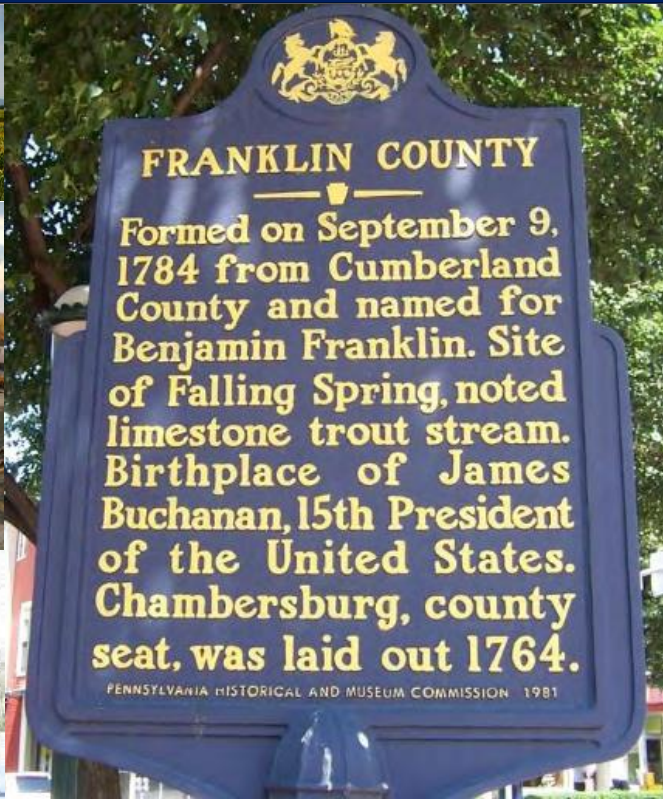




Franklin County Multi-Jurisdictional Multi-Hazard Mitigation Plan Update

Nov 2018
(updated Dec 2020)



Executive Summary

Franklin County Hazard Mitigation Plan 2018

The Hazard Mitigation Plan (HMP) is a foundational document that helps define the threat environment for all emergency preparedness and planning efforts in the county. The primary goal of this plan is to protect the lives and property of the citizens of Franklin County by proposing actions to be undertaken ahead of disasters to reduce their impacts. It also enables the municipalities in our county to compete for federal disaster mitigation funding to offset these initiatives. The Federal Emergency Management Agency (FEMA) requires that counties formally update their HMP every 5 years. This edition is the third update to the Franklin County HMP.

The *Disaster Mitigation Act of 2000 (DMA2000)* was enacted as an amendment to the *Robert T. Stafford Disaster Relief and Emergency Assistance Act*. The DMA2000 placed greater emphasis on the identification and assessment of risks from natural disasters. It also implemented a means by which federal funding could be provided to mitigate those risks while ensuring critical infrastructure of communities could continue to function after a natural disaster. Specifically, as long as a community has adopted a Hazard Mitigation Plan (HMP), they would be eligible for the following 3 federal mitigation funding initiatives:

Hazard Mitigation Grant Program (HMGP) - The purpose of HMGP is to help communities implement hazard mitigation measures following a Presidential Major Disaster Declaration in the areas of the state, tribe, or territory requested by the Governor or Tribal Executive. The key purpose of this grant program is to enact mitigation measures that reduce the risk of loss of life and property from future disasters.

Pre-Disaster Mitigation (PDM) Program - The PDM Program, authorized by Section 203 of the *Robert T. Stafford Disaster Relief and Emergency Assistance Act*, is designed to assist States, U.S. Territories, Federally-recognized tribes, and local communities in implementing a sustained pre-disaster natural hazard mitigation program. The goal is to reduce overall risk to the population and structures from future hazard events, while also reducing reliance on Federal funding in future disasters. This program awards planning and project grants and provides opportunities for raising public awareness about reducing future losses before disaster strikes.

Flood Mitigation Assistance (FMA) - The FMA program is authorized by Section 1366 of the National Flood Insurance Act of 1968, as amended with the goal of reducing or eliminating claims under the National Flood Insurance Program (NFIP). FMA provides funding to States, Territories, federally-recognized tribes and local communities for projects and planning that reduces or eliminates long-term risk of flood damage to structures insured under the NFIP.

The ultimate goal of mitigation planning is to break the cycle of disaster damage, reconstruction, and repeated damage. To achieve this end, the Franklin County HMP update was developed using the FEMA *Local Mitigation Planning Handbook (March 2013)* and the Pennsylvania Emergency Management Agency's (PEMA) *All-Hazard Mitigation Planning Standard Operating Guide (October 2013)*. A version of the Franklin County HMP was approved in May of 2014, and this 5-year update is required under the provisions of the DMA2000.

The Franklin County Department of Emergency Services (FCDES) was selected as the lead agent for the county in preparing this HMP update. Our first objective was to gather a team of county leaders to form the Hazard Mitigation Planning Steering Group (HMPSG). It is this committee that established the framework and scope of the HMP update. This group realized the shortfalls of the previous Franklin County HMP and challenged the team to produce a more

Executive Summary

Franklin County Hazard Mitigation Plan 2018

robust and comprehensive plan that further incorporated the inputs and opinions of the municipalities as well as the general public. To provide momentum to this planning effort, the HMPSG developed the initial stakeholders list (internal and external) for this update to include members of the general public. This list of stakeholders became the Franklin County Hazard Mitigation Planning Team (HMPT) and was continually amended through this process and will continue to be updated throughout the 5-year cycle of this version of the plan.

With the team in place, we were able to garner the participation of all Franklin County municipalities in the identification and assessment of the hazard environment of our community. We started by analyzing the *Pennsylvania 2013 Standard State All-Hazard Mitigation Plan* for a list of identified hazard threats. This state plan had profiled and assessed 26 separate hazards, whereas our existing 2014 HMP plan only had profiled 8 hazards. The HMPT decided to use the state hazard list as a starting point in identifying the hazard threats in Franklin County. The HMPT came to the conclusion that 24 of the 26 hazards identified in the state HMP were applicable to our area. The only 2 hazards that were excluded were *Coastal Erosion* and *Levee Failure*, as we have neither a coastline nor a major river in our county for these threats to be viable. This meant that our new plan would assess 3 times as many threats as our existing plan. This also meant 3 times the work, which is why the efforts of the entire HMPT were critical to the success of this update. The results of this threat vulnerability assessment were published separately as the *Franklin County Hazard Vulnerability Analysis (HVA)*, dated March 2018. This HVA was updated as part of the Annual HMP update undertaken in Dec 2020. The following chart reflects the identification and priority of the hazards to Franklin County from this HVA.

2020 Rank	Hazard	2019	Delta
1	Winter Storm	1	--
2	Hurricane, Tropical Storm, Nor'easter	4	↑ 2
3	Tornado/Windstorm	3	--
4	Utility Interruption	2	↓ 2
5	Extreme Temperatures	5	--
6	Pandemic and Infectious Disease	14	↑ 8
7	Drought	7	--
8	Lightning Strike	6	↓ 2
9	Dam Failure	9	--
10	Transportation Accident	8	↓ 2
11	Environmental Hazards (HAZMAT Release)	10	↓ 1
12	Flood, Flash Flood, Ice Jam	11	↓ 1
13	Hailstorm	12	↓ 1
14	Earthquake	13	↓ 1
15	Invasive Species	15	--
16	Terrorism	17	↑ 1
17	Subsidence, Sinkhole	16	↓ 1
18	Wildfire	19	↑ 1
19	Urban Fire and Explosion	18	↓ 1
20	Radon Exposure	21	↑ 1
21	Nuclear Incident	20	↓ 1
22	Mass Food and Animal Feed Contamination	22	--
23	Civil Disturbance	23	--
24	Landslide	24	--
Risk Factor Scale			
Catastrophic	Major	Moderate	Minor
			Insignificant

Executive Summary

Franklin County Hazard Mitigation Plan 2018

With the threat environment now defined, the HMPT went about the process of identifying the existing capabilities of the municipalities in the county to enact mitigation projects. This was done by having the municipalities identify their capabilities in the following areas via the *Municipal Capabilities Survey*:

- Planning and Regulatory: Ordinances, plans, and policies
- Administrative and Technical: Personnel and manpower
- Fiscal: Revenue generating functions
- Political Will: Political disposition to mitigation action implementation
- Self Assessment: Feelings on preparedness for mitigation action process
- National Flood Insurance Program (NFIP) Compliance: Status of implementation of flood hazard mitigation program

The survey results indicate that the county has a moderate to high level of *Planning and Regulatory* capabilities in place. These take the form of ordinances and plans that are in place to address some of the causal factors of loss of life and property damage from both natural and man-made disasters. However, there are a few areas in planning and regulation that we have some work to do. Most notably, we rated low in municipalities with Continuity of Operations and Disaster Recovery plans in place. We begin to address these gaps with the development of additional *Mitigation Actions* in this new plan.

The county-wide roll-up of the capabilities survey indicated that we were moderate to high in *Administrative and Technical* support capabilities. This indicates that we have personnel identified to support the implementation of mitigation efforts. However, this does not indicate that these personnel are free and available to work mitigation actions. All personnel are fully engaged in day to day operations of the municipalities and mitigation action implementation will have to compete for prioritization in their workload.

Additionally, we scored high in the participation in the *National Flood Insurance Program (NFIP) Compliance*. We were able to determine that 95% of our municipalities have at least 1 NFIP policy in their jurisdictions and are thus maintaining the standards to be NFIP compliant. However, there are areas in our NFIP implementation that scored low to moderate. These areas dealt with the processes to help citizens request changes to the current Digital Flood Insurance Rate Maps (DFIRMS), providing assistance on insurance issues, and general education of the citizens on the NFIP program.

A major area that we ranged from low to moderate is the *Fiscal* capabilities in the county. We are still a small developing area in the state. We are continually growing, but the sizes of our municipalities are still small enough that the revenue generating efforts are not sufficient to support major mitigation action project implementation independent of federal funding.

The *Political Will* and *Self Assessment* areas of the survey simply gauged our predisposition to enacting the findings of this HMP. The *Political Will* in the county indicates that over 95% of

Executive Summary

Franklin County Hazard Mitigation Plan 2018

the municipalities are at least moderately willing to entertain the actions required to improve their hazard mitigation posture. Our *Self Assessments* reveal that, as a county, we have moderate to high confidence in our existing abilities to handle the current threat environment. Combined, these two factors indicate that we are willing to embrace new initiatives even though we are confident in our existing capabilities, which creates a good environment for hazard mitigation.

It should be noted that the variances between our municipalities in population, industry, land-use, and general disposition are vast and the *Threat* and *Municipal Capability* assessments made from this composite county-wide analysis do not necessarily reflect the ground truth for each municipality. However, these assessments did allow us to identify general trends and capability gaps that allowed the HMPT to develop a meaningful and effective *Mitigation Strategy*.

We started our *Mitigation Strategy* development with a review of our existing strategy in the 2014 HMP. The HMPT uncovered several deficiencies in our previous strategy. We had 4 goals, but no objectives and the 38 *Mitigation Actions* that were developed were not linked to any of the goals set forth in the plan. The HMPT decided to overhaul the entire *Mitigation Strategy*. We started by drafting 4 new goals. These goals were then linked to the goals in the *FCDES Strategic Plan* to give them more meaning and improve plan integration throughout the emergency preparedness spectrum. From these goals we were able to craft 17 Objectives that were also linked to the Objectives in the *FCDES Strategic Plan*. The team then used the results of the *HVA* and the *Capabilities Survey* to develop 134 (updated from 133 in 2019 to add one new action) *Mitigation Actions* for our HMP update. This represents a factor of almost 3 ½ times as many *Mitigation Actions* as our previous HMP. Additionally, every hazard that was profiled has at least 1 *Mitigation Action*. Furthermore, every municipality in Franklin County has at least 1 *Mitigation Action* to work. This means our plan is comprehensive and we have good community buy-in to the process.

The key take away from this planning effort is a more robust and meaningful plan to help the county break the cycle of repetitive losses due to disasters. However, more importantly, the county and the HMPT were able to develop a repeatable process that continually redefines and updates our threat environment, proposes the actions required to adapt, and achieve community buy-in to protect the lives and property of our citizens.

Record of Changes

Franklin County Hazard Mitigation Plan 2018



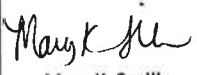
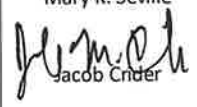
Change Number	Date of Change	Summary of Change	Change Made By (Signature)
1	3 Dec 2019	<ul style="list-style-type: none"> Updated HVA from 2019 Annual Threat Hazard Municipal Survey. Added Frederick County, MD as a border county to County Profile Section. Updated actual date of HMP approval (Nov 2018) throughout the document. Updated population figures using the 2018 estimates available through the US Census. Added 1 Mitigation Action from Waynesboro Municipal Authority. Added Inundation Zone Maps and pictures of all High Hazard Dams impacting Franklin County to the Dam Failure Hazard Profile. Updated Appendix M with all Municipal Adoptions and FEMA Approval Letters. Added documentation of 2019 Annual Update meeting to Appendices B, C, D & K. Added Section 6.5 Mitigation Action Annual Updates to track progress of actions. 	 Bob Povlich  Jacob Crider
2	30 Dec 2020	<ul style="list-style-type: none"> Updated HVA from 2020 Annual Threat Hazard Municipal Survey. Updated population figures using the 2019 estimates available through the US Census. Updated common level ratio for dam inundation zone structural impacts. Added information on COVID-19 pandemic. Added documentation of 2020 Annual Update meeting to Appendices B, C, D & K. 	 Mary K. Seville  Jacob Crider

Table of Contents

Executive Summary	i
Record of Changes	v
1. Introduction	1
1.1 Background	1
1.2 Purpose	1
1.3 Scope	2
1.4 Authority and References	2
2. Community Profile	4
2.1 Geography and Environment	4
Figure 2.1.1: The Geography of Franklin County	4
Figure 2.1.2: Franklin County Watersheds	5
Figure 2.1.3: Impaired Stream Locations in Franklin County (red) (2018)	6
Table 2.1.1: Causes of Impaired Streams in Franklin County	7
Table 2.1.2: Impaired Stream Miles in Franklin County	7
Figure 2.1.4: Franklin County Water Resources	8
Figure 2.1.5: Highway Network in Franklin County	9
Figure 2.1.6: Railway Network in Franklin County	10
Figure 2.1.7: Pipeline Network in Franklin County	11
Figure 2.1.8: Franklin County Agricultural Resources	12
Figure 2.1.9: State Forests in Franklin County	13
2.2 Community Facts	13
2.3 Population and Demographics	14
Figure 2.3.1: Franklin County Municipal Map	14
Figure 2.3.2: Franklin County Municipalities and 2010 Census Population	15
Table 2.3.1: Summary of Population Statistics for Franklin County and Incorporated Communities	16
Table 2.3.2: Franklin County Age Groups as a Percentage of the Household Population (2000/2010/2016)	16
2.4 Land Use and Development	17
Table 2.4.1: Major Industries in Franklin County	17
Table 2.4.2: Top Employers in Franklin County	18
Table 2.4.3: Land Use Coverage (2010)	18
Figure 2.4.1: Franklin County Land Coverage (2010)	20

Table of Contents

	Table 2.4.4: Franklin County Parcel Breakdown and Value (2017)	21
	Table 2.4.5: Franklin County New Construction Building Permits and Subdivision Lot Agreements	22
	Table 2.4.6: Franklin County Critical Facilities (2017)	23
2.5	Data Sources and Limitations	23
3.	Planning Process	26
3.1	Update Process and Participation Summary	26
	Table 3.1.1: 2018 HMP Municipal Participation Summary	27
	Table 3.1.2: Important Coordination Dates for 2018 Franklin County HMP Update	28
3.2	The Planning Team	29
	Table 3.2.1: Hazard Mitigation Plan Steering Group (HMPSG) Membership	29
	Table 3.2.2: Franklin County 2018 Hazard Mitigation Planning Team (HMPT)	30
3.3	Meetings and Documentation	31
	Figure 3.3.1: Hazard Mitigation Planning Meeting – 13 Dec 2017	32
	Figure 3.3.2: Hazard Mitigation Planning Team Steering Group Meeting – 1 Feb 2018	33
3.4	Public & Stakeholders Participation	34
3.5	Multi-Jurisdictional Planning	35
4.	Risk Assessment	37
4.1	Update Process Summary	37
4.2	Hazard Identification	37
4.2.1	Table of Presidential Disaster Declarations	37
	Table 4.2.1.1: Presidential Disaster and Emergency Declarations in Franklin County (1972-2020)	38
	Table 4.2.1.2: Gubernatorial Proclamations in Franklin County (2004-2020)	39
4.2.2	Summary of Hazards	39
	Table 4.2.2.1: Summary of Natural and Man-made Hazard Threats to Franklin County	39
4.3	Hazard Profiles	40
4.3.1	Civil Disturbance	40
	4.3.1.1 Location and Extent	42
	4.3.1.2 Range of Magnitude	43

Table of Contents

4.3.1.3	Past Occurrence	43
4.3.1.4	Future Occurrence	44
4.3.1.5	Vulnerability Assessment	44
	Figure 4.3.1.5.1: Municipal Civil Disturbance Threat Vulnerability Self Assessment	45
4.3.2	Dam Failure	46
4.3.2.1	Location and Extent	47
	Table 4.3.2.1.1: Dams with Potential to Impact Franklin County (Dec 2017)	48
	Figure 4.3.2.1.1: Definitions of Type and Purpose Codes in Table 4.3.2.1.1	49
	Figure 4.3.2.1.2: Pennsylvania Dam Classifications	50
4.3.2.2	Range of Magnitude	51
	Figure 4.3.2.2.1: Franklin County Dam Inundation Zones (Dec 2017)	52
4.3.2.3	Past Occurrence	52
4.3.2.4	Future Occurrence	53
4.3.2.5	Vulnerability Assessment	54
	Figure 4.3.2.5.1: Gunter Valley Dam Lakebed	55
	Figure 4.3.2.5.2: Stream Leading into Gunter Valley Dam	55
	Figure 4.3.2.5.3: Aerial View of Gunter Valley Dam Without Inundation Zones	56
	Figure 4.3.2.5.4: South Wall of Roxbury Dam	57
	Figure 4.3.2.5.5: North Wing Wall of Roxbury Dam	57
	Figure 4.3.2.5.6: Entrapment Area of the Roxbury Dam	57
	Figure 4.3.2.5.7: Roxbury Dam Inundation Zones (Nov 2019)	58
	Table 4.3.2.5.1: Roxbury Dam Inundation Zone Structural Impacts (Dec 2020)	59
	Figure 4.3.2.5.8: Whitetail – A Dam Entrapment Area	59
	Figure 4.3.2.5.9: Whitetail – A Dam Spillway	59
	Figure 4.3.2.5.10: Whitetail – A Dam Wall	60
	Figure 4.3.2.5.11: Whitetail – A Dam Inundation Zones (Nov 2019)	61
	Table 4.3.2.5.2: Whitetail Land Co. – A Dam Inundation Zone Structural Impacts (Dec 2020)	62
	Figure 4.3.2.5.12: Antietam Dam Entrapment Area	62
	Figure 4.3.2.5.13: Antietam Dam Spillway	63
	Figure 4.3.2.5.14: Antietam Dam Wall	63
	Figure 4.3.2.5.15: Antietam Dam Inundation Zones	

Table of Contents

	(Nov 2019)	64
	Table 4.3.2.5.3: Antietam Dam Inundation Zone Structural Impacts (Dec 2020)	65
	Figure 4.3.2.5.16: Carbaugh Run Dam Entrapment Area	65
	Figure 4.3.2.5.17: Carbaugh Run Dam Spillway	66
	Figure 4.3.2.5.18: Carbaugh Run Dam Wall	66
	Figure 4.3.2.5.19: Carbaugh Run Dam Inundation Zones (Nov 2019)	67
	Table 4.3.2.5.4: Carbaugh Run Dam Inundation Zone Structural Impacts (Dec 2020)	68
	Figure 4.3.2.5.20: Long Pine Run Dam Entrapment Area	68
	Figure 4.3.2.5.21: Long Pine Run Dam Spillway	69
	Figure 4.3.2.5.22: Long Pine Run Dam Wall	69
	Figure 4.3.2.5.23: Long Pine Run Dam Inundation Zones (Nov 2019)	70
	Table 4.3.2.5.5: Long Pine Run Dam Inundation Zone Structural Impacts (Dec 2020)	71
	Figure 4.3.2.5.24: Meadow Grounds Dam Entrapment Area	71
	Figure 4.3.2.5.25: Meadow Grounds Dam Spillway	72
	Figure 4.3.2.5.26: Meadow Grounds Dam Wall	72
	Figure 4.3.2.5.27: Meadow Grounds Dam Inundation Zones (Nov 2019)	73
	Table 4.3.2.5.6: Meadow Grounds Dam Inundation Zone Structural Impacts (Dec 2020)	74
	Figure 4.3.2.5.28: Lower Lake Royer Dam Entrapment Area	74
	Figure 4.3.2.5.29: Lower Lake Royer Dam Spillway	75
	Figure 4.3.2.5.30: Lower Lake Royer Dam Wall	75
	Figure 4.3.2.5.31: Lower Lake Royer Dam Inundation Zones (Nov 2019)	76
	Table 4.3.2.5.7: Lower Lake Royer Dam Inundation Zone Structural Impacts (Dec 2020)	77
	Table 4.3.2.5.8: Critical Facilities per Municipality Impacted by High Hazard Dams	77
	Table 4.3.2.5.9: Critical Facilities Impacted per High Hazard Dam	78
	Figure 4.3.2.5.32: Municipal Dam Failure Threat Vulnerability Self Assessment	79
4.3.3	Drought	80
	Figure 4.3.3.1: Pennsylvania Drought Conditions (Nov 2017)	81
4.3.3.1	Location and Extent	81

Table of Contents

4.3.3.2	Range of Magnitude	81
	<u>Table 4.3.3.2.1: Precipitation Deficiency Drought Indicators</u>	82
	<u>Table 4.3.3.2.2: Palmer Drought Severity Index</u>	84
4.3.3.3	Past Occurrence	87
	<u>Figure 4.3.3.3.1: Long Pine Run Dam Drought Impact91 (Dec 2016)</u>	87
	<u>Table 4.3.3.3.1: History of Drought in Franklin County (1980-2018)</u>	88
4.3.3.4	Future Occurrence	88
	<u>Figure 4.3.3.4.1: Sample of Franklin County Well Observations (Nov 2017)</u>	89
4.3.3.5	Vulnerability Assessment	89
	<u>Figure 4.3.3.5.1: Municipal Drought Threat Vulnerability Self Assessment</u>	91
4.3.4	Earthquake	92
4.3.4.1	Location and Extent	92
4.3.4.2	Range of Magnitude	92
	<u>Table 4.3.4.2.1: Richter Scale Magnitude and Associated Earthquake Size Effects</u>	93
	<u>Table 4.3.4.2.2: Modified Mercalli Intensity Scale with Associated Impacts</u>	93
4.3.4.3	Past Occurrence	94
	<u>Table 4.3.4.3.1: Earthquake felt or Located in Franklin County (2007-2018)</u>	94
	<u>Figure 4.3.4.3.1: Chimney Damage (Fayetteville, PA) Due to Aug 2011 Earthquake</u>	94
4.3.4.4	Future Occurrence	95
4.3.4.5	Vulnerability Assessment	95
	<u>Figure 4.3.4.5.1: Municipal Earthquake Threat Vulnerability Self Assessment</u>	96
4.3.5	Environmental Hazards	97
4.3.5.1	Location and Extent	97
	<u>Figure 4.3.5.1.1: Hazardous Materials Processing Facilities in Franklin County (Dec 2017)</u>	98
	<u>Table 4.3.5.1.1: Number of SARA and HAZMAT Facilities per Municipality (Dec 2017)</u>	99
	<u>Figure 4.3.5.1.2: Major Gas Pipelines in Franklin County (Dec 2017)</u>	100
4.3.5.2	Range of Magnitude	101

Table of Contents

4.3.5.3	Past Occurrence	101
	Table 4.3.5.3.1: Hazardous Materials Incidents in Franklin County (2007-2018)	102
4.3.5.4	Future Occurrence	103
4.3.5.5	Vulnerability Assessment	103
	Figure 4.3.5.5.1: Municipal Environmental Hazards Threat Vulnerability Self Assessment	104
4.3.6	Extreme Temperatures	105
	Figure 4.3.6.1: National Weather Service Heat Index (HI)	105
	Figure 4.3.6.2: National Weather Service Wind Chill Chart	106
4.3.6.1	Location and Extent	106
	Figure 4.3.6.1.1: Average Maximum Temperature Throughout Pennsylvania (1981-2010)	107
	Figure 4.3.6.1.2: Maximum Temperatures per Month (2012-2017)	108
	Figure 4.3.6.1.3: Average Minimum Temperature Throughout Pennsylvania (1981-2010)	109
	Figure 4.3.6.1.4: Minimum Temperatures per Month (2012-2017)	110
4.3.6.2	Range of Magnitude	110
	Table 4.3.6.2.1: Four Categories of Heat Stress	111
4.3.6.3	Past Occurrence	112
	Table 4.3.6.3.1: Franklin County Extreme Temperature Events (1993-2018)	112
4.3.6.4	Future Occurrence	113
4.3.6.5	Vulnerability Assessment	113
	Table 4.3.6.5.1: Critical Facilities at Risk of Extreme Temperatures	113
	Figure 4.3.6.5.1: Municipal Extreme Temperature Threat Vulnerability Self Assessment	115
4.3.7	Flood, Flash Flood, and Ice Jam	116
	Figure 4.3.7.1: Example from FEMA Base Flood Level Address Lookup Tool	117
4.3.7.1	Location and Extent	118
	Figure 4.3.7.1.1: Franklin County DFIRM Map with Quadrants (Jan 2012)	119
	Table 4.3.7.1.1: List of Panels in Each Quadrant	120
	Figure 4.3.7.1.2: Quadrant 1 of County DFIRM Map	121
	Figure 4.3.7.1.3: Quadrant 2 of County DFIRM Map	122
	Figure 4.3.7.1.4: Quadrant 3 of County DFIRM Map	123

Table of Contents

	Figure 4.3.7.1.5: Quadrant 4 of County DFIRM Map	124
4.3.7.2	Range of Magnitude	125
	Table 4.3.7.2.1: Repetitive Loss Properties per Municipality (Dec 2017)	127
	Table 4.3.7.2.2: Franklin County Municipal Participation in the National Flood Insurance Program	130
4.3.7.3	Past Occurrence	130
	Table 4.3.7.3.1: Flood Events in Franklin County (1996-2018)	131
	Table 4.3.7.3.2: Franklin County Flash Flood Events (1996-2018)	132
4.3.7.4	Future Occurrence	133
	Table 4.3.7.4.1: Recurrence Intervals and Probabilities	133
4.3.7.5	Vulnerability Assessment	133
	Table 4.3.7.5.1: Franklin County Critical Facilities in the 1% Floodplain (Jan 2018)	134
	Figure 4.3.7.5.1: Municipal Flood, Flash Flood, and Ice Jam Threat Vulnerability Self Assessment	135
4.3.8	Hailstorm	136
	Figure 4.3.8.1: Hail Formation	136
	Table 4.3.8.1: Hail Stone Sizes	137
4.3.8.1	Location and Extent	137
	Figure 4.3.8.1.1: Geographic Distribution of Hail	137
4.3.8.2	Range of Magnitude	138
4.3.8.3	Past Occurrence	138
	Figure 4.3.8.3.1: Franklin County Hail Events (2007-2018)	138
	Table 4.3.8.3.1: Recorded Hail Events in Franklin County (2007-2018)	139
4.3.8.4	Future Occurrence	140
	Figure 4.3.8.4.1: Hail Events per Square Nautical Mile in the Continental United States	140
4.3.8.5	Vulnerability Assessment	141
	Figure 4.3.8.5.1: Municipal Hailstorm Threat Vulnerability Self Assessment	142
4.3.9	Hurricane, Tropical Storm, and Nor’easter	143
	Figure 4.3.9.1: Saffir-Simpson Hurricane Scale	143
4.3.9.1	Location and Extent	144
4.3.9.2	Range of Magnitude	144
	Figure 4.3.9.2.1: Saffir-Simpson Scale and Associated	

Table of Contents

	Damages	145
4.3.9.3	Past Occurrence	145
	Table 4.3.9.3.1: Tropical Systems that Impacted Franklin County (1972-2018)	146
4.3.9.4	Future Occurrence	146
	Figure 4.3.9.4.1: Probability of Named Storm Hitting the Continental United States	147
4.3.9.5	Vulnerability Assessment	147
	Figure 4.3.9.5.1: Municipal Hurricane, Tropical Storm, and Nor'easter Threat Vulnerability Self Assessment	148
4.3.10	Invasive Species	149
4.3.10.1	Location and Extent	150
	Figure 4.3.10.1.1: Adult Spotted Lanternfly	150
	Figure 4.3.10.1.2: Areas in PA with Confirmed Spotted Lanternfly Presence (red dots)	151
	Figure 4.3.10.1.3: Emerald Ash Borer	152
	Figure 4.3.10.1.4: PA Emerald Ash Borer Proliferation	152
	Figure 4.3.10.1.5: Red-eared Slider Turtle	153
	Figure 4.3.10.1.6: Yellow-bellied Slider Turtle	153
	Table 4.3.10.1.1: Invasive Pathogens	154
	Figure 4.3.10.1.7: Proliferation of West Nile Virus in PA (2017)	156
	Figure 4.3.10.1.8: Symptoms of Chronic Wasting Disease	156
	Table 4.3.10.1.2: Approved Processing Centers in Franklin County (DMA 2)	157
	Table 4.3.10.1.3: Drop Locations for CWD Testing Franklin County	157
	Figure 4.3.10.1.9: Illustration of a Deer Tick	158
	Figure 4.3.10.1.10: Bullseye Rash Symptom of Lyme's Disease	159
	Figure 4.3.10.1.11: Lyme Disease in Franklin County (2016)	160
	Figure 4.3.10.1.12: Lyme Disease per Region in PA (1980-2016)	160
	Figure 4.3.10.1.13: Franklin County Lyme Disease Cases (2000-2016)	161
	Figure 4.3.10.1.14: Autumn Olive	162
	Figure 4.3.10.1.15: Canadian Thistle	162
	Figure 4.3.10.1.16: Chinese Privet	163
	Figure 4.3.10.1.17: Common Teasel	163
	Figure 4.3.10.1.18: Downy Brome	163

Table of Contents

Figure 4.3.10.1.19: Fig Buttercup	164
Figure 4.3.10.1.20: Garlic Mustard	164
Figure 4.3.10.1.21: Houndstongue	164
Figure 4.3.10.1.22: Japanese Barberry	165
Figure 4.3.10.1.23: Japanese Honeysuckle	165
Figure 4.3.10.1.24: Japanese Spiraea	165
Figure 4.3.10.1.25: Japanese Stiltgrass	166
Figure 4.3.10.1.26: Leafy Spurge	166
Figure 4.3.10.1.27: Mile-A-Minute Weed	166
Figure 4.3.10.1.28: Multiflora Rose	167
Figure 4.3.10.1.29: Musk Thistle	167
Figure 4.3.10.1.30: Oriental Bittersweet	167
Figure 4.3.10.1.31: Princess Tree	168
Figure 4.3.10.1.32: Quackgrass	168
Figure 4.3.10.1.33: St. Johnswort	168
Figure 4.3.10.1.34: Spotted Knapweed	169
Figure 4.3.10.1.35: Tree-of-Heaven	169
Figure 4.3.10.1.36: Yellow Toadflax	169
Figure 4.3.10.1.37: Poison Hemlock	170
4.3.10.2 Range of Magnitude	170
4.3.10.3 Past Occurrence	171
4.3.10.4 Future Occurrence	171
4.3.10.5 Vulnerability Assessment	172
Figure 4.3.10.5.1: Municipal Invasive Species Threat Vulnerability Self Assessment	174
4.3.11 Landslide	175
4.3.11.1 Location and Extent	176
Figure 4.3.11.1: Landslide Susceptibility in Pennsylvania (highlight added)	177
Figure 4.3.11.2: Areas of Landslide Susceptibility of Franklin County	178
4.3.11.2 Range of Magnitude	178
4.3.11.3 Past Occurrence	179
4.3.11.4 Future Occurrence	179
4.3.11.5 Vulnerability Assessment	180
Figure 4.3.11.5.1: Municipal Landslide Threat Vulnerability Self Assessment	181
Table 4.3.11.5.1: Critical Facilities within Landslide	

Table of Contents

	Local High/Moderate Risk Areas	182
4.3.12	Lightning Strike	183
	Figure 4.3.12.1: Formation of Lightning	183
4.3.12.1	Location and Extent	183
4.3.12.2	Range of Magnitude	184
	Figure 4.3.12.2.1: Lightning Deaths in the U.S. (2005-2014)	184
4.3.12.3	Past Occurrence	184
	Figure 4.3.12.3.1: Sample Data from NOAA, National Environmental Satellite Data, and Information (ESDI) Service	185
	Figure 4.3.12.3.2: Sample Set of ESDI Data for Franklin County	186
	Table 4.3.12.3.1: Lightning Strikes in the Franklin County Sample Area (2007-2017)	186
4.3.12.4	Future Occurrence	187
4.3.12.5	Vulnerability Assessment	187
	Figure 4.3.12.5.1: Municipal Lightning Strike Threat Vulnerability Self Assessment	188
4.3.13	Mass Food and Animal Feed Contamination	189
4.3.13.1	Location and Extent	190
	Figure 4.3.13.1.1: Diversity of Livestock in Franklin County (2012)	191
	Figure 4.3.13.1.2: Monetary Value of Livestock and Food Production in Franklin County (2012)	191
4.3.13.2	Range of Magnitude	191
	Table 4.3.13.2.1: Total Agricultural Economic Value for Franklin County (2012)	192
4.3.13.3	Past Occurrence	192
4.3.13.4	Future Occurrence	193
4.3.13.5	Vulnerability Assessment	194
	Figure 4.3.13.5.1: Municipal Mass Food/Animal Feed Contamination Threat Vulnerability Self Assessment	195
4.3.14	Nuclear Incident	196
4.3.14.1	Location and Extent	197
	Figure 4.3.14.1.1: Pennsylvania Nuclear Power Plant Locations	198
4.3.14.2	Range of Magnitude	199
4.3.14.3	Past Occurrence	200
4.3.14.4	Future Occurrence	200

Table of Contents

4.3.14.5	Vulnerability Assessment	201
	Figure 4.3.14.5.1: Municipal Lightning Strike Threat Vulnerability Self Assessment	202
4.3.15	Pandemic and Infectious Disease	203
4.3.15.1	Location and Extent	203
4.3.15.2	Range of Magnitude	204
4.3.15.3	Past Occurrence	205
	Figure 4.3.15.3.1: Confirmed Cases of Zika Virus in the United States (2017)	206
	Table 4.3.15.3.1: Influenza Outbreaks in Past 100 Years	206
	Table 4.3.15.3.2: Franklin County Influenza Cases (2008-2018)	207
4.3.15.4	Future Occurrence	207
4.3.15.5	Vulnerability Assessment	208
	Figure 4.3.15.5.1: Municipal Pandemic and Infectious Disease Threat Vulnerability Self Assessment	209
4.3.16	Radon Exposure	210
4.3.16.1	Location and Extent	210
	Figure 4.3.16.1: Sketch of Radon Entry Points into a House	211
	Figure 4.3.16.2: Radon Hazard Zones in Pennsylvania (2014)	212
4.3.16.2	Range of Magnitude	214
	Table 4.3.16.2.1: Radon Risk for Smokers and Non-Smokers	214
4.3.16.3	Past Occurrence	215
	Figure 4.3.16.3.1: Percentage of Franklin County Homes and Radon Levels (2017)	215
4.3.16.4	Future Occurrence	216
4.3.16.5	Vulnerability Assessment	216
	Figure 4.3.16.5.1: Municipal Radon Exposure Threat Vulnerability Self Assessment	217
4.3.17	Subsidence, Sinkhole	218
	Figure 4.3.17.1: Formation of a Collapse Sinkhole	218
4.3.17.1	Location and Extent	218
	Figure 4.3.17.1.1: Areas of Franklin County Susceptible to Subsidence (2017)	219
4.3.17.2	Range of Magnitude	219

Table of Contents

Table 4.3.17.2.1: Geologic Composition of Franklin County	220
Figure 4.3.17.2.1: Geologic Map of Pennsylvania (2000)	220
4.3.17.3 Past Occurrence	220
Figure 4.3.17.3.1: Location of Surface Mines in Franklin County (2017)	221
Figure 4.3.17.3.2: Location of Caves in Franklin County (2017)	222
Figure 4.3.17.3.3: Location of Sinkholes in Franklin County (2017)	223
Table 4.3.17.3.1: Subsidence Events/Features recorded in Franklin County (2017)	224
4.3.17.4 Future Occurrence	224
Figure 4.3.17.4.1: Areas of Susceptibility to Sinkholes in Franklin County	226
Table 4.3.17.4.1: Critical facilities in Sinkhole Susceptible Areas by Municipality	227
4.3.17.5 Vulnerability Assessment	227
Figure 4.3.17.5.1: Municipal Subsidence/Sinkhole Threat Vulnerability Self Assessment	228
4.3.18 Terrorism	229
4.3.18.1 Location and Extent	229
4.3.18.2 Range of Magnitude	230
4.3.18.3 Past Occurrence	231
Table 4.3.18.3.1: Threat/Suspected Terrorist Activity Events Reported in Franklin County (2007-2016)	232
4.3.18.4 Future Occurrence	232
4.3.18.5 Vulnerability Assessment	232
Figure 4.3.18.5.1: Municipal Terrorism Threat Vulnerability Self Assessment	233
4.3.19 Tornado, Windstorm	234
4.3.19.1 Location and Extent	234
4.3.19.2 Range of Magnitude	234
Figure 4.3.19.2.1: Fujita and Enhanced Fujita Scales	235
4.3.19.3 Past Occurrence	235
Figure 4.3.19.3.1: Tornado Events in Franklin County (1950-2018)	236
Table 4.3.19.3.1: List of Tornado Events in Franklin County (1950-2018)	237
Table 4.3.19.3.2: Roll-up of Thunderstorm Wind and	

Table of Contents

High Wind Events in Franklin County (1950-2018)	238
4.3.19.4 Future Occurrence	239
Figure 4.3.19.4.1: Tornado Events for Pennsylvania (1950-2002)	239
4.3.19.5 Vulnerability Assessment	240
Figure 4.3.19.5.1: Municipal Tornado/Windstorm Threat Vulnerability Self Assessment	241
4.3.20 Transportation Accident	242
4.3.20.1 Location and Extent	242
Figure 4.3.20.1.1: Secondary Route Intersections in Franklin County	242
Figure 4.3.20.1.2: Locations of Key Secondary Route Intersections	243
Figure 4.3.20.1.3: Railroad and Intermodal Terminals in Franklin County	244
Figure 4.3.20.1.4: Intermodal Movement Flows in PA by Tonnage (2013)	245
Figure 4.3.20.1.5: Location of Franklin County Regional Airport (FCRA) and Nearby Public Airports in Franklin County	246
Figure 4.3.20.1.6: FCRA	246
Table 4.3.20.1.1: Hazardous Conditions of Locally Owned Bridges in Franklin County	248
Figure 4.3.20.1.7: Franklin County Highway and Bridge Systems	249
4.3.20.2 Range of Magnitude	250
4.3.20.3 Past Occurrence	251
Table 4.3.20.3.1: Vehicle Accidents in Franklin County (2011-2015)	252
Table 4.3.20.3.2: Pedestrian Accidents in Franklin County (2010-2017)	253
Figure 4.3.20.3.1: Aviation Accidents in Franklin County (1965-2018)	254
Table 4.3.20.3.3: Aviation Accidents & Incidents Franklin County (1965-2018)	255
Figure 4.3.20.3.2: Total Train Incidents in PA by County (2004-2014)	256
Figure 4.3.20.3.3: Total Crossing Collisions in PA by County (2004-2014)	257
Table 4.3.20.3.4: Railway Accidents and Incidents in Franklin County (2010-2017)	258
4.3.20.4 Future Occurrence	258
4.3.20.5 Vulnerability Assessment	259

Table of Contents

	Figure 4.3.20.5.1: Municipal Transportation Accident Threat Vulnerability Self Assessment	260
4.3.21	Urban Fire and Explosion	261
4.3.21.1	Location and Extent	261
4.3.21.2	Range of Magnitude	261
4.3.21.3	Past Occurrence	262
	Table 4.3.21.3.1: Commercial Fire Responses (2007-2017)	263
	Table 4.3.21.3.2: Residential Fire Responses (2007-2017)	264
	Table 4.3.21.3.3: Miscellaneous Fire Response Activity (2007-2017)	265
4.3.21.4	Future Occurrence	265
4.3.21.5	Vulnerability Assessment	266
	Figure 4.3.21.5.1: Municipal Urban Fire and Explosion Threat Vulnerability Self Assessment	267
	Table 4.3.21.5.1: Estimated Age of Homes in Franklin County (2011-2015)	269
4.3.22	Utility Interruption	270
4.3.22.1	Location and Extent	270
4.3.22.2	Range of Magnitude	270
4.3.22.3	Past Occurrence	270
	Table 4.3.22.3.1: Reported Communication and Power Incidents (2015-2017)	271
	Table 4.3.22.3.2: Reported Gas Utility Outages (2007-2017)	272
	Table 4.3.22.3.3: Reported Water/Sewer Utility Outages (2007-2017)	273
4.3.22.4	Future Occurrence	274
4.3.22.5	Vulnerability Assessment	274
	Figure 4.3.22.5.1: Municipal Utility Interruption Threat Vulnerability Self Assessment	275
4.3.23	Wildfire	276
4.3.23.1	Location and Extent	276
	Figure 4.3.23.1.1: Percentage of PA Wildfires Each Month (1940-2015)	277
	Figure 4.3.23.1.2: Percentage of Franklin County Wildfires per Month (2007-2017)	277
4.3.23.2	Range of Magnitude	278
4.3.23.3	Past Occurrence	278

Table of Contents

	Table 4.3.23.3.1: Wildfire Events in Franklin County (2007-2017)	279
	Table 4.3.23.3.2: Wildfires in Michaux State Forest (2011-2017)	280
	Figure 4.3.23.3.1: Wildfires in Michaux State Forest (2011-2017)	281
4.3.23.4	Future Occurrence	281
4.3.23.5	Vulnerability Assessment	281
	Figure 4.3.23.5.1: Municipal Wildfire Threat Self Assessment	283
4.3.24	Winter Storm	284
4.3.24.1	Location and Extent	284
	Figure 4.3.24.1.1: Average Annual Snowfall for Franklin County PA (1981-2010)	284
4.3.24.2	Range of Magnitude	285
4.3.24.3	Past Occurrence	286
	Table 4.3.24.3.1: Severe Winter Weather Events for Franklin County (1993-2018)	286
	Table 4.3.24.3.2: Blizzard/Heavy Snow Events in Franklin County (1993-2018)	287
	Table 4.3.24.3.3: Ice Storm Events in Franklin County (1993-2018)	288
	Table 4.3.24.3.4: Winter Storm Events in Franklin County (1993-2017)	288
4.3.24.4	Future Occurrence	288
	Table 4.3.24.4.1: Probability of Snow/Sleet per Month for Franklin County (2012-2017)	289
4.3.24.5	Vulnerability Assessment	289
	Figure 4.3.24.5.1: Municipal Winter Storm Threat Vulnerability Self Assessment	290
	Table 4.3.24.5.1: Percentage of Houses Built Prior to 1960 per Municipality (2011-2015)	291
4.4	Hazard Vulnerability Summary	292
4.4.1	Methodology	292
	Figure 4.4.1.1: Risk Factor (RF) Equation	292
	Table 4.4.1.1: Summary of Risk Factor Approach Used to Rank Hazards at the Municipal Level	293
4.4.2	Ranking Results	293
	Table 4.4.2.1: Risk Factor Scale for Hazard Assessments	294
	Figure 4.4.2.1: Franklin County “Roll-up” Weighted Risk Factors	295

Table of Contents

[Table 4.4.2.2: 2020 County Versus 2018 PA State Hazard Rankings](#) 296

4.4.3 Potential Loss Estimates 297

[Table 4.4.3.1: Franklin County Assessed Structure Values \(2017\)](#) 298

[Table 4.4.3.2: NFIP Policies and Claims \(1978-2017\)](#) 299

[Table 4.4.3.3: Franklin County Critical Facilities in the 1% Floodplain \(2017\)](#) 300

4.4.4 Future Development and Vulnerability 300

[Table 4.4.4.1: Franklin County Population Percentage Changes \(1970-2019\)](#) 301

5. Capability Assessment **302**

5.1 Update Process Summary **302**

5.2 Capability Assessment Findings **302**

5.2.1 Planning and Regulatory Capability 302

[Table 5.2.1.1: Franklin County Municipality Planning/Regulatory Capabilities](#) 303

[Figure 5.2.1.1: Franklin County Municipality Planning/Regulatory Capabilities](#) 306

5.2.1.1 Participation in the National Flood Insurance Program (NFIP) 307

[Table 5.2.1.1.1: Franklin County NFIP Participation](#) 307

[Figure 5.2.1.1.1: Summary of Franklin County NFIP Capabilities](#) 308

5.2.2 Administration and Technical Capability 310

[Figure 5.2.2.1: Franklin County Municipal Administrative and Technical Capabilities](#) 311

5.2.2.1 Emergency Management 311

5.2.2.2 Municipal Political Capability and Self Assessment 312

[Figure 5.2.2.2.1: Franklin County Community Political Capability](#) 313

[Figure 5.2.2.2.2: Franklin County Municipal Capabilities Self Assessment](#) 313

5.2.3 Financial Capability 314

[Figure 5.3.2.1: Franklin County Municipal Fiscal Capabilities](#) 315

5.2.4 Education and Outreach 315

[Figure 5.2.4.1: Map of PA StormReady Sites](#) 316

[Table 5.2.4.1: List of PA StormReady Sites](#) 317

Table of Contents

	Table 5.2.4.2: Franklin County Outreach Events (2016-2018)	318
5.2.5	Plan Integration	318
	Figure 5.2.5.1: Franklin County Vision for Plan Integration	320
	Figure 5.2.5.2: Franklin County Existing and Planned Integration Linkages	321
	Figure 5.2.5.3: Actions Needed to Complete Plan Integration Linkages	322
6.	Mitigation Strategy	324
6.1	Update Process Summary	324
	Table 6.1.1: 2014 Franklin County HMP Goals	324
	Figure 6.1.1: New 2018 Franklin County Hazard Mitigation Goals	325
6.2	Mitigation Goals and Objectives	325
	Figure 6.2.1: New HMP Goals and Linkages to FCDES Strategic Plan	325
	Figure 6.2.2: HMP Goals/Objectives and DES Strategic Plan Linkages	326
6.3	Identification and Analysis of Mitigation Techniques	327
	Table 6.3.1: Mitigation Techniques Used to Address Hazards in Franklin County	328
6.4	Mitigation Action Plan	328
	Table 6.4.1: Franklin County HMP – 2018 Mitigation Actions	330
	Table 6.4.2: Franklin County HMP – 2018 Mitigation Actions	331
	Table 6.4.3: Franklin County HMP – 2018 Mitigation Actions	332
	Table 6.4.4: Franklin County HMP – 2018 Mitigation Actions	333
	Table 6.4.5: Franklin County HMP – 2018 Mitigation Actions	334
	Table 6.4.6: Franklin County HMP – 2018 Mitigation Actions	335
	Table 6.4.7: Franklin County HMP – 2018 Mitigation Actions	336
	Table 6.4.8: Franklin County HMP – 2018 Mitigation Actions	337
	Table 6.4.9: Franklin County HMP – 2018 Mitigation Actions	338
	Table 6.4.10: Franklin County HMP – 2018 Mitigation Actions	339

Table of Contents

Table 6.4.11: Franklin County HMP – 2018 Mitigation Actions	340
Table 6.4.12: Franklin County HMP – 2018 Mitigation Actions	341
Table 6.4.13: Franklin County HMP – 2018 Mitigation Actions	342
Table 6.4.14: Franklin County HMP – 2018 Mitigation Actions	343
Table 6.4.15: Franklin County HMP – 2018 Mitigation Actions	344
Table 6.4.16: Franklin County HMP – 2018 Mitigation Actions	345
Table 6.4.17: Evaluation Factors for Proposed Mitigation Actions	346
Table 6.4.18: Possible Scoring Response to Evaluate Mitigation Action Factors	346
Table 6.4.19: Scoring of Mitigation Actions	348
Table 6.4.20: Scoring of Mitigation Actions	349
Table 6.4.21: Scoring of Mitigation Actions	350
Table 6.4.22: Scoring of Mitigation Actions	351
Figure 6.4.1: Mitigation Action 1	352
Figure 6.4.2: Mitigation Action 2	352
Figure 6.4.3: Mitigation Action 3	352
Figure 6.4.4: Mitigation Action 4	353
Figure 6.4.5: Mitigation Action 5	353
Figure 6.4.6: Mitigation Action 6	353
Figure 6.4.7: Mitigation Action 7	354
Figure 6.4.8: Mitigation Action 8	354
Figure 6.4.9: Mitigation Action 9	354
Figure 6.4.10: Mitigation Action 10	355
Figure 6.4.11: Mitigation Action 11	355
Figure 6.4.12: Mitigation Action 12	356
Figure 6.4.13: Mitigation Action 13	356
Figure 6.4.14: Mitigation Action 14	356
Figure 6.4.15: Mitigation Action 15	357
Figure 6.4.16: Mitigation Action 16	357
Figure 6.4.17: Mitigation Action 17	357
Figure 6.4.18: Mitigation Action 18	358
Figure 6.4.19: Mitigation Action 19	358
Figure 6.4.20: Mitigation Action 20	358

Table of Contents

Figure 6.4.21: Mitigation Action 21	359
Figure 6.4.22: Mitigation Action 22	359
Figure 6.4.23: Mitigation Action 23	359
Figure 6.4.24: Mitigation Action 24	360
Figure 6.4.25: Mitigation Action 25	360
Figure 6.4.26: Mitigation Action 26	360
Figure 6.4.27: Mitigation Action 27	361
Figure 6.4.28: Mitigation Action 28	361
Figure 6.4.29: Mitigation Action 29	361
Figure 6.4.30: Mitigation Action 30	362
Figure 6.4.31: Mitigation Action 31	362
Figure 6.4.32: Mitigation Action 32	362
Figure 6.4.33: Mitigation Action 33	363
Figure 6.4.34: Mitigation Action 34	363
Figure 6.4.35: Mitigation Action 35	363
Figure 6.4.36: Mitigation Action 36	364
Figure 6.4.37: Mitigation Action 37	364
Figure 6.4.38: Mitigation Action 38	364
Figure 6.4.39: Mitigation Action 39	365
Figure 6.4.40: Mitigation Action 40	365
Figure 6.4.41: Mitigation Action 41	365
Figure 6.4.42: Mitigation Action 42	366
Figure 6.4.43: Mitigation Action 43	366
Figure 6.4.44: Mitigation Action 44	366
Figure 6.4.45: Mitigation Action 45	367
Figure 6.4.46: Mitigation Action 46	367
Figure 6.4.47: Mitigation Action 47	367
Figure 6.4.48: Mitigation Action 48	368
Figure 6.4.49: Mitigation Action 49	368
Figure 6.4.50: Mitigation Action 50	368
Figure 6.4.51: Mitigation Action 51	369
Figure 6.4.52: Mitigation Action 52	369
Figure 6.4.53: Mitigation Action 53	370
Figure 6.4.54: Mitigation Action 54	370
Figure 6.4.55: Mitigation Action 55	370
Figure 6.4.56: Mitigation Action 56	371
Figure 6.4.57: Mitigation Action 57	371

Table of Contents

Figure 6.4.58: Mitigation Action 58	371
Figure 6.4.59: Mitigation Action 59	372
Figure 6.4.60: Mitigation Action 60	372
Figure 6.4.61: Mitigation Action 61	373
Figure 6.4.62: Mitigation Action 62	373
Figure 6.4.63: Mitigation Action 63	373
Figure 6.4.64: Mitigation Action 64	374
Figure 6.4.65: Mitigation Action 65	374
Figure 6.4.66: Mitigation Action 66	374
Figure 6.4.67: Mitigation Action 67	375
Figure 6.4.68: Mitigation Action 68	375
Figure 6.4.69: Mitigation Action 69	376
Figure 6.4.70: Mitigation Action 70	376
Figure 6.4.71: Mitigation Action 71	377
Figure 6.4.72: Mitigation Action 72	377
Figure 6.4.73: Mitigation Action 73	377
Figure 6.4.74: Mitigation Action 74	378
Figure 6.4.75: Mitigation Action 75	378
Figure 6.4.76: Mitigation Action 76	378
Figure 6.4.77: Mitigation Action 77	379
Figure 6.4.78: Mitigation Action 78	379
Figure 6.4.79: Mitigation Action 79	379
Figure 6.4.80: Mitigation Action 80	380
Figure 6.4.81: Mitigation Action 81	380
Figure 6.4.82: Mitigation Action 82	380
Figure 6.4.83: Mitigation Action 83	381
Figure 6.4.84: Mitigation Action 84	381
Figure 6.4.85: Mitigation Action 85	382
Figure 6.4.86: Mitigation Action 86	382
Figure 6.4.87: Mitigation Action 87	383
Figure 6.4.88: Mitigation Action 88	383
Figure 6.4.89: Mitigation Action 89	383
Figure 6.4.90: Mitigation Action 90	384
Figure 6.4.91: Mitigation Action 91	384
Figure 6.4.92: Mitigation Action 92	384
Figure 6.4.93: Mitigation Action 93	385
Figure 6.4.94: Mitigation Action 94	385

Table of Contents

Figure 6.4.95: Mitigation Action 95	386
Figure 6.4.96: Mitigation Action 96	386
Figure 6.4.97: Mitigation Action 97	387
Figure 6.4.98: Mitigation Action 98	387
Figure 6.4.99: Mitigation Action 99	388
Figure 6.4.100: Mitigation Action 100	388
Figure 6.4.101: Mitigation Action 101	389
Figure 6.4.102: Mitigation Action 102	389
Figure 6.4.103: Mitigation Action 103	389
Figure 6.4.104: Mitigation Action 104	390
Figure 6.4.105: Mitigation Action 105	390
Figure 6.4.106: Mitigation Action 106	390
Figure 6.4.107: Mitigation Action 107	391
Figure 6.4.108: Mitigation Action 108	391
Figure 6.4.109: Mitigation Action 109	391
Figure 6.4.110: Mitigation Action 110	392
Figure 6.4.111: Mitigation Action 111	392
Figure 6.4.112: Mitigation Action 112	393
Figure 6.4.113: Mitigation Action 113	393
Figure 6.4.114: Mitigation Action 114	394
Figure 6.4.115: Mitigation Action 115	394
Figure 6.4.116: Mitigation Action 116	395
Figure 6.4.117: Mitigation Action 117	395
Figure 6.4.118: Mitigation Action 118	395
Figure 6.4.119: Mitigation Action 119	396
Figure 6.4.120: Mitigation Action 120	396
Figure 6.4.121: Mitigation Action 121	396
Figure 6.4.122: Mitigation Action 122	397
Figure 6.4.123: Mitigation Action 123	397
Figure 6.4.124: Mitigation Action 124	397
Figure 6.4.125: Mitigation Action 125	398
Figure 6.4.126: Mitigation Action 126	398
Figure 6.4.127: Mitigation Action 127	398
Figure 6.4.128: Mitigation Action 128	399
Figure 6.4.129: Mitigation Action 129	399
Figure 6.4.130: Mitigation Action 130	399
Figure 6.4.131: Mitigation Action 131	400

Table of Contents

[Figure 6.4. 132: Mitigation Action 132](#).....400

[Figure 6.4. 133: Mitigation Action 133](#).....400

[Figure 6.4. 134: Mitigation Action 134](#).....401

[Table 6.4.23: Mitigation Actions Common to All Municipalities](#)401

[Table 6.4.24: Municipal Specific Mitigation Actions](#).....402

[Table 6.4.25: Mitigation Actions by Threat Profiled](#)403

6.5 Mitigation Action Annual Updates.....404

[Table 6.5.1: 2020 Annual Mitigation Action Update Status](#)404

7. Plan Maintenance405

7.1. Update Process Summary405

7.2. Monitoring, Evaluating, and Updating the Plan.....405

[Table 7.2.1: Franklin County HMP Maintenance Schedule](#).....406

7.3. Continued Public Involvement407

8. Plan Adoption.....408

County Adoption Resolution Template..... 409

Municipal Adoption Resolution Template..... 410

9. Appendices.....411

1. Introduction

1.1. Background

Across the United States, natural and man-made disasters have led to increasing levels of deaths, injuries, property damage, and interruption of business and government services. The time, money, and effort needed to recover from these disasters exhausts resources, diverting attention from important public programs and private agendas.

Since 1955 there have been 50 Presidential Disaster Declarations and 9 Presidential Emergency Declarations in Pennsylvania, 12 of which have included Franklin County. The emergency management community, citizens, elected officials and other stakeholders in Franklin County recognize the impact of disasters on our community and support proactive efforts needed to reduce the impact of natural and human-made hazards.

Hazard mitigation describes sustained actions taken to prevent or minimize long-term risks to life and property from hazards and create successive benefits over time. Pre-disaster mitigation actions are taken in advance of a hazard event and are essential to breaking the disaster cycle of damage, reconstruction, and repeated damage. With careful selection, successful mitigation actions are a cost-effective means of reducing risk of loss over the long-term.

Hazard mitigation planning has the potential to produce long-term and recurring benefits by breaking the cycle of loss. A core assumption of mitigation is that current dollars invested in mitigation practices will significantly reduce the demand for future dollars by lessening the amount needed for recovery, repair, and reconstruction. These mitigation practices will also enable local residents, businesses, and industries to re-establish themselves in the wake of a disaster, getting the economy back on track sooner and with less interruption.

Accordingly, the Franklin County Hazard Mitigation Planning Team (HMPT) composed of government leaders from Franklin County, in cooperation with the elected officials of the county and its municipalities have prepared this Hazard Mitigation Plan (HMP) update. The HMP is the result of work by citizens of the county to develop a pre-disaster multi-hazard mitigation plan that will not only guide the county towards greater disaster resistance, but will also respect the character and needs of the community.

1.2. Purpose

This Hazard Mitigation Plan was developed for the purpose of:

- Identifying hazards present in Franklin County.
- Determining the areas impacted by identified hazards that affect the lives and property of Franklin County citizens.
- Assessing what has been and should be done to reduce or eliminate the impact of identified hazards on Franklin County citizens.
- Developing and implementing a hazard mitigation action plan to make Franklin County citizens safer in the future.

- Qualifying for pre-disaster and post-disaster grant funding.

