GISette
Email Newsletter

Welcome to the third edition of the **MassGIS GISette**, a bi-monthly newsletter emailed to our users and partner agencies to keep them informed of data updates and on-going technology developments. You may "opt-out" of receiving this newsletter by replying to this e-mail with "No Thanks." in the subject header. This newsletter will not replace more focused emails 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.

Database News

MassGIS is currently loading the 2001 color ortho imagery into an Oracle-based ArcSDE layer. This will allow faster access to the imagery, as one layer, for both internal users at EOEA and within MassGIS' Web mapping applications. We expect the Web applications to benefit greatly, as the single SDE layer, planned to have 15 pyramid levels, should display more rapidly than the MrSID mosaics currently used. The SDE layer is based on the original tiff images and, unlike the MrSID versions, there is no loss in image quality. The pyramid levels allow an appropriate resolution to be displayed at different map scales, similar in concept to the way MrSID images employ built-in multiple resolutions for efficient display. More information will be announced when the processing is complete.

Data Updates

Protected and Recreational Open Space
Various updates to several towns. See details on the Open Space Recent Updates page at http://www.state.ma.us/mgis/osp_updates.htm

Priority Natural Vegetation Communities
Five Priority Natural Vegetation Communities datalayers now include data for the Northeast part of the state: Coastal (VCCOAST), Acidic Peatland (VCPEAT), Riverine (VCRIV), Sandplain (VCSANDPL), and Pine Barrens (VCPINBAR). These belong to a set of datalayers that depict the distribution of the eight natural community systems identified by the Massachusetts Natural Heritage and Endangered Species Program (NHESP) as most critical to the conservation of the Commonwealth's biological diversity. For details see http://www.state.ma.us/mgis/natveg.htm

1:5,000 DEP Orthophoto Wetlands and Streams Data
New and updated tiles. For the areas now covered please see the most current Status Map at http://www.state.ma.us/mgis/st_wet.htm
As always, the statewide layer OQMAIN has been updated for the DATEWET and DATESTRM fields. See http://www.state.ma.us/mgis/oqindx.htm for links to download.

Title 5 Setback Areas
In June 2003 these tiles were modified due to additions to the 1:5,000 Wetlands layer: 38, 39, 40, 44, 45, 46, 49, 50, 51, 56, 57, 62, 68, 74, 78, 79, 83, 84, 85, 89, 90 and 93. See http://www.state.ma.us/mgis/t5.htm

[**Massachusetts House Legislative Districts**](#) **(2002)**
> In June 2003 the attributes were updated for the 5th Norfolk district following the special election won by Joseph Driscoll, who filled the open seat vacated by Joseph Sullivan. See http://www.state.ma.us/mgis/house02.htm

New on the Website:

[**Municipal GIS and Digital Parcel Development Status Map Updated**](#) **June 16, 2003**
> The GIS Status and Parcel Development map updated from various sources. If you notice any towns that have not been updated, please provide updates to Neil MacGaffey. See http://www.state.ma.us/mgis/munistat.htm

[**NEARC**](#) **Spring Meeting** [**ArcSDE Presentation**](#) **- May 27, 2003**
> Web-based PowerPoint presentation on MassGIS' strategies and experience on converting data to ArcSDE. Works best in Internet Explorer. See http://www.state.ma.us/mgis/NEARC_May16_2003.htm

Updated [**1:25,000 Hydrography Status Map**](#) **- May 5, 2003**
> This map reflects the current primary source of the layer, by USGS Quad tile. See http://www.state.ma.us/mgis/st_hd.htm

Open Space Corner

Hello again Open Space Users!

The big news here at MassGIS is that the Protected and Recreational Open Space dataset has moved to our new Unix machine, replacing the 7+ year old alphaserver. This may not mean much (and should be transparent) to most of you, but for us it means that things now run many times faster! Our next hurdle is to move the OpenSpace editing environment from Librarian (editing one town at a time – and also why you have to download the data by towns) to full editing in SDE (no tiles allows for a single statewide editing session – and downloads of custom areas from local to statewide!).

I would like to thank each and every one of my sources for OpenSpace Updates, especially Anne Mazar from the Town of Mendon (every parcel redone) and Janice Stone from the Town of Shutesbury (355 polygons added). The data in those towns has dramatically improved thanks to their help (and patience).

Open Space Attribute Focus: Primary Purpose
This field is intended to categorize land by the one major reason the parcel was purchased and/or protected. Most often, it was purchased for Conservation (C), Recreation (R) or a combination of the two (B). Farms are simply coded as agriculture (A). Two values are only for certain agencies: Flood Protection (F) is used only by ACOE (Army Corps of Engineers) & DEM, and Scenic (S) is only designated by DEM. Water Supply Protection (W) is straightforward for land like the Quabbin Watershed but can get tricky with older reservoirs and surrounding land that were originally bought as water supply buffer land but are currently in

recreational usage as the reservoir is no longer an active water supply. These are coded as W, as they cannot leave Article 97 protection without legislative approval. Historical/Cultural (H) is used for things like cemeteries and landmarks. When the parcel just doesn't fit into any of these categories, use Other (O), but always include a more detailed description of why in the Comments field. When things get tricky, especially for municipal land that may have been gifted and not acquired with a particular purpose in mind, use the most applicable code you can. Note that no code exists for vacant land as that is NOT to be entered into this datalayer. If you have any questions about the coding of Open Space data, please contact me!

