

FY13

PSAP GRANT PROGRAM APPLICATION



VIRGINIA INFORMATION
TECHNOLOGIES AGENCY
Integrated Services Division
FY13



FY13 PSAP GRANT PROGRAM APPLICATION

HOW TO APPLY/DEADLINE

The grant application is available and accessible from VITA's Integrated Services Program's website

(<http://www.vita.virginia.gov/isp/default.aspx?id=8578>). Upon completion of the application, it is to be submitted to the PSAP Grant Manager, Lisa Nicholson, at lisa.nicholson@vita.virginia.gov. Any supporting documentation must also be submitted along with the application, including mandatory budgets for projects (if applicable).

After submission, the PSAP Grant Manager will assign a Grant ID and send an e-mail notification to the project contact e-mail address listed on the application received.

All funding requests must be submitted using the grant application. Technical assistance is available from VITA's Public Safety Communications (PSC) staff throughout the grant process. The FY13 PSAP Grant Application Cycle starts July 1, 2011 and concludes on October 31, 2011 at 5:00 pm.

ALL APPLICABLE SECTIONS MUST BE COMPLETED IN ITS ENTIRETY OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE AND NOT ACCEPTED FOR CONSIDERATION.



FY13 PSAP GRANT APPLICATION

PROJECT TITLE

Enterprise GIS and Address Verification

GRANT APPLICANT PROFILE/PROJECT CONTACT

PSAP/HOST PSAP NAME: Essex County, Virginia

CONTACT TITLE: Emergency Services Coordinator

CONTACT FIRST NAME: Larry

CONTACT LAST NAME: Smith

ADDRESS 1: P.O. Box 1079

ADDRESS 2: [Click here to enter text](#)

CITY: Tappahannock

ZIP CODE: 22560

CONTACT EMAIL: lsmith@essex-virginia.org

CONTACT PHONE NUMBER: 804-443-4414

CONTACT MOBILE NUMBER: 804-925-5616

CONTACT FAX NUMBER: 804-443-4157

REGIONAL COORDINATOR: Sam Keys [Click to select a Regional Coordinator from the drop down list](#)

HOST PSAP AND PARTICIPATING PSAPS/LOCALITIES

_____	_____
_____	_____
_____	_____
_____	_____

GRANT TYPE

Individual PSAP

Regional Initiative

Consolidation

Secondary Consolidation



GRANT PROGRAM TYPE

- Wireless E-911 PSAP Education Program
- Continuity and Consolidation
- Enhancement

TIER

- Out of Service
- Technically Outdated*
- Not Applicable
- Non-Vendor Supported*
- Strengthen

If technically outdated or non-vendor supported, application MUST include age and/or version of hardware/software.

VERSION:

YEARS of HARDWARE/SOFTWARE:

PROJECT FOCUS GIS HIGH SUPPORT

If "Other" selected, please specify: [Click here to enter text](#)

FINANCIAL DATA

Amount Requested: \$ 150,000

Total Project Cost: \$ 193,175

STATEMENT OF NEED

Please See Attachment 1



COMPREHENSIVE PROJECT DESCRIPTION

WIRELESS E-911 PSAP EDUCATION PROGRAM GRANT REQUESTS ONLY:

Describe how the education/training is 9-1-1/public safety communications specific and how this will benefit E-911 and the employee(s) and/or PSAP.

[Click here to enter text](#)

FOR CONTINUITY AND CONSOLIDATION OR ENHANCEMENT PROJECTS:

Provide a thorough, concise, and complete description of the project, including an outline of the goals and objectives, implementation strategy, and a work plan.

[Click here to enter text](#)

Please See Attachment 2

FOR CONTINUITY AND CONSOLIDATION OR ENHANCEMENT PROJECTS:

PROJECT TIMELINE – Select each applicable phase of the project and indicate the estimated completion date. Sample activities for each phase can be found in the PSAP Grant Program Guidelines as well as on the addendum to this form.



PROJECT PHASE	ESTIMATED COMPLETION DATE
<input checked="" type="checkbox"/> INITIATION (Project approved by appropriate stakeholders)	07 / 02 / 12
<input checked="" type="checkbox"/> DESIGN/PLANNING (Project, system, or solution requirements are developed)	07 / 13 / 12
<input checked="" type="checkbox"/> ACQUISITION (Selected system or solution is procured)	07 / 13 / 12
<input checked="" type="checkbox"/> IMPLEMENTATION (Selected system or solution is configured and installed)	11 / 16 / 12
<input checked="" type="checkbox"/> TESTING/COMPLETION (Selected system or solution is tested and put in production)	02 / 15 / 13

Identify the longevity or sustainability of the project.

The GIS data and software will be sustainable by the vendor and the County unless there is a significant industry change. The County is prepared to provide all funding required for this project beyond the initial amount provided through this grant



Describe how this project supports the Virginia Statewide Comprehensive 9-1-1 Plan.

