

GEOGRAPHIC INFORMATION SYSTEMS

Volume 12, Number 2

Summer 2008

Mapping Westchester County Redesign

Mapping portal provides access to data downloads, local map viewers, and Google Map directions

Over the past several months, GIS staff has added several new features to *Mapping Westchester County* which serves as the county's primary web mapping portal. Accessible at <http://giswww.westchestergov.com>, one of the primary improvements includes consolidation of five former applications (Find Indian Point Evacuation Zone, Find Elected Officials, Find Hurricane Evacuation Zone, Find Community Facilities, and *Mapping Westchester County*) into one centralized map service which increases application performance and navigation. New options such as "Find Green Facilities/Services" and "Find County Sewer District" have also been added.

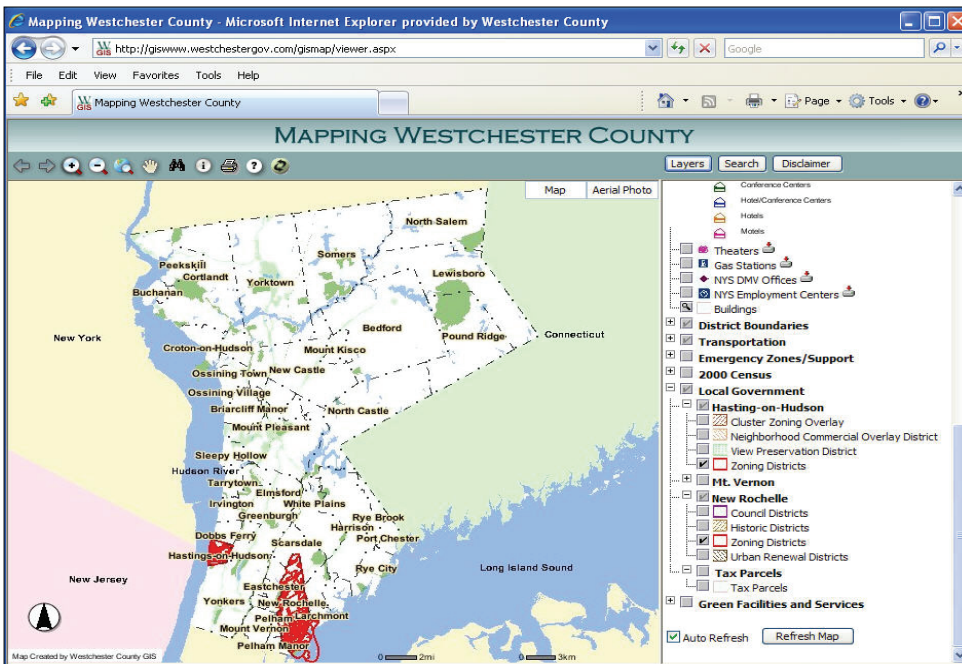
The new "Green Facilities/Services" component enables users to easily locate a wide range of recycling and "Green" events including cell phone drop-off loca-

tions, farmers markets, energy star facilities, community gardens, and tire disposal sites. A new enhancement with Google Map provides users with the ability to print out driving directions to selected events or facilities. The "Find Community Facilities" enables county residents to search and locate over 2,000 community facilities including senior centers, libraries, schools, parks and recreation sites, hospitals, post offices, health centers, and employment centers.

In addition to traditional web mapping functions such as pan/zoom, identify and print utilities, the new application also allows users to map areas of the county based on zip code, fire or school district, or by watershed. Users can also now download GIS data directly from the layer list - including two-foot contour data which is available in the popular AutoCAD DWG format. Contour data is

stored and made available based on the countywide base map index which is used as a guide in identifying specific "tiles" of contour data for download. There are more than 100 GIS layers in the application including 2004 aerial photos, building footprints, tax parcel boundaries, hydrology and environmental data, community facility data, political boundaries and census data. New portal functionality also enables local governments throughout the county to create their own customized "GIS data viewer" combining both county GIS datasets and locally generated layers (Zoning, Historic Districts, Empire Zones, Urban Renewal and others) To date, three municipalities have been joined to *Mapping Westchester County*.

Application development support has been provided by Bowne Management Systems, Inc. For more information contact Xiaobo Cui at xxc1@westchestergov.com



Municipalities can now incorporate local GIS datasets into Mapping Westchester County and make the application available from their homepage. This image highlights data layers from the Village of Hastings-on-Hudson and cities of New Rochelle and Mount Vernon.

