

Niagara County, New York

GIS Needs Assessment and Implementation Plan

2005 Addendum

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Overview

Niagara County obtained funding from New York State Archives (NYSA) in 2002 to conduct a GIS Needs Assessment and Implementation Planning study. A thorough needs assessment was conducted across 23 of 27 departments, districts and related agencies. Based on interviews and follow up discussions a 4 year implementation plan was developed to focus on data acquisition and creation; hardware and software purchases; application development; and end-user training.

Since Niagara County is preparing to apply for another round of funding from NYSA to implement GIS in 2006, the County was required to update their 2002 Needs Assessment and Implementation Plan to reflect the current needs and priorities of the County departments. This report provides a summary of the issues facing Niagara County and a series of recommendations to address those issues. This document is intended to augment but not replace the 2002 report as many of the issues identified in 2005 were also identified in 2002 further solidifying the needs and requirements.

Technical Approach

The 2005 study was not designed or budgeted to replicate the original GIS Needs Assessment study, but was configured to revisit the departments that had expressed the most interest in GIS in the previous study and to reestablish a baseline of GIS requirements and prioritized recommendations for Niagara County to move forward with GIS in an appropriate manner. The following tasks were completed to achieve the project goals and objectives:

- Kickoff Meeting
- Reviewed 2002 Implementation Plan and Needs Assessment report.
- Developed and Distributed GIS/IT Questionnaires
- Conducted Interviews with Key Departments
- Developed and reviewed Recommendations
- Developed a Revised Implementation Plan
- Provide Final Presentation to County Legislators
- Developed Final Report

Results

The bullets below summarize the results of the revised GIS Implementation Plan review:

- 11 of 27 departments responded to questionnaires.
- 10 departments reviewed and revised 2002 interview summaries.
- 9 departments conducted face to face interviews.
- All departments that expressed interest in GIS in 2002 still maintain interest and need for GIS in 2005.
- Some needs and priorities have shifted in 3 years, but overall GIS remains a viable tool for Niagara County.

- Niagara County has laid the ground work for successful GIS implementation through the development of the GIS-based parcel data management, existing IT networks and specific departments like Public Health, Water District and Economic Development that have already embraced the technology.

The table below indicates the results of our efforts. The table is broken into 2 major categories – Actions & Responses and Compiled Requirements. The Compiled Requirements are in turn broken into 5 subcategories for Hardware, Software, Data, Applications, and Training. The data subcategory is further divided into Creation, Acquisition, and Scanning subsections to depict how the data is to be compiled. The first row of the table contains the names of all the departments contacted for the 2002 and 2005 studies. Names in red indicate the departments with the highest likelihood of successfully embracing GIS. Our team was not surprised or disappointed by the outcome of the responses to either the questionnaires or the 2002 interview summaries. In 2002 not every department in the County was interviewed because of the nature of the department’s roles and responsibilities. As a result there were a number of departments that were not sent interview summaries for review. The yellow cells with **NA** indicate departments that opted to not take part in the GIS questionnaire and interview processes. Yellow cells with an **X** indicate departments with no changes from the 2002 interview process and expressed limited use of GIS even though they went through the 2002 interview review process. **Blue** cells in the 6th row indicate departments that expressed some level of interest in GIS but were either not ready to embrace the technology or in the case of the Soil & Water Conservation District are not directly funded or controlled by Niagara County. As a result, we did not conduct face to face interviews with these four departments. We did, however include the results from their questionnaires and 2002 interview summaries in developing the implementation plan.

The Xs in the table below do not have a “priority score” associated with the results, but merely indicate a positive response for the potential use of the listed data or function. However a detailed Access database was revised from the 2002 study which does have a priority score associated with applications and datasets to create a defensible 4 year implementation plan discussed later in this document. This table is included to provide a high level overview of perceived needs and responses by department.

	Aging, Office for the	Audit	Board of Elections	Budget	Central Data Processing	County Clerk	Employment & Training	Fire Coord. & Emg. Services	Historian	Human Resources	Industrial Dev. Agency	Management- Co. Mgr	Mental Health	Economic Development	Probation	Public Health	Public Works	Real Property Tax Services	Refuse Disposal District	Risk/Insurance	Sewer District	Sheriff	Social Services	Soil, Water Conservation Dist.	Veteran's Services	Water District	Weights & Measures	Request Counts	
Actions & Responses																													
Questionnaires Sent	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	27
Questionnaires Returned							X				X			X	X	X	X	X				X		X		X	X	11	
2002 Interview Summary Sent	X	X	X	NA	X	NA	X	X	NA	X	X	X	NA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	23	

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2002 Interview Notes Returned											X			X	X		X		X		X	X		X		X	X	10
2005 Follow-up Interview					X						X			X		X	X	X			X	X			X		X	9
Compiled Requirements																												
Hardware																												
New Windows PC							X																					1
Tablet PC																									X			1
SNAP storage devices					X					X			X		X									X				5
Large Format Scanner					X																							1
GPS units													X		X	X						X						4
Network infrastructure					X					X			X		X							X		X				6
Software																												
Windows XP							X																					1
ArcPublisher										X			X					X										3
ArcReader										X			X		X	X												5
ArcGIS / ArcView														X		X					X	X				X		5
Data Interoperability																X	X											2
Autodesk Map																X	X											2
ArcLogistics Route							X								X	X												3
Hydraulic Model																									X			1
Pictometry										X			X			X						X		X				5
Image Analysis													X											X				2
Data																												
Creation or Conversion																												
Political Voting Districts			X							X	X		X															4
Zoning Maps										X			X															2
Contours										X			X											X				3
Buried Utilities					X					X			X			X					X				X			6
Vegetative Cover										X			X											X				3
Airports							X			X			X															3

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Landuse											X			X				X			X			X				5
Major Employers							X	X			X			X		X					X							6
Educational Institutions			X				X				X			X														4
HUD Poverty Zones							X				X			X										X				4
Empire Zones							X				X			X														3
Municipal Boundaries			X								X	X		X				X			X	X		X				8
Landfills								X			X			X		X			X					X				6
Parks & Facilities														X			X											2
Bridges & Culverts																	X											1
Bike paths														X														1
Aquifers											X			X		X								X				4
Industrial Directory DB								X			X			X							X							5
CAD to GIS																	X				X				X			3
Historic sites & properties									X					X				X										3
Brownfields								X			X			X		X			X									5
Scanning																												
As built drawings					X											X	X				X							4
RPTS Map Book pages																		X										1
O&M Manuals																					X							1
Building Floorplans					X			X								X			X		X							5
Historic aerial photos																								X				1
Acquisition																												
Census											X			X														2
NYS Digital Orthophotos											X			X	X	X						X		X				7
NYS ALIS street data											X			X	X	X						X			X			7
Recent Parcel Data								X			X			X	X	X					X	X		X				9
Geology (surface/subsurface)											X			X										X				3
Hydrology											X			X										X				3
Watersheds											X			X										X				3
Railroads								X			X			X														3
Survey Control Points																X												1

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Soils											X			X										X				3	
FEMA flood maps											X			X			X							X				4	
Ag Districts											X			X				X						X				4	
Environmentally Sensitive Areas								X			X			X		X				X				X				6	
EPA contaminated sites								X			X			X		X				X				X				6	
Underground storage tanks								X			X			X		X				X								5	
Wetlands											X			X										X				3	
Applications																													
General Query & Display Tool	X		X			X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	23
COGO tool																		X										1	
RPTS Map Book Integration						X					X			X				X										4	
Site Permit Tracking tool											X			X														2	
Crime Analysis															X							X						2	
Lab Data Display																X										X		3	
Asset Inventory DB																	X									X		3	
Park Facilities Rental Management														X			X											2	
Pavement Management																	X									X		3	
Work Order Management																	X									X		3	
Road Sign Maintenance DB																	X											1	
Bridge & Culvert Inspection Tool																	X											1	
Dig Safely																	X					X				X		3	
Data Viewer											X			X		X	X	X										7	
Database Integration					X						X			X	X	X	X											7	
Image Integration					X						X			X	X	X						X	X					8	
Bulk Address Matching/Geo coding			X				X			X	X	X	X	X	X	X	X					X		X		X	X	14	

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CAD Integration																X	X				X							3
Hydraulic Modeling																X					X					X		3
Training																												
Pictometry					X			X			X	X		X		X	X	X	X		X	X		X				1 2
ArcReader										X				X		X												3
ArcGIS / ArcView										X				X		X	X				X	X				X		7
ArcEditor										X				X				X										3
ArcIMS	X		X		X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 3
count totals	4	2	8	1	1 3	4	1 3	1 6	2	4	5 3	7	4	5 9	1 1	2 7	4 1	2 9	7	9	2 8	2 1	6	2 9	5	2 0	7	8 7
percentage of total	5 %	2 %	9 %	1 %	1 5 %	5 %	1 5 %	1 8 %	2 %	5 %	6 1 %	8 %	5 %	6 8 %	1 3 %	3 1 %	4 7 %	3 3 %	8 %	1 0 %	3 2 %	2 4 %	7 %	3 3 %	6 %	2 3 %	8 %	1 0 0 %

Outstanding Issues

There were a number of outstanding issues identified through the course of the questionnaire responses, written interview summaries and face to face interviews. Those issues are listed below.

Document Management

- Strategic need to shift away from paper Documents to Electronic Document Management System (EDMS) in all departments.
- Pertinent paper documents, maps, aerial photos, and As-Built drawings should be scanned and indexed to help all departments to share and access common documents.

Access to current GIS data

- All departments could benefit from timely access to current GIS data stored in a centralized database, however the cost of providing adequate network bandwidth to support “live access” to large volumes of GIS and image data is cost prohibitive.
- The Sheriff’s Department has out of date street centerlines in a 911 System which often geocodes out into Lake Ontario if a street address is not found.

- Economic Development needs access to more up-to-date parcel outlines and property ownership information for permit assessment.
- Economic Development and Public Health needs access to current Census blocks and tracts and associated demographic information for assessing current conditions and trends in population patterns.
- The Sewer District could benefit from access to current parcel outlines and property ownership, Assessor records as well as current water billing information.

Creation of New Data

- Economic Development has a prioritized need for current and consistent county-wide zoning maps. Some communities have zoning maps in a digital format, but most have outdated paper maps. The zoning codes are not consistent between towns and lead to land use confusion at town borders.

New Functionality

- The Water District currently relies on an outside consultant to update and run a hydraulic modeling software product (CyberNet) on an infrequent basis. They expressed a desire to run the model and analyze the results within a GIS interface when they needed to test possible growth or demand scenarios.
- The Economic Development Department expressed a strong desire to track permit application and review processes for new construction projects as they relate to environmental impact studies and zoning regulations.

Efficiency and Cost Savings

- There is room to achieve additional cost savings within Niagara County by using IT and GIS technology to share common datasets through electronic document management.
- Vehicle Routing could play a significant role in reducing vehicle operating and maintenance costs for Niagara County in the areas of Public Assistance Transportation, Visiting Nurses, Probation and other functions.
- Due to the overall skepticism about realizing the potential savings from productivity gains from using GIS across all departments identified in the 2002 study, the savings potentials based on number of users, frequency of use and time savings from the use of GIS were toned down to align better with the comfort level of the County staff.
- That being said, a significant reduction in potential savings was observed in the Sheriff's Department between 2002 and 2005 for the following reasons. In 2002 the Sheriff's Department was perceived as the department that could benefit most significantly from the use of the GIS as a very important function in almost all aspects of the Sheriff's staff activity. As a result the Sheriff Department leadership in 2002 anticipated large numbers of users would use GIS throughout their daily functions and would realize significant savings in productivity. However, since 2002, the Sheriff's 911 software vendor (NewWorld) has come out with a series of GIS-based modules to handle crime analysis, beat maps, AVL, and field portable GIS etc. As a result, the new Department leadership no longer sees the need for GIS as a stand-alone function except to upgrade the quality and content of the 911

display maps. A number of the applications and tools identified in 2002 were deemed to be a low priority and were removed from the department's wish lists.

GIS Knowledge Transfer

- To fully embrace GIS and to gain the full benefits available to County, staff needs to be trained in the use of the available GIS resources and tools – namely the use of the ArcIMS mapping system being hosted by Erie County.

Recommendations

The following is a subset of the overall recommendations that highlight the immediate needs and opportunities to move GIS forward within Niagara County.

- Sign a data hosting agreement with Erie County to continue to rely on Erie County's free (or low cost) access to ArcIMS for hosting Internet mapping services.
- Acquire free GIS viewing software to provide easy to use access to local data (Industrial Development, Health, and RPTS).
- Purchase appropriate GIS software for power users.
- Acquire the latest version of the NYS ALIS (Accident Location Information System) street centerline file for improved address matching (geocoding).
- Establish a set schedule for distributing parcel data to interested parties on a monthly or quarterly basis.
- Acquire existing databases or map layers from the NYS GIS Clearinghouse, EPA, USGS, USDA, Census Bureau, etc.
- Improve data sharing of existing data with all departments.
- Convert paper map data to vector datasets (zoning, municipal boundaries, utilities, etc.) based on prioritized needs and benefits.
- Create databases to augment and enhance electronic data management and sharing of information (permit tracking, asset management, RPTS plot books, O&M manuals, etc.).
- Update existing digital databases or map layers that play a key role in daily decision making.
- Purchase SNAP (Network Storage Devices) to provide local GIS data storage at remote sites with limited network bandwidth.
- Define and develop nightly download / upload schedule routines to synchronize data to and from remote sites using existing network at night.
- Evaluate and streamline procedures to eliminate redundancy, reduce rework, save time and money.
- Acquire GPS units for departments to gather field location information (Public Health, Public Works, Sewer District, and Water District).
- Provide users with adequate training and opportunities to apply their classroom experience to real world problems.
- Define a clear change management strategy to ensure success for this digital revolution at Niagara County.

Grant Application Focus

While writing the NYSA grant was not within the scope of our project, we felt we should provide a summary of ideas that could be used to define a successful grant application process within the context of the 4 Year Implementation Plan. The following elements were selected to support the grant application process.

Hardware

- Procure and configure a large format color plotter (HP 1055CM or comparable) to support centralized hardcopy map generation.

Software

- Procure install and configure the following software
 - ArcSDE
 - ArcGIS (ArcInfo)
 - ArcPublisher
 - Data Interoperability extension
 - Autodesk Map 3D (network version)

Training

- provide or coordinate end-user training for
 - Autodesk Map - 2 students
 - ArcGIS - 2 students
 - Intro to GIS – 3 students
 - GIS Admin.- 3 students

Miscellaneous GIS Consulting

- Map Server Setup – Configuring the hardware and software to support the existing GIS data in a Geodatabase.
- Install Parcel Outlines – import the RPTS parcel data into the geodatabase.
- RPTS Historic Parcel DB – Port the RPTS database from UNIX to Windows to enable integrating the scanned plot book pages with ArcGIS.

Not so Frequently Asked Questions

The following text represents a series of questions posed during the draft review of the report and the answers are included to fully document the process and logic behind the Implementation Plan.

Q: Why is there such a large discrepancy between the costs and projected savings between the 2002 report and the 2005 report?

A: As stated earlier in this report, there was a fair amount of skepticism raised regarding the potential savings forecast in the 2002 Implementation Plan from the future use of GIS across the identified departments in Niagara County. As a result, the savings potentials based on number of users, frequency of use and time savings from the use of GIS were toned down to align better with the comfort level of the County staff. That being said, the potential savings have been reduced from the 2002 projections.

Q: Why are the data conversion costs different from the 2002 study when the Implementation Plan for the County agencies is split out from the County Departments?

A: The original Implementation Planning tool allocated the data conversion costs across all parties (applications by department) that share the data. When the County and Agencies were combined in the original 2002 study, the data conversion costs were shared equitably between all potential beneficiaries. In 2005, when the Agencies and Departments were split out, two separate Access Databases were created. These individual databases lost track of the data sharing percentages and therefore assumed that a smaller group of departments were sharing the cost of data conversion. As result, in the first 2005 release of this report, there was some double dipping for data conversion costs. To resolve this issue, since the two databases no longer “saw” the shared data users, it was necessary to include a “Shared Percentage” value in each database to express the shared cost of data conversion between departments and county agencies. This percentage value was based on the total counts of requests for each dataset reported in Appendix H3. Some data conversion costs can be shared across agency / department lines, but others (like CAD to GIS data conversion) represent a unique set of files and a unique set of costs to be borne by the respective department or agency.

Q: How were the costs for data conversion arrived at?

A: Most costs were estimated based on previous data conversion experience and assumptions regarding the quality, quantity and availability of the source documents or datasets.

Q: Why does training seem to repeat year after year?

A: If the training is listed in multiple years it is assumed that a subset of the staff is trained in each of the subsequent years. In some cases, staff may need a refresher class, but in most cases it is that 3 people were trained in year 1, 4 new people trained in year 2, and 3 more people trained in year 3, etc.

Q: Why do some conversion costs spread over multiple years?

A: Either due to the complexity or volume of the datasets, the conversion effort costs were spread out over multiple years. In some cases if the conversion is an ongoing effort (i.e. every year a dataset is collected and converted), the costs would be reflected in multiple years.

Q: Why is there a miscellaneous category called Ongoing Support with a cost of zero?

A: Because of a limitation of the summing tools in Access, a null value throws off the calculations. To avoid this problem Ongoing Support is included with a zero value to ensure the summation works properly.

Q: Are PC upgrades and replacement costs a duplication of the existing Tech / Capital Planning replacement plan?

A: If the costs of all PC equipment are already budgeted through a separate budget, then yes. If that is true, then all hardware upgrades should be removed from the Access-based Implementation Plan database.

Q: Should citizens be given training in the use of the web-based GIS or the Pictometry product?

A: Yes. If one of the objectives of deploying GIS is to increase self service options to the public and to reduce the “counter” time County employees spend helping the public with questions they could resolve themselves, then yes. However, we would recommend simple demo style training sessions that could be held in the evenings at local high schools, community colleges, or Universities.

Q: How does ESRI compute maintenance costs?

A: ESRI charges primary and secondary annual maintenance costs at in the following manner. For all ESRI software products the retail price includes the first year of support for free. For subsequent years, ESRI charges a license or maintenance fee which includes tech support and free upgrades to the software during that year. If an organization buys 5 copies of a software product (e.g. ArcMap), ESRI charges a primary maintenance fee for the first user and a secondary (lesser) maintenance fee for the 2-4 copies of the software. For each primary license the user is allowed to pay secondary support fees for the next 9 licenses. If the organization purchases 6 more licenses for a total of 11 copies, they would be charged for 2 primary licenses (license 1 and license 10) and charged secondary license fees for copies 2 through 9 and for license copy 11.

Q: What is geocoding?

A: Geocoding or address matching is a process by which a street address (house number, street name, street type, and zip code or town name) is used to create a point feature (a dot on the map) which denotes the approximate location of the address.

Q: What data is needed for geocoding?

A: Geocoding relies on parcel outlines or street centerline data layers as reference layers with address attributes and an address to match.

Q: What controls the accuracy of the geocoding?

A: The quality of the geocoding process is depended on the geographic accuracy of the parcel outlines or the street centerline data layers as well as the completeness and accuracy of the address attributes. Parcel geocoding relies on matching a single address value and required an exact match. Parcel data usually provide the most accurate depiction of the address location. Whereas geocoding based on street centerlines interpolates the address location based on the range of beginning and ending addresses on the left and right side of the street segment. If the parcel attribute data are incomplete, the match will fail. If the street centerline data is incomplete or inaccurate, the match process may fail or may create a dot in the wrong location.

Q: How does the geocoding process relate to the parcel NAD27 to NAD83 conversion effort?

A: It only relates as a quality assurance check if the parcel location address was cleaned up and validated during the NAD83 conversion. Geocoding relies on the content of the parcel address values to create matching points. A simple check would evaluate the completeness of the parcel location addresses and check for null values, missing house numbers and misspelled street names.

Q: What does “decontaminated sites” refer to?

A: Decontamination sites refer to designated areas used to clean up and decontaminate first responders or evacuees following a chemical spill or release. The area would be selected upwind from the response site and have access to adequate water, drainage, etc.

Q: What is meant by “portion of costs to be paid department”?

A: This value represents a percentage of the total data conversion cost for a given layer that could be assigned to a department that would benefit from the use of the data.

Q: What is meant by “# requests for this data (by dept)”?

A: Appropriate data layers were assigned to each application and assigned a weight to indicate if the data would be critical, functional or nice to have. For each “request” or time the data layer was associated with an application, a data layer request was incremented and associated with each department.

Q: How were the “% of total requests for this data” calculated?

A: In the Implementation Plan Database a counter is incremented each time an application “requires” a database or data layer. The % of total requests is computed as follows - if department A has 3 applications that require street centerlines and department B has 6 applications that require the same data layer, then it stands to reason that department B should pay for a larger share of the data conversion or development costs.

Q: Why is the Data Processing group assigned large expenditures for software and hardware (scanners and plotters) when they probably won’t be power GIS users?

