

A quarterly newsletter for City Departments to keep them informed of updates and changes to the City's Geographic Information System

Welcome to the inaugural edition of the GISette

Ron LaFreniere
Commissioner of Public Works

On behalf of the Marlborough Department Public Works, it is with great pleasure that I announce the inaugural edition of our Geographic Information System (GIS) quarterly newsletter, the GISette.

In this and future editions of the GISette, Nat Bowen, the city's GIS Administrator and other professionals in the GIS industry, will provide insight into the city's mapping system and the technology that goes into making our GIS one of the best in the commonwealth.

We hope to provide our readers with the latest information and developments with our system and in the near future provide access to our entire system for the benefit and use of our entire community and those outside of it.

On behalf of the department I encourage all our readers with questions about our current and future plans for our GIS to contact Nat at nbowen@marlborough-ma.gov or to simply call our offices at 508-624-6910 x7200.

-Ron LaFreniere, Commissioner of Public Works

What is GIS?

How can GIS help me or my department?

Nathaniel Bowen
GIS Administrator

Over forty years ago now, a number of geographers got together and conceived a system for storing and organizing spatial information on a computer. More recently, that technology has become known as geographic information systems (GIS). Its principal uses are in land use planning, natural resources management, environmental modeling and planning, tax mapping, demographic research and utility mapping. GIS has emerged as one of the fastest growing technologies in modern memory.

Why all of the interest? GIS provides a means of integrating information in a way that helps us better understand problems. GIS helps to organize data and allows us to understand relationships, providing a basis for more intelligent decision making.

Think of GIS as 'intelligent' maps. Maps that know where they are, what information is displayed, and the relationships that exist between that information. You can then begin to ask that map questions:

- Where are all of the properties assessed at \$100,000 or more?
- How many feet of sewer pipe run down Elm Street?
- Where should I locate a police sub-station based on certain types of crime?

If you have information about people, places or things, they can be represented on a map. You'll be surprised to see what patterns emerge and how much useful information can be extracted from visualizing data.

Many departments have taken advantage of the City's GIS, but not all. It is one of the goals of this newsletter to highlight current uses of the system. Also, and equally as important however, is making more people aware of its capabilities and to hopefully encourage others to utilize GIS for their own needs.

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SPOTLIGHT

Conservation Commission

Priscilla Ryder, Conservation Officer

Nat asked me to write about all the ways I have used the GIS system to advance the work of the Conservation Commission. As I began to write, I realized the GIS system has made my life so much easier and each time I use it and work with Nat I think of new ways the system can help me. The list goes on and on so I'll just give the highlights.

On a day to day basis the most amazing easy to use tool that saves me tons of time is by having the GIS map available on line, I am able to identify each parcel with a click of the mouse and get an address and owner. Then with another click I can immediately connect to the owner information for the lot, which makes identifying violators, or getting information to residents so much faster.

We were able to use the GIS system to identify all the abutters along the stream corridors we wanted to inspect with our *Stream Team* volunteers.

Before sending the volunteer crews out to look at our streams, Nat provided the GIS maps for each stream corridor, and provided an abutters list to that stream so we could notify all the abutters along the corridor and let them know that someone might be walking through their back yard. What a wonderful tool – which saved me and Sue about 2 days of time. Nat was also able to produce aerial maps for the volunteers to use, which has helped them navigate through the stream corridors out in the field and shown them where all the drain pipes are.

When I had the scout volunteers mark the storm drains with the plastic markers saying “Don't Dump Drains to Waterways”, this task became infinitely easier because the GIS maps show all the catch basins, so we could make a count from a map rather than spending several hours driving through streets counting the catch basins. How cool is THAT!

Changes to look for

What changes can you expect to see?

Nathaniel Bowen
GIS Administrator

As many of you are already aware, we have a custom web mapping application available internally to all city departments. This site allows the user to create custom maps from a great deal of information that we have available. You can layer the information you need to see and then print a paper map or a PDF of that map for distribution to others. If you have not already used this site, we encourage you to do so. The site can be found through the following link: [Marlborough Web Maps](#)

In the coming months, *Web Maps* will be greatly improving. We will be migrating the existing site into the next generation of web mapping software. The new application will be easier to use and have greatly increased capabilities. Right now, the user can merely display existing information. The improved *Web maps* will allow the user to perform spatial analysis on his or her desktop, have easier to use menus and far better response times to name but a few improvements

Additionally, we are constantly updating existing data. Staying on top of changes and adding new information to existing data layers is a never ending process. We are creating new layers as well. We have just created a new property lines layer for 2009 and we are working on a lead water services layer.