GIS Events

NYS GIS Conference

The 24th annual New York State conference will be held at the Holiday Inn, Liverpool, NY, October 5-7, 2008. A wide range of workshops, vendor presentations, and demonstrations including poster sessions are scheduled. For more information and registration visit www.esf.edu/nysgisconf.

NEARC

The 23rd Annual Northeast Arc Users Group conference will be held in Hyannis, Massachusetts, September 21-24, 2008. With the theme "Illuminating the Geographic Approach," the conference is expected to attract over 500 GIS users including government agencies, industry and academia. For more information visit www.northeastarc.org.

Intel Center GIS

Westchester County District Attorney Janet DiFiore, along with representatives from local, state and federal law enforcement agencies, announced the opening of the Westchester Intelligence Center on May 21, 2008. The mission of the Center is to support the criminal investigative process for all of Westchester's law enforcement agencies through collection, analysis and dissemination of law enforcement intelligence. The Intel center is working with GIS staff towards building geospatial analysis and mapping capacity which will assist in the prevention and solving of crimes through intelligence-led policing. Analysts in the Intelligence Center create maps to highlight parolees and probationers residing in areas of specific burglary and shooting incidents to assist in narrowing investigation focus as well as show hot spots for gang and gun activity in the County. For more information about the Westchester Intelligence Center GIS services call 914-995-3379 or via email to: intel@westchesterda.net.

AVL Deployment Grows

Westchester County GIS continues to support a growing AVL program. In January, the County purchased another 12 CrossCheck GPRS units, with magnet-mounted integrated GPS antennae, from Trimble (<http://www.trimble.com/>). Installs through the first half of the year brought the County's AVL fleet to 62 vehicles, with 35 in the Department of Public Safety, 10 in Corrections, and 17 in Probation. The application includes wireless service from Trimble Mobile Solutions, Inc. (TMS) (<http://www.trimble.com/tms.shtml>), fleet administration tools, map viewing and replay options, and extensive customizable reports. Reports available on the password-secured TMS site include up-to-the-minute at-a-glance status of all vehicles, vehicle activity summaries and 'events' reporting. For more information, contact Deborah Parker at dape@westchestergov.com.

NYOGL Atlas

Westchester County GIS data is featured in a new online Atlas launched by the New York Ocean and Great Lakes Ecosystem Conservation Council. The atlas, at <http://www.nyoglatlas.org>, includes many environmental feature datasets that are available in the "Mapping Westchester County" map service: wetlands, beach locations, open space and land use, FEMA flood plains, parks and parkway lands. Where available, the atlas also provides other water-related data such as bathymetric (seafloor) contours, and fish, shellfish and seagrass distribution and habitat.

GIS Inventory for Sign Maintenance

This year, to comply with new retroreflectivity requirements for traffic control devices, Westchester County DPW completed a pilot project to inventory approximately 1,000 new signs as they were installed on 13 miles of the Bronx River Parkway.

The inventory process incorporated a customized ArcPad template on a Trimble Recon handheld, a digital camera, and a Trimble ProXR backpack GPS. The equip-

ment will be used to update the sign inventory for all other County roads as signs get replaced, added or modified.

Besides aiding in the replacement of signs as they reach the end of their useful life, the mapped inventory helps staff plan road improvements. For more information contact Jennifer Baudille at jdh3@westchestergov.com.