A: Until an official GIS Service Bureau is established in Niagara County it is suggested that the Data Processing group, as the keepers of the GIS data servers, be given the role of maintaining the GIS related hardware in a centralized setting. This seemed like a natural role for Data Processing to play given the long term goal of installing and hosting ArcIMS and ArcSDE on a centralized GIS server.

High Level Implementation Plan

The following sections outline the highlights of the 4 year implementation plan. A more detailed summary is included in later sections of this report. It should be noted that the first two years of the plan is more detailed and the last two years are increasing less certain and therefore less detailed.

Year One

Hardware

- SNAP Servers
- Sub-meter GPS Units
- Tablet PCs
- Desktop PCs
- Large Format Scanner

Software

- ArcPublisher
- ArcReader
- ArcView
 - Data Interoperability
- Autodesk Map 3D

Applications

- Acquire, enhance or develop GIS applications to support
 - Document management and integration
 - Water Quality Sampling Capture
 - Human and Environmental Communicable Disease Monitoring
 - CAD & Survey Integration
 - 911 Map Displays
 - Vehicle Routing
 - Automated Vehicle Locator (AVL)
 - Pavement Management
 - Sign Management
 - Bridge & Culvert Inspection
 - GIS-based Hydraulic Modeling
 - COGO legal description plot generation
 - ArcIMS or ArcReader based query and display tools
- Install and configure Pictometry in departments that need immediate access associated with SNAP servers to support data storage and access rates.

Data

- Acquire NYS ALIS street centerline data and make available to Sheriff, RPTS, Economic Development, Public Health, Public Works.
- Make parcel data available on a regular scheduled basis to all departments and agencies
- Scan all pertinent documents for archival and data sharing
 - As Built drawings
 - O&M Manuals
 - PRTS Map Book pages
- Convert all paper zoning maps to digital format and create high level county-wide zoning classification.
- Develop metadata standards to enable efficient data documentation and sharing.

Staffing & Training

- Provide adequate training for users of all levels to take full advantage of GIS resources
 - Lunch and learn for casual ArcIMS users
 - Hands on training for power users
 - Formal training for
 - GIS Administration
 - Autodesk Map 3D
 - ArcView
- Define job specification for GIS manager and GIS Technicians.
- Outsource Strategic GIS Implementation Assistance

Year Two

Hardware

- Acquire additional SNAP servers as disk space requirements increase or as new departments in remote sites need to gain access to GIS data.
- Upgrade PCs or acquire new PCs to keep up with performance demands.
- GPS units as field data entry increases.
- Tablet PCs as mobile GIS becomes more mission critical

Software

- ArcView for power users
- ArcPublisher / ArcReader for high-end casual users.
- ArcLogistics Route for dynamic vehicle routing
- Autodesk Map 3D for CAD users migrating to GIS
- ArcSchematics for viewing and managing networks (Data Processing Cabling, Water, Sewer)
- Computerized Maintenance Management System (CMMS)

Applications

- Site Permit Tracking
- Resident Notification
- Plume modeling for hazardous spills
- Hazmat data collection
- Employment Tracking / Job Search
- Call Before You Dig
- Probation Monitoring
- Crime Analysis
- Park Shelter Rental
- Ad District Management

Data

- Acquire an update to the Pictometry Image Library and share that on existing or new SNAP servers.
- Work with Towns and Cities in Niagara County to share GIS datasets

Staffing & Training

- Hire GIS manager to lead County GIS deployment, staff training and ongoing data conversion efforts.
- Hire GIS technicians to support GIS data conversion efforts, application development and staff training efforts.
- Continue to provide training as needed to keep employees skills current and to take full advantages of the GIS capabilities.

Year Three

Hardware

- Acquire a new Windows Server to host ArcSDE and ArcIMS within Niagara County's Data Processing Department's control.
- Tablet PCs as demand for portable GIS increases.
- Upgrade or replace equipment as budgets allow to keep current with user demand for performance and efficiency.

Software

- Acquire copies of
 - ArcSDE
 - SQL Server
 - ArcIMS to host Niagara County's Internet/intranet mapping system
 - ArcIMS Route to host vehicle routing on the ArcIMS system
 - ArcView
- WaterGEMS (CyberNet upgrade)
- Work Order Management System

Applications

- Transfer and enhance the Erie County supported ArcIMS sites to meet the needs expressed by users over the first two years of use.
- Front Counter Public Kiosk (Clerk and Tax)
- Vehicle Routing
- Nurse / Patient matching
- Resident Notification
- Web-based maps & directions

- Sex Offender Notification (public access)

Data

- Acquire additional useful available datasets from State, Fed and Commercial vendors that would support the growing user needs.
- Create additional data layers as needed based on priority and benefits.

Staffing & Training

- Continue to provide training as needed to keep employees skills current and to take full advantages of the GIS capabilities.
- Create internal GIS positions and promote staff from inside the ranks to fill these positions.

Year Four

Hardware

- Hardware upgrades as needed to stay current with user demands for performance.

Software

- Upgrades to GIS and CAD software as required to stay current with maintenance agreements and advancements in the technology.

Applications

- Election District Mapping
- Evacuation Planning / Response
- Redline Error Notification
- Veterans Service Planning
- SCADA integration with GIS
- Vehicle Routing

Data

- Acquire an update to the Pictometry Image Library and share that on existing or new SNAP servers.
- Convert esoteric and hard to find data like buried utilities (gas, electric, cable, etc.)
- Easements

Staffing & Training

- Continue to provide training as needed to keep employees skills current and to take full advantages of the GIS capabilities.

Detailed Implementation Plan Reports

The following sections are reports generated from the revised and enhanced Access Database that was originally developed and delivered to Niagara County in 2002. Since that time, the tool has been used to conduct additional GIS Needs Assessment and Implementation Plan studies. As a result, the tool has evolved and improved over the ensuing years. The applications, data, hardware, software and training specifications that were defined in 2002 were ported to the newer Access database structure and adjusted to match the current user requirements. In addition, the Access Database has been divided into two copies – one to reflect the County Departments and one to reflect all related agencies including Industrial Development, the Water and Sewer Districts, Refuse and Soil and Water Conservation. To save paper, we have only included three key report sections from the output of each of the Access Databases including:

- 1) The Projected Four Year Cost /. Savings Model
- 2) The Executive Summary
- 3) The Four Year Implementation Plan

County Report Pages

	Year 1	Year 2	Year 3	Year 4	Total
Hardware	\$67,900	\$44,000	\$45,300	\$26,000	\$183,200
Software	\$26,043	\$32,600	\$25,900	\$21,400	\$105,943
Training	\$35,150	\$51,650	\$38,800	\$24,450	\$150,050
Applications	\$45,500	\$55,200	\$45,500	\$26,000	\$172,200
Data	\$112,712	\$232,731	\$175,402	\$233,332	\$754,178
Miscellaneous	\$3,000	\$0	\$8,000	\$18,000	\$29,000
Subtotal	\$290,305	\$416,181	\$338,902	\$349,182	\$1,394,570
Less: Total Potential Savings	\$77,847	\$127,231	\$180,468	\$195,174	\$580,720
Bottom Line Costs (Savings)	\$212,458	\$288,950	\$158,433	\$154,009	\$813,850
Person yrs @ \$45,000 /yr.	1.7	2.8	4.0	4.3	12.9

Exec Summary - Computer Needs

Organization: Niagara County

Department # Requested Unit Cost Total Cost

Year 1 Recommendations:

Hardware

Color Desktop Scanner	Economic Development	1	\$300	\$300
Color Desktop Scanner	Public Works - Engineering	1	\$300	\$300
Color Ink Jet Printer	Public Works - Engineering	1	\$500	\$500
Large Format Color Scanner	Data Processing	1	\$20,000	\$20,000
Large Format Plotter	Data Processing	1	\$10,000	\$10,000
Large Format Plotter	Economic Development	1	\$10,000	\$10,000
Network Storage Device	Data Processing	2	\$1,200	\$2,400
Network Storage Device	Economic Development	1	\$1,200	\$1,200
Network Storage Device	Public Health	1	\$1,200	\$1,200
New PC	Environmental Health	2	\$2,000	\$4,000
New PC	Public Works - Engineering	1	\$2,000	\$2,000
New PC	Real Property Tax Service	2	\$2,000	\$4,000
NT Server	Data Processing	1	\$12,000	\$12,000
			<i>Subtotal =</i>	\$67,900

Miscellaneous

Autodesk Map 3D (configuration)	Public Works - Engineering	2	\$0	\$0
Autodesk Map 3D (configuration)	Real Property Tax Service	4	\$0	\$0
Map server set-up	Data Processing	1	\$3,000	\$3,000
			<i>Subtotal =</i>	\$3,000

Software

ArcGIS (ArcEditor) Annual Maintena	Real Property Tax Service	1	\$2,500	\$2,500
ArcGIS (ArcEditor) Annual Maintena	Real Property Tax Service	2	\$800	\$1,600
ArcGIS (ArcMap)	Public Works - Engineering	1	\$1,600	\$1,600
ArcGIS (ArcMap)	Real Property Tax Service	1	\$1,600	\$1,600
ArcGIS (ArcMap) Annual Maintenanc	Economic Development	2	\$200	\$400
ArcPublisher	Data Processing	1	\$2,000	\$2,000
ArcReader	Economic Development	3	\$0	\$0
ArcReader	Public Health	6	\$0	\$0
ArcReader	Real Property Tax Service	2	\$0	\$0
ArcSDE	Data Processing	1	\$8,000	\$8,000
Autodesk Map 3D (annual maintenanc	Real Property Tax Service	1	\$436	\$436
Autodesk Map 3D (network version)	Real Property Tax Service	1	\$3,907	\$3,907
Data Interoperability Extension	Real Property Tax Service	1	\$2,000	\$2,000
Data Interoperability Extension	Public Works - Building & Grounds	1	\$2,000	\$2,000
			<i>Subtotal =</i>	\$26,043

Organization: Niagara County

	<i>Department</i>	<i># Requested</i>	<i>Unit Cost</i>	<i>Total Cost</i>
<u>Training</u>				
ArcGIS (ArcInfo) Training	Data Processing	2	\$2,400	\$4,800
ArcGIS (ArcInfo) Training	Environmental Health	3	\$2,400	\$7,200
ArcGIS (ArcInfo) Training	Public Works - Building & Grounds	1	\$2,400	\$2,400
ArcGIS (ArcMap) Course	Environmental Health	4	\$600	\$2,400
ArcGIS (ArcMap) Course	Public Works - Engineering	2	\$600	\$1,200
ArcGIS (ArcMap) Course	Real Property Tax Service	2	\$600	\$1,200
ArcGIS (ArcMap) Course	Public Works - Building & Grounds	1	\$600	\$600
ArcIMS End User (3 hours)	Environmental Health	10	\$50	\$500
ArcIMS End User (3 hours)	Fire & Emergency Services	10	\$50	\$500
ArcIMS End User (3 hours)	Economic Development	8	\$50	\$400
ArcIMS End User (3 hours)	Public Health	35	\$50	\$1,750
ArcIMS End User (3 hours)	Public Works - Engineering	3	\$50	\$150
ArcIMS End User (3 hours)	Real Property Tax Service	6	\$50	\$300
ArcIMS End User (3 hours)	Sheriff	10	\$50	\$500
ArcIMS End User (3 hours)	Social Services	10	\$50	\$500
ArcIMS End User (3 hours)	Weights & Measures	2	\$50	\$100
ArcIMS End User (3 hours)	Human Resources	2	\$50	\$100
ArcIMS End User (3 hours)	Management and Budget	2	\$50	\$100
ArcIMS End User (3 hours)	Public Works - Building & Grounds	3	\$50	\$150
ArcIMS End User (3 hours)	Public Works - Highway	3	\$50	\$150
ArcIMS End User (3 hours)	Public Citizens	50	\$50	\$2,500
GIS Administration	Data Processing	2	\$1,000	\$2,000
GIS Administration	Real Property Tax Service	1	\$1,000	\$1,000
Intro to GIS	Data Processing	3	\$250	\$750
Pictometry training (3 hours)	Fire & Emergency Services	4	\$50	\$200
Pictometry training (3 hours)	Economic Development	3	\$50	\$150
Pictometry training (3 hours)	Public Works - Engineering	2	\$50	\$100
Pictometry training (3 hours)	Real Property Tax Service	6	\$50	\$300
Pictometry training (3 hours)	Sheriff	10	\$50	\$500
Pictometry training (3 hours)	Public Works - Building & Grounds	3	\$50	\$150
Pictometry training (3 hours)	Public Citizens	50	\$50	\$2,500
<i>Subtotal =</i>				\$35,150
<i>Total Year 1 Recommendations:</i>				\$132,093

Organization: Niagara County

	<i>Department</i>	<i># Requested</i>	<i>Unit Cost</i>	<i>Total Cost</i>
<u>Training</u>				
Access Basics	Real Property Tax Service	3	\$200	\$600
Access Database Design	Real Property Tax Service	1	\$300	\$300
ArcGIS (ArcInfo) Training	Employment and Training	1	\$2,400	\$2,400
ArcGIS (ArcInfo) Training	Environmental Health	2	\$2,400	\$4,800
ArcGIS (ArcInfo) Training	Fire & Emergency Services	2	\$2,400	\$4,800
ArcGIS (ArcInfo) Training	Public Works - Building & Grounds	1	\$2,400	\$2,400
ArcGIS (ArcInfo) Training	Public Works - Highway	2	\$2,400	\$4,800
ArcGIS (ArcMap) Course	Employment and Training	2	\$600	\$1,200
ArcGIS (ArcMap) Course	Environmental Health	2	\$600	\$1,200
ArcGIS (ArcMap) Course	Fire & Emergency Services	2	\$600	\$1,200
ArcGIS (ArcMap) Course	Economic Development	4	\$600	\$2,400
ArcGIS (ArcMap) Course	Public Health	4	\$600	\$2,400
ArcGIS (ArcMap) Course	Public Works - Engineering	2	\$600	\$1,200
ArcGIS (ArcMap) Course	Real Property Tax Service	2	\$600	\$1,200
ArcGIS (ArcMap) Course	Sheriff	2	\$600	\$1,200
ArcGIS (ArcMap) Course	Social Services	4	\$600	\$2,400
ArcGIS (ArcMap) Course	Public Works - Building & Grounds	2	\$600	\$1,200
ArcGIS (ArcMap) Course	Public Works - Highway	2	\$600	\$1,200
ArcIMS End User (3 hours)	Environmental Health	10	\$50	\$500
ArcIMS End User (3 hours)	Fire & Emergency Services	5	\$50	\$250
ArcIMS End User (3 hours)	Economic Development	6	\$50	\$300
ArcIMS End User (3 hours)	Probation	12	\$50	\$600
ArcIMS End User (3 hours)	Public Health	30	\$50	\$1,500
ArcIMS End User (3 hours)	Public Works - Engineering	1	\$50	\$50
ArcIMS End User (3 hours)	Social Services	30	\$50	\$1,500
ArcIMS End User (3 hours)	Weights & Measures	2	\$50	\$100
ArcIMS End User (3 hours)	Human Resources	2	\$50	\$100
ArcIMS End User (3 hours)	Management and Budget	2	\$50	\$100
ArcIMS End User (3 hours)	Risk/Insurance	2	\$50	\$100
ArcIMS End User (3 hours)	Public Citizens	50	\$50	\$2,500
GIS Administration	Data Processing	1	\$1,000	\$1,000
GIS Administration	Economic Development	1	\$1,000	\$1,000
Intro to GIS	Sheriff	4	\$250	\$1,000
Network Analyst class	Social Services	2	\$400	\$800
Pictometry training (3 hours)	Economic Development	2	\$50	\$100
Pictometry training (3 hours)	Public Works - Engineering	2	\$50	\$100
Pictometry training (3 hours)	Sheriff	10	\$50	\$500
Pictometry training (3 hours)	Public Works - Highway	3	\$50	\$150
Pictometry training (3 hours)	Public Citizens	50	\$50	\$2,500
<i>Subtotal =</i>				\$51,650
<i>Total Year 2 Recommendations:</i>				<u>\$128,250</u>

Organization: Niagara County

	<i>Department</i>	<i># Requested</i>	<i>Unit Cost</i>	<i>Total Cost</i>
<u>Training</u>				
ArcGIS (ArcInfo) Training	Employment and Training	2	\$2,400	\$4,800
ArcGIS (ArcInfo) Training	Environmental Health	3	\$2,400	\$7,200
ArcGIS (ArcInfo) Training	Fire & Emergency Services	2	\$2,400	\$4,800
ArcGIS (ArcInfo) Training	Public Works - Highway	1	\$2,400	\$2,400
ArcGIS (ArcMap) Course	Employment and Training	3	\$600	\$1,800
ArcGIS (ArcMap) Course	Environmental Health	3	\$600	\$1,800
ArcGIS (ArcMap) Course	Fire & Emergency Services	2	\$600	\$1,200
ArcIMS Administration (2 days)	Data Processing	3	\$700	\$2,100
ArcIMS End User (3 hours)	Environmental Health	4	\$50	\$200
ArcIMS End User (3 hours)	Fire & Emergency Services	5	\$50	\$250
ArcIMS End User (3 hours)	Economic Development	2	\$50	\$100
ArcIMS End User (3 hours)	Probation	10	\$50	\$500
ArcIMS End User (3 hours)	Public Health	5	\$50	\$250
ArcIMS End User (3 hours)	Social Services	20	\$50	\$1,000
ArcIMS End User (3 hours)	Risk/Insurance	1	\$50	\$50
ArcIMS End User (3 hours)	Public Citizens	50	\$50	\$2,500
ArcIMS Route class	Data Processing	2	\$400	\$800
ArcIMS Route class	Employment and Training	3	\$400	\$1,200
ArcLogistics Route class	Environmental Health	2	\$400	\$800
GPS training	Public Works - Engineering	2	\$1,000	\$2,000
Intro to GIS	Sheriff	2	\$250	\$500
Pictometry training (3 hours)	Economic Development	1	\$50	\$50
Pictometry training (3 hours)	Public Citizens	50	\$50	\$2,500
			<i>Subtotal =</i>	\$38,800
<i>Total Year 3 Recommendations:</i>				\$118,000

Organization: Niagara County

Department # Requested Unit Cost Total Cost

Year 4 Recommendations:

Hardware

Color Ink Jet Printer	Board of Elections	1	\$500	\$500
Color Ink Jet Printer	Environmental Health	1	\$500	\$500
GPS Survey Unit	Public Works - Engineering	1	\$8,000	\$8,000
New PC	Board of Elections	1	\$2,000	\$2,000
New PC	Environmental Health	2	\$2,000	\$4,000
New PC	Economic Development	1	\$2,000	\$2,000
New PC	Probation	1	\$2,000	\$2,000
New PC	Public Health	1	\$2,000	\$2,000
Upgrade to current PC	Environmental Health	3	\$1,000	\$3,000
Upgrade to current PC	Probation	2	\$1,000	\$2,000
Subtotal =				\$26,000

Miscellaneous

Web Page / IMS Management	Data Processing	1	\$18,000	\$18,000
Subtotal =				\$18,000

Software

ArcGIS (ArcEditor) Annual Maintena	Real Property Tax Service	1	\$2,500	\$2,500
ArcGIS (ArcEditor) Annual Maintena	Real Property Tax Service	2	\$800	\$1,600
ArcGIS (ArcMap)	Board of Elections	2	\$1,600	\$3,200
ArcGIS (ArcMap) Annual Maintenanc	Real Property Tax Service	1	\$400	\$400
ArcGIS (ArcMap) Annual Maintenanc	Employment and Training	2	\$200	\$400
ArcGIS (ArcMap) Annual Maintenanc	Environmental Health	8	\$200	\$1,600
ArcGIS (ArcMap) Annual Maintenanc	Fire & Emergency Services	2	\$200	\$400
ArcGIS (ArcMap) Annual Maintenanc	Economic Development	2	\$200	\$400
ArcGIS (ArcMap) Annual Maintenanc	Public Works - Engineering	2	\$200	\$400
ArcGIS (ArcMap) Annual Maintenanc	Real Property Tax Service	1	\$200	\$200
ArcGIS (ArcMap) Annual Maintenanc	Social Services	2	\$200	\$400
ArcGIS (ArcMap) Annual Maintenanc	Public Works - Highway	2	\$200	\$400
ArcIMS Annual Maintenance	Data Processing	1	\$1,000	\$1,000
ArcLogistics Route	Public Health	1	\$5,000	\$5,000
ArcReader	Public Health	30	\$0	\$0
ArcReader	Social Services	10	\$0	\$0
ArcSDE Annual Maintenance	Data Processing	1	\$1,500	\$1,500
Network Analyst	Probation	1	\$2,000	\$2,000
Subtotal =				\$21,400

