



Figure D - 1

Project Number	Mitigation Measures		Description/Action Items	Hazard Vulnerability	Benefit and Prioritization			Implementation Schedule	Funding	Responsibility	Estimated Cost
	Category				Impact (1-5)	Benefit (1-5)	Score				
1	Emergency Services		Create and maintain a web-based inventory of the County's special needs population to strengthen emergency response and evacuation operations.	All Hazards	3	5	15	SCMCTTF, Act 165	SCEMA	\$15,000 - \$20,000	
2	Emergency Services		Ensure all applicable private industrial, commercial, and public utility service providers have a current Environmental Emergency Response Plan per the Federal Clean Water Act, the Pennsylvania Clean Streams Law (35 P.S. §§991.1-691.1001), the Pennsylvania Solid Waste Management Act, the Pennsylvania Storage Tank Act, the Oil Pollution Act and regulations promulgated there under.	Hazardous materials	1	3	3	Annual	Annual work program and operating budget	SCEMA, Private Sector	TBD
3	Emergency Services		Update the Snyder County EOP to be consistent with the National Response Plan.	All Hazards	4	5	20	2006 - 2007	PEMA EMPG	SCEMA	\$25,000 - \$30,000
4	Emergency Services		Implement a countywide electronic damage assessment management tool to increase the efficiency of county and municipal damage survey and reporting.	All Hazards	5	5	25	2006 - 2007	PEMA EMPG	SCEMA	\$4,000 - \$5,000
5	Emergency Services		Strengthen the County's domestic animal health surveillance by familiarizing the Snyder County agricultural community with the list of reportable diseases and conditions related to animal health per the Office of International Epizootics (OIE) and the Pennsylvania Domestic Animal Act (Act 100 of 1996).	Public health	3	3	9	Annual	Annual work program and operating budget	SCEMA, PSU County Extension Agency, PDA	TBD
6	Emergency Services		Continue to work with the Pennsylvania Department of Health and the Pennsylvania Emergency Management Agency to implement a Strategic National Stockpile Plan for Snyder County and the South Central Mountain Counter Terrorism Task Force.	Public health	4	5	20	Ongoing	Centers for Disease Control and Prevention	DOH, PEMA, Seven Mountains EMS Council	\$50,000
7	Emergency Services		Maintain the County's Commodity Flow Study to ensure the County LEPC, first responders, and local officials understand the types, frequencies, and amounts of hazardous materials being transported through its borders.	Hazardous materials	2	2	4	Every 5-years to coincide with HMP maintenance cycle	PEMA EMPG, Act 165	SCEMA	\$25,000 - \$30,000



Project Number*	Mitigation Measures		Snyder County Multi-jurisdictional Hazard Mitigation Plan Non-Structural Mitigation Measures					Implementation		Estimated Cost
	Category	Description/Action Items	Hazard Vulnerability	Impact (1 - 5)	Benefit (1 - 5)	Score	Schedule	Funding	Responsibility	
8	Emergency Services	Ensure the County's Standardized Street Addressing Project is completed and maintained to support accurate and timely emergency response.	All	5	5	25	Ongoing	Act 78 of 1990 (as amended by Act 17 of 1998 and Act 56 of 2003)	SCEMA	TBD
9	Emergency Services	Ensure all County GIS staff receives regular HAZUS training from EMI.	All	1	2	2	As needed	Annual work program and operating budget	SCEMA	TBD
10	Emergency Services	Develop and maintain a GIS dataset of all municipal TOPs and ACPs for evacuation route planning.	All	2	2	4	Quarterly training	Annual work program and operating budget	SCEMA	TBD
11	Emergency Services	Continue to participate in the Wyoming Valley Levee Raising project through Luzerne County and the USACE.	Flooding	4	5	20	Ongoing	Luzerne County and USACE	SCEMA	Based on specific project costs
12	Emergency Services	Continue to work with the County's agricultural community to develop and implement the County Animal Response Team (CART) to strengthen the County's comprehensive emergency management program.	All Hazards	2	4	8	Ongoing	Annual work program and operating budget	SCEMA, Union County EMA, PSU Extension Agency, and PDA	TBD
13	Emergency Services	Prepare a countywide Emergency Communications Procedures Manual (ECPM) to establish a consolidated and uniform set of communications policies and procedures for Snyder County's fire, EMS, and police services.	All Hazards	4	4	16	2007	SCMCTTF	SCEMA	\$10,000
14	Mitigation Measures	Integrate the 5-year maintenance cycle of the Hazard Mitigation Plan with both the 10-year and biennial review and maintenance cycles of the County Comprehensive Plan and County Regional Emergency Operations Plan, respectively (see Plan Maintenance Process Section of the HMP).	All Hazards	4	5	20	See Figure 5-1	PDM, LUPTAP, SMSG, General Fund, EMPG	County Commissioners, SCEMA, SCPC, HMPO	TBD
15	Natural Resources Protection	Prepare Act 167 Storm Water Management Plans for the DEP-designated storm water management watersheds draining Snyder County.	Flooding	2	4	8	2007 - 2010	DEP Act 167	County Commissioners, SCPC, County Conservation District	\$150,000 - \$250,000
16	Natural Resources Protection	Prepare and enact storm water management ordinances consistent with Act 167 Storm-water Management Plans.	Flooding	4	4	16	2009 - 2013	DEP Act 167	SCPC, Local elected officials	TBD



Project Number*	Mitigation Measures		Snyder County Multi-jurisdictional Hazard Mitigation Plan Non-Structural Mitigation Measures					Implementation		Estimated Cost
	Category	Description/Action Items	Hazard Vulnerability	Impact (1 - 5)	Benefit (1 - 5)	Score	Schedule	Funding	Responsibility	
17	Natural Resources Protection	Ensure County and municipal subdivision and land development ordinances are consistent with Chapter 102 Erosion & Sedimentation Control requirements.	Flooding	2	4	8	Ongoing	Annual work program and operating budget	SCPC	TBD
18	Natural Resources Protection	Develop a countywide greenway plan as an integral part of the County Comprehensive Plan update to manage development and its encroachment on floodplains, and impact on riparian buffers and stream corridors.	Flooding	2	2	4	2011	LUPTAP, SMSG	County Commissioners, Susquehanna Greenway Partners	TBD
19	Preparedness	Consider adopting a county-wide post-disaster recovery and reconstruction ordinance using the model ordinance included in the APA/FEMA PAS Report No. 483/484.	All Hazards	3	4	12	2006 - 2007	SMSG, EMPG	Snyder County Commissioners	\$10,000 - \$15,000
20	Preparedness	Consider implementing a circuit-riider program to staff and fund a full-time county engineer that would be shared by both the county and participating municipalities to provide technical reviews of municipal subdivision and land development plans, conduct bridge inspections, and perform routine and emergent municipal engineering inspections/reviews.	Hazard Vulnerability	5	5	25	2006 and ongoing	SMSG and annual operating budget(s)	County Commissioners, Local elected officials	\$40,000 - \$50,000 (annual salary)
21	Preparedness	Work with the Chambers of Commerce to encourage all business owners to prepare and implement a Business Continuity Plan to provide safeguards against business activity interruptions.	All Hazards	5	2	10	Quarterly training	Annual work program and operating budget	SCEMA, County Commissioners	TBD
22	Preparedness	Consider preparing and implementing a countywide floodplain ordinance to provide consistent enforcement and compliance of municipal floodplain management regulations under the Central Keystone COG's Building Permit approval process. Ensure such an ordinance meets or exceeds the minimum requirements of the NFIP program.	Flooding	5	5	25	2006 - 2011	LUPTAP, SMSG	SCPC, County Commissioners, Local elected officials, Central Keystone COG	\$25,000 - \$50,000
23	Preparedness	Conduct a thorough critical facilities vulnerability assessment and impact analysis using the HMP's GIS-based critical infrastructure inventory.	All Hazards	5	5	25	2007 - 2008 and update concurrently with the HMP 5-year maintenance cycle	Annual work program and budget	SCEMA, SCPC, Local elected officials	TBD



