



*Ceremony Program*



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## AGENDA

### I. Opening Introduction

**Gordon Jarratt**

*Enterprise Systems Division Director, Department of Information Technology*

### 2. Featured Speakers

**Sharon Bulova**

*Chairman of the Board of Supervisors, County of Fairfax Virginia*

**Dave Molchany**

*Deputy County Executive*

**Tom Conry**

*GIS & Mapping Services Branch Manager*

### 3. Presentation of Awards

**Sharon Bulova**

**Dave Molchany**

**Gordon Jarratt**

**Tom Conry**

### 4. Closing



## Forward

The use of GIS technologies in the County has led to the work that you see honored here at the GIS Excellence Awards and posted in the Awards Gallery.

As part of the GIS Day celebrations, the GIS Excellence Awards are given annually for outstanding uses of GIS technology by Fairfax County employees and agencies. The awards were created to recognize and celebrate those County employees and agencies that are effectively and innovatively using GIS technology. This year, over 40 submissions were received for the seven categories of recognition.

As was done previous years, a judging panel from outside Fairfax County Government donated many hours of their time evaluating the entries. This year, judges were from the Northern Virginia Community College GIS Certificate Program and Prince William County's Geographic Information Systems Division.

The awards have two categories recognizing individual and/or team accomplishments and five categories recognizing agency accomplishments. The following page lists the categories and their descriptions.



## 2015 GIS Excellence Award Categories

### Individual/Team Categories

FIRST, SECOND, AND THIRD PLACE AWARDS FOR EACH CATEGORY

#### *Best GIS Cartographic Product/Presentation*

This award is intended to showcase the power of GIS tools in creating accurate, instructive, and visually-pleasing maps. Criteria used to evaluate the entries include:

- clarity of purpose and intent
- the use of GIS tools, methods, and operations to go beyond basic cartography
- visual balance and appeal
- inclusion of necessary map elements and conventions
- quality control for typos or other errors

#### *Best Use of GIS for Analysis*

This award is intended to showcase the power of GIS tools in undertaking sophisticated spatial analyses that aid County operations and answer significant questions. Criteria used to evaluate the entries include:

- complexity of analysis; use of tools, scripting, model-builder, etc.
- ingenuity/creativity/originality of GIS methods used
- project benefits to a team or department

### Agency Categories

ONE AWARD PER CATEGORY

#### *Best Use of GIS on the Web*

This award is presented to the agency that best demonstrates GIS interactivity, maps, and/or data on the internet or County intranet. Criteria used to evaluate the entries include:

- effectiveness of web product in meeting stated purpose
- benefit to the public and/or agency
- demonstration of advanced GIS techniques, including complex data analysis, customization or programming
- incorporation of web product into business practices



***Most Significant Data Contributor***

This award is presented to the agency that has created or refined the most significant spatial data for the County. Criteria used to evaluate the entries include:

- significance of the data for the county and/or agency
- importance to agency's long-term business processes
- level of effort required to create/maintain the data
- sophistication of process to create/maintain the data

***Best GIS Integration or Application Development***

This award is presented to the agency that has integrated GIS into their operations to the greatest degree and/or has created a significant GIS software application. Criteria used to evaluate the entries include:

- effectiveness of the application/integration in meeting its stated goal
- demonstration of a labor/time savings for staff or the public
- ingenuity/creativity/originality of GIS methods utilized
- ease of use/intuitiveness of the integration/application
- ability to gain insights into data/project/issue as a result of the integration/application

***Most Significant Progress***

This award is presented to the agency that has demonstrated the most progress in their use of GIS over the past year. Criteria used to evaluate the entries include:

- increase of use of GIS in the agency, either directly or through agency-generated GIS products
- magnitude of the change in GIS use by the agency
- increased agency efficiency as a result of GIS
- demonstration of significant effort to train staff in GIS potential for further GIS-related growth