1.3. Scope

The Franklin County 2018 Hazard Mitigation Plan Update has been prepared to meet requirements set forth by the Federal Emergency Management Agency (FEMA) and Pennsylvania Emergency Management Agency (PEMA) in order for the county and our municipalities to be eligible for funding and technical assistance from state and federal hazard mitigation programs. It will be updated and maintained to address both natural and human-made hazards determined to be of significant risk to the county and/or its local municipalities. Updates will take place at a minimum every five years, but they will also take place following significant disaster events.

1.4. Authority and References

Authority for this plan originates from the following federal sources:

- Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C., Section 322, as amended.
- Code of Federal Regulations (CFR), Title 44, Parts 201 and 206.
- Disaster Mitigation Act of 2000, Public Law 106-390, as amended.
- National Flood Insurance Act of 1968, as amended, 42 U.S.C. 4001 *et seq.*
- Authority for this plan originates from the following Commonwealth of Pennsylvania sources:
 - Pennsylvania Emergency Management Services Code. Title 35, Pa C.S. Section 101.
 - Pennsylvania Municipalities Planning Code of 1968, Act 247 as reenacted and amended by Act 170 of 1988.
 - Pennsylvania Stormwater Management Act of October 4, 1978. P.L. 864, No. 167.

The following **federal** guides and reference documents were used to prepare this document:

- FEMA 386-6: *Integrating Historic Property and Cultural Resource Considerations into Hazard Mitigation Planning*. May 2005.
- FEMA 386-8: *Multijurisdictional Mitigation Planning*. August 2006.
- FEMA: *Local Mitigation Planning Handbook*. March 2013.
- FEMA: *Local Mitigation Plan Review Guide*. October 1, 2011.
- FEMA: *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards*. January 2013.
- FEMA: *Integrating Hazard Mitigation into Local Planning: Case Studies and Tools for Community Officials*. March 1, 2013.
- FEMA: *Plan Integration: Linking Local Planning Efforts*. July 2015.
- FEMA: *Flood Risk Report: Conococheague-Opequon Watershed, 02070004, 2017*.

Franklin County Hazard Mitigation Plan - 2018

- United States Geologic Survey: *The Landslide Handbook – A Guide to Understanding Landslides*, 2008.
- United States Department of Agriculture: *2012 Census of Agriculture*, 2014.

The following **state** guides and reference documents were used prepare this document:

- PEMA: *Standard Operating Guide*. October 18, 2013.
- PEMA: *Pennsylvania State Hazard Mitigation Plan*. October 31, 2013.
- PEMA: *Pennsylvania State Hazard Mitigation Plan*. 2018, updated October 2019.
- Pennsylvania Department of Agriculture, Bureau of Farmland Preservation: *2016 Annual Report, Act 149 of 1988*, 2017.
- Pennsylvania Department of Conservation and Natural Resources (DCNR): *Landslides in Pennsylvania, Educational Series 9*, 2001.

The following **locally** generated documents were used in the development of this document:

- Franklin County Department of Emergency Services: *Hazard Mitigation Plan*, May 2014.
- Franklin County Department of Emergency Services: *Strategic Plan*, 2016.
- Franklin County Forward: *The Comprehensive Plan for Franklin County, PA*, 2012.
- Franklin County: *Greenway and Open Spaces*, 2007.
- Franklin County: *Municipal Solid Waste Plane Update*, 2013.
- Franklin County: *Long-Range Transportation Plan 2013-2032*, 2013.
- Franklin County Area Development Corporation: *2017 Franklin County Profile*, 2017.

2. Community Profile

2.1. Geography and Environment

Franklin County is in the south-central region of the Commonwealth in the southern Pennsylvania portion of the Cumberland Valley and covers a land area of 772 square miles. A section of the Mason-Dixon Line makes up the southern boundary of Franklin County while its most northerly point stretches jaggedly one-fourth of the way across the Commonwealth to an even latitude with Harrisburg (see **Figure 2.1.1** below). The county is considered the dividing line between floral growth of the north and south.

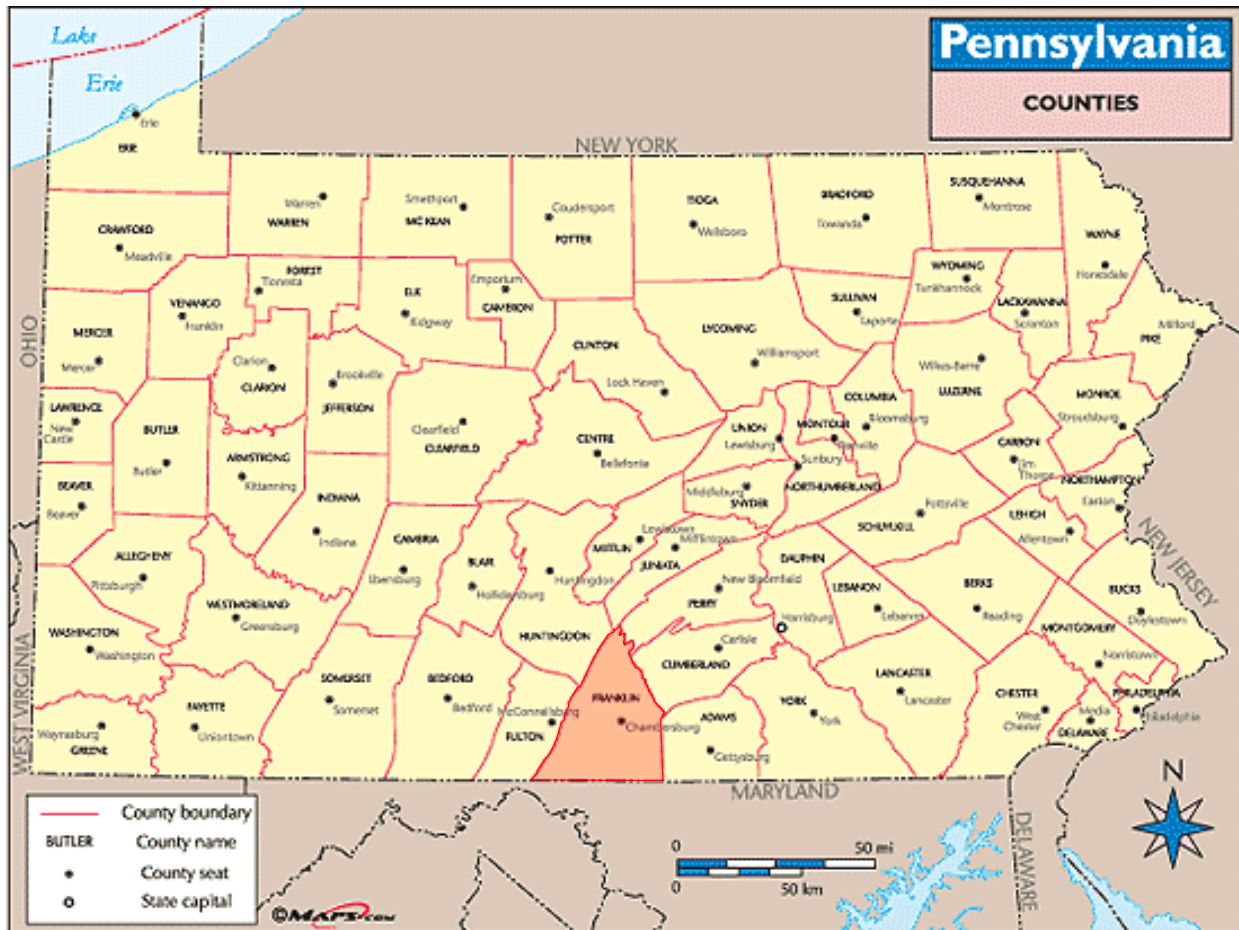


Figure 2.1.1: The Geography of Franklin County

Franklin County is bordered by Fulton, Huntingdon, Juniata, Perry, Cumberland, and Adams Counties in Pennsylvania. On our southern border, we are bounded by Washington and Frederick Counties in Maryland.

The county is supported by 4 watersheds: Conococheague-Opequon, Lower Juniata, Lower Susquehanna-Swatara, and the Monocacy. **Figure 2.1.2** below illustrates where these watersheds are located in the county.

Franklin County Hazard Mitigation Plan - 2018

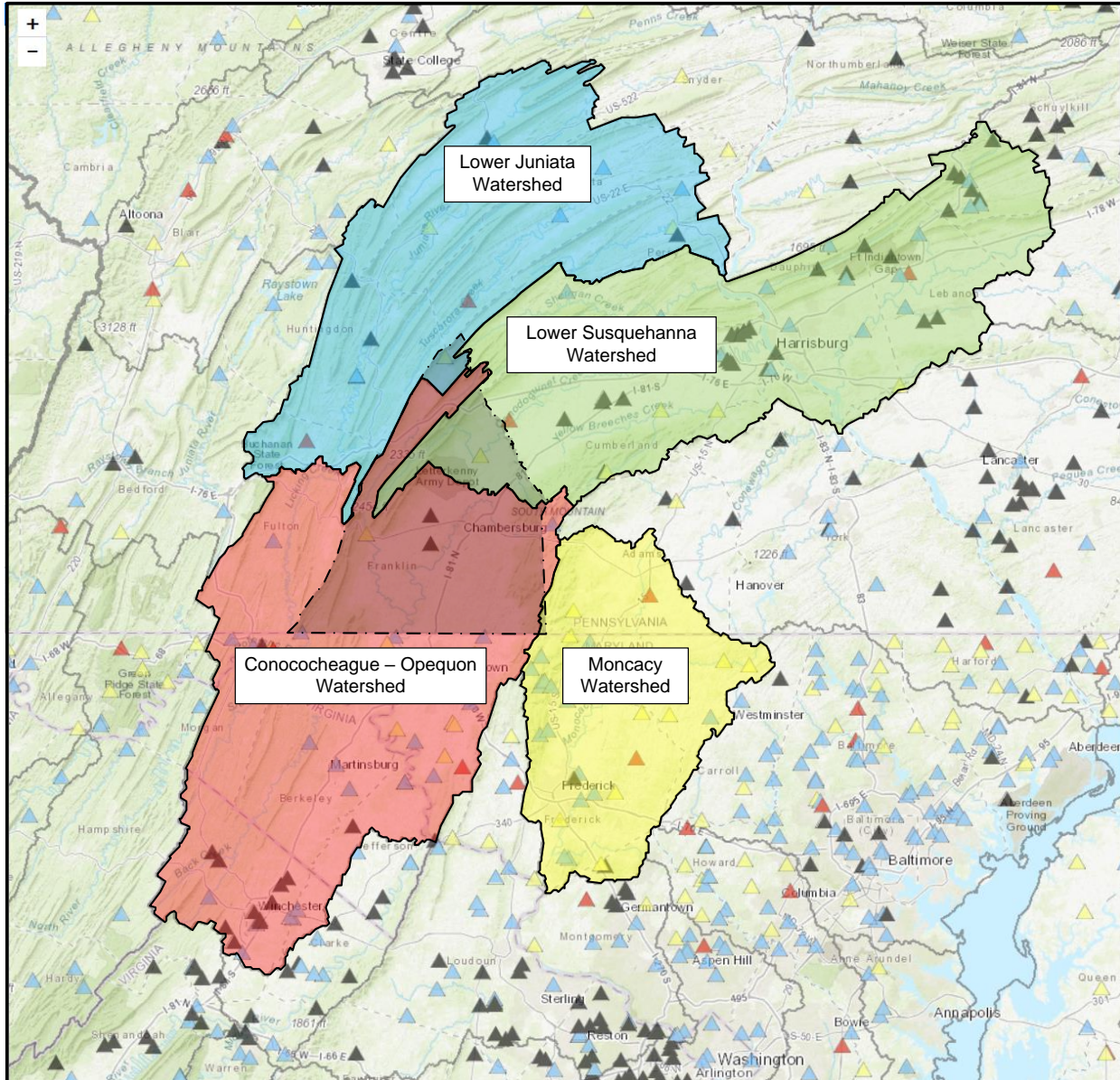


Figure 2.1.2: Franklin County Watersheds¹

These watersheds support two larger watershed basins in the region, the Potomac and Susquehanna Basins. The Conococheague Creek (both branches), Little Cove Creek, Licking Creek, Tuscarora Creek, Back Creek, Antietam Creek, and their tributaries all drain to the Potomac River Watershed Basin. The Conodoguinet Creek, and its tributaries, drain to the Susquehanna River Watershed Basin. Both of these basins eventually drain to the Chesapeake Bay, a critical natural resource in the mid-Atlantic region.

Higher quality streams tend to be located along the eastern and western border regions, in more mountainous, less developed areas. The impaired streams and warm water streams are in the

¹ USGS

central, valley portion of the county, in areas with the highest level of development (See **Figure 2.1.3**).

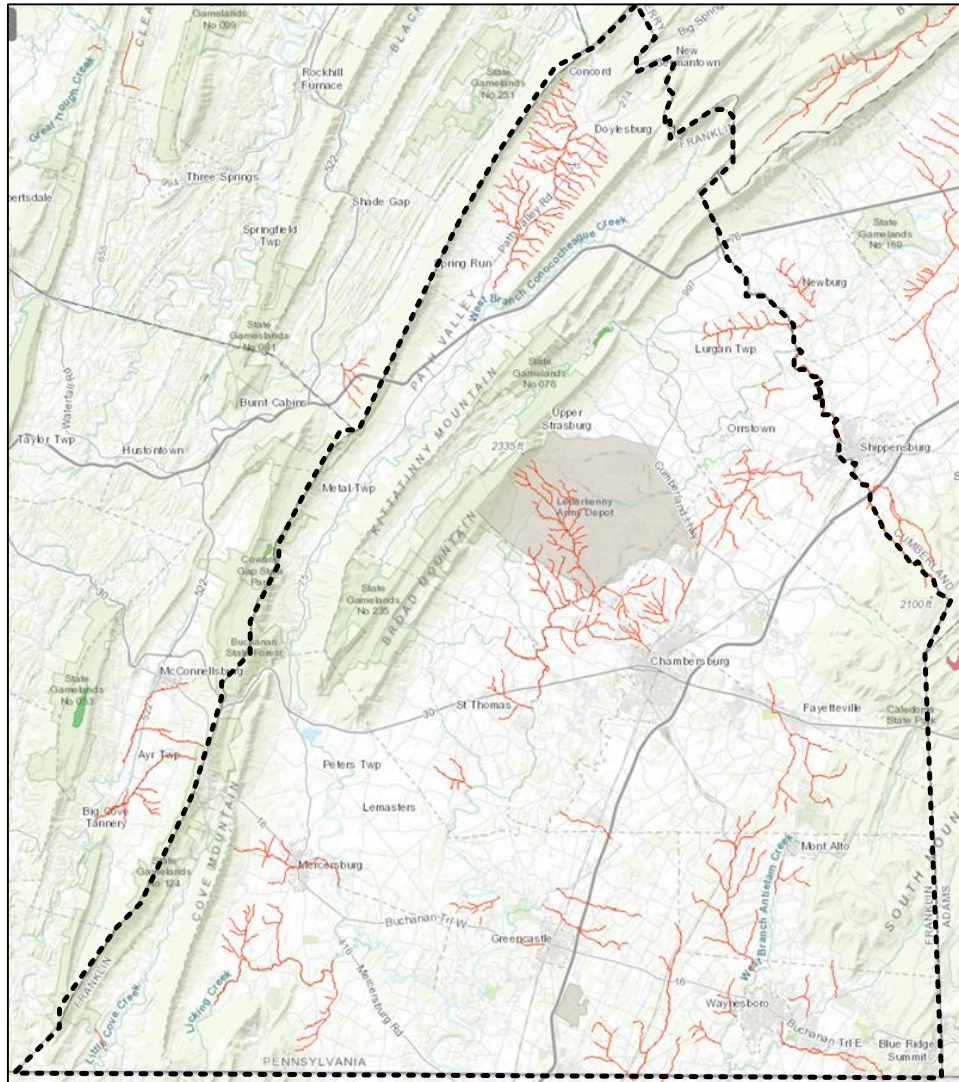


Figure 2.1.3: Impaired Stream Locations in Franklin County (red) (2018)²

There are a total of 1,696 miles of streams in Franklin County, with approximately 307 miles considered impaired. **Table 2.1.1** below lists the main causes of the stream impairment in the county. Siltation is the number one cause of stream impairment in the county, but there are several other factors that combine to negatively impact the natural environment.

² DEP, 2017

Franklin County Hazard Mitigation Plan - 2018

Impairment	Definition
Siltation / Suspended Solids / Turbidity	Water becomes dirty as a result of fine mineral particles in the water
Nutrients / Organic Enrichment-Low Dissolved Oxygen	Excessive nitrogen and phosphorous in the stream/creek
Water-Flow Variability / Flow Alterations / Other Habitat Alterations	Changes in hydraulic regime caused by water releases and increased surface runoff from impervious surfaces
Cause Unknown	Impairment cause has not been determined
Oil and Grease	Oil and/or Grease has polluted the stream/creek

Table 2.1.1: Causes of Impaired Streams in Franklin County³

Table 2.1.2 below lists the causes and number of miles of streams impacted by that causal factor or combination of causal factors in the county.

Impairment Cause(s)	Miles of Streams in Franklin County
Siltation / Suspended Solids / Turbidity	140.77
Siltation / Suspended Solids / Turbidity; Nutrients / Organic Enrichment-Low Dissolved Oxygen	104.40
Siltation / Suspended Solids / Turbidity; Water-Flow Variability / Flow Alterations / Other Habitat Alterations	30.68
Siltation / Suspended Solids / Turbidity; Nutrients / Organic Enrichment-Low Dissolved Oxygen; Water-Flow Variability / Flow Alterations / Other Habitat Alterations	12.94
Nutrients / Organic Enrichment-Low Dissolved Oxygen	4.15
Nutrients / Organic Enrichment-Low Dissolved Oxygen; Water-Flow Variability / Flow Alterations / Other Habitat Alterations	3.64
Siltation / Suspended Solids / Turbidity; Nutrients / Organic Enrichment-Low Dissolved Oxygen; Water-Flow Variability / Flow Alterations / Other Habitat Alterations; Cause Unknown	3.58
Water-Flow Variability / Flow Alterations / Other Habitat Alterations; Oil and Grease	2.36
Water-Flow Variability / Flow Alterations / Other Habitat Alterations	2.34
Siltation / Suspended Solids / Turbidity; Cause Unknown	1.79
Total	306.65

Table 2.1.2: Impaired Stream Miles in Franklin County⁴

Figure 2.1.4 below is a map of the streams and creeks that make up the water resources for Franklin County.

³ DEP, 2017

⁴ DEP, 2017

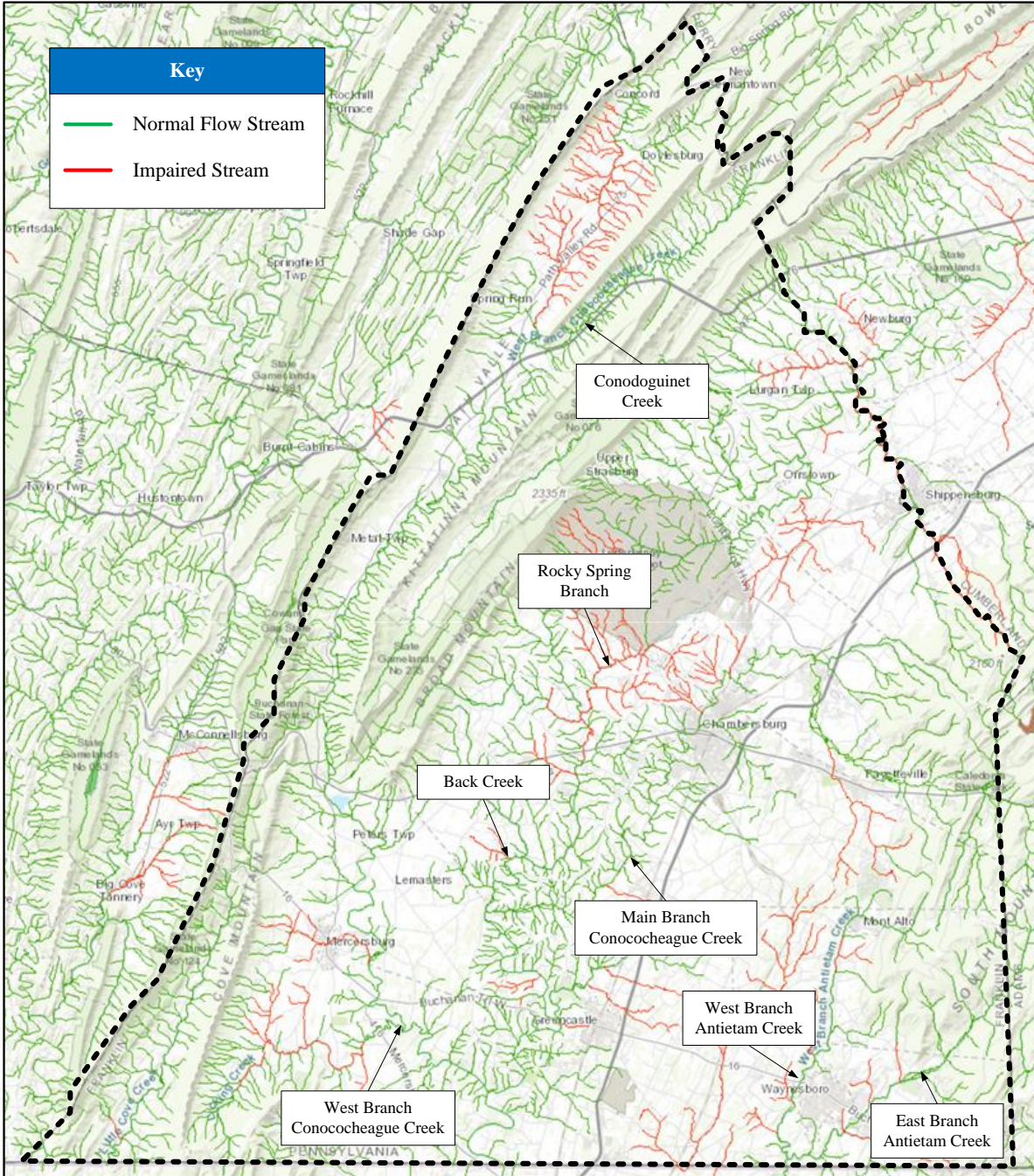


Figure 2.1.4: Franklin County Water Resources⁵

Interstate Highway 81 and the Pennsylvania Turnpike (Interstate 76) transit through Franklin County’s boundaries (see **Figure 2.1.5**). Two rail lines also cross through Franklin County, along with several sidings and spur lines (see **Figure 2.1.6**). In addition, several pipelines, which provide key hydrocarbons for the eastern seaboard, transit Franklin County (see **Figure 2.1.7**).

⁵ DEP, 2017

Franklin County Hazard Mitigation Plan - 2018

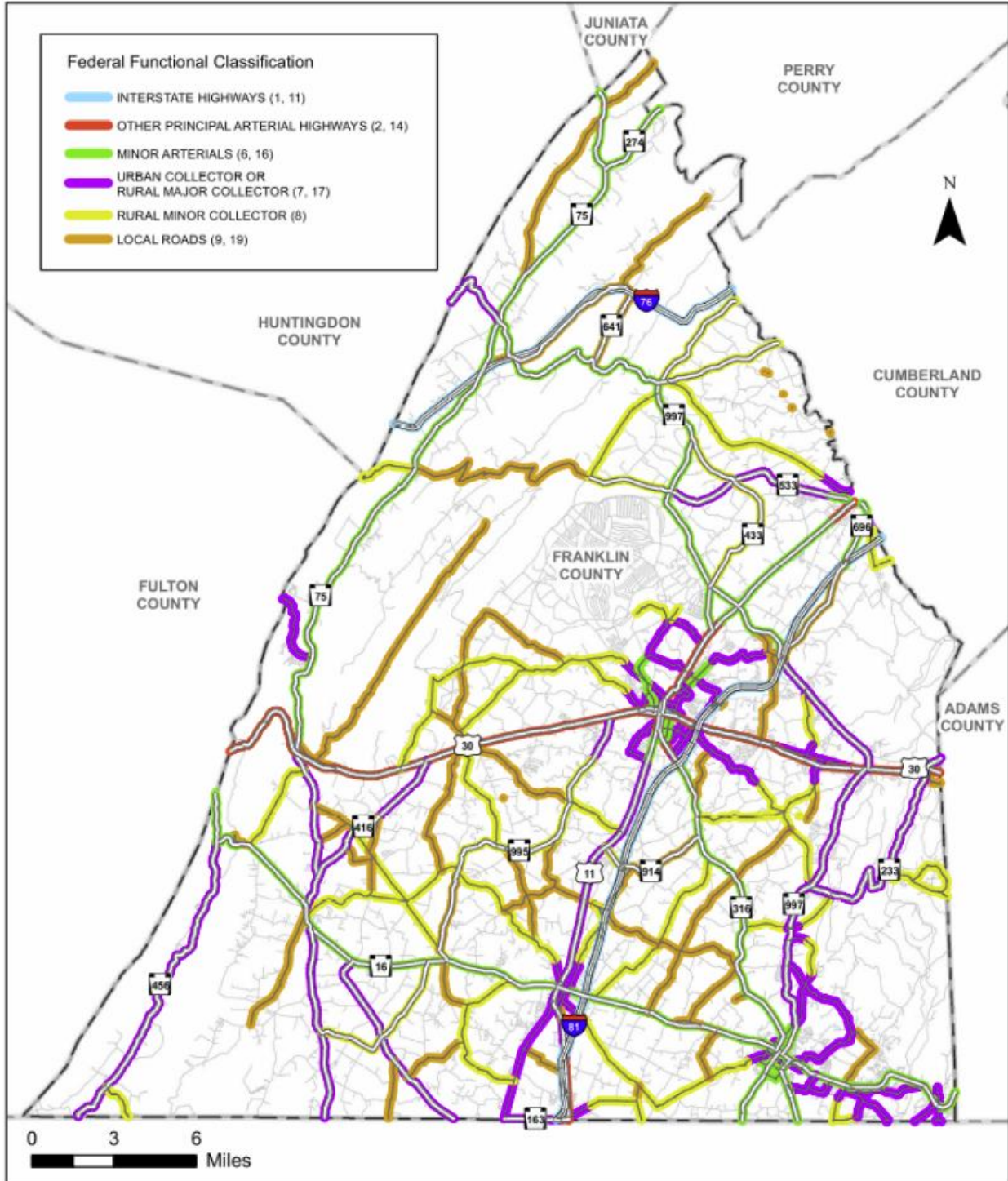


Figure 2.1.5: Highway Network in Franklin County

Franklin County Hazard Mitigation Plan - 2018

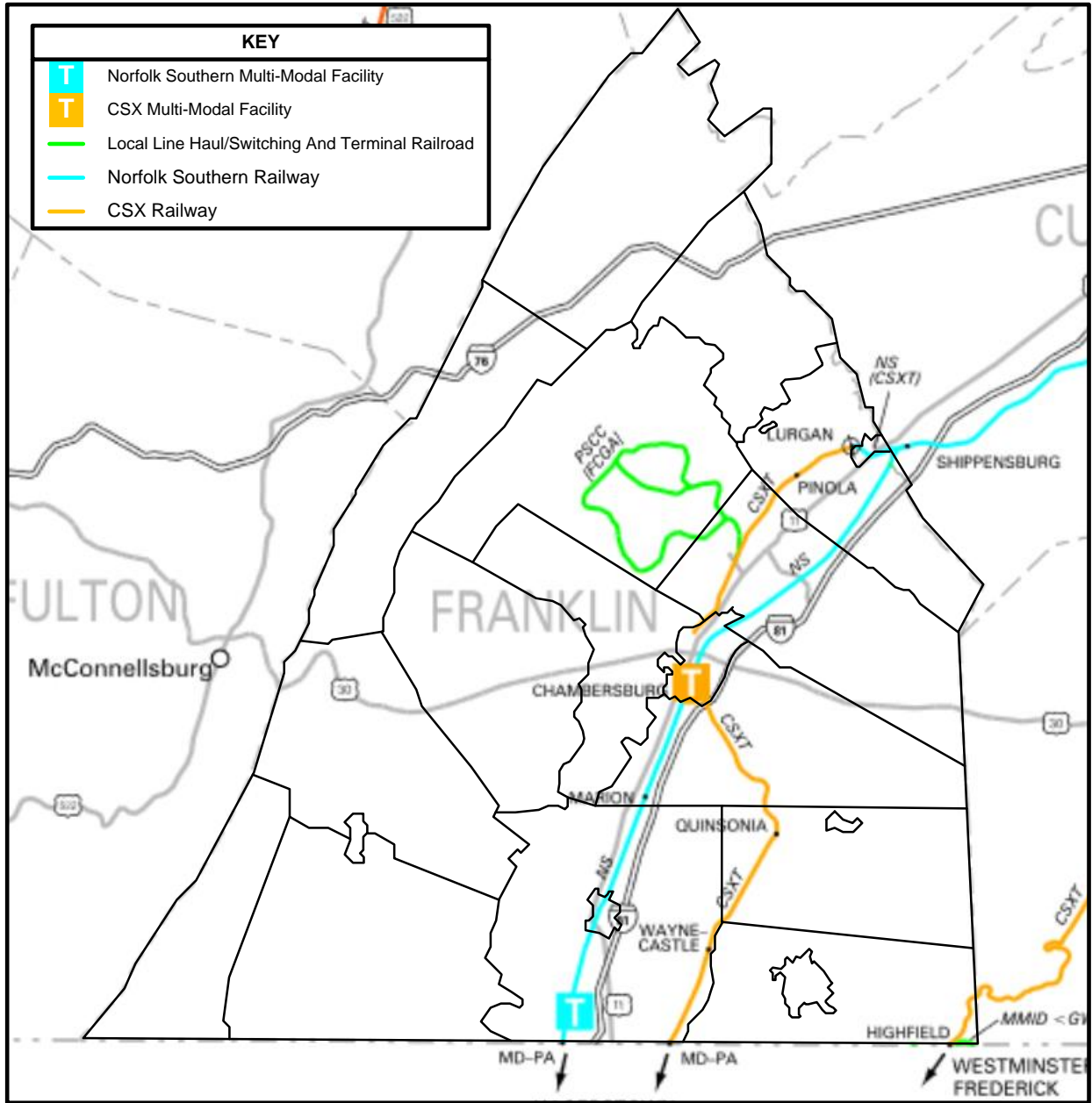


Figure 2.1.6: Railway Network in Franklin County

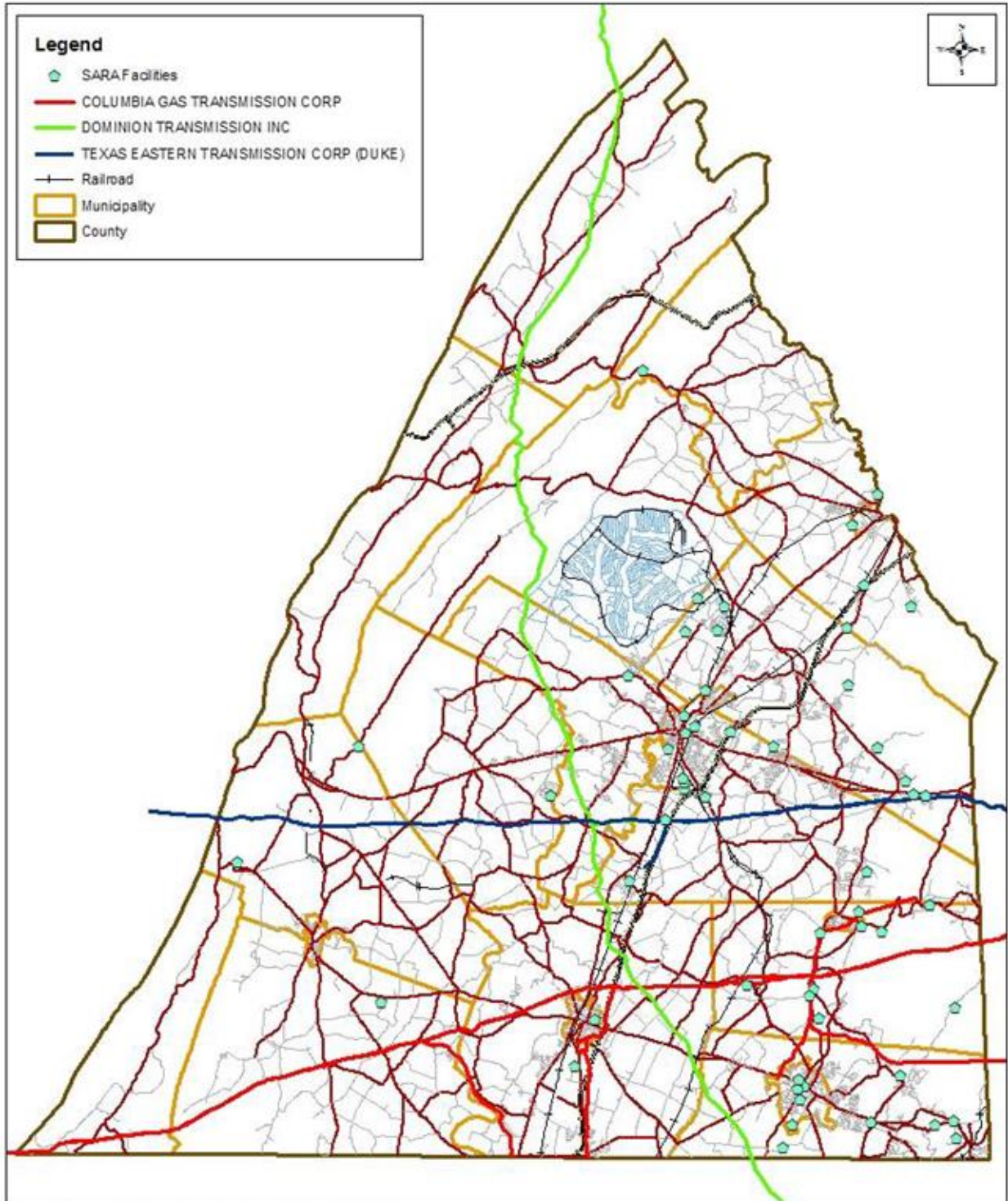


Figure 2.1.7: Pipeline Network in Franklin County

Franklin County supports a strong agriculture industrial base, with agricultural receipts ranking 4th in the Commonwealth. The county has worked with the Commonwealth since 1990 to ensure permanent protection of agricultural land through the purchase of easements. Franklin County is ranked 13 in the number of individual farms under easement and 9 in the total number

Franklin County Hazard Mitigation Plan - 2018

of acres protected in Pennsylvania. As of 2017, 16,882 acres at 130 farms were protected; in addition, approximately 104,276 acres are within Agricultural Security Areas⁶ (see **Figure 2.1.8** below).

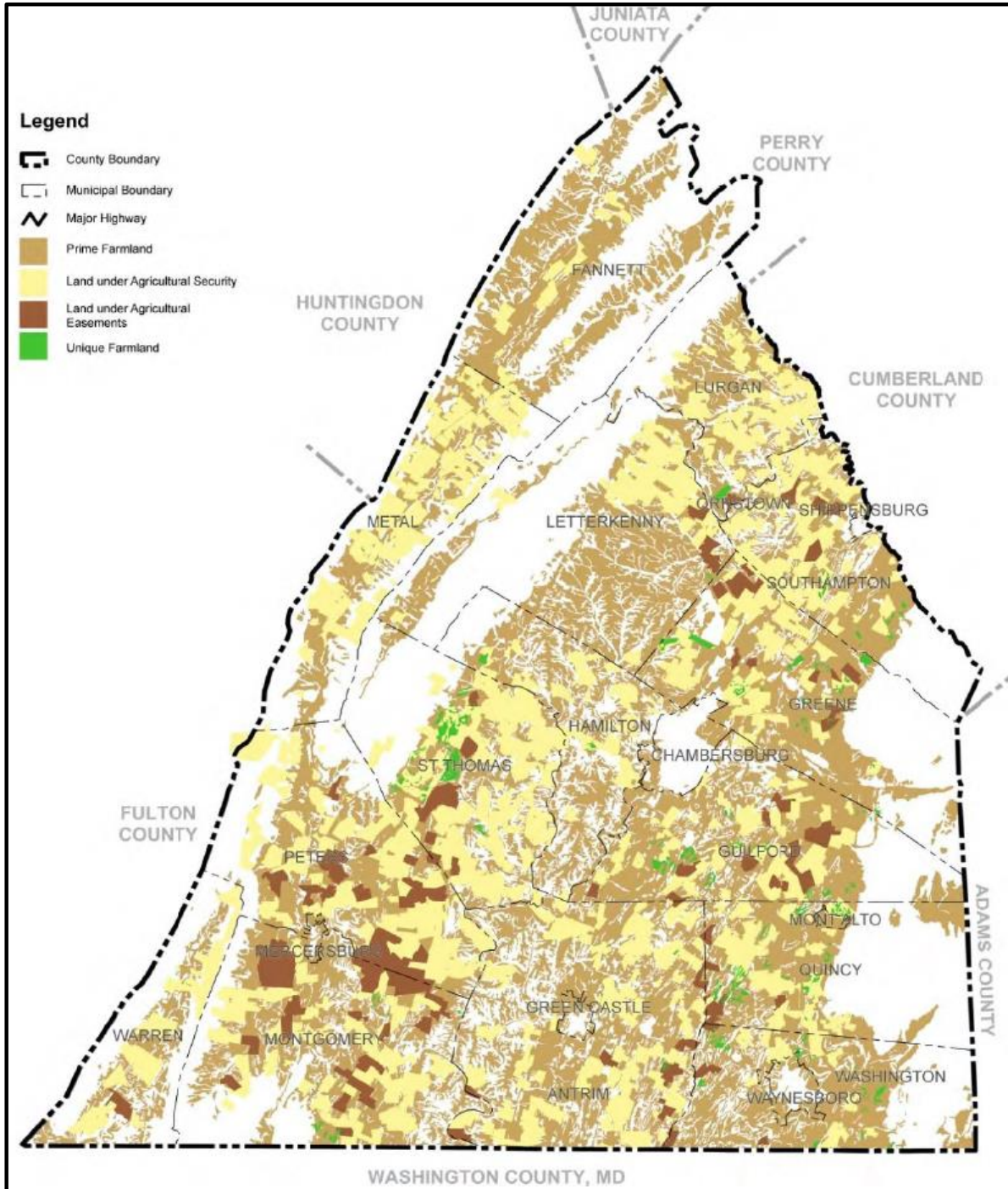


Figure 2.1.8: Franklin County Agricultural Resources⁷

⁶ Pennsylvania Department of Agriculture, 2017

⁷ Franklin County Comprehensive Plan, 2012

Franklin County has many recreational assets, including the Appalachian Trail, Tuscarora Trail, Cumberland Valley and Chambersburg Rail-Trails, Iron Horse Trail, three State parks, the Tuscarora, Buchanan, and Michaux State Forests (see **Figure 2.1.9** below), numerous State Game Lands, as well as several renowned trout fishing streams and dozens of local community parks; which together provide a variety of opportunities for biking, hiking, hunting, fishing, boating, wildlife viewing, and other pastimes.

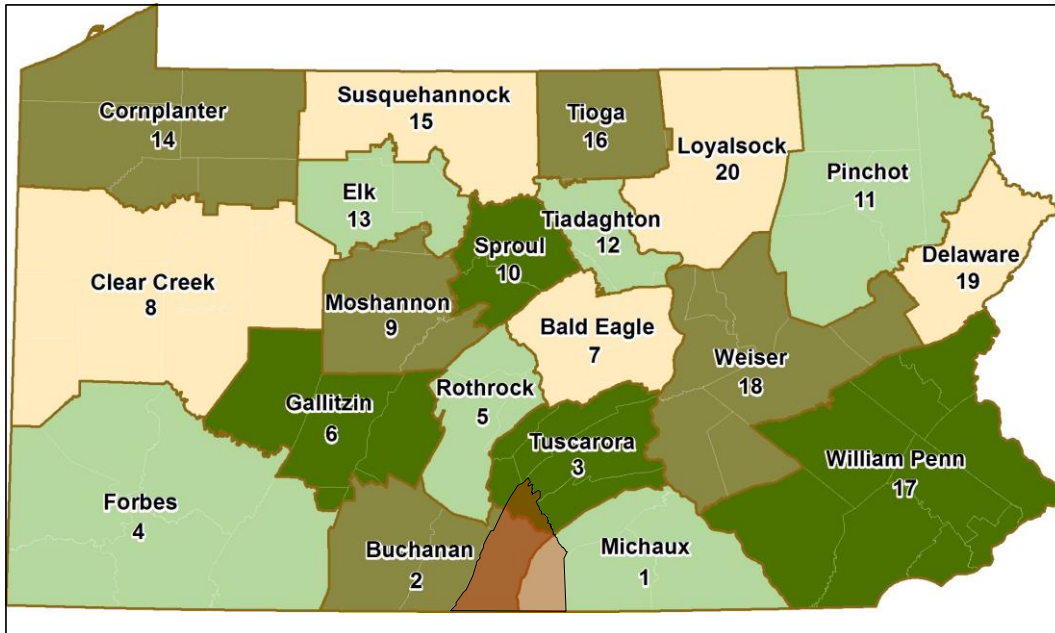


Figure 2.1.9: State Forests in Franklin County

Wilson College in Chambersburg, Penn State University-Mont Alto Campus, and Mercersburg Academy are the leading educational institutions, with Shippensburg University located along the northern border of Franklin County.

2.2. Community Facts

Originally part of Lancaster County (1729), then York County (1749), then Cumberland County (1750), Franklin County became an independent jurisdiction on September 9, 1784, relatively soon after the end of the American Revolutionary War. It is named in honor of Founding Father Benjamin Franklin.

The county has historically been an agricultural community with development concentrated in Chambersburg, Greencastle, Mercersburg, Shippensburg, and Waynesboro. The county has maintained its agricultural economy and landscape as well as many of its historic structures. There are 63 landmarks listed on the National Register of Historic Places for Franklin County including bridges, farms, homes and historic districts⁸.

⁸ United States Department of Interior, 2017

Chambersburg, the county seat, holds a distinction as the only northern town to be destroyed by the Confederate Army during the Civil War. On July 30, 1864, Brigadier General John McCausland and 2,800 Confederate cavalymen entered Chambersburg and demanded \$100,000 in gold or \$500,000 in greenbacks in retaliation for Union Army actions in the Shenandoah Valley earlier in the war. The residents of Chambersburg failed to raise the ransom, and McCausland ordered his men to burn the town. Very few structures were left standing after the raid, two of note were the Masonic Temple and the Old Jail.

2.3. Population and Demographics

Franklin County is made up of 7 boroughs and 15 townships. **Figure 2.3.1** below shows the layout of the county and location of the municipalities.

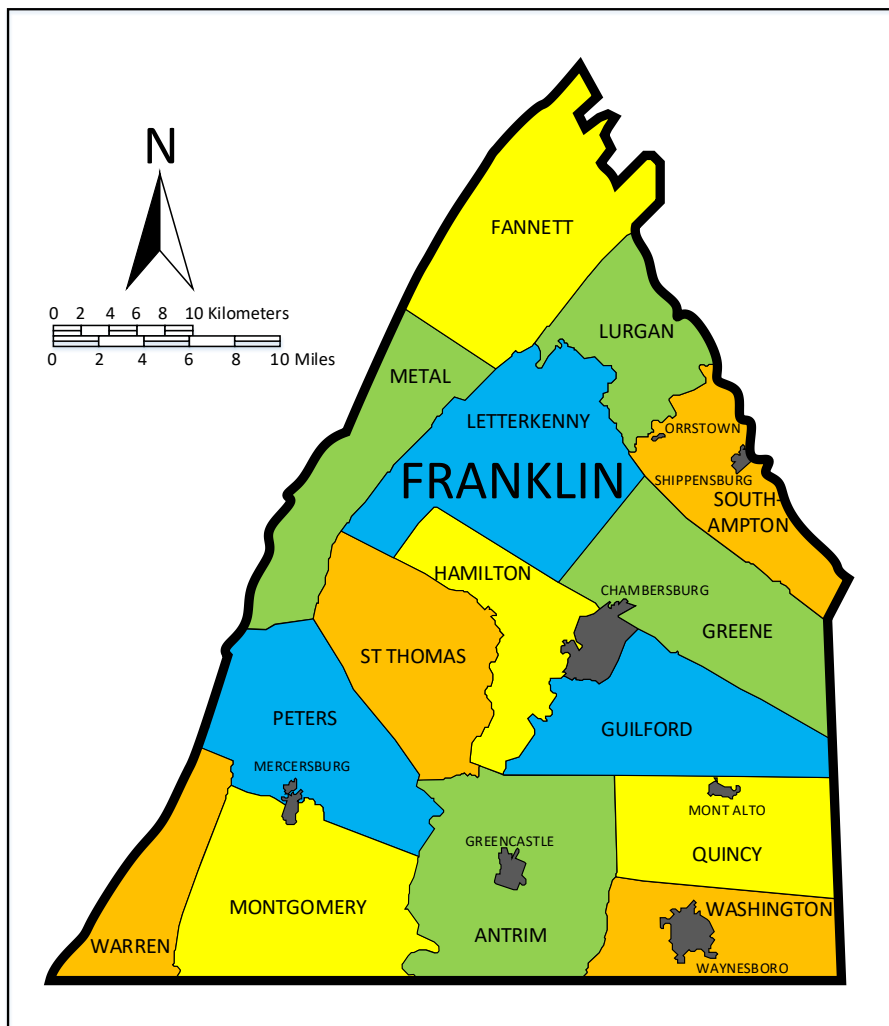


Figure 2.3.1: Franklin County Municipal Map

Figure 2.3.2 represents the population of each of these municipalities as tallied by the 2010 US Census.

Franklin County Hazard Mitigation Plan - 2018

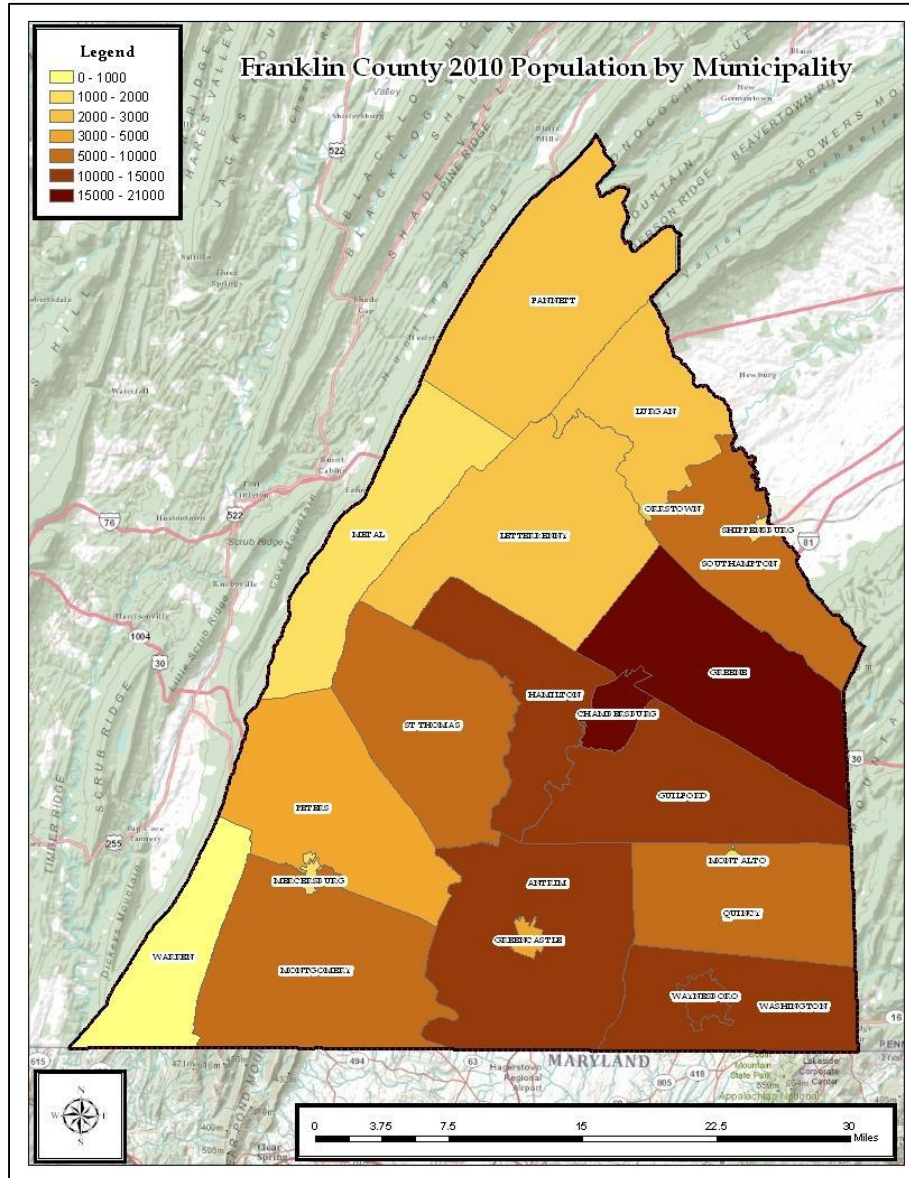


Figure 2.3.2: Franklin County Municipalities and 2010 Census Population

Population within the county grew 19.9% from 2000 to 2019 (see **Table 2.3.1** below).

Franklin County Hazard Mitigation Plan - 2018

Municipality	Population 1970	Population 1980	Population 1990	Population 2000	Population 2010	Population 2017 est	Population 2019 est
Antrim Township	7,378	9,326	10,107	12,504	14,893	15,596	15,768
Chambersburg Borough	17,315	16,174	16,647	17,862	20,268	20,872	21,143
Fannett Township	1,640	2,016	2,309	2,309	2,548	2,608	2,601
Greencastle Borough	3,293	3,679	3,600	3,722	3,996	4,017	3,986
Greene Township	9,504	11,470	11,930	12,284	16,700	17,659	17,898
Guilford Township	9,291	10,567	11,893	13,100	14,531	14,825	14,866
Hamilton Township	4,921	6,504	7,745	8,949	10,788	11,135	11,125
Letterkenny Township	1,419	1,960	2,251	2,074	2,318	2,383	2,377
Lurgan Township	1,649	1,986	2,026	2,014	2,151	2,177	2,170
Mercersburg Borough	1,727	1,617	1,640	1,540	1,561	1,543	1,532
Metal Township	1,205	1,576	1,612	1,721	1,866	1,870	1,853
Mont Alto Borough	1,532	1,592	1,395	1,357	1,705	1,740	1,729
Montgomery Township	3,221	4,252	4,558	4,949	6,116	6,239	6,230
Orrstown Borough	262	247	220	231	262	262	260
Peters Township	3,838	4,060	4,090	4,251	4,430	4,438	4,414
Quincy Township	5,264	5,792	5,704	5,846	5,541	5,482	5,451
St. Thomas Township	3,931	5,711	5,861	5,775	5,935	6,010	6,005
Shippensburg Borough	1,364	885	1,003	1,119	1,076	1,106	1,100
Southampton Township	3,292	4,604	5,484	6,138	7,987	8,540	8,495
Warren Township	262	269	310	334	369	371	368
Washington Township	8,514	9,616	11,119	11,559	14,009	14,624	14,770
Waynesboro Borough	10,011	9,726	9,578	9,617	10,568	10,879	10,886
County Totals	100,833	113,629	121,082	129,255	149,618	154,376	155,027

Table 2.3.1: Summary of Population Statistics for Franklin County and Incorporated Communities

Growth is expected to be between 8% and 16% through 2025, with the population of the county expected to be between 161,000 and 173,000. This reflects an increase of between 12,000 and 23,000 citizens from 2010 Census figures with the share of population expected to be within traditional working ages remaining relatively constant (see **Table 2.3.2**).

Age	% of Population in 2000	% of Population in 2010
<5	6.3%	7.4%
6 to 19	20.3%	18.7%
20 to 34	18.4%	17.7%
35 to 54	29.0%	26.5%
55 to 74	18.3%	21.3%
>74	7.7%	8.4%

Table 2.3.2: Franklin County Age Groups as a Percentage of Household Population (2000/2010/2016)⁹

Based on general county-wide build-out analysis, to fully develop the available land, the County would have approximately 300,000 households.

⁹ US Census Bureau, 2017

2.4. Land Use and Development

Franklin County’s fertile farmland produces major agricultural crops, but dairy and poultry farming are productive and well-financed industries as well. Industrially, Franklin County ranks high, having a variety of manufacturing and distribution facilities which complement the agricultural enterprises and the result is a stable and sound economy.

Additionally, Franklin County is the host to a major military installation. The Letterkenny Army Depot is located primarily in Letterkenny Township, but extends into both Greene and Hamilton Townships. The Depot consists of nearly 18,000 acres and is the second largest employer in Franklin County, only surpassed by WellSpan Health.

The facilities at Letterkenny are used to conduct maintenance, modification, storage, and demilitarization operations on tactical missiles, ammunition, tactical wheeled vehicles, material handling equipment (7.5-ton cranes), mobile kitchen trailers, and mine resistant armored vehicles.

These missions fall under the oversight of the Department of Defense (DoD) and all operations, to include hazard mitigation, are governed by federal regulations and procedures. The county’s relationship with the Letterkenny Army Depot is as a coordination partner for first responder services and resource acquisition only. Therefore, all aspects of incident management and hazard mitigation are handled through these federal channels, due to the sensitive nature of the programs and processes undertaken at the Depot.

Tables 2.4.1 and **2.4.2** below capture the major industries and top employers in Franklin County respectively. In addition, significant truck and intermodal transportation facilities, including intermodal sites for both CSX and Norfolk Southern Rail Roads, are part of the infrastructure supporting the economy of Franklin County.

Industry	# Employees
Manufacturing	4,390
Logistics/Warehouse	3,920
Healthcare (WellSpan)	3,360
Federal (Letterkenny Army Depot)	3,150
Schools (Chambersburg area)	1,120
County Government	670
Total	16,610

Table 2.4.1: Major Industries in Franklin County (2017)¹⁰

¹⁰ Franklin County Area Development Corporation, 2017

Franklin County Hazard Mitigation Plan - 2018

Company/Organization	# Employees
WellSpan Health	3,360
Letterkenny Army Depot	3,150
Chambersburg Area School District	1,120
Manitowoc Crane Group/Grove Crane	950
Volvo Construction Equipment	850
Procter & Gamble Northeast Mixing Center	750
Franklin County Government	670
Target Distribution Center #589	590
Food Lion, Inc.	520
World Kitchen	510
Total	12,470

Table 2.4.2: Top Employers in Franklin County¹¹

Because of its famous Blue Ridge Mountains, Franklin County lends itself easily to the entertainment of vacationers and persons seeking rest and relaxation. There is not a river in the county but many streams afford an ample supply of water for the fertile limestone soil.

Pasture and grasslands comprise approximately 30% of the land within Franklin County, with another 14% being cultivated by row crops, resulting in over 44% of the land being classified as prime agricultural soil. Nearly 45% of the land within the county is forested, with the remaining land being utilized for residential, commercial, and transportation uses (see **Table 2.4.3** and **Figure 2.4.1** below).

Land Use Category	% of County
Low Intensity Residential	2.33%
Medium Intensity Residential	3.08%
Low Intensity Non-Residential	2.18%
Medium Intensity Non Residential	1.52%
High Intensity Non Residential	0.38%
Active Strip Mining	0.16%
Transportation	1.83%
Row Crops	14.34%
Pasture/Grassland	29.32%
Golf Course	0.29%
Forest	43.37%
Barren Land	0.03%
Surface Water	0.33%
Wetlands	0.83%

Table 2.4.3: Land Use Coverage (2010)

¹¹ Franklin County Area Development Corporation, 2017

Franklin County Hazard Mitigation Plan - 2018

The Land Use numbers cited from 2010, in **Table 2.4.3**, already take into account zoning change initiatives from the Franklin County Comprehensive Plan that was looking forward to 2025. These initiatives are only now starting to take effect and can be witnessed in the population transfer detailed in **Section 4.4.4** of this document.

An initiative that has been taken to try to limit the impacts of Land Use changes on our agrarian economy is the county's participation in easement and security area programs sponsored by the state. As highlighted in **Section 2.1**, Franklin County has 16,882 acres at 130 farms protected; in addition to approximately 104,276 acres that lie within Agricultural Security Areas. The number of acres (+971 acres) and farms (+11 farms) in easement areas represent a 6.1% growth since first published in the 2014 HMP, but the number of acres in security areas (-1,724 acres) has decreased. This results in a net loss of 753 acres (-0.7%) of protected agricultural area from 2014 to 2017 and may account for some of the growth seen in suburban developments highlighted in **Table 2.4.5** below.

A factor that naturally limits adverse Land Use changes is the presence of State Forests in and around our county that are protected from development. The Michaux State Forest on our Eastern flank, the Tuscarora State Forest on the Northern edge, and Pennsylvania State Game Lands #124 on the Western flank help protect the natural beauty of Franklin County.

However, it is inevitable that, to support population growth in our county, the current Land Use paradigm has to change. As the Franklin County Comprehensive Plan is updated in the next 2 years, this HMP will be updated to capture the changes in these Land Use demographics to further identify trends.

