

## February 2004

Welcome to the sixth edition of the **MassGIS GISette**, a bi-monthly newsletter emailed to our users and partner agencies to keep them informed of data updates, GIS events, 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. See <http://www.mass.gov/mgis/gisette.htm>.

### GIS in the News

As you may have heard by now, the United States District Court ruled last week that the 2000 redistricting process for the Massachusetts House of Representatives was flawed and the districts need to be redrawn.

Here at MassGIS, we have been distributing the now invalid data since it was engrossed in 2002 and we would like to caution those who are using it that it **will be** changing. The only affected districts are within Suffolk County, but some of the districts in question do reach into contiguous counties. Therefore districts in counties surrounding Suffolk may also be subject to change. As soon as is possible, we will post the new data.

### Database News

#### Data Updates

- **Color Ortho Imagery Now Available for Entire State!** - 2/2/2004  
With the availability of imagery for Martha's Vineyard, Nantucket, and the Elizabeth Islands, half-meter color imagery is now available for all of Massachusetts. Quality control has been completed for the imagery for the Islands, processed from aerial photography captured in April, 2003. The mainland imagery was developed from aerial photography flown in April 2001. See the [News Item](#) for more details, sample images, and a link to the download area.
- **DEP Wetlands (1:12,000) Data Updated** - 2/24/2004  
The two new polygon and arc DEP Wetlands layers enhance and replace the 1:5000 Wetlands and Streams layers.  
Enhancements/changes include:
  - The features are now seamless, no longer tiled by orthophoto quad index boundaries. Features are split along OQ tile boundaries only where attributes are different; this occurs in a small number of features.
  - Distribution is now by Watershed tiles, not by OQ tile.
  - New items have been added to the 2 attribute tables, including PALIS and PWSID information, and codes (POLY\_CODE, ARC\_CODE) for more generalized symbolization, similar to the codes in the 1:25,000 Hydrography layers. Area attributes (square feet and acres) are included for polygons. (See the "ATTRIBUTES" section below).
  - For the arcs, the "streams" from the old layer are coded as hydrologic connections,

- and other features are included as well, like shorelines and apparent wetland limits.
- o The scale description in the layer name - 1:12,000 - represents that of the original stereo color-infrared photography used in the interpretation.

The features that were in the old layers were copied into the new layers and then processed to produce the above changes.

For more information, please see the [Datalayer Description](#) and, for areas with completed data development, the [Status Map](#).

- **Updates to DEP Datalayers and Hydrographic Layers - 2/24/04**  
The DEP GIS Group has updated the following layers:
  - [Public Water Supplies](#)
  - [Zone IIs, IWPA](#)
  - [Surface Water Protection Areas \(Zone A, B, C\)](#)
- **[Title 5 Layer Updated](#) - 2/24/04**  
Many tiles were modified to reflect updates to the DEP Wetlands (1:12,000) layer. Distribution of the layer is now by the Watershed Index (previously the layer was tiled by USGS Quad panels).
- **[Ground Water Discharge Permits Layer Updated](#) - 2/12/2004**  
DEP GIS Group has updated the [GWP](#) datalayer. 1 site was added and 3 sites had permit classification changes.
- **[C21e Layer Updated](#) - 2/11/2004**  
DEP GIS Group has updated the [Tier Classified Chapter 21E Sites](#) datalayer. 38 sites were added, 84 were removed, and 10 changes were made to classification.
- **[New EOHHS Regions Layer](#) - 2/2/2004**  
This layer delineates the six regions used by the commonwealth's Executive Office of Health and Human Services for statistical, care coordination and administrative purposes. The regions - Western, Central, Northeast, Metro West, Boston and Southeast - are based on geographical groupings of cities and towns.
- **[Updates to Open Space](#) - 1/22/2004**  
Various updates to several towns. See details on the [Open Space Recent Updates](#) page.
- **[New Bedrock Lithology Layer](#) - 1/15/2004**  
This polygon data layer shows the dominant lithology and geochemical, termed lithogeochemical, character of near-surface bedrock in Massachusetts. Obtained from the U.S. Geological Survey (USGS), the data set provides digital geologic information that may be applied to the analysis of water-quality characteristics of surface water and shallow ground water, and soil and stream sediment characteristics based on bedrock lithogeochemistry. The geologic characterization provided in this classification is intended to portray significant bedrock geologic features that influence stream sediment and soil chemistry and water quality.
- **[Hospitals Layer Updated](#) - 1/13/2004**  
The [Hospitals](#) layer now includes the ACUTE\_CARE attribute, which distinguishes facilities

licensed by the Mass. Dept. of Public Health to have emergency rooms open 24 hours a day, seven days a week.

- [ACECs Layers Updated](#) - 12/24/03  
The Areas of Critical Environmental Concern layers have been updated. Two ACECs have been added, along with a new line feature class.
- [DEP Solid Waste Facilities Layer Updated](#) - 12/16/03  
DEP has updated the SW layer, which includes landfills. Ten polygons were added, 4 deleted and 112 refined, and 12 attribute records were edited.
- [New NHESP Living Waters Layers](#) - 12/5/2003  
The Natural Heritage and Endangered Species Program has developed two new GIS layers from the Living Waters project. [Core Habitats](#) represent lakes, ponds, rivers, and streams that are important for the protection of freshwater biodiversity in Massachusetts. [Critical Supporting Watersheds \(CSWs\)](#) are those areas with more immediate hydrologic contributions to Living Waters Core Habitats. As such, they represent the areas with the highest potential to sustain or degrade Core Habitats.
- [Seamless 1:25,000 Hydrography](#) - 12/5/2003  
The arc and polygon layers, previously tiled by USGS quad boundaries, have been merged and dissolved and is now available as a seamless layer. Also some coding updates, and improved symbology in the Data Viewer.