## List of All Excellence Award Entries

### GIS Cartographic Product/Presentation

NVTA FY 2015-16 Annual Report – Tom Wampler, FCDOT  
Household Internet Accessibility and Median Income – Erik Hovland, NCS  
Inverse Distance Weighting (IDW) Interpolation of 2015 Fall Cankerworm (*Alsophila pom-etaria*) Defoliation Surveys – Rachel Griesmer-Zakhar, DPWES-UF  
Giles Run Road Landscaping Improvement – Na Yu, FCDOT  
Automated Excel to Work Crew Pipe Series Mapper – Andrew Nault, Tatiana Baranova, DPWES-MSMD  
Embark Richmond Highway – Windshield Survey Map – South Sheet – Harry Rado, Laurie Turkawski, Eva Campbell, Linda Blank, DPZ  
Fairfax County Bus System Map – Vincent Mendolia, Tom Wampler, FCDOT  
CBOs Providing Volunteer Transportation Services for Older Adults – Dennis Rojsuontikul, Patricia Rohrer, HD  
Visualizing Demographic Data for Site Analysis – Paul Ngo, FCPA  
Stormwater Reference Wall Map – Chip Galloway, Emma Gutzler, DPWES-MSMD  
Levinville Relocation Options – Diane Jenkins, Navneet Sohi, DHCD  
Fairfax County Free Bus Pass Pilot Program – Hejun Kang, Christina Farrar, Stuart Boggs, FCDOT  
Orienteering Maps of George Mason University – Keg Good, Tom Strat, Greg Lennon, FRD  
Fall Cankerworm History in Fairfax County – Frank Finch, DPWES-UF  
Density Analysis of Stolen Autos & Larcenies from Vehicles in Franconia YTD 2015 – Simone Engelhardt-Worden, FCPD  
FCRHA Owned Affordable Rental Housing – Peter Uhrmacher, HCD

### Use of GIS for Analysis

Fall Cankerworm (*Alsophila pometaria*) Defoliation in Fairfax County – Rachel Griesmer-Zakhar, Jack Baggett, Frank Finch, Charles Layton, Katharine Layton, DPWES-UF  
Finding Intersection – Christopher McCarthy, DPSC  
Transit Travel Time Analysis for Fairfax County Activity Centers – Hejun Kang, FCDOT  
Automated Excel to Work Crew Pipe Series Mapper – Andrew Nault, Tatiana Baranova, DPWES-MSMD  
Walkway Analysis – Chip Galloway, Andrew Nault, Keith Appler, Shaukat Faheem, DPWES-MSMD  
Driving Under the Influence of 17 and 18 Year Olds and Self-Reported Drinking and Driving Behavior of 12th Graders – Jessica LeBlanc, Sophia Dutton, FCPD  
CSB Counter Tools Pilot – Jamie MacDonald, Leslie Roberts, Leo Espina, Amy Smith, Julia Burgos, Marci Prenger, Alex Marshall, Pounch Zeraat, Katie Scipione, Luz Zuleta, Lori Naveda, Yesenia Vialta



## **Use of GIS for Public Outreach**

Economic, Demographic & Statistical Research Data Visualizations – Department of Neighborhood and Community Services

Fairfax County Bus System Map – Department of Transportation

Fairfax County Free Bus Pass Pilot Program – Department of Transportation

Orienteering Maps of George Mason University – Fire and Rescue Department

Fairfax County Deer Management – A Web Mapping Application – Fairfax County Park Authority

Human Services Environment in Reston – Department of Neighborhood and Community Services

Picnic Area Maps – Fairfax County Park Authority

Walkway Maintenance Application – Office of Public Affairs

## **Use of GIS on the Web**

Election Night Results App – Office of Elections

Use of ArcGIS Online During Fairfax 2015: The World Police & Fire Games – Fire and Rescue Department

Fairfax County School Crossing – Police Department

Sharing Information through GIS – Department of Planning and Zoning

Fairfax County Deer Management – A Web Mapping Application – Fairfax County Park Authority

Performing and Visual Arts Venues in the Washington Metropolitan Region – Reston Community Center

## **Significant Data Contributor**

Stormwater Facility Drainage Area Delineation & Neighborhood Characterization – Department of Public Works and Environmental Services, Maintenance and Stormwater Management Division