Project Number*	Mitigation Measures		Snyder County Multi-jurisdictional Hazard Mitigation Plan Non-Structural Mitigation Measures					Estimated Cost		
	Category	Description/Action Items	Hazard Vulnerability	Benefit (1 - 5)	Impact (1 - 5)	Score	Implementation Schedule		Funding	Responsibility
24	Preparedness	Prepare and implement a Continuity of Government Plan for Snyder County.	All Hazards	3	4	12	2007	SCMCTTF	County Commissioners	\$25,000 - \$30,000
25	Preparedness	Maintain a countywide capital improvements plan to program, schedule, prioritize, and budget both county and municipal capital improvements.	All Hazards	3	5	15	5-year plan with annual reviews	Annual work program and operating budget	County Commissioners and Local elected officials	TBD
26	Preparedness	Obtain first floor flood elevation data for the county's inventoried critical infrastructure and intersect this information with the base flood elevations to identify high risk facilities and formulate mitigation strategies.	Flooding	4	5	20	2007 - 2011	Annual work program and operating budget	Recommended County Engineer Circuit Rider	TBD
27	Property Protection	Evaluate and refine the County's repetitive loss structures list by ranking properties based on the number of losses and the value of the claims paid and target the priority properties for buyout opportunities.	Flooding	5	5	25	Ongoing	FEMA's Flood Mitigation Assistance program (FMA), the Pre-Disaster Mitigation (PDM) program, and the Hazard Mitigation Grant Program (HMG).	County Commissioners, SCEMA, SCPC, HMPO, and Local elected officials	TBD
28	Property Protection	Maintain a list of repetitive loss structures from the Governor's Center for Local Government Service's NFIP Coordinator and incorporate the data into the County's Hazard Mitigation Planning project.	Flooding	3	5	15	Ongoing	Annual work program and operating budget	SCEMA, SCPC, County GIS, County HMPO	TBD
29	Property Protection	Encourage the County's National Flood Program communities to participate in the NFIP Community Rating System (CRS) and attain discount opportunities on flood insurance premiums.	Flooding	5	5	25	Quarterly training	Annual work program and budget	SCEMA, SCPC, County Commissioners, Local elected officials	TBD
30	Public Information	Maintain the County's Hazard Mitigation Planning GIS datasets and disseminate the information to municipalities through ESRI's free ArcGIS Explorer software.	Flooding	3	5	15	Ongoing	Annual work program and operating budget	SCEMA, County GIS	TBD
31	Public Information	Review and approve the Snyder County DFIRM information and incorporate the data into the Snyder County GIS. Distribute the approved DFIRM data to all Snyder County municipalities in electronic and/or hard copy format.	Flooding	5	5	25	2006	Luzerne County and USACE	SCEMA, SCPC, County Commissioners, Local elected officials	TBD



Project Number*	Mitigation Measures		Snyder County Multi-jurisdictional Hazard Mitigation Plan Non-Structural Mitigation Measures					Implementation		Estimated Cost
	Category	Description/Action Items	Hazard Vulnerability	Impact (1 - 5)	Benefit (1 - 5)	Score	Schedule	Funding	Responsibility	
32	Public Information	Collaborate with the DEP Bureau of Radiation Protection to ensure the State's Radon Awareness Campaign and public service announcements are disseminated throughout Snyder County.	Radon	2	3	6	Ongoing, Quarterly Training	Annual work program and operating budget	SCEMA, SCPC, DEP	TBD
33	Public Information	Maintain and disseminate a list of DEP-certified radon testers, mitigators, and laboratories (current lists are available through DEP at http://www.dep.state.pa.us/dep/deputate/airwa ster/rp/radon_DivisionRadon_Homepage.htm)	Radon	2	2	4	Ongoing, Quarterly Training	Annual work program and operating budget	SCEMA	TBD
34	Public Information	Incorporate the County's Flood Warning and Response System (FVRS) Procedures into Emergency Support Function 2 (Communications and Warning) of the County's Regional EOP.	Flooding	4	5	20	2006	Annual work program and operating budget	SCBMA	TBD

* Does not denote priority



Figure D-2

Snyder County Multi-jurisdictional Hazard Mitigation Plan												
Project Number	Mitigation Measures		Hazard Vulnerability	Benefit and Prioritization					Score	Funding	Total Cost	
	Applicant	Project Description		Mitigation Objective	Importance (1-5)	Impact (1-5)	Supports County Plan (0-1)	Supports Reg (0-1) HMP (0-1)				Supports State HMP (0-1)
1	Beaver Township	The existing 36" diameter galvanized steel pipe currently is inadequate for flood waters and overtops the township roadway and damages the culvert, roadway, and abutting private property during periods of flooding. The pipe is over Lupters Run access road to Beavertown Borough's water treatment system.	Greatly improve the structural and hydraulic capacity of the culvert pipe during flooding events and to keep from the repeating flooding over the roadway and the destruction of the culvert and the roadway.	Flooding	3	3	0	1	0	7	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program, DHS - Core Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$40,000
2	Beaver Township	Construct reinforced concrete headwalls on the existing twin 48" diameter PE smooth bore plastic culvert pipes on inlet and outlet ends. Also provide a bituminous paving of the shoulders areas at each new headwall and wing walls.	Greatly improve the structural and hydraulic capacity of the existing twin culvert pipes during flooding events and to keep from the repeating flooding over the roadway and the destruction of the culvert and the roadway.	Flooding	2	2	0	0	0	4	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program, DHS - Core Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$20,000
3	Beaver Township	Replacing the existing inadequate 5 foot diameter galvanized steel pipe with a 67" x 95" galvanized metal squash pipe (equivalent 7 foot diameter) 40 foot in length and construct new reinforced concrete headwalls and wing walls on the new culvert pipe on inlet and outlet ends. Also provide for bituminous paving of the shoulders areas at each new headwall and wing wall.	Greatly improve the structural and hydraulic capacity of the existing twin culvert pipes during flooding events and to keep from the repeating flooding over the roadway and the destruction of the culvert and the roadway.	Flooding	2	2	0	0	0	4	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program, DHS - Core Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$50,000