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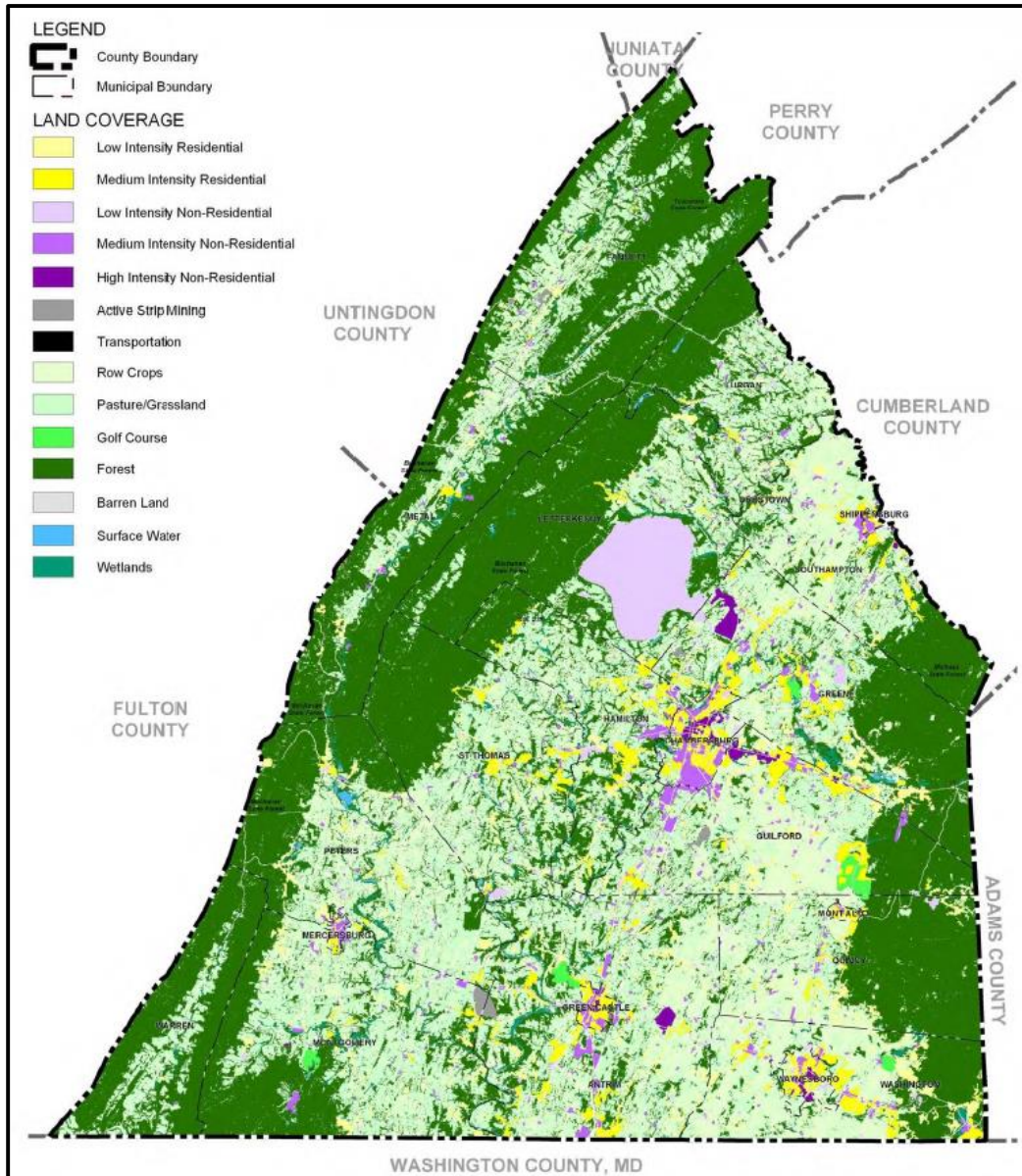


Figure 2.4.1: Franklin County Land Coverage (2010)¹²

Franklin County has 53,410 land parcels, of which 50,419 are residential. The remaining 2,991 parcels are considered commercial properties. See **Table 2.4.4** below for the breakout of these parcels per municipality and their associated estimated values. These estimates only account for the value of the land and structures per parcel. It does not account for loss of contents, function loss, or displacement costs. Additionally, the costs associated with the facilities located on the Lettekenny Army Depot are not included in these numbers because the tax assessment database used to calculate the values does not include the federal properties of the Lettekenny Army Depot. However, they are included in the 1% flood loss numbers in **Section 4.3.7, Table 4.3.7.5.1** in the Lettekenny Township loss estimates.

¹² Franklin County Comprehensive Plan, 2012

Franklin County Hazard Mitigation Plan - 2018

Municipality	Total # of Resident Parcels	Assessed Value of Residential Parcels (1961 \$)	Estimated Value of Residential Parcels (2017 \$)	Total # of Commercial Parcels	Assessed Value of Commercial Parcels (1961 \$)	Estimated Value of Commercial Parcels (2017 \$)	Estimated Value of All Parcels (2017 \$)
Antrim Township	5,123	\$117,445,710.00	\$896,110,767.30	157	\$21,897,970.00	\$167,081,511.10	\$1,063,192,278.40
Chambersburg Borough	6,021	\$102,551,060.00	\$782,464,587.80	870	\$88,126,100.00	\$672,402,143.00	\$1,454,866,730.80
Fannett Township	791	\$10,713,090.00	\$81,740,876.70	33	\$724,340.00	\$5,526,714.20	\$87,267,590.90
Greencastle Borough	1,438	\$30,497,140.00	\$232,693,178.20	147	\$8,426,130.00	\$64,291,371.90	\$296,984,550.10
Greene Township	6,180	\$133,737,510.00	\$1,020,417,201.30	260	\$30,372,350.00	\$231,741,030.50	\$1,252,158,231.80
Guilford Township	5,499	\$128,490,040.00	\$980,379,005.20	308	\$56,945,740.00	\$434,495,996.20	\$1,414,875,001.40
Hamilton Township	3,532	\$78,639,040.00	\$600,015,875.20	133	\$7,790,290.00	\$59,439,912.70	\$659,455,787.90
Letterkenny Township	1,029	\$15,742,350.00	\$120,114,130.50	28	\$704,720.00	\$5,377,013.60	\$125,491,144.10
Lurgan Township	639	\$10,935,450.00	\$83,437,483.50	21	\$544,960.00	\$4,158,044.80	\$87,595,528.30
Mercersburg Borough	530	\$7,952,760.00	\$60,679,558.80	93	\$4,084,150.00	\$31,162,064.50	\$91,841,623.30
Metal Township	801	\$9,030,650.00	\$68,903,859.50	34	\$992,550.00	\$7,573,156.50	\$76,477,016.00
Mont Alto Borough	548	\$8,103,410.00	\$61,829,018.30	19	\$1,035,040.00	\$7,897,355.20	\$69,726,373.50
Montgomery Township	1,950	\$40,938,040.00	\$312,357,245.20	27	\$3,521,840.00	\$26,871,639.20	\$339,228,884.40
Orrstown Borough	72	\$794,220.00	\$6,059,898.60	3	\$59,150.00	\$451,314.50	\$6,511,213.10
Peters Township	1,583	\$24,937,150.00	\$190,270,454.50	67	\$1,904,040.00	\$14,527,825.20	\$204,798,279.70
Quincy Township	1,688	\$26,880,840.00	\$205,100,809.20	52	\$5,338,390.00	\$40,731,915.70	\$245,832,724.90
Shippensburg Borough	459	\$8,970,030.00	\$68,441,328.90	32	\$1,975,930.00	\$15,076,345.90	\$83,517,674.80
Southampton Township	2,394	\$49,185,120.00	\$375,282,465.60	85	\$87,206,620.00	\$665,386,510.60	\$1,040,668,976.20
St Thomas Township	1,776	\$32,665,700.00	\$249,239,291.00	76	\$2,956,770.00	\$22,560,155.10	\$271,799,446.10
Warren Township	85	\$1,540,680.00	\$11,755,388.40	1	\$41,400.00	\$315,882.00	\$12,071,270.40
Washington Township	4,976	\$113,023,070.00	\$862,366,024.10	231	\$17,883,910.00	\$136,454,233.30	\$998,820,257.40
Waynesboro Borough	3,305	\$48,178,830.00	\$367,604,472.90	314	\$15,587,760.00	\$118,934,608.80	\$486,539,081.70
County Totals	50,419	\$1,000,951,890.00	\$7,637,262,920.70	2,991	\$358,120,150.00	\$2,732,456,744.50	\$10,369,719,665.20

Table 2.4.4: Franklin County Parcel Breakdown and Value (2017)

With the continued economic and population growth, we have seen an increase in commercial building permits and subdivision zoning applications. **Table 2.4.5** shows this growth trend over the last 12 years.

Franklin County Hazard Mitigation Plan - 2018

Municipality	2005 Permits	2005 Lots	2007 Permits	2007 Lots	2010 Permits	2010 Lots	2016 Permits	2016 Lots
Antrim Township	0	12	2	8	0	10	2	4
Chambersburg Borough	2	25	23	20	5	9	3	23
Fannett Township	2	0	1	1	0	0	1	3
Greencastle Borough	0	1	3	0	0	2	0	0
Greene Township	5	4	4	0	1	0	2	3
Guilford Township	4	5	9	4	1	3	0	0
Hamilton Township	1	3	0	8	0	0	0	0
Letterkenny Township	0	0	0	1	0	0	0	1
Lurgan Township	0	0	0	3	0	1	0	0
Mercersburg Borough	2	1	1	0	0	1	0	0
Metal Township	1	0	3	0	0	0	0	0
Mont Alto Borough	0	2	1	0	0	0	0	0
Montgomery Township	4	2	1	0	1	1	2	2
Orrstown Borough	0	0	0	0	0	0	0	0
Peters Township	3	1	1	2	1	2	2	0
Quincy Township	1	1	4	0	0	1	3	0
St Thomas Township	1	0	1	0	0	0	0	0
Shippensburg Borough	2	1	0	1	0	0	0	1
Southampton Township	1	2	1	4	1	0	5	6
Warren Township	0	0	0	0	0	0	0	0
Washington Township	7	10	3	2	0	3	0	3
Waynesboro Borough	2	10	4	4	0	2	6	2
County Totals	38	80	62	58	10	34	26	48

Table 2.4.5: Franklin County New Construction Building Permits and Subdivision Lot Agreements

Critical facilities and infrastructure as defined by Franklin County include: government buildings, schools, nursing homes, childcare facilities, county jail, hospitals, medical/urgent care facilities, utility points/sub-stations, storage tanks, dams, water/waste water treatment facilities, radio towers, communications towers, airports/airstrips, fire/EMS/law enforcement facilities, and Superfund Amendments and Reauthorization Act (SARA) facilities. This definition was chosen to highlight the locations where mass evacuation may be needed and identify the emergency support infrastructure required to respond to impending disasters. This does not mean other locations in the county are not important, it is simply a fundamental prioritization required for initial response and recovery operations. **Table 2.4.6** shows the number of Critical Facilities located in each municipality in the county.

Franklin County Hazard Mitigation Plan - 2018

Municipality	Tier II (SARA)	Fire/EMS/LE	Government Bldg.	Education	Nursing Home	Child Care	Jail	Hospital	Medical/Urgent Care	Utility Points	Storage Tanks	Dams	Water Treatment	Waste Water Treatment	County Radio Tower	Cell/Other Tower	Airport/Airstrip	Municipal Totals
Antrim Township	10	1	1	4	1	23	0	0	0	27	2	0	0	2	0	3	1	75
Chambersburg Borough	11	6	7	12	5	22	0	1	17	6	3	0	0	1	1	5	0	97
Fannett Township	4	1	2	6	2	1	0	0	1	3	1	0	0	0	0	5	1	27
Greencastle Borough	3	1	3	5	0	5	0	0	1	2	2	0	1	0	0	1	0	24
Greene Township	5	4	5	9	3	24	1	0	2	18	14	5	1	0	1	4	4	100
Guilford Township	15	4	7	11	3	17	0	0	0	17	4	0	0	0	0	7	0	85
Hamilton Township	3	0	2	4	0	18	0	0	0	13	3	0	0	0	0	4	0	47
Letterkenny Township	1	1	2	0	0	1	0	0	0	0	1	4	0	0	1	9	0	20
Lurgan Township	0	0	1	7	0	1	0	0	0	3	0	3	0	0	1	4	1	21
Mercersburg Borough	0	2	2	2	0	2	0	0	1	1	0	0	0	0	0	0	0	10
Metal Township	1	1	1	3	0	1	0	0	0	3	0	1	0	1	0	3	0	15
Mont Alto Borough	0	3	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	6
Montgomery Township	1	0	1	1	0	1	0	0	0	3	0	3	0	0	0	2	0	12
Orrstown Borough	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Peters Township	3	0	1	3	0	2	0	0	0	5	1	1	1	1	1	3	0	22
Quincy Township	3	0	4	9	3	3	0	0	1	8	9	3	2	0	0	3	0	48
Shippensburg Borough	0	1	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	5
Southampton Township	2	0	2	1	2	10	0	0	0	6	2	1	0	1	1	2	0	30
St Thomas Township	3	1	1	1	1	3	0	0	0	4	1	1	0	1	0	3	0	20
Warren Township	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
Washington Township	5	2	2	1	0	11	0	0	1	9	2	5	0	1	0	7	0	46
Waynesboro Borough	4	5	1	8	3	9	0	1	4	3	2	0	0	1	0	4	0	45
County Totals	74	33	48	91	23	156	1	2	28	131	47	27	5	9	7	69	7	758

Table 2.4.6: Franklin County Critical Facilities (2017)

2.5. Data Sources and Limitations

In order to assess the vulnerability of different jurisdictions to the hazards, data on past occurrences of damaging hazard events was gathered. For a number of historic natural-hazard events, the National Climatic Data Center (NCDC) database was utilized. NCDC is a division of the US Department of Commerce’s National Oceanic and Atmospheric Administration (NOAA). Information on hazard events is compiled by NCDC from data gathered by the National Weather Service (NWS), another division of NOAA. NCDC then presents it on their website in various formats. The data used for this plan came from the US Storm Events database, which “documents the occurrence of storms and other significant weather phenomena having sufficient intensity to cause loss of life, injuries, significant property damage, and/or disruption to commerce”¹³.

¹³ NOAA, 2006

Franklin County Hazard Mitigation Plan - 2018

While NCDC data is comprised of natural hazards information, additional information focused more on human-made hazards was obtained through the Franklin County Computer Aided Dispatch (CAD) System database. When applicable, the CAD incident database spanning approximately the last 10 years (beginning on 4/27/2007), was used in the 2018 plan update.

Every attempt was made to provide consistency in reported data and in data sources. Data from the US Census Bureau 2010 Decennial Census was used throughout this plan, as well as Census estimates for 2018. In addition, the age of housing units reported in **Sections 4.3.21.5 & 4.3.24.5**, comes from the 2011-2015 American Community Survey because the Decennial Census no longer collects this information. As new Census data becomes available (2020), it will be incorporated into this HMP.

Additional information used to complete the risk assessment for this plan was taken from various government agency and non-government agency sources. Those sources are cited where appropriate throughout the plan with full references listed in **Appendix A – Bibliography**. It should be noted that numerous GIS datasets were obtained from the Pennsylvania Spatial Data Access (PASDA) website (<http://www.pasda.psu.edu/>). PASDA is the official public access geospatial information clearinghouse for the Commonwealth of Pennsylvania. PASDA was developed by the Pennsylvania State University as a service to the citizens, governments, and businesses of the Commonwealth. PASDA is a cooperative project of the Governor's Office of Administration, Office for Information Technology, Geospatial Technologies Office and the Penn State Institutes of Energy and the Environment of the Pennsylvania State University.

The Franklin County Graphical Information Systems (GIS) Department provided the GIS dataset that was used as an inventory of structures throughout the county in this plan. This dataset included a generalized structure type which has been incorporated into this plan where appropriate.

The flood hazard area data used in this plan is the Effective Countywide Digital Flood Insurance Rate Map (DFIRM), released January 18, 2012. This data provides flood frequency and elevation information used in the flood hazard risk assessment. Other GIS datasets including large and small streams, ponds, municipalities, roads, land use, and critical infrastructure were provided by the Franklin County GIS Department.

Due to the time and cost involved, the HMPT chose not to utilize HAZUS for the hazard analysis portion of the update. Instead, the Franklin County GIS Department used databases available to them to complete analysis on the various hazards throughout the plan as appropriate. The 100-year chance of flood was analyzed as follows:

The Franklin County GIS Department conducted an analysis of the structures impacted by the 1% annual chance flood hazard (100-year flood hazard). Utilizing the following geographic layers – 1% annual chance flood hazard areas (FEMA), parcels (Franklin), and building centroids (Franklin) – the Department identified those at risk structures impacted by the flood hazard. Using those at risk structures, we were able to determine the associated structures' valuation data maintained by the county Tax Assessment Office.

Franklin County Hazard Mitigation Plan - 2018

Using the following formula, (building market value * 7.63), the structures valuation was converted from 1961 (base year) market value to 2017 market value.

The estimated loss for a 1% annual chance flood hazard was summarized by municipality and classified by structure land use¹⁴.

This HMP evaluates the vulnerability of the county's critical facilities. For the purposes of this plan, critical facilities are those entities that are essential to the health and welfare of the community, including facilities that would be needed to serve as shelters in an emergency. The criteria for selection of these facilities is outlined in **Section 2.4, Table 2.4.4** of this plan. There are a total of 758 critical facilities in the county. **Table 2.4.4** above summarizes the critical facilities in Franklin County by type and by municipality.

¹⁴ Franklin County GIS, 2018

3. Planning Process

3.1. Update Process and Participation Summary

The Hazard Mitigation Planning Team (HMPT) exists to develop and coordinate the hazard mitigation planning process. For the 2018 HMP update process, the Franklin County Department of Emergency Services (FCDES) took the responsibility of being the lead agency for the HMP. To begin the HMP update process, FCDES emailed meeting invitations to all municipal officials and Local Emergency Management Coordinators (EMCs) in each municipality as well as the County Commissioners, adjacent county EMC's, and other stakeholders from federal, state, and local agencies, non-profits, private industry, health care, and advocacy organizations. **Section 3.2** provides a discussion of the HMPT as well as a table of members and the organization or jurisdiction they represented.

Municipal officials and the other stakeholders continue to receive notifications regarding all HMP meetings. A brief description of each meeting that was held can be found in **Section 3.3**. In addition, meeting minutes, sign-in sheets, and briefings related to planning events are available in **Appendix B** of this document.

In order to obtain information from municipalities and stakeholders, forms and surveys were distributed and collected throughout the planning process. All municipalities were asked to send at least one representative to attend each meeting and to answer pertinent information requests via email or survey for the HMP update. **Table 3.1.1** lists each municipality along with their specific participation and contributions to the planning process. In total, all 22 of our 22 municipalities participated in the planning process, thus achieving 100% participation. Sign-in sheets for each meeting with the names and organizations of participants are available in **Appendix B** along with all completed forms and surveys available in **Appendix D**.

Franklin County Hazard Mitigation Plan – 2018

MULTI-JURISDICTION SUMMARY SHEET												
#	Jurisdiction Name	Jurisdiction Type	Plan POC	Mailing Address	Email Address	Phone	Requirements Met (Y/N)					
							A.	B.	C.	D.	E.	F.
							Planning Process	Hazard Identification & Risk Assessment	Mitigation Strategy	Plan Review, Evaluation & Implementation	Plan Adoption	State Requirements
1	Antrim	Township	John Alleman	10655 Antrim Church Rd., Greencastle, PA 17225	jalleman@twp.antrim.pa.us	717-977-0177	Yes (10)(14)	Yes (1)	Yes (6)(14)(16)	Yes (24)(25)(26)	03/12/19	
2	Chambersburg	Borough	Dave Finch	100 South Second St., Chambersburg, PA 17201	dfinch@chambersburgpa.gov	717-729-7726	Yes (2)(3)(7)(10)(14)	Yes (1)	Yes (6)(14)(16)	Yes (24-27)	03/21/19	
3	Fannett	Township	Steve Sites	20299 Mountain Rd., Doylesburg, PA 17219	rescue_12@hotmail.com	717-349-7332	Yes (3)(5)(14)	Yes (1)	Yes (14)	Yes (24)	03/27/19	
4	Greencastle	Borough	Lorraine Hohl	60 N. Washington St., Greencastle, PA 17225	lhohl@greencastlepa.gov	717-597-7143 x101	Yes (3)(5)(10)(14)	Yes (1)	Yes (14)	Yes (24)	02/06/19	
5	Greene	Township	Shawn Corwell	1145 Garver Ln., Scotland, PA 17254	scorwell@greenetwp.us	717-491-6444	Yes (2)(3)(4)(5)(8)(10)(14)(15)	Yes (1)	Yes (6)(9)(11)(15)	Yes (24-27)	02/04/19	
6	Guilford	Township	Frank Hobbs	115 Spring Valley Rd., Chambersburg, PA 17202	fhobbs@guilfordtwp.us	717-729-2847	Yes (4)(5)(10)(15)(17)	Yes (1)	Yes (6)(15)(16)(17)	Yes (24)(25)	03/04/19	
7	Hamilton	Township	Gary Himes	1270 Crottestown Rd., Chambersburg, PA 17202	firefighter37@comcast.net	717-446-9632	Yes (3)(4)(5)(7)(8)(10)(14)(15)	Yes (1)	Yes (6)(14)(15)(16)	Yes (24-27)	12/13/18	
8	Letterkenny	Township	Eric Varner	4924 Orrstown Rd., Orrstown, PA 17244	evartner@phfd.org	717-729-5345	Yes (3)(5)(7)(8)(10)(14)(15)	Yes (1)	Yes (6)(14)(15)(16)	Yes (24)(25)(26)	02/04/19	
9	Lurgan	Township	Dale Myers	8650 McClays Mills Rd., Newburg, PA 17240	dalemyers@embarqmail.com	717-729-1348	Yes (4)(5)(10)(14)	Yes (1)	Yes (6)(14)(16)	Yes (24)(27)	02/04/19	
10	Metal	Township	David Leab	17001 Fannettsburg Rd., Fannettsburg, PA 17221	leabs@innernet.net	717-372-0477	Yes (4)(7)(14)	Yes (1)	Yes (6)(14)(16)	Yes (12)(24-27)	11/28/18	
11	Mercersburg	Borough	Dusty Stoner	113 South Main St., Mercersburg, PA 17236	dsjr124@comcast.net	717-729-9200	Yes (14)	Yes (1)	Yes (14)	Yes (24)	12/03/18	
12	Mont Alto	Borough	Mark Garling	3 N. Main St., Mont Alto, PA 17237	mark_garling@yahoo.com	717-729-5983	Yes (10)(22)	Yes (1)	Yes (22)	Yes (24-27)	04/04/19	
13	Montgomery	Township	Gregory Weller	11364 Fort Loudon Rd., Mercersburg, PA 17236	gweller91@gmail.com	717-860-6892	Yes (20)	Yes (1)	Yes (20)	Yes (24)(27)	04/04/19	
14	Orrstown	Borough	Ted Reed	10313 Rowe Run Rd., Orrstown, PA 17244	preed@kuhncom.net	717-729-1644	Yes (3)(5)(8)(15)(19)	Yes (1)	Yes (6)(15)(19)	Yes (24)	02/06/19	
15	Peters	Township	J Samuel Rotz	5000 Steele Ave., Lemasters, PA 17231	peterstownship@comcast.net	717-552-9090	Yes (14)	Yes (1)	Yes (14)	Yes (24)(27)	02/04/19	
16	Quincy	Township	Kerry Bumbaugh	7575 Mentzer Gap Rd., Waynesboro, PA 17268	kerry@quincytwp.org	717-729-0700	Yes (14)	Yes (1)	Yes (6)(14)	Yes (24)	02/06/19	
17	Shippensburg	Borough	David Lindenmuth	111 N. Fayette St., Shippensburg, PA 17257	djlindenmuth@gmail.com	717-729-0132	Yes (23)	Yes (1)	Yes (23)	Yes (24)	03/12/19	
18	Southampton	Township	Doug Shields	705 Municipal Dr., Shippensburg, PA 17257	dshields@southamptontownship.org	717-729-9588	Yes (2)(3)(4)(5)(8)(10)(14)	Yes (1)	Yes (6)(14)	Yes (24)(25)(26)	02/04/19	
19	St Thomas	Township	Don Eshleman	965 Hade Rd., Chambersburg, PA 17202	deshleman28@gmail.com	717-729-2367	Yes (3)(4)(5)(7)(8)(14)(15)	Yes (1)	Yes (6)(14)(15)	Yes (24)(27)	02/04/19	
20	Warren	Township	Rachael McCarty	11637 Little Cove Rd., Mercersburg, PA 17236	twp.warren.pa.us@outlook.com	301-800-6736	Yes (5)(21)	Yes (1)	Yes (21)	Yes (24)(25)	03/27/19	
21	Washington	Township	James Meek	13013 Welty Rd., Waynesboro, PA 17268	jem@washtwp-franklin.org	717-729-1860	Yes (4)(10)(18)	Yes (1)	Yes (6)(16)(18)	Yes (24-27)	11/28/18	
22	Waynesboro	Borough	Michael Bock	55 E. Main St., Waynesboro, PA 17268	sooflymwb@yahoo.com	717-729-9178	Yes (3)(4)(5)(10)(14)(15)	Yes (1)	Yes (6)(14)(15)	Yes (24)(26)	11/28/18	

Table 3.1.1: 2018 HMP Update Municipal Participation Summary

Franklin County Hazard Mitigation Plan – 2018

Table 3.1.2 below lists the critical dates of coordination for the 2018 HMP Update. It does contain the more structured meeting sessions that are further described in **Section 3.3**, but it also highlights some of the more informal sessions where HMP information was shared and solicited. The “Ref #” field in **Table 3.1.2** can be used to determine the level of participation described in **Table 3.1.1** above.

Date	Ref #	Description of Event
7/11/2017	--	HMP Steering Committee Kick-off Meeting
7/17/2017	(1)	Hazard Assessment Surveys Sent to All Municipalities
10/5/2017	(2)	HMP Team Kick-off Meeting at Chambersburg High School
10/9/2017	(3)	On-line Survey on Next HMP Team Meeting Date/Time
10/31/2017	(4)	On-line Survey on Planning/Regulatory Capabilities
12/5/2017	--	Last Hazard Assessment Survey Received
12/9/2017	(5)	Franklin County Emergency Alliance Meeting at FCPSTC
12/13/2017	(6)	HMP Team Meeting at FCPSTC (Mitigation Strategy)
12/19/2017	(7)	On-line Survey on Next HMP Team Meeting Date/Time
1/25/2018	(8)	Quarterly Local EMC Meeting at FCDES
2/1/2018	--	Sections 1, 2, 4, and Appendices Posted for HMPT Review/Comment
2/6/2018	--	Sections 1, 2, 4, and Appendices Posted for Public Review/Comment
2/12/2018	(9)	One-on-one Session with Greene TWP on Mitigation Action Submissions
2/16/2018	(10)	HMP Team Meeting at FCPSTC
2/23/2018	(11)	Mitigation Actions/Capabilities Survey Received from Greene TWP
2/28/2018	(12)	Review of Sections 1, 2, 4, and Appendices Closed
2/28/2018	(13)	On-line Survey on Next HMP Team Meeting Date/Time
3/23/2018	(14)	Mitigation Actions/Municipal Capabilities Survey Due
4/26/2018	(15)	Quarterly Local EMC Meeting at FCDES
4/30/2018	(16)	HMP Team Meeting at FCPSTC (Mitigation Strategy)
5/2/2018	(17)	Mitigation Actions/Capabilities Survey Received from Guilford TWP
5/3/2018	(18)	Mitigation Actions/Capabilities Survey Received from Washington TWP
5/3/2018	(19)	Mitigation Actions/Capabilities Survey Received from Orrstown Borough
5/9/2018	(20)	Mitigation Actions/Capabilities Survey Received from Montgomery TWP
5/17/2018	(21)	Mitigation Actions/Capabilities Survey Received from Warren TWP
6/4/2018	(22)	Mitigation Actions/Capabilities Survey Received from Mont Alto Borough
6/5/2018	(23)	Mitigation Actions/Capabilities Survey Received from Shippensburg Borough
6/8/2018	--	DRAFT HMP and Appendices Posted for Public Review/Comment
Various	(24)	Comments/Review of DRAFT Hazard Mitigation Plan
6/18/2018	(25)	HMP Team Meeting at FCDES (DRAFT Review)
10/18/2019	(26)	HMP Team Meeting at FCPSTC (Annual Update)
12/9/2020	(27)	HMP Team Meeting - Virtual (Annual Update)

 Formal Meetings

Table 3.1.2: Important Coordination Dates for 2018 Franklin County HMP Update

3.2. The Planning Team

The 2018 Franklin County HMP Update was led by a Hazard Mitigation Plan Steering Group (HMPSG). **Table 3.2.1** below lists the HMPSG membership.

Member	Organization	Position
David Keller	Franklin County Commissioners	Chair Commissioner
Bob Thomas	Franklin County Commissioners	Commissioner
Bob Ziobrowski	Franklin County Commissioners	Commissioner
Carrie Gray	Franklin County Commissioners	County Administrator/Chief Clerk
Steve Nevada	Franklin County Commissioners	Assistant County Administrator
John Hart	Franklin County Commissioners	Special Projects Manager
John Thierwechter	Franklin County DES	Director
Phil Tarquino	Franklin County Plans Department	Director
Teresa Beckner	Franklin County Fiscal Department	Director
Anita Keller	Franklin County Tax Services	Director
Jacob Crider	Franklin County DES	Emergency Management Coordinator
Loretta McClure	Franklin County Risk Management	Risk Manager
Julia Lehman	Franklin County Grants Office	Grants Coordinator
Robert Povlich	Franklin County DES	Planning Coordinator
Sarah Benschhoff	Franklin County IS	GIS Specialist
Joanne Sheets	Franklin County DES	Administrative Assistant
Mary Ann Alleman	Franklin County DES	Administrative Assistant

Table 3.2.1: Hazard Mitigation Plan Steering Group (HMPSG) Membership

In order to represent the diverse stakeholders in the county, the HMPSG developed a diversified list of potential HMPT members. Invitations were extended not only to municipal and county officials but also to adjacent jurisdictions, non-profit organizations, major employers, and federal, state, and county agencies with an interest or focus on hazard mitigation and emergency management. The HMPSG worked throughout the process to plan and hold meetings, collect information, and conduct public outreach.

The stakeholders listed in **Table 3.2.2** served on the 2018 HMPT, demonstrating their commitment to actively participate in the planning process by attending meetings, completing assessments, surveys, and worksheets, and/or submitting comments. The HMPT consisted of county and local officials including municipal supervisors and council members, emergency management coordinators, major employers/institutions, and the general public.

Franklin County Hazard Mitigation Plan – 2018

Member	Organization	Member	Organization	Member	Organization
Mary Ann Alleman	Franklin County DES	Frank Hobbs	Guilford Township EMC	Samuel Rotz	Peters Township EMC
Justin Atkins	NRCS - Chambersburg	Frank Hobbs II	Guilford Township	Eugene Sajeski	PEMA
Mike Balsley	Greene Township	Anita Keller	Franklin County Tax Service	Travis Schooley	Quincy Township
Kevin Barnes	Greencastle Rescue Hose Co. 1	Dave Keller	Franklin County Commissioners	Cori Seilhamer	Franklin/Fulton Co. Mental Health
Lee Barnes	CSX	Matthew Kendall	Franklin County DES	Justin Shaulis	Cumberland County Planning Coord.
Teresa Beckner	Franklin County Fiscal Department	Michael Kessinger	Hamilton Township Supervisor	Joanne Sheets	Franklin County DES
Sarah Benshoff	Franklin County GIS	David Kline	First Energy Corp. – West Penn	Doug Shields	Southampton Township EMC
Kevin Berkheimer	Columbia Gas of PA - Greencastle	Chip Kolb	Lurgan Township	Stephanie Shoemaker	Fannett-Metal School District
Dave Black	Chambersburg Mall	Kelly Knepper	Franklin County DES	Justin Sholes	Franklin Co. Career Tech Center
Warren Bladen	Adams County EMC	Chad Kreitz	Mont Alto Borough	William Shupe	Columbia Gas of PA
Michael Bock	Waynesboro Borough EMC	Victor Lail	Dominion Transmission Inc.	Travis Sims	Franklin County DES
Charles Brown	Washington Co., MD	Laura Laucks	PEMA	Steve Sites	Fannett Township EMC
Roy Brubaker	DCNR	Julia Lehman	Franklin County Grants	James Sourbier	Franklin County Police Chiefs Assoc.
Kerry Bumbaugh	Quincy Township EMC	Howard Leonard	Chambersburg Borough	Tim Sollenberger	St Thomas Township Supervisor
David Burkett	Fannett-Metal School District	David Lindemuth	Shippensburg Borough EMC	Jason Stains	Waynesboro Borough Manager
Dave Burkholder	Franklin Co. Fire Chiefs Association	Dan May	Chambersburg Mall	Matthew Steinbugl	NWS–Central PA WFO
Todd Burns	Greene Township Supervisor	Loretta McClure	Franklin County Risk Management	Melissa Stevens	Chambersburg Area School District
Kristin Carroll	Chambersburg Area School District	Vincie McMullen	Corpus Christi School	Jeff Stonehill	Chambersburg Borough Manager
Shawn Corwell	Greene TWP EMC/Emer. Alliance	James Meek	Washington Township EMC	Dave Stoner	Franklin County Conserv. District
Sam Cressler	Southampton Township	Stan Morgan	Tuscarora School District	Dusty Stoner	Mercersburg Borough EMC
Jacob Crider	Franklin County DES	Tim Murr	Cumberland Valley Christian School	Dr. Matthew Strine	Tuscarora School District
Steve Christian	Franklin County Conserv. District	Charles Myers	Letterkenny TWP Supervisor	Charles Summer	Washington Co., MD
Rodney Eberly	Antrim Township	Craig Myers	Antrim TWP/Greencastle Boro EMC	Anna Swailes	Metal Township
John Epley	Shippensburg Borough	Dale Myers III	Lurgan Township EMC	Ernest Szabo	PEMA
Don Eshleman	St Thomas Township EMC	Randy Negley	Hamilton Township	Phil Tarquino	Franklin County Plans Department
Dan Farner	Waynesboro Hospital	Steve Nevada	Franklin County Asst. Administrator	John Thierwechter	Franklin County DES
Dave Finch	Chambersburg Borough EMC	Anthony Ogburn	PSU Mont Alto/RACES	Bob Thomas	Franklin County Commissioners
Pat Fleagle	Waynesboro Borough	John Owen	East Pennsboro TWP, Cumberland Co.	Sam Thrush	Franklin County Plans Department
Anastasia Fritchey	Franklin County Plans Department	Ron Pezon	Chambersburg Electric Company	Rich Troup	Hamilton Township
Mark Garling	Mont Alto Borough EMC	Ed Peters	Chambersburg Area School District	Dustin Ulrich	Chambersburg Borough
Jeff Geesaman	Washington Township Supervisor	Ron Peters	Fayetteville VFD, EMT	Eric Varner	Letterkenny Township EMC
Matthew Gordon	Waynesboro Area School District	Angie Petersheim	Shalom Christian Academy	Barbara Watson	NOAA/NWS
Brad Graham	Antrim Township Supervisor	Robert Povlich	Franklin County DES	Sharon Weigle	USDA Farm Service Agency Exec.
Carrie Gray	Franklin County Administrator	Doug Prowant	Orrstown Borough Manager	Greg Weller	Montgomery Township EMC
Beverly Green	First Energy Corp. - Penelec	Mari Radford	FEMA	Allen White	American Red Cross
Bob Gunder	Quincy Township	Eden Ratliff	Greencastle Borough Manager	Jon Williams	Chambersburg Hospital
John Hart	Franklin Co. Spec. Projects Manager	Ted Reed	Orrstown Borough EMC	Cassie Yost	PSU Agriculture Extension
Eric Holtzman	Waynesboro School District	John Ressler	Warren Township EMC	Sue Zimmerman	St Thomas Township Supervisor
Gary Himes	Hamilton Township EMC	George Rotz	Fannett Township	Bob Ziobrowski	Franklin County Commissioner

Table 3.2.2: Franklin County 2018 Hazard Mitigation Planning Team (HMPT)

3.3. Meetings and Documentation

The following meetings were held to complete the HMP Update. All invitations, agendas, and correspondence for these meetings, where applicable, are included in **Appendix C**. All meeting minutes and sign-in sheets for these meetings are included in **Appendix B**.

July 11, 2017: Internal County Kickoff Meeting held at the Franklin County Department of Emergency Services to discuss scope, schedule, project goals, invitees, available resources, and planning standards. This was the foundation meeting of the HMPSG. The HMPSG approved the initial hazard identifications for the county, the survey content, and release of the Municipal Hazard Threat Assessment Surveys. Municipalities were encouraged to add any new threats they deemed applicable. Surveys were sent to the municipalities on July 17, 2017.

October 5, 2017: Community Kick-Off Meeting was held in the Chambersburg Area Senior High School Auditorium to introduce the project and local stakeholders and inform community representatives of the HMP update process and schedule. The Hazard Vulnerability Assessment (HVA) Methodology was briefed, discussed, and approved unanimously by the HMPT. This included the initial threat survey responses and assessment of threat priorities. Additionally, the assignment of Threat Profile taskings were made and distributed to the HMPT subject matter experts with a due date of the next meeting.

December 9, 2017: Emergency Service Alliance Meeting was held and FCDES was asked to provide information and status on the Hazard Mitigation Plan Update. Attendees of this meeting represent the Emergency Service interests of the county's municipalities. Members were briefed on the HVA and status of the Hazard Profiles. A question was addressed in reference to how this plan was tied to federal funding for disaster mitigation. Additionally, a brief explanation and discussion of mitigation actions was held to give the representatives an idea of the information we would be seeking from the municipalities as the HMP update progressed. Members were encouraged to attend the next full HMP Update meeting to be held on 13 December 2017.

December 13, 2017: Hazard Assessment Review/Mitigation Strategy Planning Meeting was held at the Franklin County Public Safety Training Center (FCPSTC), see **Figure 3.3.1** below. A review of the final HVA was discussed and approved by the HMPT. The existing Goals and Actions of the previous HMP were discussed, to include any progress made since the HMP was finalized. A new mitigation strategy was briefed for HMPT consideration. This new plan not only refined the HMP goals, it created objectives that did not exist in the old plan and assigned action items to each objective. The new mitigation strategy also tied all goals and objectives in the HMP to the goals and objectives of the Franklin County Department of Emergency Services (FCDES) Strategic Plan. This had not been done previously and was proposed to make sure the HMP was fully integrated into the entire FCDES planning process. The new HMP Mitigation Strategy was approved by the HMPT. The development of additional actions for the objectives was also discussed and the HMPT was tasked to submit these additions prior to the next meeting.



Figure 3.3.1: Hazard Mitigation Planning Meeting - 13 Dec 2017

January 25, 2018: Local EMC Meeting was held and FCDES provided information and status on the Hazard Mitigation Plan Update. Attendees of this meeting are the Local/Municipal Emergency Management Coordinators. Members were briefed on the HVA and status of the Hazard Profiles. Additionally, a brief discussion of mitigation actions was held to give the representatives an idea of the information we would be seeking from the municipalities as the HMP update progressed. Members were encouraged to attend the next full HMP Update meeting to be held on 16 February, 2018.

February 1, 2018: HMP Steering Group Meeting was held to discuss the Franklin County HMP update progress with PEMA and FEMA representatives, see **Figure 3.3.2** below. We discussed the recently released draft sections of the HMP (Section 1, 2, 4, and associated appendices). These documents were released for HMPT comment on 1 February. They were subsequently released on 6 February for public comment. We also discussed the next sections of the document to be addressed (Capabilities and Mitigation Strategy Sections) and our overall timeline. Both PEMA and FEMA were satisfied with the progress to date and comfortable that we were ahead of schedule to meet the May 2019 suspense. We agreed to meet with PEMA and FEMA again to go over the completed draft document prior to submittal for final review to clear any outstanding issues.



Figure 3.3.2: Hazard Mitigation Planning Team Steering Group Meeting - 1 Feb 2018

February 16, 2018: HMP Update Meeting was held at the FCPSTC. We discussed the draft documents that were currently out for review and set a deadline (28 February, 2018) to close the initial review and comment period. Once all comments have been incorporated into the draft, these sections will be posted again for a review prior to inclusion in the final draft document. The intention is to vote on approval of these sections at the next HMP Update meeting in the April/May 2018 time frame. We also discussed a survey that needed to be sent out to municipalities to collect information on their planning and regulatory capabilities. A draft Capabilities Survey was shown to the team that was developed using a tool created by the Hazard Mitigation Team in Columbia County, Pennsylvania for their HMP Update in 2017. The team reviewed and approved the survey to be released to the municipalities with a due date of 23 March, 2018. We also discussed the need to extend the date for mitigation action submission from the municipalities as the Capabilities Survey will identify additional gaps that can be turned into mitigation actions. The team agreed to make the new suspense coincide with the Capabilities Survey date of 23 March, 2018.

April 26, 2018: Local EMC Meeting was held and FCDES provided information and status on the Hazard Mitigation Plan Update. Attendees of this meeting are the Local/Municipal Emergency Management Coordinators. Members were briefed on the status of the Municipal Capabilities Surveys and associated Mitigation Actions. Additionally, a discussion on the methodology proposed to rank the Mitigation Actions was held. Members were asked to vote on approval of this methodology. Voting results of this meeting were carried to the full meeting and included in the overall HMPT tallies. Members were encouraged to attend the next full HMP Update meeting to be held on 30 April, 2018.

April 30, 2018: HMP Update Meeting was held to discuss the status of the Municipal Capabilities surveys, submission of Mitigation Actions, and define the methodology for ranking the Mitigation Actions. A cutoff date of 11 May was approved for the submission of the Capabilities Surveys. This was done to prevent busting the schedule for HMP completion. The County EMC and Emergency Services Planning Coordinator agreed to make one final push to get his information collected. We also agreed to a methodology for ranking the Mitigation Actions. This process was similar to the one set forth in the *FEMA Local Mitigation Planning Handbook*, with a few revisions to accommodate local priorities. Meeting minutes detailing these decisions are located in **Appendix B**.

May 30, 2018: Municipal Capabilities Coordination Meeting was held with the Franklin County Plans Department to clear up some discrepancies between municipal and state reporting on capabilities. The Franklin County Plans Department was able to provide a 30 May 2018 copy of the *FEMA Community Status Book Report* for Pennsylvania. This document shows not only the NFIP status of our municipalities, but it also shows the date of the current DFIRM for them. These were the two most common discrepancies between the two data sets. This document and subsequent discussion on status of existing flood plain regulations at the municipalities cleared the discrepancies. This also led to a discussion on how the data could be erroneously reported. The main assumption for the cause of these discrepancies was turnover of personnel at the municipalities. We have added a *Mitigation Action* to research an Outreach Program to help keep the turnover at the local level from impacting planning processes. Refer to the meeting minutes in **Appendix B** for details.

June 18, 2018: HMP Update Meeting was held to provide status on the HMP draft document and solicit comments from the HMPT. A deadline was set for the close-out of the comment period (15 Jul 2018). All municipalities were informed that an email response with either a “reviewed and concur as written” or “reviewed with attached comments to be adjudicated prior to draft release” was needed to complete their participation requirements for this HMP update. See **Appendix B** for the formal meeting minutes.

October 18, 2019: HMP Annual Update Meeting was held to discuss the threat, capability, and mitigation action survey responses. Responses to these surveys are included in **Appendix D**. The changes to the threat priorities were discussed and agreed to by all HMPT members (See **Appendix B**). There were no additional capabilities added to this update. One additional mitigation action was submitted and approved by both PEMA and FEMA (See **Appendix C**). This action has been incorporated into the HMP and prioritized.

December 9, 2020: HMP Annual Update Meeting was held virtually, due to COVID-19, to review the threat assessment, municipal capability updates and mitigation action survey responses. Responses to these surveys are included in **Appendix D**. The changes to the threat priorities were discussed and agreed to by all HMPT members (See **Appendix B**). There were no additional capabilities added. Nineteen mitigation actions were updated, with 39 total updated since 2018.

3.4. Public & Stakeholders Participation

Each stakeholder was given multiple opportunities to participate in the HMP update process through invitations to meetings, reviews of risk assessment results, submission of mitigation actions, and an opportunity to comment on the draft HMP update. The three tools listed below were distributed with meeting invitations, at meetings, and on the Franklin County website, and FCDES Facebook & Twitter pages to solicit information, data, and comments from local municipalities, other key stakeholders, and the general public. These tools can be viewed in **Appendix E**. Responses to these worksheets and surveys are included in **Appendix D**.

- **Hazards Risk Survey:** Capitalizes on local knowledge to evaluate the change in the frequency of occurrence, magnitude of impact, and/or geographic extent of existing hazards, and allows communities to evaluate hazards not previously profiled using the 2013 Pennsylvania Standard List of Hazards.
- **Capability Assessment/NFIP Survey:** Collects information on local planning, regulatory, administrative, technical, fiscal, political, and resiliency capabilities that can be included in the countywide mitigation strategy. Also collects information on each municipality’s level of participation in the NFIP. Due to the sensitive nature of some of the responses to this survey, these results are **Confidential** and not included in **Appendix D**. A full report of all municipal survey responses is kept at FCDES and can be reviewed upon request with a valid need to know. However, a roll-up analysis of this data is included in **Section 5** of this HMP update.
- **Mitigation Action Form:** Allows communities to propose mitigation actions for the HMP and include information about each action such as a lead agency/department, implementation schedule, priority, estimated costs, and potential funding source(s).

Community participation and comments were encouraged throughout the planning process. All information was posted and shared on a Google Drive that was opened to all HMPT members. This site acted as a repository for the entire planning process, including presentations, agendas, minutes, and worksheets from each meeting as well as promulgating meeting dates, times, and important announcements. The public was also encouraged to participate in the process by means of postings on the FCDES Facebook and Twitter pages. Additionally, all draft documents were posted on the Franklin County Webpage and notices sent out via social media for public review and comment. All community outreach and meeting notifications can be viewed in **Appendix C**.

3.5. Multi-Jurisdictional Planning

Table 3.1.1 above documents jurisdictional presence at the meetings described in **Section 3.3** and other involvement from each jurisdiction throughout the planning process. Each municipality was emailed or phoned to invite or encourage attendance to all meetings and, if email addresses were available, receive email reminders prior to each session. Individual meetings were held to give jurisdictions that previously had been unable to physically attend any other meeting an opportunity to participate. Surveys and forms were emailed to jurisdictions and follow-up reminders via phone or email were sent. A copy of all invitations and Public Outreach documentation for the HMP Update can be seen in **Appendix C**. All worksheets and surveys can be viewed in **Appendix E**, with associated municipal responses in **Appendix D**. Online survey results can be viewed in **Appendix K**. **Appendix B** contains the meeting minutes and sign-in sheets.

In the end, all 22 of our municipalities participated in the update of this plan, thus achieving 100% participation. This represents an overall increase in participation of over 40% as only 13 of 22 jurisdictions participated in the update of the HMP in 2014. However, based on the shortcomings of our previous plan, it is unclear how much the municipalities were involved in

identifying and ranking the hazard threats in the 2014 HMP. In this planning effort, the HMPSG made sure we reached out to all stakeholders to get their buy-in and support in all aspects of this plan. In addition, we were able to provide a completed Hazard Vulnerability Assessment (HVA) for each municipality to use in updating their Emergency Operations Plans (EOPs). This in turn increases the integration and utilization of this plan in emergency planning across the county. All partners' interests were heard, assessed, and integrated into this update. All HMPT members should be very proud of their efforts in making this plan come to life.

4. Risk Assessment

4.1. Update Process Summary

The risk assessment provides a factual basis for activities proposed by the county in our mitigation strategy. Hazards that may affect Franklin County are identified and defined in terms of their location and extent, magnitude of impacts, previous events, and probability of future events. This hazard profile structure is similar to that used in the Pennsylvania 2013 Standard State HMP. All information from the previous Franklin County HMP plan has been incorporated and/or updated in this 2018 Hazard Mitigation Plan Update unless otherwise indicated.

The 2014 Franklin County HMP profiled 6 natural hazards in the County: Drought, Flood/Flash Flood/Ice Jam, Hurricane/Tropical Storm/Nor'easter, Subsidence/Sinkholes, Wildfire, and Winter Storm. Two (2) human made hazards were also identified: Environmental Hazards (Hazardous Materials Releases) and Utility Interruption (Infrastructure Failure). In the previous Franklin County HMP, an attempt was made to combine some of the threats into a larger group for analysis. In our 11 July 2017 kick-off meeting with the Hazard Mitigation Plan Steering Group (HMPSG), we decided to review all 26 hazards identified in the Pennsylvania 2013 Standard State HMP for applicability to Franklin County and assess them individually instead the larger groups as previously done. A recommendation was made and approved in that meeting to address 24 of the 26 identified hazards for Franklin County. The only hazards deemed non-applicable were Coastal Erosion and Levee Failure as these threats simply do not exist in the county. The HMPSG approved this plan and the survey developed to assess these threats at the municipal level (see **Appendix E** for survey).

Following hazard identification and profiling, a vulnerability assessment was conducted for each hazard to identify the impact of both natural and human-made hazard events on people, buildings, infrastructure, and the community, as appropriate. Each hazard is discussed in terms of its potential impact on individual communities, including the structures that may be at risk. This assessment allows the county and its municipalities to focus on and prioritize local mitigation efforts on areas that are most likely to be damaged or require early response to a hazard event. A vulnerability analysis was performed which identifies structures, critical facilities, and/or populations that may be impacted during hazard events and describes what events can do to physical, social, and economic assets. Depending upon data availability, assessment results consist of an inventory of vulnerable structures or populations. Finally, when available, potential losses were determined using historic data, data from the Franklin County GIS department, and structure assessed values.

4.2. Hazard Identification

4.2.1. Table of Presidential Disaster Declarations

Presidential Disaster and Emergency Declarations are issued when it has been determined that state and local governments need assistance in responding to a disaster event. **Table 4.2.1.1** identifies 12 Presidential Disaster Declarations (DR) and 6 Presidential Emergency Declarations

Franklin County Hazard Mitigation Plan - 2018

(EM) issued between 1972 through 2020 that have affected Franklin County. Future disaster declarations will be available for view on the FEMA website at: <https://www.fema.gov/disasters>. This was the most current data that was available when the plan was updated.

Declaration Number	Date	Event
EM-3441	March 2020	COVID-19 Pandemic
DR-4267	January 2016	Severe Winter Storm and Snowstorm
DR-4099	January 2013	Hurricane Sandy
EM-3356	October 2012	Hurricane Sandy
EM-3340	September 2011	Remnants of Tropical Storm Lee
DR-1898	April 2010	Severe Winter Storm
DR-1649	June 2006	Severe Storms, Flooding, and Mudslides
EM-3235	September 2005	Hurricane Katrina Evacuation
DR-1557	September 2004	Tropical Depression Ivan
EM-3180	March 2003	Snowstorm
DR-1120	June 1996	Flooding
DR-1093	January 1996	Flooding
DR-1085	January 1996	Blizzard
DR-1015	March 1994	Winter Storm, Severe Storm
EM-3105	March 1993	Severe Snowfall and Winter Storm
DR-523	October 1976	Severe Storms, Flooding
DR-485	September 1975	Severe Storms, Heavy Rains, Flooding
DR-340	June 1972	Tropical Storm Agnes

Table 4.2.1.1: Presidential Disaster and Emergency Declarations in Franklin County (1972-2020)

In addition to these federally declared events, 24 events warranted Gubernatorial Proclamations of Emergency. These events are listed in **Table 4.2.1.2** below.

Franklin County Hazard Mitigation Plan - 2018

Declaration Number	Date	Event
2020-1	March 2020	COVID-19 Pandemic
2019-1	January 2019	Severe Winter Weather
2018-3	July 2018	Rain and Flooding
2018-2	June 2018	Severe Weather
2018-1	January 2018	Opioid Crisis
2017-1	March 2017	Severe Winter Weather
2016-1	January 2016	Severe Winter Weather
2015-2	June 2015	Storms
2015-1	January 2015	Severe Winter Weather
2014-4	September 2014	State Trooper Emergency
2014-3	February 2014	Severe Winter Weather
2014-2	February 2014	Driver Hours Waived
2014-1	January 2014	Extended Prolonged Cold
2012-3	October 2012	Hurricane Sandy
2012-1	April 2012	Spring Storm
2011-2	August 2011	Hurricane Irene
2011-1	January 2011	Winter Storm/Winter Fuel Delivery
2010-2	December 2010	Winter Fuel Delivery
2010-1	February 2010	Winter Storms
2007-2	April 2007	Severe Storms
2007-1	February 2007	Winter Fuel Delivery
2006-2	September 2006	Tropical Depression Ernesto
2006-1	June 2006	Summer Floods
2004-2.3	September 2004	Hurricane Ivan

Table 4.2.1.2: Gubernatorial Proclamations in Franklin County (2004-2020)

4.2.2. Summary of Hazards

The Hazard Vulnerability Assessment describes each hazard’s occurrence and the effects on the county. It also identifies the effects of natural or human-caused hazard events by estimating the exposure of people, buildings, and infrastructure to hazardous conditions.

The planning team started the assessment by reviewing the natural and man-made hazards identified in the Pennsylvania Hazard Mitigation Plan, dated Oct 2013. This plan identified 26 hazards that are prevalent in the state. A cursory review of these hazards was made to see if they were applicable to Franklin County. The team was able to identify two hazards (Coastal Erosion and Levee Failure) from this plan that are not a factor for our Community. The remaining hazards (24 in total) were deemed to have the potential to affect our county and were assessed for potential occurrence and impact. These hazards are listed in **Table 4.2.2.1** below.

Natural (N) and Man-made (M) Hazards	
Civil Disturbance (M)	Mass Food/Animal Feed Contamination (M)
Dam Failure (M)	Nuclear Incident (M)
Drought (N)	Pandemic/Infectious Disease (N)
Earthquake (N)	Radon Exposure (N)
Environmental Hazards (M)	Subsidence/Sinkholes (N)
Extreme Temperatures (N)	Terrorism (M)
Flood, Flash Flood, Ice Jam (N)	Tornado/Windstorm (N)
Hailstorm (N)	Transportation Accident (M)
Hurricane, tropical Storm, Nor'easter (N)	Urban Fire/Explosion (M)
Invasive Species (N)	Utility Interruption (M)
Landslide (N)	Wildfire (N)
Lightning Strike (N)	Winter Storm (N)

Table 4.2.2.1: Summary of Natural and Man-made Hazard Threats to Franklin County

The definitions of these hazards to be assessed were provided in the 2013 Pennsylvania State Hazard Mitigation plan and are included in **Appendix E**.

4.3. Hazard Profiles

4.3.1. Civil Disturbance

Civil Disturbance is a broad term typically used by law enforcement to describe one or more forms of unrest that may include peaceful demonstrations or acts of violence. A civil disturbance can be an individual or collective action seriously interfering with peace, security, and/or functioning of a community. Demonstrations, civil unrest, public disorder, and riots happen for a number of reasons that include economic hardships, social injustices, ethnic differences, objections to world organizations, or certain governments, political grievances, and terrorist acts.

Civil disturbances can take the form of small gatherings or large groups blocking or impeding access to a building, or disrupting normal activities by generating noise and intimidating people. Demonstrations can range from a peaceful sit-in to a full-scale riot, during which a mob burns or otherwise destroys property and terrorizes individuals. Even in its more passive forms, group blockage of roadways, sidewalks, or buildings interferes with public order. Many protests intended to be peaceful demonstrations to the public and the government can escalate into general chaos.

Two types of large gatherings typically are associated with civil disturbances: a crowd and a mob. A crowd can be identified as causal, sighting, agitated, or mob-like:

- A causal crowd is identified as individuals or small groups with nothing in common to bind them together. If each has an agenda, it is his/her own. Casual crowds are made up of individuals or small groups occupying the same common place.

Franklin County Hazard Mitigation Plan - 2018

- Sighting crowds are similar to casual crowds; however, they gather for an event. People migrating as a crowd to sporting events, a group of people attracted to fires and accidents, and those attending music concerts are all types of sighting crowds. Individuals or small groups gather at these events for the same purpose. It is the event and/or individuals' curiosity that compels a crowd to come together.
- Agitated crowds add responses based on the elements (people, space, and event). Individuals with strong emotional feelings within a crowd can quickly spread and infect the rest of the crowd. As more people within the crowd become emotionally involved, a sense of unity may develop, causing changes in the overall demeanor of the crowd. Yelling, screaming, and name-calling all are associated with an agitated crowd.
- Mob-like crowds have all the elements of crowd types described above, in addition to aggressive, physical, and sometimes violent actions. Under these conditions, individuals within a crowd will often say or do things they usually would not do. Extreme acts of violence and property damage are often part of mob activities. These consist of, or involve elements of people and groups mixing together and becoming fluid¹⁵.

A mob can be defined as a large disorderly crowd or throng. Mobs are usually emotional, loud, tumultuous, violent, and lawless. Similar to crowds, mobs have different levels of commitment, and can be classified into the following four categories¹⁶:

- **Aggressive Mob:** An aggressive mob attacks, riots, and terrorizes. The object of violence may be a person, property, or both. An aggressive mob is distinguished from an aggressive crowd only by lawless activity. Examples of aggressive mobs are inmate mobs in prisons and jails, mobs that act out their frustrations after political defeat, or violent mobs at political protests or rallies.
- **Escape Mob:** An escape mob is attempting to flee from something such as a fire, bomb, flood, or other catastrophe. Members of escape mobs are generally difficult to control and can be characterized by unreasoning terror.
- **Acquisitive Mob:** An acquisitive mob is one motivated by a desire to acquire something. Riots caused by other factors often turn into looting sprees. This mob exploits an authority's lack of control in safeguarding property.
- **Expressive Mob:** An expressive mob is one that expresses fervor or revelry following some sporting event, religious activity, or celebration. Members experience a release of pent up emotions in highly charged situations.

¹⁵ HQ, Department of the Army FM 3-19.15, 2005

¹⁶ Alvarez and Bachman, 2007

4.3.1.1. Location and Extent

Although Franklin County is a rural setting, there are still areas in the county that could be subject to civil disturbances. Government facilities, landmarks, county jail, and university campuses are common sites where crowds and mobs may gather. Other types of institutions such as juvenile correctional facilities, treatment units, and youth development centers may be targets for civil unrest.

Civil unrest and disturbances affect the following factions of society:

- **The Public:** The general population could serve as participants or targets in actions of civil unrest. Widespread unrest could cause fear among the populace and cause them to be absent from school or work activities. During an event, bystanders may be harmed because of activities of participants.
- **Responders:** Responses to civil unrest events are generally handled at the local level. Response to a large event of this type may exceed the resources of a local jurisdiction. In this instance, State resources would be activated to fill the need. During an event, responders may become targets, which could hamper their effectiveness.
- **Continuity of Operations, including delivery of services:** An outbreak of widespread rioting or looting could impact the State's and County's ability to provide services and conduct normal operations. Protesters could occupy government buildings and interrupt normal functions of government, or targeted attacks on government facilities could halt operations entirely.
- **Property:** Private property often serves as a target in instances of civil unrest. Businesses can be targeted for looting or vandalism. If an event is particularly large, damage could reach millions of dollars and recovery could take years.
- **Facilities:** Often in acts of civil unrest, government facilities become the focus of protests or targets for vandalism. Damage during an event or inability of workers to enter a facility may greatly reduce a facility's effective capacity or close it completely.
- **Infrastructure:** Similar to government facilities, public and private infrastructure can become targets of civil unrest. Damage to transportation, communications, or utilities infrastructure could further exacerbate the situation.
- **Environment:** Normally, civil unrest would minimally impact the environment. However, if petroleum or other chemical facilities become targets for vandalism or large-scale fires occur, effects on the environment could be significant.
- **Economic Condition of the County:** Civil unrest could prove economically crippling to Franklin County. Large-scale events are usually accompanied by wide-spread absenteeism and damage to private property.

- **Public Confidence in the County's Governance:** If an event becomes prolonged or is perceived to be mismanaged, it could greatly decrease public confidence in the governance of the County. If the response is seen to be inadequate, individuals may attempt to protect their properties by their own means and further exacerbate the situation.

Civil Disorders can result in numerous secondary hazards. Depending on the size and scope of the incident, civil unrest may lead to widespread urban fire, utility failure, transportation interruption, and environmental hazards. The most significant impact of civil unrest is the secondary hazard of interrupted continuity of government, which can also lead to other secondary hazards cited in the previous paragraphs. The extent of secondary hazards will vary significantly based on the extent and nature of the civil unrest.

4.3.1.2. Range of Magnitude

The magnitude or severity of a civil unrest depends on the nature of the disturbance. This can take form as a small gathering or a large group blocking access to buildings or disrupting normal activities. Civil unrest events can range from peaceful sit-ins to a full-scale riot.

