

PSAP Grant Program Grant Ranker

View Application--85--Mapping Enhancement Initiative

Grant Period: 2009

Tier: Replacement of technically outdated wireless E-911 equipment or service to enable primary PSAP to maintain current service levels to the general public (**TECHNICALLY OUTDATED**)

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

Priority: Mapping servers and workstations (**MAPPING SUPPORT**)

Primary PSAP Applicants: Wise County

Jurisdictions Served: Wise

Project Director:

Jessica Swinney
Geographic Information Officer
PO Box 570 Wise, VA 24293
276-328-7110 (phone)
276-328-9780 (fax)
gio@wisecounty.org

Project Description:

Wise County has created a world class state-of-the-art Geographic Information System (GIS) that links aerial images and 911 address structures to nearly 100-layers of data including fire hydrant locations, 3-phase electrical lines, wireless signal sheds, structure photos, construction materials and square footage, emergency responder locations, and a host of other data layers significant to public safety personnel. Maintaining the integrity of this data requires updated hardware and software to keep this data current. The accuracy of data is imperative for Emergency Responders. Wise County is requesting replacement of existing servers, desktops, and GPS Units to accurately maintain these public safety layers.

Total Project Cost \$31,900.00

Amount Requested: \$25,424.00

Matching Funds: \$6,476.00

Additional Local Funds:

Statement of Need:

Wise County is located in the rural mountainous region of far Southwest Virginia. Wise County is an economically challenged county and ranks near the bottom of all Virginia Counties for per capita income and household income. The current per capita income in Wise County is (\$14,271) which stands at 60 percent of the state level (\$23,975) and 66 percent of the national level (\$21,587), while median household income stands at 56 and 62 percent respectively. Wise County has worked to become Enhanced 911 verified for the past four years. Due to unforeseen delays the project has extended longer than anticipated. This project has taken a considerable toll on resources to be spent on GIS equipment and hardware. The

Wise County GIS office is responsible for updating and maintaining the 911 addresses and databases as well as any other public safety mapping data that is used in the PSAP for Wise County. The Wise County GIS office is responsible for updating and maintaining all data necessary to the PSAP, including, but not limited to, 911-addressing, transportation, structure footprints, and structure photos. All necessary data is transferred over the GIS Server to the PSAP server. This transfer creates redundancy in the data and allows dispatchers to quickly access the mapping data on their consoles.

Project Impact:

The Wise County PSAP utilizes the GIS mapping daily. As verified 911 calls come in, they are mapped on the dispatcher's consoles. The data is geocoded using the road dataset as well as the structure point addresses. The emergency responders rely heavily on this mapping technology to locate incidents. Accurate data is imperative for emergency responders. The Wise County PSAP depends upon the GIS Department for current updates of mapping data.

Consequence of Not Receiving:

Wise County is economically distressed and funding for this project is very small. Not receiving funding would delay the update of the much-needed equipment for an unforeseen number of years.

Part of Long Term or Strategic Plan?: Yes

Likelihood of Completion Unfunded?: 10%

Other Available Funding Sources?: No

Percent of Grant Funding Requested To Total Funding Cost?: 80%

Is Project Locally Sustainable?: Yes

Comprehensive Project Description:

The goal of this effort is the continued creation, maintenance, and enhancement of an integrated public safety mapping system for the PSAP and to analyze the performance of the system in supporting operations and planning. Wise County has the following objectives: • Become E911 Verified • Strive for continued improvement of data standards and accuracy of the public mapping data system • Continue to develop automated update procedures to public safety mapping data • Develop Evaluation criteria for addressing data set for completion and accuracy • Continue to combine the valuable GIS resources from Wise County with the PSAP as well as Emergency Response Organizations and Regional PSAPs Implementation plan The following tasks have been completed or are currently in the process: • AMS and Verizon have been sent data from Wise County • A 911 structure point address and roadway database exists and is being utilized in the PSAP • Addressing Ordinance in place for Wise County The following tasks are slated for the continued creation and maintenance of this project: • Continued GPS and creation of new address structure points and roadways • Improvement of public safety datasets • Automate updates for emergency responders utilizing public safety mapping data • Regional dataset sharing for surrounding counties

What type of interface or compatibility solution will be used between existing equipment and/or software and that which you intend to purchase?:

Currently there exists an ftp link between the GIS Server and the PSAP Server. Automated scripts are in place enabling and efficient process. This link serves as the gateway for all the public safety GIS data to be sent to the PSAP servers. This link will be maintained and will not be changed. The scripts can be transferred to new desktop computers utilizing the server. The new Dell PowerEdge server will be used to supplement this data and will house the new 2007 VGIN VBMP data as well as other data that is collected or created by the GIS Department.

