

PSAP Grant Program Grant Ranker

View Application--175--Mapping Enhancement & GIS Server

Grant Period: 2010

Tier: Strengthen current equipment and service delivery capability by upgrading existing wireless E-911 related equipment or services (**STRENGTHEN**)

Grant Program: Continuity and Consolidation **Grant Type:** Individual PSAP

Priority: GIS: high priority (refer to GIS-related Grant Request Prioritization Matrix for a description of GIS projects that would have a high funding priority) (**GIS HIGH PRIORITY**)

Primary PSAP Applicants: Northumberland County

Jurisdictions Served: Northumberland, County of

Project Director:

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Project Description:

Total Project Cost \$127,038.00

Amount Requested: \$127,038.00

Statement of Need:

Northumberland County currently maintains its 911 data in house with MicroData Software using ESRI's ArcView 3.3. The County has approximately 13,000 people, and its population almost doubles during the summer months. We are finding that fewer people are utilizing landline phones and are relying heavily on wireless phones, especially those that have second homes in the County. It is imperative that dependable data, software, hardware, and accurate mapping be utilized to aid the Primary Safety Answering Point (PSAP) and Emergency Services in order to respond quickly to an incident. Updating the mapping equipment through this grant will allow Northumberland County to maintain pace with an ever changing 911 and GIS field where it would otherwise not be able to do so. Northumberland County would like to accomplish several goals with this mapping update: 1.) The County would like to update its GIS desktop software from ArcView 3.3 to ArcEditor 9.x. 2) Correct the projection of the current data which is in the Geographic Projection Decimal Degrees to the Virginia State Plane South NAD83 projection so that the most recent Virginia aerial photography may be utilized with 911 and other County data which is already in the State Plane projection. 3) Acquire ArcGIS Server Enterprise Standard Edition 9.x to be able to more efficiently maintain and provide more timely updates to the PSAP's data server for their mapping program. Updates to the PSAP server are now carried by hand and updated manually. 4) Update the server and dispatch mapping software and hardware in the PSAP. Upgrading the mapping system will not only aid the

PSAP in more timely updates, but improving the system to an enterprise solution will allow the County more flexibility to expand its GIS to other functionalities in the future. This proposal, as listed in the PSAP Grant Program GIS-Related Grant Request Priority Matrix, is a high priority. Currently there are no funds that would be allocated to this project by the County except that of maintenance, staff time and training not covered by this grant. Without the assistance of this grant, this project would definitely not be able to occur. Funding for this project, other than maintenance, is not available at this time from the County.

Comprehensive Project Description:

Goals and Objectives include: 1) Upgrade ArcView 3.3 to ArcEditor 9.x with Spatial Analyst concurrent licenses and hardware so that multiple people can make updates to the 911 data. There is currently one person performing 911 updates. 2) Convert data from shapefile format to a geodatabase environment. 3) Re-project data from Geographic projection to Virginia State Plane South. 4) Purchase ArcGIS Server 9.x and associated hardware. 5) Upgrade MicroData's AliTrakker to xTrakker and associated hardware 6) Upgrade dispatch administrator's computer from ATAdmin to xAdmin with associated hardware. 7) Upgrade the PSAP data server from ATStore to xStore and hardware. 8) Upgrade the GIS data maintenance software from e9GIS to x9GIS with hardware. The County's objective is to provide scheduled accurate updates of the 911 data to the PSAP mapping server (xStore) from the ArcGIS server in a manner that is more frequent than the sporadic updates as is currently being performed. The County is also interested in expanding intranet and internet capabilities with the enterprise web based GIS. Approval of the grant would allow Northumberland County to start the upgrade process in the spring of 2009, and would anticipate having everything in place by the end of summer 2009. With this upgrade, Northumberland County anticipates that this project will carry the County through the next five years at which time evaluation of the system will need to be conducted to make sure that the proposed system is still meeting the County's needs. This project does place the County in a better position for future data management longer than the five year period by migrating to the server based enterprise geodatabase.

How will the equipment purchased will support future technologies for PSAP readiness?:

The equipment purchased under this project allows the County to migrate to a geodatabase which allows more spatial analysis, as well as other features, to be conducted on the GIS data. Having the ArcGIS Server allows for greater frequency of updates to the PSAP rather than hand carrying the updates to the PSAP server from the GIS computer. Implementing an enterprise solution now, allows Northumberland County to expand its GIS in the future to incorporate new technologies and data sharing among County departments.

Budget and Budget Narrative:

Northumberland County is requesting \$127,038.00 in grant funding to complete this project. Following is the breakdown of cost estimates received by Microdata and ESRI. MicroData Upgrade quote: xStore, xTrakker (Dispatch Map x 4), xAdmin Application, x9GIS, SQL Server Standard and Antivirus= \$2,485.00; ESRI software- ArcEditor 9.x Concurrent Use, Spatial Analyst 9.x Concurrent Use, ESRI ArcEngine Fee for setting up xTrakker = \$9,550.00; Equipment, includes monitors- 1 server, 1 switch (8 port), 2 dispatch computers, 1 admin/dispatch computer, 1 xTrakker test computer with ArcEditor 9.x, 1 GIS main computer with x9GIS and ArcEditor 9.x = \$15,717.25 ; Data Conversion = \$5,000.00; Professional Services (Including Installation, training, and travel expenses) = \$21,737.50; 3 years annual maintenance = \$26,144.46; Cables, backups, and Misc. = \$383.79 Mapping Upgrade Section Total = \$81,018.00 Estimate for ArcGIS Server 9.x Standard Enterprise: ArcGIS Server Enterprise Standard 9.x, Hardware, and three year maintenance = \$27,000.00; Server Data Back-Up = \$1,200.00; Battery Backup = \$400.00; 16 port-switch and 1,000 ft. of Cat5E cable = \$220.00; Installation= \$7,000.00; Training/Travel/Lodging (at ESRI site for 5 courses) = \$10,200.00 GIS Server Section Total = \$46,020.00

Evaluation:

The project will be evaluated based on the successful installation and training of all hardware, software, and associated equipment. This project will also be evaluated on the correct re-projection of County 911 data from the Geographic to the Virginia State Plane South projection as well as the successful migration from a shapefile to an enterprise geodatabase.

Attachments