Snyder County Hazard Mitigation Plan

Appendix D - Hazard Mitigation Measures Tables

Snyder County Multi-jurisdictional Hazard Mitigation Plan												
Mitigation Measures			Benefit and Prioritization					Structural Mitigation Measures				
Project Number	Applicant	Project Description	Mitigation Objective	Hazard Vulnerability	Importance (1-5)	Impact (1-5)	Supports County Comp. Plan (0-1)	Supports Regional HMP (0-1)	Supports State HMP (0-1)	Score	Funding	Total Cost
4	Beaver Township	Construct new reinforced concrete headwalls and wing walls on the existing twin 24" diameter PE smooth bore plastic pipes on the inlet and outlet ends. Also provide the bituminous paving of the shoulders areas at each new headwall and wing walls.	Greatly improve the structural and hydraulic capacity of the existing twin culvert pipes during flooding events and to keep from the repeating flooding over the roadway and the destruction of the culvert and the roadway.	Flooding	2	2	0	0	0	4	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program, DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plan Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$18,000
5	Beaver Township	Purchase base and portable radio to keep in contact with the 911 center.	Would help the supervisors keep in touch with the 911 center during an emergency.	All	0	0	0	0	1	1	DCED - ERR, LGCPL, LMRDP, DHS - Public Assistance Grants	\$3,000
6	Beaver Township	Purchase a portable generator to provide electricity during a power failure.	Provide electricity to township shed which would enable trucks to be started during cold weather and provide electricity for radio communication.	Power Failure	2	2	0	1	1	6	DCED - ERR, LGCPL, LMRDP, DHS - Public Assistance Grants	\$4,500
7	Center Township	Pave ditch to ditch on Bowersox, Salem Church, Scholl, and Bickel Roads and head walls along Kerr Road.	These are roads that create a possible flood problem. By the methods used in the project description, it should eliminate the problem.	Flooding	0	0	0	0	0	0	DCED - Floodplain assistance program, Infrastructure and facilities improvement program; DHS - Pre-disaster mitigation, Flood mitigation assistance; Army Corp - Floodplain management services.	\$76,000
8	Middleburg Borough	Stumps Run is a major contributor to the flooding of many homes and businesses in the north end of the borough. Each time there is a flood, the banks of the run are drastically eroded which adds to the destruction during each consecutive flood. The proposed area of rehabilitation might be around 3,000 feet in length. East Market Street Bridge, crossing Stumps Run should be replaced by a much higher and wider structure to accommodate the flooding situation.	The banks of Stumps Run are in drastic need of being rebuilt and raised and then lined with large stone (or whatever is determined most appropriate) in an effort to retain the walls during future floods. This run floods even during and following heavy rains that do not cause flooding of larger streams. Many homes and businesses are affected each time Stumps Run overflows its banks.	Flooding	5	2	0	1	0	8	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Bridge Alteration, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance, Army Corp - Flood Plan Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$1,000,000



Snyder County Hazard Mitigation Plan

Appendix D - Hazard Mitigation Measures Tables

Snyder County Multi-jurisdictional Hazard Mitigation Plan Structural Mitigation Measures													
Project Number	Applicant	Mitigation Measures		Hazard Vulnerability	Benefit and Prioritization			Supports County Comp. Plan (0-1)	Supports Regional HMP (0-1)	Supports State HMP (0-1)	Score	Funding	Total Cost
		Project Description	Mitigation Objective		Importance (1-5)	Impact (1-5)							
9	Middleburg Borough	It seems as though logically, if an appropriate sized and type of dam was constructed on Middle Creek prior to the water reaching the Borough much of the flooding of homes and businesses within the borough could be completely eliminated. This would have to go in conjunction with the rehabilitation of Stumps Run project.	The thought being if Middle Creek was kept at a lower flood level, as it flowed through Middleburg borough, Stumps Run would possibly not back up as bad. Plus, it would reduce the back up into homes and businesses. Engineers should take a look at the possibilities of upgrading the older existing dams already in place that create Faylor and Walker Lakes.	Flooding	0	0	0	0	0	0	0	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program, DHS - Core Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	not determined
10	Middleburg Borough	A culvert pipe running from the south side of Route 522 under the roadway emptying on the north side of Route 522 (along North Creamery Avenue) needs to be enlarged and extended so it can safely dump into Middle Creek. Currently the pipe is too small creating a dangerous situation that generates excessive currents that could suck in a small child or animal. The flow then erodes the edge of the roadway, travels through a business parking lot into a field severely eroding everything in its path.	A larger culvert pipe needs to be properly installed on the north side of Route 522 traveling along the side of Creamery Avenue through a field and dumping into Middle Creek.	Flooding	1	1	0	0	0	0	2	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program, PennDOT; DHS - Core Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$50,000
11	Middleburg Borough	Storm water travels down West Willow Avenue spreading into neighboring residents' yards as well as eroding farm land.	A larger culvert pipe should be installed that travels from Route 522 along West Willow Avenue to Furnace Road. The storm water culvert pipe could connect to an existing pipe that dumps into the boroughs man made pond. This would alleviate the flooding of many neighborhood yards and basements as well as resolving the erosion of the farmers fields.	Flooding	1	1	0	0	0	0	2	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program, DHS - Core Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$100,000



Snyder County Hazard Mitigation Plan

Appendix D - Hazard Mitigation Measures Tables

Snyder County Multi-jurisdictional Hazard Mitigation Plan											
Mitigation Measures			Benefit and Prioritization					Funding			
Project Number*	Applicant	Project Description	Mitigation Objective	Hazard Vulnerability	Importance (1-5)	Impact (1-5)	Supports County Comp. Plan (0-1)	Supports Regional HMP (0-1)	Supports State HMP (0-1)	Score	Total Cost
12	Shamokin Dam Borough	Construct an approximate 125 foot wide x 20 foot high earth levy from the existing abandoned railroad bed to the RWPS. Heights shall be above the 100 year flood elevation.	The access to our RWPS during flooding conditions is limited by boat only, which is dangerous to our personnel. The boat must be launched into the Susquehanna River. The RWPS is the sole pumping source for our community's drinking water. Access by land would make a much safer condition as well as ease in maintenance during flood conditions.	Flooding	2	2	0	0	0	4	\$23,000
13	Spring Township	This project involves implementation of good management practices and restoration practices to improve stream bank stability, to restore channel equity, of a 70 foot section east of SR 235 and 250 west of SR 235 of Swift Run. Placement of a rip/rap, other materials and/or Gabion baskets is proposed.	Implementation of this project would aid in the stability of stream banks, allow clear flow of creek waters, minimize flooding of residential areas, and control the annual threat of flooding of agricultural buildings along the total of 320 foot section of Swift Run.	Flooding	5	2	0	1	0	8	\$5,000
14	Spring Township	This project involves implementation of sound management practices and restoration methods to improve stream bank stability to restore channel equilibrium within a 200-foot section of Beaver Creek. Placement of rip rap and/or Gabion Baskets is proposed.	Implementation of this project would aid in the stability of stream banks, help restore channel equilibrium, and prevent flooding along a 200-foot area of Beaver Creek. The flooding of the near by residential area and structures is caused by the partial removal of the Railroad bed, years ago, which served as a dike.	Flooding	5	2	0	1	0	8	\$2,300



