

DESIGNATION OF AGENT

RESOLUTION

BE IT RESOLVED THAT THE BOARD OF COMMISSIONERS OF DAUPHIN COUNTY (Governing Body) (Public Entity)

THAT STEPHEN LISHAET, DIRECTOR OF FMA, EMERGENCY MANAGEMENT COORD (Name) (Title)

is hereby authorized to execute for and in behalf of

THE COUNTY OF DAUPHIN

a public entity established under the laws of the Commonwealth of Pennsylvania, all required forms and documents for the purpose of obtaining financial assistance for the Hazard Mitigation Grant Program (HMGP) or the Pre-Disaster Mitigation (PDM) program under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288 as amended by Public Law 100-707) or the Flood Mitigation Assistance (FMA) program, Repetitive Flood Claims (RFC) program or Severe Repetitive Loss (SRL) program under the National Flood Insurance Act of 1968 (42 U.S.C. 4001 et seq), National Flood Insurance Reform Act of 1994 (Public Law 103-325) and the Flood Insurance Reform Act of 2004 (Public Law 108-264), as pertains to federal mitigation grant programs indicated below (check all that apply):

- HMGP PDM FMA RFC SRL

Passed and approved this 12 day of February, 2014.

CERTIFICATION

I, Laura Cullison, duly appointed and Chief Clerk (Name) (Title)

of Dauphin County, do hereby certify that the above is a true and correct copy of (Public Entity)

a resolution passed and approved by the Dauphin County Board (Governing Body)

of Commissioners on the 12 day of February 2014

(Signature) Chief Clerk 12/12/14 (Official Position) (Date)



**pennsylvania**

EMERGENCY MANAGEMENT AGENCY

**Hazard Mitigation Grant Program  
Official Application**

Application ID: _____	Date Filed with PEMA: _____	Received by State: _____
PEMA ID: _____	Reviewers Initials: _____	Date: _____
MAPS (COOP) (PEMA provides): _____	Application Complete: _____	Return: _____

**I. OVERALL PROJECT INFORMATION:**

**Project Title:** Digital Flood Warning System  
(Enter a title that will allow reviewers to identify the project – i.e. County + Municipality + ST or Neighborhood & Pj Type)

**PROJECT TYPE:** (Please check the appropriate box)  
Acquisition  Elevation  Structural  Plans  Education  Earthquake

See and use corresponding addendum to project type

- Total number of Properties (Not owners): N/A (Include list of all possible addresses in cover letter)

Community NFIP Status: Participating: YES NO YES

Are you in good standing YES NO YES

Community CID # From Flood-map: 420490

CRS Community: YES NO YES

Congressional District #: 09/05/11/15 Total Project Cost from part IV: A \$ 122,000

Congressional Representative's name (NOT Senator): Shuster/Thompson/Barletta/Dent

Are you a Firewise Community? YES NO NO

**II. APPLICANT'S INFORMATION:**

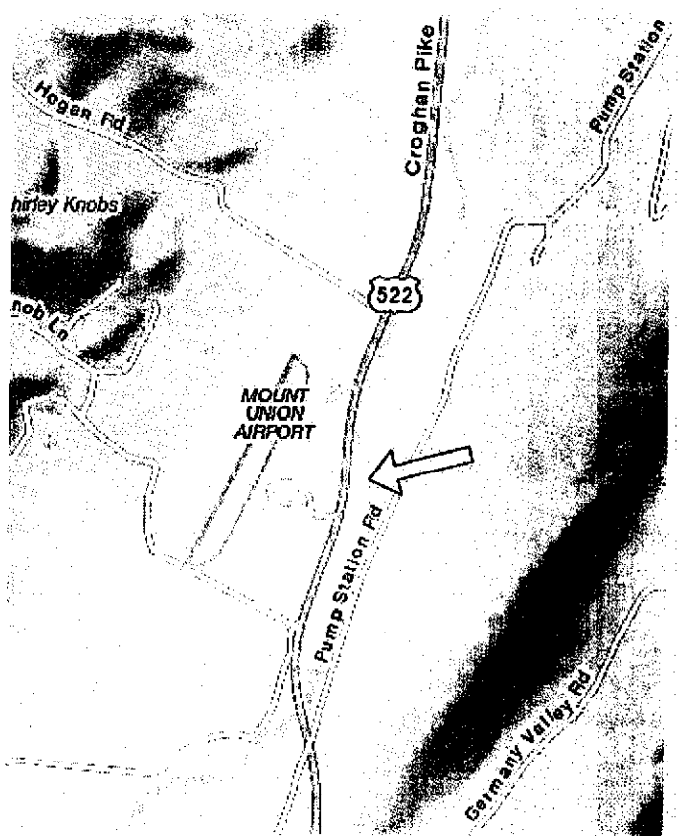
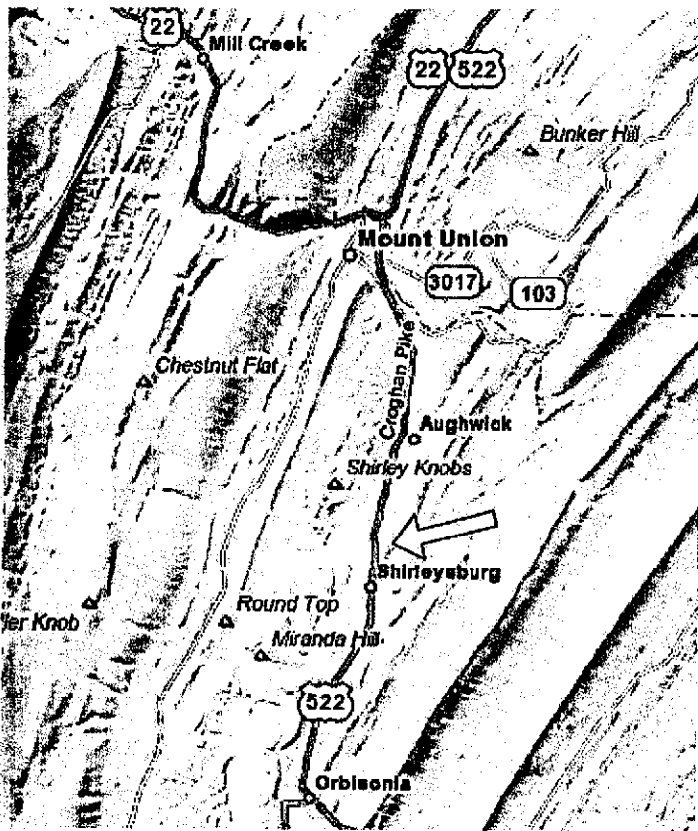
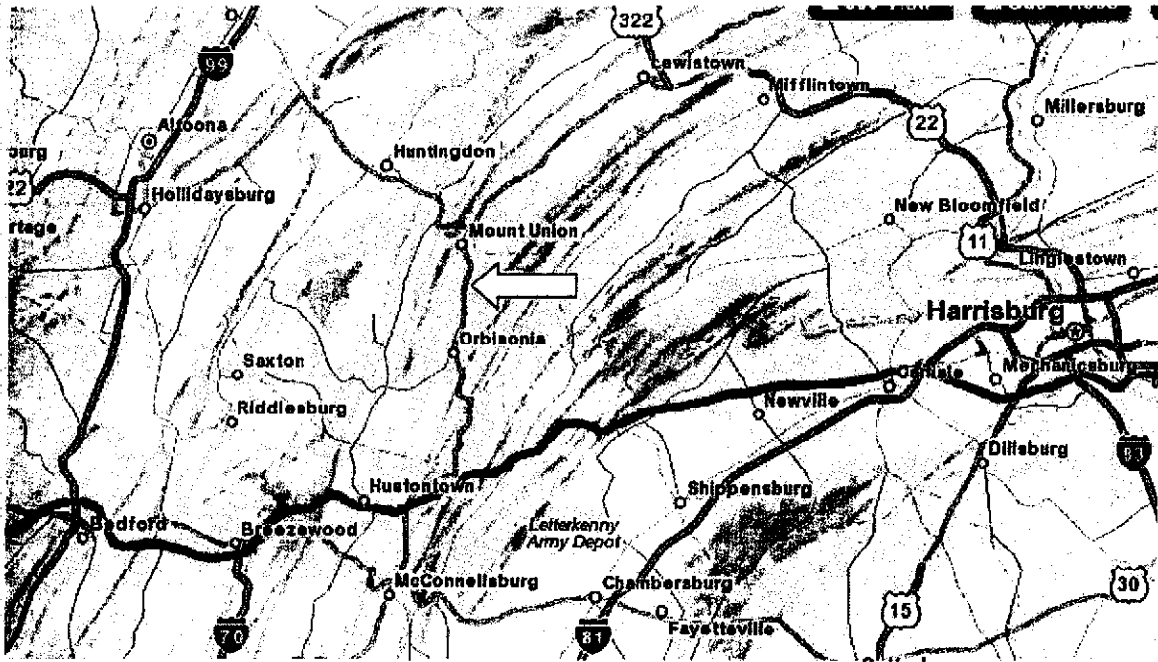
**A. Municipality/Agency Name and Street Address (Do not use a PO Box number):**