What is the overall relationship of your project to your PSAP or locality's established long-range future plans?:

Wise County is seeking to utilize Regional CAD and CPE equipment with Dickenson County and the City of Norton. Having proper equipment in place for the public safety mapping in Wise County will insure that regional sharing of mapping data and resources can continue into the future.

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

Regional mapping datasets will be far larger than county datasets. The new Dell PowerEdge server will have sufficient space to store the regional mapping data from the partnering localities of Dickenson County and

the City of Norton.

Budget and Budget Narrative:

The requested funding will be used to support the continued maintenance of accurate public safety mapping data in the PSAP. Funding will support equipment costs for a server between the GIS and PSAP to host the mapping data, and four desktop computers for technicians to maintain the data, as well as a laptop computer to be used in the field for maintaining 911 addressing and two GPS units to maintain accuracy of structure points. The grant request totals \$25,424. The request proposes the continuation of the GIS and PSAP working together to ensure the most current and accurate data delivered to the emergency responders. Equipment costs include a Dell PowerEdge 1900 Server to replace the current Dell PowerEdge Server, four new desktop pcs, a laptop for field work, and two GPS handheld units. A Dell PowerEdge 1900 will be purchased at \$8,800. The current GIS server is out of storage space and was purchased over 5 years ago. GIS data requires a tremendous amount of storage space and Wise County's current server storage is not adequate to hold the VGIN 2007 VBMP data. Four new desktop pcs will be purchased at \$2100 each. These new desktops will have high quality video cards needed to run the ESRI ArcGIS software at a desired speed. A new laptop to be used in the field for 911 addressing will be purchased for \$2,000. Two new GPS units and updated software will be purchased at \$10,000. Matching funding from the County will be in the amount of \$6,476. Installation and configuration of the server is estimated at \$1,200.

Ongoing Expenses:

Ongoing expenses include maintenance fees for the equipment. There is an existing line item in the 911 budget for the maintenance fees of the software and the GPS units.

Evaluation:

Objective: Continued GPS and creation of new address structure points and roadways Measure: Comparisons will be made weekly of approved electrical permits to insure the structure points are present and accurate in the GIS mapping Objective: Improvement of public safety datasets Measure: Communication with the Sheriff, Emergency Response Organizations, and the PSAP staff of current and future public safety datasets Objective: Automate updates for emergency responders utilizing public safety mapping data Measure: Communication with the technical staff of the PSAP and County as well as the vendors of software and equipment for automating processes and procedures to maximize productivity Objective: Regional dataset sharing for surrounding counties Measure: Contact regional PSAPs or GIS for inclusion of regional datasets to the Wise County public safety mapping data as well as update schedules

What are the short term, intermediate, and/or long-term outcomes desired for this project?:

Short-term outcomes expected from this project are the additional storage space the new Dell Power Edge server will provide for the 2007 VBMP VGIN datasets. Intermediate outcomes include the speed enhancement of map redraws in ArcGIS on outdated desktops that are currently in use. Long-term outcomes are ample space on the servers for regional datasets and potentially automated updates of both local and regional datasets.

What measures will be used to determine outcomes?:

Regular checks will be made to ensure that new structures are being created and incorporated into the GIS mapping. Regular checks will be made to ensure that updates between the GIS and PSAP are maintained with accuracy and integrity.

How will data be collected and how will evaluations be conducted?:

Data will be collected utilizing communication between the GIS and the PSAP. The PSAP will report any missing structures or data on the mapping. This data is sent to the GIS through fax transmissions.

How will data be presented?:

The GIS will research the data and quickly resolve any errors or omissions that occur.

Attachments