If you have a new data layer that you would like to see added to the City's GIS, please contact the [GIS Administrator](#).

Useful and Interesting GIS links

[Office of MassGIS](#) – The State Agency that oversees spatial data for the entire commonwealth

[GIS.com](#) – An online guide to helping you understand more about GIS

[Library of Congress Map Collections](#) – If you have an interest in old maps, check it out

[ESRI](#) – Leading maker of GIS software

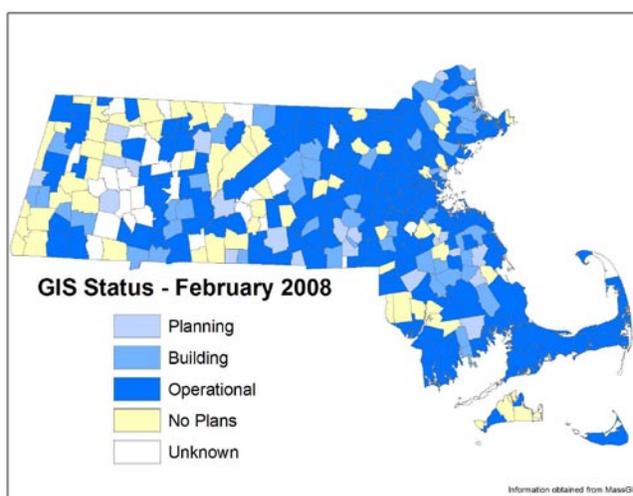
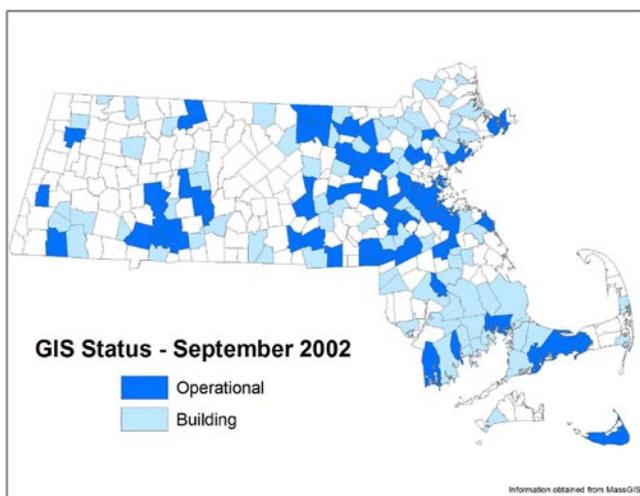
[Crime Mapping](#) – See incidents mapped out by zip codes

We're not alone...

Who else uses this GIS thing anyway?

Nathaniel Bowen
GIS Administrator

Marlborough has had an operational GIS for about ten years now. As the administrator of the program I can tell you we have been very fortunate as a community and I have been equally fortunate as a GIS professional. In talking with my peers over the years, I have learned about other communities and their GIS programs. In the late nineties, Marlborough had the foresight to see the potential of this tool and committed itself to developing a great program. I can tell you that the support and enthusiasm GIS has received is far and above the average Massachusetts community. I thought I would close this first newsletter with a set of graphics. The two maps below illustrate the number of cities and towns that have GIS programs or are working towards them. You can see the progression over the last decade and get a sense that GIS has become a standard tool in the way that communities plan, craft policy, catalog their infrastructure and use this tool in everyday decision making.



COMMON QUESTIONS AND ANSWERS

Q: I need a map to illustrate a point I am trying to make, how do I get one?

A: Just give me a call. In most cases, we already have the information you are looking to see illustrated. If it's a unique request, we can certainly work together to get you what you need.

Q: Can I make my own maps?

A: Yup. Click the link below and start making and printing your own maps. If you need help using the website, just ask.

[Click here](#) for the web mapping site

Q: I have information in my office that I would like to see displayed on a map. How do I make this happen?

A: I'm glad you finally asked!! Many city departments are sitting on treasure troves of data that could easily be displayed as a 'layer' on a map. Please call me.



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