Saw Mill River Coalition Mapping Project

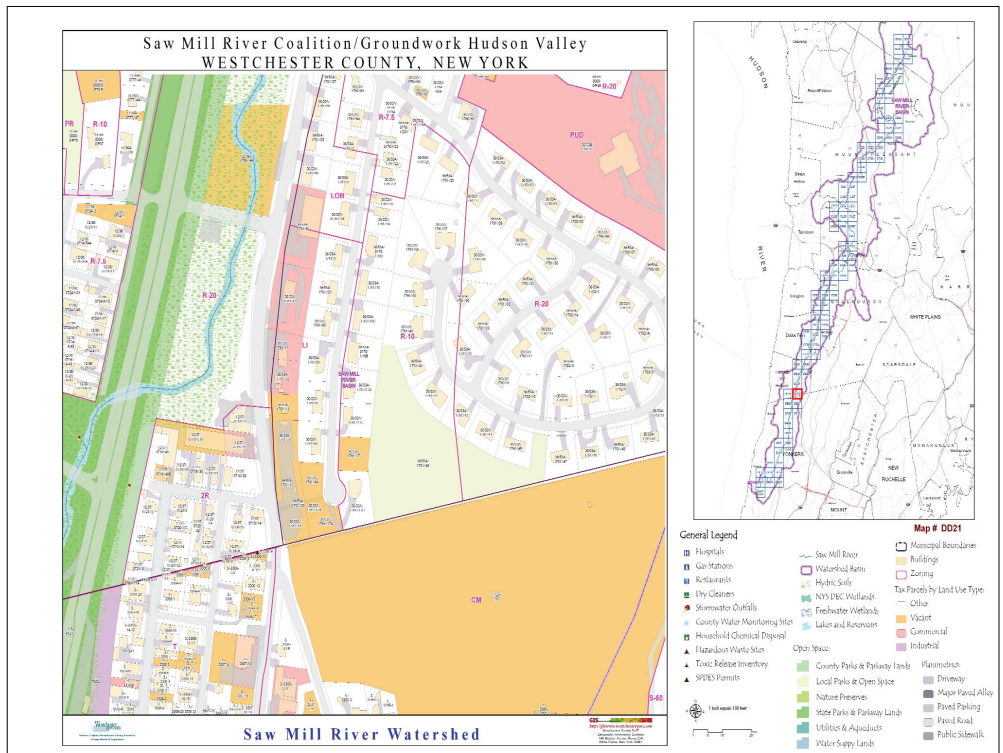
County GIS develops maps series for Land Use project

The Saw Mill River Coalition (SMRC) is a program of Groundwork Yonkers, a non-profit environmental organization located in Yonkers (www.sawmillrivercoalition.org). This summer the coalition is conducting a land use study of properties within 500 feet of the Saw Mill River to identify activities that could potentially lead to the pollution of the river. Over time, land use practices, zoning and property ownership changes can have an effect on the health of the river.

A better understanding of these patterns can help communities, the coalition and the county set priorities for public information, regulation enforcement and zoning and planning enhancements. To start the project the coalition developed a land use survey to gather the information. The survey was conducted by SMRC staff and a group of

Americorps volunteers from May-June 2008. Westchester County GIS staff assisted in the project by developing a map series which included over 25 data layers (tax parcels, watershed, wetlands, impervious surfaces and vacant parcels, among others.) SMRC staff and volunteers used the maps to pin-point locations of pollutants ranging from graffiti to aluminum cans, plastic bottles, bags, fast food wrappers, styrofoams, and construction debris.

County GIS also developed an ArcReader application to allow SMRC staff to display, query, analyze and generate their own maps and is also making the data available in Google Earth KML format. For more information contact Lynn Oliva at lynn@groundworkyonkers.org.



The SMRC map series was produced at a uniform scale (1:1,200) in 11"x17" size maps. All maps are referenced by tile numbers and index on the top right hand corner shows adjoining map.

Green Map Receives Special Achievement

The *Green Map* is one of about 170 user sites chosen from among more than 100,000 worldwide to receive the "Special Achievement in GIS" award at ESRI's 28th Annual International User Conference held in San Diego, California, August 4-8, 2008. *Green Map* (<http://greenmap.westchestergov.com>) charts environmental resources and efforts throughout the county. The interactive map highlights dozens of sustainable "green"