4.3.1.3. Past Occurrence

Civil Disturbances are rare in Franklin County. Most involve very small crowds or individuals protesting about perceived political/social injustices. In November and December of 2016, there were several protests held outside the Franklin County Courthouse after the 2016 Presidential elections. These gatherings were formed to express dissatisfaction with the election results. Some of these protests also centered on the proposed repeal and replacement of the Affordable Care Act (Obama Care) proposed by the newly elected president. These protests amounted to no more than a nuisance for the public that work in and around the county seat. However, there has been another type civil unrest that has been growing in the region and we have seen an example of this is Franklin County. This unrest is the emergence of the Sovereign Citizen movement.

The Sovereign Citizen movement is based on a decades-old conspiracy theory. At some point in history, sovereign citizens believe, the American government set up by the founding fathers, with a legal system the sovereign citizens refer to as “common law”, was secretly replaced by a new government system based on “admiralty law”, the law of the sea and international commerce. Under common law, or so they believe, the sovereign citizens would be free men. Under admiralty law, they are slaves, and secret government forces have a vested interest in keeping them that way. Some sovereign citizens believe this perfidious change occurred during the Civil War, while others blame the events of 1933, when the U.S. abandoned the gold standard. Either way, they stake their lives and livelihoods on the idea that judges around the country know all about this hidden government takeover, but are denying the sovereign citizens' motions and filings out of treasonous loyalty to hidden and malevolent government forces.

In May of 2017, a gentleman claiming to be a sovereign citizen espoused, in his criminal trial for assault, that laws did not apply to him as a sovereign citizen. He was subsequently convicted and jailed for simple assault, but not before proclaiming his sovereign citizen status above the

jurisdiction of the Franklin County judicial system. This was a relatively benign case, but the movement has been growing in Pennsylvania and has spawned several frivolous Sovereign Citizen civil lawsuits that are tying up normal judicial processes and resources.

Another example of Civil Disturbance in Franklin County was the 1990 strike of T.B. Woods corporation in Chambersburg. The union at the company voted for a strike to grieve the company's refusal to arbitrate on a \$0.50 per hour raise demanded by the worker's. The strike lasted 2.5 years and was quite intense at times. The Pennsylvania State Police were even called in to make sure things did not get out of hand. No damages or injuries were reported. The company eventually resumed business operations and the strike was broken when the union was voted out, saving over 230 jobs at the manufacturing plant. This disturbance disrupted the daily lives of over 300 local families for over 2 years and resulted in over \$12M in losses for the company¹⁷.

However, the starkest example of Civil Disturbance in Franklin County was the burning of Chambersburg during the Civil War. On July 30, 1864, Brigadier General John McCausland and 2,800 Confederate cavalymen entered Chambersburg and demanded \$100,000 in gold or \$500,000 in greenbacks in response to the Union Army's actions in the Shenandoah Valley earlier in the War. The residents of Chambersburg failed to raise the ransom, and McCausland ordered his men to burn the town. It is understood that this instance is an extreme case due to the nature of the war that was being waged at the time, but it is still part of the history of Franklin County, and one that is remembered every year with a reenactment every July.

4.3.1.4. Future Occurrence

Many civil unrest incidents are spontaneous and can occur at any time, rendering prediction of probability of future occurrences difficult. When these incidents occur, they can become extremely disruptive and difficult to control. Assumedly, civil unrest incidents including marches, protests, demonstrations, and gatherings will continue to occur throughout Franklin County.

Due to the relative rarity of occurrences and the minimal disruptions they have caused in the county in the past (excluding the Civil War), the probability of a Civil Disturbance occurring again in Franklin County is considered *possible* as defined by the Risk Factor ranking probability criteria (See **Section 4.4**).

4.3.1.5. Vulnerability Assessment

Figure 4.3.1.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Civil Disturbance hazard. One can see that only 3 of 22 municipalities rated this threat as either a Major or Moderate event. This is a Minor threat ranked 23 overall for Franklin County. However, mitigation actions will still be developed for this threat in **Section 6**.

¹⁷ Hartford Courant, 2014

Franklin County Hazard Mitigation Plan - 2018


	<h2 style="text-align: center;">Civil Disturbance Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 – 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 – 1.9	
Insignificant	1.0 – 1.4												
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	1	30%	1	30%	2	20%	1	10%	2	10%	1.3	10.17%	0.1322
Chambersburg Borough	2	30%	1	30%	1	20%	4	10%	2	10%	1.7	13.64%	0.2319
Fannett Township	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	1.68%	0.0185
Greencastle Borough	1	30%	1	30%	1	20%	4	10%	2	10%	1.4	2.57%	0.0360
Greene Township	1	30%	1	30%	1	20%	4	10%	2	10%	1.4	11.55%	0.1617
Guilford Township	1	30%	2	30%	1	20%	4	10%	2	10%	1.7	9.59%	0.1630
Hamilton Township	1	30%	1	30%	2	20%	4	10%	2	10%	1.6	7.18%	0.1149
Letterkenny Township	1	30%	1	30%	1	20%	4	10%	2	10%	1.4	1.53%	0.0214
Lurgan Township	1	30%	1	30%	1	20%	4	10%	2	10%	1.4	1.40%	0.0196
Mercersburg Borough	1	30%	1	30%	2	20%	4	10%	2	10%	1.6	0.99%	0.0158
Metal Township	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	1.20%	0.0132
Mont Alto Borough	1	30%	2	30%	2	20%	2	10%	2	10%	1.7	1.12%	0.0190
Montgomery Township	3	30%	3	30%	2	20%	3	10%	2	10%	2.7	4.02%	0.1085
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	2	10%	1.3	0.17%	0.0022
Peters Township	1	30%	1	30%	1	20%	4	10%	2	10%	1.4	2.85%	0.0399
Quincy Township	1	30%	1	30%	2	20%	4	10%	2	10%	1.6	3.52%	0.0563
Shippensburg Borough	2	30%	1	30%	2	20%	4	10%	2	10%	1.9	0.71%	0.0135
Southampton Township	2	30%	2	30%	2	20%	4	10%	2	10%	2.2	5.48%	0.1206
St Thomas Township	2	30%	2	30%	1	20%	4	10%	2	10%	2.0	3.87%	0.0774
Warren Township	1	30%	2	30%	2	20%	3	10%	2	10%	1.8	0.24%	0.0043
Washington Township	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	9.53%	0.1048
Waynesboro Borough	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	7.02%	0.0772
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)												1.552	

Figure 4.3.1.5.1: Municipal Civil Disturbance Threat Vulnerability Self-Assessment

The entire county is considered vulnerable to this hazard. Potential losses from civil unrest incidents include human health, life, and property resources. In the transportation industry alone, it was assessed in 2011, that 1.2 billion tons of goods valued at \$1.6 trillion traversed PA highways. A large portion of that transits the two major arteries traversing Franklin County (I-81 and the Pennsylvania Turnpike). Any disruption to these major arteries or their feeder routes would have a negative impact not only to Franklin County, but might be felt all over the East Coast of the United States.¹⁸

Civil disorder incidents can lead to injury and/or death for both the involved persons and innocent bystanders. If a civil disturbance turns violent, it can lead to injury and/or death for personnel responding to the incident. The number of people exposed to a civil disturbance depends on population density at the place and time of the incident. Increases in population or hosting of major political, economic, or social events could increase the likelihood and severity of a civil unrest incident.

4.3.2. Dam Failure

A dam is an artificial barrier that has the ability to store water, wastewater, or liquid-borne materials for the storage or control of water.¹⁹ Dams are built for a variety of reasons which include recreation, water supply, hydroelectric power generation, agriculture irrigation, and flood control. Dams are typically constructed of concrete, earthen materials, timber and stone²⁰.

Over 95% of the dams listed in the National Inventory of Dams are either privately owned, public utility owned, or locally owned and under the responsibility of the individual State for which they are located. The vast majority of the dams (over 88%) consist of an earthen embankment. Over 93% of the regulated dams have a dam height less than or equal to 50 feet and 50% of the regulated dams have a dam height less than or equal to 25 feet. The inventory of regulated dams is aging, with 70% of the dams older than 43 years. By 2029, over 85% of the dam inventory will be older than 50 years²¹.

Dam failures can result from one or more of the following reasons:

- Cracking caused by natural settling of a dam or movement caused by an earthquake.
- Structural failure due to faulty materials used in construction.
- Inadequate maintenance or upkeep of the dam due to failure to remove trees or repair seepage problems.
- Deliberate acts of sabotage.
- Overtopping caused by flooding due to excessive rain.
- Piping and internal erosion is caused by seepage.

¹⁸ PennDOT, 2016

¹⁹ The National Dam Safety Act of 2006

²⁰ FEMA P-946, 2013

²¹ FEMA P-946, 2013

4.3.2.1. Location and Extent

Table 4.3.2.1.1 below lists the 34 dams in Franklin County (See **Figure 4.3.2.1.1** below for purpose/type definitions). We have B-1, C-3 and C-4 class dams (Refer to **Figure 4.3.2.1.2** below for description of these classifications). These classes of dams are found in the Pennsylvania Code (§ 105.91. classification of dams and reservoirs). They are used for hydroelectric, intake drinking water, irrigation, mill operations, private pond, public water source, recreation, and snow making water supply. The description of Franklin County dams are concrete, earth, gravity, masonry, run of river, and stone.

Table 4.3.2.1.1 also contains 6 dams that are located outside of Franklin County, but have the potential to impact our population. Three (3) dams are located in Adams County, 1 dam is located in Fulton County, and 2 dams are located in Washington County, Maryland which would inundate Franklin County if the dams failed. The inspection dates are listed for the dams, when available. A mitigation Action will be developed to research dam ownerships and latest inspection dates.

Franklin County Hazard Mitigation Plan - 2018

Dam #	Name	Municipality	Stream	Class	Purpose	Type	Last Inspection
28-001	Mercersburg Reservoir	Peters	Buck Run	C-4	S	RE	
28-004	Roxburg	Letterkenny	Conodoguinet	C-4	R	RE	
28-006	Rattlesnake	Quincy	Little Antietam	C-4	JS	CN	
28-011	Caledonia Furnace	Greene	Birch Run	C-4	R	RE	
28-014	US Papermill	Guilford	Conococheague	C-4			7/1/2014
28-037	W. H. Walker	Metal	Creek	C-4	R	RE	
28-043	Williamson	St Thomas	Back Creek	C-4	M	CN	
28-044	Montgomery Mills	Montgomery	WB Conococheague	C-4	HM	T	
28-045	C. A. Anderson	Montgomery	WB Conococheague	C-4	M	CN	
28-048	Mercersburg Reservoir	Peters	Buck Run	C-4			
28-073	Shockleys	Washington	EB Little Antietam	C-4	M	R	
28-075	Middour	Washington	EB Antietam	C-4	RP	S	
28-088	Shippensburg Borough	Lurgan	Trout Run	C-4	SJ	CN	
28-092	Red Run Lake	Washington	Red Run	C-4	R	S	
28-095	Wohelo Lake	Washington	Red Run	C-3	R	RE	6/24/2015
28-096	Roxbury	Letterkenny Township	Conodoquinet	B-1	S	G	10/26/2016
28-102	Gunter Valley	Lurgan Township	Trout Run	B-1	R	RE	1/19/2017
28-103	Comet Lake	Washington Township	Spring Run	C-3	R	RE	6/25/2015
28-108	Caledonia Water Co.	Greene Township	Stump Run	C-3	S	RE	7/7/2015
28-110	Lake Letterkenny Dam	Letterkenny Township	TR Rocky Spring Br	C-3	R	S	
28-111	Rocky Spring Dam	Letterkenny Township	Rocky Spring Br Back	C-3	R	RE	
28-112	Pond	Letterkenny Township	TR Keasy Run	C-4	I	RE	
28-114	Whitetail Land Co - A	Montgomery Township	TR Licking Creek	B-1	UIR	RE	12/20/2015
28-116	Scotland Pond #1	Greene Township	Conococheague	C-4	R	CN	
28-117	Scotland Pond #2	Greene Township	Conococheague	C-4	P	RR	
28-118	Scotland Pond #3	Greene Township	Conococheague	C-4	P	N	
28-119	Habig	Fannett Township	WB Conococheague	C-4	P	CN	
28-120	Amberson Valley Estates	Fannett Township	WB Conococheague	C-4	P	S	
28-122	Whitetail D	Montgomery Township	Conococheague	C-4	P	RE	
28-123	Whitetail C	Montgomery Township	TR Licking Crrek	C-3	P	RE	7/2/2015
28-124	Beacon of Greene	Guilford Township	TR Conococheague	C-4	P	RE	
28-125	Conocodell Golf Club	Greene Township	TR Conococheague	C-4	R	RE	
28-128	Timmons Farm Pond	Letterkenny Township	TR Conodoquinet	C-4			
28-129	Intake Pond	Quincy Township	EB Antietam	C-4			
01-073	Antietam	Hamiltonban Twp (Adams)	EB Antietam	B-1	S	RE	9/9/2014
01-077	Carbaugh Run	Franklin Twp (Adams)	Carbaugh Run	C-1	S	RE	12/12/2014
01-082	Long Pine Run	Franklin Twp (Adams)	Birch Run	A-1	S	RE	12/11/2014
29-032	Meadow Grounds	Ayr Twp (Fulton)	Roaring Run	B-1	R	RE	12/15/2014
MD00070	Lower Lake Royer	Washington Co., MD	TR Falls Creek	High	SR	RE	12/4/2014
MD00157	Upper Lake Royer	Washington Co., MD	TR Falls Creek		SR	RE	12/4/2014

Table 4.3.2.1.1: Dams with Potential to Impact Franklin County (Dec 2017)

Franklin County Hazard Mitigation Plan - 2018

Type Code	Description	Purpose Code	Description
CB	Butress	A	Ash Basin
CN	Concrete	B	Sediment Basin
ER	Rockfill	C	Flood Control
MS	Masonry	D	Debris Control
MV	Multi-arch	E	Slurry Impoundment
OT	Other	F	Stormwater Detention
PG	Gravity	G	Industrial/Mining Water Supply
QQ	Unpopulated	H	Hydroelectric
RC	RCC	I	Irrigation
RE	Earth	J	Intake Drinking Water
RR	Run of River	K	Intake Non-Drinking Water
SH	Sheetpile	L	Water Treatment Lagoon
ST	Stone	M	Mill Operation
TC	Timber Crib	N	Navigation
VA	Arch	O	Farm Pond
		P	Private Pond
		Q	Unpopulated
		R	Recreation
		S	Public Water Supply
		T	Tailings
		U	Snowmaking Water Supply
		V	Diversion
		W	Waste Impoundment (Untreated)
		X	Treated Waste Impoundment
		Y	Wetland Mitigation
		Z	Frac Water Lagoon

Figure 4.3.2.1.1: Definitions of Type and Purpose codes in Table 4.3.2.1.1

Franklin County Hazard Mitigation Plan - 2018

Hazard Classification	Impound Storage (acre ft)	Dam Height (ft)	Category Population at Risk	Economic Loss	Inspections
A1	A ≥ 50,000	H ≥ 100	Substantial (Numerous homes or small businesses or a large business or school).	Excessive such as extensive residential, commercial, or agricultural damage, or substantial public inconvenience.	Once a year by owner's engineer
A2			Few (A small number of homes or small businesses).	Appreciable such as limited residential, commercial, or agricultural damage, or moderate public inconvenience.	Once a year by owner's engineer
A3			None expected (no permanent structures for human habitation or employment),	Significant damage to private or public property and short duration public inconvenience such as damage to storage facilities or loss of critical stream crossings.	Every 2 years by DEP
A4			None expected (no permanent structures for human habitation or employment)	Minimal damage to private or public property and no significant public inconvenience.	Every 5 years by DEP
B1	1000 < A < 50,000	40 < H < 100	Substantial (Numerous homes or small businesses or a large business or school).	Excessive such as extensive residential, commercial, or agricultural damage, or substantial public inconvenience.	Once a year by owner's engineer
B2			Few (A small number of homes or small businesses).	Appreciable such as limited residential, commercial, or agricultural damage, or moderate public inconvenience.	Once a year by owner's engineer
B3			None expected (no permanent structures for human habitation or employment),	Significant damage to private or public property and short duration public inconvenience such as damage to storage facilities or loss of critical stream crossings.	Every 2 years by DEP
B4			None expected (no permanent structures for human habitation or employment)	Minimal damage to private or public property and no significant public inconvenience.	Every 5 years by DEP
C1	A ≤ 1000	H ≤ 40	Substantial (Numerous homes or small businesses or a large business or school).	Excessive such as extensive residential, commercial, or agricultural damage, or substantial public inconvenience.	Once a year by owner's engineer
C2			Few (A small number of homes or small businesses).	Appreciable such as limited residential, commercial, or agricultural damage, or moderate public inconvenience.	Once a year by owner's engineer
C3			None expected (no permanent structures for human habitation or employment),	Significant damage to private or public property and short duration public inconvenience such as damage to storage facilities or loss of critical stream crossings.	Every 2 years by DEP
C4			None expected (no permanent structures for human habitation or employment)	Minimal damage to private or public property and no significant public inconvenience.	Every 5 years by DEP
A is Area of Dam		H is Height of Dam			

Figure 4.3.2.1.2: Pennsylvania Dam Classifications

Hazard Potential Category 1 and 2 Dams (A-1, A-2, B-1, B-2, C-1 and C-2) are required to be inspected by the owner's engineer every year and the report submitted to FCDES by December 31st. The Pennsylvania Department of Environmental Protection (DEP) also inspects these dams on an annual basis²².

Hazard Potential Category 3 and 4 Dams (A-3, A-4, B-3, B-4, C-3 and C-4) are not required to have an annual inspection report submitted. However, they should be inspected and observed every 3 months by the dam owner for any changes in condition. DEP inspects the Category 3 dams every other year and the Category 4 dams every 5 years²³.

4.3.2.2. Range of Magnitude

Dam failures could cause significant or catastrophic damage to communities downstream of high hazard dams. The impact is determined by the amount of water which is released from the dam overflow or complete failure of the dam. DEP defines a high hazard dam as "any dam so located as to endanger populated areas downstream by its failure."

Dam failure evacuation time for people, pets, or livestock from the inundation area may vary due to circumstance. Dam failures can cause loss of life, hazardous materials releases, loss of critical infrastructure, agricultural damage, loss of livestock, loss of homes/businesses, and damage to natural resources. It can devastate a community and the economy. Seepage in earth dams could give a few hours for evacuation if detected early before failure. Overtopping due to heavy rain may give a few hours to evacuate or there may be a flash flood that gives little warning of dam failure. Dam failure could also be manmade due to terrorism or faulty operation of the dam.

The following high hazard dam failures would cause significant or catastrophic impact in Franklin County (See **Figure 4.3.2.2.1** below for overall map of County Dam Inundation Zones).

- Roxbury Dam would affect Lurgan, Letterkenny, and Southampton Townships.
- Whitetail Land Co. A. would affect Borough of Mercersburg and Montgomery Township.
- Gunter Valley Dam would affect Lurgan and Letterkenny Townships (at this time it has been breached but is still classified as high hazard).
- Adams County Dams that would affect Franklin County are; Antietam, Carbaugh Run and Long Pine Run.
- Meadow Grounds Dam in Fulton County which will affect Warren Township (visibly emptied, but dam wall still intact).
- Lower Lake Royer Dam in Maryland which will affect Washington Township.

²² DEP, 2013

²³ DEP, 2013

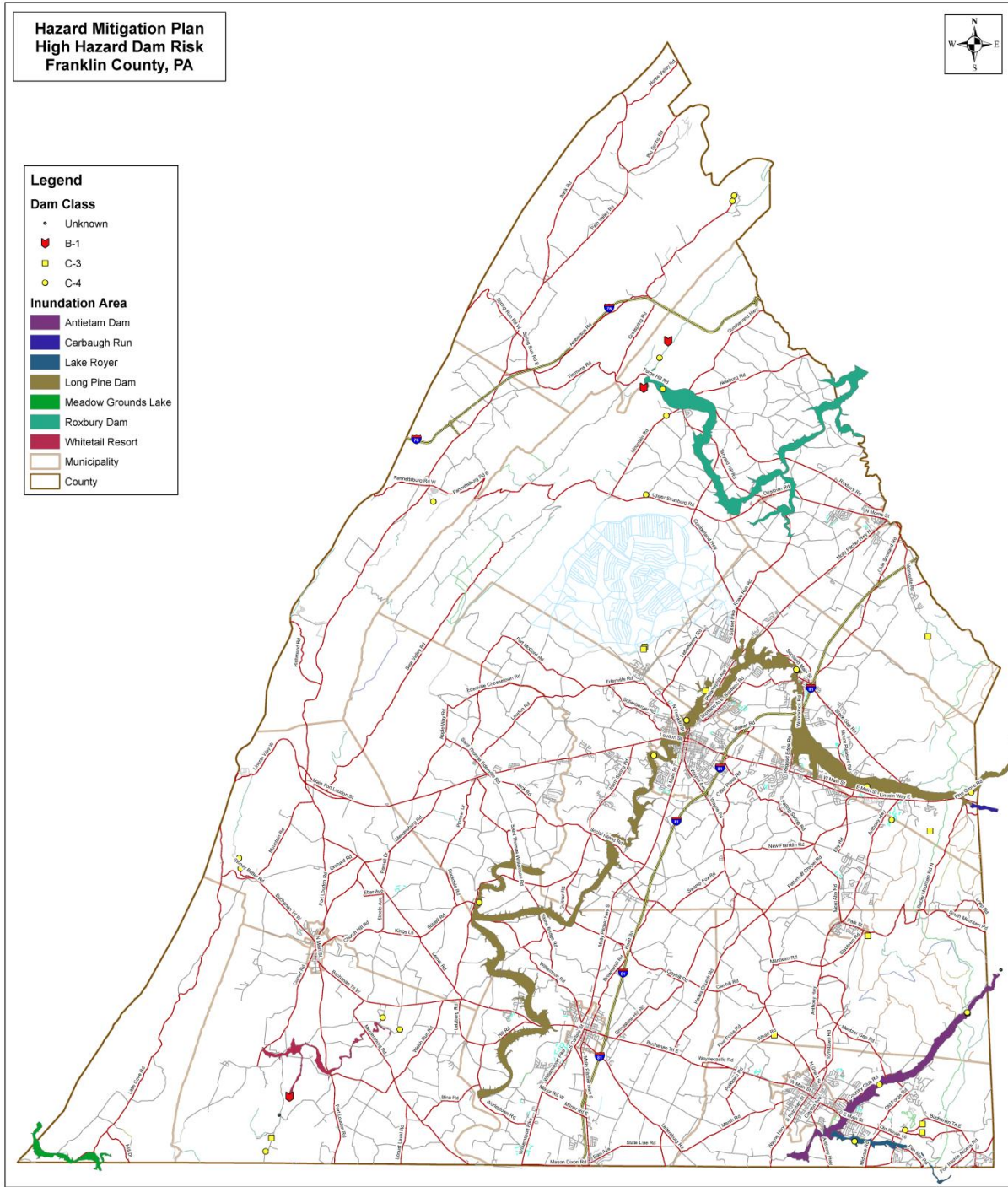


Figure 4.3.2.2.1: Franklin County Dam Inundation Zones (Dec 2017)

4.3.2.3. Past Occurrence

There have been three significant dam failures in Pennsylvania. The notorious Johnstown Flood is one of America’s best-known disasters. The disaster occurred when an unusually large amount of rain fell over western Pennsylvania in May of 1889. Consequently, the earthen South

Fork Dam breached on May 31, 1889 and released 20 million tons of water into the Conemaugh River Valley, Cambria County. As the water rushed through the valley it swept away part of the community of South Fork and the communities of Mineral Point, Woodvale, Franklin, East Conemaugh, and finally, Johnstown. The dam had been known to be leaking and gave way when it was overtopped by the floodwaters. The narrow valley and the dense build-up along the Conemaugh floodplain downstream from the dam aggravated the flood catastrophe. When the flood was over, 16,000 people were homeless and 2,209 were dead.

On September 30, 1911, the Bayless Dam broke, claiming 78 lives in Austin, Potter County²⁴. On July 19-20, 1977, a dam failure occurred on Laurel Run, Johnstown, PA. The filling of the lake and overtopping of the Laurel Run Dam went unnoticed during a late-night storm. The dam break came as a complete surprise, even though it probably occurred over a time span of roughly one hour. The failure killed 84 people and caused between \$3 - 6 million in damages.

4.3.2.4. Future Occurrence

Provided that adequate engineering and maintenance measures are in place, high hazard dam failures are unlikely in Franklin County. DEP inventories and generally regulates all dams that meet one of the following criteria²⁵:

- The dam is located across a watercourse and the contributory drainage area to the dam exceeds 100 acres;
- The dam is located across a watercourse and the maximum depth of water, measured from the upstream toe of the dam to the top of the dam at maximum storage elevation, is greater than 15 feet;
- The dam is located across a watercourse and the impounding capacity (storage volume) at maximum storage elevation is greater than 50 acre-feet;
- The dam stores water, is not located on a watercourse, and has no contributory drainage, but the maximum depth exceeds 15 feet and the maximum storage volume exceeds 50 acre-feet; or
- The dam is used for storage of fluids or semi-fluids other than water, the escape of which may result in air, water, or land pollution or endanger to persons or property.

The construction, operation, maintenance, modification, and abandonment of dams regulated by the DEP is reviewed and monitored by the Department's Program of Dam Safety. Dams are evaluated based on categories such as slope stability, undermining seepage, and spillway adequacy. The presence of structural integrity and inspection programs significantly reduces the potential for major dam failure events to occur. Minor dam failures are more common since low hazard structures are minimally regulated, but the impact of these events is minimal.

²⁴ ASDSO, 2010

²⁵ DEP, 2013

Dam Emergency Action Plans drafted in accordance with the Federal Guidelines for Dam Safety identify the risk related information including the inundation area and the time lapse between failure and flooding reaching specific destinations downstream. Seven (7) of the 34 dams located in Franklin County are regulated by DEP and have approved Emergency Action Plans. These plans are also reviewed and approved by PEMA and a copy is kept at Franklin County Department of Emergency Services (FCDES).

Dams regulated by federal agencies are subject to the dam safety offices of the regulating agency. The Federal Emergency Regulatory Commission (FERC) Office of Energy Projects' Dam Safety and Inspections Division conducts construction, operation, exemption, special, pre-license, and environmental and public use inspections of energy production dams to minimize risk associated with FERC dams. United States Army Corps of Engineers (USACE) dams are inspected and maintained by the district where the dam is located.

4.3.2.5. Vulnerability Assessment

The Pennsylvania Code classifies dams based on impoundment storage, dam height, loss of life, and economic loss. Vulnerability is defined by identifying the location of dams having high hazard potential, as defined by The Pennsylvania Code (§ 105.91 Classification of dams and reservoirs). Specifically, Category 1 dams were identified, indicating that the loss of life would be substantial or that economic loss would be excessive to residential, commercial, and agricultural areas and cause substantial public inconvenience. Notably, in 2011, the provisions for dam hazard potential classification changed; a fourth category of dam was added to capture instances where there might be damage to property but not loss of human life²⁶.

The extent of downstream inundation areas vary based on dam characteristics. Inundation maps show the area that is projected to be impacted by flooding due to a dam failure. A county wide GIS layer of inundation maps would be effective in identifying risk more precisely than a dam location map. The inundation areas included on the maps in this document were digitized in GIS using the newest plans that have been provided to Franklin County. The accuracy of the areas is dependent on the quality and size of the maps in those plans. However inundation maps are not available in ArcGIS or AutoCAD for Franklin County due to the various levels of ownership and administration; the inundation information is hosted by a variety of different federal, state, local agencies and private owners.

Franklin County has 3 high hazard dams; Gunter Valley Dam, Roxbury Dam, and the Whitetail Land Co – A Dam located in county, but is impacted by an additional 5 external high hazard dams; Antietam Dam (Adams County), Carbaugh Run Dam (Adams County), Long Pine Run Dam (Adams County), Meadow Grounds Dam (Fulton County), and Lower Lake Royer Dam (Washington County, MD). The following section shows inundation maps and pictures of these dams.

²⁶ PEMA, 2013

Gunter Valley Dam

Gunter Valley Dam (28-102) is visibly breached, but still is classified as a B-1 high hazard dam. **Figure 4.3.2.5.1** and **Figure 4.3.2.5.2** below show the lakebed and the tributary to the Gunter Valley Dam respectively.



Figure 4.3.2.5.1: Gunter Valley Dam Lakebed



Figure 4.3.2.5.2: Stream Leading into Gunter Valley Dam

Figure 4.3.2.5.3 below shows an aerial view of the Gunter Valley Dam. However, no inundation area is shown due to the dam being breached. This document will be updated if the circumstances of the operation of this dam changes.



Figure 4.3.2.5.3: Aerial View of Gunter Valley Dam Without Inundation Zones

Roxbury Dam

The Roxbury Dam (28-096) is classified as a B-1 high hazard dam. **Figure 4.3.2.5.4, Figure 4.3.2.5.5, and Figure 4.3.2.5.6** below show south end of the dam wall, the north wing wall, and the entrapment area respectively.



Figure 4.3.2.5.4: South Wall of Roxbury Dam



Figure 4.3.2.5.5: North Wing Wall of Roxbury Dam



Figure 4.3.2.5.6: Entrapment Area of the Roxbury Dam

Figure 4.3.5.2.7 below shows the Roxbury Dam inundation area. It impacts Letterkenny, Lurgan, and Southampton Townships before flowing into Cumberland County.

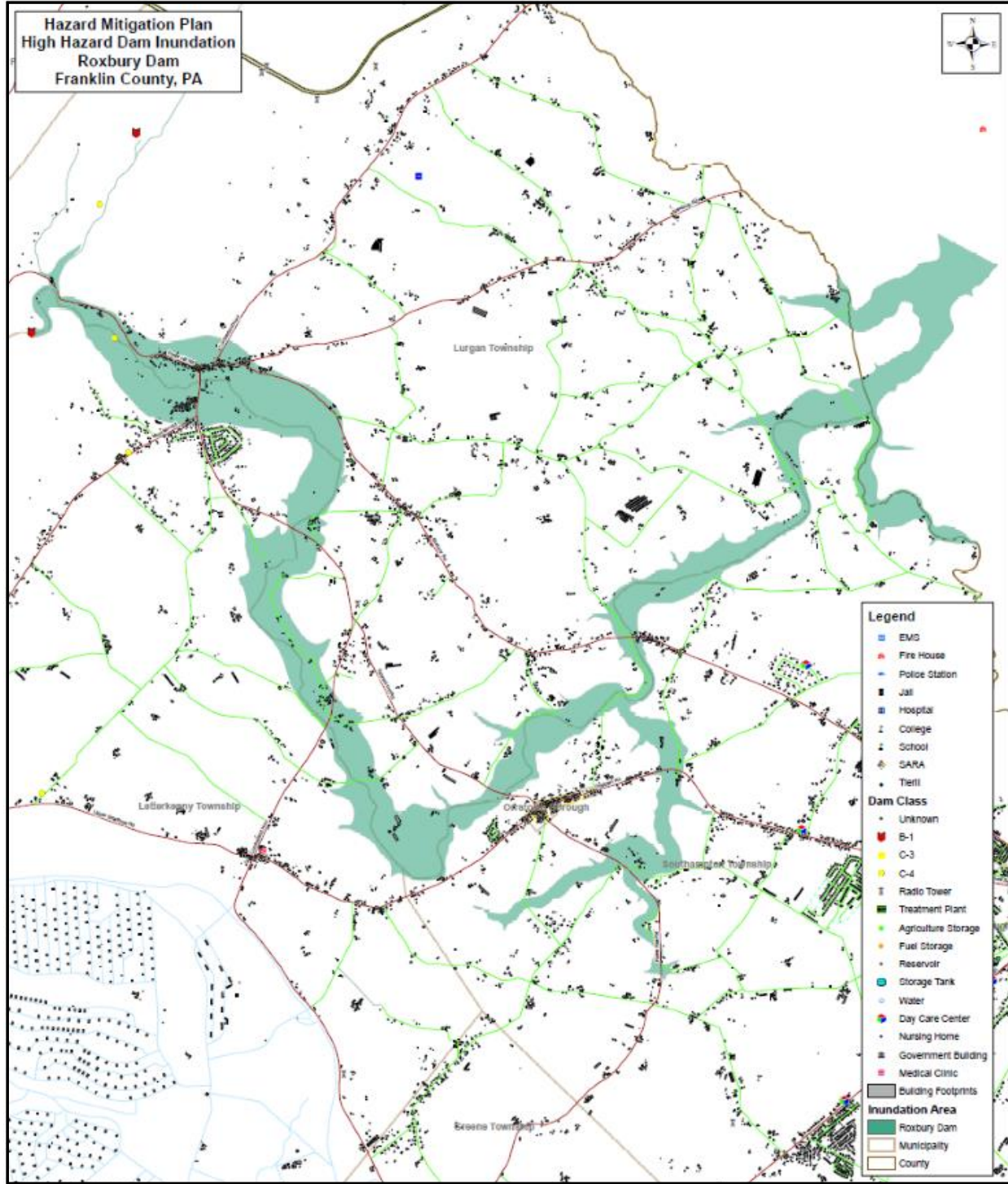


Figure 4.3.2.5.7: Roxbury Dam Inundation Zones (Nov 2019)

Table 4.3.4.5.1 below identifies the number of structures impacted by the Roxbury Dam inundation zone and the estimated value of those structures. The assessed values of these structures were recorded in the Franklin County Tax Assessment database and reflect values as assessed in 1961. Therefore, to get approximate value of these structures in 2020 dollars they

were multiplied by a factor of 9.09. This factor is given to the county by the state and is based off of sales in the previous year.

Roxbury Dam Failure Impacts				
Municipality	Impacted Parcels	Impacted Structures	Assessed Value (1961)	Estimated Value (2020)
Letterkenny Township	17	134	\$561,570	\$5,104,671
Lurgan Township	163	411	\$1,902,080	\$17,289,907
Southampton Township	35	86	\$678,330	\$6,166,020
Totals	215	631		\$28,560,598

Table 4.3.2.5.1: Roxbury Dam Inundation Zone Structural Impacts (Dec 2020)

Whitetail Dam Land Co. – A

The Whitetail Land Co. – A Dam (28-114) is classified as a B-1 high hazard dam. **Figure 4.3.2.5.8, Figure 4.3.2.5.9, and Figure 4.3.2.5.10** below show the entrapment area, spillway, and dam wall respectively.



Figure 4.3.2.5.8: Whitetail Land Co. – A Dam Entrapment Area



Figure 4.3.2.5.9: Whitetail Land Co. – A Dam Spillway



Figure 4.3.2.5.10: Whitetail Land Co. – A Dam Wall

Figure 4.3.5.2.11 below shows the Whitetail Land Co. – A Dam inundation area. It impacts Montgomery Township.

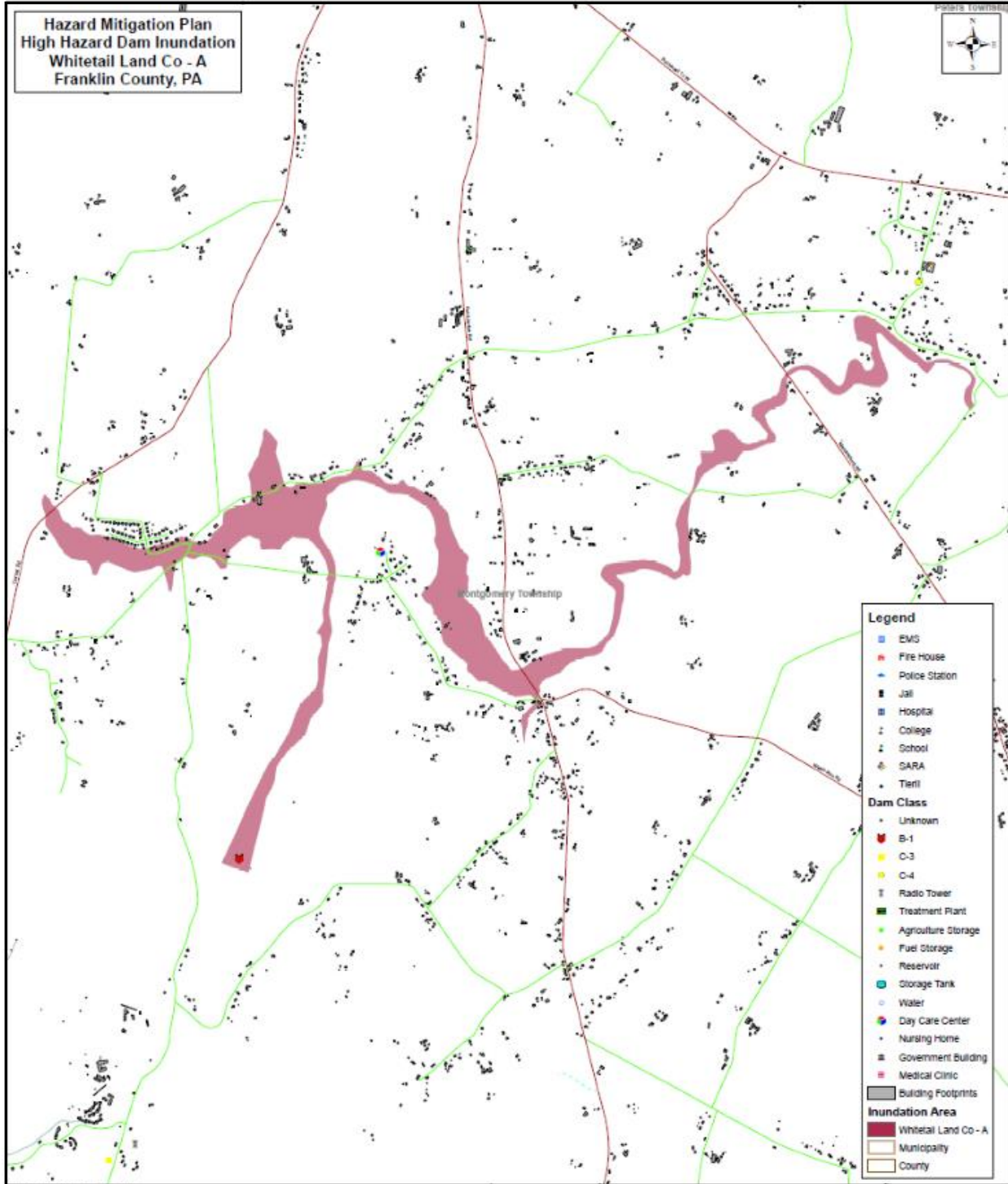


Figure 4.3.2.5.11: Whitetail – A Dam Inundation Zone (Nov 2019)

Table 4.3.4.5.2 below identifies the number of structures impacted by the Whitetail Land Co. – A Dam inundation zone and the estimated value of those structures. The assessed values of these structures were recorded in the Franklin County Tax Assessment database and reflect values as assessed in 1961. Therefore, to get approximate value of these structures in 2020 dollars they

were multiplied by a factor of 9.09. This factor is given to the county by the state and is based off of sales in the previous year.

Whitetail Land Co. - A Dam Failure Impacts				
Municipality	Impacted Parcels	Impacted Structures	Assessed Value (1961)	Estimated Value (2020)
Montgomery Township	18	35	\$511,070	\$4,645,626
Totals	18	35		\$4,645,626

Table 4.3.2.5.2: Whitetail Land Co. – A Dam Inundation Zone Structural Impacts (Dec 2020)

Antietam Dam (Adams County)

The Antietam Dam (01-073) is classified as a B-1 high hazard dam. **Figure 4.3.2.5.12, Figure 4.3.2.5.13, and Figure 4.3.2.5.14** below show the entrapment area, spillway, and dam wall respectively.



Figure 4.3.2.5.12: Antietam Dam Entrapment Area



Figure 4.3.2.5.13: Antietam Dam Spillway



Figure 4.3.2.5.14: Antietam Dam Wall

Figure 4.3.5.2.15 below shows the Antietam Dam inundation area. It impacts Quincy Township, Washington Township, and Waynesboro Borough.

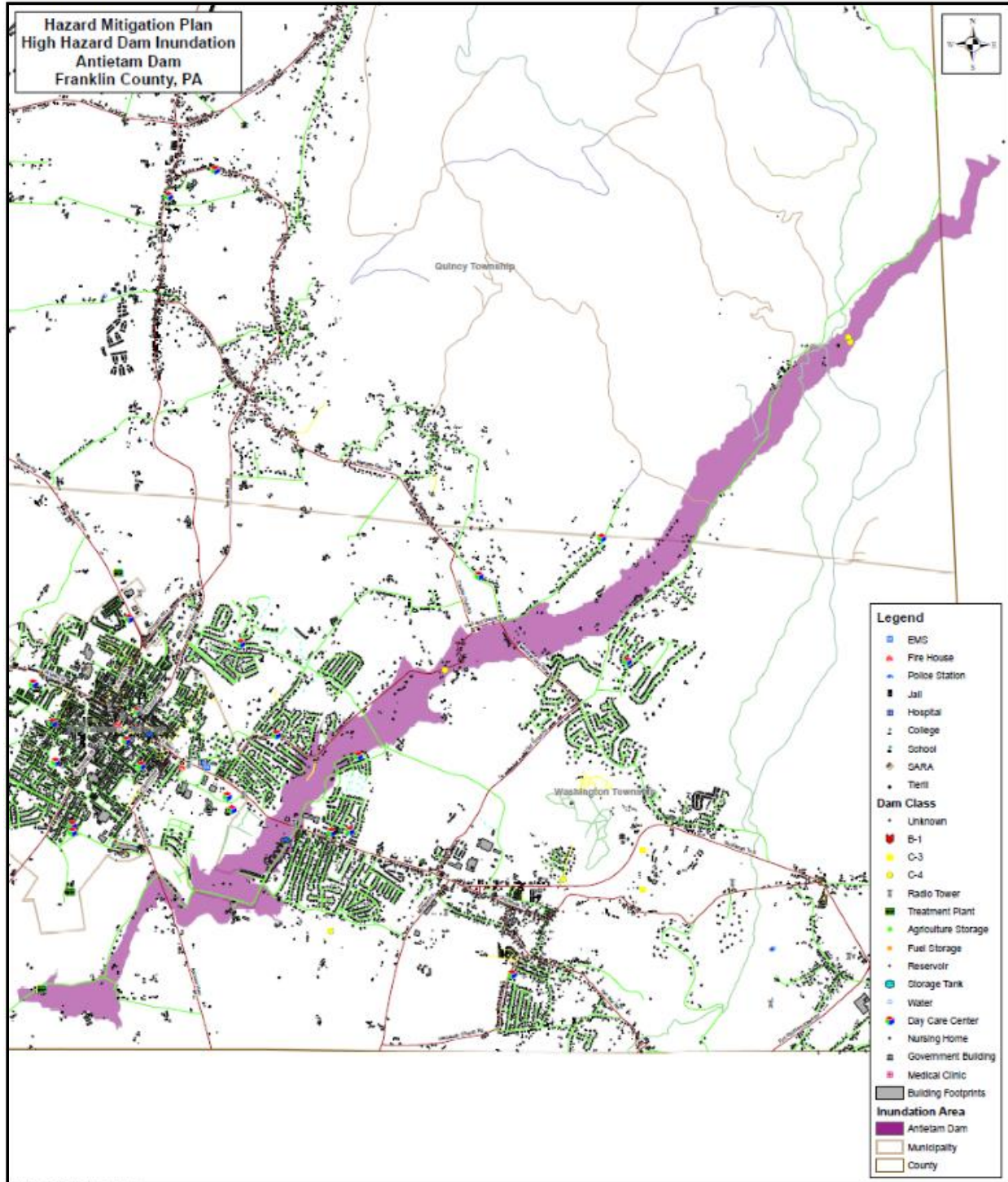


Figure 4.3.2.5.15: Antietam Dam Inundation Zone (Nov 2019)

Table 4.3.4.5.3 below identifies the number of structures impacted by the Antietam Dam inundation zone and the estimated value of those structures. The assessed values of these structures were recorded in the Franklin County Tax Assessment database and reflect values as assessed in 1961. Therefore, to get approximate value of these structures in 2020 dollars they

Franklin County Hazard Mitigation Plan - 2018

were multiplied by a factor of 9.09. This factor is given to the county by the state and is based off of sales in the previous year.

Antietam Dam Failure Impacts				
Municipality	Impacted Parcels	Impacted Structures	Assessed Value (1961)	Estimated Value (2020)
Quincy Township	8	20	\$402,070	\$3,654,816
Washington Township	165	407	\$4,913,080	\$44,659,897
Waynesboro Borough	2	6	\$13,270	\$120,624
Totals	175	433		\$48,435,337

Table 4.3.2.5.3: Antietam Dam Inundation Zone Structural Impacts (Dec 2020)

Carbaugh Run Dam (Adams County)

The Carbaugh Run Dam (01-077) is classified as a C-1 high hazard dam. **Figure 4.3.2.5.16**, **Figure 4.3.2.5.17**, and **Figure 4.3.2.5.18** below show the entrapment area, spillway, and dam wall respectively.



Figure 4.3.2.5.16: Carbaugh Run Dam Entrapment Area



Figure 4.3.2.5.17: Carbaugh Run Dam Spillway



Figure 4.3.2.5.18: Carbaugh Run Dam Wall

Figure 4.3.2.5.19 below shows the Carbaugh Run Dam inundation area. It impacts Greene Township.

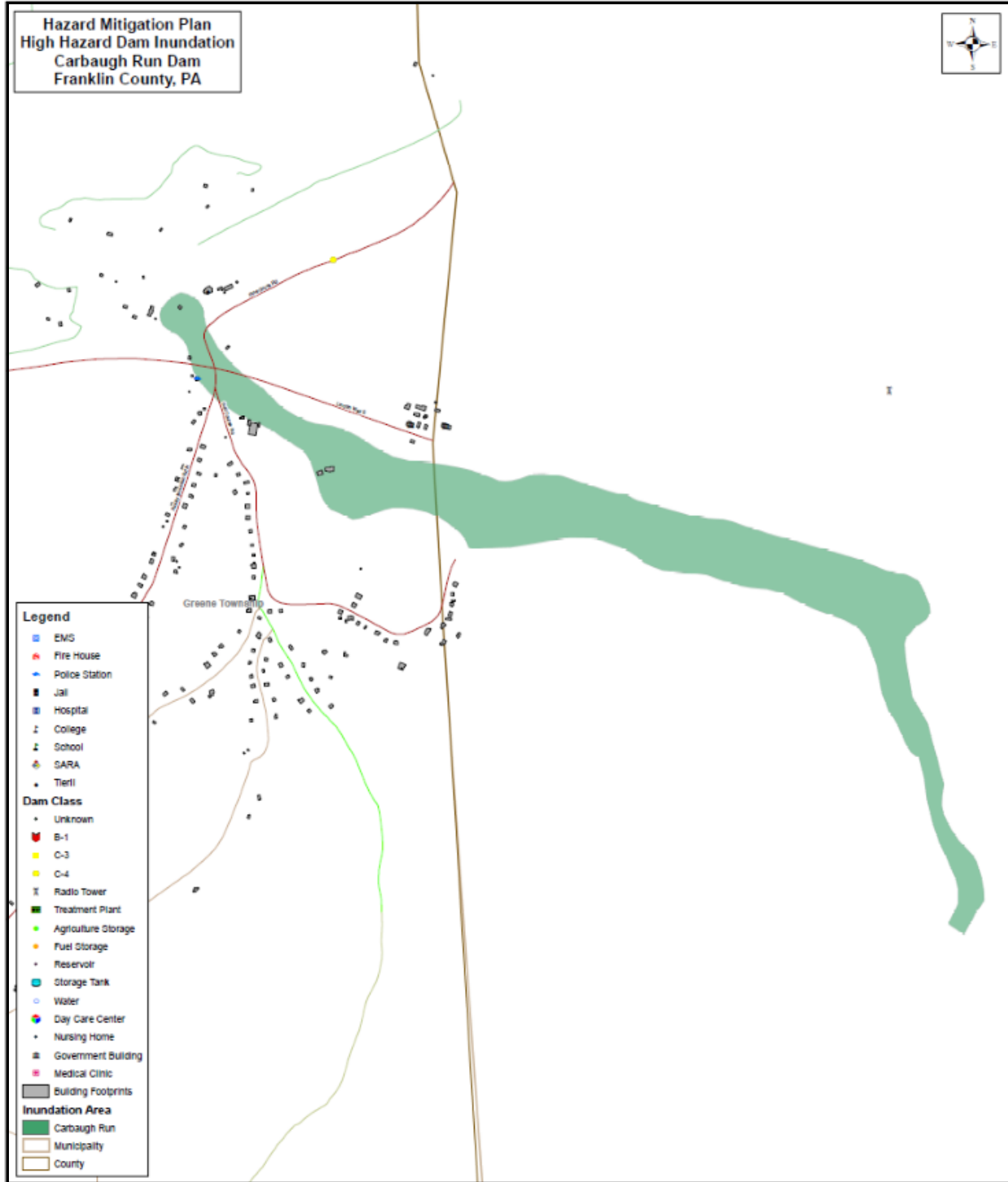


Figure 4.3.2.5.19: Carbaugh Run Dam Inundation Zone (Nov 2019)

Table 4.3.2.5.4 below identifies the number of structures impacted by the Carbaugh Run Dam inundation zone and the estimated value of those structures. The assessed values of these structures were recorded in the Franklin County Tax Assessment database and reflect values as assessed in 1961. Therefore, to get approximate value of these structures in 2020 dollars they

Franklin County Hazard Mitigation Plan - 2018

were multiplied by a factor of 9.09. This factor is given to the county by the state and is based off of sales in the previous year.

Carbaugh Run Dam Failure Impacts				
Municipality	Impacted Parcels	Impacted Structures	Assessed Value (1961)	Estimated Value (2020)
Greene Township	2	3	\$63,020	\$572,852
Totals	2	3		\$572,852

Table 4.3.2.5.4: Carbaugh Run Dam Inundation Zone Structural Impacts (Dec 2020)

Long Pine Run Dam (Adams County)

The Long Pine Run Dam (01-082) is classified as a A-1 high hazard dam. **Figure 4.3.2.5.20**, **Figure 4.3.2.5.21**, and **Figure 4.3.2.5.22** below show the entrapment area, spillway, and dam wall respectively.



Figure 4.3.2.5.20: Long Pine Run Dam Entrapment Area



Figure 4.3.2.5.21: Long Pine Run Dam Spillway



Figure 4.3.2.5.22: Long Pine Run Dam Wall

Figure 4.3.2.5.23 below shows the Long Pine Run Dam inundation area. It impacts Antrim Township, Chambersburg Borough, Greene Township, Guilford Township, Hamilton Township, Peters Township, and St Thomas Township.

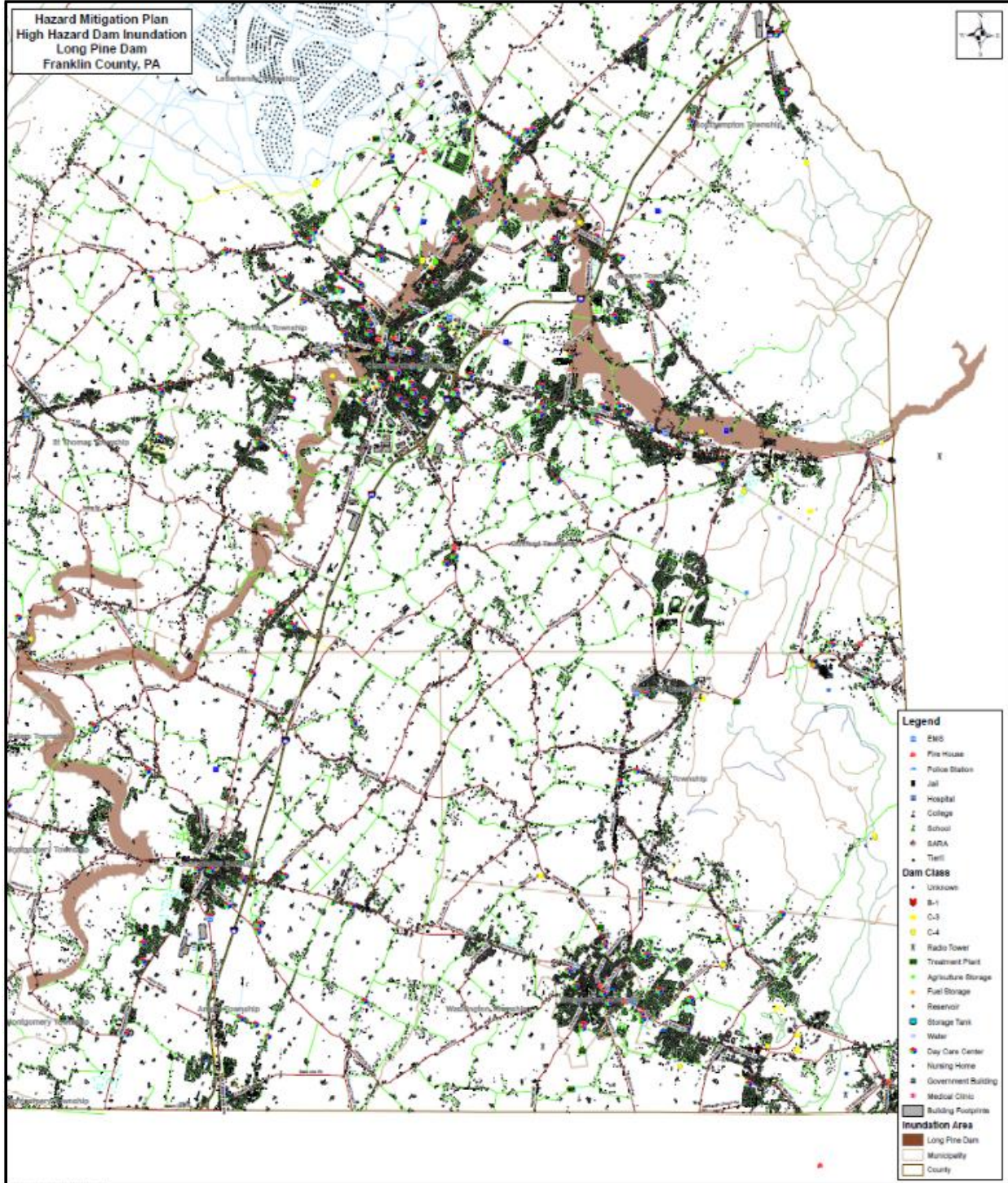


Figure 4.3.2.5.23: Long Pine Run Dam Inundation Zone (Nov 2019)

Table 4.3.2.5.5 below identifies the number of structures impacted by the Long Pine Run Dam inundation zone and the estimated value of those structures. The assessed values of these structures were recorded in the Franklin County Tax Assessment database and reflect values as assessed in 1961. Therefore, to get approximate value of these structures in 2020 dollars they

Franklin County Hazard Mitigation Plan - 2018

were multiplied by a factor of 9.09. This factor is given to the county by the state and is based off of sales in the previous year.

Long Pine Run Dam Failure Impacts				
Municipality	Impacted Parcels	Impacted Structures	Assessed Value (1961)	Estimated Value (2020)
Antrim Township	76	165	\$1,548,700	\$14,077,683
Chambersburg Borough	449	600	\$25,700,150	\$233,614,364
Greene Township	857	1676	\$22,925,480	\$208,392,613
Guilford Township	51	89	\$594,290	\$5,402,096
Hamilton Township	32	78	\$545,660	\$4,960,049
Peters Township	2	5	\$40,020	\$363,782
St Thomas Township	44	98	\$557,200	\$5,064,948
Totals	1511	2711		\$471,875,535

Table 4.3.2.5.5: Long Pine Run Dam Inundation Zone Structural Impacts (Dec 2020)

Meadow Grounds Dam (Fulton County)

The Meadow Grounds Dam (29-032) has been emptied, but not physically breached at this point and is still classified as a B-1 high hazard dam. **Figure 4.3.2.5.24, Figure 4.3.2.5.25, and Figure 4.3.2.5.25** below show the entrapment area, spillway, and dam wall respectively.



Figure 4.3.2.5.24: Meadow Grounds Dam Entrapment Area



Figure 4.3.2.5.25: Meadow Grounds Dam Spillway



Figure 4.3.2.5.26: Meadow Grounds Dam Wall

Figure 4.3.2.5.27 below shows the Meadow Grounds Dam inundation area. It impacts Warren Township.

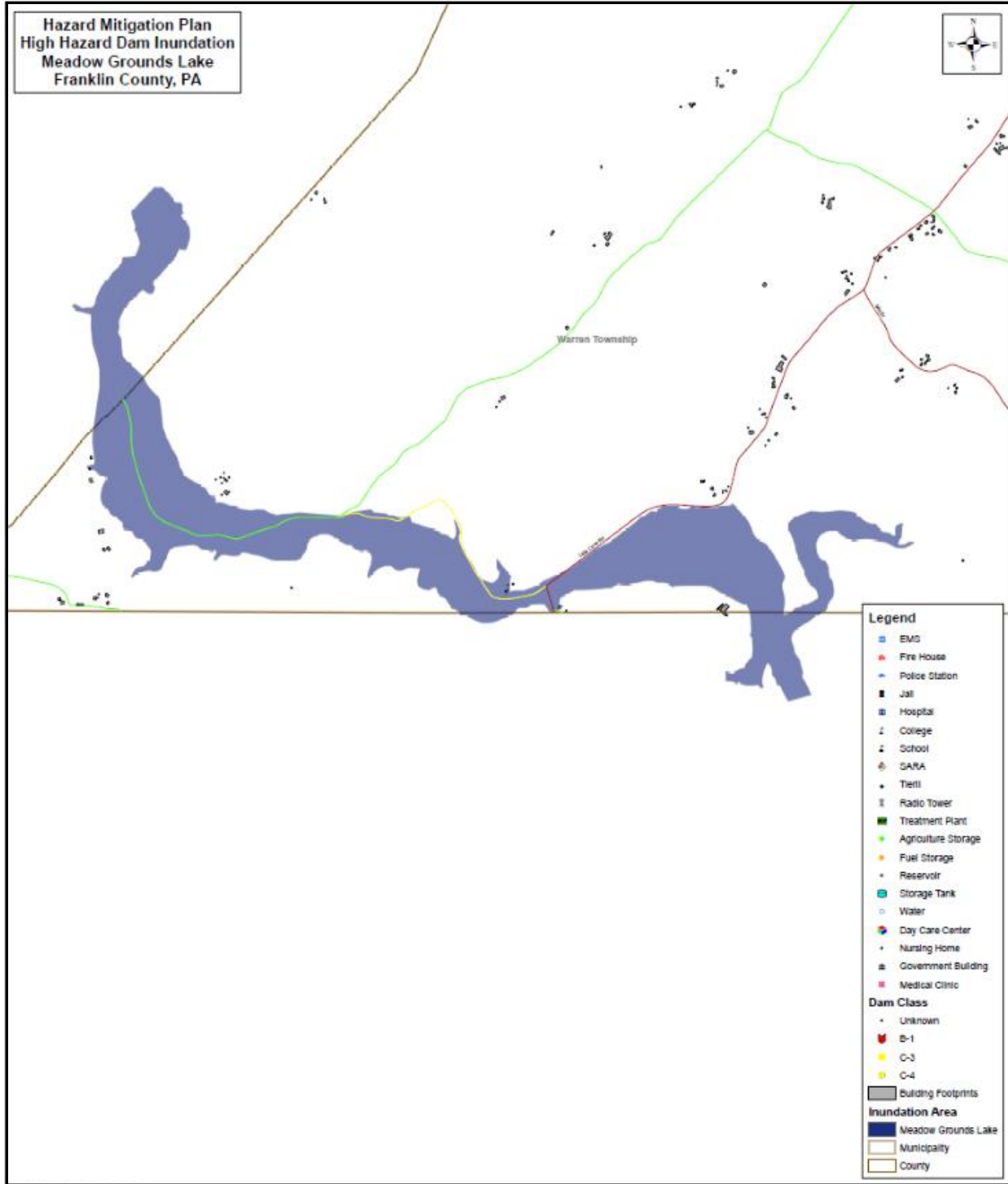


Figure 4.3.2.5.27: Meadow Grounds Dam Inundation Zone (Nov 2019)

Table 4.3.2.5.6 below identifies the number of structures impacted by the Meadow Grounds Dam inundation zone and the estimated value of those structures. The assessed values of these structures were recorded in the Franklin County Tax Assessment database and reflect values as assessed in 1961. Therefore, to get approximate value of these structures in 2020 dollars they

Franklin County Hazard Mitigation Plan - 2018

were multiplied by a factor of 9.09. This factor is given to the county by the state and is based off of sales in the previous year.