CSB Counter Tools Pilot – Community Services Board

## **GIS Integration or Application Development**

Fairfax County Fire & Rescue Department: Safety in Our Community (SIOC) Program – Fire and Rescue Department

CSB Counter Tools Pilot – Community Services Board

## **Significant Progress**

Department of Public Works and Environmental Services – Urban Forestry

Department of Neighborhood and Community Services

Department of Transportation



## Best GIS Cartographic Product/ Presentation

*Individual/Team Awardees*

### Third Place

**Embark Richmond Highway – Windshield Survey Map – South Sheet**

**Harry Rado, Laurie Turkawski, Eva Campbell, Linda Blank –  
*Department of Planning and Zoning***

Windshield Survey maps, of which this sheet is an example, are prepared by GIS analysts with the Department of Planning & Zoning (DPZ) to aid heritage resources staff in the field compilation process for identifying potential heritage resources.

DPZ is tasked to indicate to the Board of Supervisors and the Architectural Review Board those potential resources requiring further study and research to determine if they are eligible to be listed in the County Inventory of Historic Sites and/or state and national registers.

The surveys are conducted to carry out a Board of Supervisors-adopted policy found in the Policy Plan of the County Comprehensive Plan: conduct systematic county-wide field surveys to locate and document unrecorded heritage resources and to update information on known resources.

Survey methodology: Using these Windshield Survey maps, staff identifies, drives to, inspects, and photographs potential heritage resources.

Data capture: The Heritage Resources Section of the Department of Planning & Zoning maintains GIS databases of Historic Sites and Historic Overlay Districts and state and national registers.

Web and paper publication: The Inventory of Historic Sites and maps of the Historic Overlay Districts are on the Web at [www.fairfaxcounty.gov/dpz/historic/](http://www.fairfaxcounty.gov/dpz/historic/) and are also available as pdfs and paper maps.

### Second Place

**FCRHA Owned Affordable Rental Housing**

**Peter Uhrmacher – *Department of Housing and Community Development***

The Fairfax County Redevelopment and Housing Authority (FCRHA) owns and provides over 3,800 units/beds of affordable rental housing throughout the county. This map was developed to visually show the location and range of FCRHA properties throughout Fairfax County.



The map shows the location of FCRHA properties, the program category, number of units/beds offered and Supervisor District as of October 2015.

In developing this map we categorized the location by program which expanded the current data to include: the Fairfax County Rental Program (FCRP), Public Housing (PH), Senior Housing, Supportive Housing (Group Homes and Shelters), Assisted Living Residences and Specialized Housing developments. (Note: These six program categories will eventually replace the existing three in the HCDMGR.Housing\_FCRHA-owned directory of the GIS enterprise database).

## First Place

### Fairfax County Bus System Map

**Vincent Mendolia, Tom Wampler – Department of Transportation**

The Fairfax County Bus System Map was created to show the full range of bus services throughout Fairfax County. The primary focus of the map is Fairfax Connector bus service, but all Metrobus and CUE bus service, as well as all Metrorail service in Fairfax County, were included as well.

The base map was created using GIS tools to include all basic cartographic features such as roads, waterways, parkland, etc. Places of interest such as public libraries, high schools, hospitals, police stations, and other government buildings were also included. The traces for each of the bus routes were then exported as individual paths and assigned a unique color. The base map and route traces were combined in Adobe Illustrator and edited where necessary.

Insets and legend were also created in Adobe Illustrator to provide additional information about individual routes to aid in customers' ability to use the system. The style of the insets was designed to be consistent with the branding for all Fairfax Connector marketing collateral.

Since its completion, the Fairfax County Bus System Map has been used at multiple outreach events and has proved immensely helpful. Printed copies have been delivered to each Supervisor District office for display. Reaction to the map from the public has been overwhelmingly positive due to its ease of use and comprehensiveness. FCDOT has received numerous requests for copies. We are currently investigating formats to make dissemination to the public simpler, including the potential use of folded, business card-size maps.