Organization: Niagara County

	<i>Department</i>	<i># Requested</i>	<i>Unit Cost</i>	<i>Total Cost</i>
<u>Training</u>				
ArcGIS (ArcInfo) Training	Environmental Health	2	\$2,400	\$4,800
ArcGIS (ArcInfo) Training	Fire & Emergency Services	2	\$2,400	\$4,800
ArcGIS (ArcMap) Course	Board of Elections	2	\$600	\$1,200
ArcGIS (ArcMap) Course	Environmental Health	2	\$600	\$1,200
ArcGIS (ArcMap) Course	Fire & Emergency Services	2	\$600	\$1,200
ArcIMS End User (3 hours)	Environmental Health	4	\$50	\$200
ArcIMS End User (3 hours)	Fire & Emergency Services	5	\$50	\$250
ArcIMS End User (3 hours)	Economic Development	2	\$50	\$100
ArcIMS End User (3 hours)	Public Health	5	\$50	\$250
ArcIMS End User (3 hours)	Social Services	5	\$50	\$250
ArcIMS End User (3 hours)	Public Citizens	50	\$50	\$2,500
ArcIMS Route class	Employment and Training	4	\$400	\$1,600
ArcLogistics Route class	Public Health	2	\$400	\$800
GPS training	Public Works - Engineering	2	\$1,000	\$2,000
Network Analyst class	Probation	2	\$400	\$800
Pictometry training (3 hours)	Public Citizens	50	\$50	\$2,500
			<i>Subtotal =</i>	\$24,450
<i>Total Year 4 Recommendations:</i>				<u>\$89,850</u>

Exec Summary - Application Needs

Organization: Niagara County

Application Development Cost

Year 1 Recommendations:

Environmental Health

200	General Query Tool	\$1,200
214	Human & Environmental Communicable Disease Monitoring Tool	\$1,200
420	Water Quality Sampling Capture Tool	\$2,500
Total =		\$4,900

Fire & Emergency Services

200	General Query Tool	\$1,200
105	Pictometry Display Tool	\$900
Total =		\$2,100

Economic Development

200	General Query Tool	\$1,200
105	Pictometry Display Tool	\$900
Total =		\$2,100

Public Health

200	General Query Tool	\$1,200
214	Human & Environmental Communicable Disease Monitoring Tool	\$1,200
Total =		\$2,400

Public Works - Engineering

614	Document Management Tool	\$1,200
200	General Query Tool	\$1,200
105	Pictometry Display Tool	\$900
315	Registration of Scanned Images	\$2,500
Total =		\$5,800

Real Property Tax Service

409	CAD to GIS Conversion	\$2,500
624	COGO Plotting Tool	\$2,500
200	General Query Tool	\$1,200
Total =		\$6,200

Sheriff

313	911 Call Display Tool	\$1,400
505	Automated Vehicle Locator	\$2,200
105	Pictometry Display Tool	\$900
Total =		\$4,500

Social Services

200	General Query Tool	\$1,200
Total =		\$1,200

Public Works - Building & Grounds

409	CAD Integration	\$2,500
200	General Query Tool	\$1,200
105	Pictometry Display Tool	\$900
Total =		\$4,600

Public Works - Highway

615	Bridge & Culvert Inspection Tool	\$2,500
200	General Query Tool	\$1,200
400	Pavement Management Tool	\$2,500
404	Sign Management Tool	\$2,500
Total =		\$8,700

Public Citizens

105	Pictometry Display Tool	\$900
Total =		\$900

Public Works - Parks

200	General Query Tool	\$1,200
105	Pictometry Display Tool	\$900
Total =		\$2,100

Total Year 1 Recommendations: \$45,500

Year 2 Recommendations:

Data Processing

128	Cabling Display Tool	\$900
511	GIS Network Integration Tool	\$2,200
Total =		\$3,100

Employment and Training

211	Job Search Tool	\$2,200
Total =		\$2,200

Environmental Health

612	Project Georeference Tool	\$2,500
613	Public FOIL Response	\$1,200
305	Resident Notification Application	\$1,400
Total =		\$5,100

Fire & Emergency Services

313	911 Call Display Tool	\$1,400
407	Hazmat Data Collection Tool	\$2,500
Total =		\$3,900

Economic Development

621	Site Permit Tracking Tool	\$2,500
Total =		\$2,500

Probation

406	Database Integration	\$2,500
605	Electronic Home Monitoring Tool	\$1,400
200	General Query Tool	\$1,200
Total =		\$5,100

Public Health

120	Outcome Assessment Tool	\$900
Total =		\$900

Public Works - Engineering

409	CAD Integration	\$2,500
121	UFPO Tool	\$900
Total =		\$3,400

Real Property Tax Service

423	FTP Site	\$2,500
604	Parcel Filter Tool	\$1,200
110	Scanned Image Integration	\$900
Total =		\$4,600

Sheriff

606	Crime Analysis	\$1,400
Total =		\$1,400

Social Services

221	Caseworker/client Matching Tool	\$1,400
406	Database Integration	\$2,500
211	Job Search Tool	\$2,200
219	Service Provider Lookup	\$1,200
Total =		\$7,300

Weights & Measures

200	General Query Tool	\$1,200
Total =		\$1,200

Public Works - Building & Grounds

614	Document Management Tool	\$1,200
119	Facility Management Tool	\$1,200
315	Registration of Scanned Images	\$2,500
Total =		\$4,900

Public Works - Highway

614	Document Management Tool	\$1,200
105	Pictometry Display Tool	\$900
315	Registration of Scanned Images	\$2,500
Total =		\$4,600

Public Citizens

622	Park Shelter Rental Tool	\$2,500
Total =		\$2,500

Public Works - Parks

622	Park Shelter Rental Tool	\$2,500
Total =		\$2,500

Total Year 2 Recommendations: \$55,200

Year 3 Recommendations:

Data Processing

423	FTP Site	\$2,500
Total =		\$2,500

Employment and Training

406	Database Integration	\$2,500
312	Employment/Unemployment Maps	\$1,400
212	Maps & Directions	\$1,200
Total =		\$5,100

Environmental Health

506	Vehicle Routing	\$2,200
Total =		\$2,200

Fire & Emergency Services

505	Automated Vehicle Locator	\$2,200
Total =		\$2,200

Probation

221	Caseworker/client Matching Tool	\$1,400
606	Crime Analysis	\$1,400
Total =		\$2,800

Public Health

216	Nurse/patient Matching Tool	\$1,200
305	Resident Notification Application	\$1,400
Total =		\$2,600

Public Works - Engineering

413	Survey Data Integration	\$2,500
Total =		\$2,500

Real Property Tax Service

202	Countertop Kiosk Query Tool	\$1,200
105	Pictometry Display Tool	\$900
Total =		\$2,100

Sheriff

609	Beat Maps	\$1,200
Total =		\$1,200

Social Services

416	HEAP/STAR Tool	\$2,500
Total =		\$2,500

Weights & Measures

406	Database Integration	\$2,500
Total =		\$2,500

Human Resources

212	Maps & Directions	\$1,200
Total =		\$1,200

Risk/Insurance

600	Accident Tracking Tool	\$900
601	Workers Compensation Tracking	\$1,200
Total =		\$2,100

Public Works - Building & Grounds

507	Inspection Schedule Tool	\$2,200
623	Work Order Management	\$2,500
Total =		\$4,700

Public Works - Highway

505	Automated Vehicle Locator	\$2,200
409	CAD Integration	\$2,500
Total =		\$4,700

Public Citizens

202	Countertop Kiosk Query Tool	\$1,200
608	Sex Offender Notification	\$1,200
Total =		\$2,400

Public Works - Parks

508	Parks Planning Tool	\$2,200
Total =		\$2,200

Total Year 3 Recommendations: \$45,500

Year 4 Recommendations:

Board of Elections

501	Election District Tool	\$1,400
510	Election District Verification	\$1,400
220	Polling Location Map	\$1,200
Total =		\$4,000

Fire & Emergency Services

213	Arson Assessment Tool	\$1,400
406	Database Integration	\$2,500
314	Evacuation Planning / Response Tool	\$1,400
Total =		\$5,300

Probation

506	Vehicle Routing	\$2,200
Total =		\$2,200

Public Health

506	Vehicle Routing	\$2,200
Total =		\$2,200

Real Property Tax Service

603	Red Line Application	\$2,500
Total =		\$2,500

Social Services

317	Bus Route/Van Service Analysis	\$1,400
415	Reports to Legislature	\$2,500
Total =		\$3,900

Veterans Services

117	Veterans Services Planning	\$1,200
Total =		\$1,200

Organization: Niagara County

Application Development Cost

Weights & Measures

506 Vehicle Routing

\$2,200

Total = \$2,200

Risk/Insurance

602 Retiree Tracking

\$2,500

Total = \$2,500

Total Year 4 Recommendations: \$26,000

Exec Summary - Layer Needs

Organization: Niagara County

Layer Development Cost

Year 1 Recommendations:

Data Layer

911 Call Database	\$4,000
Accident Database	\$6,200
Airports	\$250
Bridges	\$4,150
Brownfields	\$168
Business Database	\$500
Census Blocks/Tract Data	\$90
Census Blocks/Tract Outlines	\$90
Command Center	\$500
County RPTS Database	\$13,500
Culverts	\$7,500
Decontamination Sites	\$250
Detention Facility Locations	\$300
Digital Ortho Photos (DOQs)	\$390
Emergency Spill Locations	\$200
Environmentally Sensitive Sites	\$248
EPA Database	\$1,000
EPA Site Locations	\$40
Evacuation Shelters	\$800
Floodplains	\$1,450
Geocoded Addresses	\$4,500
Georeferenced Scanned Images (World Files)	\$0
Hazardous Materials Sites	\$268
Historic DEC Spill List	\$100
Hospitals	\$150
Keyword Database	\$3,000
Lab Analysis Database	\$1,710
Landuse	\$275
Municipal Boundaries	\$150
NAICS Code Information	\$2,500
Nursing Homes	\$500
Parcel Outlines	\$650
Paths & Trails	\$1,500
Patient Addresses	\$3,750
Phone CDs	\$500
Plume Outline	\$2,500
Police Districts	\$1,500
Police Stations	\$500
Pre-plan Printouts	\$1,500
Red Line Layers	\$1,200
Resident Phone Numbers	\$500
Scanned Floor Plans	\$9,000
Scanned or Digital Photos	\$1,000
Scanned Plot Book Pages	\$1,500
Schools	\$186
SPEDES Permits	\$200
State Crime Database	\$9,500

Organization: Niagara County

Layer Development Cost

State DSS Database	\$3,500
Street Centerlines	\$410
Street Names	\$3,230
Subdivisions	\$1,400
Underground Storage Tanks	\$200
Vehicle Coordinates (GPS points)	\$5,500
Water Sample Points	\$1,500
Watersheds	\$33
Wetlands	\$300
Zoning Areas	\$6,375

*Total Year 1 Recommendations: **\$112,712***

Year 2 Recommendations:

Data Layer

Adult Entertainment Locations	\$500
Aerial Photos (Oblique - Pictometry)	\$19,500
Aquifers	\$1,500
Building & Room Database	\$8,000
Building Floorplans	\$12,000
Bus Routes	\$200
Bus Stops	\$188
Business License Database	\$5,000
Business Locations	\$750
CAD Drawings	\$1,500
CAD World Files	\$1,500
Churches	\$100
Client Database	\$1,500
Clinic Locations	\$500
Communicable Disease Database	\$8,000
Community Centers	\$1,300
Complaint Database	\$8,600
Counseling Agency Locations	\$1,500
County Owned Properties	\$200
Court House Locations	\$200
Crime Database	\$8,500
Daycare Centers	\$2,350
Detailed Campus Maps	\$500
Economic Development Database	\$3,750
Fire Districts	\$1,638
Fire Halls	\$332
Fire History Database	\$4,500
Geocoded Client Home Addresses	\$1,200
Geocoded Job Opening Addresses	\$900
Geocoded Job Seeker Addresses	\$804
Geocoded Occurrence Locations	\$1,200
Georeferenced Scanned Images	\$2,500
Ground Control Points	\$1,000
Hazardous Material Inventory	\$2,500
Historic Parcel Database	\$5,000
Hotlinks to Features	\$2,500
Hydrants	\$1,000
Hydrology	\$2,513
IDA Projects	\$563

Organization: Niagara County

Layer Development Cost

Job Opening Database	\$8,170
Job Seeker Database	\$4,355
Keyword Database	\$3,000
Lab Analysis Database	\$1,710
NAICS Code Information	\$2,500
NAICS Code Lookup Table	\$750
Network Schematic	\$6,500
New World AS400 Database	\$13,000
Nurses Addresses	\$500
Parcel Outlines	\$650
Patient Addresses	\$3,750
Pavement	\$3,960
Phone CDs	\$500
Pre-plan Printouts	\$1,500
Project Database	\$2,000
Project Outline Polygons	\$1,500
Railroads	\$12,000
Recreational Equipment	\$500
Resident Phone Numbers	\$500
Scanned As-Built Drawings	\$1,750
Scanned EA-5217 Forms	\$500
Scanned Floor Plans	\$9,000
Scanned Maintenance Manuals	\$4,000
Scanned or Digital Photos	\$1,000
Scanned Plot Book Pages	\$1,500
School Districts	\$720
Service Provider Locations	\$1,200
Sign Inventory Database	\$9,000
Sign Locations	\$9,500
Sprinkler Systems	\$6,000
Street Names	\$3,230
Subdivisions	\$1,400
Training Center Locations	\$800

*Total Year 2 Recommendations: **\$232,731***

Year 3 Recommendations:

Data Layer

Ag Districts	\$3,680
Bars	\$500
Bird Viewing Sites	\$750
Boat Ramps	\$750
Building Permits	\$4,020
Bus Routes	\$200
Bus Stops	\$188
Cable Lines	\$15,000
Campsites	\$500
Chamber of Commerce Database	\$375
Computed Routes and Directions	\$0
Contours	\$1,400
County Owned Building Footprint Locations	\$8,500
Digital Elevation Models (DEMs)	\$4,400
DSS Case Database	\$500
Elevation Monumentation	\$6,750

Organization: Niagara County

Layer Development Cost

Equipment Maintenance Database	\$4,250
Erosion Zones	\$650
Fishing Sites	\$750
Gas Wells	\$5,500
Geology (bedrock)	\$150
Geology (surface)	\$120
Georeferenced Scanned Images	\$2,500
GPS Survey Data	\$5,000
Ground Control Points	\$1,000
Hazardous Material Inventory	\$2,500
Inspection Database	\$3,500
Keyword Database	\$3,000
Lab Analysis Database	\$1,710
Landfills	\$5,100
Liquor Stores	\$500
NAICS Code Information	\$2,500
Parcel Outlines	\$650
Parks	\$5,000
Patient Addresses	\$3,750
Pavement	\$3,960
Pharmacy Locations	\$750
Phone CDs	\$500
Picnic Shelters	\$1,000
Picnic Sites	\$1,000
Pre-plan Printouts	\$1,500
Project Database	\$2,000
Project Outline Polygons	\$1,500
Recreational Equipment	\$500
Resident Phone Numbers	\$500
Scanned As-Built Drawings	\$1,750
Scanned Brochures	\$750
Scanned EA-5217 Forms	\$500
Scanned Floor Plans	\$9,000
Scanned Index Cards	\$1,500
Scanned Maintenance Manuals	\$4,000
Scanned or Digital Photos	\$1,000
Sex Offender Database	\$6,500
Shoreline Current Data	\$4,000
Shoreline Structures	\$2,000
Shorelines Historic Data	\$3,000
Sign Inventory Database	\$9,000
Sprinkler Systems	\$6,000
Steep Slope Regions	\$429
Street Names	\$3,230
Subdivisions	\$1,400
Survey Station Points	\$1,000
Training Center Locations	\$800
Well Locations	\$4,690
Work Order Database	\$6,000

Total Year 3 Recommendations: \$175,402

Year 4 Recommendations:

Data Layer

Aerial Photos (Oblique - Pictometry)	\$19,500
Archaeological Sites	\$600
Building Footprints	\$12,000
Bus Routes	\$200
Bus Stops	\$188
County Retiree Database	\$1,800
Ditches	\$1,875
Easements	\$20,000
Electrical Utility Lines	\$20,000
Gas Lines	\$20,000
Ground Control Points	\$1,000
Hazardous Material Inventory	\$2,500
Historical Sites	\$250
Inclusion/Exclusion Zones	\$3,500
Inspection Database	\$3,500
Keyword Database	\$3,000
Lab Analysis Database	\$1,710
Legislative Districts	\$6,450
NAICS Code Information	\$2,500
Parcel Outlines	\$650
Patient Addresses	\$3,750
Pavement	\$3,960
PeopleSoft Database	\$8,500
Phone CDs	\$500
Phone Wires	\$12,000
Polling Places	\$500
Pre-plan Printouts	\$1,500
Probation Case Management System	\$7,500
Project Database	\$2,000
Project Outline Polygons	\$1,500
Recreational Equipment	\$500
Resident Phone Numbers	\$500
Scanned As-Built Drawings	\$1,750
Scanned EA-5217 Forms	\$500
Scanned Floor Plans	\$9,000
Scanned Maintenance Manuals	\$4,000
Scanned or Digital Photos	\$1,000
Shoreline Current Data	\$4,000
Shoreline Structures	\$2,000
Shorelines Historic Data	\$3,000
Sign Inventory Database	\$9,000
Snowmobile Trails	\$1,200
Sprinkler Systems	\$6,000
Street Names	\$3,230
Subdivisions	\$1,400
Survey Station Points	\$1,000
Training Center Locations	\$800
Trip Database	\$3,500
Vegetation	\$720
Vehicle Database	\$3,500
VFW Posts	\$500

Organization: Niagara County

Layer Development Cost

Video Clips	\$2,500
Voter Registration Database	\$6,800
Wooded lots	\$3,000
Zip+4 Outlines	\$1,000

*Total Year 4 Recommendations: **\$233,332***

**APPENDIX H1: Niagara County
FOUR YEAR IMPLEMENTATION PLAN COSTS BY DEPARTMENT**

Computer Requirements

Department: Board of Elections										
	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Hardware										
Color Ink Jet Printer	\$500			1					\$500	\$500
New PC	\$2,000			1					\$2,000	\$2,000
				<i>subtotal:</i>					\$2,500	\$2,500
Software										
ArcGIS (ArcMap)	\$1,600			2					\$3,200	\$3,200
				<i>subtotal:</i>					\$3,200	\$3,200
Training										
ArcGIS (ArcMap) Course	\$600			2					\$1,200	\$1,200
				<i>subtotal:</i>					\$1,200	\$1,200
Total for Department =									\$6,900	\$6,900

Computer Requirements

Department: Data Processing

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
ArcGIS (ArcInfo) Annual Mainten			1	1	1					\$0
ArcGIS 9.x (ArcInfo)		1	1							\$0
<i>subtotal:</i>										\$0
Hardware										
NT Server	\$12,000	1		1		\$12,000		\$12,000		\$24,000
Large Format Color Scanner	\$20,000	1				\$20,000				\$20,000
Large Format Plotter	\$10,000	1				\$10,000				\$10,000
Network Storage Device	\$1,200	2				\$2,400				\$2,400
<i>subtotal:</i>										\$44,400
Miscellaneous										
Map server set-up	\$3,000	1		1		\$3,000		\$3,000		\$6,000
Web Page / IMS Management	\$18,000				1				\$18,000	\$18,000
Web Page Design + Constructio	\$5,000			1				\$5,000		\$5,000
Ongoing Support	\$0		1					\$0		\$0
<i>subtotal:</i>										\$3,000
Software										
ArcIMS Route	\$2,000			1				\$2,000		\$2,000
ArcLogistics Route	\$5,000		1				\$5,000			\$5,000
ArcSDE Annual Maintenance	\$1,500		1	1	1		\$1,500	\$1,500	\$1,500	\$4,500
ArcSDE	\$8,000	1				\$8,000				\$8,000
ArcPublisher	\$2,000	1	1			\$2,000	\$2,000			\$4,000
ArcIMS Annual Maintenance	\$1,000				1				\$1,000	\$1,000
ArcIMS	\$7,500			1				\$7,500		\$7,500
<i>subtotal:</i>										\$10,000
Training										
ArcIMS Route class	\$400			2				\$800		\$800
ArcIMS Administration (2 days)	\$700			3				\$2,100		\$2,100
ArcGIS (ArcInfo) Training	\$2,400	2				\$4,800				\$4,800
Intro to GIS	\$250	3				\$750				\$750
GIS Administration	\$1,000	2	1			\$2,000	\$1,000			\$3,000
<i>subtotal:</i>										\$7,550
Total for Department =										\$64,950
\$9,500										\$33,900
\$20,500										\$128,850