### New on the Website

- [Municipal GIS Survey](#) - 1/27/2004  
This survey, for municipal GIS departments, is part of MassGIS' efforts to keep more up-to-date on GIS activity in cities and towns. If you are coordinating a GIS project in your community or are GIS staff for a city or town, please fill out the survey for your community.
- [MassGIS Standard for Digital Parcels, Version 1.5](#) - 12/9/2003  
The standard has been revised. Version 1.5 is now available in PDF format.
- [A Recap of GIS Day 2003](#) - 12/5/2003  
A review of MassGIS' GIS Day event at the State House, on November 19, 2003. Includes speaker presentations from EOEI Secretary Ellen Roy Herzfelder and MassGIS Director Christian Jacqz.

### **New Datalayers Available Through OLIVER:**

- ✧ Color Orthos Islands 2003
- ✧ Natural Heritage and Environmental Species Program (NHESP) Living Waters layers - Core Habitats and Critical Supporting Watersheds
- ✧ Bedrock Lithology
- ✧ Executive Office of Health and Human Services (EOHHS) Regions
- ✧ National Oceanic and Atmospheric Administration (NOAA) charts (served from MrSID files) - not downloadable
- ✧ Contours 30 ft labels in feet
- ✧ Contours 3m labels in both feet and meters
- ✧ Zip codes black labels (no linework yet)

- ✧ Zip codes yellow labels (no linework yet)
- ✧ Highway exits and labels
- ✧ Town Labels
- ✧ State House Polygons and Labels
- ✧ State Senate Polygons and Labels

## Open Space Corner

Hello again Open Space Users!

OK. I know I always start the column with this, but... I'm still trying to get the OpenSpace data into SDE. This is taking a long time, but the data is improving by leaps and bounds along the way, as you will no doubt see when the new OpenSpace goes online.

For you ArcGIS 8.3 users, OpenSpace will be available as a personal GeoDatabase with topology (SDE GDB version will be available as well by special request). For users of older versions (ArcGIS 8.2 or ArcView 3.x), the data will be available as shapefiles. *There will no longer be any distribution of OpenSpace coverages.* There are some attribute changes as well that will be covered in the new metadata.

The big snare at present is fixing all the intersection errors when utilizing the coverages from Librarian. For all of you who have called to complain about retiling OpenSpace in the past – I am truly sorry! I never realized that it was that bad! I guess Librarian swept it under the carpet enough internally that it wasn't really a problem. In any event, as I have to fix the approximately 5,000 errors, I am moving the affected town lines to the forthcoming Legislated Town Boundary datalayer. Busy, busy, busy.

Open Space Attribute Focus: *Manager & Status Manager*

The Manger (MGR) field is used to designate the legal entity that cares for the property when it is NOT the owner (see last OS Corner – Dec. 2003). This listing may be either the entire name or an abbreviation of a longer name (see below). As there are many different types of managers, the Status\_Manager (SMGR) field provides a simple means of generalizing ownership by a code value. The codes currently used for SMGR are identical to those used for Status\_Fee\_Owner. The majority of managers are government agencies. Most municipal departments cannot hold deeds – they are held by the town itself. For example, land managed by the Deerfield Conservation Commission is coded as follows:

Fee_Owner:	M074
Status_Fee_Owner:	M
Manager:	M074CC
Status_Manager:	M

The exception to this is those few municipal departments that can hold deeds. The only ones I know of are Water Departments that hold land outside of the municipal extents, e.g. Cobble Mountain Reservoir in Blandford owned by Springfield Water Department. These still get coded as shown above even though it is not technically correct, just coding orthodoxy. Occasionally, a town might let some of its land, adjacent to a non-profit group such as Mass Audubon, be managed by the non-profit as part of a single site. In this case, the non-profit gets placed in the manager field.

The MGR field is currently limited to 20 characters, so in many cases there is an abbreviation in the field and not the full name of the owner. These abbreviations are maintained in an info table called OSNAMES. You may contact me to get an export of this listing.

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.

Keep those updates coming!

Scott Costello, MassGIS Open Space Coordinator, [scott.costello@state.ma.us](mailto:scott.costello@state.ma.us), 617-626-1076.

## Online Mapping Statistics

We have a new way of counting images produced by ArcIMS on the maps server. From Jan 8th to Feb 23rd inclusive an average of 11,783 images were produced per day. That's an average 8.18 images per minute! Between 10,000-22,000 are produced on weekdays, between 4,000-10,500 per day are produced on weekends.

## My How We Have Grown

As announced above, we have initiated a new online municipal GIS survey. We frequently update and post on our website [maps](#) that represent the status of GIS and digital parcel development in the Commonwealth's 351 communities. We acquire this information via a variety of sources. Just a short 10 years ago, the number of municipalities with significant GIS capabilities was in the single digits and now, well over half have a GIS or are planning or building one. It should also be noted that over 200 municipalities have some form of digital parcel data.

## Meetings and Conferences

March 6 [Annual Massachusetts Association of Conservation Commissions Conference](#)

March 13 [Massachusetts Land Trust Conference](#)

March 16 Statewide Geographic Information Advisory Group Meeting 12:30-2PM MEMA HQ

March 16 [Massachusetts Geographic Information Council](#) (MGIC)

May 12 & 13 [New England Geospatial Information Summit](#) (NEGIS)

Any comments or suggestions about the GISette are welcomed [paul.nutting@state.ma.us](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.

Massachusetts Geographic Information System (MassGIS)

Executive Office of Environmental Affairs

251 Causeway St., Suite 900, Boston, MA 02114

Phone: (617) 626-1000 Fax: (617) 626-1249