Snyder County Multi-jurisdictional Hazard Mitigation Plan												
Mitigation Measures		Benefit and Prioritization					Structural Mitigation Measures					
Project Number	Applicant	Mitigation Description	Mitigation Objective	Hazard Vulnerability	Importance (1-5)	Impact (1-5)	Supports County Comp. Plan (0-1)	Supports Regional HMP (0-1)	Supports State HMP (0-1)	Score	Funding	Total Cost
15	Washington Township	PTO generator to be used at the township shed (evacuation center) and as needed elsewhere in the county during emergencies. 27,500 Watt generator - trailer and diveshaft.	Power failure - to power the township building during an emergency or during evacuations. Also to be used at farms and other businesses during an emergency. Unit to be portable on a trailer. Tractor to be supplied by the township. Could also be shared by other municipalities if needed.	Flooding	2	2	0	1	1	6	DCED - ERR, LGCPL, LMRDP, DHS - Public Assistance Grants	\$3,000
16	Washington Township	Large snow blower to fit the front of our 6 wheel drive Motor Grader.	To aid in the removal of deep snow during large snow events and the drifting that can occur. Would clear the way for not only emergency vehicles but also delivery and pick-up equipment needed by our farming community. This equipment could also be shared by other municipalities.	Severe Winter Weather	0	0	0	0	0	0	DCED - ERR, LGCPL, LMRDP, DHS - Public Assistance Grants	\$50,864
17	Snyder County	Bridge J-2 is undersized and has severe scour and undermining due to high velocity stream flows. During a flood event, the failure probability of bridge J-2 is high.	This bridge is being monitored on an annual basis. We recommend that this bridge be included in the hazard mitigation plan for funding of at least 5% of the total project cost.	Flooding	2	2	0	0	0	4	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program, DHS - Core Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance, Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$600,000



Snyder County Hazard Mitigation Plan

Appendix D - Hazard Mitigation Measures Tables

Snyder County Multi-jurisdictional Hazard Mitigation Plan												
Mitigation Measures			Benefit and Prioritization					Structural Mitigation Measures				
Project Number	Applicant	Mitigation Description	Mitigation Objective	Hazard Vulnerability	Importance (1-5)	Impact (1-5)	Supports County Comp. Plan (0-1)	Supports Regional HMP (0-1)	Supports State HMP (0-1)	Score	Funding	Total Cost
18	Snyder County	Bridge J-5 is undersized and has severe scour and undermining due to high velocity stream flows. Bridge J-5 has already been closed due to failure of the foundation from severe footing undermining (a replacement is planned).	We recommend that this bridge be included in the hazard mitigation plan for funding of at least 5% of the total project cost.	Flooding	2	2	0	0	0	4	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program, DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$600,000
19	Snyder County	Bridge WP-2 is undersized and has severe scour and undermining due to high velocity stream flows. Flooding in this area not only presents a hazard to the bridges and local traffic network but also to adjacent property owners since blockage of the bridge openings will result in more severe flooding upstream.	We recommend that this bridge be included in the hazard mitigation plan for funding of at least 5% of the total project cost.	Flooding	2	2	0	0	0	4	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program, DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$2,000,000
20	Snyder County	Bridge WP-3 is undersized and has severe scour and undermining due to high velocity stream flows. Flooding in this area not only presents a hazard to the bridges and local traffic network but also to adjacent property owners since blockage of the bridge.	We recommend that this bridge be included in the hazard mitigation plan for funding of at least 5% of the total project cost.	Flooding	2	2	0	0	0	4	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program, DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	



Snyder County Hazard Mitigation Plan

Appendix D - Hazard Mitigation Measures Tables

Snyder County Multi-jurisdictional Hazard Mitigation Plan												
Mitigation Measures		Benefit and Prioritization					Structural Mitigation Measures					
Project Number	Applicant	Mitigation Description	Mitigation Objective	Hazard Vulnerability	Importance (1-5)	Impact (1-5)	Supports County Comp. Plan (0-1)	Supports Regional HMP (0-1)	Supports State HMP (0-1)	Score	Funding	Total Cost
21	Snyder County	Bridge WP-4 is undersized and has severe scour and undermining due to high velocity stream flows. Flooding in this area not only presents a hazard to the bridges and local traffic network but also to adjacent property owners since blockage of the bridge.	We recommend that this bridge be included in the hazard mitigation plan for funding of at least 5% of the total project cost.	Flooding	2	2	0	0	0	4	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	
22	Snyder County	Bridge S-4 is undersized and has severe scour and undermining due to high velocity stream flows. Flooding in this area presents a hazard to the bridges and local traffic networks.	We recommend that this bridge be included in the hazard mitigation plan for funding of at least 5% of the total project cost.	Flooding	2	2	0	0	0	4	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	
23	Snyder County	The dam was built as a flood control measure and a major component of that protection is the storage capacity of a lake. Over the years the lake loses some of that storage capacity due to sediment build-up.	The two major items to be considered at the dam are dredging to maintain the pool capacity (flood protection) and security devices. As a minimum, a study to determine this need should be undertaken. The other issue is the need for new gates at all entry points for security and improvement of service roads around the lake.	Flooding	1	1	0	0	0	2	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	



Snyder County Multi-jurisdictional Hazard Mitigation Plan												
Mitigation Measures		Benefit and Prioritization					Structural Mitigation Measures					
Project Number	Applicant	Project Description	Mitigation Objective	Hazard Vulnerability	Importance (1-5)	Impact (1-5)	Supports County Comp. Plan (0-1)	Supports Regional HMP (0-1)	Supports State HMP (0-1)	Score	Funding	Total Cost
24	Snyder County	The hazard mitigation plan may consider this an evacuation route during a disaster. Some part of the trail would follow existing power line easements, which would also provide better access and protection for these facilities.	A feasibility study for a multi-use trail is underway to connect McClure Borough and Middleburg Borough.	All	0	0	0	0	0	0	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance, Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	
25	Perry Township	Fremont Fire Company is relocating their truck shed to get out of flood plain.	Fremont Fire Company is currently in the flood plain. The truck shed floods repeatedly over the year.	Flooding	5	2	0	1	0	8	DCED - IDP, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$350,000
26	Perry Township	Cleaning out creek from bridge culvert west to West Perry Township line, also possibly lining the Mahantango Creek with large quarry rock or rip rap.	Preventing the roadway flooding.	Flooding	2	2	0	0	0	4	DCED - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Bridge Alteration, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$25,000



Snyder County Hazard Mitigation Plan

Appendix D - Hazard Mitigation Measures Tables

Snyder County Multi-jurisdictional Hazard Mitigation Plan												
Mitigation Measures		Benefit and Prioritization					Structural Mitigation Measures					
Project Number*	Applicant	Project Description	Mitigation Objective	Hazard Vulnerability	Importance (1-5)	Impact (1-5)	Supports County Comp. Plan (0-1)	Supports Regional HMP (0-1)	Supports State HMP (0-1)	Score	Funding	Total Cost
27	Seelingsgrove Borough	Development along natural drainage ways of the Borough of Seelingsgrove, occurring at a time before current day storm water management requirements, has created streams with inadequate capacity for storm flows greater than those associated with a 25-year frequency. These streams pass through build-up neighborhoods of residential dwellings and businesses located relatively close to the stream banks. As a result, stream flows routinely overtop the primary bank and result in flooding of properties. The two primary streams within the Borough of Seelingsgrove for which these mitigation measures would provide great benefits are: Weiser Run (0.75 sq. mi. drainage area, 4800LF) and South Tributary (2.0 sq. mi. drainage area, 6000LF).	Evaluate and construct various measures to maximize the capacity of the streams, and thereby to minimize the damage resulting from the flooding of adjacent structures. In most cases, these would be stream capacity enhancements, but in some cases may also include the construction of dikes and/or retaining walls to protect adjacent property or detention/infiltration facilities to reduce the storm flow imposed on the streams.	Flooding	4	3	0	1	0	8	DCEd - IDP, PennVEST, PennWorks, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program, DHS - Core Brown Fund, Federal Assistance to Individuals and Households, Bridge Alteration, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance, Army Corp - Flood Plan Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$1,443,000
28	Seelingsgrove Borough	Purchase/install portable/fixed generators to be able to provide power to key facilities in the event of a wide-spread and prolonged loss of electric service to water supply wells, police department, borough office, public works department.	Maintenance of electric power to essential services, such as water supply wells, police department operations, borough office and public works operations, etc.	Power Failure	2	2	0	1	1	6	DCEd - ERR, LCCPL, LMRDP, DHS - Public Assistance Grants	\$130,000
29	Jackson Township	Purchase base and portable radios to keep in contact with 911 Center (1) Base (4) Mobile (4) portable (plus install).	Presently we have little or no means of communicating with 911 Center. The purchase of this communication equipment will help greatly in any type of emergency.	All	0	0	0	0	1	1	DCEd - ERR, LCCPL, LMRDP, DHS - Public Assistance Grants	\$5,500



