City of Milford GIS

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MIS Department
Community Statistics

- Approximately 25 square miles
- 2000 Population 52,305
- Number of Parcels 22,500
  - Condominiums 3,000
  - Commercial/Industrial 1,400
  - Single-family residential 15,300
  - Exempt 720
- Total Market Value (2000 Values) $5.09 Billion
City of Milford GIS

- GIS in MIS
- Brief History of GIS in Milford
- Examples Department Use
  - Community Development
    - Assessor
    - Inland Wetlands
    - Planning and Zoning
  - Public Safety
    - Health
    - Police
    - Fire
MIS

- Departmental Use
  - Traditional city financial support, network support, email, internet, databases and now GIS
    - MIS Coordinator, Jean Lasczak
    - Network Administrator, Liz Berggren
    - GIS Coordinator, Mark Goetz
    - GIS Clerk, Judy Keeler
    - SCSU Interns (Chris keep them coming!!)
Why GIS in MIS?

- GIS data centrally stored and accessed
- Coordinated MIS/GIS data activities
- Increased communication and cooperation between traditionally disparate departments, commissions and boards
- 1 ArcInfo License, 3 AutoCAD Map, 10 ArcView 3.x, 10 Generic Map Objects Viewers
History of GIS in the City of Milford

- **1996**
  - RWA and City of Milford Cooperative Agreement to develop base GIS ~$100,000 each

- **1997**
  - Data finalized.
  - Beginning use in engineering, MIS and the Fire department
  - 5 users

- **1998/1999**
  - Partial Needs Assessment
  - 2-3 users

- **1999**
  - Assessor Tax Maps Digitized ~$60,000
  - 2-3 users
History of GIS in the City of Milford

- **2000**
  - Official inland wetland maps digitized
  - Tree Inventory begins
  - Parcels updated
  - In-house revaluation completed
  - 12 users

- **2001**
  - Parcels updated
  - GIS Coordinator hired
  - Original Data reformatted
  - 15 users
History of GIS in the City of Milford

- **2002**
  - Parcels updated
  - SBC/SNET Orthophotos licensed, $1,850. April 2001 photography date
  - SCSU Intern ‘closes’ paved features into polygons
  - 2 Milford employees take advantage of wonderful 5 day ArcView GIS training at Uconn, $300
  - Tree Inventory completed
  - 20 users

- **2003**
  - Parcels updated
  - 2 more Milford employees take advantage of wonderful 5 day ArcView GIS training at Uconn, $300.
  - 25+ users
Departmental Use

- The Assessor and three deputies value real estate, motor vehicles, and personal property, in order that each taxpayer bears their fair share of the tax burden.

- Vision Appraisal Systems CAMA software
  - Built-in Map Objects GIS viewer
  - Oracle RDBMS
  - GIS integrated with RDBMS

- Parcels digitized into GIS in 1999
- Updated bi-annually
**Daily Work Benefits**

- Locate parcels
- Pre-field inspection in conjunction with photos
- Acreage comparisons (Field card vs. GIS)
- Assistance to other departments with data requests
- Mass updates to CAMA database assisted with GIS selection sets
- Quality control of assessments using GIS and photos
- Comparison of other City GIS datasets with parcels such as wetlands, water features, and topography for assessment purposes
Revaluation Benefits

- 2000 Revaluation done completely in-house
  - 2004 Revaluation planned
  - Savings in the millions of dollars over 12 years
  - Paperless revaluation
- Analyze assessment ratios within GIS and make changes in the CAMA to flatten ratio
- Analyze trends within assessment neighborhoods
Neighborhood Analysis
Assessed Property Value Ranges
Property #1
Property #2
Assessor

Future

– Continued progressive use of GIS and CAMA technologies

– Import Census and Local Zoning information from GIS into CAMA database (OPM reporting requirement)
Inland Wetlands

- Department Use
  - The MIWA is responsible for the review and permitting of any work within an inland wetland or watercourse or within an upland review area around a wetland or watercourse.
  - Official inland wetland maps digitized spring 2000
  - IW Compliance Officer Uconn 5 day ArcView GIS training. July 2002
  - Staff Clerk DEP ArcView GIS training. 3 nights in 3 weeks. January 2003
Inland Wetlands