Computer Requirements

Department: Economic Development

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
ArcGIS 9.x (ArcInfo)				1						\$0
<i>subtotal:</i>										\$0
<u>Hardware</u>										
Large Format Plotter	\$10,000		1			\$10,000				\$10,000
Color Desktop Scanner	\$300		1			\$300				\$300
New PC	\$2,000		1	2	1		\$2,000	\$4,000	\$2,000	\$8,000
Network Storage Device	\$1,200		1			\$1,200				\$1,200
<i>subtotal:</i>										\$11,500
<u>Software</u>										
ArcGIS (ArcMap) Annual Mainte	\$200		2	2	2	2	\$400	\$400	\$400	\$400
ArcReader	\$0		3	3			\$0	\$0		\$0
<i>subtotal:</i>										\$400
<u>Training</u>										
GIS Administration	\$1,000		1				\$1,000			\$1,000
ArcIMS End User (3 hours)	\$50		8	6	2	2	\$400	\$300	\$100	\$100
Pictometry training (3 hours)	\$50		3	2	1		\$150	\$100	\$50	\$300
ArcGIS (ArcMap) Course	\$600		4				\$2,400			\$2,400
<i>subtotal:</i>										\$550
Total for Department =										\$12,450
\$6,200										\$4,550
\$2,500										\$25,700

Computer Requirements

Department: Employment and Training

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Hardware										
Upgrade to current PC	\$1,000		1	2		\$1,000	\$2,000			\$3,000
Color Ink Jet Printer	\$500		1			\$500				\$500
						<i>subtotal:</i>	\$1,500	\$2,000		\$3,500
Software										
ArcGIS (ArcMap) Annual Mainte	\$200			1	2			\$200	\$400	\$600
						<i>subtotal:</i>		\$200	\$400	\$600
Training										
ArcIMS Route class	\$400			3	4		\$1,200	\$1,600		\$2,800
ArcGIS (ArcMap) Course	\$600		2	3		\$1,200	\$1,800			\$3,000
ArcGIS (ArcInfo) Training	\$2,400		1	2		\$2,400	\$4,800			\$7,200
						<i>subtotal:</i>	\$3,600	\$7,800	\$1,600	\$13,000
Total for Department =						\$5,100	\$10,000	\$2,000		\$17,100

Department: Environmental Health

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Hardware										
New PC	\$2,000	2	2	2	2	\$4,000	\$4,000	\$4,000	\$4,000	\$16,000
Color Ink Jet Printer	\$500		1		1		\$500		\$500	\$1,000
Upgrade to current PC	\$1,000			3	3			\$3,000	\$3,000	\$6,000
						<i>subtotal:</i>	\$4,000	\$4,500	\$7,000	\$7,500
Software										
ArcGIS (ArcMap) Annual Mainte	\$200		3	5	8		\$600	\$1,000	\$1,600	\$3,200
ArcLogistics Route	\$5,000			1				\$5,000		\$5,000
						<i>subtotal:</i>	\$600	\$6,000	\$1,600	\$8,200
Training										
ArcLogistics Route class	\$400			2				\$800		\$800
ArcIMS End User (3 hours)	\$50	10	10	4	4	\$500	\$500	\$200	\$200	\$1,400
ArcGIS (ArcInfo) Training	\$2,400	3	2	3	2	\$7,200	\$4,800	\$7,200	\$4,800	\$24,000
ArcGIS (ArcMap) Course	\$600	4	2	3	2	\$2,400	\$1,200	\$1,800	\$1,200	\$6,600
						<i>subtotal:</i>	\$10,100	\$6,500	\$10,000	\$6,200
Total for Department =						\$14,100	\$11,600	\$23,000	\$15,300	\$64,000

Computer Requirements

Department: Fire & Emergency Services

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Hardware										
Color Ink Jet Printer	\$500			1			\$500			\$500
New PC	\$2,000		2			\$4,000				\$4,000
						<i>subtotal:</i>	\$4,000	\$500		\$4,500
Software										
ArcGIS (ArcMap) Annual Mainte	\$200			2	2		\$400	\$400		\$800
						<i>subtotal:</i>	\$400	\$400		\$800
Training										
ArcGIS (ArcMap) Course	\$600		2	2	2	\$1,200	\$1,200	\$1,200		\$3,600
ArcGIS (ArcInfo) Training	\$2,400		2	2	2	\$4,800	\$4,800	\$4,800		\$14,400
Pictometry training (3 hours)	\$50	4				\$200				\$200
ArcIMS End User (3 hours)	\$50	10	5	5	5	\$500	\$250	\$250	\$250	\$1,250
						<i>subtotal:</i>	\$700	\$6,250	\$6,250	\$6,250
Total for Department =						\$700	\$10,250	\$7,150	\$6,650	\$24,750

Department: Human Resources

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Training										
ArcIMS End User (3 hours)	\$50	2	2			\$100	\$100			\$200
						<i>subtotal:</i>	\$100	\$100		\$200
Total for Department =						\$100	\$100			\$200

Department: Management and Budget

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Training										
ArcIMS End User (3 hours)	\$50	2	2			\$100	\$100			\$200
						<i>subtotal:</i>	\$100	\$100		\$200
Total for Department =						\$100	\$100			\$200

Computer Requirements

Department: Probation

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Hardware										
Upgrade to current PC	\$1,000		2	2	2		\$2,000	\$2,000	\$2,000	\$6,000
New PC	\$2,000				1				\$2,000	\$2,000
					<i>subtotal:</i>		\$2,000	\$2,000	\$4,000	\$8,000
Software										
Network Analyst	\$2,000				1				\$2,000	\$2,000
					<i>subtotal:</i>				\$2,000	\$2,000
Training										
Network Analyst class	\$400				2				\$800	\$800
ArclMS End User (3 hours)	\$50		12	10			\$600	\$500		\$1,100
					<i>subtotal:</i>		\$600	\$500	\$800	\$1,900
Total for Department =							\$2,600	\$2,500	\$6,800	\$11,900

Department: Public Citizens

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>	
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>		
Training											
Pictometry training (3 hours)	\$50	50	50	50	50	\$2,500	\$2,500	\$2,500	\$2,500	\$10,000	
ArclMS End User (3 hours)	\$50	50	50	50	50	\$2,500	\$2,500	\$2,500	\$2,500	\$10,000	
					<i>subtotal:</i>	\$5,000	\$5,000	\$5,000	\$5,000	\$20,000	
Total for Department =							\$5,000	\$5,000	\$5,000	\$5,000	\$20,000

Computer Requirements

Department: Public Health

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>	
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>		
Hardware											
New PC	\$2,000		4		1		\$8,000		\$2,000	\$10,000	
Network Storage Device	\$1,200	1				\$1,200				\$1,200	
						<i>subtotal:</i>	\$1,200	\$8,000	\$2,000	\$11,200	
Software											
ArcGIS (ArcMap)	\$1,600		4				\$6,400			\$6,400	
ArcLogistics Route	\$5,000				1				\$5,000	\$5,000	
ArcReader	\$0	6	10	20	30	\$0	\$0	\$0	\$0	\$0	
						<i>subtotal:</i>	\$0	\$6,400	\$0	\$5,000	\$11,400
Training											
ArcGIS (ArcMap) Course	\$600		4				\$2,400			\$2,400	
ArcIMS End User (3 hours)	\$50	35	30	5	5	\$1,750	\$1,500	\$250	\$250	\$3,750	
ArcLogistics Route class	\$400				2				\$800	\$800	
						<i>subtotal:</i>	\$1,750	\$3,900	\$250	\$1,050	\$6,950
Total for Department =							\$2,950	\$18,300	\$250	\$8,050	\$29,550

Computer Requirements

Department: Public Works - Building & Grounds

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Hardware										
Digital Camera	\$300		1			\$300				\$300
Color Ink Jet Printer	\$500		1			\$500				\$500
Upgrade to current PC	\$1,000		2			\$2,000				\$2,000
Color Desktop Scanner	\$300		1			\$300				\$300
						<i>subtotal:</i>	\$3,100			\$3,100
Software										
Data Interoperability Extension	\$2,000		1			\$2,000				\$2,000
						<i>subtotal:</i>	\$2,000			\$2,000
Training										
Pictometry training (3 hours)	\$50		3			\$150				\$150
ArcIMS End User (3 hours)	\$50		3			\$150				\$150
ArcGIS (ArcMap) Course	\$600		1	2		\$600	\$1,200			\$1,800
ArcGIS (ArcInfo) Training	\$2,400		1	1		\$2,400	\$2,400			\$4,800
						<i>subtotal:</i>	\$3,300	\$3,600		\$6,900
Total for Department =						\$5,300	\$6,700			\$12,000

Computer Requirements

Department: Public Works - Engineering

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>	
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>		
Hardware											
Color Desktop Scanner	\$300	1				\$300				\$300	
Color Ink Jet Printer	\$500	1				\$500				\$500	
GPS Survey Unit	\$8,000				1				\$8,000	\$8,000	
New PC	\$2,000	1	2			\$2,000	\$4,000			\$6,000	
Sub-meter GPS	\$4,000				1			\$4,000		\$4,000	
Upgrade to current PC	\$1,000		1	1			\$1,000	\$1,000		\$2,000	
						<i>subtotal:</i>	\$2,800	\$5,000	\$5,000	\$8,000	\$20,800
Miscellaneous											
Autodesk Map 3D (configuration)	\$0	2				\$0				\$0	
						<i>subtotal:</i>	\$0			\$0	
Software											
Data Interoperability Extension	\$2,000		1			\$2,000				\$2,000	
ArcGIS (ArcMap) Annual Mainte	\$200		1	2	2	\$200	\$400	\$400		\$1,000	
ArcGIS (ArcMap)	\$1,600	1	1			\$1,600	\$1,600			\$3,200	
						<i>subtotal:</i>	\$1,600	\$3,800	\$400	\$400	\$6,200
Training											
ArcGIS (ArcMap) Course	\$600	2	2			\$1,200	\$1,200			\$2,400	
ArcIMS End User (3 hours)	\$50	3	1			\$150	\$50			\$200	
GPS training	\$1,000				2			\$2,000	\$2,000	\$4,000	
Pictometry training (3 hours)	\$50	2	2			\$100	\$100			\$200	
						<i>subtotal:</i>	\$1,450	\$1,350	\$2,000	\$2,000	\$6,800
Total for Department =							\$5,850	\$10,150	\$7,400	\$10,400	\$33,800

Computer Requirements

Department: Public Works - Highway

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Hardware										
Color Desktop Scanner	\$300		1			\$300				\$300
Upgrade to current PC	\$1,000		2			\$2,000				\$2,000
Digital Camera	\$300		1			\$300				\$300
						<i>subtotal:</i>	\$2,600			\$2,600
Software										
ArcGIS (ArcMap) Annual Mainte	\$200			2	2		\$400	\$400		\$800
Data Interoperability Extension	\$2,000			1			\$2,000			\$2,000
						<i>subtotal:</i>	\$2,400	\$400		\$2,800
Training										
Pictometry training (3 hours)	\$50		3			\$150				\$150
ArcGIS (ArcMap) Course	\$600		2			\$1,200				\$1,200
ArcGIS (ArcInfo) Training	\$2,400		2	1		\$4,800	\$2,400			\$7,200
ArcIMS End User (3 hours)	\$50		3			\$150				\$150
						<i>subtotal:</i>	\$150	\$6,150	\$2,400	\$8,700
Total for Department =						\$150	\$8,750	\$4,800	\$400	\$14,100

Computer Requirements

Department: Real Property Tax Service

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Free Support		1	1	1	1					\$0
<i>subtotal:</i>										\$0
Hardware										
Color Desktop Scanner	\$300		1				\$300			\$300
New PC	\$2,000	2		1		\$4,000		\$2,000		\$6,000
Color Ink Jet Printer	\$500			1				\$500		\$500
<i>subtotal:</i>										\$6,800
Miscellaneous										
Autodesk Map 3D (configuration)	\$0	4				\$0				\$0
<i>subtotal:</i>										\$0
Software										
Data Interoperability Extension	\$2,000	1				\$2,000				\$2,000
ArcGIS (ArcEditor) Annual Maint	\$2,500	1	1	1	1	\$2,500	\$2,500	\$2,500	\$2,500	\$10,000
ArcGIS (ArcEditor) Annual Maint	\$800	2	2	2	2	\$1,600	\$1,600	\$1,600	\$1,600	\$6,400
Autodesk Map 3D (annual maint)	\$436	1				\$436				\$436
ArcReader	\$0	2				\$0				\$0
ArcGIS (ArcMap)	\$1,600	1	1			\$1,600	\$1,600			\$3,200
Autodesk Map 3D (network versi	\$3,907	1				\$3,907				\$3,907
ArcGIS (ArcMap) Annual Mainte	\$200			1	1			\$200	\$200	\$400
ArcGIS (ArcMap) Annual Mainte	\$400		1	1	1		\$400	\$400	\$400	\$1,200
<i>subtotal:</i>										\$27,543
Training										
ArcIMS End User (3 hours)	\$50	6				\$300				\$300
Access Basics	\$200		3				\$600			\$600
Access Database Design	\$300		1				\$300			\$300
ArcGIS (ArcMap) Course	\$600	2	2			\$1,200	\$1,200			\$2,400
Pictometry training (3 hours)	\$50	6				\$300				\$300
GIS Administration	\$1,000	1				\$1,000				\$1,000
<i>subtotal:</i>										\$4,900
Total for Department =										\$18,843
\$8,500										\$7,200
\$4,700										\$39,243

Computer Requirements

Department: Risk/Insurance

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
<u>Training</u>										
ArcIMS End User (3 hours)	\$50		2	1		\$100	\$50			\$150
						<i>subtotal:</i>	\$100	\$50		\$150
						Total for Department =	\$100	\$50		\$150

Department: Sheriff

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
<u>Hardware</u>										
Large Format Plotter	\$10,000			1		\$10,000				\$10,000
						<i>subtotal:</i>	\$10,000			\$10,000
<u>Software</u>										
ArcGIS (ArcMap)	\$1,600			1		\$1,600				\$1,600
						<i>subtotal:</i>	\$1,600			\$1,600
<u>Training</u>										
Pictometry training (3 hours)	\$50		10	10		\$500	\$500			\$1,000
Intro to GIS	\$250		4	2		\$1,000	\$500			\$1,500
ArcGIS (ArcMap) Course	\$600		2			\$1,200				\$1,200
ArcIMS End User (3 hours)	\$50		10			\$500				\$500
						<i>subtotal:</i>	\$1,000	\$2,700	\$500	\$4,200
						Total for Department =	\$1,000	\$4,300	\$10,500	\$15,800

Computer Requirements

Department: Social Services

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>	
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>		
Hardware											
New PC	\$2,000	5				\$10,000				\$10,000	
Color Ink Jet Printer	\$500	2				\$1,000				\$1,000	
Color Desktop Scanner	\$300	1				\$300				\$300	
<i>subtotal:</i>					\$11,000	\$300				\$11,300	
Software											
Network Analyst	\$2,000	1				\$2,000				\$2,000	
ArcReader	\$0	10	10	10	\$0				\$0		
ArcGIS (ArcMap) Annual Mainte	\$200	2		2	\$400			\$400	\$800		
ArcGIS (ArcMap)	\$1,600	2				\$3,200				\$3,200	
<i>subtotal:</i>					\$5,200	\$400	\$400			\$6,000	
Training											
Network Analyst class	\$400	2				\$800				\$800	
ArcIMS End User (3 hours)	\$50	10	30	20	5	\$500	\$1,500	\$1,000	\$250	\$3,250	
ArcGIS (ArcMap) Course	\$600	4				\$2,400				\$2,400	
<i>subtotal:</i>					\$500	\$4,700	\$1,000	\$250			\$6,450
Total for Department =						\$500	\$20,900	\$1,700	\$650	\$23,750	

Department: Weights & Measures

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>	
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>		
Training											
ArcIMS End User (3 hours)	\$50	2	2			\$100	\$100				\$200
<i>subtotal:</i>					\$100	\$100					\$200
Total for Department =						\$100	\$100				\$200

Organization Total: \$132,093 128,250 118,000 \$89,850 \$468,193

**APPENDIX H2: Niagara County
FOUR YEAR IMPLEMENTATION PLAN COSTS BY DEPARTMENT**

Applications

Department: Aging

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
No Applications Requested	421	\$0	0	0	0	0	\$0	\$0	\$0	\$0	\$0
Total Department Costs:							\$0	\$0	\$0	\$0	\$0

Department: Audit

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
No Applications Requested	421	\$0	0	0	0	0	\$0	\$0	\$0	\$0	\$0
Total Department Costs:							\$0	\$0	\$0	\$0	\$0

Department: Board of Elections

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Polling Location Map	220	\$1,200	0	0	0	1	\$0	\$0	\$0	\$1,200	\$1,200
Election District Tool	501	\$1,400	0	0	0	1	\$0	\$0	\$0	\$1,400	\$1,400
Election District Verification	510	\$1,400	0	0	0	1	\$0	\$0	\$0	\$1,400	\$1,400
Total Department Costs:							\$0	\$0	\$0	\$4,000	\$4,000

Department: Clerk

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
No Applications Requested	421	\$0	0	0	0	0	\$0	\$0	\$0	\$0	\$0
Total Department Costs:							\$0	\$0	\$0	\$0	\$0

Applications

Department: Data Processing

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Cabling Display Tool	128	\$900	0	1	0	0	\$0	\$900	\$0	\$0	\$900
Computer Inventory Tool	418	\$0	0	0	0	0	\$0	\$0	\$0	\$0	\$0
FTP Site	423	\$2,500	0	0	1	0	\$0	\$0	\$2,500	\$0	\$2,500
GIS Network Integration Tool	511	\$2,200	0	1	0	0	\$0	\$2,200	\$0	\$0	\$2,200
Total Department Costs:							\$0	\$3,100	\$2,500	\$0	\$5,600

Department: Economic Development

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Pictometry Display Tool	105	\$900	1	0	0	0	\$900	\$0	\$0	\$0	\$900
General Query Tool	200	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Site Permit Tracking Tool	621	\$2,500	0	1	0	0	\$0	\$2,500	\$0	\$0	\$2,500
Total Department Costs:							\$2,100	\$2,500	\$0	\$0	\$4,600

Department: Employment and Training

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Job Search Tool	211	\$2,200	0	1	0	0	\$0	\$2,200	\$0	\$0	\$2,200
Maps & Directions	212	\$1,200	0	0	1	0	\$0	\$0	\$1,200	\$0	\$1,200
Employment/Unemployment Maps	312	\$1,400	0	0	1	0	\$0	\$0	\$1,400	\$0	\$1,400
Database Integration	406	\$2,500	0	0	1	0	\$0	\$0	\$2,500	\$0	\$2,500
Total Department Costs:							\$0	\$2,200	\$5,100	\$0	\$7,300

Applications

Department: Environmental Health

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
General Query Tool	200	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Human & Environmental Communicable Disease Monitoring Tool	214	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Resident Notification Application	305	\$1,400	0	1	0	0	\$0	\$1,400	\$0	\$0	\$1,400
Water Quality Sampling Capture Tool	420	\$2,500	1	0	0	0	\$2,500	\$0	\$0	\$0	\$2,500
Vehicle Routing	506	\$2,200	0	0	1	0	\$0	\$0	\$2,200	\$0	\$2,200
Project Georeference Tool	612	\$2,500	0	1	0	0	\$0	\$2,500	\$0	\$0	\$2,500
Public FOIL Response	613	\$1,200	0	1	0	0	\$0	\$1,200	\$0	\$0	\$1,200
Total Department Costs:							\$4,900	\$5,100	\$2,200	\$0	\$12,200

Department: Fire & Emergency Services

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Pictometry Display Tool	105	\$900	1	0	0	0	\$900	\$0	\$0	\$0	\$900
General Query Tool	200	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Arson Assessment Tool	213	\$1,400	0	0	0	1	\$0	\$0	\$0	\$1,400	\$1,400
911 Call Display Tool	313	\$1,400	0	1	0	0	\$0	\$1,400	\$0	\$0	\$1,400
Evacuation Planning / Response Tool	314	\$1,400	0	0	0	1	\$0	\$0	\$0	\$1,400	\$1,400
Database Integration	406	\$2,500	0	0	0	1	\$0	\$0	\$0	\$2,500	\$2,500
Hazmat Data Collection Tool	407	\$2,500	0	1	0	0	\$0	\$2,500	\$0	\$0	\$2,500
Automated Vehicle Locator	505	\$2,200	0	0	1	0	\$0	\$0	\$2,200	\$0	\$2,200
Total Department Costs:							\$2,100	\$3,900	\$2,200	\$5,300	\$13,500

Department: Historian

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
No Applications Requested	421	\$0	0	0	0	0	\$0	\$0	\$0	\$0	\$0
Total Department Costs:							\$0	\$0	\$0	\$0	\$0

Applications

Department: Human Resources

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Maps & Directions	212	\$1,200	0	0	1	0	\$0	\$0	\$1,200	\$0	\$1,200
Total Department Costs:							\$0	\$0	\$1,200	\$0	\$1,200

Department: Management and Budget

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
No Applications Requested	421	\$0	0	0	0	0	\$0	\$0	\$0	\$0	\$0
Total Department Costs:							\$0	\$0	\$0	\$0	\$0