Snyder County Hazard Mitigation Plan

Appendix D - Hazard Mitigation Measures Tables

Snyder County Multi-jurisdictional Hazard Mitigation Plan												
Mitigation Measures		Benefit and Prioritization					Structural Mitigation Measures					
Project Number*	Applicant	Project Description	Mitigation Objective	Hazard Vulnerability	Importance (1-5)	Impact (1-5)	Supports County Comp. Plan (0-1)	Supports Regional HMP (0-1)	Supports State HMP (0-1)	Score	Funding	Total Cost
30	Krazenville Municipal Authority (Jackson Township)	3 phase standby generator with transfer switch.	Install 3 phase standby generator to provide electricity during power failure. This would provide community with drinking water and fire protection. Presently we have no emergency backup.	Power Failure	2	2	0	1	1	6	DCED - ERR, LCCPL, LMRDP; DHS - Public Assistance Grants	\$13,000
31	Jackson Township	Generator to provide electricity during power failure. Generator and transfer switch needed for this project.	Presently our Township has no means of providing power to a command center in the advent of an emergency. Generator would solve this problem.	Power Failure	2	2	0	1	1	6	DCED - ERR, LCCPL, LMRDP; DHS - Public Assistance Grants	\$8,000
32	Spring Township	This project involves implementation of good management and restoration practices to improve stream equilibrium for this 400-foot section of the Beaver Creek. Stabilizing the bank with 20 ton of Rip Rap and removal of debris from stream channel along this 400-foot section of the Beaver Creek.	Implementation of this project would aid in stream bank stability and allow a clean flow of creek water resulting in the reduction of threat of flooding along this 400-foot section of the Beaver Creek.	Flooding							DCED - IDP, PennVEST, PennWorks; DHS - Pre disaster mitigation, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design	\$3,000
33	Spring Township	This project involves implementation of good management and restoration practices to improve stream bank stability and restore channel for this 2,000 feet up stream from Snyder Avenue. Removal of trees that have fallen into the stream causing a damm effect and placing 20 tons of Rip Rap to stabilize stream bank.	This project would facilitate clean water flow within stream bank and aid stabilization of banks minimizing threat of flooding along this section of Mitchell Run and reducing the treat to residential structures.	Flooding							DCED - IDP, PennVEST, PennWorks; DHS - Pre disaster mitigation, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design	\$2,000
34	Spring Township	This project involves implementation of good management and restoration practices to improve stream equilibrium for this 500-foot section of the Middle Creek placing 100-150 tons of Rip Rap along the stream banks and removal of debris within the channel.	Implementation of this project will stabilize the eroding stream banks and allow a clean flow of creek water, minimizing the threat of flooding of Stage Road and reducing a hazardous situation to motorists.	Flooding							DCED - IDP, PennVEST, PennWorks; DHS - Pre disaster mitigation, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design	\$5,000

* Does not denote priority



Figure D-3

Project Number	Applicant	Mitigation Measures		Hazard Vulnerability	Funding	Total Cost
		Project Description	Description/Mitigation Objective			
5010001	Union Township	This project involves the implementation of traditional engineering best management practices and restoration methods to improve stream bank stability and restore channel equilibrium within a 200 foot reach of Chapman Creek. Placing large quarry rock/rip rap or installing gabion baskets is proposed.	Implementation of this project would (1) aid in the stabilization of severely eroding stream banks, (2) help to restore channel equilibrium within a 200 foot stretch of Chapman Creek, and (3) minimize the threat of erosive undermining of a nearby residential structure.	Flooding	DCED - IDP, PennVEST, PennWorks; DHS - Pre disaster mitigation, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design	\$10,000
5010002	Union Township	This project involves (1) acquisition, (2) elevation, or (3) flood proofing of a residential structure located in the backwater base floodplain area of the Susquehanna River along Aqueduct Hollow Road. A specific flood mitigation recommendation will be made based on the USACE's elevation survey data.	Pending the USACE's elevation survey data, (1) acquiring, (2) elevating, or (3) flood roofing this residential structure would minimize or potentially eliminate the Susquehanna river backwater flooding threat to this property.	Flooding	DCED - IDP, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$100,000
5010003	Snyder County Board of Commissioners/Snyder County Emergency Management	To provide a tone alert radio receiver system as part of the county emergency notification system for natural and man-made disasters of flooding. To warn all residents of potential or actual occurrences of flooding	To save lives and protect property through a early warning notification system along the Susquehanna River and installed in all local and state buildings, schools, and high-occupancy buildings or establishments, special needs facilities and rest homes.	Flooding	DCED - ERR, LGCPL, LMRDP; DHS - Public Assistance Grants	\$35,000
5010004	Penn Township	Eight (8) residential properties on the Isle of Que have not been mapped in the USACE GIS. These properties are located on the southern end of the Isle of Que and have been flooded frequently. Elevated water heaters, furnaces, and electric panels along with anchoring fuel oil tanks so they will not float.	Flood proofing will reduce flood damages to utilities located on the lowest portions of these residential properties.	Flooding	DCED - IDP, Flood plain assistance program, LMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$120,000