Meadow Grounds Dam Failure Impacts				
Municipality	Impacted Parcels	Impacted Structures	Assessed Value (1961)	Estimated Value (2020)
Warren Township	1	3	\$2,450	\$22,271
Totals	1	3		\$22,271

Table 4.3.2.5.6: Meadow Grounds Dam Inundation Zone Structural Impacts (Dec 2020)

Lower Lake Royer Dam (Washington County, MD)

The Lower Lake Royer Dam (MD00070) is classified as a High hazard dam. **Figure 4.3.2.5.28**, **Figure 4.3.2.5.29**, and **Figure 4.3.2.5.30** below show the entrapment area, spillway, and dam wall respectively.



Figure 4.3.2.5.28: Lower Lake Royer Dam Entrapment Area



Figure 4.3.2.5.29: Lower Lake Royer Dam Spillway



Figure 4.3.2.5.30: Lower Lake Royer Dam Wall

Figure 4.3.2.5.31 below shows the Lower Lake Royer Dam inundation area. It impacts Washington Township and Waynesboro Borough.

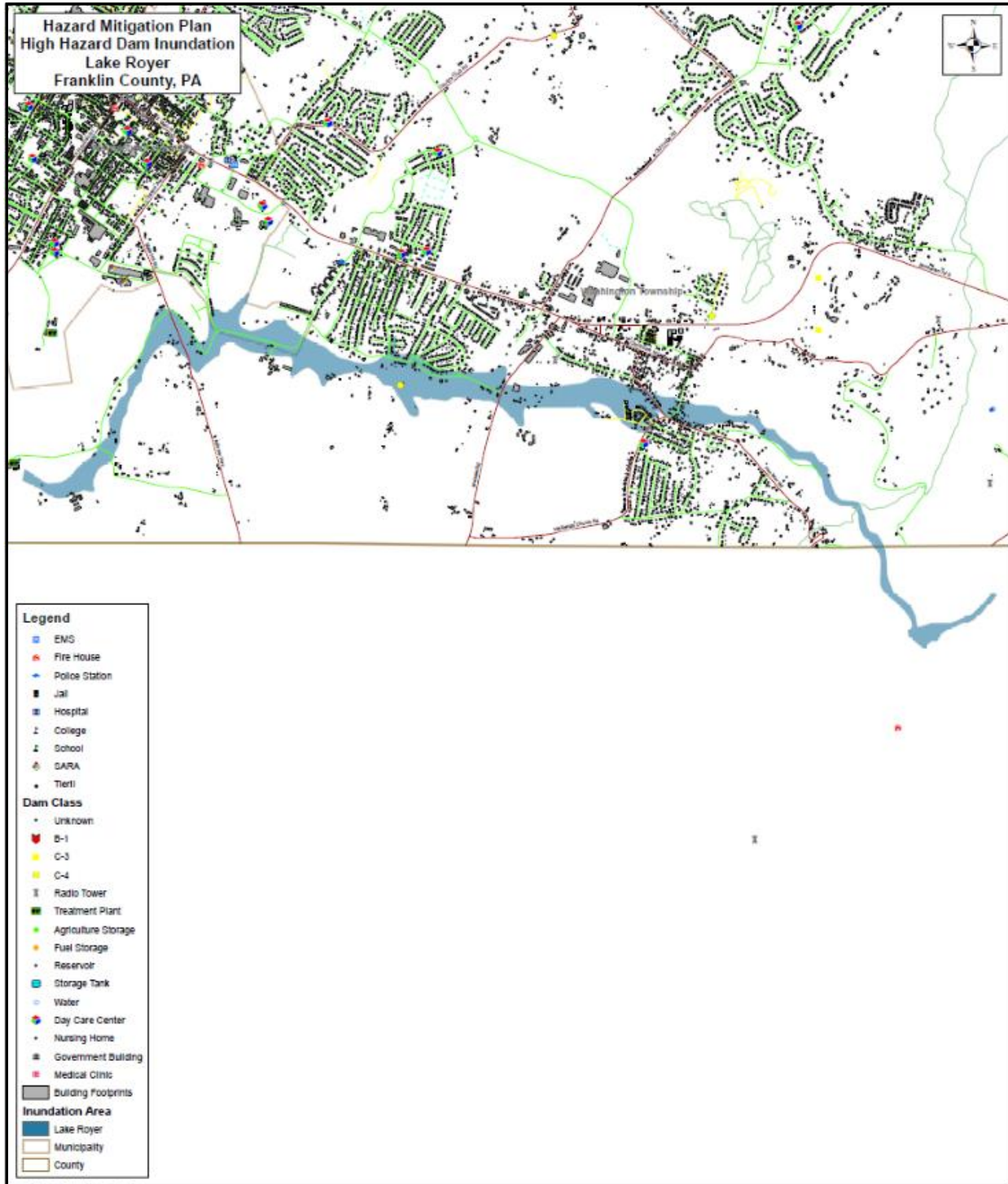


Figure 4.3.2.5.31: Lower Lake Royer Inundation Zone (Nov 2019)

Table 4.3.2.5.7 below identifies the number of structures impacted by the Lower Lake Royer Dam inundation zone and the estimated value of those structures. The assessed values of these structures were recorded in the Franklin County Tax Assessment database and reflect values as assessed in 1961. Therefore, to get approximate value of these structures in 2020 dollars they

Franklin County Hazard Mitigation Plan - 2018

were multiplied by a factor of 9.09. This factor is given to the county by the state and is based off of sales in the previous year.

Lower Lake Royer Dam Failure Impacts				
Municipality	Impacted Parcels	Impacted Structures	Assessed Value (1961)	Estimated Value (2020)
Washington Township	109	273	\$1,516,160	\$13,781,894
Waynesboro Borough	2	2	\$59,630	\$542,037
Totals	111	275		\$14,323,931

Table 4.3.2.5.7: Lower Lake Royer Dam Inundation Zone Structural Impacts (Dec 2020)

Table 4.3.2.5.8 shows the critical facilities in the inundation zones of the high hazard dams in each municipality of Franklin County.

Municipality	Total Number of Critical Facilities	Critical Facilities in Risk Areas
Antrim Township	75	1
Chambersburg Borough	97	13
Fannett Township	27	0
Greencastle Borough	24	0
Greene Township	100	21
Guilford Township	85	1
Hamilton Township	47	0
Letterkenny Township	20	1
Lurgan Township	21	3
Mercersburg Borough	10	0
Metal Township	15	0
Mont Alto Borough	6	0
Montgomery Township	12	0
Orrstown Borough	1	0
Peters Township	22	0
Quincy Township	48	3
Shippensburg Borough	5	0
Southampton Township	30	0
St Thomas Township	20	1
Warren Township	2	0
Washington Township	46	7
Waynesboro Borough	45	0
Totals	758	51

Table 4.3.2.5.8: Critical Facilities per Municipality Impacted by High Hazard Dams

Table 4.3.2.5.9 shows the number of critical facilities that fall in the inundations zone of the 7 functional high hazard dams that impact Franklin County or the Franklin County population.

Dam	Total Number of Critical Facilities Impacted
Antietam Dam	9
Carbaugh Run Dam	1
Lake Royer Dam	1
Long Pine Run Dam	36
Meadow Grounds Lake Dam	0
Roxbury Dam	4
Whitetail – A Dam	0
Total	51

Table 4.3.2.5.9: Critical Facilities Impacted per High Hazard Dam

Figure 4.3.2.5.32 represents the municipality hazard threat risk assessment for dam failures in Franklin County. This self-assessment by the municipalities ranks a Dam Failure as the number 9 highest threat in the county and is considered an overall Moderate risk. However, based on the lack of history of this threat in the county, the future occurrence of a dam failure can be considered *unlikely* as defined by the Risk Factor Methodology criteria (See **Section 4.4**).

Franklin County Hazard Mitigation Plan - 2018


	<h2 style="text-align: center;">Dam Failure Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 – 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 – 1.9	
											Insignificant	1.0 – 1.4	
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	1	30%	2	30%	2	20%	2	10%	4	10%	1.9	10.17%	0.1932
Chambersburg Borough	1	30%	4	30%	3	20%	1	10%	4	10%	2.6	13.64%	0.3546
Fannett Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	1.68%	0.0218
Greencastle Borough	2	30%	2	30%	4	20%	1	10%	4	10%	2.5	2.57%	0.0643
Greene Township	2	30%	2	30%	2	20%	2	10%	4	10%	2.2	11.55%	0.2541
Guilford Township	1	30%	1	30%	2	20%	4	10%	4	10%	1.8	9.59%	0.1726
Hamilton Township	1	30%	1	30%	3	20%	4	10%	4	10%	2.0	7.18%	0.1436
Letterkenny Township	1	30%	1	30%	1	20%	4	10%	4	10%	1.6	1.53%	0.0245
Lurgan Township	2	30%	4	30%	4	20%	3	10%	4	10%	3.3	1.40%	0.0462
Mercersburg Borough	1	30%	1	30%	1	20%	4	10%	4	10%	1.6	0.99%	0.0158
Metal Township	2	30%	2	30%	2	20%	1	10%	4	10%	2.1	1.20%	0.0252
Mont Alto Borough	1	30%	1	30%	1	20%	4	10%	4	10%	1.6	1.12%	0.0179
Montgomery Township	1	30%	2	30%	2	20%	4	10%	4	10%	2.1	4.02%	0.0844
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	4	10%	1.5	0.17%	0.0026
Peters Township	1	30%	1	30%	1	20%	4	10%	4	10%	1.6	2.85%	0.0456
Quincy Township	2	30%	1	30%	3	20%	1	10%	4	10%	2.0	3.52%	0.0704
Shippensburg Borough	1	30%	1	30%	1	20%	3	10%	4	10%	1.5	0.71%	0.0107
Southampton Township	2	30%	2	30%	2	20%	4	10%	4	10%	2.4	5.48%	0.1315
St Thomas Township	2	30%	2	30%	1	20%	3	10%	4	10%	2.1	3.87%	0.0813
Warren Township	2	30%	2	30%	2	20%	3	10%	4	10%	2.3	0.24%	0.0055
Washington Township	2	30%	2	30%	3	20%	4	10%	4	10%	2.6	9.53%	0.2478
Waynesboro Borough	1	30%	4	30%	1	20%	4	10%	4	10%	2.5	7.02%	0.1755
Municipal Weighted Average Risk Factor (RF)(Updated 12/10/2020)													2.189

Figure 4.3.2.5.32: Municipal Dam Failure Threat Vulnerability Self-Assessment

Even though Franklin County has not experienced a dam failure in recorded history, it is still a distinct possibility. The most troublesome aspect of the above information is the total number of critical facilities that could be impacted by a breach of the Long Pine Run Dam, which is in Adams County. This means that we could have very little impact to mitigate the actual failure of the Dam Failure itself and may have to develop some mitigation actions that address expected flow of water from such a breach.

4.3.3. Drought

National Geographic explains drought to be an extended period of unusually dry weather when there is not enough rain. The lack of precipitation can cause a variety of problems for local communities, including damage to crops and a shortage of drinking water. These effects can lead to devastating economic and social disasters, such as famine, forced migration away from drought-stricken areas, and conflict over remaining resources.

Because the full effects of a drought can develop slowly over time, impacts can be underestimated. However, drought can have drastic and long-term effects on vegetation, animals, and people. Since 1900, more than eleven 11 million people have died and more than 2 billion people have been affected by drought. Drought is also one of the costliest weather-related disasters. In the past 30 years, the U.S. has experienced 16 billion-dollar droughts, totaling \$195 billion in losses²⁷.

The National Oceanic and Atmospheric Administration (NOAA) depicts drought to be an *absence* of water. The climatological community has defined four types of drought:

- Meteorological drought happens when dry weather patterns dominate an area. Meteorological drought can begin and end rapidly.
- Hydrological drought occurs when low water supply becomes evident, especially in streams, reservoirs, and groundwater levels, usually after many months of meteorological drought. Hydrological drought takes much longer to develop and then to recover.
- Agricultural drought happens when crops become affected.
- Socioeconomic drought relates the supply and demand of various commodities to drought.

The U.S. Drought Monitor established a drought scale much like those that rate hurricanes and tornadoes. The "D-scale" speaks to the "unusualness" of a drought episode. Over the long run, D1 conditions are expected to occur about 10 to 20 percent of the time. D4 is much rarer, expected less than 2% of the time²⁸.

Figure 4.3.3.1 is the current drought conditions in Pennsylvania using the D-scale according to the USDA (as of November 2017):

²⁷ National Geographic Society

²⁸ NOAA

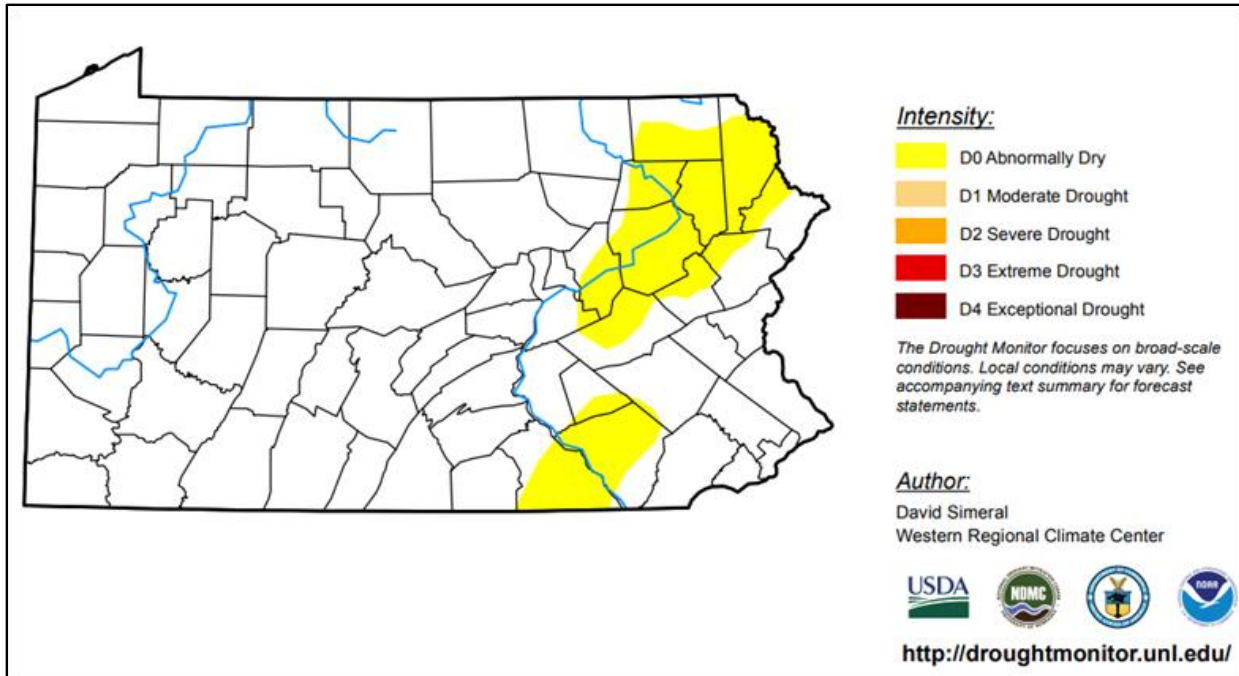


Figure 4.3.3.1: Pennsylvania Drought Conditions (Nov 2017)

4.3.3.1. Location and Extent

The current climate in Pennsylvania, when compared to many other states across the U.S., is generally water-rich. However, like all other states, Pennsylvania is subject to periodic droughts that impact the Commonwealth’s ability to meet its water needs. While large geographic areas can be impacted by a given drought, areas with extensive agricultural land use can experience particularly significant impacts. Agriculture comprises more than 242,600 acres of land in Franklin County. Franklin County ranks 4 in the state in total agricultural cash receipts (market value of all agricultural products = \$413,806,000), additionally, statewide Franklin County ranks 2 in the production of milk, cattle, melons, and corn for silage and 3 for fruit and berry production. Because of its high agriculture production, a drought incident could have a tremendous impact on the county.

Figure 2.1.8 in Section 2, County Profile shows Franklin County’s Agricultural Resources and Land breakdown.

4.3.3.2. Range of Magnitude

Droughts can have varying effects, depending upon what month they occur, severity, duration, and location. Some droughts may have their greatest impact on agriculture and even short term droughts, when coupled with extreme temperatures, can be devastating. Others may impact water supply or other water use activities such as recreation. Most droughts cause direct impacts to aquatic resources. Drought events are defined by rainfall amounts, vegetation conditions, soil-moisture conditions, water levels in reservoirs, stream flow, agricultural productivity, or economic impacts.

Hydrologic drought events result in a reduction of stream flows, reduction of lake/reservoir storage, and reduced groundwater levels. These events have a significant adverse impact on public water supplies for human consumption, rural water supplies for livestock consumption/agricultural operations, water quality, natural soil water/irrigation water for agriculture, soil moisture, conditions conducive to wildfire events, and water for navigation/recreation.

The DEP, Office of Water Resources Planning, is responsible for drought management. Many drought management activities are coordinated at the county level, so the office’s monitoring efforts are oriented primarily on a county basis as well. On a routine basis, the office reviews precipitation, stream flow, groundwater level, soil moisture, and reservoir storage information. Regular attention to these drought “indicators” is designed to provide timely identification of developing drought conditions.

- **Precipitation Deficits**

The earliest indicators of a potential drought are precipitation deficits, because it is precipitation that provides the basis for both our ground and surface water resources. The National Weather Service has long-term monthly averages of precipitation for each county (each county uses a varied number of rain gauges to determine the county average). These averages are updated at the end of each decade, based upon the most recent 30 years, and are considered “normal” monthly precipitation. Each month, the total cumulative precipitation values in each county, for periods ranging from 3 to 12 months, are compared against the normal values for the same periods. Totals that are less than the normal values represent deficits, which are then converted to percentages of the normal values.

Table 4.3.3.2.1 below is provided by PADEP which indicates Precipitation Deficit Drought Indicators:

Duration of Deficit Accumulation (months)	Drought Watch (Deficit as Percentage of Normal Precipitation)	Drought Warning (Deficit as Percent of Normal Precipitation)	Drought Emergency (Deficit as Percent of Normal Precipitation)
3	25	35	45
4	20	30	40
5	20	30	40
6	20	30	40
7	18.5	28.5	38.5
8	17.5	27.5	37.5
9	16.5	26.5	36.5
10	15	25	35
11	15	25	35
12	15	25	35

Table 4.3.3.2.1: Precipitation Deficiency Drought Indicators

- **Stream Flows**

After precipitation, stream flows provide the next earliest indication of a developing drought. Stream flows typically lag behind precipitation in signaling a drought. The U.S. Geological Survey (USGS) maintains a network of stream gages across the state. PADEP currently uses 61 of these gauges (58 in Pennsylvania, 2 in Maryland, and 1 in West Virginia), equipped with satellite communication transmitters, as its drought monitoring network. Similar to precipitation, long-term 30-day average stream flow values have been computed for each of the stream gauges, but rather than using only the past 30 years, the entire period of record for each gauge is used. Both the Commonwealth of Pennsylvania and the USGS use “percentiles” in regard to stream-flow statistics. Every day, USGS stream-gauge records are used to compute an average flow of the last 30 days preceding that day (called the “30-day moving average daily flow”), that serves as a stream-flow indicator. The stream-flow indicators are then compared with statistical flow values known as “percentiles” derived from historic stream-gauge records. A flow percentile is a value on a scale from 0 to 100 that indicates the percent of the time on that given date throughout the gauge period of record that flow has been equal to or below that value. An average flow over the last 30 days having a percentile range of:

- 10 to 25 is considered as the entry into Drought Watch.
- 5 to 10 as entry into Drought Warning.
- 0 to 5 as entry into Drought Emergency.

Suitable stream gauges with adequate periods of record do not exist in each of the 67 counties; therefore, surrogate stream-flow gauges are used for some counties. The term “Exceedances” is sometime used to describe drought statistics and may be considered the complement of percentiles; i.e., a 10% exceedance is equivalent to a 90th percentile value, a 75% exceedance is equivalent to a 25th percentile value, etc.

- **Groundwater Levels**

Groundwater is usually the third indicator of a developing drought. Groundwater typically lags behind precipitation, largely because of the storage effect. About 80 trillion gallons of groundwater is stored throughout Pennsylvania, enough to cover the entire state with more than 8 feet of water, according to Department of Conservation and Natural Resources (DCNR) publication ES3, “The Geology of Pennsylvania’s Groundwater.” Therefore, precipitation deficits can accumulate for several months before the resultant lack of groundwater recharge becomes clearly evident in groundwater levels. As with stream-flow, the term “percentiles” is used in regard to groundwater statistics. Groundwater levels are used to indicate drought status in a manner similar to stream flows. Every day, groundwater levels in USGS observation wells are used to compute an average level of the last 30 days preceding that day (called the “30-day moving average groundwater level”), that serves as a groundwater indicator. The groundwater indicators are then compared with statistical groundwater-level values known as “percentiles” derived from historic observation-well records. A percentile is a value on a scale from 0 to 100 that indicates the percent of the time on that given date throughout the observation well period of record that water levels have been equal to or below that value. Groundwater percentile ranges of 10 to 25, 5 to 10, and 0 to 5 are used to represent entry into watch, warning and emergency, respectively. Suitable

observation wells with adequate periods of record do not exist in each of the 67 counties; therefore, surrogate wells are used for some counties.

• **Soil Moisture**

Palmer Drought Severity Index Soil moisture information is provided by NOAA in the form of the “Palmer Drought Severity Index.” The Palmer Index is a computed value, based on a number of meteorological and hydrological factors; it is compiled weekly by the Climate Prediction Center of the National Weather Service. Palmer values of:

- -2.00 to -2.99 indicate a watch status.
- -3.00 to -3.99 indicate warning.
- -4.00 and less indicate emergency.

The Palmer Indices are available for the 10 Palmer regions of the state and are updated weekly²⁹.

Severity Category	PSDI Value	Drought Status
Extremely Wet	4.0 or more	none
Very Wet	3.0 to 3.99	none
Moderately Wet	2.0 to 2.99	none
Slightly wet	1.0 to 1.99	none
Incipient wet spell	0.5 to 0.99	none
Near normal	0.49 to -0.49	none
Incipient dry spell	-0.5 to -0.99	none
Mild drought	-1.0 to -1.99	none
Moderate drought	-2.0 to -2.99	Watch
Sever drought	-3.0 to -3.99	Warning
Extreme drought	-4.0 or less	Emergency

Table 4.3.3.2.2: Palmer Drought Severity Index

• **Reservoir storage levels**

Depending on the total quantity of storage and the length of the refill period for the various reservoirs, DEP uses varying percentages of storage draw down to indicate the 3 drought stages for each of the reservoirs. The worst drought event on record for Pennsylvania

²⁹ USGS, 1984

occurred in 1963, when precipitation statewide averaged below normal for 10 of 12 months. Drought emergency status led to widespread water use restrictions, and reservoirs dipped to record low levels. Corn, hay, and other agricultural products shriveled in parched fields, causing economic losses. Governor William Scranton sought drought aid for Pennsylvania in the face of mounting agricultural losses, and the event became a presidentially declared disaster in September 1963.

DEP and PEMA manage droughts based on a 3-stage process. The indicators are used to identify, generally on a county basis, the overall water supply conditions. These indicators are used by DEP and PEMA to manage water supply droughts. While some of the indicators could be used as well to help identify meteorological or agricultural or other types of droughts, the primary objective is to identify and manage water supply droughts.

- **Drought Watch**

Generally, when 3 or more of the indicators are signaling a drought watch condition for a county or group of counties, DEP will notify PEMA of the developing conditions and will ask PEMA to convene a meeting of the Commonwealth Drought Task Force. Based upon recommendations from the Task Force, including direction from the Governor, the Secretary of DEP may issue a drought watch on behalf of the Governor. Press releases are issued to the media and letters are sent to all public water suppliers in the affected area, notifying them of the need to monitor their own supplies and begin following their drought contingency plans and to update their plans if necessary. Approved drought contingency plans are valid for only 3 years from the date of approval. Citizens are requested to voluntarily reduce water usage by about 5%. DEP increases its monitoring activities from monthly to weekly and begins to monitor the status of public water suppliers in the affected area. Regular meetings of the Task Force are also scheduled to review developing conditions. The general goal is to reduce water use by 5-10 percent through voluntary water conservation.

General guidelines to follow when in a drought watch may contain such practices as the following:

- Run water only when necessary.
- Avoid running the faucet while brushing your teeth or shaving, or letting the shower run for several minutes before use.
- Check for household leaks.
- Run dishwashers and washing machines only with full loads.
- Replace older appliances with high-efficiency, front-loading models that use about 30 percent less water and 40 to 50 percent less energy.
- Install low-flow plumbing fixtures and aerators on faucets.

- **Drought Warning**

When the indicators signal a warning condition, a similar process is followed, leading to a drought warning announcement, again by the Secretary of DEP on behalf of the Governor. Press releases are issued to the media and letters are again sent to all public water suppliers in the affected area, notifying them of the developing conditions. Citizens are asked to

voluntarily reduce water use by 10-15 percent. Frequency of Task Force meetings may be increased as well.

- **Drought Emergency**

When an emergency is indicated (and upon the recommendation of the Task Force), PEMA convenes a meeting of the Emergency Management Council under the chair of the Lt. Governor. Upon consideration of all the information available, including input from the county commissioners and county emergency management staff in the affected counties, the council may recommend that the Governor issue a proclamation of drought emergency. Upon issuance of the emergency proclamation by the Governor, Chapters 118, 119, and 120 of the Emergency Management Regulation become effective. Again, letters are sent to the public water suppliers. DEP increases its monitoring activities from weekly to daily, and drought reports may be prepared daily and posted on the DEP drought website. PEMA's county drought task forces meet on a regular basis and the Commonwealth Drought Task Force may begin weekly meetings to ensure continued coordination among the agencies. During an emergency, the Commonwealth Drought Coordinator is responsible for overseeing and coordinating the day-to-day drought management activities of DEP and is also responsible for reviewing and either granting or denying requests for variances from the Chapter 119 nonessential water use restrictions³⁰.

Also provided by DEP are two possible restrictions that could happen as a result of drought:

- **Nonessential Water Use Restrictions**

The drought management activities most visible to the general public during a declared drought emergency are the nonessential water use restrictions required by Chapter 119. These restrictions are designed to achieve a reduction in overall water use of up to 25%. The overall objective of all drought management activities is to protect public health, safety, and welfare, with health and safety being paramount. To help protect welfare, water use restrictions are limited, at least initially, to nonessential uses. These restrictions apply generally to watering of lawns, gardens and shrubs; washing vehicles and paved surfaces; filling swimming pools; and use of water for ornamental purposes. Chapter 119.6 states: "If compliance with the prohibition of nonessential use of water would result in extraordinary hardship upon a water user, the water user may apply for an exemption or variance. These requests are reviewed and variances are either granted or denied by the Commonwealth Drought Coordinator."

- **Water Rationing**

In some cases, the Chapter 119 water use restrictions may not be sufficient to protect the supplies of an individual public water supplier. When an individual supplier's sources are so depleted as to threaten health and safety, it may become necessary to ration water within that system in order to protect the sources for these most essential uses. Under the provisions of Chapter 120, a public water supplier or a municipality may request approval to ration water within its service area. Rationing water is a more severe measure than merely banning nonessential uses of water. Under rationing, each customer on the system is allotted a given

³⁰ DEP, 2016

amount of water, based on a method of allotment developed by the supplier or municipality. Generally it will be based on a percentage of previous usage or on a specific daily quantity per household. These restrictions are more likely to have some effect on welfare, because industry and commerce may be cut back as well. Under Pennsylvania law, only the Governor has authority to ration resources, including water resources. For this reason, approval from the Commonwealth Drought Coordinator, acting as agent for the Emergency Management Council and on behalf of the Governor, is required for a water supplier or municipality to ration water. Requests are reviewed by the Commonwealth Drought Coordinator to ensure that rationing is justified and that appropriate rationing methods will be employed³¹.

4.3.3.3. Past Occurrence

Figure 4.3.3.3.1 below, from the Public Opinion, was taken on Dec 26, 2016 at the Long Pine Run Dam in Adams County. Normally at that time of year, the person in the photo would have been underwater, in a year with normal precipitation.



Figure 4.3.3.3.1: Long Pine Run Dam Drought Impact (Dec 2016)

Table 4.3.3.3.1 below represents the times that Franklin County has been under anything except for a “normal” status for drought conditions from November 18, 1982 through May 16, 2017.

³¹ DEP, 2016

Franklin County Hazard Mitigation Plan - 2018

Dates	Drought Status	Dates	Drought Status
Nov 9, 2016 – May 16, 2017	Watch	Mar 15, 1999 – Jun 10, 1999	Watch
Jun 17, 2015 – Jul 10, 2015	Watch	Dec 3, 1998 – Mar 15, 1999	Warning
Sep 16, 2010 – Nov 10, 2010	Warning	Jul 17, 1997 – Nov 13, 1997	Watch
Aug 6, 2007 – Feb 15, 2008	Watch	Sep 1, 1995 – Dec 18, 1995	Watch
Apr 11, 2006 – Jun 30, 2006	Watch	Oct 21, 1991 – Jun 23, 1992	Warning
Nov 7, 2002 – Dec 19, 2002	Watch	Jul 24, 1991 – Oct 21, 1991	Emergency
Feb 12, 2002 – Nov 7, 2002	Emergency	Jun 28, 1991 – Jul 24, 1991	Warning
Nov 6, 2001 – Feb 12, 2002	Warning	Jul 7, 1988 – Dec 12, 1988	Watch
Aug 8, 2001 – Nov 6, 2001	Watch	Jul 29, 1985 – Dec 19, 1985	Watch
Sep 30, 1999 – May 5, 2000	Watch	Apr 26, 1985 – Jul 29, 1985	Watch
Jul 20, 1999 – Sep 30, 1999	Emergency	Nov 18, 1980 – Apr 20, 1982	Emergency
Jun 10, 1999 – Jul 20, 1999	Warning		

Table 4.3.3.3.1: History of Drought in Franklin County (1980-2018)³²

4.3.3.4. Future Occurrence

It is difficult to forecast the severity and frequency of future drought events in Pennsylvania, and Franklin County is no different. There is no pattern to the history of drought events in the county. The past occurrences happen randomly and the durations are consistent with past averages. In the past 10 years, we have only experienced 19 months under Drought Watch/Warning status, approximately 16% of the time. Additionally, Franklin County has not exceeded a Drought Watch in over 7 years.

Historically, 9 of 10 areas in the Commonwealth are under a drought warning or emergency 5-10% of the time while one area in central Pennsylvania is under a drought warning or emergency 10-15% of the time. Overall, with most of the Commonwealth being in severe or extreme drought less than 15% of the time, the probability of future droughts is considered *possible* as defined in **Section 4.4**.

The USGS routinely monitors well levels across the state. Measurements from the Franklin County Observation Well can be found in **Figure 4.3.3.4.1** below³³.

³² DEP, 2017

³³ USGS, 2017

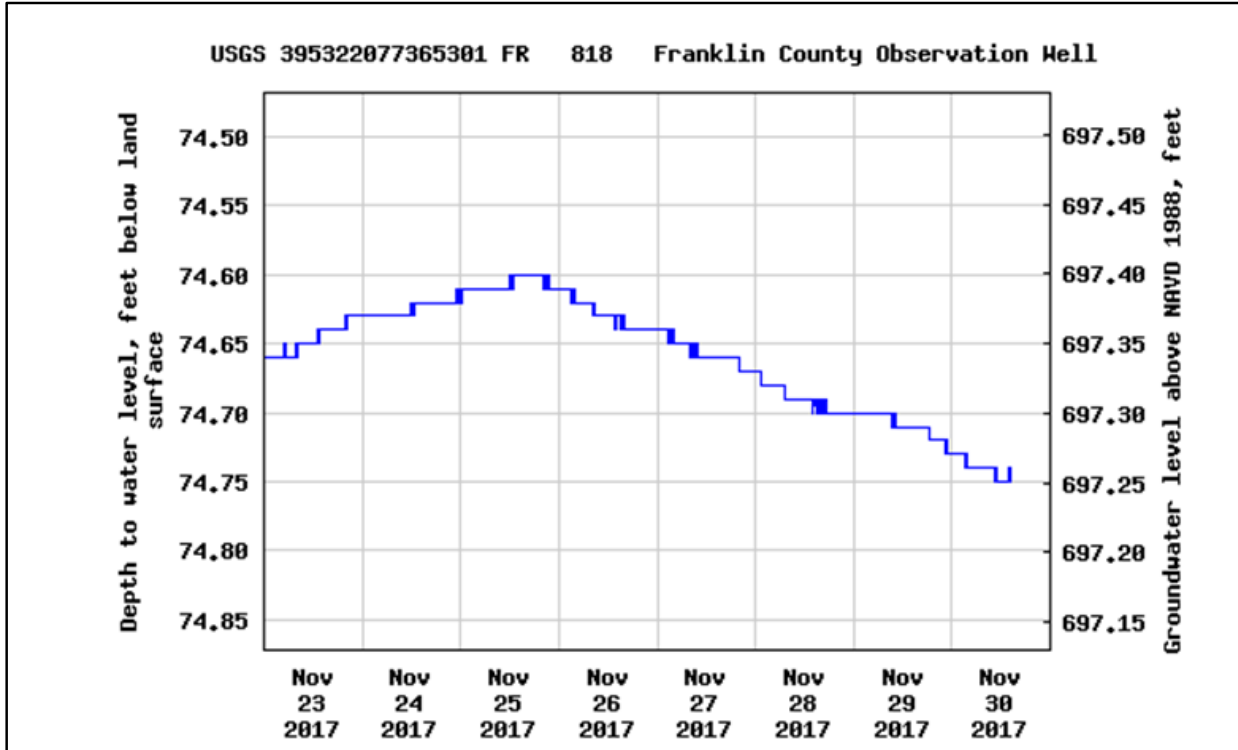


Figure 4.3.3.4.1: Sample of Franklin County Well Observations (Nov 2017)

Another factor to consider when dealing with drought is that other counties can have an impact at a local level. For example, the reservoir in Michaux State Forest (Long Pine Run Dam) in Adams County supplies drinking water to the largest borough (Chambersburg) in Franklin County. Therefore, the drought status of neighboring counties can also have impacts on the local communities.

4.3.3.5. Vulnerability Assessment

As a hazard, droughts primarily impact water supply and agricultural land. Areas of the Commonwealth that rely on private wells are more impacted by water supply reductions than areas of the Commonwealth on public water supply; frequently, these areas reliant on groundwater wells are more rural in nature. In 2018, records from the Pennsylvania Groundwater Information System showed a total of 12,634 domestic water wells in the county³⁴.

According to the National Drought Mitigation Center at the University of Nebraska-Lincoln (2013), environmental impacts of drought include:

- Damage to animal species in the form of reduced water and feed availability.
- Degradation of fish and wildlife habitat, migration and concentration issues (too many or too few animals in a given area), stress to endangered species and loss of biodiversity.
- Lower water levels in reservoirs, lakes, and ponds.
- Reduced stream flow.

³⁴ DCNR, 2018

Franklin County Hazard Mitigation Plan - 2018

- Loss of wetlands.
- Increased groundwater depletion, land subsidence, and reduced groundwater recharge.
- Water quality impacts like salinity, water temperature increases, pH changes, dissolved oxygen, or turbidity.
- Loss of biodiversity.
- Loss of trees.
- Increased number and severity of fires.
- Reduced soil quality and erosion issues.
- Increased dust or pollutants.

Figure 4.3.3.5.1 represents the municipality hazard threat risk assessment for Drought in Franklin County. One can see from **Figure 4.3.5.5.1** below, 7 municipalities ranked this hazard as either a Catastrophic or Major and 10 of the remaining 15 municipalities rated it as a Moderate risk. This self-assessment by the municipalities ranks the Drought hazard as the number 7 highest threat in the county and is considered an overall Moderate risk.

Franklin County Hazard Mitigation Plan - 2018


	<h2 style="text-align: center;">Drought Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 – 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 – 1.9	
Insignificant	1.0 – 1.4												
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	2	30%	3	30%	3	20%	1	10%	4	10%	2.6	10.17%	0.2644
Chambersburg Borough	2	30%	1	30%	4	20%	1	10%	4	10%	2.2	13.64%	0.3001
Fannett Township	2	30%	1	30%	4	20%	1	10%	4	10%	2.2	1.68%	0.0370
Greencastle Borough	2	30%	2	30%	4	20%	1	10%	4	10%	2.5	2.57%	0.0643
Greene Township	2	30%	1	30%	4	20%	1	10%	4	10%	2.2	11.55%	0.2541
Guilford Township	2	30%	1	30%	4	20%	1	10%	4	10%	2.2	9.59%	0.2110
Hamilton Township	1	30%	1	30%	4	20%	1	10%	4	10%	1.9	7.18%	0.1364
Letterkenny Township	3	30%	3	30%	4	20%	1	10%	4	10%	3.1	1.53%	0.0474
Lurgan Township	1	30%	1	30%	2	20%	1	10%	4	10%	1.5	1.40%	0.0210
Mercersburg Borough	2	30%	1	30%	4	20%	1	10%	4	10%	2.2	0.99%	0.0218
Metal Township	1	30%	2	30%	3	20%	1	10%	4	10%	2.0	1.20%	0.0240
Mont Alto Borough	1	30%	2	30%	3	20%	1	10%	4	10%	2.0	1.12%	0.0224
Montgomery Township	3	30%	1	30%	4	20%	1	10%	4	10%	2.5	4.02%	0.1005
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	4	10%	1.5	0.17%	0.0026
Peters Township	1	30%	1	30%	4	20%	1	10%	4	10%	1.9	2.85%	0.0542
Quincy Township	2	30%	1	30%	4	20%	1	10%	4	10%	2.2	3.52%	0.0774
Shippensburg Borough	2	30%	1	30%	4	20%	1	10%	4	10%	2.2	0.71%	0.0156
Southampton Township	3	30%	1	30%	3	20%	2	10%	4	10%	2.4	5.48%	0.1315
St Thomas Township	3	30%	3	30%	3	20%	1	10%	4	10%	2.9	3.87%	0.1122
Warren Township	2	30%	2	30%	4	20%	2	10%	4	10%	2.6	0.24%	0.0062
Washington Township	2	30%	1	30%	2	20%	1	10%	4	10%	1.8	9.53%	0.1715
Waynesboro Borough	2	30%	2	30%	4	20%	1	10%	4	10%	2.5	7.02%	0.1755
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)													2.251

Figure 4.3.3.5.1: Municipal Drought Threat Vulnerability Self-Assessment

Jurisdictions with large amounts of farmland and high agricultural yields, like Franklin County are more likely to be affected by drought hazards. According to the 2012 US Department of Agriculture Agricultural Census, Franklin County was ranked number 4 in the state for agriculture sales.

4.3.4. Earthquake

An earthquake is the motion or trembling of the ground produced by sudden displacement of rock usually within the upper 1-20 miles of the Earth's crust. Earthquakes result from crustal strain, volcanism, landslides or the collapse of underground caverns. Earthquakes can affect hundreds of thousands of square miles, cause damage to property measured in the tens of billions of dollars, result in the loss of life and injury to hundreds of thousands of persons, and disrupt the social and economic functioning of the affected area. Most property damage and earthquake-related deaths are caused by the failure and collapse of structures due to ground shaking which is dependent upon amplitude and duration of the earthquake.

4.3.4.1. Location and Extent

Per the DCNR, earthquakes are not common in Pennsylvania. Earthquakes in Pennsylvania occur primarily in the southeastern and northwestern portions of the state. However, earthquakes have also occurred sporadically across the state. While the majority of events are small, there have been moderate size events recorded, as well. A comprehensive study of seismicity in PA was conducted in 2013-2015 by the Pennsylvania State Seismic Network (PASEIS), which is made up of seismic stations in Pennsylvania State Parks and Penn State University campuses. These stations measure seismic activity across the state, based on magnitude and depth. Based on the study, Franklin County has a documented history of only one earthquake, originating in the county, since 1931.

4.3.4.2. Range of Magnitude

Earthquake magnitude is typically measured by using the Richter scale, a scale which describes the energy release of an earthquake. **Table 4.3.4.2.1** summarizes the effects of an earthquake at various magnitudes.

Franklin County Hazard Mitigation Plan - 2018

Richter Magnitudes	Earthquake Effects
Less than 3.5	Generally not felt, but recorded
3.5 – 5.4	Often felt, but rarely cause damage
Under 6.0	At most, slight damage to well designed buildings; can cause major damage to poorly constructed buildings over small regions
6.1 – 6.9	Can be destructive in areas where people live; up to about 100 kilometers across
7.0 – 7.9	Major earthquake; can cause serious damage over large areas
8.0 or Greater	Great earthquake; can cause serious damage in areas several hundred kilometers across

Table 4.3.4.2.1: Richter Scale Magnitude and Associated Earthquake Size Effects

While the Richter scale measures the size or magnitude of an earthquake and related effects, intensity is typically measured by the Modified Mercalli scale as shown in **Table 4.3.4.2.2**.

Scale	Intensity	Description of Effects	Richter Magnitudes
I	Instrumental	Detected only on seismograph	Less than 4.2
II	Feeble	Some people feel it	Less than 4.2
III	Slight	Felt by people resting; like a truck rumbling by	Less than 4.2
IV	Moderate	Felt by people walking	Less than 4.2
V	Slightly Strong	Sleepers awake; church bells ring	Less than 4.8
VI	Strong	Trees sway; suspended objects swing; objects fall off shelves	Less than 5.4
VII	Very Strong	Mild alarm, walls crack, plaster falls	Less than 6.1
VIII	Destructive	Moving cars lose control, masonry fractures, poorly constructed buildings are damaged	Less than 6.9
IX	Ruinous	Some houses collapse, ground cracks, pipes break	Less than 6.9
X	Disastrous	Ground cracks profusely, many buildings destroyed, landslides widespread	Less than 7.3
XI	Very Disastrous	Most buildings and bridges collapse, roads, railways, pipes, and cables destroyed; general triggering of other hazards	Less than 8.1
XII	Catastrophic	Total destruction, trees fall, ground rises and falls in waves	Greater than 8.1

Table 4.3.4.2.2: Modified Mercalli Intensity Scale with Associated Impacts

The economic and environmental impact of earthquakes can be devastating, especially when flooding, landslides, poor water quality, broken pipes, and downed lines occur as the result of earthquake.

4.3.4.3. Past Occurrence

Earthquakes are relatively rare on the East Coast of the United States, but there have been a few that were felt in Franklin County in the recent past. The first was in August of 2011 where a magnitude 5.8 earthquake centered in Virginia was felt throughout the county. The next event occurred in Franklin County in 2013. It had a magnitude 2.1 on the Richter scale and a depth of 3.1 miles (5 Km). The epicenter was in Guilford Township. See **Table 4.3.4.3.1** below for the past events.

Date	Magnitude	Depth	Epicenter
23 Aug 2011	5.8	0.5 miles	Virginia
16 June 2013	2.1	3.1 miles	Guilford Township

Table 4.3.4.3.1: Earthquakes Felt or Located in Franklin County (2007-2018)

Although both events were felt by residents in the county, there was little to no damage reported. See **Figure 4.3.4.3.1** below for an example of minor damage caused by the Aug 2011 earthquake.



Figure 4.3.4.3.1: Chimney Damage (Fayetteville, PA) - Aug 2011 Earthquake³⁵

³⁵ The Record Herald, 2011

4.3.4.4. Future Occurrence

The probability of a minor earthquake in Franklin County is low, but possible, given the history of events. Franklin County may also feel the impact of an event occurring in a neighboring county or outside of the State, which can occur in the documented range of 3.5 or lower. Per the USGS survey models the chance of an incident above 5.0 on the Richter scale in Franklin County is less than 1% over the next 50 years. Therefore, the future occurrence of an earthquake in Franklin County can be considered *unlikely* as defined by the Risk Factor Methodology probability criteria (See **Section 4.4**).

4.3.4.5. Vulnerability Assessment

Figure 4.3.4.5.1 represents the municipality hazard threat risk assessment for Earthquakes in Franklin County. One can see from **Figure 4.3.4.5.1** below, 4 municipalities ranked this hazard as a Major risk and 7 of the remaining 18 municipalities rated it as a Moderate risk. This self-assessment by the municipalities ranks the Earthquake hazard as the number 14 highest threat in the county and is considered an overall Moderate risk.

Franklin County Hazard Mitigation Plan - 2018


	<h2 style="text-align: center;">Earthquake Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 - 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 - 1.9	
											Insignificant	1.0 - 1.4	
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	1	30%	2	30%	3	20%	4	10%	1	10%	2.0	10.17%	0.2034
Chambersburg Borough	1	30%	4	30%	4	20%	4	10%	1	10%	2.8	13.64%	0.3819
Fannett Township	1	30%	1	30%	1	20%	1	10%	1	10%	1.0	1.68%	0.0168
Greencastle Borough	1	30%	3	30%	3	20%	4	10%	1	10%	2.3	2.57%	0.0591
Greene Township	3	30%	1	30%	3	20%	4	10%	1	10%	2.3	11.55%	0.2657
Guilford Township	1	30%	2	30%	3	20%	4	10%	1	10%	2.0	9.59%	0.1918
Hamilton Township	1	30%	1	30%	4	20%	4	10%	1	10%	1.9	7.18%	0.1364
Letterkenny Township	2	30%	2	30%	2	20%	2	10%	1	10%	1.9	1.53%	0.0291
Lurgan Township	1	30%	2	30%	1	20%	4	10%	1	10%	1.6	1.40%	0.0224
Mercersburg Borough	1	30%	4	30%	4	20%	4	10%	1	10%	2.8	0.99%	0.0277
Metal Township	1	30%	2	30%	3	20%	4	10%	1	10%	2.0	1.20%	0.0240
Mont Alto Borough	1	30%	1	30%	1	20%	2	10%	1	10%	1.1	1.12%	0.0123
Montgomery Township	1	30%	2	30%	4	20%	4	10%	1	10%	2.2	4.02%	0.0884
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	1	10%	1.2	0.17%	0.0020
Peters Township	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	2.85%	0.0371
Quincy Township	1	30%	1	30%	4	20%	1	10%	1	10%	1.6	3.52%	0.0563
Shippensburg Borough	1	30%	1	30%	4	20%	4	10%	1	10%	1.9	0.71%	0.0135
Southampton Township	2	30%	4	30%	2	20%	4	10%	1	10%	2.7	5.48%	0.1480
St Thomas Township	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	3.87%	0.0503
Warren Township	1	30%	4	30%	2	20%	4	10%	1	10%	2.4	0.24%	0.0058
Washington Township	1	30%	1	30%	1	20%	1	10%	1	10%	1.0	9.53%	0.0953
Waynesboro Borough	2	30%	2	30%	4	20%	4	10%	1	10%	2.5	7.02%	0.1755
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)												2.042	

Figure 4.3.4.5.1: Municipal Earthquake Threat Vulnerability Self-Assessment

Overall, the probability of a minor earthquake impacting Franklin County is possible, but low, based on the documentation available. The probability of a major earthquake, in excess of 5.0 on the Richter scale is far less likely.

4.3.5. Environmental Hazards

The release of hazardous materials into the local environment can be generated from a fixed facility, pipeline, or along any route of travel, and may be the result of carelessness, technical failure, external incidents, or an intentional act against the facility/container. The volatility of products being stored or transported, along with the potential impact on a local community, may increase the risk of intentional acts against a facility or transport vehicle. The release of certain products deemed to be hazardous materials can have an immediate adverse impact on the general population ranging from the inconvenience of evacuations to injury and even death. In addition to human impacts, any release can compromise the local environment through the contamination of soil, groundwater, or local flora and fauna.

For the purposes of this document, explosions are included under Environmental Hazard, as all reported and confirmed explosions have been the result of the loss of containment of a hazardous material, thus creating the explosion. According to the National Fire Protection Agency, the definition of explosion is “the sudden conversion of potential energy (chemical or mechanical) into kinetic energy with the production and release of gases under pressure, or the release of gas under pressure. These high-pressure gases then do mechanical work such as moving, changing, or shattering nearby materials.” This pairing of the two hazards is a natural process, as once the explosion occurs the product released is always considered a hazardous material.

4.3.5.1. Location and Extent

Franklin County has 139 identified facilities that utilize, ship, or house chemicals that are considered hazardous in nature. Of the 139 identified, 60 facilities have been identified under the Superfund Amendments and Reauthorization Act (SARA) as exceeding the quantity threshold for reporting. These facilities are shown in **Figure 4.3.5.1.1** below and listed by municipality in **Table 4.3.5.1.1**.

It is understood that due to the nature of the mission of the Letterkenny Army Depot that there is the potential for a hazardous material incident. All mitigation processes and incident operations of these potential events is governed by federal regulations and processes and will not be addressed in this plan.

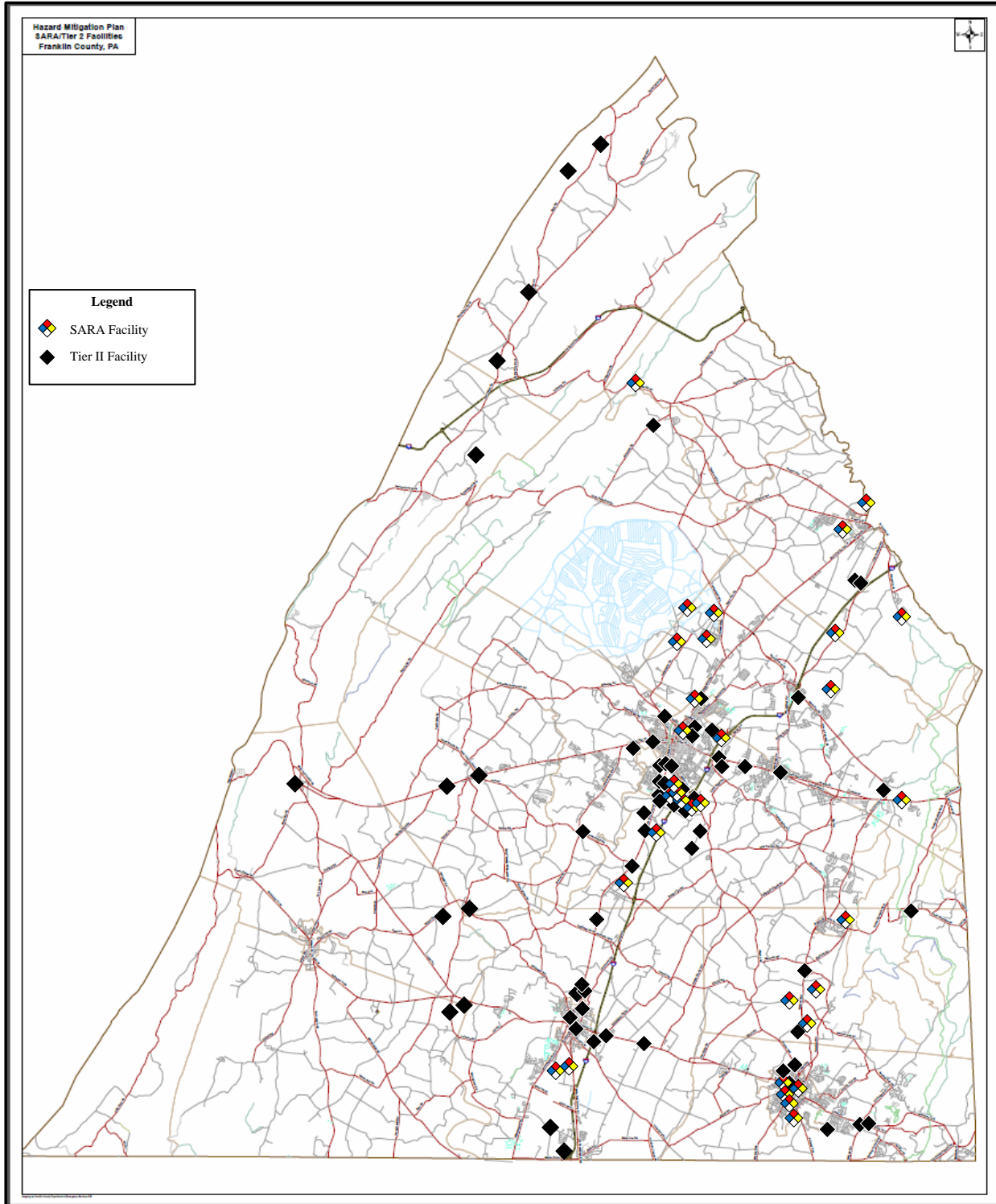


Figure 4.3.5.1.1: Hazardous Materials Processing Facilities in Franklin County (Dec 2017)

Franklin County Hazard Mitigation Plan - 2018

Municipality	SARA Facilities	Storage tanks	Totals	% of Population
Antrim Township	10	2	12	9.95%
Chambersburg Borough	11	3	14	13.55%
Fannett Township	4	1	5	1.70%
Greencastle Borough	3	2	5	2.67%
Greene Township	5	14	19	11.16%
Guilford Township	15	4	19	9.71%
Hamilton Township	3	3	6	7.21%
Letterkenny Township	1	1	2	1.55%
Lurgan Township	0	0	0	1.44%
Mercersburg Borough	0	0	0	1.04%
Metal Township	1	0	1	1.25%
Mont Alto Borough	0	0	0	1.14%
Montgomery Township	1	0	1	4.09%
Orrstown Borough	0	0	0	0.18%
Peters Township	3	1	4	2.96%
Quincy Township	3	9	12*	3.70%
Shippensburg Borough	0	0	0	0.72%
Southampton Township	2	2	4	5.34%
St Thomas Township	3	1	4	3.97%
Warren Township	0	0	0	0.25%
Washington Township	5	2	7	9.36%
Waynesboro Borough	4	2	6	7.06%
Totals	74	47	121	100%
<p>* The number of environmental threat facilities in each municipality is roughly proportional to the population density of that municipality, Quincy Township being the exception.</p>				

Table 4.3.5.1.1: Number of SARA and HAZMAT Facilities per Municipality (Dec 2017)

Additionally, Franklin County has 3 major gas distribution pipelines traversing the county. These distribution systems carry a variety of petro-chemicals, sometimes at pressures exceeding 300 psi³⁶. These systems are shown in **Figure 4.3.5.1.2** below.

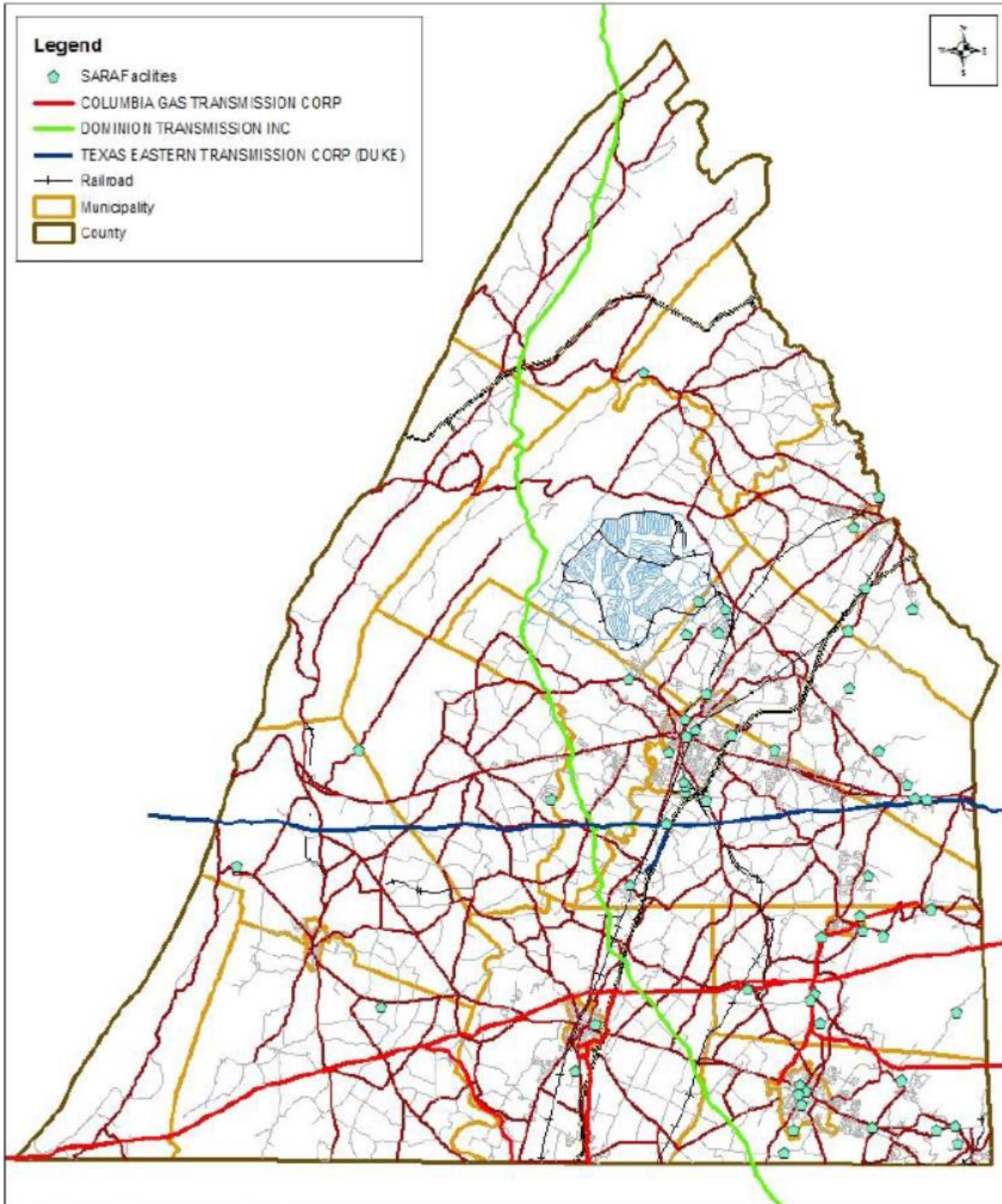


Figure 4.3.5.1.2: Major Gas Pipelines in Franklin County (Dec 2017)

³⁶ PUC, Exhibit 10

Franklin County Hazard Mitigation Plan - 2018

Hazardous materials are classified by the Department of Transportation (DOT) into nine classes based on the chemical characteristics producing the risk. The nine classifications are:

- Class 1: Explosives
- Class 2: Gases
- Class 3: Flammable Liquids
- Class 4: Flammable Solids
- Class 5: Oxidizers and organic pesticides
- Class 6: Poisons and etiologic materials
- Class 7: Radioactive materials
- Class 8: Corrosives
- Class 9: Miscellaneous

Franklin County's past occurrences of hazardous materials releases are accidental and are not considered acts of terrorism or criminal in nature. While past occurrences have not been deemed intentional, the impact from the intentional release of any of these products in large quantity would pose a threat to the local population, economy, and environment resulting in lost revenue, injuries, and deaths.