Department: Outside Agencies

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>	
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>		
Outside Agency Applications	625	\$0									\$0	
Total Department Costs:												\$0

Department: Probation

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
General Query Tool	200	\$1,200	0	1	0	0	\$0	\$1,200	\$0	\$0	\$1,200
Caseworker/client Matching Tool	221	\$1,400	0	0	1	0	\$0	\$0	\$1,400	\$0	\$1,400
Database Integration	406	\$2,500	0	1	0	0	\$0	\$2,500	\$0	\$0	\$2,500
Vehicle Routing	506	\$2,200	0	0	0	1	\$0	\$0	\$0	\$2,200	\$2,200
Electronic Home Monitoring Tool	605	\$1,400	0	1	0	0	\$0	\$1,400	\$0	\$0	\$1,400
Crime Analysis	606	\$1,400	0	0	1	0	\$0	\$0	\$1,400	\$0	\$1,400
Total Department Costs:							\$0	\$5,100	\$2,800	\$2,200	\$10,100

Applications

Department: Public Citizens

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Pictometry Display Tool	105	\$900	1	0	0	0	\$900	\$0	\$0	\$0	\$900
Countertop Kiosk Query Tool	202	\$1,200	0	0	1	0	\$0	\$0	\$1,200	\$0	\$1,200
Sex Offender Notification	608	\$1,200	0	0	1	0	\$0	\$0	\$1,200	\$0	\$1,200
Park Shelter Rental Tool	622	\$2,500	0	1	0	0	\$0	\$2,500	\$0	\$0	\$2,500
Total Department Costs:							\$900	\$2,500	\$2,400	\$0	\$5,800

Department: Public Health

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Outcome Assessment Tool	120	\$900	0	1	0	0	\$0	\$900	\$0	\$0	\$900
General Query Tool	200	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Human & Environmental Communicable Disease Monitoring Tool	214	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Nurse/patient Matching Tool	216	\$1,200	0	0	1	0	\$0	\$0	\$1,200	\$0	\$1,200
Resident Notification Application	305	\$1,400	0	0	1	0	\$0	\$0	\$1,400	\$0	\$1,400
Vehicle Routing	506	\$2,200	0	0	0	1	\$0	\$0	\$0	\$2,200	\$2,200
Total Department Costs:							\$2,400	\$900	\$2,600	\$2,200	\$8,100

Department: Public Works - Building & Grounds

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Pictometry Display Tool	105	\$900	1	0	0	0	\$900	\$0	\$0	\$0	\$900
Facility Management Tool	119	\$1,200	0	1	0	0	\$0	\$1,200	\$0	\$0	\$1,200
General Query Tool	200	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Registration of Scanned Images	315	\$2,500	0	1	0	0	\$0	\$2,500	\$0	\$0	\$2,500
CAD Integration	409	\$2,500	1	0	0	0	\$2,500	\$0	\$0	\$0	\$2,500
Inspection Schedule Tool	507	\$2,200	0	0	1	0	\$0	\$0	\$2,200	\$0	\$2,200
Document Management Tool	614	\$1,200	0	1	0	0	\$0	\$1,200	\$0	\$0	\$1,200
Work Order Management	623	\$2,500	0	0	1	0	\$0	\$0	\$2,500	\$0	\$2,500
Total Department Costs:							\$4,600	\$4,900	\$4,700	\$0	\$14,200

Applications

Department: Public Works - Engineering

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Pictometry Display Tool	105	\$900	1	0	0	0	\$900	\$0	\$0	\$0	\$900
UFPO Tool	121	\$900	0	1	0	0	\$0	\$900	\$0	\$0	\$900
General Query Tool	200	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Registration of Scanned Images	315	\$2,500	1	0	0	0	\$2,500	\$0	\$0	\$0	\$2,500
CAD Integration	409	\$2,500	0	1	0	0	\$0	\$2,500	\$0	\$0	\$2,500
Survey Data Integration	413	\$2,500	0	0	1	0	\$0	\$0	\$2,500	\$0	\$2,500
Document Management Tool	614	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Total Department Costs:							\$5,800	\$3,400	\$2,500	\$0	\$11,700

Department: Public Works - Highway

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Pictometry Display Tool	105	\$900	0	1	0	0	\$0	\$900	\$0	\$0	\$900
General Query Tool	200	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Registration of Scanned Images	315	\$2,500	0	1	0	0	\$0	\$2,500	\$0	\$0	\$2,500
Pavement Management Tool	400	\$2,500	1	0	0	0	\$2,500	\$0	\$0	\$0	\$2,500
Sign Management Tool	404	\$2,500	1	0	0	0	\$2,500	\$0	\$0	\$0	\$2,500
CAD Integration	409	\$2,500	0	0	1	0	\$0	\$0	\$2,500	\$0	\$2,500
Automated Vehicle Locator	505	\$2,200	0	0	1	0	\$0	\$0	\$2,200	\$0	\$2,200
Document Management Tool	614	\$1,200	0	1	0	0	\$0	\$1,200	\$0	\$0	\$1,200
Bridge & Culvert Inspection Tool	615	\$2,500	1	0	0	0	\$2,500	\$0	\$0	\$0	\$2,500
Total Department Costs:							\$8,700	\$4,600	\$4,700	\$0	\$18,000

Department: Public Works - Parks

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Pictometry Display Tool	105	\$900	1	0	0	0	\$900	\$0	\$0	\$0	\$900
General Query Tool	200	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Parks Planning Tool	508	\$2,200	0	0	1	0	\$0	\$0	\$2,200	\$0	\$2,200
Park Shelter Rental Tool	622	\$2,500	0	1	0	0	\$0	\$2,500	\$0	\$0	\$2,500
Total Department Costs:							\$2,100	\$2,500	\$2,200	\$0	\$6,800

Applications

Department: Real Property Tax Service

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Pictometry Display Tool	105	\$900	0	0	1	0	\$0	\$0	\$900	\$0	\$900
Scanned Image Integration	110	\$900	0	1	0	0	\$0	\$900	\$0	\$0	\$900
General Query Tool	200	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Countertop Kiosk Query Tool	202	\$1,200	0	0	1	0	\$0	\$0	\$1,200	\$0	\$1,200
CAD to GIS Conversion	409	\$2,500	1	0	0	0	\$2,500	\$0	\$0	\$0	\$2,500
FTP Site	423	\$2,500	0	1	0	0	\$0	\$2,500	\$0	\$0	\$2,500
Red Line Application	603	\$2,500	0	0	0	1	\$0	\$0	\$0	\$2,500	\$2,500
Parcel Filter Tool	604	\$1,200	0	1	0	0	\$0	\$1,200	\$0	\$0	\$1,200
COGO Plotting Tool	624	\$2,500	1	0	0	0	\$2,500	\$0	\$0	\$0	\$2,500
Total Department Costs:							\$6,200	\$4,600	\$2,100	\$2,500	\$15,400

Department: Risk/Insurance

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Accident Tracking Tool	600	\$900	0	0	1	0	\$0	\$0	\$900	\$0	\$900
Workers Compensation Tracking	601	\$1,200	0	0	1	0	\$0	\$0	\$1,200	\$0	\$1,200
Retiree Tracking	602	\$2,500	0	0	0	1	\$0	\$0	\$0	\$2,500	\$2,500
Total Department Costs:							\$0	\$0	\$2,100	\$2,500	\$4,600

Department: Sheriff

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Pictometry Display Tool	105	\$900	1	0	0	0	\$900	\$0	\$0	\$0	\$900
911 Call Display Tool	313	\$1,400	1	0	0	0	\$1,400	\$0	\$0	\$0	\$1,400
Automated Vehicle Locator	505	\$2,200	1	0	0	0	\$2,200	\$0	\$0	\$0	\$2,200
Crime Analysis	606	\$1,400	0	1	0	0	\$0	\$1,400	\$0	\$0	\$1,400
Beat Maps	609	\$1,200	0	0	1	0	\$0	\$0	\$1,200	\$0	\$1,200
Total Department Costs:							\$4,500	\$1,400	\$1,200	\$0	\$7,100

Applications

Department: Social Services

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
General Query Tool	200	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Job Search Tool	211	\$2,200	0	1	0	0	\$0	\$2,200	\$0	\$0	\$2,200
Service Provider Lookup	219	\$1,200	0	1	0	0	\$0	\$1,200	\$0	\$0	\$1,200
Caseworker/client Matching Tool	221	\$1,400	0	1	0	0	\$0	\$1,400	\$0	\$0	\$1,400
Bus Route/Van Service Analysis	317	\$1,400	0	0	0	1	\$0	\$0	\$0	\$1,400	\$1,400
Database Integration	406	\$2,500	0	1	0	0	\$0	\$2,500	\$0	\$0	\$2,500
Reports to Legislature	415	\$2,500	0	0	0	1	\$0	\$0	\$0	\$2,500	\$2,500
HEAP/STAR Tool	416	\$2,500	0	0	1	0	\$0	\$0	\$2,500	\$0	\$2,500
Total Department Costs:							\$1,200	\$7,300	\$2,500	\$3,900	\$14,900

Department: Veterans Services

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Veterans Services Planning	117	\$1,200	0	0	0	1	\$0	\$0	\$0	\$1,200	\$1,200
Total Department Costs:							\$0	\$0	\$0	\$1,200	\$1,200

Department: Weights & Measures

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
General Query Tool	200	\$1,200	0	1	0	0	\$0	\$1,200	\$0	\$0	\$1,200
Database Integration	406	\$2,500	0	0	1	0	\$0	\$0	\$2,500	\$0	\$2,500
Vehicle Routing	506	\$2,200	0	0	0	1	\$0	\$0	\$0	\$2,200	\$2,200
Total Department Costs:							\$0	\$1,200	\$2,500	\$2,200	\$5,900
Total Organization Cost:							\$45,500	\$55,200	\$45,500	\$26,000	\$172,200

APPENDIX H3: Niagara County
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
911 Call Database	\$4,000	Probation	1	50%	\$2,000.00
		Sheriff	1	50%	\$2,000.00
		Layer Totals:	2	100%	\$4,000.00
Accident Database	\$6,200	Risk/Insurance	1	100%	\$6,200.00
		Layer Totals:	1	100%	\$6,200.00
Adult Entertainment Locations	\$500	Probation	2	33%	\$166.67
		Public Citizens	1	17%	\$83.33
		Sheriff	3	50%	\$250.00
		Layer Totals:	6	100%	\$500.00
Aerial Photos (Oblique - Pictometry)	\$39,000	Data Processing	1	7%	\$2,785.71
		Economic Development	1	7%	\$2,785.71
		Environmental Health	3	21%	\$8,357.14
		Fire & Emergency Services	1	7%	\$2,785.71
		Public Citizens	1	7%	\$2,785.71
		Public Works - Building & Grounds	1	7%	\$2,785.71
		Public Works - Engineering	1	7%	\$2,785.71
		Public Works - Highway	1	7%	\$2,785.71
		Public Works - Parks	1	7%	\$2,785.71
		Real Property Tax Service	1	7%	\$2,785.71
		Risk/Insurance	1	7%	\$2,785.71
		Sheriff	1	7%	\$2,785.71
		Layer Totals:	14	100%	\$39,000.00
		Ag Districts	\$3,680	Economic Development	1
Public Citizens	1			17%	\$613.33
Public Works - Parks	1			17%	\$613.33
Real Property Tax Service	3			50%	\$1,840.00
Layer Totals:	6	100%	\$3,680.00		
Airports	\$250	Economic Development	1	100%	\$250.00
		Layer Totals:	1	100%	\$250.00
Aquifers	\$1,500	Economic Development	1	100%	\$1,500.00
		Layer Totals:	1	100%	\$1,500.00
Archaeological Sites	\$600	Public Works - Parks	1	100%	\$600.00
		Layer Totals:	1	100%	\$600.00
Bars	\$500	Probation	2	33%	\$166.67

APPENDIX H3: Niagara County
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
Bars	\$500	Public Citizens	1	17%	\$83.33
		Sheriff	3	50%	\$250.00
		Layer Totals:	6	100%	\$500.00
Basemap Data	\$0	Data Processing	1	100%	\$0.00
		Layer Totals:	1	100%	\$0.00
Bird Viewing Sites	\$750	Public Citizens	1	33%	\$250.00
		Public Works - Parks	2	67%	\$500.00
		Layer Totals:	3	100%	\$750.00
Boat Ramps	\$750	Public Citizens	1	33%	\$250.00
		Public Works - Parks	2	67%	\$500.00
		Layer Totals:	3	100%	\$750.00
Bridges	\$4,150	Public Works - Building & Grounds	1	20%	\$830.00
		Public Works - Engineering	2	40%	\$1,660.00
		Public Works - Highway	2	40%	\$1,660.00
		Layer Totals:	5	100%	\$4,150.00
Brownfields	\$168	Economic Development	2	100%	\$167.50
		Layer Totals:	2	100%	\$167.50
Building & Room Database	\$8,000	Data Processing	1	25%	\$2,000.00
		Human Resources	1	25%	\$2,000.00
		Public Works - Building & Grounds	2	50%	\$4,000.00
		Layer Totals:	4	100%	\$8,000.00
Building Floorplans	\$12,000	Data Processing	2	40%	\$4,800.00
		Fire & Emergency Services	1	20%	\$2,400.00
		Public Works - Building & Grounds	1	20%	\$2,400.00
		Public Works - Parks	1	20%	\$2,400.00
		Layer Totals:	5	100%	\$12,000.00
Building Footprints	\$12,000	Data Processing	2	50%	\$6,000.00
		Public Works - Parks	1	25%	\$3,000.00
		Weights & Measures	1	25%	\$3,000.00
		Layer Totals:	4	100%	\$12,000.00
Building Permits	\$4,020	Public Citizens	1	50%	\$2,010.00
		Weights & Measures	1	50%	\$2,010.00
		Layer Totals:	2	100%	\$4,020.00
Bus Routes	\$800	Employment and Training	2	33%	\$266.67
		Social Services	4	67%	\$533.33

APPENDIX H3: Niagara County
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
		Layer Totals:	6	100%	\$800.00
Bus Stops	\$750	Employment and Training	2	67%	\$500.00
		Social Services	1	33%	\$250.00
		Layer Totals:	3	100%	\$750.00
Business Database	\$500	Fire & Emergency Services	1	100%	\$500.00
		Layer Totals:	1	100%	\$500.00
Business License Database	\$5,000	Weights & Measures	1	100%	\$5,000.00
		Layer Totals:	1	100%	\$5,000.00
Business Locations	\$750	Human Resources	1	100%	\$750.00
		Layer Totals:	1	100%	\$750.00
Cable Lines	\$15,000	Data Processing	2	33%	\$5,000.00
		Public Works - Building & Grounds	1	17%	\$2,500.00
		Public Works - Engineering	2	33%	\$5,000.00
		Public Works - Highway	1	17%	\$2,500.00
		Layer Totals:	6	100%	\$15,000.00
CAD Drawings	\$1,500	Public Works - Building & Grounds	2	40%	\$600.00
		Public Works - Engineering	1	20%	\$300.00
		Public Works - Highway	1	20%	\$300.00
		Real Property Tax Service	1	20%	\$300.00
		Layer Totals:	5	100%	\$1,500.00
CAD World Files	\$1,500	Public Works - Building & Grounds	1	25%	\$375.00
		Public Works - Engineering	1	25%	\$375.00
		Public Works - Highway	1	25%	\$375.00
		Real Property Tax Service	1	25%	\$375.00
		Layer Totals:	4	100%	\$1,500.00
Campsites	\$500	Public Citizens	1	33%	\$166.67
		Public Works - Parks	2	67%	\$333.33
		Layer Totals:	3	100%	\$500.00
Census Blocks/Tract Data	\$90	Fire & Emergency Services	1	11%	\$10.00
		Probation	1	11%	\$10.00
		Public Citizens	1	11%	\$10.00
		Public Health	3	33%	\$30.00
		Public Works - Parks	1	11%	\$10.00
		Social Services	1	11%	\$10.00
		Veterans Services	1	11%	\$10.00

APPENDIX H3: Niagara County
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
		Layer Totals:	9	100%	\$90.00
Census Blocks/Tract Outlines	\$90	Board of Elections	1	17%	\$15.00
		Employment and Training	1	17%	\$15.00
		Probation	1	17%	\$15.00
		Public Citizens	1	17%	\$15.00
		Public Works - Parks	1	17%	\$15.00
		Social Services	1	17%	\$15.00
		Layer Totals:	6	100%	\$90.00
Chamber of Commerce Database	\$375	Weights & Measures	1	100%	\$375.00
		Layer Totals:	1	100%	\$375.00
Churches	\$100	Sheriff	3	60%	\$60.00
		Social Services	2	40%	\$40.00
		Layer Totals:	5	100%	\$100.00
Client Database	\$1,500	Probation	2	67%	\$1,000.00
		Weights & Measures	1	33%	\$500.00
		Layer Totals:	3	100%	\$1,500.00
Clinic Locations	\$500	Public Health	3	100%	\$500.00
		Layer Totals:	3	100%	\$500.00
Command Center	\$500	Fire & Emergency Services	1	100%	\$500.00
		Layer Totals:	1	100%	\$500.00
Communicable Disease Database	\$8,000	Environmental Health	1	33%	\$2,666.67
		Public Health	2	67%	\$5,333.33
		Layer Totals:	3	100%	\$8,000.00
Community Centers	\$1,300	Public Health	1	17%	\$216.67
		Sheriff	3	50%	\$650.00
		Social Services	2	33%	\$433.33
		Layer Totals:	6	100%	\$1,300.00
Complaint Database	\$8,600	Environmental Health	2	100%	\$8,600.00
		Layer Totals:	2	100%	\$8,600.00
Computed Routes and Directions	\$0	Public Health	1	50%	\$0.00
		Social Services	1	50%	\$0.00
		Layer Totals:	2	100%	\$0.00
Computer Inventory	\$0	Data Processing	1	100%	\$0.00
		Layer Totals:	1	100%	\$0.00

APPENDIX H3: Niagara County
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
Contours	\$1,400	Economic Development	2	40%	\$560.00
		Public Citizens	1	20%	\$280.00
		Public Works - Parks	2	40%	\$560.00
		Layer Totals:	5	100%	\$1,400.00
Counseling Agency Locations	\$1,500	Probation	3	100%	\$1,500.00
		Layer Totals:	3	100%	\$1,500.00
County Owned Building Footprint Locations	\$8,500	Public Works - Building & Grounds	3	43%	\$3,642.86
		Public Works - Engineering	1	14%	\$1,214.29
		Public Works - Highway	1	14%	\$1,214.29
		Public Works - Parks	2	29%	\$2,428.57
		Layer Totals:	7	100%	\$8,500.00
County Owned Properties	\$200	Economic Development	1	9%	\$18.18
		Public Works - Building & Grounds	4	36%	\$72.73
		Public Works - Engineering	2	18%	\$36.36
		Public Works - Highway	2	18%	\$36.36
		Public Works - Parks	2	18%	\$36.36
Layer Totals:	11	100%	\$200.00		
County Retiree Database	\$1,800	Risk/Insurance	1	100%	\$1,800.00
		Layer Totals:	1	100%	\$1,800.00
County RPTS Database	\$13,500	Economic Development	2	22%	\$3,000.00
		Real Property Tax Service	7	78%	\$10,500.00
		Layer Totals:	9	100%	\$13,500.00
Court House Locations	\$200	Probation	3	100%	\$200.00
		Layer Totals:	3	100%	\$200.00
Crime Database	\$8,500	Sheriff	3	100%	\$8,500.00
		Layer Totals:	3	100%	\$8,500.00
Culverts	\$7,500	Public Works - Highway	1	100%	\$7,500.00
		Layer Totals:	1	100%	\$7,500.00
Daycare Centers	\$2,350	Employment and Training	1	17%	\$391.67
		Public Citizens	1	17%	\$391.67
		Sheriff	3	50%	\$1,175.00
		Social Services	1	17%	\$391.67
		Layer Totals:	6	100%	\$2,350.00
Decontamination Sites	\$250	Fire & Emergency Services	1	100%	\$250.00