Project Number	Applicant	Mitigation Measures		Hazard Vulnerability	Funding	Total Cost
		Project Description	Description/Mitigation Objective			
5010005	Penn Township	T-501 Clean Drains -- \$400, T-389 Clean Ditches, Repair Shoulders -- \$900, T-506 Clean out Drop boxes -- \$1,800, T-389 Pipe Removal and Replacement -- \$2,760, T-443 Inlet Cleanout and Repair -- \$800, T-486 Repair Shoulders -- \$600.	Drainage Ditches and Drop boxes need to be cleaned out as a result of flooding. Also, pipes need repair and replacement. All costs of repairs are estimated and shall total approximately \$7,000 to \$10,000.	Flooding	DCEd - IDP, PennVEST, PennWorks, Infrastructure and Facilities Improvement Program; DHS - Public Assistance Grants, Pre Disaster Mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management Services, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects	\$10,000
5010006	Penn Township	This project involves improving a farm road from Front Street (T-500) through Elden Heimback farm to the off ramp of 11/15. This will provide access off the Isle of Que when the main road is flooded.	Reconstruction of farm w ith sub-base and grade to allow access to the 11/15 off ramp.	Flooding	DCEd - IDP, ERR, Flood Plain Land Use Assistance Program, LGCPL, LMRDP, Infrastructure and Facilities Improvement Project; DHS - Public Assistance Grants, Bridge Alteration, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management Services, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects	\$20,000
5010007	Penn Township	Install in Snyder County Center an automatic call system to alert of Flood Event, using existing telephone lines.	This project would alert residents on the Isle of Que of the main road being flooded and give residents warning to use temporary road and access to 11/15, along with directions.	Flooding	DOED - ERR, LGCPL, LMRDP; DHS - Public Assistance Grants	\$50,000
5010008	Penn Township	Establish warning system whereby expected river stages can be translated into property danger zones. Purchase computer and appropriate software to translate river stages to elevations, and map elevations to identify properties in danger.	Early warning system to allow residents to move to high ground.	Flooding	DOED - ERR, LGCPL, LMRDP; DHS - Public Assistance Grants	\$7,500
5010009	Selingsgrove Borough	Secure secondary evacuation route for vehicular traffic from the Isle of Que. Currently the only viable evacuation route off the Isle of Que is the two lane bridge over Penns Creek. An alternative route should be expanded and maintained for secondary evacuation route.	The current bridge to the Isle of Que is impassable in high water. An alternative, back up exit from the Isle of Que could be through an access to the Routes 11/15 bypass located at the western end of East Bough Street.	Flooding	DCEd - IDP, ERR, Flood Plain Land Use Assistance Program, LGCPL, LMRDP, Infrastructure and Facilities Improvement Project; DHS - Public Assistance Grants, Bridge Alteration, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management Services, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects	\$100,000
5010010	Selingsgrove Borough	Acquisition and Demolition of dauntless hook and ladder fire company. Located in the 100-year flood plain along Penns Creek. Recommended by Selingsgrove Hazard Mitigation Committee.	Fire company is currently relocating; existing building is a repeat flood loss property.	Flooding	DCEd - IDP, PennWorks, Flood Plain Land Use Assistance Program, LMRDP, Housing and Redevelopment Assistance; DHS - Federal Assistance to Individuals and Households, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management Services, Planning and Engineering Design	\$300,000



Snyder County Hazard Mitigation Plan

Appendix D - Hazard Mitigation Measures Tables

Project Number	Applicant	Mitigation Measures		Hazard Vulnerability	Funding	Total Cost
		Project Description	Description/Mitigation Objective			
5010011	Selinsgrove Borough	We strongly desire acquisition of our property - we have been trying to sell this property through a realtor and 95% of buyers will not buy because of flooding. Property is proposed for acquisition by Selinsgrove Borough Hazard Mitigation Plan.	SEDA-COG had our house designated as an acquisition property in order to build a ramp from the Isle of Que. Acquisition will alleviate constant flooding.	Flooding	DCED - IDP, PermWorks, Flood Plain Land Use Assistance Program, LMRDP, Housing and Redevelopment Assistance; DHS - Federal Assistance to Individuals and Households, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management Services, Planning and Engineering Design	\$108,150
5010012	Selinsgrove Borough	Acquisition of property as proposed in the Selinsgrove Borough's Hazard Mitigation Plan.	House sits lower than many on the island. Subject to river flooding.	Flooding	DCED - IDP, PermWorks, Flood Plain Land Use Assistance Program, LMRDP, Housing and Redevelopment Assistance; DHS - Federal Assistance to Individuals and Households, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management Services, Planning and Engineering Design	\$100,770
5010013	Selinsgrove Borough	Acquisition of Property.	No worries of future flooding on this property.	Flooding	DCED - IDP, PermWorks, Flood Plain Land Use Assistance Program, LMRDP, Housing and Redevelopment Assistance; DHS - Federal Assistance to Individuals and Households, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management Services, Planning and Engineering Design	\$110,000
5010014	Selinsgrove Borough	Relocate water heater to second story with associated plumbing, electric. Relocate gas hot air furnace with associated gas and electric lines and duct work.	Elevation and Retrofit of utilities from basement to second story.	Flooding	DCED - IDP, Flood plain assistance program, LMRDP, Housing & Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$4,700
5010015	Selinsgrove Borough	Breaker Box relocate with associated wiring interior chase way, relocate furnace.	Relocation of hot water oil furnace and breaker box from basement to attic.	Flooding	DCED - IDP, Flood plain assistance program, LMRDP, Housing & Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$4,500



Snyder County Multi-jurisdictional Hazard Mitigation Plan Wyoming Valley Levee Raising Project Mitigation Measures		Hazard Vulnerability		Funding	Total Cost		
Project Number	Applicant	Mitigation Measures		Description/Mitigation Objective	Hazard Vulnerability	Funding	Total Cost
		Project Description					
5010016	Selinsgrove Borough	Elevate house, fill existing below grade basement, lay block to establish sufficient elevation of living area. Move utilities to elevated area, i.e. washer, dryer, furnace, electric supply, concrete floor.		River flooding.	Flooding	DCED - IDP, Flood plain assistance program, LMRDP, Housing & Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$75,000
5010017	Selinsgrove Borough	(1)Elevate house to regulatory flood elevation, or (2)Construct small addition at regulatory flood elevation, move utilities, furnace, hot water heater, appliances into elevated addition.		Flooding from Susquehanna River and back flow from storm drains.	Flooding	DCED - IDP, Flood plain assistance program, LMRDP, Housing & Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$50,000
5010018	Selinsgrove Borough	(1) Elevate house to regulatory flood elevation, or (2) construct small addition at regulatory flood elevation or above, move utilities, furnace, water heater, appliances into addition.		Flooding from Susquehanna River.	Flooding	DCED - IDP, Flood plain assistance program, LMRDP, Housing & Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$50,000
5010019	Selinsgrove Borough	Move furnace, water heater and softener, and electrical panel out of basement either to attic or addition to house.		Prevent flooding of these appliances and electrical panel.	Flooding	DCED - IDP, Flood plain assistance program, LMRDP, Housing & Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$15,000



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Appendix D - Hazard Mitigation Measures Tables

Snyder County Multi-jurisdictional Hazard Mitigation Plan Wyoming Valley Levee Raising Project Mitigation Measures						
Project Number	Applicant	Mitigation Measures		Hazard Vulnerability	Funding	Total Cost
		Project Description	Description/Mitigation Objective			
5010020	Selinsgrove Borough	Remove furnace and water heater from basement by adding small addition and raising above flood level.	Prevent replacement of water heater and furnace due to river flooding.	Flooding	DCED - IDP, Flood plain assistance program, LMRDP, Housing & Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$20,000
5010021	Selinsgrove Borough	Relocate heating system and water heater and central vacuum unit out of basement to a position above the 100 yr. flood plain.	Re-routing of fuel supply lines - ducting, etc.	Flooding	DCED - IDP, Flood plain assistance program, LMRDP, Housing & Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$15,000
5010022	Selinsgrove Borough	Raise equipment from basement to 2nd floor addition. Install backflow valves.	End replacement of furnace, hot water, and circuit breaker boxes. Prevent sewage from backing up into home.	Flooding	DCED - IDP, Flood plain assistance program, LMRDP, Housing & Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$12,000
5010023	Selinsgrove Borough	Acquire property - 80x180 lot, 2 story frame house, lower floor 0-2 feet below 200-year flood level.	Eliminate future claims/costs, possible recreational use of real estate.	Flooding	DCED - IDP, PennWorks, Flood Plain Land Use Assistance Program, LMRDP, Housing and Redevelopment Assistance; DHS - Federal Assistance to Individuals and Households, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management Services, Planning and Engineering Design.	\$125,000