In addition to the major routes of transportation, each fixed facility identified within the Cumberland Valley poses a potential threat to the surrounding community.

4.3.5.2. Range of Magnitude

Within Franklin County we have a major transportation corridor with over 600 miles of major highway, 2 rail hubs, and 3 major gas pipeline systems that provide for an increase in transportation of hazardous materials through rail, air, and road. These routes of transportation combined with the number of fixed facilities and end users of hazardous materials have provided for an incidence of frequent chemical and petroleum product releases.

Environmental hazards incidents within Franklin County can range from minor petroleum spills to industrial based incidents.

4.3.5.3. Past Occurrence

Environmental hazard incidents within Franklin County occur on a regular basis with the majority being handled by the local first responders with guidance from DEP. Franklin County does report a number of incidents to PEMA. **Table 4.3.5.3.1** below lists the significant Hazardous Materials incidents responded to in the county from May 2007 through Apr 2017. Of note in this table is that Greene Township is the residence of the Letterkenny Army Depot, where several chemicals are used for vehicle maintenance and repair. This may explain the higher numbers for Greene Township incidents attributed to chemical spills other than petro-chemicals.

Franklin County Hazard Mitigation Plan - 2018

Municipality	Petro-Chemical (Liquid)	Petro-Chemical (Gas)	Other Chemicals	Totals
Antrim Township	1	5	1	7
Chambersburg Borough	1	0	2	3
Fannett Township	0	0	0	0
Greencastle Borough	0	3	0	3
Greene Township	5	5	8	18*
Guilford Township	0	11	1	12
Hamilton Township	1	2	0	3
Letterkenny Township	0	0	0	0
Lurgan Township	0	0	0	0
Mercersburg Borough	1	2	0	3
Metal Township	0	0	0	0
Mont Alto Borough	0	3	0	3
Montgomery Township	0	1	1	2
Orrstown Borough	0	0	0	0
Peters Township	0	0	0	0
Quincy Township	0	5	0	5
Shippensburg Borough	0	0	0	0
Southampton Township	0	1	0	1
St Thomas Township	1	0	1	2
Warren Township	0	0	0	0
Washington Township	1	3	0	4
Waynesboro Borough	0	9	0	9
Totals	11	50**	14	75
* Includes Letterkenny Army Depot ** A total of 4 Major Gas Transmission Line Leaks included in these numbers				

Table 4.3.5.3.1: Hazardous Materials Incidents in Franklin County (2007-2018)³⁷

³⁷ Franklin County CAD System, 2007-2017

Another interesting fact from **Table 4.3.5.3.1** is that the majority of the releases are related to gaseous petro-chemical releases, but most of these are due to vehicles backing into natural gas lines or gas line damage due to nearby construction. However, there were 4 incidents over this time span in which a major gas transmission line leak was addressed.

4.3.5.4. Future Occurrence

Due to the wide scope of definition of environmental hazards, ranging from a small spill to a large release of a highly volatile or toxic hazardous material, incidents are considered *highly likely* as defined by the Risk Factor Methodology criteria (See **Section 4.4**).

4.3.5.5. Vulnerability Assessment

Figure 4.3.5.5.1 represents the municipality hazard threat risk assessment for Environmental Hazards in Franklin County. One can see from **Figure 4.3.5.5.1** below, 4 municipalities ranked this hazard as a Major risk and 10 of the remaining 18 municipalities rated it as a Moderate risk. This self-assessment by the municipalities ranks Environmental Hazards as the number 11 highest threat in the county and is considered an overall Moderate risk.

Franklin County Hazard Mitigation Plan - 2018


 <h2 style="text-align: center;">Environmental Hazards Threat Risk Assessment</h2>											Risk Factor Scale		
											Catastrophic	3.0 – 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 – 1.9	
											Insignificant	1.0 – 1.4	
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	2	30%	2	30%	3	20%	4	10%	2	10%	2.4	10.17%	0.2441
Chambersburg Borough	2	30%	1	30%	2	20%	4	10%	2	10%	1.9	13.64%	0.2592
Fannett Township	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	1.68%	0.0185
Greencastle Borough	2	30%	2	30%	4	20%	4	10%	2	10%	2.6	2.57%	0.0669
Greene Township	3	30%	1	30%	1	20%	4	10%	2	10%	2.0	11.55%	0.2310
Guilford Township	4	30%	2	30%	2	20%	4	10%	2	10%	2.8	9.59%	0.2685
Hamilton Township	1	30%	1	30%	3	20%	4	10%	2	10%	1.8	7.18%	0.1292
Letterkenny Township	3	30%	2	30%	3	20%	4	10%	2	10%	2.7	1.53%	0.0413
Lurgan Township	1	30%	2	30%	2	20%	4	10%	2	10%	1.9	1.40%	0.0266
Mercersburg Borough	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	0.99%	0.0109
Metal Township	2	30%	2	30%	2	20%	4	10%	2	10%	2.2	1.20%	0.0264
Mont Alto Borough	2	30%	2	30%	2	20%	4	10%	2	10%	2.2	1.12%	0.0246
Montgomery Township	2	30%	2	30%	2	20%	4	10%	2	10%	2.2	4.02%	0.0884
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	2	10%	1.3	0.17%	0.0022
Peters Township	1	30%	1	30%	1	20%	4	10%	2	10%	1.4	2.85%	0.0399
Quincy Township	2	30%	2	30%	3	20%	4	10%	2	10%	2.4	3.52%	0.0845
Shippensburg Borough	2	30%	2	30%	3	20%	4	10%	2	10%	2.4	0.71%	0.0170
Southampton Township	3	30%	2	30%	3	20%	4	10%	2	10%	2.7	5.48%	0.1480
St Thomas Township	3	30%	1	30%	1	20%	4	10%	2	10%	2.0	3.87%	0.0774
Warren Township	1	30%	2	30%	3	20%	3	10%	2	10%	2.0	0.24%	0.0048
Washington Township	2	30%	2	30%	2	20%	4	10%	2	10%	2.2	9.53%	0.2097
Waynesboro Borough	2	30%	1	30%	1	20%	4	10%	2	10%	1.7	7.02%	0.1193
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)													2.138

Figure 4.3.5.5.1: Municipal Environmental Hazards Threat Vulnerability Self-Assessment

Environmental hazards have the greatest impact on the residential population within Franklin County. The majority of incidents reported within Franklin County are the result of motor vehicle accidents or spills/leaks within or at a residential structure.

The economic loss from environmental hazards and explosion incidents ranges from non-recordable to larger losses. The impact on the local economy from a single incident is almost impossible to measure due to the complexity of work lost, revenue losses, and loss of future business.

4.3.6. Extreme Temperatures

This section provides a hazard profile and vulnerability assessment for the Extreme Temperature hazard in Franklin County, including both extreme heat and extreme cold conditions. Extreme heat can be described as temperatures that hover 10 degrees F or more above the average high temperatures for a region during the Summer months. Extreme Heat is usually discussed using the term Heat Index. The Heat Index or the "Apparent Temperature" is an accurate measure of how hot it really feels when the Relative Humidity (RH) is added to the actual air temperature³⁸. See **Figure 4.3.6.1** below for the Heat Index chart.

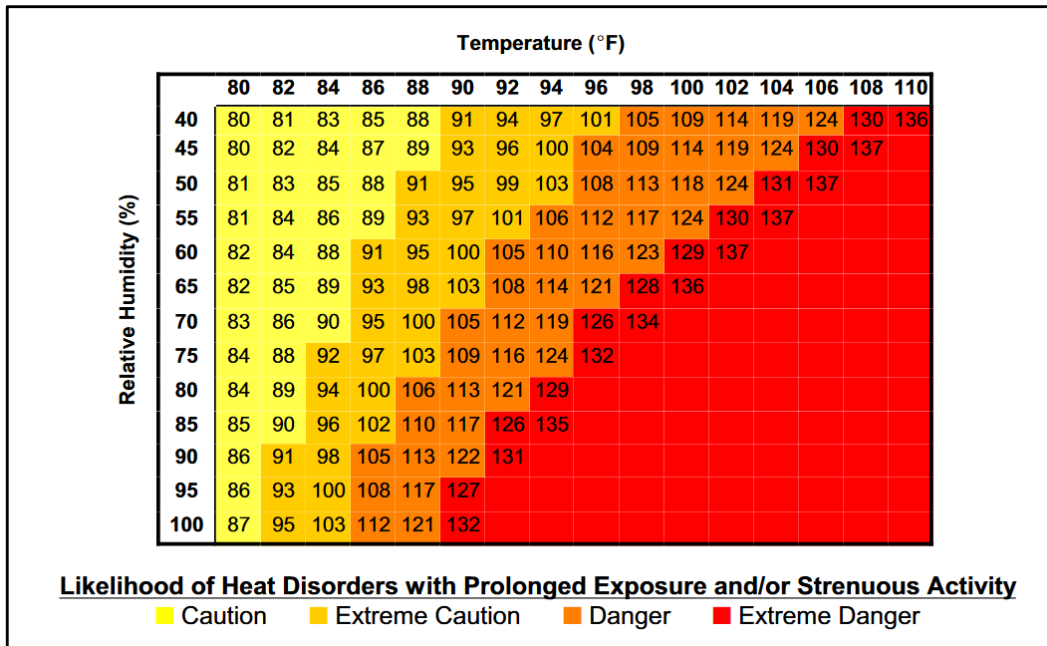


Figure 4.3.6.1: National Weather Service Heat Index (HI)

Parameters for extreme cold temperature events vary across different regions of the United States, but Franklin County and other areas accustomed to winter weather, below 0 degrees F may be considered extreme cold. However, Wind Chill Factor is the common terminology used to discuss extreme cold temperatures. Wind Chill Factor is only defined for temperatures at or below 50 degrees F and wind speeds above 3 mph³⁹. Combined with increases in wind speed,

³⁸ NOAA

³⁹ NOAA

extreme cold temperatures in Pennsylvania can be life threatening to those exposed for extended periods of time. See **Figure 4.3.6.2** below for the Wind Chill chart.

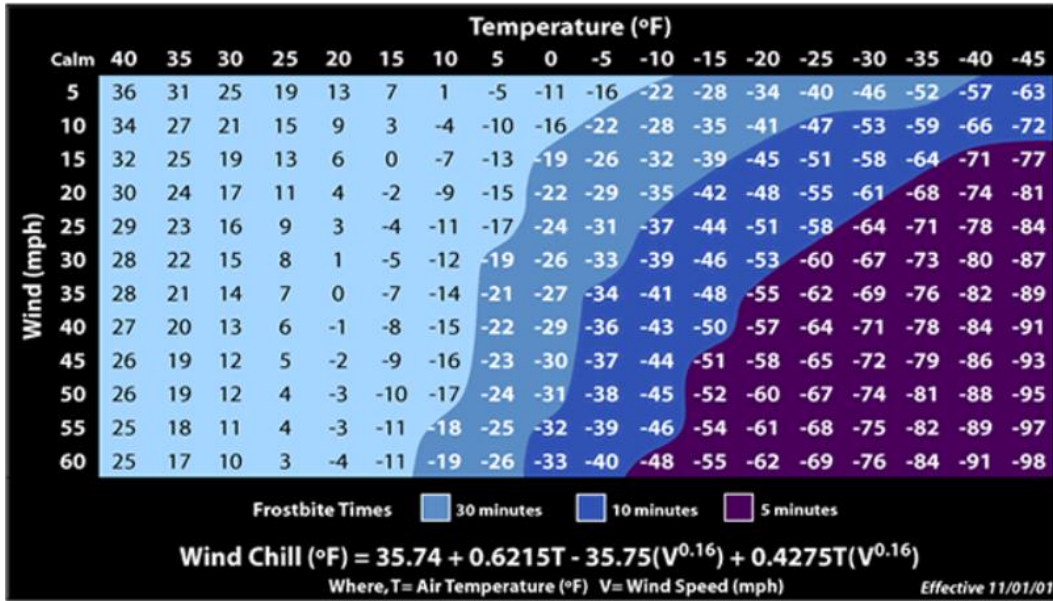


Figure 4.3.6.2: National Weather Service Wind Chill Chart

4.3.6.1. Location and Extent

Franklin County can experience many different temperature extremes in the Summer and Winter months. Areas most susceptible to extreme heat include urban environments, which tend to retain the heat well into the night, leaving little opportunity for dwellings to cool. Areas most susceptible to extreme cold include higher elevations where the temperatures are naturally colder and access ways are more susceptible to closure due to severe weather, essentially isolating “at risk” communities.

Figure 4.3.6.1.1 shows the mean maximum temperatures throughout Pennsylvania per county.

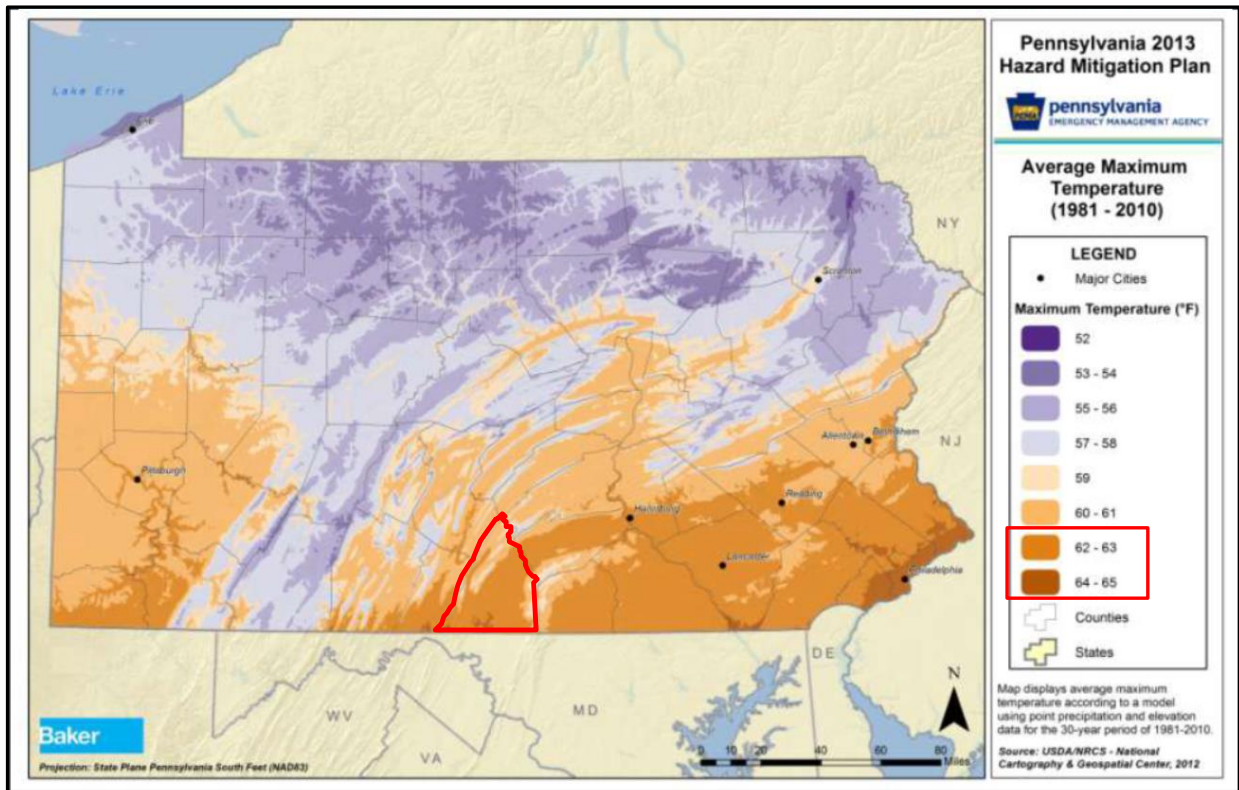


Figure 4.3.6.1.1: Average Maximum Temperature throughout Pennsylvania (1981-2010)⁴⁰

June, July, and August are typically the warmest months in Franklin County (See **Figure 4.3.6.1.2** below).

⁴⁰ PEMA, 2013

Franklin County Hazard Mitigation Plan - 2018

Max Temperatures (degrees F) per Month since 2012													Average Maximum Temperature 2012 - 2017
	2012		2013		2014		2015		2016		2017		
	Chambersburg (USC00361354)	South Mountain (USC368308)	Chambersburg (USC00361354)	South Mountain (USC368308)	Chambersburg (USC00361354)	South Mountain (USC368308)	Chambersburg (USC00361354)	South Mountain (USC368308)	Chambersburg (USC00361354)	South Mountain (USC368308)	Chambersburg (USC00361354)	South Mountain (USC368308)	
January	43.0	39.6	40.4	38.0	32.6	30.7	34.8	31.7	36.6	34.5	40.9	39.2	36.83
February	47.1	43.1	39.0	34.9	36.1	34.2	31.0	28.0	40.4	40.0	51.4	48.9	39.51
March	62.7	58.6	45.7	41.5	46.0	41.2	48.1	44.0	58.6	53.6	48.8	44.9	49.48
April	64.8	59.5	63.2	60.0	61.9	58.6		60.0	62.6	59.5	69.0	65.1	62.20
May	77.5	72.4	72.5	67.6	74.4	69.5	77.9	74.1	69.5	65.4	69.5	64.4	71.23
June	81.7	76.9	81.4	76.6	81.3	76.5	79.7	75.7	80.7	77.1	82.0	77.1	78.90
July	88.9	83.2	85.5	80.8	82.8	79.2	82.6	79.6	86.9	81.6	84.6	79.8	82.96
Aug	84.0	79.2	81.1	76.0	79.2	75.6	83.6	79.3	87.0	82.3	80.2	75.5	80.30
September	75.8	73.0	76.4	72.3	76.0	72.5	78.9	76.0	79.9	77.4	75.6	72.4	75.52
October	62.7	60.0	65.3	62.0	64.9	61.3	63.0	59.9	66.8	64.7	69.6	65.9	63.84
November	48.4	45.8	49.2	46.1	48.5	44.8	57.8	55.1	56.3	54.4	51.4	49.2	50.58
December	45.5	42.8	42.2	40.4	42.4	41.2	52.0	50.3	41.0	40.7	40.0	37.1	42.97

■ Indicates that data was not available at time of this HMP draft

Figure 4.3.6.1.2: Maximum Temperatures per Month (2012-2017)⁴¹

Given the definition of extreme heat identified in **Section 4.3.6**, and the average high temperatures for the county’s hottest months (**Figure 4.3.6.1.2**), extreme heat can vary from mid to high 80s and apparent heat can be even higher with an increase in relative humidity (See **Figure 4.3.6.1**).

Figure 4.3.6.1.3 shows the mean minimum temperatures throughout Pennsylvania per county.

⁴¹ NOAA/NCEI

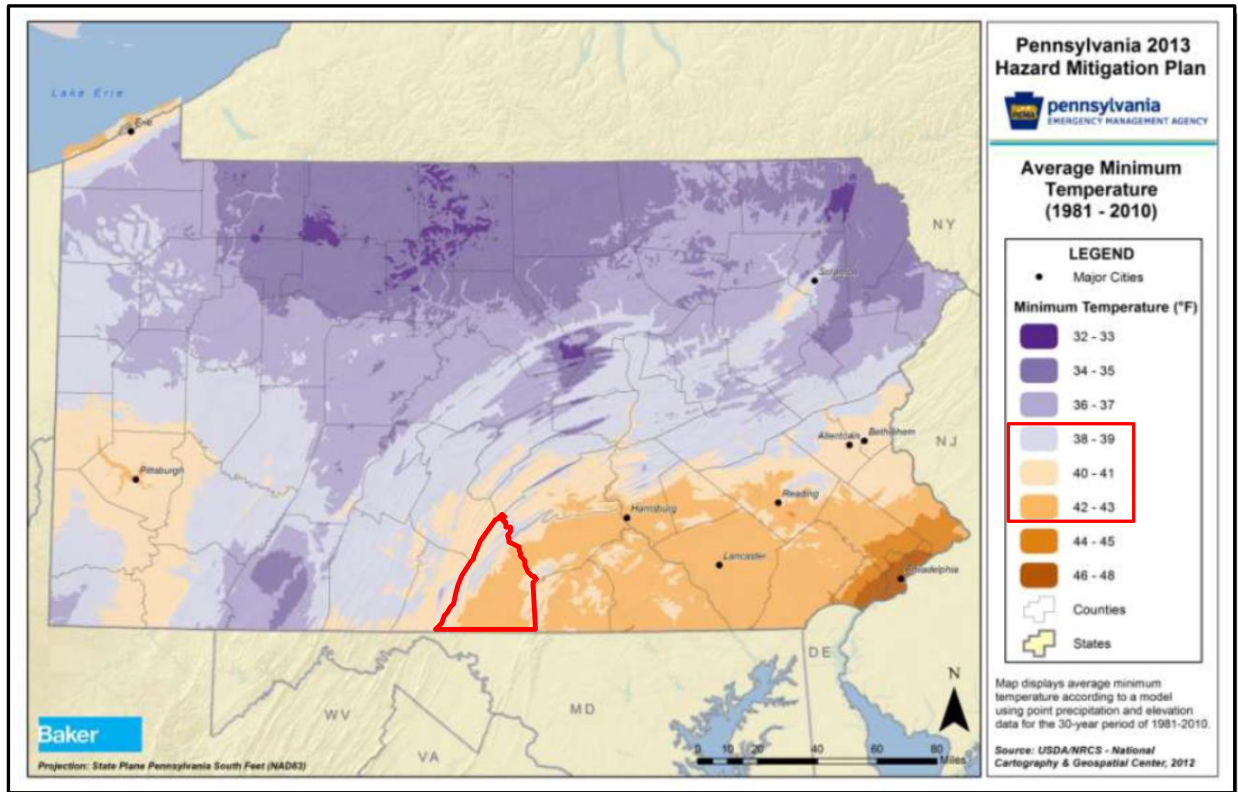


Figure 4.3.6.1.3: Average Minimum Temperature throughout Pennsylvania (1981-2010)⁴²

Because of our geographic location in the northeast, Franklin County is more likely to experience extreme cold temperatures in the Winter months (November through March). **Figure 4.3.6.1.4** below shows the minimum monthly temperatures for Franklin County over the past 6 years.

⁴² PEMA, 2013

Franklin County Hazard Mitigation Plan - 2018

Min Temperatures (degrees F) per Month since 2012													Average Maximum Temperature 2012 - 2017
	2012		2013		2014		2015		2016		2017		
	Chambersburg (USC00361354)	South Mountain (USC368308)	Chambersburg (USC00361354)	South Mountain (USC368308)	Chambersburg (USC00361354)	South Mountain (USC368308)	Chambersburg (USC00361354)	South Mountain (USC368308)	Chambersburg (USC00361354)	South Mountain (USC368308)	Chambersburg (USC00361354)	South Mountain (USC368308)	
January	26.3	22.2	26.0	21.3	15.2	11.1	20.3	16.0	20.4	17.1	28.9	26.5	20.94
February	29.9	26.4	24.2	19.6	20.7	15.5	12.6	7.6	24.5	21.8	30.8	29.5	21.93
March	39.6	35.3	31.2	25.9	27.1	20.3	28.3	22.2	36.5	32.5	30.9	24.9	29.56
April	42.0	35.6	42.7	38.2	40.1	35.4		36.5	39.0	36.6	47.0	45.5	39.87
May	56.8	53.1	51.8	46.1	52.7	47.6	57.1	52.4	50.9	48.1	51.0	48.5	51.34
June	59.9	54.9	62.2	58.1	62.2	56.2	62.9	59.0	60.7	57.2	60.7	57.4	59.28
July	67.6	62.3	66.4	63.5	63.0	58.8	66.1	60.7	66.3	62.9	65.6	62.2	63.78
Aug	64.2	59.8	61.8	57.4	60.4	55.4	62.1	58.2	65.4	63.3	60.8	57.0	60.52
September	55.7	51.4	53.2	48.9	56.3	51.5	59.0	55.2	59.2	56.7	54.5	52.8	54.53
October	45.9	43.3	47.7	43.2	47.5	43.9	43.5	39.8	47.2	44.0	48.7	46.8	45.13
November	32.5	28.4	32.6	28.6	32.1	28.2	39.7	36.3	36.3	33.1	33.0	31.9	32.73
December	32.0	28.7	27.5	26.1	30.9	27.0	36.8	35.8	27.9	24.6	26.5	22.5	28.86

■ Indicates that data was not available at time of this HMP draft

Figure 4.3.6.1.4: Minimum Temperatures per Month (2012-2017)⁴³

Given the definition of extreme cold (Wind Chill) identified in Section 4.3.6, and the average low temperatures for the county’s coldest months (Figure 4.3.6.1.4), extreme cold can dip as low as single digits with just a 25 mph sustained wind (See Figure 4.3.6.2).

4.3.6.2. Range of Magnitude

NOAA’s heat alert procedures are based mainly on Heat Index (HI) values (See Figure 4.3.6.1 above). The Heat Index indicates the temperature the body feels. It is important to note that the HI values are devised for shady, light wind conditions. Exposure to full sunshine can increase the heat index values by up to 15 degrees F.

⁴³ NOAA/NCEI

Exposure to heat can cause health problems indirectly, such as an increased workload on the heart. This can be especially dangerous to young children and individuals with pre-existing medical conditions, typically the elderly whose bodies cannot manage the physical stress these events cause. Extremely high temperatures can cause heat stress, which can be divided into four categories (See **Table 4.3.6.2.1** below).

Danger Category	Heat Disorders	Apparent Temperature (degrees F)
I (Caution)	Fatigue is possible with prolonged exposure and physical activity.	80 to 90
II (Extreme Caution)	Sunstroke, heat cramps, and heat exhaustion are possible with prolonged exposure and physical activity	90 to 105
III (Danger)	Sunstroke, heat cramps, and heat exhaustion are likely; heat stroke is possible with prolonged exposure and physical activity	105 to 130
IV (Extreme Danger)	Heatstroke or sunstroke are imminent	>130

Table 4.3.6.2.1: Four Categories of Heat Stress⁴⁴

The following impacts can be observed following an extreme temperature event:

- **Health Impacts:** Prolonged exposure to cold temperatures can lead to frost bite and/or hypothermia. This is especially true in areas where the primary source of heating is provided through or supplemented by electrical heat sources. When the power is lost due winter storm damage, the elderly and young children without a heat source can be extremely vulnerable to the extreme cold conditions. However, extreme heat waves, can prove more deadly over a shorter duration, especially in areas where air conditioning is not present or lost due to power outages. The age of housing in the area can also be a factor in the health impacts of extreme heat conditions. **Table 4.3.24.5.1** in the Winter Storm hazard profile indicates that over 34% of houses in the county were built prior to 1960, meaning they were likely built without central air conditioning. This means the high risk communities can be in harm’s way even if the power is not interrupted.
- **Transportation:** Cold weather can impact automotive engines and stress metal bridge structures. Highways and railroad tracks can become distorted in high heat, due to expansion of materials as they get hotter. Disruptions to the transportation network and accidents caused by extreme temperatures represent an additional risk as motorists can become stranded in these harsh elements.
- **Agriculture:** Absolute temperature and duration of extreme cold can have devastating effects on trees and winter crops. Livestock is especially vulnerable to heat, and crop yields can be impacted by heat waves that occur during key development stages.

⁴⁴ PEMA, 2013

Franklin County Hazard Mitigation Plan - 2018

- **Energy:** Energy consumption rises significantly during both extreme cold and extreme heat conditions. Residents are placed in extreme danger when any fuel shortages or utility failures prevent the heating or cooling of a dwelling. Utility Interruptions are specifically profiled in **Section 4.3.22**.

Franklin County’s worst-case extreme heat scenario would be an excessive heat spell occurring during a summer holiday weekend, such as the Fourth of July. Summer holiday weekends bring people out of their air-conditioned work environments and homes and into the outdoors, often despite dangerous heat and humidity levels. The issue can be exacerbated due to heavy loads on the energy grid causing rolling brown-outs or black-outs. Couple this with reduced electrical generation/maintenance manpower coverage over the holiday and this could lead to extended periods of heat exposure without a means of relief.

The worst-case extreme cold temperature scenario involves extended below 0 temperatures and chilling winds that could threaten safety of residents and continuity of utilities. There are several nursing homes and assisted living centers in the county that would have to relocate these mobility challenged residents if the loss of utilities cause heating system failures. Add these to the number of single family home residents that also would be looking for shelter if they do not have a secondary source of heat in their homes, and you rapidly have a humanitarian crisis on your hands.

4.3.6.3. Past Occurrence

Data from the National Centers for Environmental Information (NCEI) reports that there have been 260 extreme temperature event days in Pennsylvania between 1950 and 2017, resulting in a total of 437 deaths and 448 injuries. Ninety-seven (97) of these event days have been a result of extreme cold, resulting in 30 deaths and 1 injury. There have been 121 extreme heat event days, resulting in 355 deaths and 378 injuries⁴⁵.

A refined search of the NCEI database was performed for Franklin County. **Table 4.3.6.3.1** below illustrates all events contained in this database from 1993 through 2018.

Type of Event	Date	Temperature Extreme	Injuries	Deaths
Extreme Cold/Wind Chill	2/15/2015	Wind Chill of -25 to =35 degrees F	0	0
Extreme Cold/Wind Chill	1/6/2014	Wind Chill of -25 to -50 degrees F	0	0
Excessive Heat	7/21/2011	Heat Index of 105 to 115 degrees F	0	0
Extreme Cold/Wind Chill	2/5/2007	Wind Chill of -10 to -15 degrees F	0	0
Excessive Heat	8/1/2006	Heat Index of 103 to 108 degrees F	0	0
Excessive Heat	7/31/2006	Heat Index of 98 to 103 degrees F	0	0
Excessive Heat	7/17/2006	Heat Index of 96 to 101 degrees F	0	0

Table 4.3.6.3.1: Franklin County Extreme Temperature Events (1993-2018)⁴⁶

⁴⁵ PEMA, 2013
⁴⁶ NOAA/NCEI

Franklin County Hazard Mitigation Plan - 2018

4.3.6.4. Future Occurrence

Because of its location and geography, Franklin County is more likely to encounter extreme cold than excessively hot weather. However, both are possibilities and must be planned for. We have high risk communities that are particularly susceptible to these threats and mitigation plans need to be made to plan for either scenario.

The future occurrence of extreme temperature can be considered *likely* as defined by the Risk Factor Methodology probability criteria (See **Section 4.4**).

4.3.6.5. Vulnerability Assessment

The entire county, including all critical infrastructure, is vulnerable to the effects of extreme temperatures. Refer to **Table 4.3.6.5.1** below for specific critical facilities in the municipalities subject to extreme temperatures. These numbers include nursing homes, hospitals, and assisted living communities as well as schools and day care facilities that impact our members of the community at the greatest risk to this threat.

Municipality	Total Number of Critical Facilities	Nursing Homes/ Assisted Living/ Hospital Facilities	Schools/Daycares
Antrim Township	75	1	27
Chambersburg Borough	97	23	34
Fannett Township	27	3	7
Greencastle Borough	24	1	10
Greene Township	100	5	33
Guilford Township	85	3	28
Hamilton Township	47	0	22
Letterkenny Township	20	0	1
Lurgan Township	21	0	8
Mercersburg Borough	10	1	4
Metal Township	15	0	4
Mont Alto Borough	6	0	2
Montgomery Township	12	0	2
Orrstown Borough	1	0	0
Peters Township	22	0	5
Quincy Township	48	4	12
Shippensburg Borough	5	0	4
Southampton Township	30	2	11
St Thomas Township	20	1	4
Warren Township	2	0	0
Washington Township	46	1	12
Waynesboro Borough	45	8	17
Total	758	53	247

Table 4.3.6.5.1: Critical Facilities at Risk of Extreme Temperatures

Figure 4.3.6.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Extreme Temperature hazard. 5 of 22 municipalities rated this threat as a Major event. Additionally, 11 of the remaining 17 municipalities rank this as a Moderate threat. This was ranked as the number 5 highest threat in the county and will require some attention during the Mitigation Strategy in **Section 6**.

Franklin County Hazard Mitigation Plan - 2018


	<h2 style="text-align: center;">Extreme Temperature Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 – 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 – 1.9	
											Insignificant	1.0 – 1.4	
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	2	30%	2	30%	4	20%	1	10%	3	10%	2.4	10.17%	0.2441
Chambersburg Borough	4	30%	1	30%	4	20%	1	10%	3	10%	2.7	13.64%	0.3683
Fannett Township	2	30%	2	30%	3	20%	1	10%	3	10%	2.2	1.68%	0.0370
Greencastle Borough	3	30%	1	30%	4	20%	1	10%	3	10%	2.4	2.57%	0.0617
Greene Township	3	30%	1	30%	4	20%	1	10%	3	10%	2.4	11.55%	0.2772
Guilford Township	3	30%	1	30%	4	20%	1	10%	3	10%	2.4	9.59%	0.2302
Hamilton Township	1	30%	1	30%	4	20%	2	10%	3	10%	1.9	7.18%	0.1364
Letterkenny Township	3	30%	1	30%	4	20%	1	10%	3	10%	2.4	1.53%	0.0367
Lurgan Township	1	30%	2	30%	4	20%	3	10%	3	10%	2.3	1.40%	0.0322
Mercersburg Borough	3	30%	1	30%	4	20%	1	10%	3	10%	2.4	0.99%	0.0238
Metal Township	1	30%	2	30%	2	20%	1	10%	3	10%	1.7	1.20%	0.0204
Mont Alto Borough	1	30%	2	30%	3	20%	1	10%	3	10%	1.9	1.12%	0.0213
Montgomery Township	3	30%	2	30%	4	20%	1	10%	3	10%	2.7	4.02%	0.1085
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	3	10%	1.4	0.17%	0.0024
Peters Township	2	30%	1	30%	4	20%	2	10%	3	10%	2.2	2.85%	0.0627
Quincy Township	3	30%	2	30%	4	20%	1	10%	3	10%	2.7	3.52%	0.0950
Shippensburg Borough	2	30%	1	30%	4	20%	1	10%	3	10%	2.1	0.71%	0.0149
Southampton Township	2	30%	1	30%	2	20%	3	10%	3	10%	1.9	5.48%	0.1041
St Thomas Township	2	30%	2	30%	3	20%	4	10%	3	10%	2.5	3.87%	0.0968
Warren Township	2	30%	2	30%	4	20%	2	10%	3	10%	2.5	0.24%	0.0060
Washington Township	2	30%	1	30%	2	20%	1	10%	3	10%	1.7	9.53%	0.1620
Waynesboro Borough	3	30%	1	30%	4	20%	1	10%	3	10%	2.4	7.02%	0.1685
Municipal Weighted Average Risk Factor (RF)(<i>Updated 12/10/2020</i>)													2.309

Figure 4.3.6.5.1: Municipal Extreme Temperatures Threat Vulnerability Self-Assessment

Extreme temperatures generally occur for a short period of time, but can cause a wide range of impacts, particularly to vulnerable populations that may not have access to adequate heating and/or cooling. This natural hazard can also cause impacts to agriculture (crops and animals) and infrastructure (pipe bursts and power failures) negatively affecting the economy of Franklin County.

4.3.7. Flood, Flash Flood, and Ice Jam

Floodplains are lowlands, adjacent to rivers, creeks, and streams that are subject to recurring floods. The size of the floodplain is described by the recurrence interval of a given flood. However, in assessing the potential spatial extent of flooding it is important to know that a floodplain associated with a flood that has a 10% chance of occurring in a given year is smaller than the floodplain associated with a flood that has a 0.2%-annual chance of occurring. The National Flood Insurance Program (NFIP), for which its Flood Insurance Rate Maps (FIRMs) are published, identifies the 1%-annual-chance flood which is used to delineate the Special Flood Hazard Area (SFHA) and Base Flood Elevations. The SFHA serves as the primary regulatory boundary used by FEMA, the Commonwealth of Pennsylvania, and Franklin County local governments. Refer to **Appendix F** for a list of terms used to define the SFHA.

Figure 4.3.7.1 shows an example from the website used (<http://www.region2coastal.com/view-flood-maps-data/what-is-my-bfe-address-lookup-tool/>) to determine specific property's effective Flood Zone. In this example we used the address for the Franklin County Department of Emergency Services. The figure illustrates that this address falls within the Flood Zone "X", which, as defined in **Appendix F**, means it is in the Moderate to Minimal Risk Areas. Any interested residential or commercial property owner can access this website to check their effective Flood Zone. This tool was developed for FEMA Region II, so not all fields are populated for FEMA Region III (our region), such as Base Flood elevation, but it will give Franklin County property owners enough information to determine if flood insurance through the NFIP is warranted.

Franklin County Hazard Mitigation Plan - 2018

Enter an address to view effective and updated flood risk information for that location:

 Approximate Address Identified: **390 New York Ave, Chambersburg, Pennsylvania, 17201**



Updated FEMA Flood Hazard Data
 FEMA flood hazard data currently available for coastal areas of New York and New Jersey is provided below to help you understand the current flood risk to your property and to guide Sandy recovery and rebuilding efforts.
 Note: This tool provides flood zone and Base Flood Elevation (BFE) information for areas affected by coastal flood risk. However, riverine flood zone information will also be returned by the tool in communities where preliminary FIRMs have been released.

Attribute Name	Attribute Value
What is the most recent FEMA flood hazard data source available for this location?	Please contact your local floodplain administrator for more information.
What is my property's Base Flood Elevation (BFE)? [?] (For AO Zones, the flood depth will be shown instead of an elevation; For N/A results, please contact your local floodplain administrator for more information.)	N/A
What is my property's Flood Zone? [?] (For N/A results, please contact your local floodplain administrator for more information.)	N/A
Is my Property in the Area of Moderate Wave Action? [?]	N/A
What is the estimated ground elevation at this location? (See licensed surveyor for actual elevation of your building) [?]	N/A
What does my FEMA Flood Hazard Map Panel Look Like? [?]	N/A
View your property on our Interactive Web Tool	Link to Web Tool
Where can I get the GIS data for my property area?	N/A

Effective Flood Insurance Data
 This information is from the effective Flood Insurance Rate Map for your community. It is used to determine who must buy flood insurance and how much it costs. It may also be used by your community to regulate development in flood prone areas.

Attribute Name	Attribute Value
What is my property's current effective Base Flood Elevation? [?]	N/A
What is my property's current effective Flood Zone? [?]	X

Figure 4.3.7.1: Example from FEMA Base Flood Level Address Lookup Tool

4.3.7.1. Location and Extent

The countywide Digital Flood Insurance Rate Map (DFIRM) was published for Franklin County on January 18, 2012. All communities within the County are now shown on a single set of countywide DFIRMs. Previous FIRMs and Flood Boundary and Floodway Maps (FBFM) were digitized to produce a DFIRM that is compatible with geographic information systems (GIS). These maps can be used to identify the expected spatial extent of flooding from a 1%-annual-chance event. The following water courses are considered flood sources in the most recent DFIRMs: Burns Creek, Doylestown Stream, Dry Run, Main Branch and West Branch of the Conococheague Creek, Fetty Stewart Run, Trout Run, Conodoguinet Creek, Township Run, Broad Run, Buck Run, Johnston Run, Blue Spring Creek, Licking Creek, Welsh Run, Muddy Run, Back Creek, Campbell Run, Wilson Run, Dennis Creek, Rocky Spring Branch, Rowe Run, Laughlin Run, Clippingers Run, Paxton Run, Middle Spring Creek, Furnace Run, Mains Run, Mountain Run, Phillaman Run, Cold Spring Run, Stump Run, Rocky Mountain Creek, Raccoon Creek, Carbaugh Run, East and West Branch of the Antietam Creek, Biesecker Run, Red Run, and Paddy Run.

Figure 2.1.4 in **Section 2**, County Profile, shows the location of major watercourses in Franklin County and **Figure 2.1.2** in the same section shows all the watersheds impacted in the county. Flood events caused by ice jams would be limited primarily to the Conococheague Creek, the Antietam Creek, and the Conodoquinet Creek.

Figure 4.3.7.1.1 shows all the Franklin County DFIRM panels. However, in order to see the details of the panels more clearly, the map was segregated into 4 separate quadrants.

Franklin County Hazard Mitigation Plan - 2018

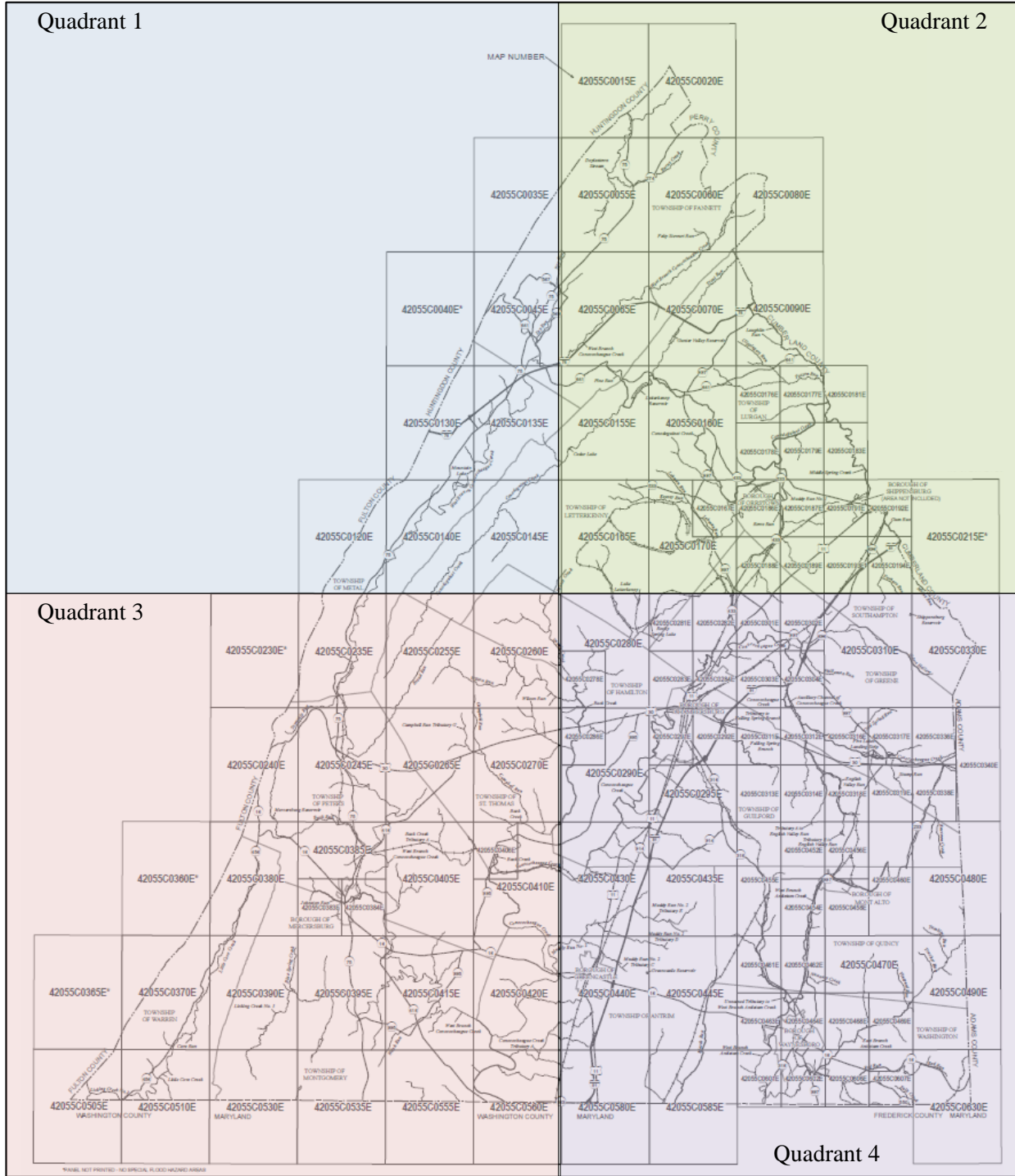


Figure 4.3.7.1.1: Franklin County DFIRM Map with Quadrants (Jan 2012)

Table 4.3.7.1.1 below lists the panels contained in each of these 4 quadrants.

Franklin County Hazard Mitigation Plan - 2018

Quadrant 1	Quadrant 2		Quadrant 3		Quadrant 4		
42055C0035E	42055C0015E	42055C0179E	42055C0230E	42055C0406E	42055C0278E	42055C0312E	42055C0480E
42055C0040E	42055C0020E	42055C0183E	42055C0235E	42055C0410E	42055C0280E	42055C0313E	42055C0440E
42055C0045E	42055C0055E	42055C0165E	42055C0255E	42055C0365E	42055C0281E	42055C0314E	42055C0445E
42055C0130E	42055C0060E	42055C0170E	42055C0260E	42055C0370E	42055C0282E	42055C0316E	42055C0461E
42055C0135E	42055C0080E	42055C0167E	42055C0240E	42055C0390E	42055C0283E	42055C0317E	42055C0462E
42055C0120E	42055C0065E	42055C0186E	42055C0245E	42055C0395E	42055C0284E	42055C0318E	42055C0463E
42055C0140E	42055C0070E	42055C0187E	42055C0265E	42055C0415E	42055C0301E	42055C0319E	42055C0464E
42055C0145E	42055C0090E	42055C0188E	42055C0270E	42055C0420E	42055C0302E	42055C0336E	42055C0470E
	42055C0155E	42055C0189E	42055C0360E	42055C0505E	42055C0303E	42055C0338E	42055C0468E
	42055C0160E	42055C0191E	42055C0380E	42055C0510E	42055C0304E	42055C0340E	42055C0469E
	42055C0176E	42055C0192E	42055C0385E	42055C0530E	42055C0310E	42055C0430E	42055C0490E
	42055C0177E	42055C0193E	42055C0383E	42055C0535E	42055C0330E	42055C0435E	42055C0580E
	42055C0181E	42055C0194E	42055C0384E	42055C0555E	42055C0286E	42055C0455E	42055C0585E
	42055C0178E	42055C0215E	42055C0405E	42055C0560E	42055C0290E	42055C0452E	42055C0601E
					42055C0291E	42055C0454E	42055C0602E
					42055C0292E	42055C0456E	42055C0606E
					42055C0295E	42055C0458E	42055C0607E
					42055C0311E	42055C0460E	42055C0630E

Table 4.3.7.1.1: List of Panels in Each Quadrant

Larger views of these quadrants are shown in **Figures 4.3.7.1.2 – 4.3.7.1.5** below.

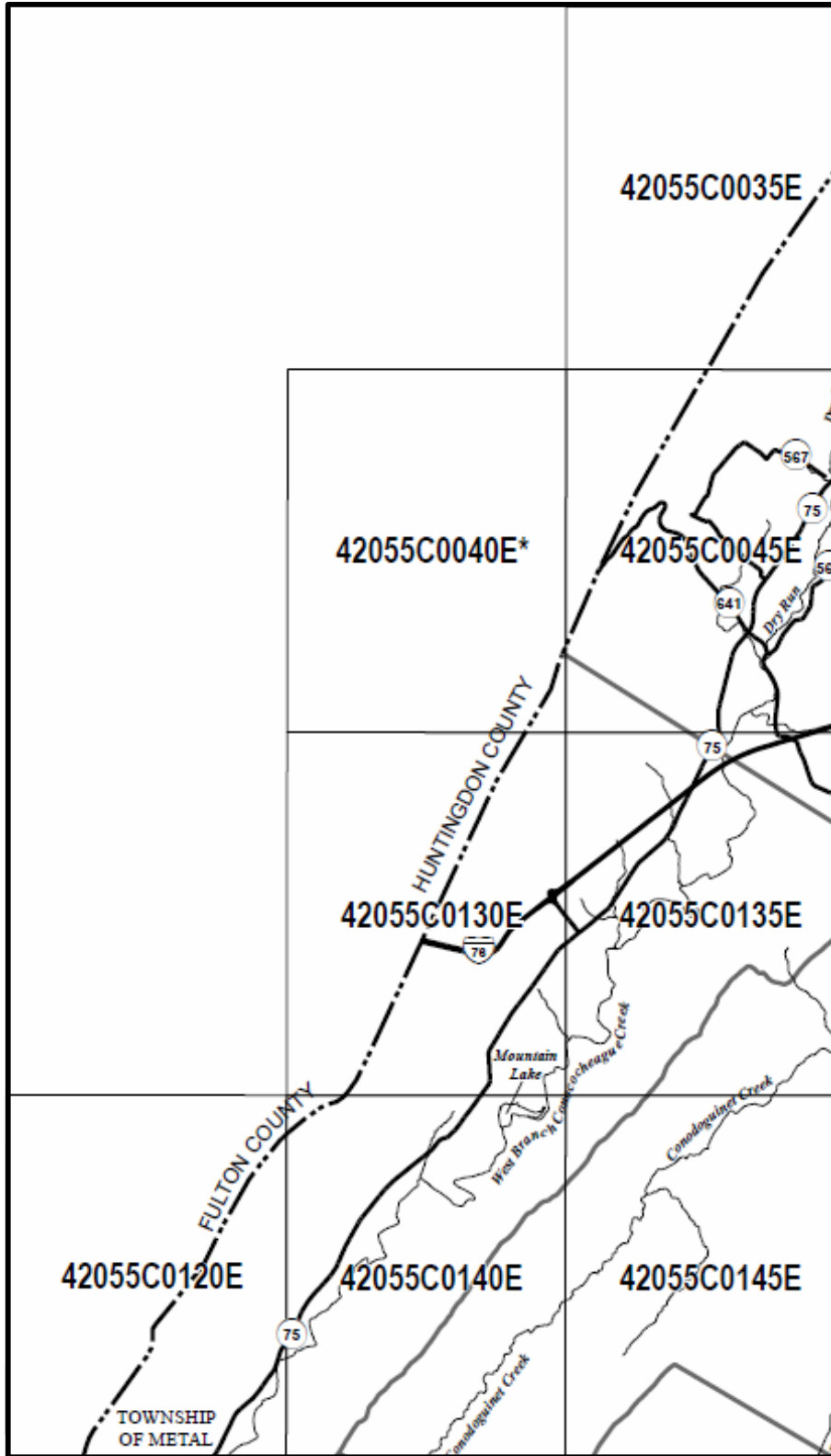


Figure 4.3.7.1.2: Quadrant 1 of County DFIRM Map

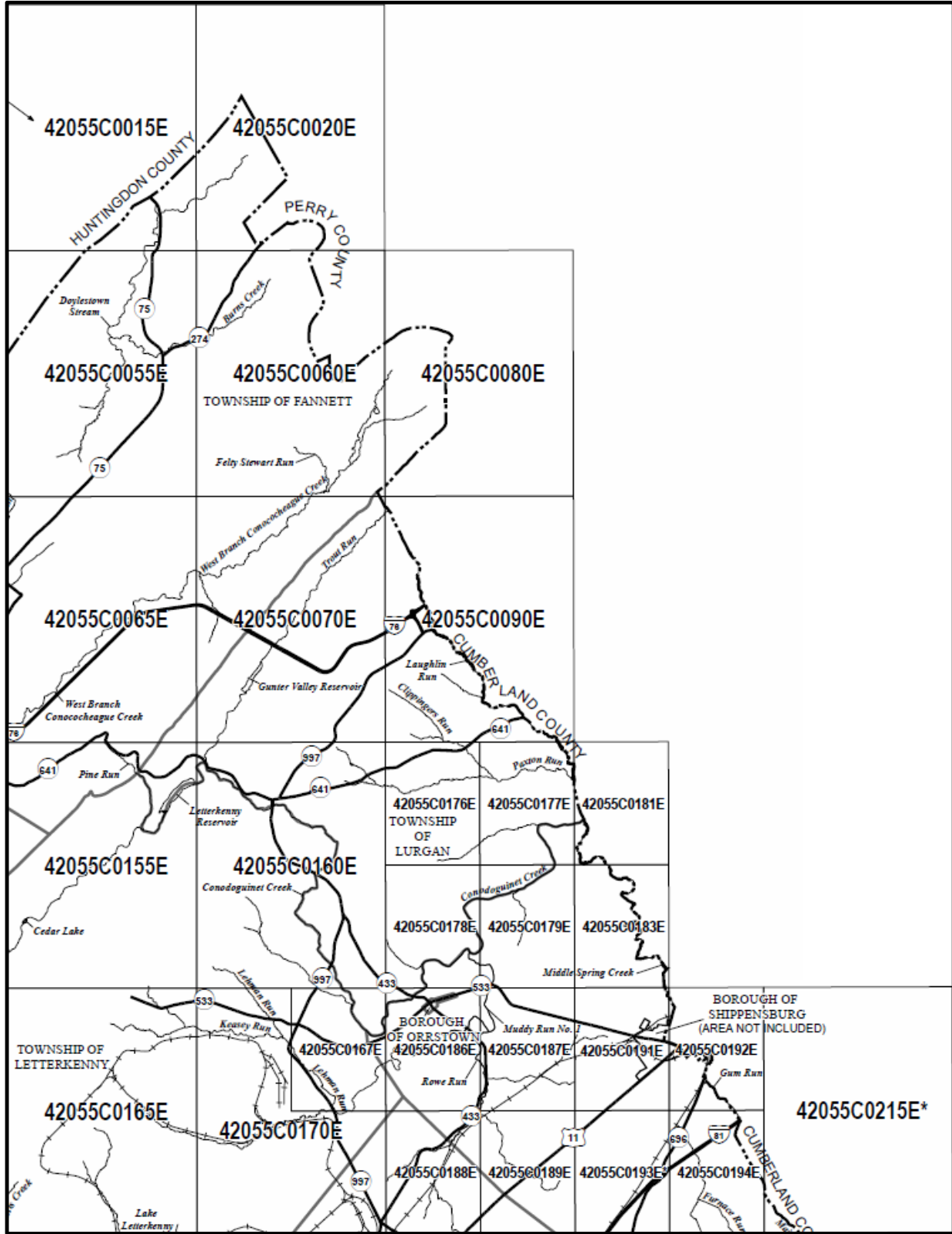


Figure 4.3.7.1.3: Quadrant 2 of County DFIRM Map

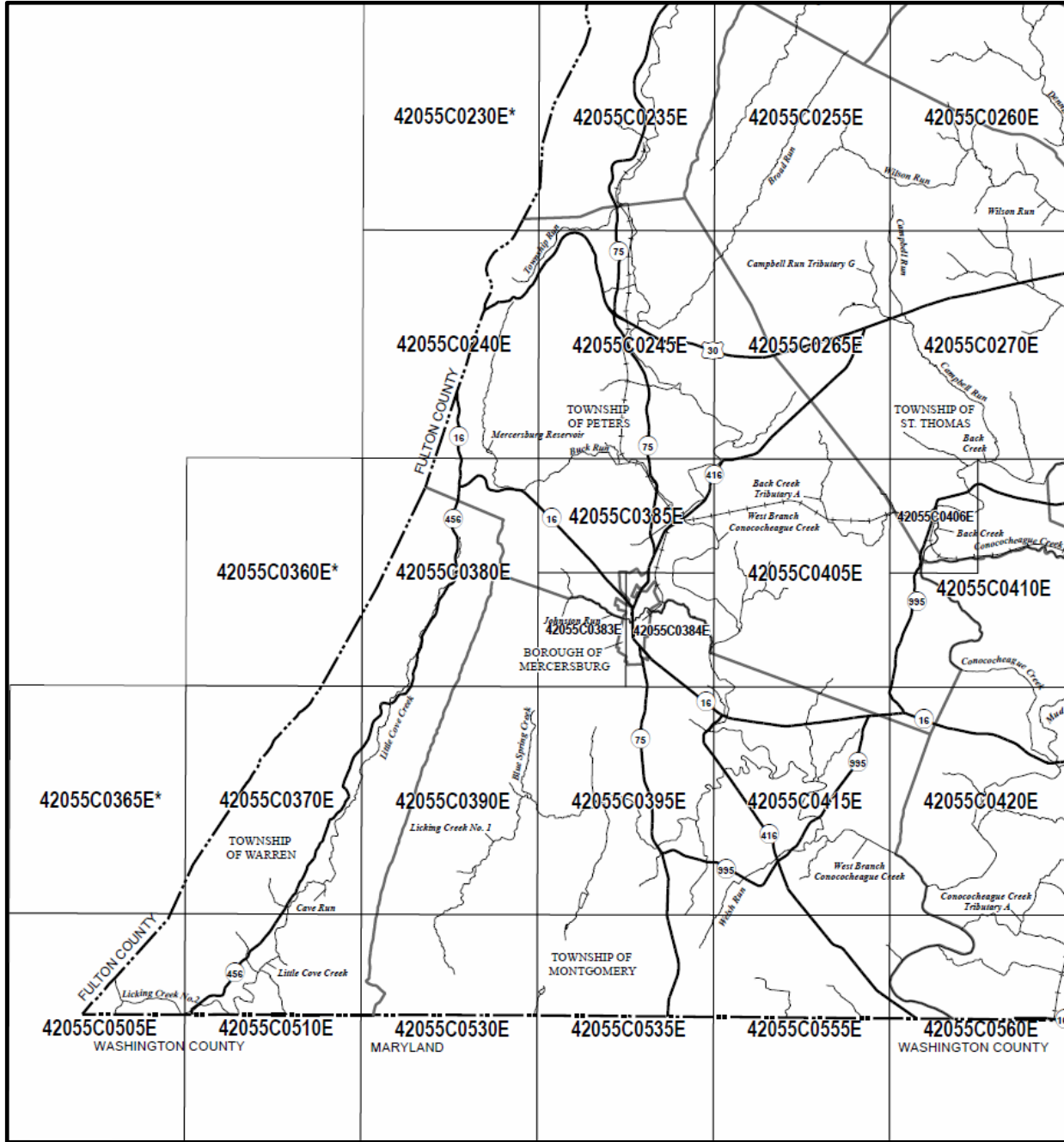


Figure 4.3.7.1.4: Quadrant 3 of County DFIRM Map

Franklin County Hazard Mitigation Plan - 2018

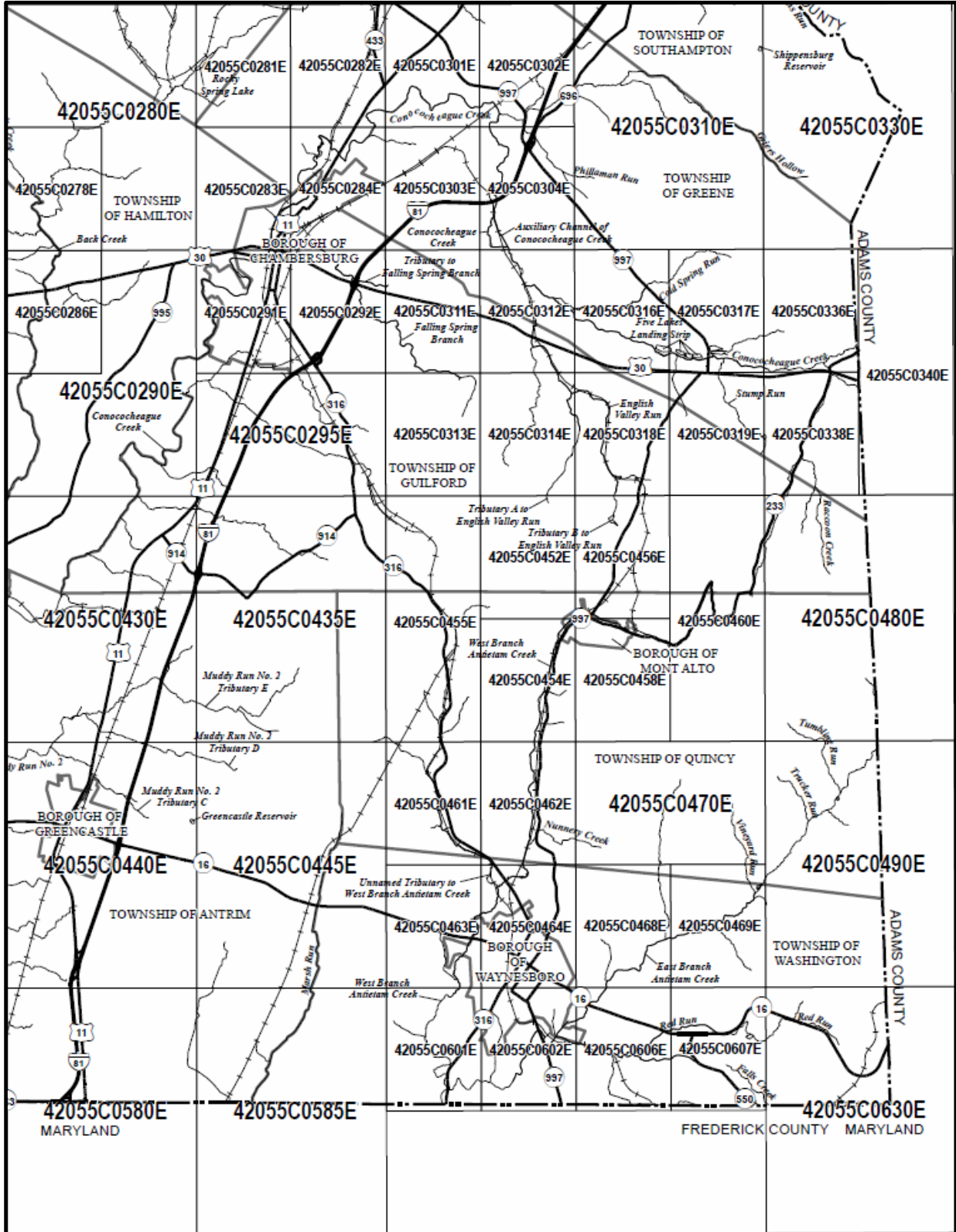


Figure 4.3.7.1.5: Quadrant 4 of County DFIRM Map

The Franklin County DFIRM consists of 118 panels. These panels are shown in **Appendix G** of this document.

