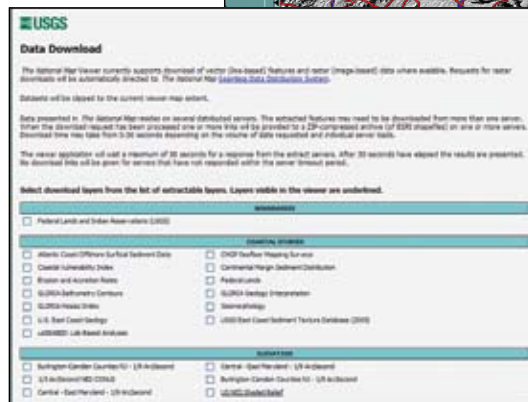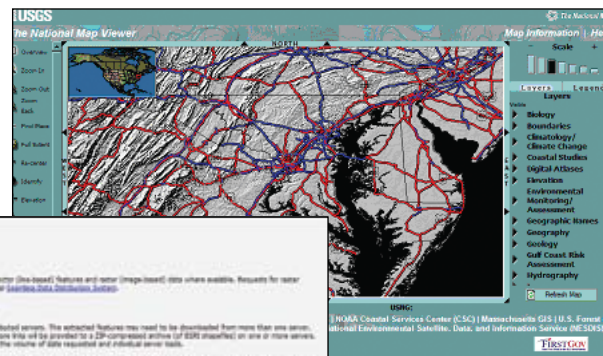# GIS TECHNOLOGY

Dataset Availability

GIS technology has been around for several decades now, and has been continuously evolving. As federal, state and county government organizations have implemented GIS, they have, of necessity, been building and maintaining datasets that are compatible with today's GIS offerings. Municipalities within Maryland have an opportunity, if they have not been actively implementing this technology already, to take advantage of the availability of a variety of useful datasets that cover the geographic region they are interested in.

All of the state of Maryland is covered by a variety of datasets that have been developed by several federal agencies. Examples of these datasets include:

- Digital orthophotography from the USDA
- Digital versions of USGS Quad sheets
- Satellite imagery
- Soils maps from NRCS
- FEMA flood plain boundaries
- Zip code boundaries
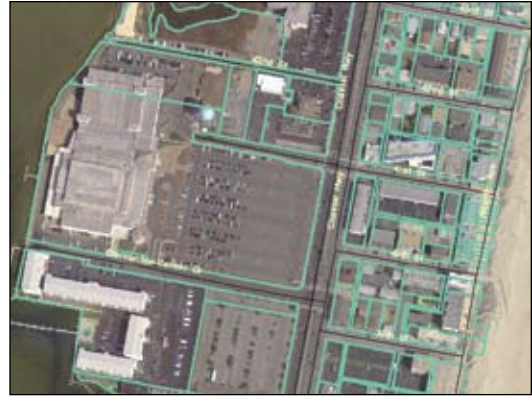- Census boundaries and data

In addition, various state agencies within Maryland have been actively implementing GIS technology, several since the late 1980's. Examples of data that is available from Maryland state agencies includes:

- High resolution digital orthophotography from Maryland Department of Natural Resources (DNR)
- State road centerlines from the Maryland State Highway Administration
- Property line boundaries linked to state assessment data maintained by the Maryland Department of Assessments and Taxation and distributed by the Maryland Department of Planning
- Wetland locations from Maryland DNR
- Detailed elevation data in the form of LiDAR mass points and Digital Elevation Models (DEM) from Maryland DNR

Further, most counties in the state have been implementing GIS for some time, and have even more detailed data available, including:

- Vectorized property maps (cadastral)
- High resolution digital orthophotography
- Planimetrics (building outlines, trees, forested areas, road pavement edges, fences, etc)
- Contour maps
- Utility lines (water, sewer)
- Zoning boundaries
- Political boundaries
- Emergency management zones, etc.

All of this data can be made available to your municipal jurisdiction at little or no cost.

Implementation: Streamlining the Process

In the past, implementation of GIS for a municipality required acquisition of hardware, software and training of selected staff in the use of the technology. Frequently, individuals were specifically hired to manage a municipality's GIS implementation, and just as frequently they would leave in a year or two, regularly requiring the municipality to restart the personnel interview process along with the attendant interruptions in working toward a GIS implementation.

Today's GIS technology is available for internet deployment, which means that a municipality can allow an outside company to build, maintain, and deploy a GIS solution for use by municipal staff and local constituents if desired, without the expenses associated with hardware and software purchases and annual licenses; and without the expenses associated with specialized personnel costs.

Spatial Systems Associates (SSA) has been working with federal, Maryland state, and Maryland county clients since the firm was formed in 1995, and is very aware of the availability of data from these sources. In addition, SSA hosts web-based GIS sites for several counties and municipalities in the region with applications specifically of interest to those clients. Please contact us if you are interested in investigating the opportunities for implementing and supporting GIS technology for your municipality at the lowest possible cost.

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