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Snyder County Multi-jurisdictional Hazard Mitigation Plan Wyoming Valley Levee Raising Project Mitigation Measures		Hazard Vulnerability		Funding	Total Cost
Project Number	Mitigation Measures		Description/Mitigation Objective		
	Applicant	Project Description			
5010024	Selinsgrove Borough	Move furnace, water heater out of basement into attic area.	Piping and wall relocation.	DCED - IDP, Flood plain assistance program, LMRDP, Housing & Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance, Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$15,000
5010025	Selinsgrove Borough	Retrofit electric, hot water heater, and furnace with addition of room above flood elevation.	Avoid flood loss from Penns Creek located within 100 year flood zone.	DCED - IDP, Flood plain assistance program, LMRDP, Housing & Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance, Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$25,000
5010026	Selinsgrove Borough	Double home located along Penns Creek in the 100-year flood plain.	27729 is the first home to receive water on Water St. because of its elevation. Raise 1 1/2 above flood level.	DCED - IDP, PermWorks, Flood Plain Land Use Assistance Program, LMRDP, Housing and Redevelopment Assistance; DHS - Federal Assistance to Individuals and Households, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance, Army Corp - Flood Plain Management Services, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects	\$30,000
5010027	Selinsgrove Borough	Raise sidewalks average of 6" to act as flood barrier.	Drainage ditch has flooded and overflowed banks 4 times in the past 5 years. It is expected that with rise in flood elevation due to levee project, that drainage ditch will likewise rise. Raised sidewalks will protect building from that rise.	DCED - IDP, Flood plain assistance program, LMRDP, Housing & Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance, Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$5,000
5010028	Selinsgrove Borough	Purchase of flood related rescue equipment and boat. As recommended by the Selinsgrove Borough Hazard Mitigation Committee.	One two rescue boats in the county cover approximately 20 miles of the Susquehanna River and many miles of tributaries.	DCED - ERR, LGCPL, LMRDP; DHS - Public Assistance Grants	\$18,300



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Project Number	Applicant	Mitigation Measures		Description/Mitigation Objective	Hazard Vulnerability	Total Cost
		Project Description				
5010029	Monroe Township	Dialogic Communications has proposed an "Off-Site community Notification System." The proposal includes the system, set-up, training and updating expenses for five years. It will enable the E.O.C. (Emergency Operations Center) to mark the affected area and automatically contact all affected citizens via telephone within minutes. This system would be used by the Snyder county EOC and would be used for all municipalities, not just Monroe Township. This project will serve areas within 200-year flood plain of the Susquehanna river Basin and is part of the Monroe Township's Hazard Mitigation Plan.	This project will minimize the threat to life. The L.C.F.P.A. and the Corps of Engineers has designed an early warning system into the project. However, it gets the information to the EOC and the EOC has the responsibility to warn the affected citizens. The EOC needs a warning system that can do this task quickly and efficiently.	DCED - ERR, LGCPL, LMRDP; DHS - Public Assistance Grants	\$50,000	
5010030	Monroe Township	Acquire or Flood proof structure. This project is within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.	The project will minimize the threat to life, minimize FEMA claims; minimize amount of claim and will help to protect structure from damage of future flooding.	DCED - IDP, PennWorks, Flood Plain Land Use Assistance Program, LMRDP, Housing and Redevelopment Assistance; DHS - Federal Assistance to Individuals and Households, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance, Army Corp - Flood Plain Management Services, Planning and Engineering Design	\$102,714	
5010031	Monroe Township	Acquire or Flood proof structure. This project is within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.	The project will minimize the threat to life, minimize FEMA claims; minimize amount of claim and will help to protect structure from damage of future flooding.	DCED - IDP, PennWorks, Flood Plain Land Use Assistance Program, LMRDP, Housing and Redevelopment Assistance; DHS - Federal Assistance to Individuals and Households, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management Services, Planning and Engineering Design	\$116,048	
5010032	Monroe Township	Acquire or Flood proof structure. This project is within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.	The project will minimize the threat to life, minimize FEMA claims; minimize amount of claim and will help to protect structure from damage of future flooding.	DCED - IDP, PennWorks, Flood Plain Land Use Assistance Program, LMRDP, Housing and Redevelopment Assistance; DHS - Federal Assistance to Individuals and Households, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management Services, Planning and Engineering Design	\$123,819	
5010033	Monroe Township	Acquire or Flood proof structure. This project is within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.	The project will minimize the threat to life, minimize FEMA claims; minimize amount of claim and will help to protect structure from damage of future flooding.	DCED - IDP, PennWorks, Flood Plain Land Use Assistance Program, LMRDP, Housing and Redevelopment Assistance; DHS - Federal Assistance to Individuals and Households, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management Services, Planning and Engineering Design	\$132,236	



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Snyder County Multi-jurisdictional Hazard Mitigation Plan Wyoming Valley Levee Raising Project Mitigation Measures		Hazard Vulnerability		Funding	Total Cost	
Project Number	Applicant	Mitigation Measures		Description/Mitigation Objective	Hazard Vulnerability	Total Cost
		Project Description				
5010034	Monroe Township	Acquire or Flood proof structure. This project is within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.		The project will minimize the threat to life, minimize FEMA claims; minimize amount of claim and will help to protect structure from damage of future flooding.	Flooding	\$73,950
5010035	Monroe Township	Acquire or Flood proof structure. This project is within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.		The project will minimize the threat to life, minimize FEMA claims; minimize amount of claim and will help to protect structure from damage of future flooding.	Flooding	\$119,550
5010036	Monroe Township	Acquire or Flood proof structure. This project is within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.		The project will minimize the threat to life, minimize FEMA claims; minimize amount of claim and will help to protect structure from damage of future flooding.	Flooding	\$85,292
5010037	Monroe Township	Acquire or Flood proof structure. This project is within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.		The project will minimize the threat to life, minimize FEMA claims; minimize amount of claim and will help to protect structure from damage of future flooding.	Flooding	\$126,358
5010038	Monroe Township	Acquire or Flood proof structure. This project is within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.		The project will minimize the threat to life, minimize FEMA claims; minimize amount of claim and will help to protect structure from damage of future flooding.	Flooding	\$114,786



Snyder County Hazard Mitigation Plan

Appendix D - Hazard Mitigation Measures Tables

Snyder County Multi-jurisdictional Hazard Mitigation Plan Wyoming Valley Levee Raising Project Mitigation Measures		Hazard Vulnerability		Funding	Total Cost	
Project Number	Applicant	Mitigation Measures		Description/Mitigation Objective	Hazard Vulnerability	Total Cost
		Project Description				
5010039	Monroe Township	Acquire or Flood proof structure. This project is within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.		The project will minimize the threat to life, minimize FEMA claims; minimize amount of claim and will help to protect structure from damage of future flooding.	Flooding	\$154,179
5010040	Monroe Township	Acquire or Flood proof structure. This project is within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.		The project will minimize the threat to life, minimize FEMA claims; minimize amount of claim and will help to protect structure from damage of future flooding.	Flooding	\$311,890
5010041	Monroe Township	Acquire or Flood proof structure. This project is within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.		The project will minimize the threat to life, minimize FEMA claims; minimize amount of claim and will help to protect structure from damage of future flooding.	Flooding	\$209,576
5010042	Monroe Township	Acquire or Flood proof structure. This project is within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.		The project will minimize the threat to life, minimize FEMA claims; minimize amount of claim and will help to protect structure from damage of future flooding.	Flooding	not determined
5010043	Monroe Township	Acquire or Flood proof structure. This project is within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.		The project will minimize the threat to life, minimize FEMA claims; minimize amount of claim and will help to protect structure from damage of future flooding.	Flooding	not determined