Typically, built-up communities create conveyance systems to handle storm-water runoff. Sometimes debris clogs the conveyance system and prohibits the conveyance system from transporting storm-water runoff from the drain inlet to the discharge point. Debris can be, but not limited to, leaves and tree branches. Sometimes the pipes from the conveyance system can decay in time thus creating a cave-in of the pipe. If the conveyance system does not work, localized flooding within the built-up communities within Franklin County can occur thus creating numerous hazards across the community.

Some homes within Franklin County may not be near watercourses but still may be susceptible to flooding in their basements because of high water tables. This type of flooding may affect hot water heaters and other important utility equipment in the home.

Additionally, flooding can negatively impact local water treatment and wastewater treatment facilities by introducing or spreading contaminants. Franklin County has 5 water treatment facilities and 9 wastewater treatment facilities. However, of these 14 critical facilities, only 1 lies within the 1%-annual chance floodplain and that is in Washington Township. Fortunately, there is no history of this type of flooding impact in Franklin County. We have experienced boil water advisories due to water main breaks but these have been minor, localized, and short in duration.

Water contamination is still a major problem considering the number of residences serviced by these facilities and the number of private wells and septic systems that do lie within the 1%-annual chance flood zone.

Collection of private well and septic system data, as well as better tracking of boil water advisories, will be a mitigation action included in **Section 6** of this document.

4.3.7.2. Range of Magnitude

Floods are considered hazards when people and property are affected. Injuries and deaths can occur when people are swept away by flood currents or when bacteria and disease are spread by moving or stagnant floodwaters. Most property damage results from inundation by sediment filled water. A large amount of rainfall over a short time span can result in flash flood conditions. Small amounts of rain can result in floods in locations where the soil is frozen or saturated from a previous wet period or if the rain is concentrated in an area of impermeable surfaces such as large parking lots, paved roadways, or other impervious developed areas. Conditions can be exacerbated by obstructions, which prevent normal flow through the waterway, such as fallen trees.

Several factors determine the severity of floods, including rainfall intensity and duration, topography, ground cover, and rate of snowmelt. Water runoff is greater in areas with steep slopes and little or no vegetative ground cover. The county has sloping terrain, especially near the mountains, which can contribute to more severe floods as runoff reaches receiving water

bodies more rapidly over steep terrain. Also, urbanization typically results in the replacement of vegetative ground cover with asphalt and concrete, increasing the volume of surface runoff and storm water, particularly in areas with poorly planned storm water drainage systems.

In Central Pennsylvania, there are seasonal differences in how floods are caused. In the Winter and early Spring (February to April), major flooding has occurred as a result of heavy rainfall on dense snowpack throughout contributing watersheds, although the snowpack is generally moderate during most Winters. Winter floods also have resulted from runoff of intense rainfall on frozen ground, and local flooding has been exacerbated by ice jams in streams and creeks.

Summer floods have occurred from intense rainfall on previously saturated soils. Summer thunderstorms deposit large quantities of rainfall over a short period of time that can result in flash flood events.

The most severe flooding in Central Pennsylvania has been associated with the Susquehanna River Basin, which drains directly into the Chesapeake Bay and is the largest river basin on the U.S. Atlantic Coast. Franklin County lies within the Potomac River Basin and Lower Susquehanna River Basin, which means that it is subject to heavy precipitation events that may occur outside of the county in the upper reaches of the Basin. Tropical Storm Agnes in 1972 created the worst flooding conditions on record for Franklin County.

Floods are naturally occurring events that benefit riparian systems which have not been disrupted by human actions. Such benefits include groundwater recharge and the introduction of nutrient rich sediment, which improves soil fertility. However, the destruction of riparian buffers, changes to land-use and land cover throughout a watershed, and introduction of chemical or biological contaminants which often accompany human presence cause environmental harm when floods occur. Hazardous material facilities are potential sources of contamination during flood events. Other environmental impacts of flooding include: water-borne diseases, suffocation of tree species non-tolerant to excess water, heavy siltation, damage or loss of crops, and drowning of both humans and animals.

The NFIP identifies Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties. The following definition of RL and SRL properties from the Hazard Mitigation Assistance (HMA) Unified Guidance from July 2013 reflects changes made in the Biggert-Waters Flood Insurance Reform Act of 2012:

A **Repetitive Loss (RL)** property is a structure, as defined for the HMA program, covered by a contract for flood insurance made available under the NFIP that:

- (a) Has incurred flood-related damage on two occasions, in which the cost of the repair, on the average, equaled or exceeded 25% of the market value of the structure at the time of each such flood event; and
- (b) At the time of the second incidence of flood-related damage, the contract for flood insurance contains increased cost of compliance coverage. (Please note: Homes are eligible for Increased Cost of Compliance (ICC) coverage after first loss, however cost for ICC is part of all policies.

Franklin County Hazard Mitigation Plan - 2018

A **Repetitive Loss (RL)** property is also defined by FEMA, as it relates to the NFIP program, as an NFIP-insured structure that has had at least 2 paid flood losses of more than \$1,000 each in any 10-year period since 1978.

A **Severe Repetitive Loss** property is a structure that:

- (a) Is covered under a contract for flood insurance made available under the NFIP; and
- (b) Has incurred flood related damage:
 - (i) For which 4 or more separate claims payments have been made under flood insurance coverage with the amount of each such claim exceeding \$5,000, and with the cumulative amount of such claims payments exceeding \$20,000; or
 - (ii) For which at least 2 separate claims payments have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the insured structure.

Table 4.3.7.2.1 below contains the numbers of Repetitive Loss (RL) properties per municipality in Franklin County as reported by FEMA on 12/29/2017. Franklin County has no Severe Repetitive Loss properties at this time.

Municipality	2-4 Family		ASSMD Condo		Non-residential		Other Residential		Single Family		Total	
	Total	Mit.	Total	Mit.	Total	Mit.	Total	Mit.	Total	Mit.	Total	Mit.
Antrim Township	0	0	0	0	0	0	0	0	0	0	0	0
Chambersburg Borough	0	0	0	0	0	0	0	0	0	0	0	0
Fannett Township	0	0	0	0	0	0	0	0	0	0	0	0
Greencastle Borough	0	0	0	0	0	0	0	0	0	0	0	0
Greene Township	0	0	0	0	0	0	0	0	4	0	4	0
Guilford Township	0	0	0	0	0	0	0	0	0	0	0	0
Hamilton Township	0	0	0	0	0	0	0	0	0	0	0	0
Letterkenny Township	0	0	0	0	0	0	0	0	0	0	0	0
Lurgan Township	0	0	0	0	0	0	0	0	0	0	0	0
Mercersburg Borough	0	0	0	0	0	0	0	0	0	0	0	0
Metal Township	0	0	0	0	0	0	0	0	0	0	0	0
Mont Alto Borough	0	0	0	0	0	0	0	0	0	0	0	0
Montgomery Township	0	0	0	0	0	0	0	0	0	0	0	0
Orrstown Borough	0	0	0	0	0	0	0	0	0	0	0	0
Peters Township	0	0	0	0	0	0	0	0	0	0	0	0
Quincy Township	0	0	0	0	0	0	0	0	0	0	0	0
Shippensburg Borough	0	0	0	0	0	0	0	0	0	0	0	0
Southampton Township	0	0	0	0	0	0	0	0	2	0	2	0
St Thomas Township	0	0	0	0	0	0	0	0	0	0	0	0
Warren Township	0	0	0	0	0	0	0	0	0	0	0	0
Washington Township	0	0	0	0	0	0	0	0	0	0	0	0
Waynesboro Borough	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	6	0	6	0

Table 4.3.7.2.1: Repetitive Loss Properties per Municipality (Dec 2017)

Floods are the most common and costly natural catastrophe in the United States. In terms of economic disruption property damage, and loss of life, floods are “nature’s number-one disaster.” For that reason, flood insurance is almost never available under industry-standard

homeowner's and renter's policies. The best way for citizen to protect their property against flood losses is to purchase flood insurance through the NFIP. Congress established the NFIP in 1968 to help control the growing cost of federal disaster relief. The NFIP is administered by FEMA, part of the U.S. Department of Homeland Security. The NFIP offers federally-backed flood insurance in communities that adopt and enforce effective floodplain management ordinances to reduce future flood losses.

Since 1983, the chief means of providing flood insurance coverage has been a cooperative venture of FEMA and private insurance industry known as the Write Your Own (WYO) Program. This partnership allows qualified property and casualty insurance companies to "write" (that is, issue) and service the NFIP's Standard Flood Insurance Policy (SFIP) under their own names.

At one point, nearly 90 WYO insurance companies issued and serviced the SFIP under their own names. More than 4.4 million federal flood insurance policies are in force. These policies represent \$650 billion in flood insurance coverage for homeowners, renters, and business owners throughout the United States and its territories. As of 2016, the number of WYO insurance companies decreased to 79.

In 2012, the U.S. Congress passed the Biggert-Waters Flood Insurance Reform Act. This act was intended to change the way that the NFIP is run including insurance policy rate increases to reflect true risk and changes in how the Flood Insurance Rate Map (FIRM) updates impact policy holders.

In March of 2014, President Obama signed the Homeowner Flood Insurance Affordability Act (HFIAA) of 2014 into law. This law repealed and modified certain provisions of the Biggert-Waters Flood Insurance Reform Act and makes additional program changes to other aspects of the program not covered by that Act. Many provisions of the Biggert-Waters Flood Insurance Reform Act remain and are still being implemented.

As a result of the changes, in April 1, 2015, every new or renewed NFIP policy includes an annual surcharge required by the HFIAA. The surcharge amount depends on the use of your insured building and the type of policy insuring the building, regardless of its flood zone or date of construction.

The NFIP provides flood insurance to individuals in communities that are members of the program. Membership in the program is contingent on the community adopting and enforcing floodplain management and development regulations. The NFIP is based on the voluntary participation of communities of all sizes. In the context of this program, a "community" is a political entity, whether an incorporated city, town, township, borough, or village, or an unincorporated area of a county or parish, that has legal authority to adopt and enforce floodplain management ordinances for the area under its jurisdiction.

National Flood Insurance is available only in communities that apply for participation in the NFIP and agree to implement prescribed flood mitigation measures. Newly participating communities are admitted to the NFIP's Emergency Program. Most of these communities

quickly earn “promotion” to the Regular Program.

The Emergency Program is the initial phase of a community’s participation in the NFIP. In return for the local government’s agreeing to adopt basic floodplain management standards, the NFIP allows local property owners to buy modest amounts of flood insurance coverage.

In return for agreeing to adopt more comprehensive floodplain management measures, an Emergency Program community can be “promoted” to Regular Program. Local policyholders immediately become eligible to buy greater amounts of flood insurance coverage.

The minimum floodplain management requirements include:

- Review and permit all development in the SFHA;
- Elevate new and substantially improved residential structures above the Base Flood Elevation;
- Elevate or dry flood proof new and substantially improved non-residential structures; Limit development in floodways;
- Locate or construct all public utilities and facilities so as to minimize or eliminate flood damage;
- Anchor foundation or structure to resist floatation, collapse, or lateral movement.

In addition, Regular Program communities are eligible to participate in the NFIP’s Community Rating System (CRS). Under the CRS, policyholders can receive premium discounts of 5 to 45% as their cities and towns adopt more comprehensive flood mitigation measures.

Table **4.3.7.2.2** lists the Franklin County municipalities participating in the NFIP along with the date of the initial FIRM and the current effective map date. Note that all municipalities in the county, except Orrstown Borough, participate in the NFIP program and are using the most current flood map data at the time this plan was updated in 2018. Shippensburg Borough, being a split municipality, reports its NFIP compliance through Cumberland County.

Franklin County Hazard Mitigation Plan - 2018

Community Identification Number	Municipality	Initial Flood Hazard boundary Map	Initial FIRM Identified	Current Effective Map Date
421233	Antrim Township	9/20/1974	4/24/1981	1/18/2012
420469	Chambersburg Borough	12/21/1973	7/17/1978	1/18/2012
422424	Fannett Township	2/7/1975	10/29/1982	1/18/2012
420470	Greencastle Borough	9/10/1976	1/18/2012	1/18/2012
421649	Greene Township	12/6/1974	11/2/1990	1/18/2012
421650	Guilford Township	1/3/1975	6/18/1990	1/18/2012
421651	Hamilton Township	9/6/1974	6/18/1990	1/18/2012
422425	Letterkenny Township	12/20/1974	9/17/1982	1/18/2012
421652	Lurgan Township	11/1/1974	9/1/1978	1/18/2012
420471	Mercersburg Borough	4/23/1976	3/1/1986	1/18/2012
421653	Metal Township	1/24/1975	9/1/1986	1/18/2012
420472	Mont Alto Borough	7/26/1974	7/16/1990	1/18/2012
422426	Montgomery Township	12/13/1974	8/1/1986	1/18/2012
421654	Peters Township	9/13/1974	9/1/1986	1/18/2012
421655	Quincy Township	12/27/2014	7/16/1990	1/18/2012
421657	Southampton Township	5/31/1974	5/15/1986	1/18/2012
421656	St Thomas Township	9/13/1974	7/16/1990	1/18/2012
422427	Warren Township	1/24/1975	9/1/1986	1/18/2012
421658	Washington Township	9/8/1974	6/3/1986	1/18/2012
420473	Waynesboro Borough	12/3/1976	11/1/1985	1/18/2012

Table 4.3.7.2.2: Franklin County Municipal Participation in the National Flood Insurance Program

4.3.7.3. Past Occurrence

Franklin County has a history of flooding events. Flash flooding is the most common type of flooding that occurs in the county. **Table 4.3.7.3.1** lists flood event information from 1996 to 2018 obtained from the NCDC/NCEI databases. According to NCDC/NCEI and Franklin County EMA records the storm listed for July 2017 is the last recorded Flash Flooding event (**Figure 4.3.7.3.2**) in Franklin County as of this 2018 plan update.

Franklin County Hazard Mitigation Plan - 2018

Location	Date	Time	Type	Rain	Death	Injuries	Property Damage	Crop Damage
Yeakle Hill	06/12/2014	1640	Flood/Heavy Rain		0	0	\$0	\$0
Yeakle Hill	05/16/2014	0720	Flood/Heavy Rain	4.0"	0	0	\$0	\$0
Yeakle Hill	10/10/2013	2200	Flood/Heavy Rain	10.0"	0	0	\$0	\$0
Yeakle Hill	10/29/2012	1700	Flood/Heavy Rain	8.0"	0	0	\$0	\$0
Upper Strasburg	03/13/2010	1600	Flood/Heavy Rain/Snow Melt	4.0"	0	0	\$0	\$0
Caledonia Park	01/25/2010	0730	Flood/Heavy Rain	4.0"	0	0	\$0	\$0
Sylvan	05/12/2008	0200	Flood/Heavy Rain		0	0	\$0	\$0
Sylvan	04/26/2008	2200	Flood/Heavy Rain		0	0	\$0	\$0
Countywide	03/28/2005	2130	Flood		0	0	\$0	\$0
Countywide	09/28/2004	1200	Flood		0	0	\$0	\$0
Countywide	09/17/2004	1500	Flood		0	0	\$0	\$0
Countywide	02/06/2004	1700	Flood		0	0	\$0	\$0
Countywide	12/11/2003	0541	Flood		0	0	\$0	\$0
Countywide	01/19/1996	0900	Flood		0	0	\$0	\$0
Totals					0	0	\$0	\$0

Table 4.3.7.3.1: Flood Events in Franklin County (1996-2018)

Table 4.3.7.3.2 below contains information on Flash Flood events in the county between 1996 and 2018.

Franklin County Hazard Mitigation Plan - 2018

Location	Date	Time	Type	Rain	Death	Injuries	Property Damage	Crop Damage
Shimpstown	07/28/2017	2215	Flash Flood		0	0	\$0	\$0
Mainsville	06/08/2015	1700	Flash Flood	4.0"	0	0	\$0	\$0
Yeakle Mill	06/12/2014	1503	Flash Flood		0	0	\$0	\$0
Sylvan	09/27/2011	1300	Flash Flood		0	0	\$0	\$0
Greencastle	09/09/2011	1600	Flash Flood	8.0"	0	0	\$0	\$0
Guilford Springs	05/26/2011	1835	Flash Flood		0	0	\$0	\$0
Weltys	04/28/2011	0400	Flash Flood		0	0	\$0	\$0
Amberson	04/16/2011	1800	Flash Flood		0	0	\$0	\$0
Mercersburg	05/23/2010	0300	Flash Flood		0	0	\$25K	\$0
Grindstone Hill	07/23/2009	1622	Flash Flood	6.0"	0	0	\$50K	\$0
New Franklin	06/10/2009	2113	Flash Flood		0	0	\$0	\$0
Waynesboro	06/01/2007	2100	Flash Flood		0	0	\$0	\$0
Shippensburg	05/10/2007	2000	Flash Flood	3.0"	0	0	\$0	\$0
Countywide	06/27/2006	1700	Flash Flood		0	0	\$0	\$0
Greencastle	06/26/2006	0630	Flash Flood		0	0	\$0	\$0
Greencastle	06/25/2006	1200	Flash Flood		0	0	\$0	\$0
Greencastle	07/16/2005	2030	Flash Flood		0	0	\$0	\$0
Waynesboro	09/01/2003	2100	Flash Flood		0	0	\$0	\$0
Greencastle	06/03/2003	2100	Flash Flood		0	0	\$0	\$0
St Thomas	06/22/2001	1945	Flash Flood		0	0	\$0	\$0
Chambersburg	06/21/2001	2330	Flash Flood		0	0	\$0	\$0
Greencastle	07/28/2000	1830	Flash Flood		0	0	\$0	\$0
South Portion	09/08/1998	1730	Flash Flood	3.0"	0	0	\$0	\$0
Quincy	06/23/1998	1730	Flash Flood		0	0	\$0	\$0
Countywide	04/19/1998	1900	Flash Flood		0	0	\$0	\$0
Countywide	03/20/1998	2330	Flash Flood		0	0	\$0	\$0
Countywide	01/08/1998	1300	Flash Flood		0	0	\$0	\$0
Countywide	11/07/1997	1900	Flash Flood		0	0	\$0	\$0
East Portion	09/11/1997	0050	Flash Flood		0	0	\$0	\$0
Greencastle	06/18/1997	1845	Flash Flood		0	0	\$0	\$0
Southeast	12/01/1996	2300	Flash Flood		0	0	\$0	\$0
St Thomas	10/19/1996	1000	Flash Flood		0	0	\$0	\$0
Northern	09/13/1996	0400	Flash Flood		0	0	\$0	\$0
Upper Strasburg	09/06/1996	1730	Flash Flood		0	0	\$0	\$0
Countywide	0719/1996	0800	Flash Flood		0	0	\$0	\$0
Greencastle	07/08/1996	1800	Flash Flood	3.5"	0	0	\$0	\$0
St Thomas	06/20/1996	2000	Flash Flood		0	0	\$0	\$0
St Thomas	06/18/1996	2000	Flash Flood	12.0"	1	0	\$1,000K	\$0
St Thomas	06/11/1996	2200	Flash Flood	4.7"	0	0	\$500K	\$0
Countywide	01/19/1996	0900	Flash Flood		0	0	\$0	\$0
Totals					1	0	\$1,575K	\$0

Table 4.3.7.3.2: Franklin County Flash Flood Events (1996-2018)

There are no known significant flood events in Franklin County which can be attributed directly to an ice jam.

4.3.7.4. Future Occurrence

In Franklin County, flooding occurs commonly and can occur during any season of the year. Therefore, the future occurrence of floods in Franklin County can be considered *highly likely* as defined by the Risk Factor Methodology in **Section 4.4**.

Floods are described in terms of their extent (including the horizontal area affected and the vertical depth of floodwaters) and the related probability of occurrence. The NFIP uses historical records to determine the probability of occurrence for different extents of flooding. The probability of occurrence is expressed in percentages as the chance of a flood of a specific extent occurring in any given year.

The NFIP recognizes the 1%-annual-chance flood, also known as the base flood, as the standard for identifying properties subject to federal flood insurance purchase requirements. A 1%-annual-chance flood is a flood which has a 1% chance of occurring over a given year. The DFIRMs are used to identify areas subject to the 1- and 0.2%-annual-chance flooding. Areas subject to 2% and 10% annual chance events are not shown on maps; however, water surface elevations associated with these events are included in the flood source profiles contained with the Flood Insurance Study Report.

Table 4.3.7.4.1 shows a range of flood recurrence intervals and associated probabilities of occurrence. Although the information is from 2001, it is still considered the best available information on this topic.

Recurrence Interval	Chance of Occurrence in Any Given Year (%)
10 year	10
50 year	2
100 year	1
500 year	0.2

Table 4.3.7.4.1: Recurrence Intervals and Probabilities⁴⁷

4.3.7.5. Vulnerability Assessment

Franklin County is vulnerable to flooding that causes loss of lives, property damage, and road closures. For purposes of assessing vulnerability, the county focused on community assets that are located in the 1%-annual-chance floodplain. While greater and smaller floods are possible, information about the extent and depths for this floodplain is available for all municipalities countywide, thus providing a consistent basis for analysis. Flood vulnerability maps for each

⁴⁷ USGS

Franklin County Hazard Mitigation Plan - 2018

local municipality showing the FEMA-designated 1%-annual-chance flood hazard area, critical facilities, and transportation routes are included in **Appendix G** of this document.

Table 4.3.7.5.1 below lists all the critical facilities and private/commercial structures that fall with the 1%-annual chance floodplain by municipality. It should be noted that the values of the buildings in the floodplain were taken from the tax assessment database (base year 1961). The values were multiplied by a factor of 7.63 to get the estimated current year value. This factor is given to the county by the state and is based off of sales in the previous year. Additionally, the costs only reflect land and structure value of the property. It does not include content loss, functionality loss, or displacement costs. Furthermore, there are some properties in the database that reflect a \$0 assessment due to their taxable status. Therefore, the value numbers below are very conservative and actual loss values could be substantially higher.

Municipality	Total Number of Critical Facilities in Municipality	Number of Critical Facilities in 1% Floodplain	Value of Critical Facilities in 1% Floodplain (1961)	Estimated (2017) Value of Critical Facilities in 1% Floodplain	Number of Private/ Commercial Buildings in 1% Floodplain	Value of Private/ Commercial Buildings in 1% Floodplain	Estimated (2017) Value of Private/ Commercial Buildings in 1% Floodplain
Antrim Township	75	2	\$2,590	\$19,762	241	\$3,709,060	\$28,300,128
Chambersburg Borough	97	12	\$8,404,750	\$64,128,243	249	\$11,221,080	\$85,616,840
Fannett Township	27	2	\$23,540	\$179,610	81	\$573,660	\$4,377,026
Greencastle Borough	24	0	\$0	\$0	0	\$0	\$0
Greene Township	100	9	\$155,650	\$1,187,610	727	\$7,372,310	\$56,250,725
Guilford Township	85	4	\$23,420	\$178,695	169	\$6,158,110	\$46,986,379
Hamilton Township	47	2	\$6,190	\$47,230	57	\$810,760	\$6,186,099
Letterkenny Township	20	1	\$32,720	\$249,654	73	\$27,445,470	\$209,408,936
Lurgan Township	21	2	\$35,260	\$269,034	32	\$289,240	\$2,206,901
Mercersburg Borough	10	0	\$0	\$0	34	\$232,750	\$1,775,883
Metal Township	15	1	\$4,600	\$35,098	55	\$430,810	\$3,287,080
Mont Alto Borough	6	2	\$42,310	\$322,825	71	\$425,780	\$3,248,701
Montgomery Township	12	2	\$0	\$0	112	\$2,195,410	\$16,750,978
Orrstown Borough	1	0	\$0	\$0	0	\$0	\$0
Peters Township	22	2	\$7,400	\$56,462	142	\$4,062,700	\$30,998,401
Quincy Township	48	7	\$41,960	\$320,155	230	\$4,027,890	\$30,732,801
Shippensburg Borough	5	0	\$0	\$0	1	\$0	\$0
Southampton Township	30	1	\$24,040	\$183,425	113	\$2,068,990	\$15,786,394
St Thomas Township	20	2	\$2,300	\$17,549	102	\$1,660,800	\$12,671,904
Warren Township	2	0	\$0	\$0	19	\$308,030	\$2,350,269
Washington Township	46	7	\$451,670	\$3,446,242	262	\$4,770,950	\$36,402,349
Waynesboro Borough	45	0	\$0	\$0	12	\$314,980	\$2,403,297
Total	758	58	\$9,258,400	\$70,641,592	2,782	\$78,078,780	\$595,741,091
Total Estimated (2017) Value of Structures in 1% Floodplain							\$666,382,683

Table 4.3.7.5.1: Franklin County Critical Facilities in the 1% Floodplain (Jan 2018)

Figure 4.3.7.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Flood, Flash Flood, and Ice Jam hazard. 5 of 22 municipalities rated this threat as Major. Additionally, 9 of the remaining 17 municipalities rank this as a Moderate threat. This was the ranked as the number 12 highest threat in the county (Moderate) and will require some attention during the Mitigation Strategy in **Section 6**.

Franklin County Hazard Mitigation Plan - 2018


	<h2 style="text-align: center;">Flood/Flash Flood/Ice Jam Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 – 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 – 1.9	
Insignificant	1.0 – 1.4												
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	2	30%	2	30%	2	20%	1	10%	3	10%	2.0	10.17%	0.2034
Chambersburg Borough	2	30%	1	30%	1	20%	3	10%	3	10%	1.7	13.64%	0.2319
Fannett Township	2	30%	2	30%	3	20%	4	10%	3	10%	2.5	1.68%	0.0420
Greencastle Borough	2	30%	2	30%	3	20%	4	10%	3	10%	2.5	2.57%	0.0643
Greene Township	2	30%	1	30%	2	20%	3	10%	3	10%	1.9	11.55%	0.2195
Guilford Township	3	30%	1	30%	3	20%	3	10%	3	10%	2.4	9.59%	0.2302
Hamilton Township	1	30%	1	30%	3	20%	4	10%	3	10%	1.9	7.18%	0.1364
Letterkenny Township	3	30%	1	30%	3	20%	2	10%	3	10%	2.3	1.53%	0.0352
Lurgan Township	2	30%	2	30%	2	20%	4	10%	3	10%	2.3	1.40%	0.0322
Mercersburg Borough	1	30%	1	30%	1	20%	1	10%	3	10%	1.2	0.99%	0.0119
Metal Township	2	30%	2	30%	2	20%	2	10%	3	10%	2.1	1.20%	0.0252
Mont Alto Borough	1	30%	1	30%	2	20%	2	10%	3	10%	1.5	1.12%	0.0168
Montgomery Township	3	30%	1	30%	3	20%	2	10%	3	10%	2.3	4.02%	0.0925
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	3	10%	1.4	0.17%	0.0024
Peters Township	2	30%	1	30%	3	20%	4	10%	3	10%	2.2	2.85%	0.0627
Quincy Township	3	30%	2	30%	4	20%	1	10%	3	10%	2.7	3.52%	0.0950
Shippensburg Borough	2	30%	1	30%	2	20%	3	10%	3	10%	1.9	0.71%	0.0135
Southampton Township	3	30%	1	30%	2	20%	4	10%	3	10%	2.3	5.48%	0.1260
St Thomas Township	3	30%	2	30%	2	20%	3	10%	3	10%	2.5	3.87%	0.0968
Warren Township	2	30%	2	30%	3	20%	2	10%	3	10%	2.3	0.24%	0.0055
Washington Township	2	30%	2	30%	3	20%	4	10%	3	10%	2.5	9.53%	0.2383
Waynesboro Borough	2	30%	1	30%	1	20%	4	10%	3	10%	1.8	7.02%	0.1264
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)													2.107

Figure 4.3.7.5.1: Municipal Flood, Flash Flood, and Ice Jam Threat Vulnerability Self-Assessment

4.3.8. Hailstorm

Hail forms inside a thunderstorm where there are strong updrafts of warm air and downdrafts of cold water. If a water droplet is picked up by the updrafts, it can be carried well above the freezing level. As the frozen droplet begins to fall, it may thaw as it moves into warmer air toward the bottom of the thunderstorm. However, the droplet may be picked up again by another updraft and carried back into the cold air and re-freeze. With each trip above and below the freezing level, the frozen droplet adds another layer of ice. The frozen droplet, with many layers of ice, falls to the ground as hail⁴⁸. The National Weather Service (NWS) defines hail as: showery precipitation in the form of irregular pellets or balls of ice more than 5 millimeters in diameter, falling from a cumulonimbus cloud⁴⁹. **Figure 4.3.8.1** below illustrates the process of hail formation.

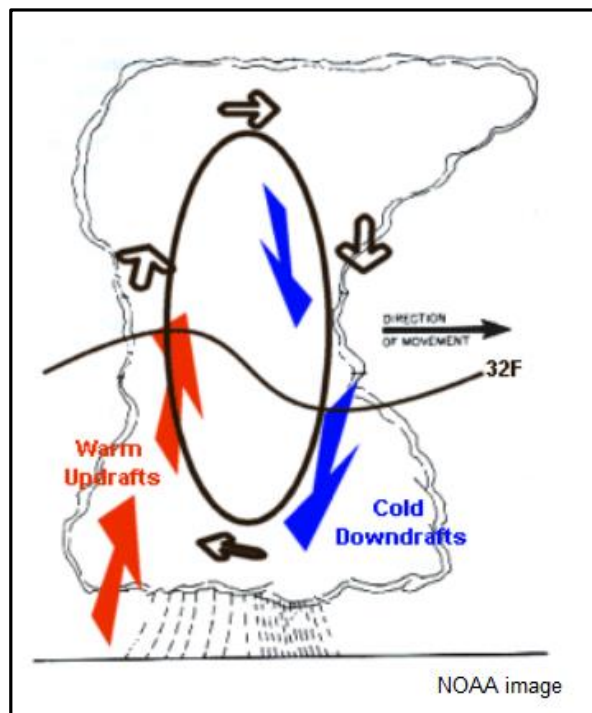


Figure 4.3.8.1: Hail Formation

The size of hailstones is a direct function of the size and severity of the thunderstorm. The higher the temperatures at the earth's surface, the greater the strength of the updrafts, and the greater the amount of time hailstones are suspended, giving them more time to increase in size. See **Table 4.3.8.1** below for common hail stone sizes.

⁴⁸ NOAA/NWS

⁴⁹ NOAA/NWS

Size	Diameter (in.)
Pea	0.25
Marble/Mothball	0.50
Dime/Penny	0.75
Nickel	0.88
Quarter	1.00
Ping-Pong Ball	1.50
Golf Ball	1.75
Tennis Ball	2.50
Baseball	2.75
Teacup	3.00
Grapefruit	4.00
Softball	4.50

Table 4.3.8.1: Hail Stone Sizes

4.3.8.1. Location and Extent

Figure 4.3.8.1.1 below illustrates the frequency of hail events tracked across the continental United States from 1955 through 2002. One can see from these maps that Franklin County falls into the area where between 50 and 150 hail events were recorded in this time span (yellow and black circles added to highlight Franklin County).

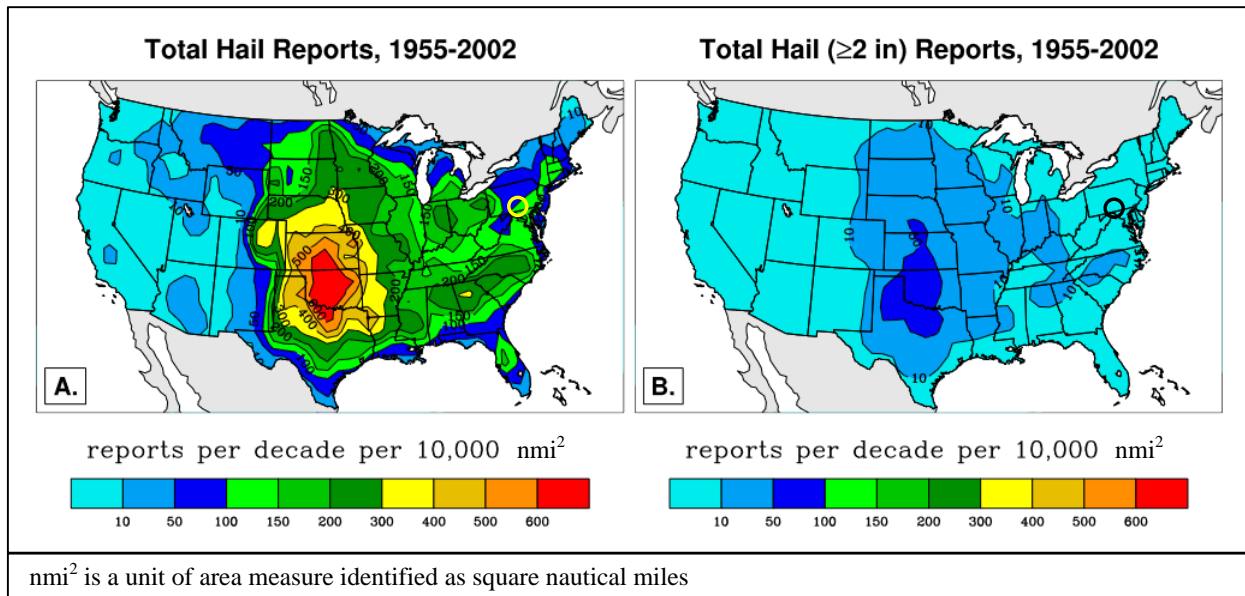


Figure 4.3.8.1.1: Geographic Distribution of Hail

4.3.8.2. Range of Magnitude

Hail damage to crops is estimated at \$1.3 billion annually in the US. Additionally, property damage is estimated at \$1 billion annually⁵⁰. Hail occurs most frequently in states within the southern and central plains. However, because hail accompanies thunderstorms, hail damage is possible throughout the entire US⁵¹. Damage to crops, roofs, windows, heating/cooling units, and vehicles are typically the most significant impacts of hail storms.

4.3.8.3. Past Occurrence

Franklin County has experienced 37 recorded hail events on 19 separate days since 2007⁵².

Figure 4.3.8.3.1 shows a map of these hail events in Franklin County since 2007.

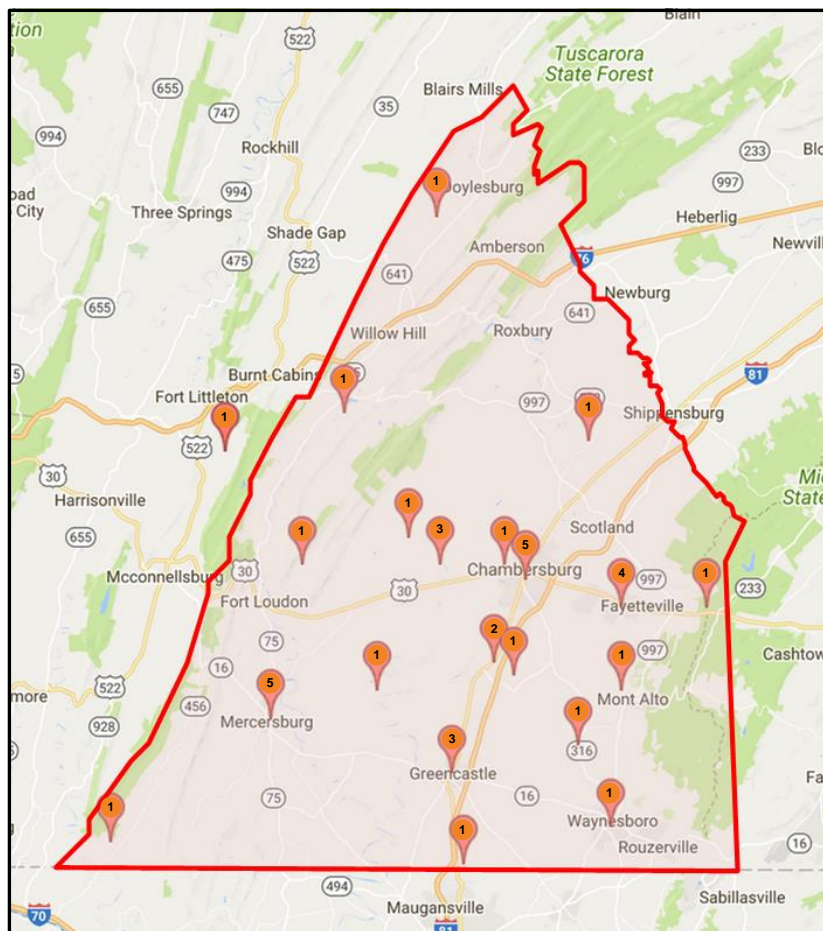


Figure 4.3.8.3.1: Franklin County Hail Events (2007-2018)

Table 4.3.8.3.1 below lists these events with the largest size of hail observed on those days at each location reported.

⁵⁰ Illinois State Water Survey

⁵¹ NOAA/NWS/NCEP/SPC

⁵² NOAA/NCEI

Franklin County Hazard Mitigation Plan - 2018

Location	Municipality	Date	Time (hrs)	Hail Size (in)
Middlesburg	Antrim Township	8/4/2015	0130	1.00
Metal	Metal Township	8/7/2013	1815	1.00
Yeakle Mill	Warren Township	5/22/2013	1652	0.88
Pinola	Southampton Township	8/3/2012	1313	0.88
Mercersburg	Mercersburg Borough	6/26/2012	2025	0.75
Mercersburg	Mercersburg Borough	5/29/2012	1445	0.88
Elbrook	Quincy Township	4/26/2012	1925	1.00
Mont Alto	Mont Alto Borough	4/26/2012	1920	1.00
East Fayetteville	Greene Township	4/26/2012	1913	1.00
East Fayetteville	Greene Township	5/27/2011	1750	1.00
Edenville	St Thomas Township	5/26/2011	1730	0.88
Chambersburg	Chambersburg Borough	5/26/2011	1720	1.00
Mercersburg	Mercersburg Borough	5/26/2011	1710	1.00
Marion	Guilford Township	5/26/2011	1708	1.50
Marion	Guilford Township	5/26/2011	1705	1.00
Williamson	St Thomas Township	5/26/2011	1705	1.00
Mercersburg	Mercersburg Borough	5/26/2011	1644	1.75
Mercersburg	Mercersburg Borough	5/26/2011	1638	1.50
Chambersburg	Chambersburg Borough	5/26/2011	1635	1.00
Marion	Guilford Township	5/26/2011	1622	1.00
Edenville	St Thomas Township	5/14/2010	1715	0.75
Fannettsburg	Metal Township	7/24/2009	1405	1.00
Chambersburg	Chambersburg Borough	7/11/2009	1425	1.00
Chambersburg	Chambersburg Borough	7/11/2009	1424	1.00
Chambersburg	Chambersburg Borough	7/11/2009	1414	0.88
Greencastle	Greencastle Borough	6/13/2009	1718	0.75
Waynesboro	Waynesboro Borough	6/9/2009	1435	0.88
Greencastle	Greencastle Borough	6/9/2009	1356	1.00
East Fayetteville	Greene Township	6/9/2009	1355	0.88
Caledonia Park	Greene Township	8/10/2008	1330	1.00
East Fayetteville	Greene Township	8/10/2008	1327	1.75
Chambersburg	Chambersburg Borough	8/10/2008	1305	1.00
Edenville	St Thomas Township	8/10/2008	1250	1.00
Roxbury	Lurgan Township	7/27/2008	1018	0.88
Ft Loudon	Peters Township	6/10/2008	1640	0.88
Greencastle	Greencastle Borough	7/29/2007	1800	1.00
Edenville	St Thomas Township	6/19/2007	1525	0.75

Table 4.3.8.3.1: Recorded Hail Events in Franklin County (2007-2018)

From the figure above, one can see that Franklin County has on average experienced at least one hail event per year since 2007. Some years have experienced multiple event days and multiple locations and some years have had no events. There is no indication that this trend will change.

4.3.8.4. Future Occurrence

It is not possible to predict formation of a hail storm with more than a few days' lead time. However, the past occurrences described in **Section 4.3.8.3** indicate that hail storm events in Franklin County will occur on average about once a year, and typically between the months of April and August. **Figure 4.3.8.4.1** below shows the total hail events/square nautical mile in the United States taken from data collected between 1955 and 2002⁵³.

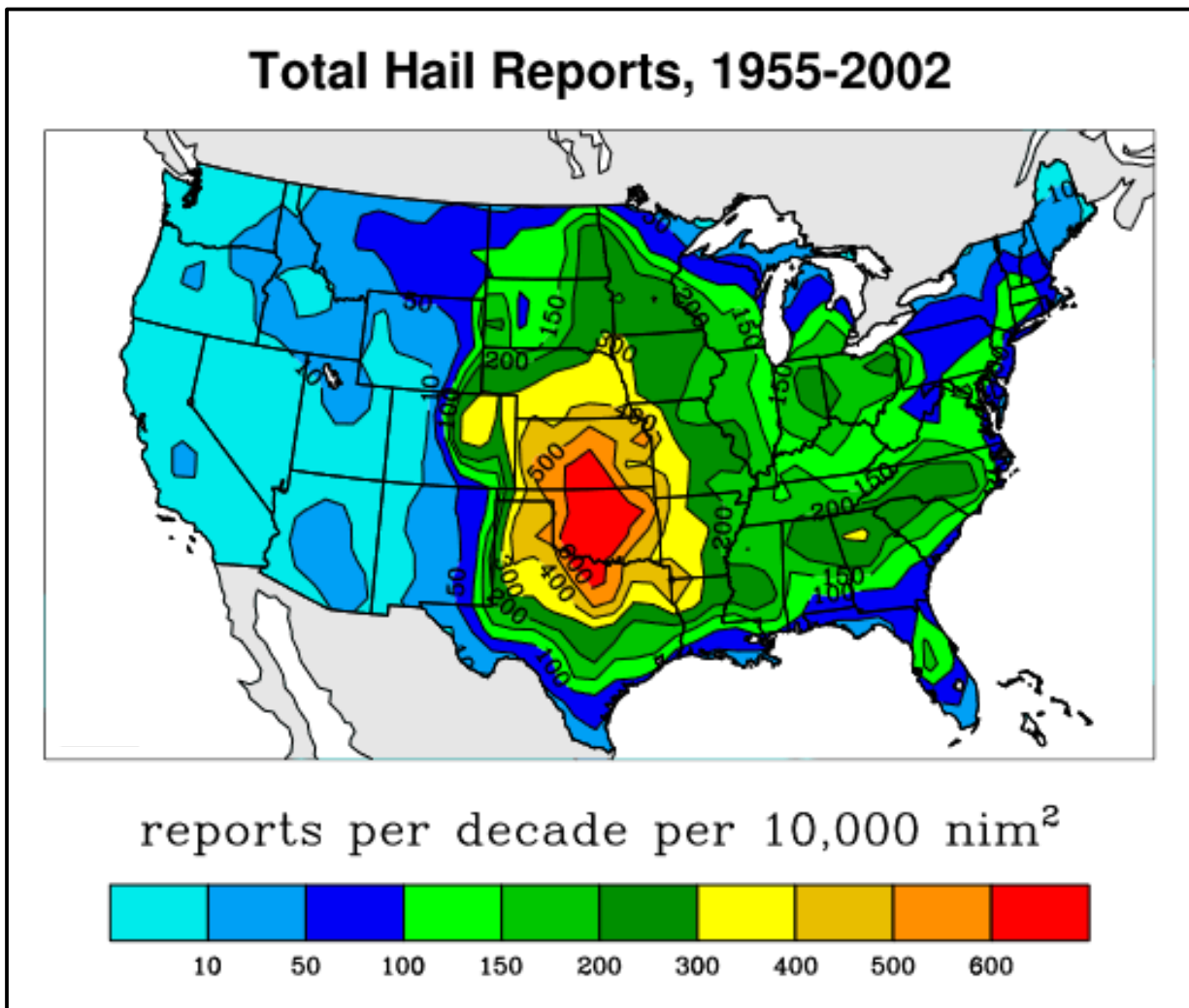


Figure 4.3.8.4.1: Hail Events per Square Nautical Mile in the Continental United States

Nation-wide as well as county specific historical data shows that Franklin County is at a relatively low risk of hail storms as compared to the mid-west, but they will occur. Future

⁵³NOAA/NWS/NCEP/SPC

occurrences of hail storms can be considered *likely* as defined by the Risk Factor Methodology probability criteria (See **Section 4.4**).

4.3.8.5. Vulnerability Assessment

The entire county, including all critical infrastructure, is vulnerable to the effects of hail, as the storm cells that produce this hazard can develop over any part of the region. The area of damage due to these storms is relatively small because a single storm does not cause widespread devastation, but a storm may cause significant damage with a focused area. Refer to **Tables 2.4.4 and 2.4.6, Section 2**, for the specific number of critical facilities in the municipalities subject to hail hazards.

Figure 4.3.8.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Hailstorm hazard. One can see that 15 of 22 municipalities rated this threat as either a Major or Moderate event. This is considered a Moderate threat ranked as the number 13 threat overall for Franklin County and will garner a heightened level of attention during the Mitigation Strategy in **Section 6**.

Franklin County Hazard Mitigation Plan - 2018


	<h2 style="text-align: center;">Hailstorm Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 - 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 - 1.9	
Insignificant	1.0 - 1.4												
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	2	30%	2	30%	3	20%	2	10%	1	10%	2.1	10.17%	0.2136
Chambersburg Borough	4	30%	1	30%	4	20%	4	10%	1	10%	2.8	13.64%	0.3819
Fannett Township	1	30%	1	30%	1	20%	1	10%	1	10%	1.0	1.68%	0.0168
Greencastle Borough	2	30%	2	30%	4	20%	3	10%	1	10%	2.4	2.57%	0.0617
Greene Township	2	30%	1	30%	2	20%	4	10%	1	10%	1.8	11.55%	0.2079
Guilford Township	4	30%	1	30%	3	20%	4	10%	1	10%	2.6	9.59%	0.2493
Hamilton Township	2	30%	1	30%	4	20%	4	10%	1	10%	2.2	7.18%	0.1580
Letterkenny Township	2	30%	1	30%	4	20%	2	10%	1	10%	2.0	1.53%	0.0306
Lurgan Township	2	30%	2	30%	4	20%	4	10%	1	10%	2.5	1.40%	0.0350
Mercersburg Borough	2	30%	1	30%	4	20%	4	10%	1	10%	2.2	0.99%	0.0218
Metal Township	1	30%	1	30%	1	20%	3	10%	1	10%	1.2	1.20%	0.0144
Mont Alto Borough	2	30%	1	30%	3	20%	3	10%	1	10%	1.9	1.12%	0.0213
Montgomery Township	3	30%	1	30%	4	20%	1	10%	1	10%	2.2	4.02%	0.0884
Orrstown Borough	2	30%	1	30%	1	20%	3	10%	1	10%	1.5	0.17%	0.0026
Peters Township	1	30%	1	30%	1	20%	3	10%	1	10%	1.2	2.85%	0.0342
Quincy Township	2	30%	1	30%	4	20%	2	10%	1	10%	2.0	3.52%	0.0704
Shippensburg Borough	2	30%	1	30%	4	20%	2	10%	1	10%	2.0	0.71%	0.0142
Southampton Township	3	30%	1	30%	2	20%	4	10%	1	10%	2.1	5.48%	0.1151
St Thomas Township	3	30%	2	30%	2	20%	4	10%	1	10%	2.4	3.87%	0.0929
Warren Township	2	30%	2	30%	3	20%	4	10%	1	10%	2.3	0.24%	0.0055
Washington Township	1	30%	1	30%	1	20%	1	10%	1	10%	1.0	9.53%	0.0953
Waynesboro Borough	3	30%	1	30%	4	20%	4	10%	1	10%	2.5	7.02%	0.1755
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)													2.106

Figure 4.3.8.5.1: Municipal Hailstorm Threat Vulnerability Self-Assessment

Hail can cause serious damage to homes, automobiles, aircraft, livestock, crops, and infrastructure. Areas of the county with large amounts of farmland and high agricultural yields are more likely to be the areas impacted the most by a severe hail event. As noted in **Section 2.1**, Franklin County is ranked number 4 in the state for agricultural production, so any impact to normal crop yields will have a major economic impact to the county. Of particular concern to Franklin County are corn, peaches, barley, and soybean crops⁵⁴, which can be damaged to the extent of total loss, especially if an event occurs later in the growing season.

The only mitigation measure available for farmers to preclude losses due to hail damage is crop insurance. We have created a mitigation action to work with the Penn State Agricultural Extension to look into crop insurance saturation rates in the county to determine the availability of insurance and any cost prohibitive factors that may be present.

4.3.9. Hurricane, Tropical Storm, and Nor’easter

Tropical cyclones which impact Pennsylvania develop within the tropical or sub-tropical waters of the Atlantic Ocean, Caribbean Sea, or Gulf of Mexico. Those storms with maximum sustained wind speeds below 39 miles per hour are classified as tropical depressions. Cyclones with speeds between 39 and 74 miles per hour are classed as tropical storms. When sustained wind speeds reach 75 miles per hour, these storms are classified as hurricanes. Hurricanes are further classified using the Saffir-Simpson Scale, which is based on wind speeds (See **Figure 4.3.9.1**). It is not uncommon for high winds, flooding, and tornadoes to develop in conjunction with tropical weather systems.

Saffir-Simpson Hurricane Scale		
Category	Wind speed (mph)	Storm surge (feet)
5	156	More than 18
4	131–155	13–18
3	111–130	9–12
2	96–110	6–8
1	74–95	4–5
Additional classifications		
Tropical storm	39–73	0–3
Tropical depression	0–38	0

Figure 4.3.9.1: Saffir-Simpson Hurricane Scale

⁵⁴ Penn State Agriculture Extension, Franklin County, 2015

Nor'easters are extra-tropical storms which typically develop from low pressure systems in the Atlantic Ocean north of North Carolina. They are especially prevalent during the Winter months. "Extra-tropical storms" is a term used to describe storms that have lost their tropical characteristics. For example, Hurricane Sandy was considered an extra-tropical storm when it reached Franklin County in 2012. While the extra-tropical designation indicates a change in the weather pattern, the storm is still capable of gathering energy and producing hurricane force winds, thunderstorms, hail, and tornadoes.

4.3.9.1. Location and Extent

While Franklin County is located approximately 170 statutory miles from the Atlantic Coast, tropical storms can track inland causing heavy rainfall and strong winds. These storms are regional events that can impact very large areas, hundreds to thousands of miles across, over the life of the storm. Therefore, all communities within Franklin County are equally subject to the impacts of hurricanes, tropical storms, and Nor'easters that track through or near the county. Areas in Franklin County that are subject to flooding, wind, and winter storm damage are particularly vulnerable.

4.3.9.2. Range of Magnitude

Intense precipitation and wind resulting in flood (see **Section 4.3.7**) and wind damage (see **Section 4.3.19**) are the most common impacts associated with coastal storm systems in Pennsylvania. Nor'easters develop as extra-tropical cyclonic weather systems over the Atlantic Ocean and are capable of producing winds equivalent to hurricane or tropical storm force; precipitation from these storms may also come in the form of heavy snow or ice (see **Section 4.3.24**).

A correlation between the wind speed of these storms and the expected damage they can cause is illustrated in **Figure 4.3.9.2.1** below.

Franklin County Hazard Mitigation Plan - 2018

Storm Category	Wind Speed (mph)	Description of Damages
1	74-95	MINIMAL: Damage is limited primarily to shrubbery and trees, unanchored mobile homes and signs. No significant structural damage.
2	96-110	MODERATE: Some trees and toppled, some roof coverings are damaged and major damage occurs to mobile homes. Some roofing material, door and window damage.
3	111-130	EXTENSIVE: Some structural damage to small residences and utility buildings with minor amount of curtain wall failures. Mobile homes are destroyed. Large trees toppled. Terrain may be flooded well inland.
4	131-155	EXTREME: Extensive damage to roofs, windows and doors, roof systems on small buildings completely fail. More extensive curtain wall failures. Terrain may be flooded well inland.
5	>155	CATASTROPHIC: Complete failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. Massive evacuation of residential areas may be required.

Figure 4.3.9.2.1: Saffir-Simpson Scale and Associated Damages

4.3.9.3. Past Occurrence

The National Hurricane Center maintains records of all coastal storms occurring in the United States since the 1850s. **Table 4.3.9.3.1** lists all the storms that passed through or directly impacted Franklin County^{55, 56, 57, 58, 59}.

⁵⁵ National Hurricane Center, 2011

⁵⁶ National Hurricane Center, 2006

⁵⁷ New York Daily News

⁵⁸ Masters, Jeff, 2011

⁵⁹ Insurance Information Institute

Franklin County Hazard Mitigation Plan - 2018

Event	Date	Outcome	US Damages
Hurricane Sandy	October 2012	Presidential Emergency Declaration	\$18,750,000,000
Tropical Storm Lee	September 2011	Presidential Emergency Declaration	\$1,600,000,000
Hurricane Irene	August 2011	Gubernatorial Proclamation of Emergency	\$15,800,000,000
Tropical Depression Ernesto	September 2006	Gubernatorial Proclamation of Emergency	\$500,000,000
Hurricane Ivan	September 2004	Presidential Disaster Declaration	\$18,820,000,000
Tropical Storm Isabel	September 2003	No Declaration covering Franklin County	\$5,370,000,000
Tropical Storm Agnes	June 1972	Presidential Disaster Declaration	\$2,100,000,000

Table 4.3.9.3.1: Tropical Systems that Impacted Franklin County (1972-2018)

4.3.9.4. Future Occurrence

Although hurricanes and tropical storms can cause flood events consistent with 1% and 2%-annual chance frequency, their probability of occurrence is measured relative to wind speed. NOAA Hurricane Research Division published the map in **Figure 4.3.9.4.1** showing the probability of a named storm striking Pennsylvania. This figure does not provide information on the intensity of the storm, but does indicate that Pennsylvania, including Franklin County, has between a 6-12 % chance of being hit by a named storm between June and November of any given year. This translates as a probability of occurrence of *possible*, as defined by the Risk Factor Methodology probability criteria (see **Section 4.4**).

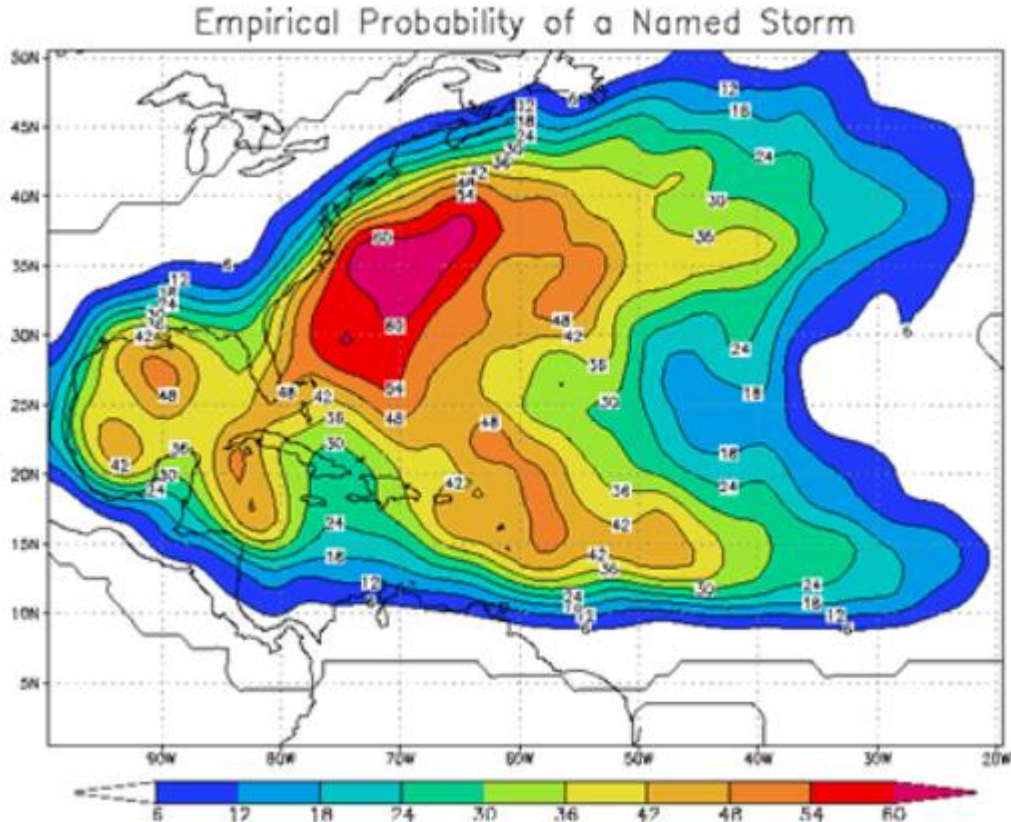


Figure 4.3.9.4.1: Probability of Named Storm Hitting the Continental United States⁶⁰

4.3.9.5. Vulnerability Assessment

Based on all the information available, every community in Franklin County is equally vulnerable to the direct impacts of a Hurricane, Tropical Storm, or Nor'easter. These storms are not frequent events for Franklin County, but the possible damages to life and property from one of these events raises the risk factors significantly for our communities.