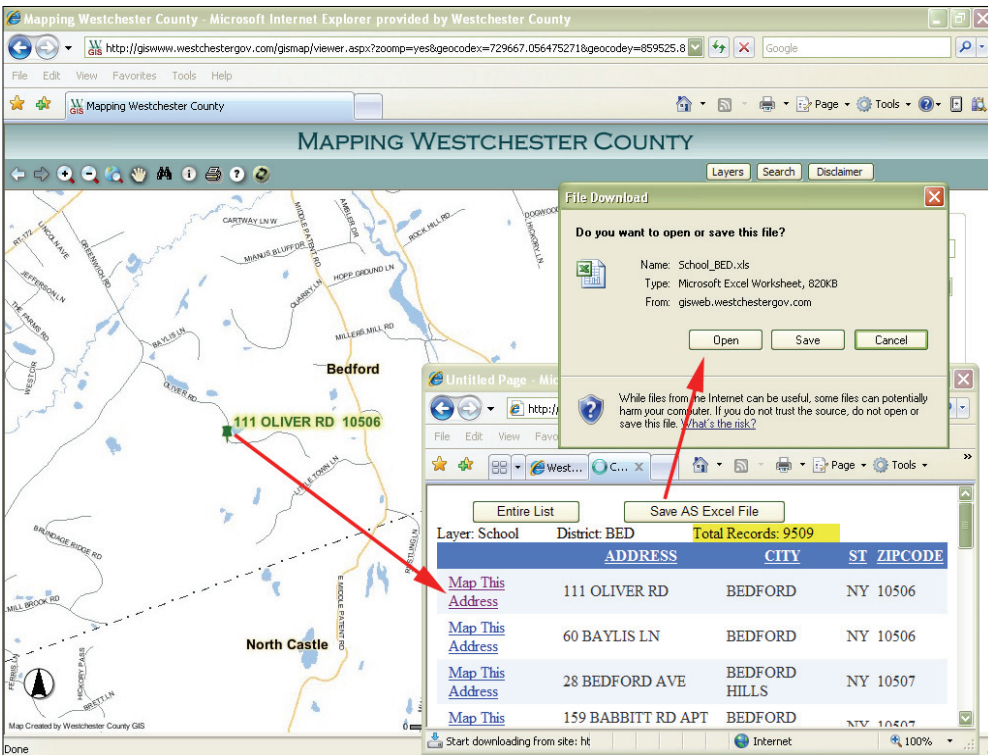
programs and encourages residents to identify similar efforts in their neighborhoods and communities. Users can find out where to dispose of household chemicals, old cell phones and tires, or locate a farmers market. It's easy to look for a nature preserve, garden or walking trail, as well as find out what builders and retailers are promoting energy efficiency. For more information contact Cynthia Louie at llc4@westchestergov.com.

Mailing List Generating Utility

County GIS develops intranet application

Westchester County GIS recently developed an in-house "Mailing List Generating Utility" intranet application to manage the county's bulk mailing. Thousands of mailings are sent out every year by Department of Information Technology to county residents, with information about news and events throughout the county. The intranet application allows county staff to choose which of 12 districts (assembly district, congress district, election district, fire district, legislation district, municipal boundaries, police district, school district, senator district, sewer district, water district and zip code boundaries) they wish to send the bulk mail. The application then generates the list in Excel format. The application uses the "Walk Sequence" mailing address by Peachtree Data (<http://www.peachtreedata.com>), which con-

tains nearly 350,000 residential addresses. Addresses were geocoded into x, y coordinates from street centerline data and spatially joined to district boundaries using ArcGIS. The user interface was built using Microsoft .NET software with built-in functionality to allow users to view their results on a map using *Mapping Westchester County* ArcIMS service. This is a typical sample of the new trend in technological advances where the user is consuming data from on-line application without the need of a desktop application. Previous to the "Mailing List Generating Utility," mailings could only be targeted by municipalities or by zip codes. Now mailings can be sent specifically to residents within a special district. For more information, contact Dongming Tang at dqt3@Westchestergov.com.



Mapping Westchester County ArcIMS application interface can be called by clicking "Map This Address" link for the record of interest. The data is then being rendered from within the *Mapping Westchester County* ArcIMS service.

Public Works Seminar

On July 1, Westchester County GIS hosted their second GIS for Public Works seminar for local and regional public works professionals. The seminar was a success, with over 30 people attending, representing local governments and industry from Westchester and Rockland counties. County GIS staff initiated the meeting to provide an overview of county geospatial datasets commonly used in the public works profession: large scale planimetrics, street features, contours, tax parcels, and orthophotography. ESRI (www.esri.com) representatives Paul Rooney and Mark Scott then led the seminar, discussing common challenges faced by public works departments that are building GIS capacity and programs. One common goal of such efforts is to build and automate asset management programs that effectively reduce taxpayer costs and improve services. For more information on this and other future seminars contact Ana Hiraldo-Gomez at aeh2@westchestergov.com.

WCMAP Awards

The Westchester County Mapping Assistance Program (WCMAP) is a new grant program which County GIS staff has created with support from ESRI. The program "bundles" a ArcView GIS software license with an initial year of maintenance, online training from the ESRI Virtual Campus, and hardcopy training materials. The initial grant program was designed to assist selected law enforcement organizations in building initial GIS capabilities. This year's recipients included the towns of Yorktown and Mamaroneck, Village of Mamaroneck and Westchester County District Attorney Office. It is anticipated sample products from this year's recipients will be presented in the GIS newsletter in early 2009. For more information contact Ana Hiraldo-Gomez at aeh2@westchestergov.com.