This project supports the Virginia Statewide E-911 Strategic Comprehensive Plan. Essex County is trying to meet Goal A from Section 2.2 of the Strategic Goals. Goal A is to provide a standard level of emergency response service to the public, which is further described as providing consistent emergency response services to anyone residing in or passing through the Commonwealth. The County currently cannot guarantee that to its citizens due to its lack of digital, verified data which is not up to date for citizen structure points. This means that Essex cannot “receive, process, and dispatch calls in a dependable and repeatable manner.”

REGIONAL INITIATIVE (if applicable)

The relationship of the initiative to the participating PSAPs:
N/A

Intended collaborative efforts:
N/A



Resource sharing:

N/A

How does the initiative impacts the operational or strategic plans of the participating agencies:

N/A

CONSOLIDATION (Primary or Secondary) - (if applicable)

How would a consolidation take place and provide improved service:

N/A

How should it be organized and staffed:

N/A



What services should it perform:

N/A

How should policies be made and changed:

N/A

How should it be funded:

N/A



What communication changes or improvements should be made in order to better support operations:

N/A

BUDGET AND BUDGET NARRATIVE

<u>Phase</u>	<u>Description</u>	<u>Project Cost</u>	<u>Funding Requested</u>
1	<i>Esri Software Procurement</i> The County will proceed with the purchase of Esri Software Utilizing an Enterprise License Agreement specifically for the PSAP and data directly used by Dispatch.	\$75,000	\$41,825
2	<i>Convert Data to Esri Database version 10.x</i> The County will procure a contractor to convert GIS data to Esri 10.x database format and deploy at the PSAP.	\$88,675	\$88,675
3	<i>QA/QC of Conversion</i> QA/QC of the Conversion by the contractor will include a detailed review process of the data placement as well as QA/QC tools the public to visualize structure points in Phase 4.	\$19,500	\$19,500
4	<i>Public Address Verification</i> The County will encourage citizens to review their structure point location for accuracy and will be provided with a method to report back to the County on inconsistencies.	\$10,000	\$0
		\$193,175	\$150,000



EVALUATION

How will the project be evaluated and measured for achievement and success:

[Click here to enter text](#)

Overall, this project's success will be measured by the amount of improvement in location and provision of emergency services resulting from improved local data. Milestones for measuring project progression and success include:

- 1 Esri Software Procurement
 - a Discovery of licensing needed
 - b Implementation of licensing
- 2 Existing Data Conversion
 - a Conversion process by layer
 - b Contractor QA/QC
- 3 County Q/A of Conversion
 - a Evaluation of Conversion
 - b Evaluation of Public QA/QC Tool
- 4 Public Address Verification
 - a Publicity Campaign
 - b Correction of Errors provided by Citizens
 - c On-Site Training and Implementation



FINANCIAL AND PROGRAMMATIC REPORT

PROJECT PHASES

SAMPLE ACTIVITIES

PHASE

SAMPLE ACTIVITIES

INITIATION

(Project approved by appropriate stakeholders)

- Project concept is documented
- Local Board or governing authority approval or endorsement is received
- PSAP grant application is filed
- Local budgets are obtained
- Appropriated grant funds are approved
- Budgetary estimates are obtained

DESIGN/PLANNING

(Project, system, or solution requirements are developed)

- Requirements are documented
- Components to be purchased are identified
- General design is documented

ACQUISITION

(Selected system or solution is procured)

- RFP (or other bid related processes) are drafted
- Proposals are evaluated
- Contract is signed
- Purchase orders are issued
- Quotes are obtained/grant funds draw down

IMPLEMENTATION

(Selected system or solution is configured and installed)

- Purchased components are delivered and installed
- Training is performed

TESTING/COMPLETION

(Selected system or solution is tested and put in production)

- Performance of system/solution is validated
- System/solution goes "live"



Attachment 1

Essex County PSAP Needs Statement

Essex County is one of the few counties in the State of Virginia that currently does not have GIS data backing up their PSAP mapping. Our request for funding follows a comprehensive needs and risk assessment of our dispatch and mapping capacities to provide accurate geographical and demographic specific information relative to crucial service needs. Our goal is to enhance our E-9-1-1 capabilities and information system with GIS in order to provide critical information to assist in mitigating and recognizing hazards in our County and the Town of Tappahannock by providing excellent emergency services response to our community. The County has not had the budget to take the funding of an Enterprise GIS, nor the conversion of crucial GIS data layers, or the QA/QC of the few data layers that do exist. The PSAP does not currently have digital versions of parcels and other associated land values, nor has it correctly located the majority of its structure points. This project will involve converting much needed digital data of structure points and land boundaries into an Esri 10.x database. The majority the County's structure points and centerlines are currently in shapefile and have not been accurately geo-located since its creation, and has been hand-drawn without the aid of imagery. Other crucial data layers still remain on paper. Without Esri software, the County has been unable maintain, correct, or create that data even with the freely-supplied VGIN aerial imagery. All of this data will be used in dispatch, as well as using the newly created boundaries to qa/qc the placement of structure points. The County will also launch a public service campaign to encourage citizens to correctly locate their structure points via the internet to ensure that the County's data is correct following the project. Without a PSAP grant, the County and PSAP will not have the funding necessary to take on this project and will remain behind the curve in providing adequate service to its citizens.