Snyder County Multi-jurisdictional Hazard Mitigation Plan Wyoming Valley Levee Raising Project Mitigation Measures		Hazard Vulnerability		Funding	Total Cost	
Project Number	Applicant	Mitigation Measures		Description/Mitigation Objective	Hazard Vulnerability	Total Cost
		Project Description				
5010044	Shamokin Dam Borough	Design and construct a portable, watertight three-foot vertical wall extension for the top of the Borough's raw water pumping station.		The top of the raw water station is at elevation 448.19 which is only 1.9 feet above the 100-year flood elevation of 446.30 (Flood plain elevations are based on flood study of 1976 U.S. Department of Housing and Urban Development). If flood water would reach elevation 448.19, the Borough's raw water station would flood and the borough would have no water supply for our potable water treatment plant.	Flooding	\$40,000
5010045	Shamokin Dam Borough	The two-story frame residential property at 100 E. 8th Avenue is located within the 100-year flood plane and is in poor condition.		Structural removal from the flood plain. Site adjacent to Borough recreational property.	Flooding	\$60,000
5010046	Shamokin Dam Borough	Two family, two-story frame residential dwelling. Located within 100-year flood plain. Structure is not for sale and is in poor condition.		Removal of structure from flood plane. Site is located between two Borough recreational areas.	Flooding	\$60,000
5010047	Selinsgrove Borough	Acquisition and Demolition of two-story block house. This property is proposed for acquisition by the Selinsgrove Borough Hazard Mitigation Plan to facilitate access to the proposed emergency evacuation route.		This home has experienced frequent flooding. The home has not been inhabited since the 1996 flood.	Flooding	\$60,770
5010013A	Selinsgrove Borough	Build a room onto home above flood stage to house water heater and furnace.		Would prevent damage to furnace and water heater in flood. Would require addition below it onto home above sun porch. Rewiring, plumbing, new duct work, etc.	Flooding	\$40,000



Snyder County Multi-jurisdictional Hazard Mitigation Plan Wyoming Valley Levee Raising Project Mitigation Measures		Hazard Vulnerability		Funding	Total Cost	
Project Number	Applicant	Mitigation Measures		Description/Mitigation Objective	Hazard Vulnerability	Total Cost
		Project Description	Description/Mitigation Objective			
5010015A	Selinsgrove Borough	Relocate breaker box with associated wiring interior chaseway, water heater relocate with associated wiring and plumbing, relocate furnace and change over from up draft to down draft associated exterior chaseway for gas line and duct work.	Relocation of breaker box, furnace, and water heater from basement to attic.	DCED - IDP, Flood plain assistance program, UMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$5,900	
5010015B	Selinsgrove Borough	Water heater relocate with associated plumbing and electrical. Furnace relocate and changeover from updraft to downdraft with associated exterior chaseway for gas line and duct work.	Relocation of hot water heater to second story, relocation of furnace to second story.	DCED - IDP, Flood plain assistance program, UMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$5,200	
5010023A	Selinsgrove Borough	Build on elevated room, upgrade and relocate has hot air furnace, gas water heater, possibly water softener, panel box. If big enough, deep freezer, too. Also build brackets and elevate air conditioner compressor.	Eliminate future costs of repair/replacement of necessary HVAC and related items.	DCED - IDP, Flood plain assistance program, UMRDP, Housing and Redevelopment Assistance, Infrastructure and Facilities Improvement Program; DHS - Cora Brown Fund, Federal Assistance to Individuals and Households, Pre disaster mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects.	\$20,000	
5010024A	Selinsgrove Borough	(1) Sewer valve to prevent sewage from entering basement during flooding. (2) Storm drain - one way valve to prevent river water from entering street and basement during low level flooding.	Storm drain - one way valve to prevent river water from entering street and basement during low level flooding.	DCED - IDP, PennVEST, PennWorks, Infrastructure and Facilities Improvement Program; DHS - Public Assistance Grants, Pre Disaster Mitigation, Flood Insurance, Community Assistance Program, Flood Mitigation Assistance; Army Corp - Flood Plain Management Services, Planning and Engineering Design, Operation and Maintenance of Flood Protection Projects	\$6,000	



Snyder County Multi-jurisdictional Hazard Mitigation Plan Wyoming Valley Levee Raising Project Mitigation Measures		Hazard Vulnerability		Funding	Total Cost	
Project Number	Applicant	Mitigation Measures		Description/Mitigation Objective	Hazard Vulnerability	Total Cost
		Project Description				
5010029A	Monroe Township	Computer equipment for the township, EMA and Emergency Response Team is needed to enable Internet and Cellular Communications between EMA, Township Officials, FEMA, FEMA, and the County EOC. The combination of laptop computers with cellular capabilities with digital cameras would provide an effective means of recording information, writing and filing reports and communicating in a secure environment. This project will serve areas within the 100-year flood plain of the Susquehanna River Basin and is part of the Monroe Township's Hazard Mitigation Plan.		Given the frequency of flooding and number of houses affected, making records, compiling reports, and filing reports are overwhelming tasks. The above items are needed to provide the township with the means to assist flooded property owners. It provides a means to gather information, write and file reports, and have a reporting system compatible with FEMA and FEMA.	Flooding	\$50,000
5010029B	Monroe Township	A boat, trailer, and motor with all necessary safety equipment must be purchased along with cold water suits and rope guns. This project will serve areas within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.		This project will minimize the threat to life. Currently neither the Fire Department nor the Township has any of the equipment necessary to safely enter a flooded area to assist in the evacuation and/or rescue of individuals through water. Spring flooding carries the added danger of hypothermia due to the water temperature.	Flooding	\$25,000
5010029C	Monroe Township	Radios with a common frequency would expedite response times during flooding situations. They would enable conversation between the EOC, EMA Officials, Township Officials, Township equipment and operators and the Fire Department. A coordinated response of the right equipment at the right time and place would be possible. This project will serve areas within the 100-year flood plain of the Susquehanna River Basin and is part of the Monroe Township's Hazard Mitigation Plan.		This project will minimize the threat to life. Given the frequency of flooding and number of homes affected, emergency response with the right equipment is critical. There is no common frequency to coordinate the response between the EOC, Fire Department and the Township. If a piece of township equipment or manpower is needed on the scene, the fire department must call the county who must call the township who then must call the equipment operator with the information.	Flooding	\$25,000
5010029D	Monroe Township	A vehicle with exceptional traction and high ground clearance is needed to traverse flooded areas with relative safety. A vehicle like a "Hum-Vee" would work well. This project will serve areas within the 100-year flood plain of the Susquehanna River Basin and is a part of the Monroe Township's Hazard Mitigation Plan.		This project will minimize the threat to life by providing access to individuals for warnings and evacuations. Vehicles that can safely traverse wet and flooded terrain have been needed but unavailable. Heavy fire equipment is not adequate and constitutes a safety problem in itself. The areas of the township that flood the most become inaccessible early because the roads leading to them flood first.	Flooding	\$75,000