## Best Use of GIS for Analysis

### *Individual/Team Awardees*

#### Third Place

##### Walkway Analysis

**Chip Galloway, Andrew Nault, Keith Appler, Shaukat Faheem**  
– *Stormwater Management Division of the Department of Public Works and Environmental Services*

Fairfax County is currently responsible for maintaining approximately 220 miles of asphalt trails, 420 miles of concrete sidewalk, and 64 pedestrian bridges of various ages. The current replacement value of this infrastructure is estimated to exceed \$150 million. We obtained 8200 walkway and 486 pedestrian bridge georeferenced photos. These walkway photos were then assigned a condition rating. MSMD staff linked the obtained data points and metadata to DPWES walkway asset ID's through the proximity status of each photo. MSMD staff resourced the assessment scores based on summed problem length multiplied by assessed severity. Buffers were created around population centers such as schools, shopping centers, and VRE/Metro stations. The resulting map will assist our department in prioritizing the maintenance of walkways in the greatest need of repair.

#### Second Place

**Transit Travel Time Analysis for Fairfax County Activity Centers**  
**Hejun Kang** – *Department of Transportation*

Transit travel time analysis shows how much time transit riders take from one location to another. The analysis, built upon up-to-date public transit schedules, represents the total amount of travel time that transit riders spend on walking to/from transit stops, transfers, and on-board.

The General Transit Feed Specification (GTFS) is a recently-developed data format for storing public transit routes, stops, and schedules. GTFS data is used in Google Mapstransit trip planning and many other transit planning apps. Fairfax Connector is one of the public transit agencies that have made its GTFS data readily available for use (<http://www.fairfaxcounty.gov/connector/data/>). This GIS analysis first adds GTFS data to an ArcGIS network dataset, and then runs schedule-aware analyses (e.g., service area analysis) using the Network Analyst tools.

First, this map shows the access areas for people using public transportation to get to 27 job centers in Fairfax County within 30-minutes travel (dark orange). The map makes it clear how dramatically the public transportation commute shed can change depending on where your job is and where you live.



Second, using Tysons Corner as an example, the map also shows the 60-minute (orange) and 90-minute (light yellow) commute shed areas. Living in northwest (Wiehle/Reston), east and Springfield/Braddock, you stand a good chance of making it to work in Tysons Corner in 60 minutes or less, partially due to the opening of Silver Line Phase I in July 2014. Living in Hunter Mill and Mt. Vernon, commute times are probably going to jump to between 60 and 90 minutes.

This GIS-based schedule-aware analysis can be used for evaluating levels of current transit services at different times of day, weekday versus weekend, and across different places, therefore identifying key improvement areas, in order to move people more efficiently. The analysis can also be used to compare commute time by transit, against other competitive modes of transportation (e.g. driving) in Northern Virginia.

## First Place

### Finding Intersection

#### Christopher McCarthy – *Public Safety Communications*

The objective of this project was to determine the intersections in Fairfax County that occur in multiple locations. These intersections have proven to be a problem for 911 call takers because callers from these locations tend to be using cell phones and their exact location may not be easily determined if the intersection occurs in multiple locations. Without a clear idea which intersections could cause trouble, call takers may inadvertently dispatch emergency services to the wrong location and/or dispatch the wrong closest vehicle.

To help train and give dispatchers better resources to alleviate the problem, a ranked list of problem intersections was needed. Using Model Builder, Python, and multiple tools from ArcGIS, a ranked list was developed, taking into account the linear distance the intersections are from each other, the actual network distance and the amount of travel time it would take to get from one intersection to the other.

The highest ranked intersections represent the intersections that could create the greatest problems if call takers were to dispatch the incorrect closest vehicle and/or to the wrong location. Additionally, there are plans to develop a GIS layer to augment the Computer Aided Dispatch system. This layer would facilitate alerting call takers to potential troublesome intersections, so they could ask additional questions to correctly determine the caller's true location.



## Best Use of GIS for Public Outreach *Agency Winner*

**Department of Neighborhood and Community Services**  
**Economic, Demographic & Statistical Research Data Visualizations**

*Erik Hovland, Anne Cahill*

The Economic, Demographic and Statistical Research Unit (Demographics) prepares infographics on various topics each year. These infographics allow the county to share complex data in an interesting, accessible and highly visual manner. Infographics help explain patterns and trends taking place in Fairfax County by employing data-rich visuals and graphics in place of written reports. The "Fairfax County Internet Access," "Lunch Time" and "For Rent" infographics are examples of effective data visualizations produced by Demographics this year incorporating maps created in ESRI ArcGIS.

