tier Classified Oil and/or Hazardous Material Sites (MGL c. 21E) layer. 106 sites were removed and 103 added.
- **[OpenSpace Updated](#)** - 5/18/2009
The MassGIS Protected and Recreational OpenSpace Datalayer has been updated with hundreds of new edits around the state. A new shapefile and personal geodatabase have been placed on our ftp site, representing data updated as of 5-5-09.
- **[Office of Fishing and Boating Access Sites Layer Updated](#)** - 5/12/2009
This point layer, formerly known as Public Access Board Sites, was updated (some fields added to the attribute table) by GIS staff at the Massachusetts Department of Fish & Game (DFG).

Online Mapping

DEP launches Fish Mercury Access Portal

DEP in June launched a new web site called the [Fish Mercury Access Portal](#). The site allows the public to retrieve data on fish tissue mercury levels, water quality, or sediment chemistry collected since 1994. The site provides both GIS and text-based search. In the GIS-based search, a map is displayed which distinguishes lakes that have fish consumption advisories (red dots) from those that do not (blue dots). Sample locations and base mapping are provided through MassGIS web services.

Upgrades Coming for Better Webservices

MassGIS continues to work with OpenGeo (geospatial division of The Open Planning Project) on upgrades to GeoServer to support SDE rasters. The majority of raster types have been loaded and symbolized, with a few issues yet to be resolved. When this work is complete, MassGIS will upgrade its GeoServer from version 1.6.5 to version 1.7.5(+). As a result, over 100 new raster datalayers will be available including black and white orthos, NOAA charts, impervious surface, USGS topos, and wind speed grids. After the GeoServer upgrade, a new GeoServer-backed OLIVER will be available. This OLIVER will for the most part look and behave like the current ArcIMS-backed version except for a few improvements: Geocoding will have an improved algorithm, using NavTeq roads instead of GDT roads, and images will be downloadable as geoTiffs. In addition, many new GeoServer features will be available including faster shapefile download, curved labels, download in Excel or CSV format, the ability to make maps with charts, and other features. Anyone wishing to receive announcements on the timing of the upgrade and information about the new features once they are available may either subscribe to the public Google group http://groups.google.com/group/massgis_webservices/ or subscribe via RSS to the "What's New" page on the lyceum web site http://lyceum.massgis.state.ma.us/wiki/doku.php?id=whats_new.

After the upgrade, MassGIS will be phasing out use of the older MapAccess WMS API. **Any applications or**

links that currently connect to a URL with "mapaccess" in it should be upgraded immediately to use the **GeoServer WMS**. Please contact Aleda.Freeman@state.ma.us for assistance with this or any other questions relating to MassGIS' upcoming web map services changes.

Tips and Tricks

Free MrSID Image and Vector Viewer

All aerial images in [MassGIS's download library](#) are in the proprietary MrSID format, and can be difficult to view without GIS software. MrSID's developer, LizardTech, has developed a free viewer that not only allows for display of MrSID imagery, but also allows for vector data overlay, fetching WMS layers, measuring and exporting into more common image formats. The software is called GeoViewer and can be downloaded for free at [LizardTech](#).

Printing MassGIS Maps Online

This is a repeat, but we frequently receive inquiries about this problem. Many of the MassGIS [online interactive map viewers](#) at need to create another browser window titled "Map Output" as part of the process of printing. If any pop-up blockers are on, you'll get an endless "Retrieving Map" icon instead of the new "Map Output" window. Make sure that pop-up blockers are off in your browser. In addition, make sure pop up blockers are off within any toolbars that you may have (for example, the Google or Yahoo toolbar). [This page](#) helpfully describes how to temporarily turn off these toolbars. Once you have the "Map Output" page which lays out the map with a title, legends, north arrow, scale bar, and overview map, you may choose "File" menu, "Print". It may be best to choose Landscape orientation and margins of 0.3 inches to get one page output. Alternately you may right click on the map, legend, and overview map one by one and save them as images (they will be JPG or PNG). These images may be importing into Microsoft Word, Powerpoint or other documents.

Meeting Announcements

Fall NEARC Information

Planning for The 24th annual NEARC Conference is well underway. You can view the [program session grid](#) for the event, which will be held at will be held in Nashua, NH on October 4-7, 2009. Presentations from the Spring NEARC are [now posted here](#).

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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