APPENDIX H3: Niagara County
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
		Layer Totals:	1	100%	\$250.00
Detailed Campus Maps	\$500	Employment and Training	1	100%	\$500.00
		Layer Totals:	1	100%	\$500.00
Detention Facility Locations	\$300	Probation	3	100%	\$300.00
		Layer Totals:	3	100%	\$300.00
Digital Elevation Models (DEMs)	\$4,400	Public Citizens	1	25%	\$1,100.00
		Public Works - Parks	3	75%	\$3,300.00
		Layer Totals:	4	100%	\$4,400.00
Digital Ortho Photos (DOQs)	\$390	Data Processing	1	3%	\$12.58
		Economic Development	3	10%	\$37.74
		Fire & Emergency Services	3	10%	\$37.74
		Public Citizens	1	3%	\$12.58
		Public Works - Building & Grounds	3	10%	\$37.74
		Public Works - Engineering	5	16%	\$62.90
		Public Works - Highway	6	19%	\$75.48
		Public Works - Parks	3	10%	\$37.74
		Real Property Tax Service	2	6%	\$25.16
		Sheriff	4	13%	\$50.32
		Layer Totals:	31	100%	\$390.00
Ditches	\$1,875	Public Works - Parks	1	100%	\$1,875.00
		Layer Totals:	1	100%	\$1,875.00
DSS Case Database	\$500	Probation	1	17%	\$83.33
		Social Services	5	83%	\$416.67
		Layer Totals:	6	100%	\$500.00
Easements	\$20,000	Real Property Tax Service	2	100%	\$20,000.00
		Layer Totals:	2	100%	\$20,000.00
Economic Development Database	\$3,750	Weights & Measures	1	100%	\$3,750.00
		Layer Totals:	1	100%	\$3,750.00
Electrical Utility Lines	\$20,000	Public Works - Building & Grounds	1	25%	\$5,000.00
		Public Works - Engineering	2	50%	\$10,000.00
		Public Works - Highway	1	25%	\$5,000.00
		Layer Totals:	4	100%	\$20,000.00
Elevation Monumentation	\$6,750	Public Works - Engineering	1	100%	\$6,750.00
		Layer Totals:	1	100%	\$6,750.00

APPENDIX H3: Niagara County
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
Emergency Spill Locations	\$200	Fire & Emergency Services	1	100%	\$200.00
		Layer Totals:	1	100%	\$200.00
Environmentally Sensitive Sites	\$248	Economic Development	1	33%	\$82.50
		Public Citizens	1	33%	\$82.50
		Public Works - Parks	1	33%	\$82.50
		Layer Totals:	3	100%	\$247.50
EPA Database	\$1,000	Economic Development	2	100%	\$1,000.00
		Layer Totals:	2	100%	\$1,000.00
EPA Site Locations	\$40	Economic Development	2	100%	\$40.00
		Layer Totals:	2	100%	\$40.00
Equipment Maintenance Database	\$4,250	Public Works - Building & Grounds	2	50%	\$2,125.00
		Public Works - Parks	2	50%	\$2,125.00
		Layer Totals:	4	100%	\$4,250.00
Erosion Zones	\$650	Economic Development	1	100%	\$650.00
		Layer Totals:	1	100%	\$650.00
Evacuation Shelters	\$800	Fire & Emergency Services	1	100%	\$800.00
		Layer Totals:	1	100%	\$800.00
Fire Districts	\$1,638	Environmental Health	2	20%	\$327.60
		Fire & Emergency Services	3	30%	\$491.40
		Public Citizens	1	10%	\$163.80
		Real Property Tax Service	3	30%	\$491.40
		Sheriff	1	10%	\$163.80
		Layer Totals:	10	100%	\$1,638.00
Fire Halls	\$332	Fire & Emergency Services	3	60%	\$199.20
		Public Citizens	1	20%	\$66.40
		Sheriff	1	20%	\$66.40
		Layer Totals:	5	100%	\$332.00
Fire History Database	\$4,500	Fire & Emergency Services	1	100%	\$4,500.00
		Layer Totals:	1	100%	\$4,500.00
Fishing Sites	\$750	Public Citizens	1	33%	\$250.00
		Public Works - Parks	2	67%	\$500.00
		Layer Totals:	3	100%	\$750.00
Floodplains	\$1,450	Economic Development	2	29%	\$414.29
		Public Citizens	1	14%	\$207.14

APPENDIX H3: Niagara County
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
Floodplains	\$1,450	Public Works - Parks	2	29%	\$414.29
		Real Property Tax Service	2	29%	\$414.29
		Layer Totals:	7	100%	\$1,450.00
Gas Lines	\$20,000	Public Works - Building & Grounds	1	25%	\$5,000.00
		Public Works - Engineering	2	50%	\$10,000.00
		Public Works - Highway	1	25%	\$5,000.00
		Layer Totals:	4	100%	\$20,000.00
Gas Wells	\$5,500	Economic Development	1	100%	\$5,500.00
		Layer Totals:	1	100%	\$5,500.00
Geocoded Addresses	\$4,500	Board of Elections	1	5%	\$204.55
		Environmental Health	1	5%	\$204.55
		Fire & Emergency Services	1	5%	\$204.55
		Human Resources	1	5%	\$204.55
		Probation	3	14%	\$613.64
		Public Citizens	1	5%	\$204.55
		Public Health	2	9%	\$409.09
		Risk/Insurance	2	9%	\$409.09
		Sheriff	4	18%	\$818.18
		Social Services	5	23%	\$1,022.73
		Weights & Measures	1	5%	\$204.55
Layer Totals:	22	100%	\$4,500.00		
Geocoded Client Home Addresses	\$1,200	Employment and Training	2	50%	\$600.00
		Probation	1	25%	\$300.00
		Social Services	1	25%	\$300.00
		Layer Totals:	4	100%	\$1,200.00
Geocoded Job Opening Addresses	\$900	Employment and Training	3	100%	\$900.00
		Layer Totals:	3	100%	\$900.00
Geocoded Job Seeker Addresses	\$804	Employment and Training	1	50%	\$402.00
		Social Services	1	50%	\$402.00
		Layer Totals:	2	100%	\$804.00
Geocoded Occurrence Locations	\$1,200	Environmental Health	3	75%	\$900.00
		Fire & Emergency Services	1	25%	\$300.00
		Layer Totals:	4	100%	\$1,200.00
Geology (bedrock)	\$150	Economic Development	2	67%	\$100.00
		Public Works - Parks	1	33%	\$50.00

APPENDIX H3: Niagara County
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
		Layer Totals:	3	100%	\$150.00
Geology (surface)	\$120	Economic Development	2	67%	\$80.00
		Public Works - Parks	1	33%	\$40.00
		Layer Totals:	3	100%	\$120.00
Georeferenced Scanned Images	\$5,000	Public Works - Building & Grounds	1	33%	\$1,666.67
		Public Works - Engineering	1	33%	\$1,666.67
		Public Works - Highway	1	33%	\$1,666.67
		Layer Totals:	3	100%	\$5,000.00
Georeferenced Scanned Images (World Files)	\$0	Public Works - Building & Grounds	1	33%	\$0.00
		Public Works - Engineering	1	33%	\$0.00
		Public Works - Highway	1	33%	\$0.00
		Layer Totals:	3	100%	\$0.00
GPS Survey Data	\$5,000	Public Works - Engineering	1	100%	\$5,000.00
		Layer Totals:	1	100%	\$5,000.00
Ground Control Points	\$3,000	Public Works - Engineering	1	100%	\$3,000.00
		Layer Totals:	1	100%	\$3,000.00
Hazardous Material Inventory	\$7,500	Fire & Emergency Services	4	100%	\$7,500.00
		Layer Totals:	4	100%	\$7,500.00
Hazardous Materials Sites	\$268	Economic Development	1	17%	\$44.67
		Environmental Health	2	33%	\$89.33
		Fire & Emergency Services	3	50%	\$134.00
		Layer Totals:	6	100%	\$268.00
Historic DEC Spill List	\$100	Economic Development	1	33%	\$33.33
		Environmental Health	2	67%	\$66.67
		Layer Totals:	3	100%	\$100.00
Historic Parcel Database	\$5,000	Real Property Tax Service	2	100%	\$5,000.00
		Layer Totals:	2	100%	\$5,000.00
Historical Sites	\$250	Public Works - Parks	1	100%	\$250.00
		Layer Totals:	1	100%	\$250.00
Hospitals	\$150	Fire & Emergency Services	2	40%	\$60.00
		Public Health	1	20%	\$30.00
		Sheriff	1	20%	\$30.00
		Veterans Services	1	20%	\$30.00
		Layer Totals:	5	100%	\$150.00

APPENDIX H3: Niagara County
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
Hotlinks to Features	\$2,500	Public Works - Building & Grounds	1	33%	\$833.33
		Public Works - Engineering	1	33%	\$833.33
		Public Works - Highway	1	33%	\$833.33
		Layer Totals:	3	100%	\$2,500.00
Hydrants	\$1,000	Fire & Emergency Services	3	75%	\$750.00
		Sheriff	1	25%	\$250.00
		Layer Totals:	4	100%	\$1,000.00
Hydrology	\$2,513	Economic Development	2	13%	\$314.06
		Environmental Health	4	25%	\$628.13
		Fire & Emergency Services	1	6%	\$157.03
		Public Citizens	2	13%	\$314.06
		Public Health	1	6%	\$157.03
		Public Works - Parks	1	6%	\$157.03
		Real Property Tax Service	4	25%	\$628.13
		Weights & Measures	1	6%	\$157.03
		Layer Totals:	16	100%	\$2,512.50
IDA Projects	\$563	Economic Development	2	67%	\$375.00
		Real Property Tax Service	1	33%	\$187.50
		Layer Totals:	3	100%	\$562.50
Inclusion/Exclusion Zones	\$3,500	Probation	1	100%	\$3,500.00
Layer Totals:	1	100%	\$3,500.00		
Inspection Database	\$7,000	Public Works - Building & Grounds	1	33%	\$2,333.33
		Weights & Measures	2	67%	\$4,666.67
		Layer Totals:	3	100%	\$7,000.00
Job Opening Database	\$8,170	Employment and Training	4	67%	\$5,446.67
		Social Services	2	33%	\$2,723.33
		Layer Totals:	6	100%	\$8,170.00
Job Seeker Database	\$4,355	Employment and Training	1	50%	\$2,177.50
		Social Services	1	50%	\$2,177.50
		Layer Totals:	2	100%	\$4,355.00
Keyword Database	\$12,000	Public Works - Building & Grounds	1	33%	\$4,000.00
		Public Works - Engineering	1	33%	\$4,000.00
		Public Works - Highway	1	33%	\$4,000.00
		Layer Totals:	3	100%	\$12,000.00
Lab Analysis Database	\$6,840	Environmental Health	3	75%	\$5,130.00

APPENDIX H3: Niagara County
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
Lab Analysis Database	\$6,840	Public Health	1	25%	\$1,710.00
		Layer Totals:	4	100%	\$6,840.00
Landfills	\$5,100	Economic Development	2	33%	\$1,700.00
		Environmental Health	2	33%	\$1,700.00
		Public Health	1	17%	\$850.00
		Public Works - Parks	1	17%	\$850.00
		Layer Totals:	6	100%	\$5,100.00
Landuse	\$275	Economic Development	2	33%	\$91.67
		Public Works - Parks	2	33%	\$91.67
		Real Property Tax Service	2	33%	\$91.67
		Layer Totals:	6	100%	\$275.00
Legislative Districts	\$6,450	Board of Elections	3	50%	\$3,225.00
		Environmental Health	2	33%	\$2,150.00
		Real Property Tax Service	1	17%	\$1,075.00
		Layer Totals:	6	100%	\$6,450.00
Liquor Stores	\$500	Probation	2	40%	\$200.00
		Sheriff	3	60%	\$300.00
		Layer Totals:	5	100%	\$500.00
Municipal Boundaries	\$150	Board of Elections	1	3%	\$3.75
		Economic Development	2	5%	\$7.50
		Environmental Health	7	18%	\$26.25
		Probation	3	8%	\$11.25
		Public Citizens	2	5%	\$7.50
		Public Health	3	8%	\$11.25
		Real Property Tax Service	5	13%	\$18.75
		Risk/Insurance	3	8%	\$11.25
		Sheriff	5	13%	\$18.75
		Social Services	6	15%	\$22.50
		Veterans Services	1	3%	\$3.75
		Weights & Measures	2	5%	\$7.50
		Layer Totals:	40	100%	\$150.00
NAICS Code Information	\$10,000	Weights & Measures	1	100%	\$10,000.00
		Layer Totals:	1	100%	\$10,000.00
NAICS Code Lookup Table	\$750	Weights & Measures	1	100%	\$750.00
		Layer Totals:	1	100%	\$750.00

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DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
Network Schematic	\$6,500	Data Processing	1	100%	\$6,500.00
		Layer Totals:	1	100%	\$6,500.00
New World AS400 Database	\$13,000	Fire & Emergency Services	1	50%	\$6,500.00
		Probation	1	50%	\$6,500.00
		Layer Totals:	2	100%	\$13,000.00
Nurses Addresses	\$500	Public Health	1	100%	\$500.00
		Layer Totals:	1	100%	\$500.00
Nursing Homes	\$500	Fire & Emergency Services	2	100%	\$500.00
		Layer Totals:	2	100%	\$500.00
Parcel Outlines	\$2,600	Board of Elections	2	3%	\$71.23
		Data Processing	2	3%	\$71.23
		Economic Development	3	4%	\$106.85
		Environmental Health	7	10%	\$249.32
		Fire & Emergency Services	7	10%	\$249.32
		Public Citizens	2	3%	\$71.23
		Public Health	6	8%	\$213.70
		Public Works - Building & Grounds	6	8%	\$213.70
		Public Works - Engineering	7	10%	\$249.32
		Public Works - Highway	9	12%	\$320.55
		Public Works - Parks	1	1%	\$35.62
		Real Property Tax Service	9	12%	\$320.55
		Risk/Insurance	2	3%	\$71.23
		Sheriff	4	5%	\$142.47
		Social Services	3	4%	\$106.85
		Veterans Services	1	1%	\$35.62
		Weights & Measures	2	3%	\$71.23
		Layer Totals:	73	100%	\$2,600.00
Parks	\$5,000	Economic Development	1	14%	\$714.29
		Public Citizens	1	14%	\$714.29
		Public Health	1	14%	\$714.29
		Public Works - Parks	4	57%	\$2,857.14
		Layer Totals:	7	100%	\$5,000.00
Paths & Trails	\$1,500	Economic Development	2	40%	\$600.00
		Public Citizens	1	20%	\$300.00
		Public Works - Parks	2	40%	\$600.00

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DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
		Layer Totals:	5	100%	\$1,500.00
Patient Addresses	\$15,000	Public Health	1	100%	\$15,000.00
		Layer Totals:	1	100%	\$15,000.00
Pavement	\$11,880	Public Works - Building & Grounds	1	14%	\$1,697.14
		Public Works - Engineering	2	29%	\$3,394.29
		Public Works - Highway	3	43%	\$5,091.43
		Weights & Measures	1	14%	\$1,697.14
		Layer Totals:	7	100%	\$11,880.00
PeopleSoft Database	\$8,500	Data Processing	1	50%	\$4,250.00
		Risk/Insurance	1	50%	\$4,250.00
		Layer Totals:	2	100%	\$8,500.00
Pharmacy Locations	\$750	Public Health	1	100%	\$750.00
		Layer Totals:	1	100%	\$750.00
Phone CDs	\$2,000	Weights & Measures	1	100%	\$2,000.00
		Layer Totals:	1	100%	\$2,000.00
Phone Wires	\$12,000	Data Processing	1	20%	\$2,400.00
		Public Works - Building & Grounds	1	20%	\$2,400.00
		Public Works - Engineering	2	40%	\$4,800.00
		Public Works - Highway	1	20%	\$2,400.00
		Layer Totals:	5	100%	\$12,000.00
Picnic Shelters	\$1,000	Public Citizens	1	25%	\$250.00
		Public Works - Parks	3	75%	\$750.00
		Layer Totals:	4	100%	\$1,000.00
Picnic Sites	\$1,000	Public Citizens	1	25%	\$250.00
		Public Works - Parks	3	75%	\$750.00
		Layer Totals:	4	100%	\$1,000.00
Plume Outline	\$2,500	Fire & Emergency Services	1	100%	\$2,500.00
		Layer Totals:	1	100%	\$2,500.00
Police Districts	\$1,500	Probation	2	29%	\$428.57
		Public Citizens	1	14%	\$214.29
		Sheriff	4	57%	\$857.14
		Layer Totals:	7	100%	\$1,500.00
Police Stations	\$500	Probation	2	50%	\$250.00
		Public Citizens	1	25%	\$125.00

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<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
Police Stations	\$500	Sheriff	1	25%	\$125.00
		Layer Totals:	4	100%	\$500.00
Polling Places	\$500	Board of Elections	2	100%	\$500.00
		Layer Totals:	2	100%	\$500.00
Pre-plan Printouts	\$6,000	Fire & Emergency Services	3	100%	\$6,000.00
		Layer Totals:	3	100%	\$6,000.00
Probation Case Management System	\$7,500	Probation	5	63%	\$4,687.50
		Sheriff	3	38%	\$2,812.50
		Layer Totals:	8	100%	\$7,500.00
Project Database	\$6,000	Economic Development	1	50%	\$3,000.00
		Environmental Health	1	50%	\$3,000.00
		Layer Totals:	2	100%	\$6,000.00
Project Outline Polygons	\$4,500	Economic Development	1	11%	\$500.00
		Environmental Health	3	33%	\$1,500.00
		Public Works - Building & Grounds	1	11%	\$500.00
		Public Works - Engineering	1	11%	\$500.00
		Public Works - Highway	1	11%	\$500.00
		Real Property Tax Service	2	22%	\$1,000.00
		Layer Totals:	9	100%	\$4,500.00
Railroads	\$12,000	Economic Development	1	25%	\$3,000.00
		Real Property Tax Service	3	75%	\$9,000.00
		Layer Totals:	4	100%	\$12,000.00
Recreational Equipment	\$1,500	Public Citizens	1	20%	\$300.00
		Public Works - Parks	4	80%	\$1,200.00
		Layer Totals:	5	100%	\$1,500.00
Red Line Layers	\$1,200	Real Property Tax Service	2	100%	\$1,200.00
		Layer Totals:	2	100%	\$1,200.00
Resident Phone Numbers	\$2,000	Public Health	1	100%	\$2,000.00
		Layer Totals:	1	100%	\$2,000.00
Scanned As-Built Drawings	\$5,250	Data Processing	1	9%	\$477.27
		Public Works - Building & Grounds	2	18%	\$954.55
		Public Works - Engineering	2	18%	\$954.55
		Public Works - Highway	3	27%	\$1,431.82
		Public Works - Parks	1	9%	\$477.27

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<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
Scanned As-Built Drawings	\$5,250	Real Property Tax Service	2	18%	\$954.55
		Layer Totals:	11	100%	\$5,250.00
Scanned Brochures	\$750	Economic Development	1	100%	\$750.00
		Layer Totals:	1	100%	\$750.00
Scanned EA-5217 Forms	\$1,500	Real Property Tax Service	2	100%	\$1,500.00
		Layer Totals:	2	100%	\$1,500.00
Scanned Floor Plans	\$36,000	Employment and Training	1	13%	\$4,500.00
		Fire & Emergency Services	5	63%	\$22,500.00
		Public Works - Building & Grounds	1	13%	\$4,500.00
		Public Works - Parks	1	13%	\$4,500.00
		Layer Totals:	8	100%	\$36,000.00
Scanned Index Cards	\$1,500	Public Works - Building & Grounds	1	33%	\$500.00
		Public Works - Engineering	1	33%	\$500.00
		Public Works - Highway	1	33%	\$500.00
		Layer Totals:	3	100%	\$1,500.00
Scanned Maintenance Manuals	\$12,000	Public Works - Building & Grounds	1	100%	\$12,000.00
		Layer Totals:	1	100%	\$12,000.00
Scanned or Digital Photos	\$4,000	Data Processing	1	14%	\$571.43
		Public Works - Building & Grounds	2	29%	\$1,142.86
		Public Works - Engineering	1	14%	\$571.43
		Public Works - Highway	3	43%	\$1,714.29
		Layer Totals:	7	100%	\$4,000.00
Scanned Plot Book Pages	\$3,000	Public Works - Highway	1	25%	\$750.00
		Real Property Tax Service	3	75%	\$2,250.00
		Layer Totals:	4	100%	\$3,000.00
School Districts	\$720	Board of Elections	1	10%	\$72.00
		Economic Development	1	10%	\$72.00
		Environmental Health	2	20%	\$144.00
		Probation	1	10%	\$72.00
		Public Citizens	2	20%	\$144.00
		Real Property Tax Service	3	30%	\$216.00
Layer Totals:	10	100%	\$720.00		
Schools	\$186	Employment and Training	1	7%	\$13.29
		Fire & Emergency Services	2	14%	\$26.57
		Probation	3	21%	\$39.86