The "Fairfax County Internet Access" infographic analyzes the penetration of Internet access into Fairfax County communities and compares Fairfax County to major metropolitan technical hubs and local jurisdictions. Data are displayed by race and county subarea. These data help program planners and decision-makers understand which residents can be effectively reached through the Internet and who might be left out.

The "Lunch Time" infographic analyzes National School Lunch Program data from the Virginia Department of Education for Fairfax County elementary schools from 2002 through 2015. These administrative data provide information about the growth and distribution of economic need in Fairfax County among families with elementary school-age children.

The "For Rent" infographic analyzes fair market rent (FMR) in relation to the wages of county staff and residents. "For Rent" provides information about what income is needed to "afford" the average FMR unit, the percent of fulltime workers who cannot afford the average FMR of a one-bedroom apartment in Fairfax County, and the number of hours a resident earning the county's living wage would need to work per week to afford the average one-bedroom apartment.

All three infographics used ESRI ArcGIS, Excel, SAS and Adobe Illustrator to develop the final products. By combining tools from these products, a fuller story and more robust analysis and visualizations can be developed. The three infographics have been extensively used by county staff, boards and authorities, residents, and businesses. They have been downloaded from the county's website over 2,300 times since publication and used by groups conducting the 2015 Human Services Needs Assessment, the Human Services Council, the Economic Development Authority, and the Tenant-Landlord Commission.



## Best Use of GIS on the Web

### *Agency Winner*

#### **Fire and Rescue Department**

#### **Use of ArcGIS Online During Fairfax 2015: The World Police and Fire Games**

#### *Shelby Zelonis*

The 2015 World Police & Fire Games (WPFG) were hosted by Fairfax County in summer 2015. Nearly 10,000 athletes from 68 countries participated in the games, resulting in over 25,000 visitors to the region.

GIS played a critical role in the games, and ArcGIS Online became a very useful platform for data collection and information sharing. Using ArcGIS Online, we were able to:

- Leverage the Special Events Template available via ArcGIS Solutions. By making only slight customizations to the template, we avoided having to spend time and resources setting up a special events map (including schema and symbology) from scratch.
- Collect data via Collector; which, after minimal training, allowed non-GIS users involved in WPFG to collect data related to the games. In previous years, WPFG staff collected data using pen and paper. Using Collector this year saved time by eliminating the need to transcribe data. All data collected in the field could be immediately seen in PDF and online maps since it was accessible online and in digital format.
- Use the Group functionality to collaborate with members of other agencies and jurisdictions -- including non-GIS users. Creating a Group was also an easy way to limit access to certain data/maps.
- Use the Group Gallery application in ArcGIS Online to share web mapping applications with end users. This avoided users having to navigate through Group contents to find final products. With slight customizations to the Gallery app, we created a true "one-stop-shop" for WPFG mapping applications.
- Create and share specific applications developed for Fire & Rescue, Police, and the Board of Supervisors. By making customizations to the Filter application available in ArcGIS Online, we created apps that allowed the end user to filter events by a specified area of interest and date. This avoided the end user having to sift through large spreadsheets/lists of information to find event locations and dates.
- Create and share a Situational Awareness Viewer that was continuously updated with the latest data related to the games, including schedule and venue changes. This viewer contained many data services, including live traffic and weather, and was used in the Emergency Operations Center & Games Operations Center. The end user could query data, change the basemap, zoom to a venue location, and print the map.



Overall, the use of ArcGIS Online during the WPGG was an immense success. The ability to quickly update data and share maps with non-GIS end users was critical, and made disseminating information much more efficient and effective. Using GIS on the web allowed for seamless collaboration between agencies and other jurisdictions, and showcased the value of GIS to everyone involved in the games. The Fire & Rescue Department will use WPGG as an example and prototype for incorporating web GIS into future events.