Additionally, with the increased usage of wireless/cellular phone service as a replacement for landlines, it has been determined that 70% of our calls for service to our PSAP are from cell phones. This creates a critical problem for locating the origination of the call. The proposed GIS project will allow us the ability to cross-reference the calls to determine a location in order to provide immediate assistance. The GIS project will support our planned regional GIS mapping effort by allowing us to quickly identify the location of the wireless 911 callers as addressed in the focus of Enhanced 911 (E-911) with the accurate pinpointing of a caller's location to allow emergency responders to arrive at the scene without delay. With concurrent advancements in Geographic Information Systems (GIS), the integration of E-911 with GIS data is the logical answer to continuing improvements in the provision of emergency services.

With the grant money procured and taking the bulk of this project cost, the County and PSAP will budget funding to maintain the data created in this project.



Attachment 2

Project Description

Goal 1: The primary goal of this project is to provide Essex County emergency responders with the most up-to-date and accurate emergency response information in order to protect and provide service to the citizens and visitors of Essex County.

This goal's objective will be accomplished through the enhancement of our PSAP and E-9-1-1 system with the implementation of the GIS project.

Goal 2: Improve public safety through data sharing with other internal departments as well as other jurisdictions.

Goal 3: To reduce redundant workload through an automated system.

As previously stated, Essex County is one of the few counties in the State of Virginia that currently does not have GIS data backing up their PSAP mapping. The County has not had the budget to take the funding of an Enterprise GIS, nor the conversion of crucial GIS data layers, or the QA/QC of the few data layers that do exist. The PSAP does not currently have digital versions of parcels and other associated land values, nor has it correctly located the majority of its structure points. This project will involve converting much needed digital data of structure points and land boundaries into an Esri 10.x database. The majority of the County's structure points and centerlines are currently in shapefile and have not been accurately geo-located since its creation, and has been hand-drawn without the aid of imagery. Other crucial data layers still remain on paper. Without Esri software, the County has been unable to maintain, correct, or create that data even with the freely-supplied VGIN aerial imagery. All of this data will be used in dispatch, as well as using the newly created boundaries to QA/QC the placement of structure points. The County will also launch a public service campaign to encourage citizens to correctly locate their structure points via the internet to ensure that the County's data is correct following the project. Without a PSAP grant, the County and PSAP will not have the funding necessary to take on this project and will remain behind the curve in providing adequate service to its citizens.

The scope of this project will include:

- Esri software procurement
- Existing data conversion
- Public Address Verification

Project Tasks and Work Plan

Essex County's implementation plan follows the previous time lines in this application. This project will be implemented over a 12-month period.

1. Esri Software Procurement

The County will work with Esri to procure software necessary to establish an Enterprise GIS. The County will engage a consultant, if necessary, to aid with installation of software. The cost for a consultant will be funded by Essex County outside of the grants funding requested from the Wireless Services Board.



2. Existing Data Conversion

The County will procure a consultant for the conversion of data in this project. Below is the suggested process for converting data:

The data converted in this project will be broken down into several batches defined by contiguous areas. Breaking the project into batches provides several benefits, including:

- Making it easier to track production over the course of the project
- Allowing the County to catch systematic errors during the course of production
- Allowing the County to have access to data before completion of the project
- Permitting feedback from the County during the production phase

Leveraging *Geoprocessing Tools*, conversion steps will be linked together to create logical and consistent data and work flow diagrams and methodologies.

Annotation and Symbols from the source data will be captured during conversion and every effort will be made to maintain the appearance represented by the existing digital maps.

Quality Control will be assured by extensive use of the ArcGIS Data Reviewer Tool, which provides a variety of automated checks that can immediately improve data integrity such as spatial, attribute, topology, connectivity, and database validation. The project team will be using this infrastructure to perform the data development quality assurance and quality control task in this project.

Pilot Area Processing will be utilized during the conversion project to define a pilot conversion area and subsequent batch areas. The conversion process will begin in the pilot area. The resulting data will be provided in a digital format for the County to review and approve. The pilot area results will be used to define and refine the GIS data products. Subsequent batches will begin the conversion process following the County's approval of the pilot deliverable.

3. Public Address Verification

The County has been sending address point data to a vendor for address assignment for approximately 10 years. During the majority of this time, address points were only captured by hand, on paper, and located relative to approximate distance to the next existing structure. Addresses were based on the approximate distance from the new driveway to the closest existing address, and structure points were placed via 'best guess' without the aid of imagery until the publication of VGIN imagery map services. To that end, many structure points are inaccurately placed, and do not match imagery. The County proposes to work with a consultant to publish GIS information on the web, and encourage citizens to check their structure point/address locations. The County will provide simple instructions for citizens to report back to the County if there are inaccuracies with their location. If the County chooses to extend the life of the published GIS platform after the year of citizen access funded, they will do so without requesting further grant funds.