APPENDIX H3: Niagara County
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
Schools	\$186	Public Citizens	2	14%	\$26.57
		Public Health	2	14%	\$26.57
		Sheriff	3	21%	\$39.86
		Social Services	1	7%	\$13.29
		Layer Totals:	14	100%	\$186.00
Service Provider Locations	\$1,200	Social Services	2	100%	\$1,200.00
		Layer Totals:	2	100%	\$1,200.00
Sex Offender Database	\$6,500	Probation	1	50%	\$3,250.00
		Public Citizens	1	50%	\$3,250.00
		Layer Totals:	2	100%	\$6,500.00
Shoreline Current Data	\$8,000	Public Citizens	1	33%	\$2,666.67
		Public Works - Parks	2	67%	\$5,333.33
		Layer Totals:	3	100%	\$8,000.00
Shoreline Structures	\$4,000	Public Works - Parks	1	100%	\$4,000.00
		Layer Totals:	1	100%	\$4,000.00
Shorelines Historic Data	\$6,000	Public Works - Parks	1	100%	\$6,000.00
		Layer Totals:	1	100%	\$6,000.00
Sign Inventory Database	\$27,000	Public Works - Highway	1	100%	\$27,000.00
		Layer Totals:	1	100%	\$27,000.00
Sign Locations	\$9,500	Public Works - Highway	1	100%	\$9,500.00
		Layer Totals:	1	100%	\$9,500.00
Snowmobile Trails	\$1,200	Economic Development	1	33%	\$400.00
		Public Works - Parks	2	67%	\$800.00
		Layer Totals:	3	100%	\$1,200.00
SPEDES Permits	\$200	Environmental Health	2	100%	\$200.00
		Layer Totals:	2	100%	\$200.00
Sprinkler Systems	\$18,000	Fire & Emergency Services	1	100%	\$18,000.00
		Layer Totals:	1	100%	\$18,000.00
State Crime Database	\$9,500	Probation	1	100%	\$9,500.00
		Layer Totals:	1	100%	\$9,500.00
State DSS Database	\$3,500	Probation	1	33%	\$1,166.67
		Social Services	2	67%	\$2,333.33
		Layer Totals:	3	100%	\$3,500.00
Steep Slope Regions	\$429	Public Works - Parks	1	100%	\$429.00

APPENDIX H3: Niagara County
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
		Layer Totals:	1	100%	\$429.00
Street Centerlines	\$410	Board of Elections	2	2%	\$9.76
		Data Processing	2	2%	\$9.76
		Economic Development	3	4%	\$14.64
		Employment and Training	3	4%	\$14.64
		Environmental Health	7	8%	\$34.17
		Fire & Emergency Services	7	8%	\$34.17
		Human Resources	1	1%	\$4.88
		Probation	4	5%	\$19.52
		Public Citizens	3	4%	\$14.64
		Public Health	6	7%	\$29.29
		Public Works - Building & Grounds	6	7%	\$29.29
		Public Works - Engineering	7	8%	\$34.17
		Public Works - Highway	9	11%	\$43.93
		Public Works - Parks	2	2%	\$9.76
		Real Property Tax Service	4	5%	\$19.52
		Risk/Insurance	3	4%	\$14.64
		Sheriff	5	6%	\$24.40
		Social Services	7	8%	\$34.17
		Veterans Services	1	1%	\$4.88
		Weights & Measures	2	2%	\$9.76
		Layer Totals:	84	100%	\$410.00
Street Names	\$12,920	Economic Development	1	9%	\$1,174.55
		Environmental Health	2	18%	\$2,349.09
		Public Citizens	3	27%	\$3,523.64
		Public Works - Parks	2	18%	\$2,349.09
		Real Property Tax Service	1	9%	\$1,174.55
		Sheriff	1	9%	\$1,174.55
		Social Services	1	9%	\$1,174.55
		Layer Totals:	11	100%	\$12,920.00
Subdivisions	\$5,600	Economic Development	1	20%	\$1,120.00
		Public Citizens	2	40%	\$2,240.00
		Real Property Tax Service	2	40%	\$2,240.00
		Layer Totals:	5	100%	\$5,600.00
Survey Station Points	\$2,000	Public Works - Engineering	1	100%	\$2,000.00

APPENDIX H3: Niagara County
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
		Layer Totals:	1	100%	\$2,000.00
Training Center Locations	\$2,400	Employment and Training	2	67%	\$1,600.00
		Social Services	1	33%	\$800.00
		Layer Totals:	3	100%	\$2,400.00
Trip Database	\$3,500	Probation	1	50%	\$1,750.00
		Social Services	1	50%	\$1,750.00
		Layer Totals:	2	100%	\$3,500.00
Underground Storage Tanks	\$200	Economic Development	2	100%	\$200.00
		Layer Totals:	2	100%	\$200.00
Vegetation	\$720	Economic Development	1	50%	\$360.00
		Public Works - Parks	1	50%	\$360.00
		Layer Totals:	2	100%	\$720.00
Vehicle Coordinates (GPS points)	\$5,500	Fire & Emergency Services	1	33%	\$1,833.33
		Public Works - Highway	1	33%	\$1,833.33
		Sheriff	1	33%	\$1,833.33
		Layer Totals:	3	100%	\$5,500.00
Vehicle Database	\$3,500	Environmental Health	1	25%	\$875.00
		Fire & Emergency Services	1	25%	\$875.00
		Public Works - Highway	1	25%	\$875.00
		Sheriff	1	25%	\$875.00
		Layer Totals:	4	100%	\$3,500.00
VFW Posts	\$500	Veterans Services	1	100%	\$500.00
		Layer Totals:	1	100%	\$500.00
Video Clips	\$2,500	Public Works - Highway	1	100%	\$2,500.00
		Layer Totals:	1	100%	\$2,500.00
Voter Registration Database	\$6,800	Board of Elections	1	100%	\$6,800.00
		Layer Totals:	1	100%	\$6,800.00
Water Sample Points	\$1,500	Environmental Health	3	50%	\$750.00
		Public Health	3	50%	\$750.00
		Layer Totals:	6	100%	\$1,500.00
Watersheds	\$33	Economic Development	2	100%	\$33.00
		Layer Totals:	2	100%	\$33.00
Well Locations	\$4,690	Environmental Health	1	50%	\$2,345.00
		Public Works - Parks	1	50%	\$2,345.00

APPENDIX H3: Niagara County
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
		Layer Totals:	2	100%	\$4,690.00
Wetlands	\$300	Economic Development	2	22%	\$66.67
		Environmental Health	1	11%	\$33.33
		Public Citizens	1	11%	\$33.33
		Public Health	1	11%	\$33.33
		Public Works - Parks	2	22%	\$66.67
		Real Property Tax Service	2	22%	\$66.67
		Layer Totals:	9	100%	\$300.00
Wooded lots	\$3,000	Economic Development	1	50%	\$1,500.00
		Public Health	1	50%	\$1,500.00
		Layer Totals:	2	100%	\$3,000.00
Work Order Database	\$6,000	Public Works - Building & Grounds	3	75%	\$4,500.00
		Public Works - Highway	1	25%	\$1,500.00
		Layer Totals:	4	100%	\$6,000.00
Zip+4 Outlines	\$1,000	Probation	1	50%	\$500.00
		Risk/Insurance	1	50%	\$500.00
		Layer Totals:	2	100%	\$1,000.00
Zoning Areas	\$6,375	Economic Development	2	67%	\$4,250.00
		Public Citizens	1	33%	\$2,125.00
		Layer Totals:	3	100%	\$6,375.00
Total Layer Conversion Costs					\$754,565.00

Agency Report Pages

	Year 1	Year 2	Year 3	Year 4	Total
Hardware	\$4,700	\$16,500	\$1,300	\$300	\$22,800
Software	\$1,600	\$3,200	\$200	\$200	\$5,200
Training	\$2,150	\$6,100	\$1,250	\$50	\$9,550
Applications	\$17,900	\$17,000	\$7,200	\$8,300	\$50,400
Data	\$38,445	\$100,033	\$81,064	\$68,503	\$288,045
Miscellaneous	\$0	\$0	\$0	\$0	\$0
Subtotal	\$64,795	\$142,833	\$91,014	\$77,353	\$375,995
Less: Total Potential Savings	\$7,136	\$18,710	\$37,838	\$41,993	\$105,675
Bottom Line Costs (Savings)	\$57,660	\$124,124	\$53,177	\$35,361	\$270,320
Person yrs @ \$45,000 /yr.	0.2	0.4	0.8	0.9	2.3

Exec Summary - Computer Needs

Organization: Niagara County Agencies
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<i>Department</i>	<i># Requested</i>	<i>Unit Cost</i>	<i>Total Cost</i>
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Year 1 Recommendations:

Hardware

Color Ink Jet Printer	Industrial Development	1	\$500	\$500
Network Storage Device	Soil, Water Conservation District	1	\$1,200	\$1,200
Tablet PC	Water District	1	\$3,000	\$3,000
<i>Subtotal =</i>				\$4,700

Miscellaneous

Ongoing Support	Industrial Development	1	\$0	\$0
<i>Subtotal =</i>				\$0

Software

ArcGIS (ArcMap)	Water District	1	\$1,600	\$1,600
ArcReader	Industrial Development	2	\$0	\$0
<i>Subtotal =</i>				\$1,600

Training

ArcGIS (ArcMap) Course	Water District	2	\$600	\$1,200
ArcIMS End User (3 hours)	Industrial Development	2	\$50	\$100
ArcIMS End User (3 hours)	Refuse Disposal District	2	\$50	\$100
ArcIMS End User (3 hours)	Sewer District	4	\$50	\$200
ArcIMS End User (3 hours)	Soil, Water Conservation District	2	\$50	\$100
ArcIMS End User (3 hours)	Water District	4	\$50	\$200
Pictometry training (3 hours)	Industrial Development	2	\$50	\$100
Pictometry training (3 hours)	Soil, Water Conservation District	3	\$50	\$150
<i>Subtotal =</i>				\$2,150

Total Year 1 Recommendations: \$8,450

Exec Summary - Application Needs

Organization: Niagara County Agencies

Application Development Cost

Year 1 Recommendations:

Industrial Development

200	General Query Tool	\$1,200
105	Pictometry Display Tool	\$900
Total =		\$2,100

Sewer District

411	Image Archive/Retrieval Tool	\$2,500
413	Survey Data Integration	\$2,500
Total =		\$5,000

Soil, Water Conservation District

200	General Query Tool	\$1,200
105	Pictometry Display Tool	\$900
422	Projection Wizard Tool	\$2,500
Total =		\$4,600

Water District

200	General Query Tool	\$1,200
408	Hand Held Data Entry Tool	\$2,500
413	Survey Data Integration	\$2,500
Total =		\$6,200

Total Year 1 Recommendations: \$17,900

Year 2 Recommendations:

Refuse Disposal District

200	General Query Tool	\$1,200
Total =		\$1,200

Sewer District

116	Data Entry/Retrieval Tool	\$2,500
119	Facility Management Tool	\$1,200
215	Water Sample Analysis	\$1,200
Total =		\$4,900

Soil, Water Conservation District

321	Ag Assessment Tool	\$2,200
420	Water Quality Sampling Capture Tool	\$2,500
215	Water Sample Analysis	\$1,200
Total =		\$5,900

Water District

409	CAD Integration	\$2,500
116	Data Entry/Retrieval Tool	\$2,500
Total =		\$5,000

Total Year 2 Recommendations: \$17,000

Year 3 Recommendations:

Refuse Disposal District

305 Resident Notification Application \$1,400

Total = \$1,400

Sewer District

509 Integration of SCADA with GIS \$2,200

Total = \$2,200

Soil, Water Conservation District

319 Ditch Survey Tool \$1,400

Total = \$1,400

Water District

625 Hydraulic Modeling in GIS \$2,200

Total = \$2,200

Total Year 3 Recommendations: \$7,200

Year 4 Recommendations:

Soil, Water Conservation District

419 Erosion Monitoring Tool \$2,200

320 Vegetative Assessment \$1,400

Total = \$3,600

Water District

406 Database Integration \$2,500

509 Integration of SCADA with GIS \$2,200

Total = \$4,700

Total Year 4 Recommendations: \$8,300

Exec Summary - Layer Needs

Organization: Niagara County Agencies

Layer Development Cost

Year 1 Recommendations:

Data Layer

Airports	\$250
Bridges	\$850
Brownfields	\$83
Business Database	\$500
Census Blocks/Tract Outlines	\$10
Census Blocks/Tracts Data	\$10
Digital Ortho Photos (DOQs)	\$115
Environmentally Sensitive Sites	\$503
EPA Site Locations	\$60
Floodplains	\$1,050
Georeferenced Scanned Images (World Files)	\$0
GPS Survey Data	\$1,000
Hazardous Materials Sites	\$132
House Numbers	\$1,200
Hydro Electric Plant	\$25
Lab Analysis Database	\$1,290
Landuse	\$225
Municipal Boundaries	\$50
NAICS Code Information	\$2,500
Parcel Outlines	\$350
Projection Metadata	\$2,500
Sample Data Locations	\$1,200
Scanned Floor Plans	\$9,000
Scanned or Digital Photos	
Schools	\$14
Sewer Districts	\$800
Storm Drainage Receivers	\$5,000
Street Centerlines	\$90
Street Names	\$570
Subdivisions	\$2,926
Water Districts	\$750
Water Facilities & Valves	\$500
Water Mains	\$500
Water Sample Points	\$1,500
Water Tanks & Towers	\$500
Watersheds	\$67
Wetlands	\$200
Zoning Areas	\$2,125

Total Year 1 Recommendations: \$38,445

Year 2 Recommendations:

Data Layer

Aerial Photos (Oblique - Pictometry)	\$5,500
Bus Routes	\$50
Bus Stops	\$62
Business Locations	\$750

Organization: Niagara County Agencies

Layer Development Cost

CAD Drawings	\$1,500
Economic Development Database	\$3,750
Fire Districts	\$162
Fire Halls	\$68
Geocoded Job Seeker Addresses	\$396
Georeferenced Scanned Images	\$2,500
GPS Survey Data	\$1,000
Ground Control Points	\$1,000
Hydrants	\$1,500
Hydrology	\$1,238
IDA Projects	\$188
Job Seeker Database	\$2,145
Lab Analysis Database	\$1,290
Leak Locations	\$9,000
Legislative Districts	\$308
Maintenance History Database	\$9,000
Meter Pit Locations	\$2,000
Meter Reading Database	\$7,600
Meter Reading District Outlines	\$4,000
NAICS Code Information	\$2,500
NAICS Code Lookup Table	\$750
Parcel Outlines	\$350
Project Database	\$2,000
Project Outline Polygons	\$1,500
Pump Stations	\$1,200
Railroads	\$3,000
Sample Data Locations	\$1,200
Scanned As-Built Drawings	\$1,750
Scanned Floor Plans	\$9,000
Scanned Maintenance Manuals	\$4,000
Scanned or Digital Photos	
School Districts	\$80
Sewer Facilities	\$3,500
Sewer Mains	\$3,000
Significant Water / Sewer Users	\$2,200
Soils	\$500
Storm Drainage Receivers	\$5,000
Street Names	\$570
Subdivisions	\$2,926

Total Year 2 Recommendations: \$100,033

Year 3 Recommendations:

Data Layer

Ag Districts	\$4,320
Building Permits	\$1,980
Bus Routes	\$50
Bus Stops	\$62
Chamber of Commerce Database	\$375
Contours	\$1,100
Digital Elevation Models (DEMs)	\$1,100
Erosion Zones	\$1,950
Geocoded Job Opening Addresses	\$300
Geology (bedrock)	\$50

Organization: Niagara County Agencies

Layer Development Cost

Geology (surface)	\$80
Georeferenced Scanned Images	\$2,500
GPS Survey Data	\$1,000
Ground Control Points	\$1,000
Job Opening Database	\$1,330
Lab Analysis Database	\$1,290
Landfills	\$3,400
Leak Locations	\$9,000
NAICS Code Information	\$2,500
Parcel Outlines	\$350
Pavement	\$2,400
Project Database	\$2,000
Project Outline Polygons	\$1,500
Sample Data Locations	\$1,200
SCADA Sites	\$800
Scanned As-Built Drawings	\$1,750
Scanned Floor Plans	\$9,000
Scanned Maintenance Manuals	\$4,000
Scanned or Digital Photos	
Sewer Facilities	\$3,500
Sewer Mains	\$3,000
Soils	\$500
Steep Slope Regions	\$871
Storm Drainage Receivers	\$5,000
Street Names	\$570
Subdivisions	\$2,926
Survey Station Points	\$3,000
Variance Permit Files	\$3,000
Well Locations	\$2,310

*Total Year 3 Recommendations: **\$81,064***

Year 4 Recommendations:

Data Layer

Aerial Photos (Oblique - Pictometry)	\$5,500
Archaeological Sites	\$600
Bus Routes	\$50
Bus Stops	\$62
Ditches	\$1,875
Electrical Utility Lines	\$5,000
GPS Survey Data	\$1,000
Ground Control Points	\$1,000
Historical Sites	\$250
Lab Analysis Database	\$1,290
Lighting Districts	\$2,500
NAICS Code Information	\$2,500
Parcel Outlines	\$350
Project Database	\$2,000
Project Outline Polygons	\$1,500
Sample Data Locations	\$1,200
Scanned As-Built Drawings	\$1,750
Scanned Floor Plans	\$9,000
Scanned Maintenance Manuals	\$4,000
Scanned or Digital Photos	

Organization: Niagara County Agencies

Layer Development Cost

Septic Tank Locations	\$7,500
Sewer Facilities	\$3,500
Sewer Mains	\$3,000
Soils	\$500
Storm Drainage Receivers	\$5,000
Street Names	\$570
Subdivisions	\$2,926
Survey Station Points	\$3,000
Vegetation	\$1,080

Total Year 4 Recommendations: \$68,503

**APPENDIX H1: Niagara County Agencies
FOUR YEAR IMPLEMENTATION PLAN COSTS BY DEPARTMENT**

Computer Requirements

Department: Industrial Development

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>	
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>		
Hardware											
Color Ink Jet Printer	\$500	1				\$500				\$500	
Upgrade to current PC	\$1,000		2				\$2,000			\$2,000	
						<i>subtotal:</i>	\$500	\$2,000		\$2,500	
Miscellaneous											
Ongoing Support	\$0	1	1	1	1	\$0	\$0	\$0	\$0	\$0	
						<i>subtotal:</i>	\$0	\$0	\$0	\$0	
Software											
ArcReader	\$0	2	4			\$0	\$0			\$0	
ArcGIS (ArcMap)	\$1,600		1				\$1,600			\$1,600	
						<i>subtotal:</i>	\$0	\$1,600		\$1,600	
Training											
ArcGIS (ArcMap) Course	\$600		1				\$600			\$600	
ArcIMS End User (3 hours)	\$50	2				\$100				\$100	
Pictometry training (3 hours)	\$50	2	1			\$100	\$50			\$150	
						<i>subtotal:</i>	\$200	\$650		\$850	
						Total for Department =	\$700	\$4,250	\$0	\$0	\$4,950

Department: Refuse Disposal District

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>	
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>		
Hardware											
Color Desktop Scanner	\$300			1			\$300			\$300	
Upgrade to current PC	\$1,000		1	1		\$1,000	\$1,000			\$2,000	
Digital Camera	\$300				1				\$300	\$300	
						<i>subtotal:</i>	\$1,000	\$1,300	\$300	\$2,600	
Training											
ArcIMS End User (3 hours)	\$50	2				\$100				\$100	
						<i>subtotal:</i>	\$100			\$100	
						Total for Department =	\$100	\$1,000	\$1,300	\$300	\$2,700

Computer Requirements

Department: Sewer District

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>	
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>		
Hardware											
Tablet PC	\$3,000		1			\$3,000				\$3,000	
Sub-meter GPS	\$4,000		1			\$4,000				\$4,000	
New PC	\$2,000		1			\$2,000				\$2,000	
Network Storage Device	\$1,200		1			\$1,200				\$1,200	
						<i>subtotal:</i>	\$10,200			\$10,200	
Software											
ArcGIS (ArcMap) Annual Mainte	\$200			1	1		\$200	\$200		\$400	
ArcGIS (ArcMap)	\$1,600		1			\$1,600				\$1,600	
						<i>subtotal:</i>	\$1,600	\$200	\$200	\$2,000	
Training											
GPS training	\$1,000		2			\$2,000				\$2,000	
ArcIMS End User (3 hours)	\$50	4				\$200				\$200	
ArcGIS (ArcMap) Course	\$600		2	2		\$1,200	\$1,200			\$2,400	
						<i>subtotal:</i>	\$200	\$3,200	\$1,200	\$4,600	
Total for Department =							\$200	\$15,000	\$1,400	\$200	\$16,800

Department: Soil, Water Conservation District

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>	
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>		
Ongoing Free Support			1	1						\$0	
						<i>subtotal:</i>				\$0	
Hardware											
Network Storage Device	\$1,200		1			\$1,200				\$1,200	
						<i>subtotal:</i>	\$1,200			\$1,200	
Training											
ArcGIS (ArcMap) Course	\$600		2			\$1,200				\$1,200	
ArcIMS End User (3 hours)	\$50	2	1	1	1	\$100	\$50	\$50	\$50	\$250	
Pictometry training (3 hours)	\$50	3				\$150				\$150	
						<i>subtotal:</i>	\$250	\$1,250	\$50	\$50	\$1,600
Total for Department =							\$1,450	\$1,250	\$50	\$50	\$2,800