*Fairfax County*  
**VIRGINIA**



## Most Significant Data Contributor *Agency Winner*

### **Community Services Board**

#### **CSB Counter Tools Pilot**

*Jamie MacDonald, Leslie Roberts, Leo Espina, Amy Smith, Julia Burgos, Marci Prenger, Alex Marshall, Pouneh Zeraat, Katie Scipione, Luz Zuleta, Lori Naveda, Yesenia Viallta*

Federal regulation, known as the Synar Amendment, compels state and local efforts to reduce tobacco sales to underage youth by conducting random, unannounced inspections while educating merchants about the legal and public health consequences of selling to minors. Significant behavioral health funding is contingent on successfully keeping underage sales low.

A long-standing challenge to these efforts has been the absence of a comprehensive database of tobacco and nicotine vapor retailers in Virginia. The Virginia Department of Behavioral Health and Developmental Services (DBHDS) currently uses incomplete lists of retailers from several sources. Bad data complicates and limits Alcoholic Beverage Control's ability to conduct compliance checks and the Fairfax-Falls Church Community Services Board (CSB) efforts to educate merchants about this important public health effort.

DBHDS asked the CSB to join the Counter Tools pilot to help develop best practices for identifying retailers while locating and mapping all tobacco and nicotine vapor retailers in Fairfax County.

Fairfax County's GIS & Mapping Services Branch (GIS) selected county parcels in non-residentially zoned areas, then analyzed and filtered the set leaving 15,386 individual parcels. These parcels were dissolved (combining contiguous features) to 1704 areas covering ~22 sq. miles. This represents 5% of the total area of Fairfax County, a widely dispersed selection containing 7280 non-residential buildings. To this already sizeable list was added 790 identified/potential retailer locations from the prior lists.

GIS used RouteSmart, an extension that works within the ArcMap environment, to build routes to the survey areas and potential vendor locations. The data input included these service location points, the county road network, starting/ending points and estimates of time needed by field teams at each location. The analysis resulted in 28 individual routes, each of which could be visited by a field crew in one work day.

The route data were used to create interactive maps in ArcGIS Online that helped field teams track progress in real time on GPS-enabled iPads. The maps were scalable to best view the current or next destination. Teams could see the grouped and sequenced service locations and travel path lines indicating route and travel direction



between locations. Every team had paper backups with turn-by-turn directions with sequenced service locations.

Through analysis and field surveys CSB teams confirmed nearly 700 tobacco retailers plus mapped over 100 new ones including vapor shops. CSB completed these 800 location audits on budget and ahead of schedule. CSB will use the data with Counter Tools to support ABC compliance checks and our own merchant education. CSB now has a successful template for this annual requirement.



## Best GIS Integration or Application Development *Agency Winner*

### **Fire and Rescue Department**

#### **Fairfax County Fire and Rescue Department: Safety in Our Community (SIOC) Program**

*Shelby Zelonis, Maura Ardike, Eric Fisher, Bill Betz, Ian Gregoire*

The Fire & Rescue Department (FRD)'s Safety in Our Community (SIOC) program is a community outreach program that began in June 2013. SIOC embraces the FRD mission of "Preventing the 911 Call" by ensuring that residences in Fairfax County are equipped with information and supplies necessary to help protect them in the event of a fire or other emergency. As part of the program, firefighters go door-to-door, educating residents and installing smoke alarms, carbon monoxide alarms, and batteries in homes across the county.

Historically, SIOC activities were documented using pen and paper. Addresses and data were written on a paper form, and this information was later transcribed into digital format. Any mapping of the activities was done through geocoding; however, obstacles such as spelling mistakes, transcription errors, etc. made this process cumbersome and inefficient.

The SIOC program is inherently geospatial. Attributes are collected at addresses – making the program the perfect candidate for a GIS-based field data collection solution. In 2015 we set out to find this solution. Collector for ArcGIS seemed like a great idea; however, we could not overcome the "named user problem" - i.e., we do not have enough named user accounts or the financial resources to obtain enough accounts to allow for data collection throughout the county.