Huntingdon County Emergency Management Agency  
223 Penn Street, Huntingdon PA 16652

Telephone Number: 814-643-6613 FAX Number: 814-643-8178

E-Mail Address: ema@huntingdoncounty.net

**B. Attach Directions to Municipality:**



C. Alternate Contact Name (Not Applicant Agent): Benjamin Pratt

Phone Number if different from above: 717.238.0423 E-mail: bpratt@srbcc.net

**II. APPLICANT'S INFORMATION** Continued

**D. Applicant's agent as shown on "Designation of Agent" (PEMA-DAP-2) (Blank attached, fill out, reattach)**

Name: PRINT  
Adam L. Miller

Address: \_\_\_\_\_  
223 Penn Street, Huntingdon PA 16652

Telephone Number: Area code 814-643-6613 FAX No. 814-643-8178

E-mail: ema@huntingdoncounty.net

**E. NEWSPAPER: Local largest newspaper covering the area of the project.**

Name of Newspaper: The Daily News (Huntingdon, Blair)

Address: 320 Washington Street, Huntingdon PA 16652

Telephone: 814-643-4040 FAX: 814-643-0376

Contact: Polly McMullin E-mail: dnews@getwireless.net

Name of Newspaper: Patriot-News (Dauphin)

Address: 2020 Technology Parkway, Suite 300

Mechanicsburg, PA 17050

Telephone: 717.255.8121 FAX: 717.232.9307

Contact: Rich Holton E-mail: rholton@pnco

**III. For a "phased project", emergency work or completed work - please fill out Addendum 1.**

**IV. DETAILED PROJECT DESCRIPTION**

Explain the proposed project in very specific detail so that a reviewer who doesn't know your community can fully understand what you intend to do. This is the scope of your project.

Answer each question completely with who, what, where, why and how in detail.

(Answering only Yes or No may cause application to be ranked as ineligible for funding)

**1. What is the problem this project will solve? HOW will you solve the problem?**

Emergency management's ability to protect life and property during flood events is entirely dependent on the warning system in place to predict and inform critical decision making. Two types of flooding impact Blair, Huntingdon, and Dauphin counties and include riverine and flash flooding. Riverine flooding occurs when streams rise out of their banks and impact adjacent floodplains. Forecast

lead time is typically 9 hours or more but the widespread nature of the event provides resource challenges to manage. Flash flooding, associated with relatively short term high intensity rainfall or rapid snowmelt poses the biggest challenge for emergency managers as forecast lead time is typically 3 hours or less. The localized nature of flash flooding makes events particularly difficult to plan for and respond to.

The project will enhance situational awareness through a variety of pathways including existing smartphone technologies and new digital imagery. The existing SRWatch platform will utilize Android and iPhone applications to identify, map, and disseminate critical information related to flood conditions and aid in flood recovery through development of rapid damage assessment capability. A total of 9 camera installations (exact location TBD) will be selected such that downstream forecast lead time is maximized by observations from each of the cameras. Staff gages will be installed to allow rapid determination of rising and falling streams. An algorithm will be developed allowing identification of surface water elevation to provide enhanced data collection to determine rate of water level rise, a key parameter for flash flood warning and response.