Computer Requirements

Department: Water District

	<i>Total Item Cost</i>	<i># units / yr</i>				<i>Cost / yr</i>				<i>Total Cost</i>
		<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Hardware										
Tablet PC	\$3,000	1	1			\$3,000	\$3,000			\$6,000
Digital Camera	\$300		1				\$300			\$300
						<i>subtotal:</i> \$3,000	\$3,300			\$6,300
Software										
ArcGIS (ArcMap)	\$1,600	1				\$1,600				\$1,600
						<i>subtotal:</i> \$1,600				\$1,600
Training										
ArcGIS (ArcMap) Course	\$600	2				\$1,200				\$1,200
ArcIMS End User (3 hours)	\$50	4				\$200				\$200
GIS Administration	\$1,000		1				\$1,000			\$1,000
						<i>subtotal:</i> \$1,400	\$1,000			\$2,400
Total for Department =						\$6,000	\$4,300			\$10,300

Organization Total: \$8,450 \$25,800 \$2,750 \$550 \$37,550

**APPENDIX H2: Niagara County Agencies
FOUR YEAR IMPLEMENTATION PLAN COSTS BY DEPARTMENT**

Applications

Department: Industrial Development

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Pictometry Display Tool	105	\$900	1	0	0	0	\$900	\$0	\$0	\$0	\$900
General Query Tool	200	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Total Department Costs:							\$2,100	\$0	\$0	\$0	\$2,100

Department: Refuse Disposal District

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
General Query Tool	200	\$1,200	0	1	0	0	\$0	\$1,200	\$0	\$0	\$1,200
Resident Notification Application	305	\$1,400	0	0	1	0	\$0	\$0	\$1,400	\$0	\$1,400
Total Department Costs:							\$0	\$1,200	\$1,400	\$0	\$2,600

Department: Sewer District

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Data Entry/Retrieval Tool	116	\$2,500	0	1	0	0	\$0	\$2,500	\$0	\$0	\$2,500
Facility Management Tool	119	\$1,200	0	1	0	0	\$0	\$1,200	\$0	\$0	\$1,200
Water Sample Analysis	215	\$1,200	0	1	0	0	\$0	\$1,200	\$0	\$0	\$1,200
Image Archive/Retrieval Tool	411	\$2,500	1	0	0	0	\$2,500	\$0	\$0	\$0	\$2,500
Survey Data Integration	413	\$2,500	1	0	0	0	\$2,500	\$0	\$0	\$0	\$2,500
Integration of SCADA with GIS	509	\$2,200	0	0	1	0	\$0	\$0	\$2,200	\$0	\$2,200
Total Department Costs:							\$5,000	\$4,900	\$2,200	\$0	\$12,100

Applications

Department: Soil, Water Conservation District

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Pictometry Display Tool	105	\$900	1	0	0	0	\$900	\$0	\$0	\$0	\$900
General Query Tool	200	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Water Sample Analysis	215	\$1,200	0	1	0	0	\$0	\$1,200	\$0	\$0	\$1,200
Ditch Survey Tool	319	\$1,400	0	0	1	0	\$0	\$0	\$1,400	\$0	\$1,400
Vegetative Assessment	320	\$1,400	0	0	0	1	\$0	\$0	\$0	\$1,400	\$1,400
Ag Assessment Tool	321	\$2,200	0	1	0	0	\$0	\$2,200	\$0	\$0	\$2,200
Erosion Monitoring Tool	419	\$2,200	0	0	0	1	\$0	\$0	\$0	\$2,200	\$2,200
Water Quality Sampling Capture Tool	420	\$2,500	0	1	0	0	\$0	\$2,500	\$0	\$0	\$2,500
Projection Wizard Tool	422	\$2,500	1	0	0	0	\$2,500	\$0	\$0	\$0	\$2,500
Total Department Costs:							\$4,600	\$5,900	\$1,400	\$3,600	\$15,500

Department: Water District

	<i>ID</i>	<i>App. Dev. Costs</i>	<i>Development Year</i>				<i>Cost / Year</i>				<i>Total Cost</i>
			<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	<i>Yr4</i>	
Data Entry/Retrieval Tool	116	\$2,500	0	1	0	0	\$0	\$2,500	\$0	\$0	\$2,500
General Query Tool	200	\$1,200	1	0	0	0	\$1,200	\$0	\$0	\$0	\$1,200
Database Integration	406	\$2,500	0	0	0	1	\$0	\$0	\$0	\$2,500	\$2,500
Hand Held Data Entry Tool	408	\$2,500	1	0	0	0	\$2,500	\$0	\$0	\$0	\$2,500
CAD Integration	409	\$2,500	0	1	0	0	\$0	\$2,500	\$0	\$0	\$2,500
Survey Data Integration	413	\$2,500	1	0	0	0	\$2,500	\$0	\$0	\$0	\$2,500
Integration of SCADA with GIS	509	\$2,200	0	0	0	1	\$0	\$0	\$0	\$2,200	\$2,200
Hydraulic Modeling in GIS	625	\$2,200	0	0	1	0	\$0	\$0	\$2,200	\$0	\$2,200
Total Department Costs:							\$6,200	\$5,000	\$2,200	\$4,700	\$18,100
Total Organization Cost:							\$17,900	\$17,000	\$7,200	\$8,300	\$50,400

APPENDIX H3: Niagara County Agencies
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
Aerial Photos (Oblique - Pictometry)	\$11,000	Industrial Development	1	25%	\$2,750.00
		Soil, Water Conservation District	3	75%	\$8,250.00
		Layer Totals:	4	100%	\$11,000.00
Ag Districts	\$4,320	Soil, Water Conservation District	7	100%	\$4,320.00
		Layer Totals:	7	100%	\$4,320.00
Airports	\$250	Industrial Development	1	100%	\$250.00
		Layer Totals:	1	100%	\$250.00
Archaeological Sites	\$600	Soil, Water Conservation District	1	100%	\$600.00
		Layer Totals:	1	100%	\$600.00
Bridges	\$850	Soil, Water Conservation District	1	100%	\$850.00
		Layer Totals:	1	100%	\$850.00
Brownfields	\$83	Industrial Development	1	100%	\$83.00
		Layer Totals:	1	100%	\$83.00
Building Permits	\$1,980	Industrial Development	1	100%	\$1,980.00
		Layer Totals:	1	100%	\$1,980.00
Bus Routes	\$200	Industrial Development	1	100%	\$200.00
		Layer Totals:	1	100%	\$200.00
Bus Stops	\$248	Industrial Development	1	100%	\$248.00
		Layer Totals:	1	100%	\$248.00
Business Database	\$500	Industrial Development	1	100%	\$500.00
		Layer Totals:	1	100%	\$500.00
Business Locations	\$750	Industrial Development	1	100%	\$750.00
		Layer Totals:	1	100%	\$750.00
CAD Drawings	\$1,500	Water District	1	100%	\$1,500.00
		Layer Totals:	1	100%	\$1,500.00
Census Blocks/Tract Outlines	\$10	Industrial Development	1	100%	\$10.00
		Layer Totals:	1	100%	\$10.00
Census Blocks/Tracts Data	\$10	Industrial Development	1	100%	\$10.00
		Layer Totals:	1	100%	\$10.00
Chamber of Commerce Database	\$375	Industrial Development	1	100%	\$375.00
		Layer Totals:	1	100%	\$375.00
Contours	\$1,100	Soil, Water Conservation District	4	100%	\$1,100.00
		Layer Totals:	4	100%	\$1,100.00

APPENDIX H3: Niagara County Agencies
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
Digital Elevation Models (DEMs)	\$1,100	Industrial Development	1	100%	\$1,100.00
		Layer Totals:	1	100%	\$1,100.00
Digital Ortho Photos (DOQs)	\$115	Industrial Development	1	11%	\$12.78
		Refuse Disposal District	1	11%	\$12.78
		Soil, Water Conservation District	5	56%	\$63.89
		Water District	2	22%	\$25.56
Layer Totals:	9	100%	\$115.00		
Ditches	\$1,875	Soil, Water Conservation District	1	100%	\$1,875.00
		Layer Totals:	1	100%	\$1,875.00
Economic Development Database	\$3,750	Industrial Development	1	100%	\$3,750.00
		Layer Totals:	1	100%	\$3,750.00
Electrical Utility Lines	\$5,000	Industrial Development	1	100%	\$5,000.00
		Layer Totals:	1	100%	\$5,000.00
Environmentally Sensitive Sites	\$503	Soil, Water Conservation District	2	100%	\$503.00
		Layer Totals:	2	100%	\$503.00
EPA Site Locations	\$60	Industrial Development	1	33%	\$20.00
		Soil, Water Conservation District	2	67%	\$40.00
		Layer Totals:	3	100%	\$60.00
Erosion Zones	\$1,950	Soil, Water Conservation District	3	100%	\$1,950.00
		Layer Totals:	3	100%	\$1,950.00
Fire Districts	\$162	Industrial Development	1	100%	\$162.00
		Layer Totals:	1	100%	\$162.00
Fire Halls	\$68	Industrial Development	1	100%	\$68.00
		Layer Totals:	1	100%	\$68.00
Floodplains	\$1,050	Refuse Disposal District	1	20%	\$210.00
		Soil, Water Conservation District	4	80%	\$840.00
		Layer Totals:	5	100%	\$1,050.00
Geocoded Job Opening Addresses	\$300	Industrial Development	1	100%	\$300.00
		Layer Totals:	1	100%	\$300.00
Geocoded Job Seeker Addresses	\$396	Industrial Development	1	100%	\$396.00
		Layer Totals:	1	100%	\$396.00
Geology (bedrock)	\$50	Soil, Water Conservation District	1	100%	\$50.00
		Layer Totals:	1	100%	\$50.00
Geology (surface)	\$80	Soil, Water Conservation District	2	100%	\$80.00

APPENDIX H3: Niagara County Agencies
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
		Layer Totals:	2	100%	\$80.00
Georeferenced Scanned Images	\$5,000	Water District	1	100%	\$5,000.00
		Layer Totals:	1	100%	\$5,000.00
Georeferenced Scanned Images (World Files)	\$0	Water District	1	100%	\$0.00
		Layer Totals:	1	100%	\$0.00
GPS Survey Data	\$4,000	Sewer District	1	100%	\$4,000.00
		Layer Totals:	1	100%	\$4,000.00
Ground Control Points	\$3,000	Sewer District	1	33%	\$1,000.00
		Soil, Water Conservation District	1	33%	\$1,000.00
		Water District	1	33%	\$1,000.00
		Layer Totals:	3	100%	\$3,000.00
Hazardous Materials Sites	\$132	Soil, Water Conservation District	3	100%	\$132.00
		Layer Totals:	3	100%	\$132.00
Historical Sites	\$250	Soil, Water Conservation District	1	100%	\$250.00
		Layer Totals:	1	100%	\$250.00
House Numbers	\$1,200	Water District	1	100%	\$1,200.00
		Layer Totals:	1	100%	\$1,200.00
Hydrants	\$1,500	Water District	6	100%	\$1,500.00
		Layer Totals:	6	100%	\$1,500.00
Hydro Electric Plant	\$25	Industrial Development	1	100%	\$25.00
		Layer Totals:	1	100%	\$25.00
Hydrology	\$1,238	Industrial Development	2	25%	\$309.50
		Refuse Disposal District	1	13%	\$154.75
		Sewer District	1	13%	\$154.75
		Soil, Water Conservation District	4	50%	\$619.00
		Layer Totals:	8	100%	\$1,238.00
IDA Projects	\$188	Industrial Development	1	100%	\$188.00
		Layer Totals:	1	100%	\$188.00
Job Opening Database	\$1,330	Industrial Development	1	100%	\$1,330.00
		Layer Totals:	1	100%	\$1,330.00
Job Seeker Database	\$2,145	Industrial Development	1	100%	\$2,145.00
		Layer Totals:	1	100%	\$2,145.00
Lab Analysis Database	\$5,160	Sewer District	1	33%	\$1,720.00

APPENDIX H3: Niagara County Agencies
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
Lab Analysis Database	\$5,160	Soil, Water Conservation District	2	67%	\$3,440.00
		Layer Totals:	3	100%	\$5,160.00
Landfills	\$3,400	Refuse Disposal District	2	50%	\$1,700.00
		Soil, Water Conservation District	2	50%	\$1,700.00
		Layer Totals:	4	100%	\$3,400.00
Landuse	\$225	Industrial Development	1	20%	\$45.00
		Soil, Water Conservation District	3	60%	\$135.00
		Water District	1	20%	\$45.00
		Layer Totals:	5	100%	\$225.00
Leak Locations	\$18,000	Water District	1	100%	\$18,000.00
		Layer Totals:	1	100%	\$18,000.00
Legislative Districts	\$308	Industrial Development	1	100%	\$308.00
		Layer Totals:	1	100%	\$308.00
Lighting Districts	\$2,500	Industrial Development	1	100%	\$2,500.00
		Layer Totals:	1	100%	\$2,500.00
Maintenance History Database	\$9,000	Sewer District	1	100%	\$9,000.00
		Layer Totals:	1	100%	\$9,000.00
Meter Pit Locations	\$2,000	Water District	3	100%	\$2,000.00
		Layer Totals:	3	100%	\$2,000.00
Meter Reading Database	\$7,600	Water District	4	100%	\$7,600.00
		Layer Totals:	4	100%	\$7,600.00
Meter Reading District Outlines	\$4,000	Water District	2	100%	\$4,000.00
		Layer Totals:	2	100%	\$4,000.00
Municipal Boundaries	\$50	Industrial Development	2	15%	\$7.69
		Refuse Disposal District	1	8%	\$3.85
		Sewer District	1	8%	\$3.85
		Soil, Water Conservation District	3	23%	\$11.54
		Water District	6	46%	\$23.08
		Layer Totals:	13	100%	\$50.00
NAICS Code Information	\$10,000	Industrial Development	1	100%	\$10,000.00
		Layer Totals:	1	100%	\$10,000.00
NAICS Code Lookup Table	\$750	Industrial Development	1	100%	\$750.00
		Layer Totals:	1	100%	\$750.00
Parcel Outlines	\$1,400	Industrial Development	2	9%	\$127.27
		Layer Totals:	2	9%	\$127.27

APPENDIX H3: Niagara County Agencies
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
Parcel Outlines	\$1,400	Refuse Disposal District	2	9%	\$127.27
		Sewer District	4	18%	\$254.55
		Soil, Water Conservation District	7	32%	\$445.45
		Water District	7	32%	\$445.45
		Layer Totals:	22	100%	\$1,400.00
Pavement	\$2,400	Soil, Water Conservation District	1	100%	\$2,400.00
		Layer Totals:	1	100%	\$2,400.00
Project Database	\$6,000	Sewer District	1	100%	\$6,000.00
		Layer Totals:	1	100%	\$6,000.00
Project Outline Polygons	\$4,500	Sewer District	1	50%	\$2,250.00
		Water District	1	50%	\$2,250.00
		Layer Totals:	2	100%	\$4,500.00
Projection Metadata	\$2,500	Soil, Water Conservation District	1	100%	\$2,500.00
		Layer Totals:	1	100%	\$2,500.00
Pump Stations	\$1,200	Water District	1	100%	\$1,200.00
		Layer Totals:	1	100%	\$1,200.00
Railroads	\$3,000	Industrial Development	1	100%	\$3,000.00
		Layer Totals:	1	100%	\$3,000.00
Sample Data Locations	\$4,800	Sewer District	2	100%	\$4,800.00
		Layer Totals:	2	100%	\$4,800.00
SCADA Sites	\$800	Sewer District	1	20%	\$160.00
		Water District	4	80%	\$640.00
		Layer Totals:	5	100%	\$800.00
Scanned As-Built Drawings	\$5,250	Sewer District	1	100%	\$5,250.00
		Layer Totals:	1	100%	\$5,250.00
Scanned Floor Plans	\$36,000	Sewer District	1	100%	\$36,000.00
		Layer Totals:	1	100%	\$36,000.00
Scanned Maintenance Manuals	\$12,000	Sewer District	1	100%	\$12,000.00
		Layer Totals:	1	100%	\$12,000.00
Scanned or Digital Photos		Industrial Development	1	20%	
		Sewer District	1	20%	
		Soil, Water Conservation District	2	40%	
		Water District	1	20%	
		Layer Totals:	5	100%	

APPENDIX H3: Niagara County Agencies
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
School Districts	\$80	Industrial Development	1	100%	\$80.00
		Layer Totals:	1	100%	\$80.00
Schools	\$14	Industrial Development	1	100%	\$14.00
		Layer Totals:	1	100%	\$14.00
Septic Tank Locations	\$7,500	Soil, Water Conservation District	3	100%	\$7,500.00
		Layer Totals:	3	100%	\$7,500.00
Sewer Districts	\$800	Industrial Development	1	100%	\$800.00
		Layer Totals:	1	100%	\$800.00
Sewer Facilities	\$10,500	Sewer District	3	100%	\$10,500.00
		Layer Totals:	3	100%	\$10,500.00
Sewer Mains	\$9,000	Sewer District	3	100%	\$9,000.00
		Layer Totals:	3	100%	\$9,000.00
Significant Water / Sewer Users	\$2,200	Sewer District	3	100%	\$2,200.00
		Layer Totals:	3	100%	\$2,200.00
Soils	\$1,500	Refuse Disposal District	1	13%	\$187.50
		Soil, Water Conservation District	7	88%	\$1,312.50
		Layer Totals:	8	100%	\$1,500.00
Steep Slope Regions	\$871	Soil, Water Conservation District	2	100%	\$871.00
		Layer Totals:	2	100%	\$871.00
Storm Drainage Receivers	\$20,000	Soil, Water Conservation District	1	100%	\$20,000.00
		Layer Totals:	1	100%	\$20,000.00
Street Centerlines	\$90	Industrial Development	2	11%	\$10.00
		Refuse Disposal District	2	11%	\$10.00
		Sewer District	4	22%	\$20.00
		Soil, Water Conservation District	4	22%	\$20.00
		Water District	6	33%	\$30.00
		Layer Totals:	18	100%	\$90.00
Street Names	\$2,280	Water District	2	100%	\$2,280.00
		Layer Totals:	2	100%	\$2,280.00
Subdivisions	\$11,704	Industrial Development	1	25%	\$2,926.00
		Sewer District	1	25%	\$2,926.00
		Soil, Water Conservation District	1	25%	\$2,926.00
		Water District	1	25%	\$2,926.00
		Layer Totals:	4	100%	\$11,704.00

APPENDIX H3: Niagara County Agencies
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
Survey Station Points	\$6,000	Sewer District	1	33%	\$2,000.00
		Soil, Water Conservation District	1	33%	\$2,000.00
		Water District	1	33%	\$2,000.00
		Layer Totals:	3	100%	\$6,000.00
Variance Permit Files	\$3,000	Soil, Water Conservation District	1	100%	\$3,000.00
		Layer Totals:	1	100%	\$3,000.00
Vegetation	\$1,080	Soil, Water Conservation District	3	100%	\$1,080.00
		Layer Totals:	3	100%	\$1,080.00
Water Districts	\$750	Industrial Development	1	25%	\$187.50
		Water District	3	75%	\$562.50
		Layer Totals:	4	100%	\$750.00
Water Facilities & Valves	\$500	Industrial Development	1	14%	\$71.43
		Water District	6	86%	\$428.57
		Layer Totals:	7	100%	\$500.00
Water Mains	\$500	Industrial Development	1	14%	\$71.43
		Water District	6	86%	\$428.57
		Layer Totals:	7	100%	\$500.00
Water Sample Points	\$1,500	Refuse Disposal District	1	20%	\$300.00
		Soil, Water Conservation District	2	40%	\$600.00
		Water District	2	40%	\$600.00
		Layer Totals:	5	100%	\$1,500.00
Water Tanks & Towers	\$500	Water District	4	100%	\$500.00
		Layer Totals:	4	100%	\$500.00
Watersheds	\$67	Refuse Disposal District	1	25%	\$16.75
		Soil, Water Conservation District	3	75%	\$50.25
		Layer Totals:	4	100%	\$67.00
Well Locations	\$2,310	Refuse Disposal District	1	100%	\$2,310.00
		Layer Totals:	1	100%	\$2,310.00
Wetlands	\$200	Industrial Development	1	17%	\$33.33
		Refuse Disposal District	1	17%	\$33.33
		Soil, Water Conservation District	4	67%	\$133.33
		Layer Totals:	6	100%	\$200.00
Zoning Areas	\$2,125	Industrial Development	1	100%	\$2,125.00
		Layer Totals:	1	100%	\$2,125.00

APPENDIX H3: Niagara County Agencies
DISTRIBUTION OF DATA CONVERSION COSTS ACROSS DEPARTMENTS

<i>Data Layer</i>	<i>Layer / Data Development Cost</i>	<i>Department</i>	<i># Requests for this data (by dept)</i>	<i>% of Total requests for this data</i>	<i>Portion of Cost to be Paid by Department</i>
			Total Layer Conversion Costs		\$288,157.00