Remember, if the codes used in the FEE_OWNER, MANAGER, or OTHER_x fields are inscrutable to you, please request from me the osnames.doc file that lists all abbreviations used.

Did you see something in our Open Space data that isn't quite right? Let me know so I can fix it! If you need help in submitting a revision and/or addition, I'll aid you any way I can. I have been striving to clean up the data one parcel at a time and the improvements are showing.

Let's hit the trails – it's summertime!
Scott Costello, MassGIS Open Space Coordinator, scott.costello@state.ma.us, 617-626-1076.

Online Mapping Tips and Tricks

The Online Mapping page MassGIS web site has a number of interactive maps for users to explore. When looking at a map one thing that some don't realize is that there is more information behind the data layers on the map. In most of the online mapping applications there is either an "Identify" tool or a "Show Info" radio button that will provide more information about a certain layer on the map.

For example, in the Water Supply Protection Areas map http://www.mass.gov/mgis/WSPA there is a tool that looks like a black circle with a white i inside it. In this application the tool is designed to provide more information about a public water supply. Zoom in on the map until you see any of the 4 public water supply symbols. Then click on the Identify tool (it will become outlined in a red box to show that it is the active tool) and then click on one of the water supply symbols. Information about that water supply is presented in the middle bottom frame. The information presented in this case includes the town, the source_id, the name, and the type. If you get more than one record in the results frame, you clicked on a public water supply that was close to another public water supply. Zoom in more and click again on the public water supply of interest.

In the Town Boundaries Demographic Viewer - Census 2000 it is possible to see maps of Census information. For example, you can zoom to a town such as Malden, choose a category such as Language, and a theme such as Asian Language Speaking Households. You will see a thematic map (a map with color gradations) of blockgroups shaded by 6 categories of the number of households. However, it is possible to get more precise information about the number of Asian language speaking households in a blockgroup. Simply click on the "Show

Info" radio button in the upper center of the screen, and then click on a blockgroup on the map. (Blockgroups are shown in thick black outlines). In the lower right of the screen the exact number of households for all the language variables in that blockgroup will be displayed, including the number of Asian language speaking households.

Served Data Statistics

Did you ever wonder what the volume of data is that we serve over the web and ship to our users?

According to our enabling legislation, we are charged with distributing the data that we collect, store and maintain. Currently, we have two staff devote part of their to creating, printing and mailing paper maps; they also create and mail CD based data. In addition to creating myriad custom and standard maps for EOEA staff and its agencies, over the past year, the "orders" staff has been quite busy. From July 1st, 2002 through June 1st, 2003 they produced **1423** DEP MCP 21E Site Maps and **418** Large Format Maps for our customers. As of late, the digital data product with the highest demand has been the 2001 color orthophotos, with **1163** CD's produced. Other data ordered on CD's comprises **1013** CD's. The total size of the mailed data is about 1,588,480 MB (that's 1.5 Terrabytes!) of CD based data.

There are many ways to calculate statistics for MassGIS' Online Mapping applications and web services. We are working on developing more detailed statistics. A rough measure of how much the online mapping is used, however, is a raw volume statistic based on the number of bytes downloaded. These bytes are mostly map images (gif, jpg or png file types). For the first five months of 2003, a total of 135 GB were downloaded, an average of almost 1 GB per day. Mondays through Fridays are significantly busier times than Saturdays and Sundays, with weekdays averaging about 1.5 GB and weekends averaging about .7 GB. A very rough estimate of the site's activity is that, during peak weekdays, our map server generates about 10 images per minute. This summer MassGIS will be working on improving our ability to serve a large number of maps by putting the .5 meter color orthophotos into SDE and by buying an additional map server. The color orthophotos are currently being served from 31 large MrSID mosaics. ArcIMS needs to work a lot harder to serve these images than it will to serve them from the SDE Oracle database.

Finally, the most popular mode for acquiring MassGIS data is via download from our ftp website. During a single week in May, 28,281 files were downloaded, with the total file size of that week being 45.8 Gigabytes!

Zoning Data Update and Development Grants

MassGIS is pleased to announce that it has awarded grants of between about $3,000 and nearly $30,000 to nine regional planning agencies for work on updating GIS zoning data. Funding for these awards is from the Environmental Bond passed by the legislature in 2002. The grant recipients were:

Berkshire Regional Planning Agency
Cape Cod Commission

Marthas Vineyard Commission
Merrimack Valley Planning Commission
Montachusett Regional Planning Commission
Northern Middlesex Council of Governments
Old Colony Planning Council
Pioneer Valley Planning Commission
Southeast Regional Planning and Economic Development District

The grant recipients will update the zoning data for approximately 115 communities around the Commonwealth (see http://www.state.ma.us/mgis/zn.htm for details of the zoning data distributed by MassGIS). The grant recipients will also create new GIS data of zoning overlay districts for many of those communities. The work will be delivered to MassGIS over the course of the next year.

MassGIS in the News

The Open GIS Consortium (OGC) has developed a quarterly email newsletter called OGC User. The editor is Adena Schutzberg who also edits the weekly GIS Monitor. The premier issue features an article about the MassGIS Web services.

 Any comments or suggestions about the GISette are welcomed <mailto:paul.nutting@state.ma.us>

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