**2. Is it a repetitive problem? Give all specifics? How often?**

**(Example: Flooding has occurred 10 times since 1972 since the construction of Park Mall upriver. (Ross River))**

Flooding continues to be a repetitive problem in all 3 counties partnering in this project and the Susquehanna River Basin in general. Hazard Mitigation Plans for each of the counties identifies flooding as either the most prevalent or significant natural hazard effecting each county. The table below shows various flood events since the year 2000.

HUNTINGDON	7/28/2006	Flash Flood	DAUPHIN	1/15/2005	Flood
DAUPHIN	9/19/2000	Flash Flood	DAUPHIN	1/15/2005	Flood
DAUPHIN	12/17/2000	Flash Flood	BLAIR	3/29/2005	Flood
BLAIR	5/26/2001	Flash Flood	HUNTINGDON	3/29/2005	Flood
BLAIR	6/24/2001	Flash Flood	HUNTINGDON	3/29/2005	Flood
BLAIR	7/26/2001	Flash Flood	DAUPHIN	3/29/2005	Flood
DAUPHIN	7/25/2001	Flash Flood	DAUPHIN	3/29/2005	Flood
HUNTINGDON	5/28/2002	Flash Flood	DAUPHIN	3/29/2005	Flood
HUNTINGDON	1/1/2003	Flood	DAUPHIN	3/30/2005	Flood
BLAIR	1/2/2003	Flood	DAUPHIN	4/2/2005	Flood
HUNTINGDON	1/2/2003	Flood	DAUPHIN	4/3/2005	Flood
HUNTINGDON	6/4/2003	Flood	DAUPHIN	4/3/2005	Flood
BLAIR	8/9/2003	Flash Flood	DAUPHIN	4/3/2005	Flood
DAUPHIN	8/16/2003	Flash Flood	HUNTINGDON	11/29/2005	Flood
DAUPHIN	9/23/2003	Flash Flood	HUNTINGDON	11/30/2005	Flood
DAUPHIN	9/23/2003	Flood	DAUPHIN	6/26/2006	Flash Flood
BLAIR	9/27/2003	Flash Flood	DAUPHIN	6/26/2006	Flood
HUNTINGDON	9/27/2003	Flash Flood	DAUPHIN	6/26/2006	Flood
BLAIR	11/19/2003	Flash Flood	DAUPHIN	6/27/2006	Flash Flood
BLAIR	11/19/2003	Flood	HUNTINGDON	6/27/2006	Flash Flood
BLAIR	11/19/2003	Flood	DAUPHIN	6/28/2006	Flood
HUNTINGDON	11/19/2003	Flash Flood	DAUPHIN	6/28/2006	Flood
HUNTINGDON	11/19/2003	Flood	DAUPHIN	6/1/2007	Flash Flood
HUNTINGDON	11/19/2003	Flood	HUNTINGDON	3/4/2008	Flood
HUNTINGDON	11/20/2003	Flood	HUNTINGDON	6/26/2009	Flash Flood
HUNTINGDON	12/11/2003	Flood	BLAIR	6/26/2009	Flash Flood
DAUPHIN	12/11/2003	Flood	BLAIR	3/13/2010	Flood
DAUPHIN	12/12/2003	Flood	HUNTINGDON	3/13/2010	Flood
BLAIR	5/21/2004	Flash Flood	DAUPHIN	3/2/2010	Flash Flood
DAUPHIN	7/14/2004	Flash Flood	HUNTINGDON	6/23/2010	Flash Flood
DAUPHIN	7/22/2004	Flash Flood	BLAIR	6/26/2010	Flash Flood
DAUPHIN	7/23/2004	Flash Flood	DAUPHIN	6/12/2010	Flash Flood
DAUPHIN	8/1/2004	Flash Flood	BLAIR	12/1/2010	Flood
BLAIR	8/30/2004	Flash Flood	HUNTINGDON	12/1/2010	Flood
BLAIR	9/8/2004	Flood	BLAIR	3/16/2011	Flood
HUNTINGDON	9/8/2004	Flood	BLAIR	3/16/2011	Flood
BLAIR	9/8/2004	Flood	HUNTINGDON	3/16/2011	Flood
HUNTINGDON	9/9/2004	Flood	HUNTINGDON	3/16/2011	Flood
HUNTINGDON	9/9/2004	Flood	HUNTINGDON	3/16/2011	Flood
HUNTINGDON	9/9/2004	Flood	DAUPHIN	3/16/2011	Flood
BLAIR	9/17/2004	Flood	DAUPHIN	3/11/2011	Flood
BLAIR	9/17/2004	Flood	DAUPHIN	3/11/2011	Flood
HUNTINGDON	9/17/2004	Flood	DAUPHIN	3/11/2011	Flood
HUNTINGDON	9/17/2004	Flood	DAUPHIN	3/11/2011	Flood
DAUPHIN	9/17/2004	Flood	DAUPHIN	4/16/2011	Flash Flood
HUNTINGDON	9/17/2004	Flood	HUNTINGDON	4/16/2011	Flood
HUNTINGDON	9/18/2004	Flood	DAUPHIN	4/26/2011	Flash Flood
HUNTINGDON	9/18/2004	Flood	HUNTINGDON	5/3/2011	Flash Flood
HUNTINGDON	9/18/2004	Flood	DAUPHIN	8/6/2011	Flash Flood
DAUPHIN	9/18/2004	Flood	DAUPHIN	9/7/2011	Flash Flood
DAUPHIN	9/18/2004	Flood	DAUPHIN	9/7/2011	Flood
DAUPHIN	9/18/2004	Flood	BLAIR	9/9/2011	Flash Flood
DAUPHIN	9/28/2004	Flood	BLAIR	9/9/2011	Flash Flood
DAUPHIN	9/29/2004	Flood	HUNTINGDON	9/27/2011	Flash Flood

Source: National Climatic Data Center

### 3. Does it pose a significant health or safety risk if left unsolved? What kind of risk?

The problem poses a significant risk to citizens and emergency managers alike. Citizens at risk of flood threat need to be informed of a pending flood to take necessary response action. Emergency managers are placed at risk when those living within an area susceptible to flooding do not take appropriate action and are called upon to perform rescue operations. Primary risks associated with flooding include disease from tainted flood waters, electrocution, building collapse, and drowning. Secondary risks include reoccupation of the property post flooding events due to flood debris and biological contamination, detachment of the external heating oil tank due to hydraulic pressures causing environmental and health risks due to spillage, and the ever-present risk of complete loss of the structure due to forces related to floodwater and debris dislodging the structure from its foundation and allowing it to become a mobile debris object itself.