Municipal Tax Parcel Update

The towns of Mamaroneck, Eastchester and Pelham have completed the conversion of their tax parcel data to digital format. Tax parcel geography will be available online at <http://giswww.westchestergov.com> under Local Government GIS - Municipal Tax Maps. Users can download the data as a shapefile. Attribute data includes Section, Block, and Lot (SBL) numbers as well as property land use codes. County GIS anticipates having additional current parcel data information for other municipalities participating in County's Tax Parcel Data Download program by end of the year. For more information contact Ana Hiraldo-Gomez at aeh2@westchestergov.com.

Articles and graphics in this newsletter prepared by: Jennifer Baudille, Xiaobo Cui, Ana Hiraldo-Gomez, Cynthia Louie, Deborah Parker, Patricia Reed, Dongming Tang, and Sam Wear.



<http://www.westchestergov.com>

Westchester County **GEOGRAPHIC INFORMATION SYSTEMS**

is published by the Westchester County Department of Information Technology

Andrew J. Spano, County Executive

Marguerite Beirne, Chief Information Officer

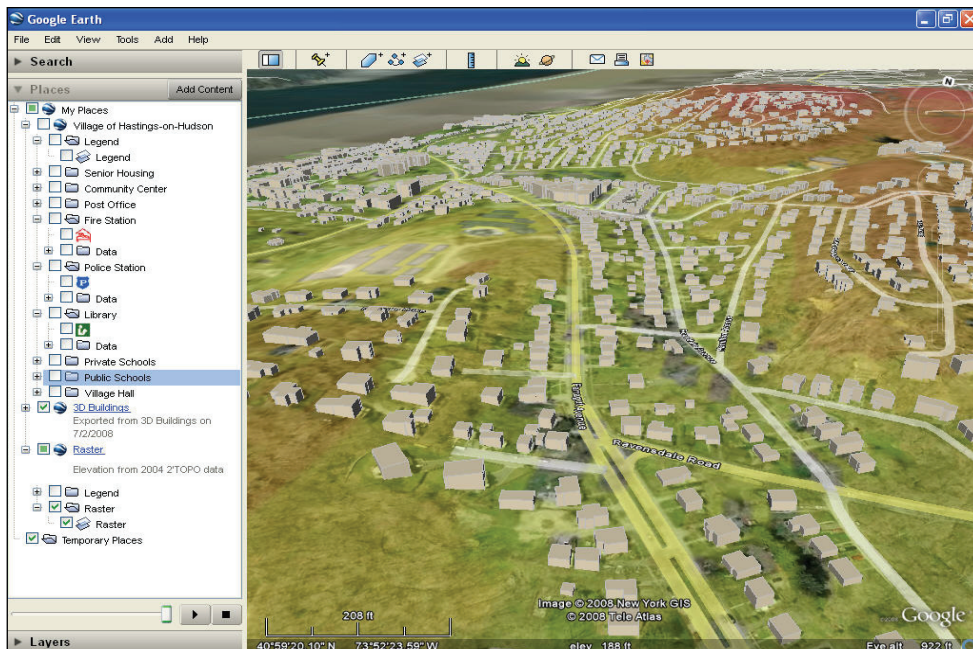
Local Government News

Westchester County continues to support local government GIS programs by providing a broad range of support and technical assistance. A new service, which has been initiated through the County Executive's Shared Services program, includes offering

3D models (buildings and contours) which can be viewed using Google Earth software (<http://earth.google.com>). Recently county GIS made a presentation to the **Village of Hastings-on-Hudson's** Comprehensive Plan Committee using Google Earth to highlight

the vast array of data and planning information available for download and offered through the *Mapping Westchester County*. A similar presentation was also given to several **Town of Cortlandt** staff who are considering the use of 3D graphics and simulations at planning board meetings and presentations. The **Town of North Salem** and **City of Peekskill** are also working with GIS staff to acquire 3D building models.

County government outreach has also recently included providing online training courses through the ESRI virtual campus (<http://training.esri.com>) to DPW staff in the **Town/Village of Mt. Kisco** and the **Village of Briarcliff Manor's** Water and Sewer Department. The online training will provide the staff the knowledge and skills needed to further develop the municipalities's GIS programs. The **Town/Village of Mt. Kisco's** Police Department worked with the county to develop a crime analysis map from data downloaded from 2007 incidents, and the **City of New Rochelle** hired Arbor-pro (<http://www.arborprousa.com>) to conduct a tree inventory of approximately 40,000 city-owned trees using GPS technology. For more information on local government GIS, contact Ana Hiraldo-Gomez at aeh2@westchestergov.com.



View of the Village of Hastings-on-Hudson 3D building draped on top of elevation model generated from 2' TOPO data.