Next, we considered the Emergency Data Gathering Repository (EGDR) – an in-house, Fairfax County solution developed by the Department of Information Technology (DIT). EDGR is used for field data collection in the form of Windshield Surveys, so we brainstormed on how the application could be applied to SIOC. After meeting with DIT, we decided that EDGR was the perfect solution for SIOC.

EDGR is available to FRD employees and is accessible on any device that has a browser and an internet connection. The application was loaded as an app onto each station's iPad for ease of use. When performing SIOC activities, the user must type in the address they are visiting. EDGR verifies the address and determines the XY location of each entry by querying a customized map service provided by DIT-GIS. After entering the address, the user can then fill out all associated SIOC data for that location.



Data collected in EDGR are automatically saved to a spatially-enabled SQL View that can be displayed via a Query Layer in ArcMap, or accessed tabularly by data analysts in Management Studio. Retrieving, displaying, and analyzing the data is simple and efficient; there is no longer a need to manually transcribe data or geocode. Using the SIOC data, we have created many system-wide reports, leveraged Data Driven Pages to easily create reports by fire box, and we have a web mapping application in development that will link directly to the SQL database. We can also use the SIOC data to link to our other data sources, like incident data, to help document lives saved by the SIOC program. Moreover, because all analysts access, analyze, and report from the same data source, many sources of error, e.g., copies of data, have been eliminated.

Overall, finding a mobile solution to the SIOC program has been extremely beneficial to the Fire & Rescue Department. EDGR is a low-cost but highly effective application that meets the needs of all those involved in the SIOC program.



## Most Significant Progress *Agency Winner*

### Department of Neighborhood and Community Services

#### Human Service Environment in Reston

*Terry Reardon*

Applying mapping functions to community service provision is a relatively new way of approaching work in the human services system. By utilizing PolicyMap, a tool that puts the power of GIS and other data sources in our hands, Neighborhood and Community Services (NCS) staff have made significant progress in being able to create useful, data-filled, visually commanding reports and other work products.

One example of this is the use of GIS to create a comprehensive report, Human Services Environment in Reston, which brings together human services-focused census, Human Services Resource Guide (HSRG) and other data to support community-level decision-making around the Reston Town Center North (RTCN) redevelopment project. For this project, NCS staff who are not GIS experts were able to create maps quickly and easily by using TRF PolicyMap, an online data aggregation and mapping application. An important feature of PolicyMap that NCS takes advantage of is a data loading function that allows users to add their own data to create custom maps. For NCS, the human services data used to create the central asset map came from the HSRG, an online database of services available to Fairfax County residents that is managed by NCS. The use of this important GIS tool created significant efficiencies in the creation of this report. After overcoming the initial learning curve of the new product, staff are now able to assimilate community level data from multiple sources in a much more effective and streamlined manner. This will be especially useful for future projects in the current economic climate of having to do more with less.

A summary handout was also created from the comprehensive data report and distributed at a Community Dialogue meeting hosted by Hunter Mill Supervisor Catherine Hudgins in September. In this handout, information was organized according to the six focus areas that guide the county's human services work as a way to highlight certain program goals and at-risk populations. The handout and accompanying PowerPoint presentation were disseminated to the well over 100 Reston residents who attended the community meeting.

As a result of the success of the Human Services Environment in Reston report, staff who are now skilled at PolicyMap are now training other NCS staff to use the GIS tool in their work. Additional staff will be receiving this training as well. PolicyMap



has become a critical tool to support NCS work with statistics and maps that give reports an important, easy to understand, quantitative foundation. The NCS Community Capacity Building unit is beginning to use PolicyMap to prepare for the upcoming Consolidated Community Funding Pool cycle. The NCS Prevention Unit is using PolicyMap to support their youth-centered community outreach work. There is also great potential for managers of NCS' many teen, senior and community centers to more easily reach out to clients as a result of using PolicyMap.

PolicyMap is available to everyone on a subscription basis, allowing anyone to create map-based reports to meet their specific program goals and criteria. NCS is grateful for the opportunity to explore the PolicyMap GIS tool and would not be able to tout such significant progress without it.