4. What is/are the name(s) of the bodies of water (creek, river, stream, etc.) contributing to this problem?

Dauphin County – Paxton Creek, Swatara Creek, Susquehanna River  
 Blair County – Little Juniata, Frankstown Branch Juniata, Clover Creek, Bruch Run, Old Town Run  
 Huntingdon County - Frankstown Branch Little Juniata at Alexandria, Shoups Run, Warriors Mark Run,  
 Raystown Dam, Shavers Creek, Great Trough Creek, Standing Stone Creek, Shaver's Run,

5. How often does this flooding or disaster occur?

Juniata Basin Return Period Between Flood Stage Exceedence						
City	Stream	Flood Stage	Years	Years	Probability	Return Period
Huntingdon	Juniata	12'	64.3	10	0.16	6.43
Mapleton Depot	Juniata	20'	68.3	6	0.09	11.38
Shirleysburg	Aughwick	10'	15.3	16	1.05	0.96
Spruce Creek	Little Juniata	8'	67.58	65	0.96	1.04

Source: Mid Atlantic River Forecasting Center

Lower Susquehanna Basin Return Period Between Flood Stage Exceedences						
City	Stream	Flood Stage	Years	Years	Probability	Return Period
Harper Tavern	Swatara	9	94.8	152	1.6	0.62
Harrisburg	Susquehanna	17	84.33	30	0.36	2.81
Hershey	Swatara	7	37.33	45	1.21	0.83

Source: Middle Atlantic River Forecast Center

6. What is the amount of rainfall for each event?

6/7. **NOTE:** The stronger a rainfall's intensity (usually measured in inches per hour), the less frequently it is likely to occur. Similarly, a larger flood is expected to occur less often than a smaller one. Federal Flood-plain Management Regulations (44CFR§9.4) defines a "Base Flood" as one "which has a one percent chance of being equaled or exceeded in any given year." It continues: "This term is used in the National Flood Insurance Program (NFIP) to indicate the minimum level of flooding to be used by a community in its floodplain management regulations."

**Hydrology**- the volume of water moving down a channel-Include this information if at all possible, if available.

**Stream Flow Data**-Can be obtained from the Flood Insurance Study (FIS) Check the table's listed Peak

Discharges for 50 yr, 100 yr, & 500 yr flooding events, also add this information to spreadsheet (Acquisition)

HUNTINGDON	7/28/2000	Flash Flood	2.60	HUNTINGDON	1/6/2005	Flood	1.38
DAUPHIN	8/19/2000	Flash Flood	1.46	DAUPHIN	1/15/2005	Flood	1.89
DAUPHIN	12/17/2000	Flash Flood	3.12	BLAIR	3/28/2005	Flood	1.38
BLAIR	5/26/2001	Flash Flood	1.37	HUNTINGDON	3/28/2005	Flood	1.37
BLAIR	8/21/2001	Flash Flood	1.83	DAUPHIN	3/28/2005	Flood	1.51
BLAIR	7/25/2001	Flash Flood	1.64	DAUPHIN	3/29/2005	Flood	1.85
DAUPHIN	7/25/2001	Flash Flood	1.39	DAUPHIN	3/30/2005	Flood	1.85
HUNTINGDON	5/28/2002	Flash Flood	0.53	DAUPHIN	4/2/2005	Flood	2.10
HUNTINGDON	1/1/2003	Flood	1.30	DAUPHIN	4/3/2005	Flood	2.66
BLAIR	1/2/2003	Flood	1.45	HUNTINGDON	11/29/2005	Flood	0.50
HUNTINGDON	1/2/2003	Flood	1.30	HUNTINGDON	11/30/2005	Flood	1.72
HUNTINGDON	6/4/2003	Flood	1.66	DAUPHIN	6/25/2006	Flash Flood	3.95
BLAIR	6/9/2003	Flash Flood	1.85	DAUPHIN	6/26/2006	Flood	4.41
DAUPHIN	8/16/2003	Flash Flood	3.16	DAUPHIN	6/27/2006	Flash Flood	2.54
DAUPHIN	9/23/2003	Flash Flood	4.79	HUNTINGDON	6/27/2006	Flash Flood	1.12
DAUPHIN	9/23/2003	Flood	4.79	DAUPHIN	6/28/2006	Flood	4.12
BLAIR	9/27/2003	Flash Flood	1.78	DAUPHIN	8/1/2007	Flash Flood	0.07
HUNTINGDON	9/27/2003	Flash Flood	1.30	HUNTINGDON	3/4/2008	Flood	2.60
BLAIR	11/19/2003	Flash Flood	2.95	HUNTINGDON	5/28/2009	Flash Flood	1.09*
BLAIR	11/19/2003	Flood	2.95	BLAIR	6/28/2009	Flash Flood	0.36
HUNTINGDON	11/19/2003	Flash Flood	0.45	BLAIR	3/19/2010	Flood	0.97
HUNTINGDON	11/19/2003	Flood	0.45	HUNTINGDON	3/13/2010	Flood	0.97*
HUNTINGDON	11/20/2003	Flood	1.50	DAUPHIN	5/2/2010	Flash Flood	3.34
HUNTINGDON	12/11/2003	Flood	1.75	HUNTINGDON	5/23/2010	Flash Flood	0.62
DAUPHIN	12/11/2003	Flood	1.96	BLAIR	5/28/2010	Flash Flood	0.26
DAUPHIN	12/12/2003	Flood	1.93	DAUPHIN	6/12/2010	Flash Flood	1.94
BLAIR	5/21/2004	Flash Flood	2.95	BLAIR	12/1/2010	Flood	3.45
DAUPHIN	7/14/2004	Flash Flood	1.30	HUNTINGDON	12/1/2010	Flood	3.45*
DAUPHIN	7/22/2004	Flash Flood	1.84	BLAIR	3/10/2011	Flood	2.38
DAUPHIN	7/23/2004	Flash Flood	1.93	HUNTINGDON	3/10/2011	Flood	2.36*
DAUPHIN	8/1/2004	Flash Flood	2.04	DAUPHIN	3/10/2011	Flood	1.32
BLAIR	8/30/2004	Flash Flood	0.80	DAUPHIN	3/11/2011	Flood	1.98
BLAIR	9/8/2004	Flood	5.54	DAUPHIN	4/16/2011	Flash Flood	3.71
HUNTINGDON	8/8/2004	Flood	0.02	HUNTINGDON	4/16/2011	Flood	1.37*
BLAIR	9/9/2004	Flood	4.48	DAUPHIN	4/28/2011	Flash Flood	1.88
HUNTINGDON	9/9/2004	Flood	2.54	HUNTINGDON	5/3/2011	Flash Flood	0.26*
BLAIR	9/17/2004	Flood	5.28	DAUPHIN	8/6/2011	Flash Flood	6.92
HUNTINGDON	9/17/2004	Flood	0.88	DAUPHIN	8/7/2011	Flash Flood	8.43
DAUPHIN	9/17/2004	Flood	2.45	DAUPHIN	8/7/2011	Flood	8.43
HUNTINGDON	9/18/2004	Flood	4.54	BLAIR	9/8/2011	Flash Flood	0.90
DAUPHIN	9/18/2004	Flood	7.40	HUNTINGDON	9/27/2011	Flash Flood	1.03
DAUPHIN	9/26/2004	Flood	3.80	DAUPHIN	9/28/2011	Flash Flood	2.45
DAUPHIN	9/29/2004	Flood	2.58	HUNTINGDON	11/23/2011	Flood	1.86*
BLAIR	1/6/2005	Flood	1.85	DAUPHIN	6/22/2012	Flash Flood	0.85