**Daily Work Benefits**
- Review of site plans against existing data in the GIS including upland review areas
- Answer citizen inquiries and complaints much quicker than before existence of GIS
- Printouts for field work
- Access to important datasets in one comprehensive environment: Parcels, Flood zones, wetlands, topography, pavement and orthophotography.
- “great for looking for progressive (regressive) changes”
Inland Wetlands

Future

- Update official inland wetland maps with as-built digital data
- Watershed analysis
Planning and Zoning

- Department Use
  - Use of Map Objects GIS viewer since Summer 2001
  - Access assessor parcel GIS and small portion of CAMA database, inland wetlands, buildings, pavement and FEMA Q3 flood zones
  - Zoning Maps Digitized waiting on final approval
  - Plan of Conservation and Development heavily influenced by GIS. (HMA consultant)
Plan of Conservation and Development

“As a prerequisite for all planning and analysis as part of the Plan of Conservation and Development Update, a digital base map was prepared in order to use Geographic Information System (GIS) technology. The digital file to create the base map as well as a link to data on a parcel basis contained in the Assessor’s records was provided by the Milford Management Information Systems Department.” Page 2, City of Milford, CT Plan of Conservation and Development

http://milfordct.virtualtownhall.net/Public_Documents/MilfordCT_Develop/
Planning and Zoning

- Daily Work Benefits
  - Review of site plans against existing data in the GIS including flood zones and inland wetlands
  - Answer citizen complaints much quicker than before existence of GIS
  - Generate abutters lists with the click of a button
Map Objects Viewer
Search Assessor Information
Health

- **Department Use**
  - Mosquito abatement program (4 years)
    - Integrated Mosquito Control (consultant)
    - Management of approximately 80 mosquito breeding sites throughout the city with larvacides
    - GPS and handheld technologies
  - Department in beginning phase of using GIS
  - New Health Director proactively pursuing department-wide use of GIS
  - Sanitarian Uconn 5 day GIS training. January 2003
Health

- Anticipated Benefits
  - Quicker response to citizen inquiries and complaints
  - Reduction in the number of hatched mosquitoes without spraying
  - Ability to proactively respond to a number of emerging infectious diseases using GIS
  - Analyze lead paint potential based on assessor’s information (Year home built)
  - Quicker response to beach closures by analyzing areas of poor water quality to locate source of pollutants
Department Use
- AVL began Spring 2002
- Automated Vehicle Locator (AVL)
  - Plant Equipment ORION MapStar
  - GPS installed on all patrol vehicles
  - GPS signal sent to dispatch via radio modem
  - Location of patrol vehicles displayed on projection screen in dispatch
Police Dispatch Center
City of Milford GIS data in AVL
State-wide GIS data in AVL
Department Use

- GIS use began in the July of 2002
- Lieutenant Uconn 5 day GIS training. July 2002
- Beginning phases of Crime/Incident Analysis
  - Pin maps and density maps
    - Motor vehicle accidents
    - Burglaries
    - Defective street lights
  - Traffic Accident Scene Analysis
  - SWAT Team Incident Analysis
Future

- GIS in Mobile Data Terminals in Patrol vehicles
- More advanced GIS Crime/Incident Analysis
Police

- Anticipated Benefits
  - Reduction in the number of burglaries and similar crimes
  - Reduction in traffic accidents within the right of way
Department Use

- Fire station wall maps and map books
- 6 years of use and maintenance of several GIS layers such as building footprints, golf courses, hydrants and gas/electric trunk lines
- Beginnings of a mobile computer project that includes GIS and pre-planning software
  - Using existing City of Milford GIS data
  - Pre-planning data maintained for nearly 8 years
Recap

- Multiple departments accessing GIS
- Data shared between departments
  - Assessor data most widely used, both GIS and CAMA
  - Inland wetlands by Planning and Zoning and Assessor
  - Base GIS used by all
- Community Development and Public Safety initiatives
Conclusions

- Clear and extensive benefits from use of GIS
- Improved coordination and implementation in MIS
- Beneficial relationship developed in the Cooperative agreement with RWA
- Tremendous cost saving using SBC/SNET data products
- Wonderful training opportunities through the state schools including Uconn Geospatial Training Program GTP
  http://clear.uconn.edu/geospatial/default.htm
- Availability of Interns through state schools including SCSU
- GIS is a fantastic tool for communication and decision making in a local government setting