Sources of Data: NOAA historical precipitation data & CoCoRaHS daily precipitation data by county ( PA rain gauges)  
 \*data from adjacent county

7. Give hydrology information. (See instructions for explanation)

Blair, Huntingdon, and Dauphin are all within the Ridge and Valley physiographic province of the Susquehanna River Basin. Blair and Huntingdon are characterized by steep slopes and fast responding streams. Dauphin while not as steep is largely urban and stream response is more rapid due to large impervious areas. The physical location of these counties makes them susceptible to tropical systems, short duration intense thunderstorms, and icejam flooding on the winter months.



**8. Where did your information come from? (Official records, newspaper articles, etc-attach a copy)**

Information collected and supplied in this application is a combination of agency records, media information, excerpts from county hazard mitigation plans and federal partner sources (National Weather Service, Mid Atlantic River Forecast Center, State College, National Climatic Data Center.)

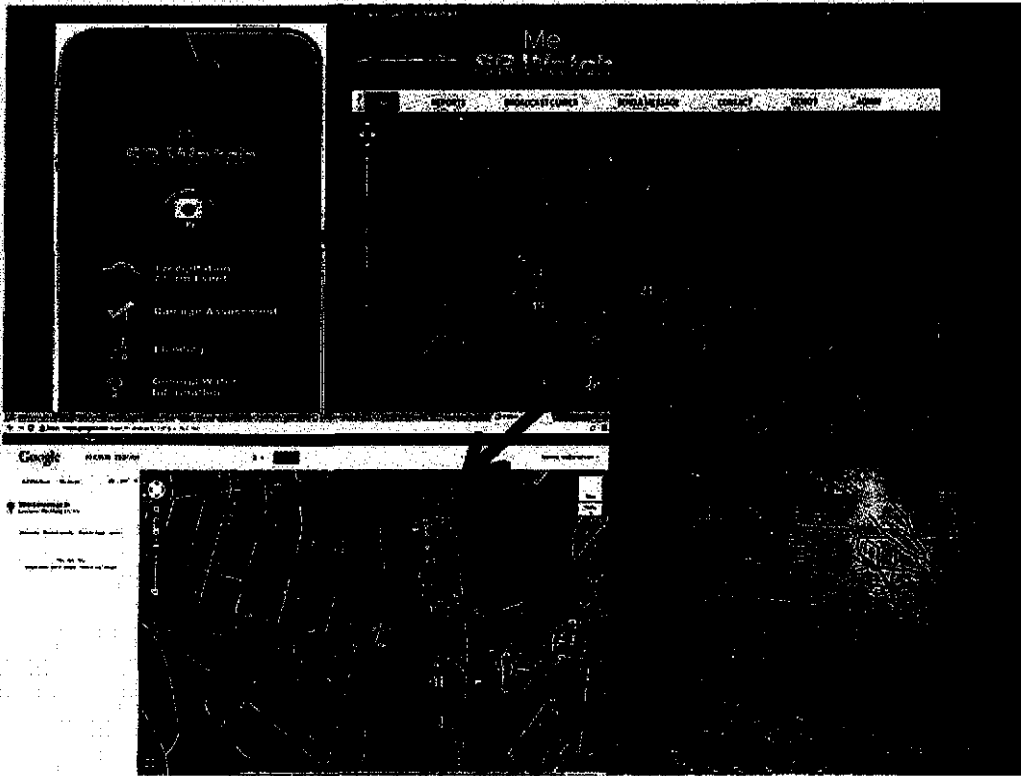
**B. Explain HOW you will do the project, include copies of plans, any appropriate shop drawings, equipment specifications and design criteria, etc.**

The project will commence with the acquisition of at least 12 "Style E" staff gages and Figure Plates and acquisition of at least 9 IP type IR cameras with cellular communication capability. A minimum of 3 locations in each of Huntingdon, Blair, and Dauphin will be identified and cameras will be installed at specified locations with staff gages in image field. Additional cameras may be installed as budget allows. Staff gages not installed with associated camera will be installed and monitored using SRWatch smartphone application. Communications will be established through cellular network or Wi-Fi as available and images will be provided from camera every 20 minutes via SRWatch platform.

The SRWatch Application will be installed on up to 20 additional smartphones. Users will be asked to provide "reports" daily of specific points of interest and more frequently during flood events. Staff gages not observed using a camera will be observed periodically during normal streamflow and more frequently during a flood event using the SRWatch app. Data from the staff gage reports will be manually cataloged within online database allowing for development of streamflow record. County partners in the project will work with SRWatch contractor to facilitate further development of damage assessment tool to facilitate recovery response following a flood event. Additionally the application will be developed to provide debris management capability.

While the primary objective of this project is to enhance flood warning capabilities the SRWatch platform provide hydrologic and environmental monitoring capabilities beyond enhanced flood warning. Building stream flow record with camera and periodic mobile observations will be useful in determining onset and management of drought conditions. As well the application can be useful in identifying and documenting hazardous conditions related to severe winter storms.

The image below displays the SRWatch platform and report capability.



C. Will the proposed project independently solve the problem? YES  NO \_\_\_\_\_ (If NO Explain)

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**IV. DETAILED PROJECT DESCRIPTION Continued**

D. Will the proposed project reduce future damage, hardship, affect emergency personnel or loss of life resulting from a major disaster. YES \_\_\_\_\_ (If yes - explain what will be affected and HOW, include \$'s)  
 What level of protection will this project provide? (What magnitude of a disaster?)

The proposed project will enhance forecast and warning capabilities thereby reducing property damage and protecting life.

E. For the CURRENT disaster describe all damages caused, give as many details as possible, include \$ amounts. (Acquisitions/elevations -include damage and \$ specifics for each structure and grand total \$)

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Grand Total \$ \_\_\_\_\_

F. For PREVIOUS disasters/events describe the damages to the project area. Do this for each occurrence.

**NFIP Total Claims Paid by County (1978 - 2012)**

County	Total Amount	Number of Claims	Number of Properties	Number of Policies	Total Amount Paid
<b>Blair</b>	\$ 1,088,311.00	1,290	\$ 182,629.00	1,011	\$ 6,919,943.00
<b>Dauphin</b>	\$ 4,251,465.00	3511	\$ 607,331.00	5229	\$ 85,217,871.00
<b>Huntingdon</b>	\$ 235,761.00	508	\$ 59,791.00	534	\$ 9,452,558.00

Source: FEMA National Flood Insurance Program BureauNet, at <http://bsa.nfipstat.fema.gov/reports/w2rhudrp.htm>,

**G. How many people and/or the number of homes, businesses, bridges, etc., will be protected by the proposed project.**

Many total # of people  
 Multiple residential properties  
 YES businesses/commercial properties  
 YES bridges PUBLIC \_\_\_\_\_ PRIVATE \_\_\_\_\_

YES public buildings  
 YES schools/hospitals/houses of worship

**H. Are you submitting this application at the direction of any agency?**

county                       State                       Federal

If "yes" give details: \_\_\_\_\_

**I. Indicate all hazards being mitigated in this project.**

Flooding                       Severe Winter Storms                       Drought                       Earthquake  
 Tropical Storm                       Extreme Temperatures                       Landslide                       Lightning Strike  
 Pandemic                       Sinkhole                       Wildfire                       Tornado/Wind  
 Environmental                       Transportation Accidents                       Urban Fire                       Utility Interruption

Other: \_\_\_\_\_

**J. Have there been any Public Meetings on this project? YES NO \_NO**

If Yes, when: \_\_\_\_\_

**V. PROJECT LOCATION**

**A. Describe in detail the location of your project, include it's topography and attach maps. (see attached)**

**B. In what Flood Zone(s) is your project located?**

AE or A 1-30                       A (No Base elevation given)                       No FIRM MAP (see maps below)  
 AO or AH                       B or X (Shaded)  
 Floodway                       C or X (Un-shaded)

**C. Flood Insurance Rate Map (FIRM) showing project site (To be supplied upon acceptance and final determination of camera installations)**

- Attach a copy of the panel(s) from the FIRM, and if available, the Floodway Map.
- Clearly mark the project site and all properties and structures.  
(For information on getting FIRMS see instructions)
- If FIRM is unavailable- attach a Flood Hazard Boundary Map (FHBM) and mark project site/properties.
- Is a D-FIRM available? NO

**D. MAPS--City, County, Topography and Parcel (See Attached)**

Attach a copy of the following & clearly mark the project site, and place the specific project structure(s) on map(s).

- City or county scale map large enough to include entire project site.
- USGS 1:24,000 Topo Map with project marked and showing all.
- "Quad Map" also marks project area.

For Acquisition and Elevation Projects, ADD a copy of:

- Parcel Map (also called Tax Map, Property Identification Map, etc).
- Map should include Tax ID numbers for each parcel.
- Mark each structure on the maps.

**E. LATITUDES and LONGITUDES - Digital (See Attached Maps)**

- Please provide digital latitudes and longitudes for your project site. (Can also add to maps)  
Acquisition and Elevation Projects - digital latitudes and longitudes for each property (see Addendum 2-spreadsheet)

**F. PHOTOGRAPHS Please include: (Digital)**

- **Structural/Earthquake Projects:**

- **2 Photos minimum streetscape views- should be representative of project area, include any relevant waterways and drainage area which affect the project. If any structures are included, do as below**



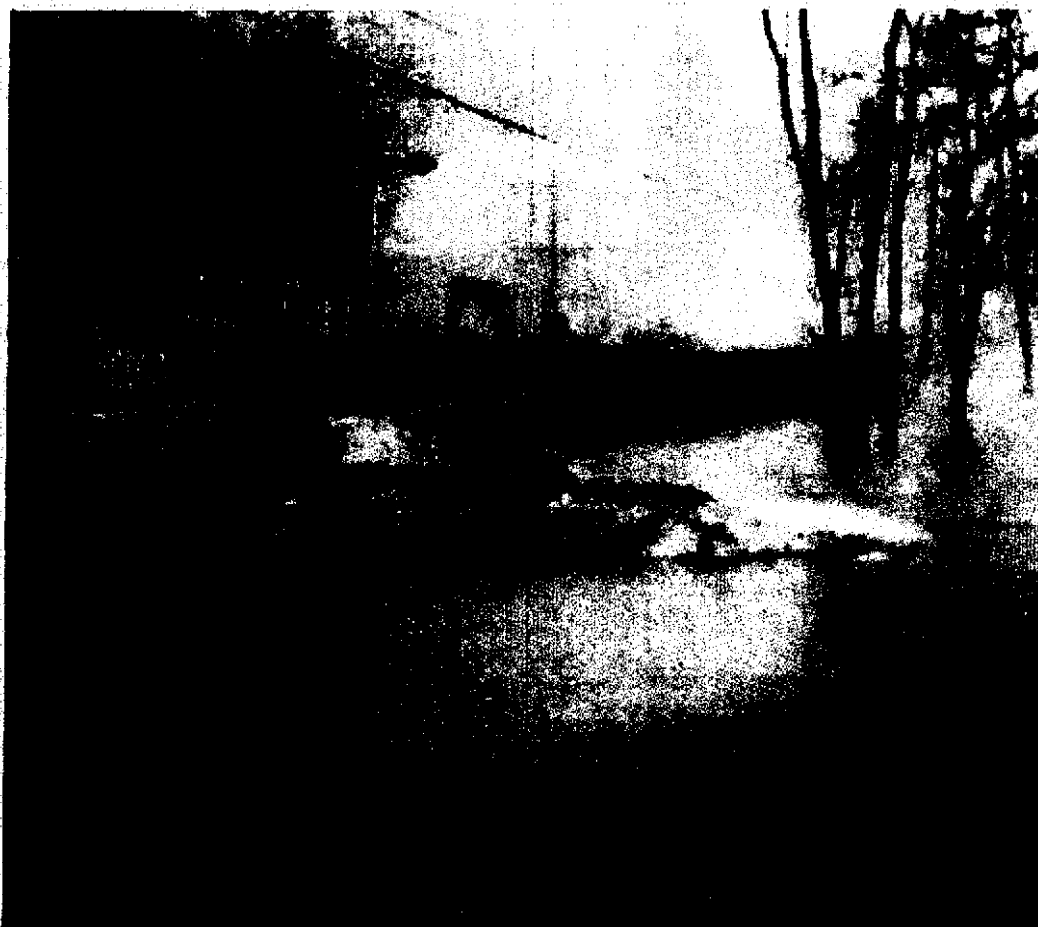
Shavers Creek @ Petersburg (pic post flooding from 2004, bridge has been replaced)



Shoup's Run @ near Coalmont (pic post flooding from 2004)



**Little Juniata @ Huntingdon looking upstream**



Standing Stone Creek @ McAlevy's Fort (pic post flooding from 1993, bridge has been replaced) This point is affected also by Laurel Run and East Branch Standing Stone Creek.



**G. SUBSTANTIALLY DAMAGED PROPERTIES (SDP) - Acquisition Projects Only**

- Attach SDP Form for each substantially damaged structure. (damages 50% or more)
- Name of body of water that is flooding the properties. \_\_\_\_\_

**H. DIRECTIONS**

- Provide detailed directions to project
- Acquisition and elevation projects- Provide directions to each property.  
 --- Don't forget! Add a list of all names and addresses of all properties included in this project to your submittal cover letter.

*Huntinton and Blair counties are accessible from the PA Turnpike (I-76) and US Rte 322*

*Dauphin County is accessible from the PA Turnpike(I-76) and I-83*

**VI. COST ESTIMATES- (Budget Page)**

**A. Specific cost breakdown of total funds required to complete the project:**

Federal share:	\$	<u>91,500.00</u>	This will be 75% of the project cost
State share		<u>24,400.00</u>	(This information will be provided by PEMA if applicable)
Applicant share		<u>6100.00</u>	Source: SRBC
Other non-Federal share		_____	Source: _____
<b>Total**</b>	<b>\$</b>	<b><u>122,000.00</u></b>	

**\*\*This figure is to be entered in OVERALL PROJECT INFORMATION on the front page of this application.**

**B. Cost breakdown of Project costs:**

Engineering/Design (Contracted)	\$	<u>50,000</u>	Date this estimate was prepared: <u>02/26/2013</u>
Camera/Communications		<u>42,000</u>	
Staff Gages		<u>15,000</u>	
Project Management *		<u>10,000</u>	
Other (specify):		_____	
<u>Contingency</u>		<u>5000</u>	
_____		_____	
_____		_____	
<b>Total**</b>	<b>\$</b>	<b><u>122,000</u></b>	

\* NEW All management costs must now be listed here

\*\*This figure must be the same as the "Total" above)

**B. 1. NEW- Text explaining each of the line items.**

**Engineering/Design – Costs incurred under this line item will include all development cost for smartphone application and digital data collection form camera installation. These tasks will be accomplished by contractor.**

**Camera/Communications – Costs incurred in this line item will cover all equipment costs and data communications for 24 months.**

**Staff gages – Costs incurred will cover purchase, permissions, and installation of staff gages at selected bridge locations.**

**Project Management – Costs incurred will include contract administration, project management, and travel as necessary**

**Contingency – Costs incurred will include fees and unforeseen additional costs.**

**C. Continuing (maintenance\*) costs: (DO NOT ADD TO ABOVE) (For 1 year after project is completed)**

Data Communications	\$	<u>6000.00</u>
Equipment support		<u>2500.00</u>
Materials/supplies		<u>1000.00</u>
Other: _____		
Total	\$	<u>9500.00</u>

**D. Who will be responsible for and provide/perform the future maintenance? SRBC**

**Has the Maintenance Agreement Certification letter been signed? YES NO X**

**\* Attach a ONE year schedule; show each of your maintenance activities and their costs.**

**VII. COST AND BENEFIT ANALYSIS- Provided by PEMA**

**VIII. DISCUSSION OF ALTERNATIVES- (Must have Three)**

The Hazard Mitigation Grant Program regulations require that the project "Has been determined to be the most practical, effective and environmentally sound alternative after consideration of a range of options."

- A. For each alternative be specific, be accurate, and give complete information and explain what would happen if this alternative is chosen.**

**(One of the alternatives may be the "do nothing" alternative, explain what will happen if this was chosen.)**

**First Alternative: (Your proposed project)**

Provide flood warning system for Blair, Huntingdon, and Dauphin Counties using a combination of digital camera installations and smartphone technology.

**Second Alternative:**

Conduct this project without using automated reporting features, capitalizing only on human observation. This will limit night-time monitoring capabilities and place the reported at physical risk of proximity to the flooding to obtain the information, and in some cases this alternative will be completely ineffective if the site cannot be accessed at all due to regional flooding.

**Third Alternative:**

Do nothing. This alternative ensures that no advanced warning will be installed for protection of life and property of county citizens.

- B. Why did you choose the proposed alternative over the others?**

The proposed alternative affords the affected communities the greatest level of advanced warning and provides emergency management with the technology to adequately respond to flood emergencies within the affected communities.

- C. Acquisition Projects Only- How will the acquired land be used after the project is completed?**

- D. Acquisition Projects only--Who will maintain the acquired land in perpetuity?**

**Attach the NEW- signed Maintenance Agreement Certificate**

**IX. PROJECT WORK SCHEDULE- 36 months Total**

• ~~To do this part see the Addendum for the type of project you are proposing.~~

- A. List the steps or activities of the project and the estimated time frame for each, from the beginning to the end of the project.
- B. See corresponding addendum for your project type for a work schedule example -- modify it to your project.

~~Use the following project schedule as a guide to the schedule when submitting your project reports.~~

<b>Purchase all necessary equipment</b>	<b>1-2 Months</b>
<b>Obtain necessary permissions/permits to install staff gages and cameras (To coincide with purchase)</b>	<b>1-2 Months</b>
<b>Install staff gages and cameras</b>	<b>1-2 Months</b>
<b>Develop damage assessment, debris management, and Camera reporting algorithm</b>	<b>3-6 Months</b>
<b>Monitor, evaluate, and adapt technology Final inspection</b>	<b>18-24 months</b>
<b>Completion of Project</b>	<b>1-2 Months</b>
<b>Project Closed</b>	<b>No later than 36 months</b>

**X. ENVIRONMENTAL AND HISTORICAL REVIEW & INFORMATION**

**1. ENVIRONMENTAL ISSUES**

A. Please check ALL that apply to your project:

100 Year floodplain	<u>  X  </u>	Stream, creek	<u>      </u>	Intermittent pond
Floodway	<u>  X  </u>	Mudflats	<u>      </u>	<u>      </u>
Runoff	<u>      </u>			Lake, pond
Wetlands	<u>      </u>	OTHER (Explain)	<u>      </u>	<u>      </u>
River	<u>      </u>	Intermittent stream	<u>      </u>	

B. Will the project impact (flood, drain, excavate, dredge, fill or otherwise affect) wetlands?

Yes        No   X   Uncertain        If "yes" explain:       

C. Are you aware of any hazardous materials or substances located on the project site or properties?

YES        NO   X   Unknown       

(If yes, add a separate attachment describing the hazardous material - MSDS sheet, Community's answer)

- Also attach a Hazardous Material Survey Form (MSDS) for each property, completed and signed by the property owner.

**2. HISTORICAL ISSUES**

A. Please check all that describe your project site(s). (Read carefully.)

[If Acquisition or Elevation, in addition to below, - See Addendum 2 and Complete one "Historical Property Evaluation Form" per structure, 50 years and older]

Please indicate ALL, SOME, or NONE for the following:

1. 50 years or older   NONE
2. Located IN Historic district   SOME
3. On the National Registry   SOME
4. Near a historical PROPERTY   SOME
5. Near a historic DISTRICT   SOME
6. Property/neighborhood reviewed for National Registry Listing   NO

B. If on Registry or IN a district, please give its official name and the agency which designated it.

C. Has a survey to locate archeological sites and/or historic structures been carried out on the property?

Yes        No   X   If "yes" explain:       

Date of survey:       

Name of firm:       

Is a report on file with the State Historic and Museum Commission? YES NO   X  

If YES, Was any historic property located? YES NO       

~~\_\_\_\_\_~~

**3. ENVIRONMENTAL JUSTICE**

A. Will project have any adverse affects on the low to moderate income population? YES NO NO

B. Will the project have any adverse affect on a minority population? YES NO NO

- Be sure your Local Review & Compliance Letter is attached to document these answers.

C. Was a public meeting held? YES NO \_\_\_\_\_

- If yes, please attach a description of the public participation and include public review of the mitigation options. (Add copy of AD, news articles, minutes, etc)

**XI. PROJECT COMPLIANCE ASSURANCES**

**A. Code Compliance**

1. Will the project meet all applicable codes and standards for the project location, such as building, plumbing & electrical codes, public notification, bidding and contracting, etc. YES NO YES

a. If NO, what specifically does the project require and why does the project require it.  
(Example: Project requires a \_\_\_\_\_ variance due to .....)

2. Have any permits been applied for or granted in relationship to this project? YES NO NO

If yes list: \_\_\_\_\_

**B. Regulatory Compliance**

1. Will project comply with ALL Federal, State and Local laws and regulations including but not limited to the following;

- Applicable Health Codes YES NO YES
- Water & Air Quality YES NO YES
- Wetland Management YES NO YES
- Floodplain Management YES NO YES
- Other Regulatory Requirements YES NO YES

**C. National Flood Insurance (NFIP)**

1. Is the Community a participant in NFIP in good standing? YES NO YES (Info to front Page)

2. Is proposed project located in a designated floodway? YES NO YES

3. Is proposed project located in a designated floodplain? YES NO YES

4. Is this designated on a FEMA Flood Insurance Rate Map (FIRM): YES NO YES

If so, FIRM Panel Number, Zone, and Designation: 4217000015c AE Floodway

NFIP Community ID Number: 421700 (copy info to Front page)

5. Is there a D-FIRM Available? YES NO NO

6. Does this Community participate in CRS? YES NO YES (Info to front page)

**D. Voluntary Participation-----Acquisition Projects Only**

1. Are all property owners voluntary participants? YES NO  
- Be sure you attached "Voluntary Participation Agreement" forms (VPA's). One per deeded property.

**E. Mitigation 322 Plan**

1. Does your municipality have an approved Sub-grantee Multi-hazard Mitigation Plan (322 Plan)?  
YES NO YES  
2. Which Goal/objective does this project address? \_\_\_\_\_ (document)  
3. Has your proposed project been identified in this adopted/approved plan?  
YES NO YES

(Attach plan page where this project is listed)

I certify all information in this application to be true, correct and complete to the best of my knowledge.

Applicant's Agent Signature:



Date: 3/1/2013

**If you do not understand any part of this application, contact PEWA immediately. Waiting may cause your application to be untimely and therefore ineligible.**

**Please check the following Addendums corresponding to your project type.  
& Attach all Pertinent Information**

- Addendum 1- Phased Projects, emergency work, and already completed work**
- Addendum 2- Acquisitions- More specific information will be needed (Don't miss the Spreadsheet)**
- Addendum 3- Elevations -More specific information will be needed**
- Addendum 4- Structural & Earthquakes**
- Addendum 5- Others; Plans/Education, Equipment**

## **ADDENDUMS**