Figure 4.3.9.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Hurricane/Tropical Storm/Nor'easter hazard. One can see that 17 of 22 municipalities rated this threat as either a Major or Moderate event. This is a Major threat ranked number 2 overall for Franklin County and will garner significant attention during the Mitigation Strategy in **Section 6**.

⁶⁰ NOAA/Hurricane Research Division

Franklin County Hazard Mitigation Plan - 2018


	<h2 style="text-align: center;">Hurricane/Tropical Storm/Nor'easter Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 – 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 – 1.9	
Insignificant	1.0 – 1.4												
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	3	30%	2	30%	4	20%	1	10%	4	10%	2.8	10.17%	0.2848
Chambersburg Borough	2	30%	2	30%	4	20%	1	10%	4	10%	2.5	13.64%	0.3410
Fannett Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	1.68%	0.0218
Greencastle Borough	1	30%	3	30%	4	20%	4	10%	4	10%	2.8	2.57%	0.0720
Greene Township	3	30%	2	30%	4	20%	1	10%	4	10%	2.8	11.55%	0.3234
Guilford Township	2	30%	2	30%	4	20%	1	10%	4	10%	2.5	9.59%	0.2398
Hamilton Township	1	30%	1	30%	4	20%	1	10%	4	10%	1.9	7.18%	0.1364
Letterkenny Township	2	30%	2	30%	3	20%	4	10%	4	10%	2.6	1.53%	0.0398
Lurgan Township	2	30%	2	30%	4	20%	3	10%	4	10%	2.7	1.40%	0.0378
Mercersburg Borough	2	30%	1	30%	4	20%	1	10%	4	10%	2.2	0.99%	0.0218
Metal Township	2	30%	1	30%	2	20%	1	10%	4	10%	1.8	1.20%	0.0216
Mont Alto Borough	1	30%	2	30%	2	20%	1	10%	4	10%	1.8	1.12%	0.0202
Montgomery Township	3	30%	2	30%	4	20%	1	10%	4	10%	2.8	4.02%	0.1126
Orrstown Borough	2	30%	1	30%	1	20%	3	10%	4	10%	1.8	0.17%	0.0031
Peters Township	2	30%	1	30%	4	20%	1	10%	4	10%	2.2	2.85%	0.0627
Quincy Township	3	30%	2	30%	4	20%	1	10%	4	10%	2.8	3.52%	0.0986
Shippensburg Borough	2	30%	1	30%	4	20%	2	10%	4	10%	2.3	0.71%	0.0163
Southampton Township	3	30%	1	30%	2	20%	4	10%	4	10%	2.4	5.48%	0.1315
St Thomas Township	2	30%	2	30%	2	20%	4	10%	4	10%	2.4	3.87%	0.0929
Warren Township	3	30%	1	30%	4	20%	1	10%	4	10%	2.5	0.24%	0.0060
Washington Township	2	30%	2	30%	3	20%	3	10%	4	10%	2.5	9.53%	0.2383
Waynesboro Borough	3	30%	2	30%	4	20%	1	10%	4	10%	2.8	7.02%	0.1966
Municipal Weighted Average Risk Factor (RF)(Updated 12/10/2020)													2.518

Figure 4.3.9.5.1: Municipal Hurricane/Tropical Storm/Nor'easter Threat Vulnerability Self-Assessment

A vulnerability assessment for hurricane and tropical storm focuses on the impacts of flooding and severe wind. Therefore, the specific impacts of flood related events are addressed in **Section 4.3.7**, and impacts to wind damage are addressed in **Section 4.3.19**. The county is also vulnerable to severe winter weather impacts caused by Nor'easters which are detailed in **Section 4.3.24**.

4.3.10. Invasive Species

The National Resources Conservation Service (NRCS) defines invasive species to be those that are non-native to an area and tend to spread to a degree that causes harm to the environment, local species, or human interests. These problem species have popped up in Pennsylvania over the years, primarily through travel and commerce that displaces them from their native ecosystem. If enough individuals of a species are present to form a breeding population, they can become an invasive species. This has come about from people using exotic plants as decorations, releasing hazardous pets to the wild when they can no longer care for them, and pests that hitch rides in imported foods. Once a new species is introduced, it can become very difficult to get rid of, or even to control. Local plants and animals get choked out by foreign competitors, forests get eaten away by pests, and croplands and pastures become less productive. We must control these species and the effects they cause, and prevent future invasive threats from occurring if we wish to preserve Pennsylvania's local beauty, wildlife, and productivity⁶¹.

Invasive species threats are generally divided into two main subsets:

- **Aquatic Invasive Species** are nonnative viruses, invertebrates, fish, and aquatic plants that threaten the diversity or abundance of native species, the ecological stability of the infested waters, human health and safety, or commercial, agriculture, aquaculture, or recreational activities dependent on such waters.
- **Terrestrial Invasive Species** are nonnative arthropods, vascular plants, higher vertebrates, or pathogens that complete their lifecycle on land instead of in an aquatic environment and whose introduction does or is likely to cause economic or environmental harm or harm to human health.

Most new introductions of invasive species occur because of human activity. There are a few key pathways to introduction into Pennsylvania:

- Contamination of internationally traded products
- Hull fouling
- Ship ballast water release
- Discarded live fish bait
- Intentional release
- Escape from cultivation
- Movement of soil, compost, wood, vehicles, or other materials and equipment
- Unregulated sale of organisms

⁶¹ USDA/NRCS

- Smuggling activities
- Hobby trading or specimen trading

4.3.10.1. Location and Extent

Invasive Animals and Insects:

Spotted Lanternfly:

The Spotted Lanternfly is an inch-long black, red-and-white-spotted insect native to southeastern Asia (see **Figure 4.3.10.1.1** below). An invasive species in South Korea, it has attacked 25 plant species there that also grow in Pennsylvania.

According to Pennsylvania Secretary of Agriculture, this invasive insect threatens to destroy \$18 billion worth of agricultural commodities like apples, grapes, and hardwoods inflicting a devastating impact on the livelihoods of producers and businesses.

The Pennsylvania Department of Agriculture states the quarantine is now in effect for the following counties: Lehigh, Northampton, Berks, Bucks, Chester, Montgomery, Carbon, Delaware, Lancaster, Lebanon, Monroe, Philadelphia, and Schuylkill (see **Figure 4.3.10.1.2** below for areas with confirmed presence). Although Franklin County is not currently on the list, anyone who finds the insects or egg masses outside quarantined areas should report sightings to badbug@pa.gov. Include photos, if possible, to help confirm the sighting. Suspect specimens can be submitted to the department's headquarters in Harrisburg or to any of its 6 regional offices. Specimens also can be submitted to county Penn State Agriculture Extension offices. Do not submit live specimens. You may also call the Invasive Species Report Line at 1-866-253-7189. Please provide details, including the location of the sighting, and your contact information. Calls may not be returned immediately, as call volume is high. For more information about the Spotted Lanternfly, including photos and quarantine details, visit the PA Department of Agriculture.



Figure 4.3.10.1.1: Adult Spotted Lanternfly

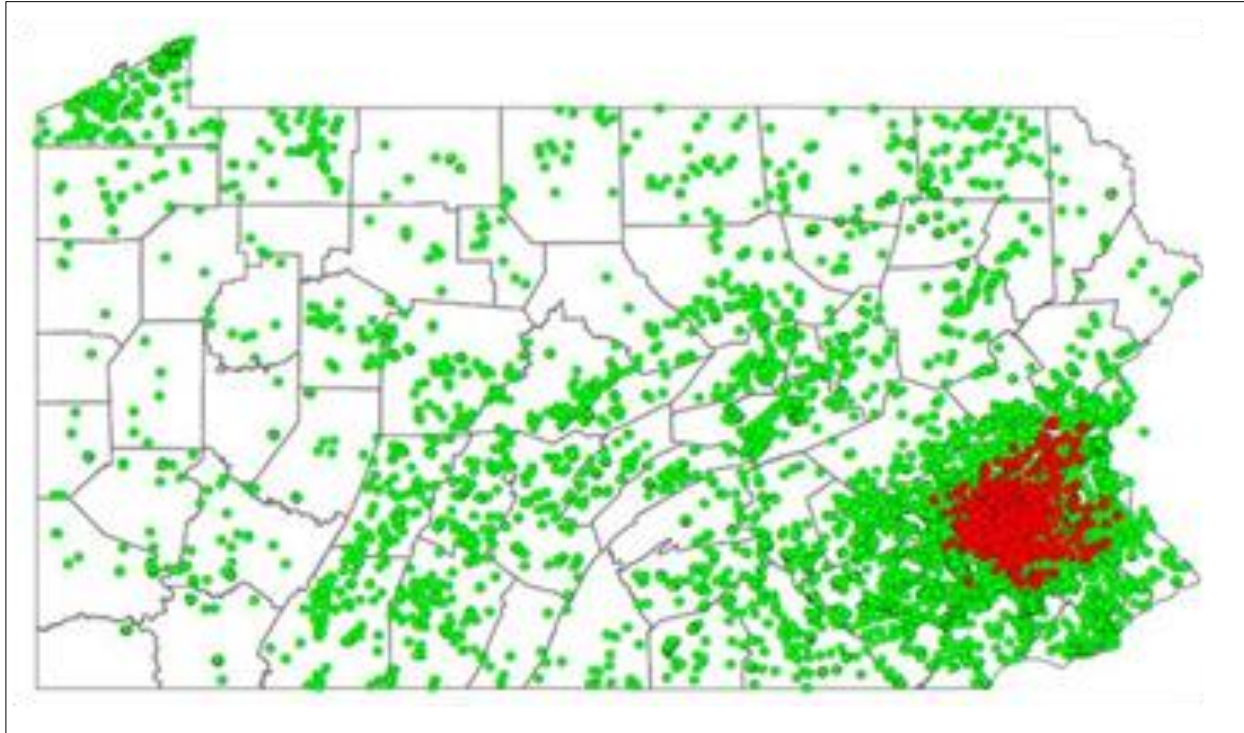


Figure 4.3.10.1.2: Areas in PA with Confirmed Spotted Lanternfly Presence (red dots)

Emerald Ash Borer:

Currently on the USDA’s National Invasive Species interest list is the Emerald Ash Borer (*Agrilus Planipennis* Fairmaire). This invasive species is a half-inch long metallic green beetle originally from Asia that can be found in nearly every county of the commonwealth (see **Figure 4.3.10.1.3**). It was first identified in North America during 2002 and in western Pennsylvania during 2007. This insect was confirmed in Franklin County in 2010. The larval stage of this beetle is harmful, feeding exclusively on ash trees under the bark and killing them 3 to 5 years after infestation.

Signs and symptoms of an emerald ash borer (EAB) infestation include:

- Upper crown dieback
- Epicormic branching
- Bark splits
- Bark flaking
- Tissue damage resulting from woodpecker predation
- D-shaped adult beetle exit holes in the bark
- S-shaped larval feeding galleries just below the bark

All native North American ash species, ash cultivars, and the white fringe tree are susceptible to emerald ash borer. Emerald ash borer is a serious threat to the 323 million ash trees in the forests of Pennsylvania, including:

- Pumpkin ash - a state species of concern.
- Ash seed orchards managed by DCNR's Bureau of Forestry.
- White ash, green ash, black ash, blue ash, and the white fringe tree (a species in the same taxonomic family as ash).

Without active management, it is predicted that EAB will severely decimate populations of ash trees in the state. As of 2014, ash forests in Pennsylvania have been reduced by 12%. If the Emerald Ash Borer spreads to the Commonwealth's 323 million ash trees, with the high mortality rate associated with the ash borer, Pennsylvania's hardwood forests would be devastated. This would have a serious impact on Pennsylvania's logging activities and its many state parks and game lands. The economic impact could be serious, stretching from logging to tourism to other production activities⁶² dependent on Pennsylvania lumber. A 2010 Department of Agriculture report estimated that more than 80,000 Pennsylvanians have been employed in forest product industries, and Pennsylvania is the nation's leading producer of hardwood lumber. The economic impact of this industry is estimated at \$25 billion, a significant potential loss should a hardwood-living invasive species take root in Pennsylvania⁶³.



Figure 4.3.10.1.3: Emerald Ash Borer

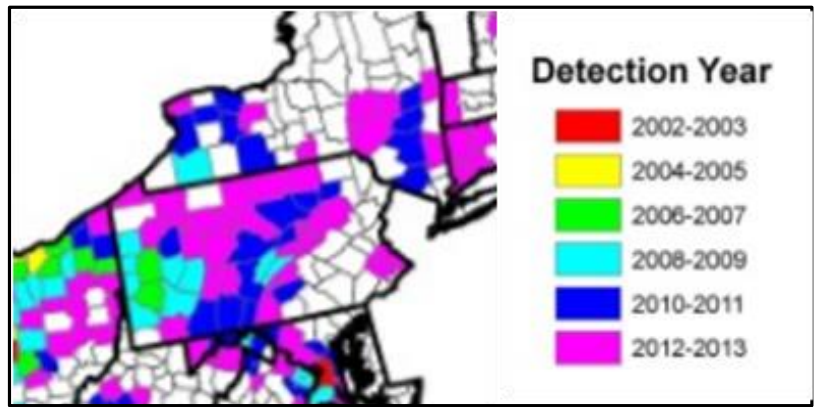


Figure 4.3.10.1.4: PA Emerald Ash Borer Proliferation

⁶² PEMA, 2013

⁶³ Central Pennsylvania Forestry, 2011

Reptiles:

According to the Governor’s Invasive Species Council of Pennsylvania (PISC), there are no known invasive amphibian species and only two invasive reptiles. The red-eared slider (*Trachemys scripta elegans*) (**Figure 4.3.10.1.5**) and the yellow-bellied slider (*Trachemys scripta scripta*) (**Figure 4.3.10.1.6**) turtles have established breeding populations in the commonwealth, particularly in the southeastern and southcentral counties. Both of these invasive turtle species are aggressive competitors for food, basking sites, and breeding habitat and represent significant threats to many native Pennsylvania turtle species including the red-bellied turtle (*Pseudemys rubriventris*) that is state listed as threatened. The rapid spread of both slider species is attributed to the intentional release of captive turtles that were kept as pets.



Figure 4.3.10.1.5: Red-eared Slider Turtle



Figure 4.3.10.1.6: Yellow-bellied Slider Turtle

Invasive Pathogens:

There are a number of reportable diseases documented in Pennsylvania either currently or in the recent past that pose significant environmental and economic threats and may be detrimental to public health and safety. At a minimum, more than 189 reportable or notifiable diseases in Pennsylvania are non-native and also highly invasive by their very nature. **Table 4.3.10.1.1** below contains examples of Animal and Human Pathogens with invasive characteristics that are of concern in the World, the Nation, or in the Commonwealth.

Franklin County Hazard Mitigation Plan - 2018

Viruses	Bacterial Diseases	Prions
Avian Influenza	Botulism	Chronic Wasting Disease
Smallpox	Plague	Bovine Spongiform Encephalopathy
West Nile Virus	Samonellosis	
Foot and Mouth Disease	Brucellosis	
	Anthrax	
	Glanders	
	Q Fever	

Table 4.3.10.1.1: Invasive Pathogens

West Nile Virus:

West Nile fever is a case of mild disease in people, characterized by flu-like symptoms. West Nile fever typically lasts only a few days and does not appear to cause any long-term health effects. More severe disease due to a person being infected with this virus can be “West Nile encephalitis,” West Nile meningitis or West Nile meningoencephalitis. Encephalitis refers to an inflammation of the brain, meningitis is an inflammation of the membrane around the brain and the spinal cord, and meningoencephalitis refers to inflammation of the brain and the membrane surrounding it.

The principle route of human infection with West Nile virus is through the bite of an infected mosquito. Additional routes of infection have become apparent during the 2002 West Nile epidemic. It is important to note that these other methods of transmission represent a very small proportion of cases. Other methods of transmission include blood transfusion, organ transplantation, mother-to-child (ingestion of breast milk and transplacental), and occupational.

In 2000, West Nile virus appeared for the first time in Pennsylvania in birds, mosquitoes and a horse. To combat the spread of West Nile virus, which is transmitted by mosquitoes, Pennsylvania has developed a comprehensive network. This network, which covers 40 counties, includes trapping mosquitoes; collecting dead birds; and monitoring horses, people, and in past years sentinel chickens.

There are about 60 different species of mosquitoes in Pennsylvania. While most do not transmit West Nile virus, several mosquito species have been found to transmit the virus.

Mosquitoes lay their eggs in stagnant water around the home. Weeds, tall grass, shrubbery and discarded tires also provide an outdoor home for adult mosquitoes. By eliminating places for mosquitoes to breed, we can go a long way to prevent West Nile virus.

Mosquitoes breed in standing water. Even a small bucket that has stagnant water in it for seven days can become home to up to 1,000 mosquitoes. Here are some easy tips to eliminate standing water:

Franklin County Hazard Mitigation Plan - 2018

- Dispose of tin cans, plastic containers, ceramic pots or similar water holding containers that have accumulated on your property. Do not overlook containers that have become overgrown by aquatic vegetation.
- Pay special attention to discarded tires that may have accumulated on your property.
- Drill holes in the bottom of recycling containers that are left out of doors. Drainage holes that are located on the container sides collect enough water for mosquitoes to breed in.
- Clean clogged roof gutters on an annual basis, particularly if the leaves from surrounding trees have a tendency to plug up the drains. Roof gutters are easily overlooked but can produce millions of mosquitoes each season.
- Turn over plastic wading pools when not in use. A wading pool becomes a mosquito producer if it is not used on a regular basis.
- Turn over wheelbarrows and do not allow water to stagnate in birdbaths. Both provide breeding habitat for domestic mosquitoes.
- Aerate ornamental pools or stock them with fish. Water gardens are fashionable but become major mosquito producers if they are allowed to stagnate. Clean and chlorinate swimming pools that are not being used. A swimming pool that is left untended by a family that goes on vacation for a month can produce enough mosquitoes to result in neighborhood-wide complaints. Be aware that mosquitoes may even breed in the water that collects on swimming pool covers.

It is not necessary to limit any outdoor activities, unless local officials advise you otherwise. However, you can and should try to reduce your risk of being bitten by mosquitoes. In addition to reducing stagnant water in your yard, make sure all windows and doors have screens, and that all screens are in good repair. If West Nile Virus is found in your area:

- Take normal steps to prevent insect bites.
- Wear shoes, socks, long pants and a long-sleeved shirt when outdoors for long periods of time, or when mosquitoes are most active.
- Consider the use of mosquito repellent, according to directions, when it is necessary to be outdoors. Wash all treated skin and clothing when returning indoors.

West Nile Virus continues to be a threat that is monitored heavily in Franklin County (see **Figure 4.3.10.1.7** below). According to Pennsylvania's West Nile Control Program, there were a reported 48 positive samples collected this year. Forty-five (45) of those were positive mosquito samples, while 3 were positive veterinary samples.

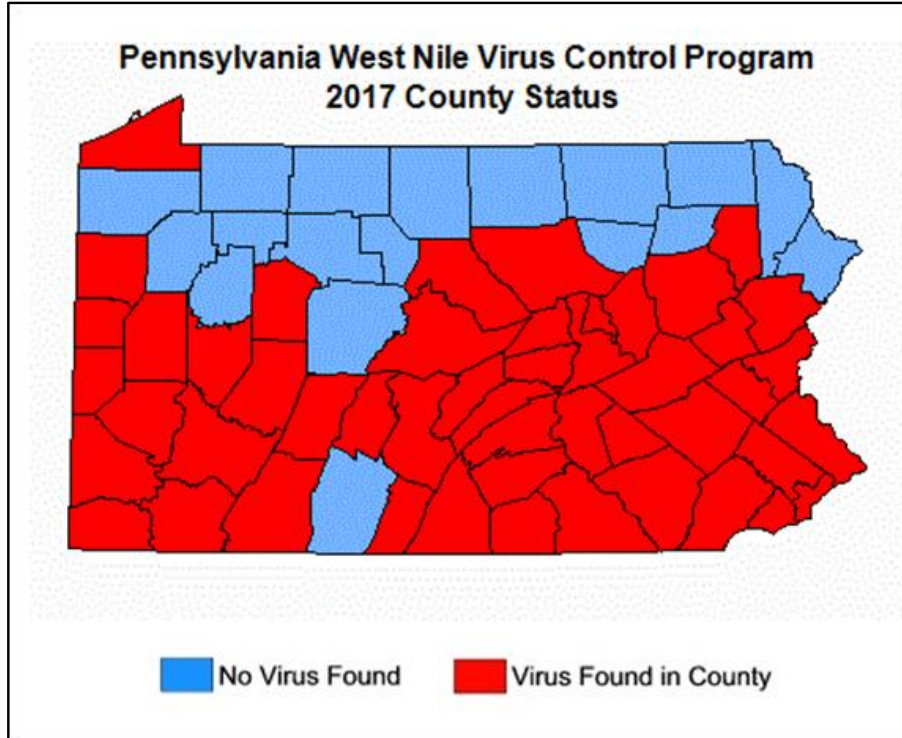


Figure 4.3.10.1.7: Proliferation of West Nile Virus in PA (2017)

Chronic Wasting Disease:

Chronic wasting disease (CWD) affects the brain and nervous system of infected cervids (deer, elk, and moose), eventually resulting in death (see **Figure 4.3.10.1.8** below).



Figure 4.3.10.1.8: Symptoms of Chronic Wasting Disease

Following the detection of CWD in both captive and free-ranging deer in Pennsylvania, an executive order was issued by the Game Commission to establish Disease Management Areas (DMAs). Within DMAs, rehabilitation of cervids (deer, elk, and moose); the use or possession

of cervid urine-based attractants in an outdoor setting; the removal of high-risk cervid parts; and the feeding of wild free-ranging cervids are prohibited. Increased testing continues in these areas to determine the distribution of the disease. Newly confirmed cases alter the boundaries of DMAs as the Game Commission continues to manage the disease and minimize its effect on free ranging cervids⁶⁴.

In Pennsylvania, CWD has been detected in these DMAs: DMA 1 on a captive deer farm in Adams County during 2012 (DMA 1 has since been eliminated); DMA 2 in multiple free-ranging deer in Bedford, Blair, Cambria, and Fulton counties since 2012, and captive deer farms in Bedford, Franklin, and Fulton counties during 2017; and DMA 3 in two captive deer farms in Jefferson County during 2014 and a free-ranging deer in Clearfield County during 2017. In addition, CWD has been detected in wild or captive deer and/or elk in many other states and provinces.

Franklin County is located in Disease Management Area (DMA) 2. It is unlawful to remove any carcass suspected of CWD out of the DMA unless it is being taken to an approved processing location. As of the fall 2017, those locations are listed for Franklin County in **Table 4.3.10.1.2** below:

County	Approved Processing Centers
Franklin	Country Foods, 6032 Buttermilk Rd., Waynesboro, PA 17268, 717-729-1521
Franklin	Diehl's Custom Butchering, 1489 Roxbury Rd., Shippensburg, PA 17257, 717-658-7440
Franklin	Mountain Man Custom Butchering, 10125 Mountain Rd., Orrstown, PA 17244, 717-532-7295
Franklin	Stitely's Meat & Deer Processing, 3647 Haulman Rd., Chambersburg, PA, 717-264-3341

Table 4.3.10.1.2: Approved Processing Centers in Franklin County (DMA 2)

A list of DMA 2 high-risk parts dumpsters and deer head collection bins for FREE testing are listed in **Table 4.2.10.1.3** below:

Type	County	Location
Dumpster Only	Franklin	State Game Lands 235, 5329 Bricker Rd., Chambersburg, PA 17202
Dumpster & Head Collection	Franklin	State Game Lands 124, 3703 Little Cove Rd., Mercersburg, PA 17236

Table 4.3.10.1.3: Drop Locations for CWD Testing Franklin County

A complete list for all counties is available at <http://www.pgc.pa.gov/Wildlife/Wildlife-RelatedDiseases>.

⁶⁴ Pennsylvania Game Commission

Lyme Disease:

According to the PA Lyme Resource Network, Lyme Disease is a bacterial infection transmitted to humans primarily through the bites of infected deer ticks (see **Figure 4.3.10.1.9** below). It is the fastest growing vector-borne infectious disease in the United States according to the Centers for Disease Control and Prevention. The CDC recently raised the number of estimated new cases of Lyme disease each year from 30,000 to 300,000. Some experts say the figure is far higher.

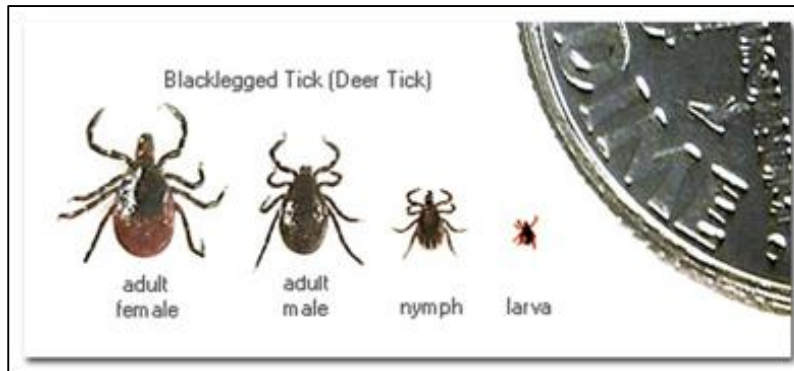


Figure 4.3.10.1.9: Illustration of a Deer Tick

Lyme disease is transmitted mostly by the nymphal deer tick. At this stage, the ticks are the size of a period at the end of a sentence. Many people are not aware when they've been bitten by a tick and may not make a connection when they begin to experience symptoms, which can be weeks, months, or even years after a tick bite. There are published cases of Lyme bacteria entering the human bloodstream within the hour of a bite, and some infections (Powassan Virus) can be transmitted in minutes or hours. This does not happen in every case. The longer the tick is attached, the greater the probability of disease transmission.

Initial symptoms may occur within a day or a week, and often people think they just have a flu or virus. Symptoms include fever, headache, general achiness, swollen glands, fatigue and a possible rash. But some patients may present with only neurological symptoms (headache, sleep disruption, memory or concentration problems). The rash is seen in fewer than half of diagnosed cases. It is typically a bulls eye rash (see **Figure 4.3.10.1.10** below), but it may also present in other forms like a round or oval reddish rash. If the bulls-eye rash is seen, it is a definitive diagnosis of Lyme disease and treatment should begin immediately. "Summer flues" are highly unusual – and healthcare practitioners are informed to consider Lyme and Tick-borne diseases when patients experience a "Summer flu-like illness".

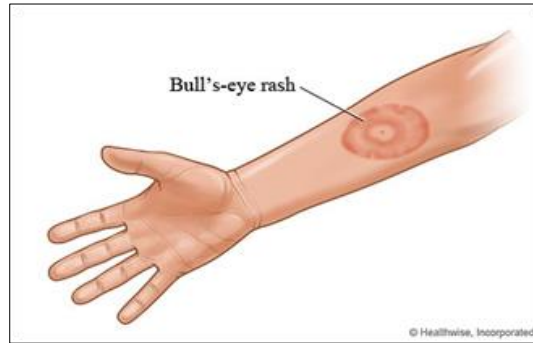


Figure 4.3.10.1.10: Bullseye Rash Symptom of Lyme’s Disease

If the initial infection goes undiagnosed and untreated, the infection can progress disseminating throughout the body affecting any organ. In the heart, the bacteria may cause heart block or palpitations. Recent reports of sudden cardiac death due to Lyme carditis highlight the importance of prompt diagnosis and treatment of Lyme disease. When the bacteria affects the digestive system, patients may experience nausea, acid reflux, irritable bowel syndrome, poor digestion or diarrhea. Endocrine disturbances such as hypothyroidism or menstrual irregularities are common. In the brain, Lyme disease may cause learning disabilities, memory impairment, headaches, sleep disturbances, and concentration problems often presenting like attention deficit disorder (ADD). There may also be joint swelling and pain, muscle soreness, twitching and cramps. Some experience light and sound sensitivity. Most patients with Lyme also have fatigue, which can be quite debilitating.

Over the last 5 years PA ranked number 1 for reported cases in the U.S. (see **Figure 4.3.10.1.11** below for Franklin County Lyme Disease susceptibility). The PA Department of Health reports that there were 9,427 confirmed and probable cases of Lyme Disease in 2015 with 11,443 cases, a 21% increase, in 2016. Experts believe the actual number of cases is at least 10-12 times higher than the number reported. In 2015, the PA Department of Environmental Protection published a study showing Lyme Disease risk exists in all 67 counties in PA⁶⁵. **Figure 4.3.10.1.12** shows the incidents of Lyme Disease per region in PA.

⁶⁵ DEP, 2015

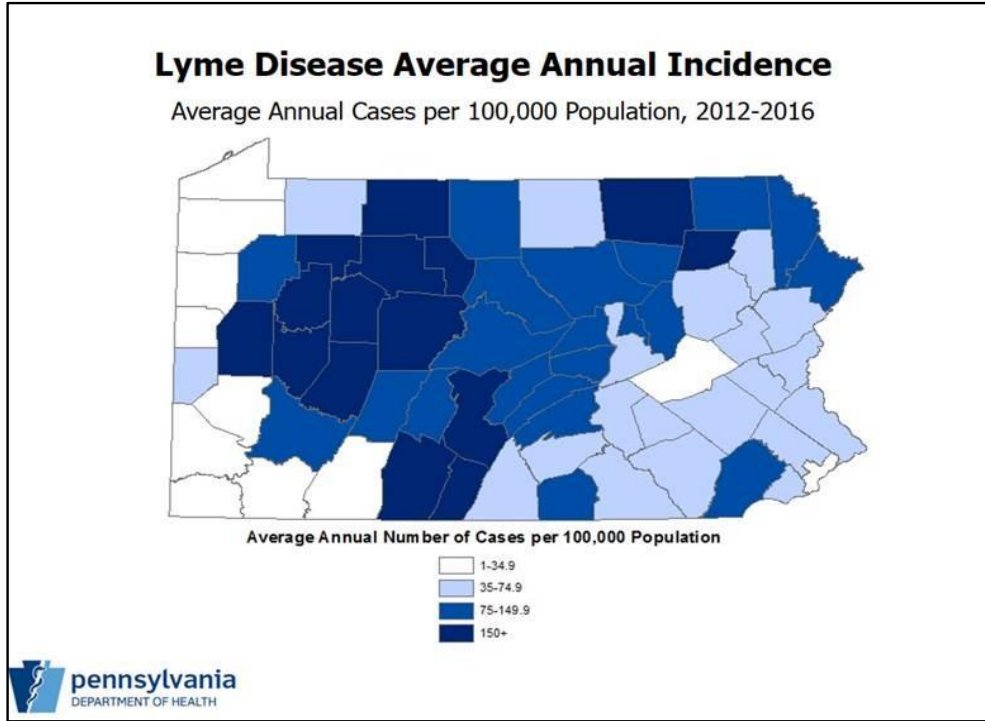


Figure 4.3.10.1.11: Lyme Disease in Franklin County (2016)

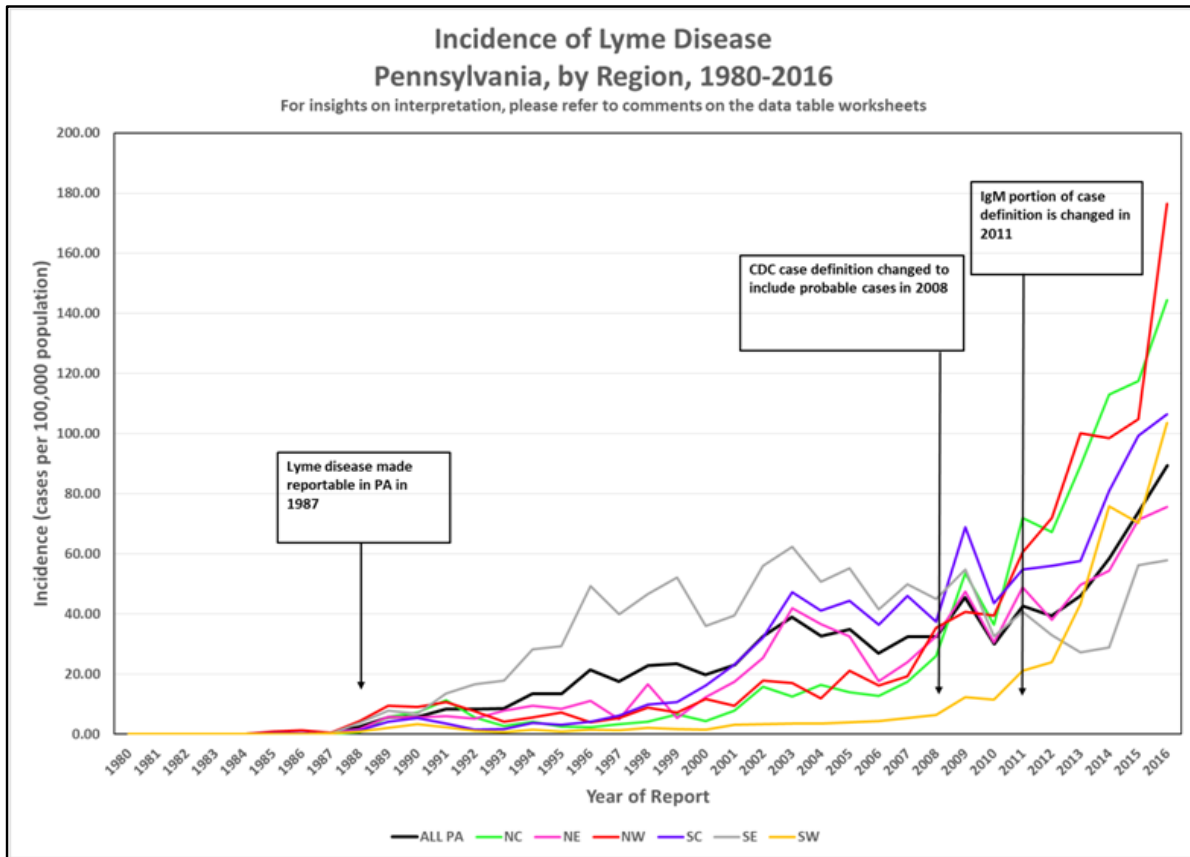


Figure 4.3.10.1.12: Lyme Disease per Region in PA (1980-2016)

Figure 4.3.10.1.13 below is a chart that represents the number of confirmed Lyme Disease cases in Franklin County from 2000 through 2016⁶⁶.

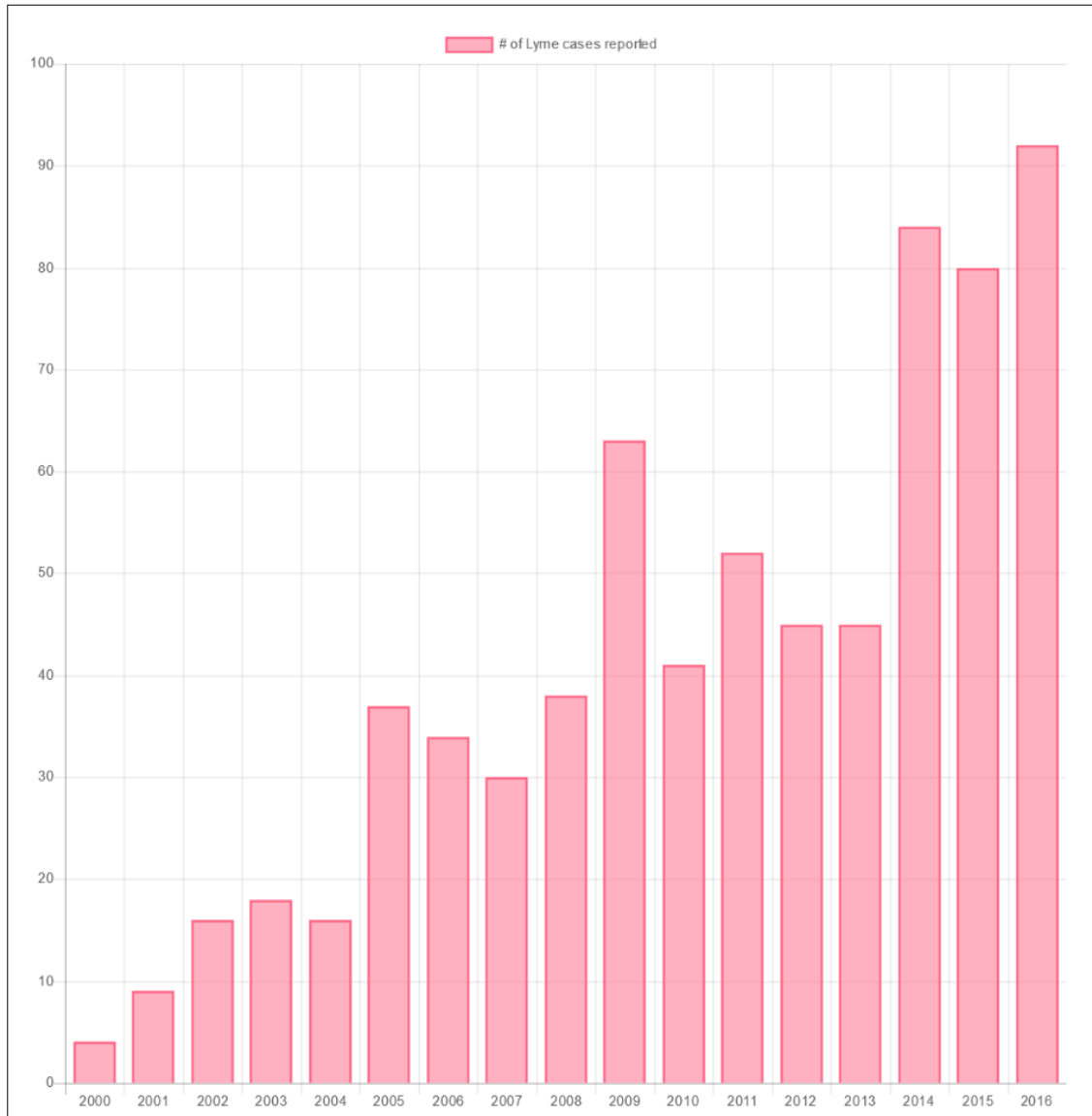


Figure 4.3.10.1.13: Franklin County Lyme Disease Cases (2000-2016)

From 2000 - 2016, there were a total of 704 confirmed cases of Lyme Disease in Franklin County. However, the data from the CDC only represents confirmed cases, the actual quantity of Lyme Disease cases may be far greater. Based on this information, we estimate the real number of cases of Lyme Disease in Franklin County to be closer to **7,040**.

⁶⁶ tickcheck.com, 2018

Invasive Plants

Invasive plants can include:

- Trees
- Shrubs
- Vines
- Grasses
- Flowers

A review of the USDA, National Agriculture Library⁶⁷ with respect to Franklin County revealed 24 plant species that have been documented as present in the county. These species are illustrated in **Figures 4.3.10.1.14 to 4.3.10.1.37** below.



Figure 4.3.10.1.14: Autumn Olive



Figure 4.3.10.1.15: Canadian Thistle

⁶⁷ USDA

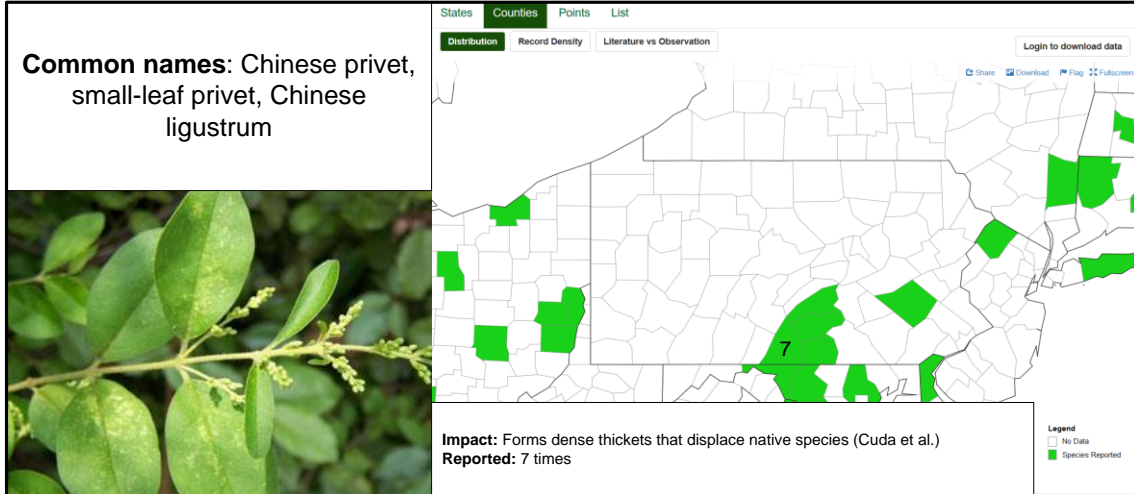


Figure 4.3.10.1.16: Chinese Privet

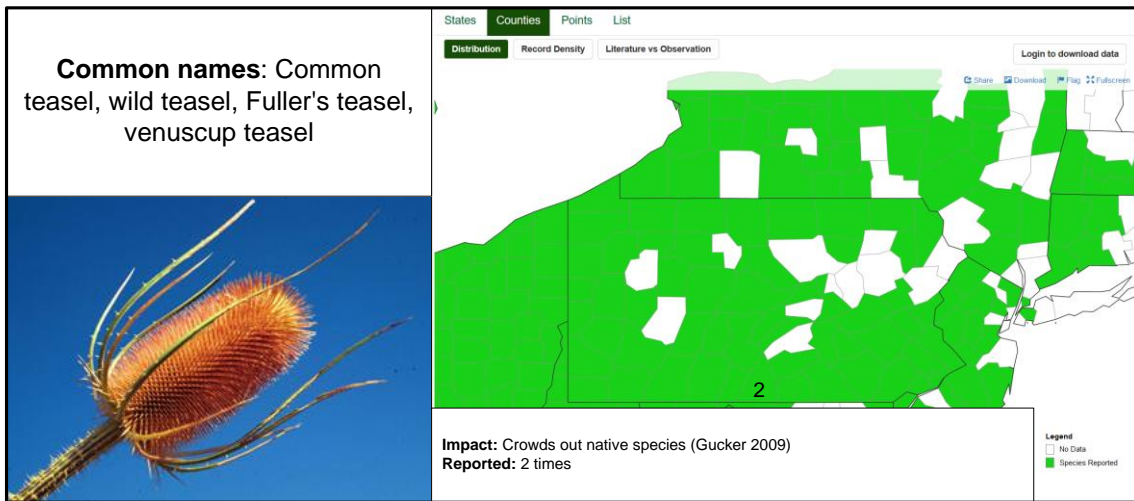


Figure 4.3.10.1.17: Common Teasel



Figure 4.3.10.1.18: Downy Brome

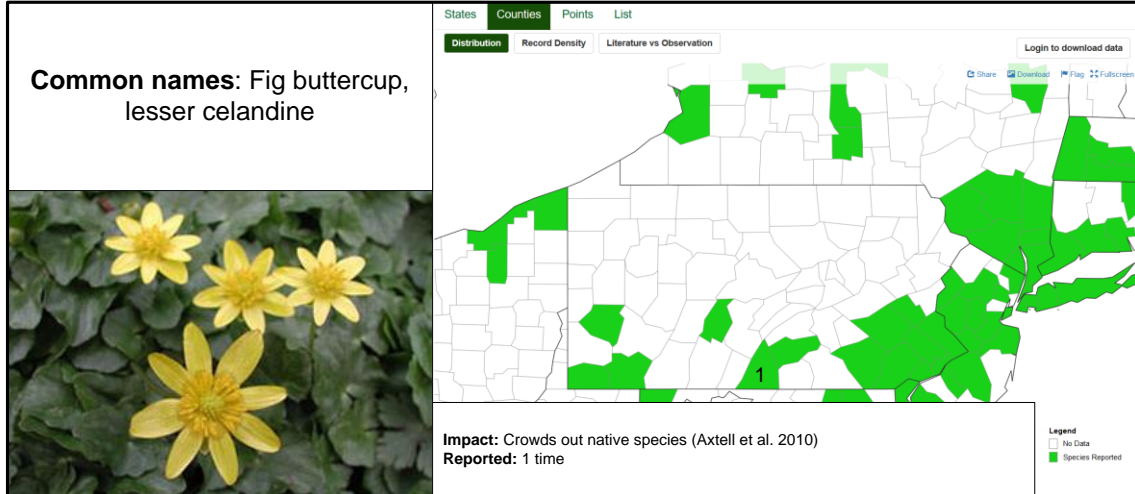


Figure 4.3.10.19: Fig Buttercup

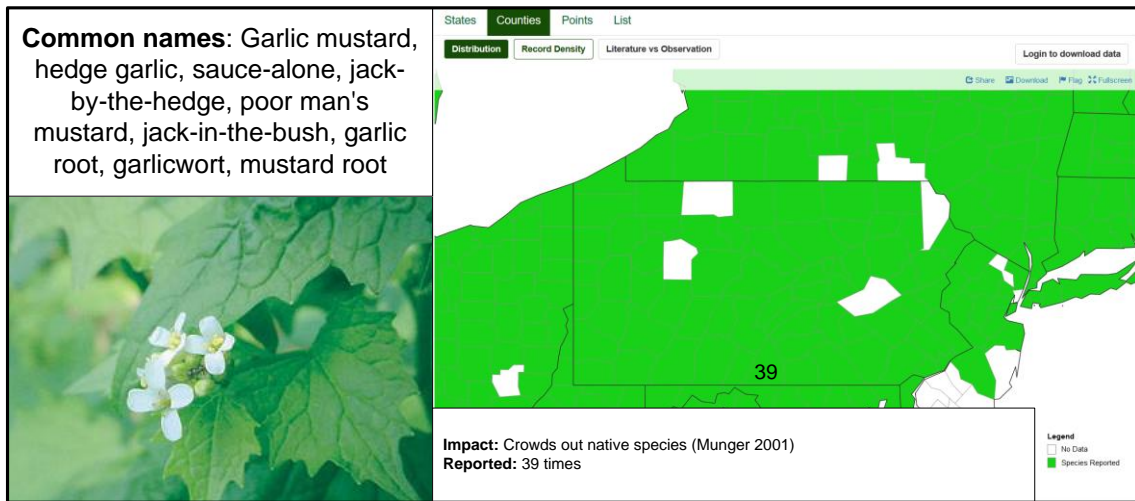


Figure 4.3.10.20: Garlic Mustard

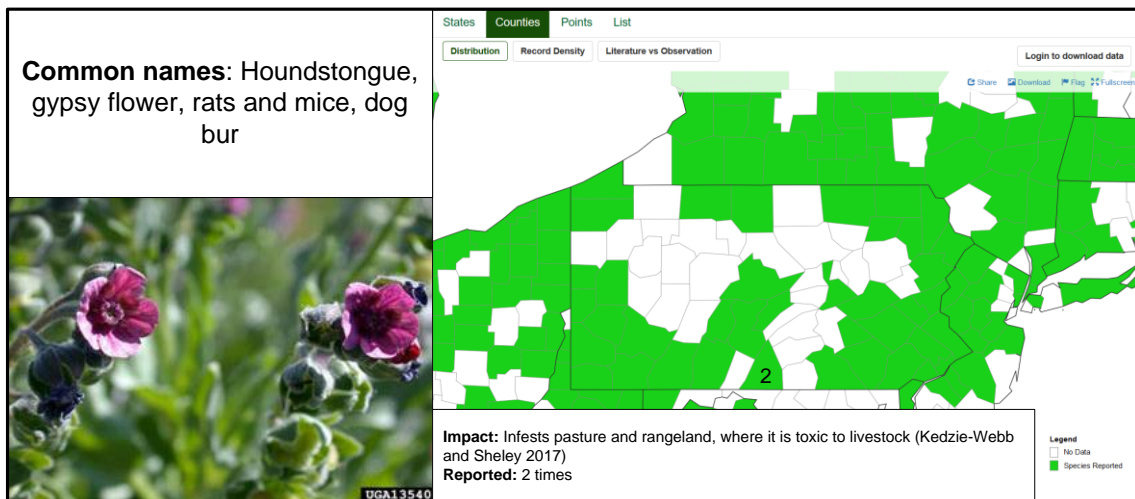


Figure 4.3.10.21: Houndstongue

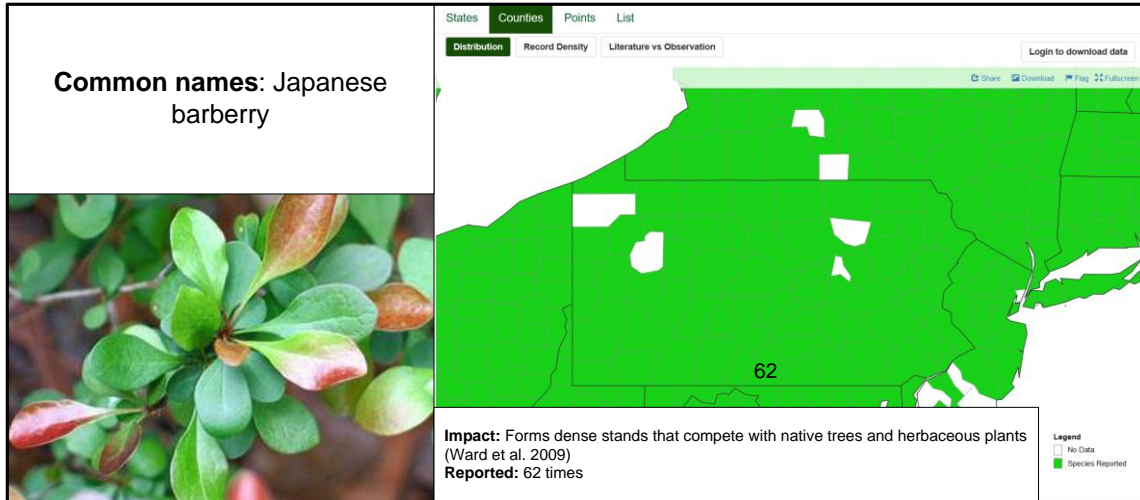


Figure 4.3.10.1.22: Japanese Barberry



Figure 4.3.10.1.23: Japanese Honeysuckle

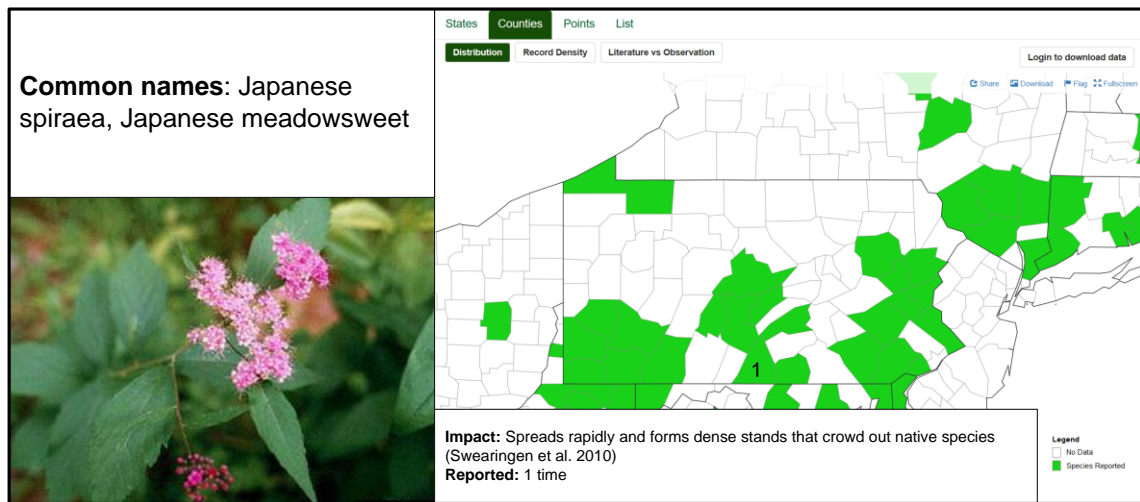


Figure 4.3.10.1.24: Japanese Spiraea

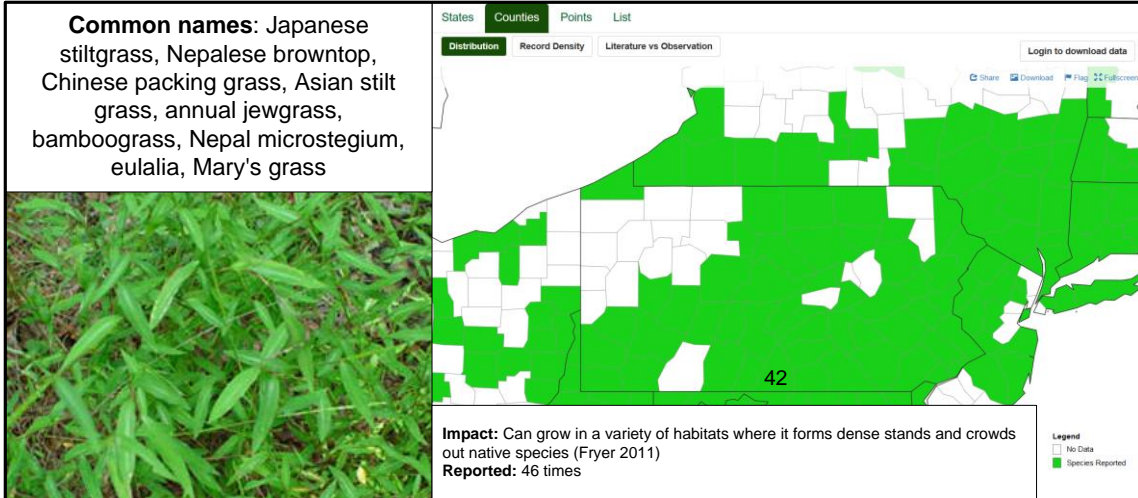


Figure 4.3.10.1.25: Japanese Stiltgrass

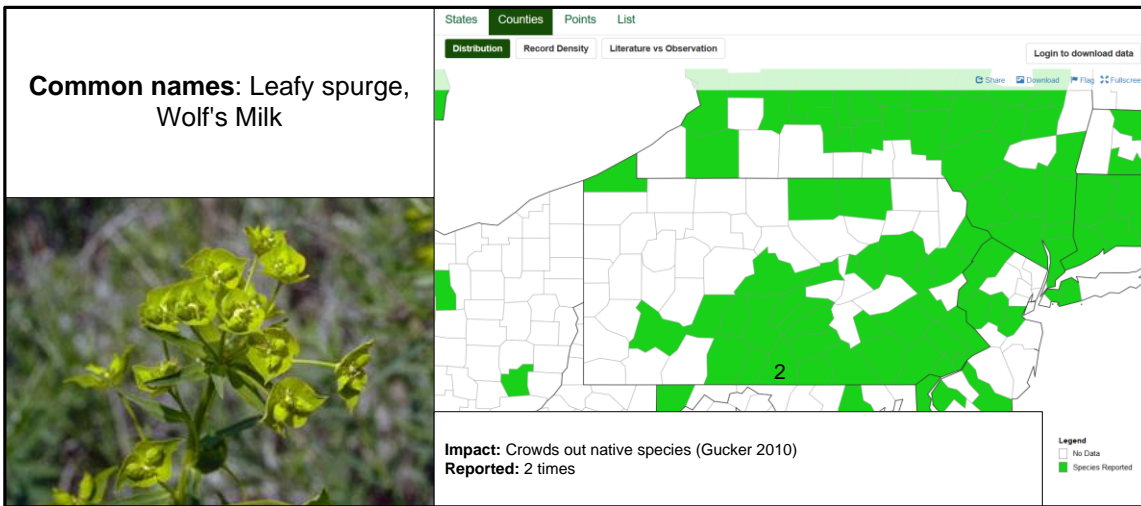


Figure 4.3.10.1.26: Leafy Spurge

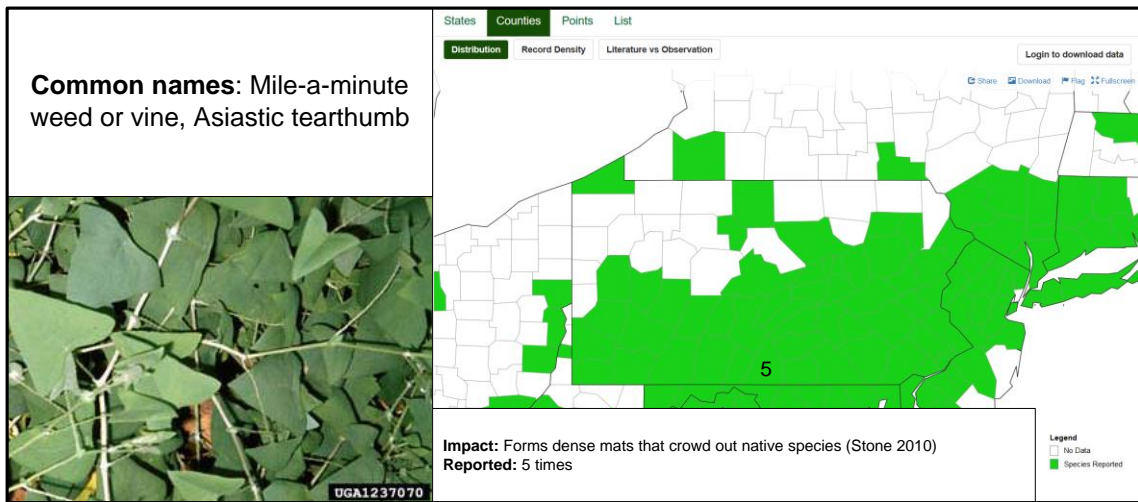


Figure 4.3.10.1.27: Mile-A-Minute Weed

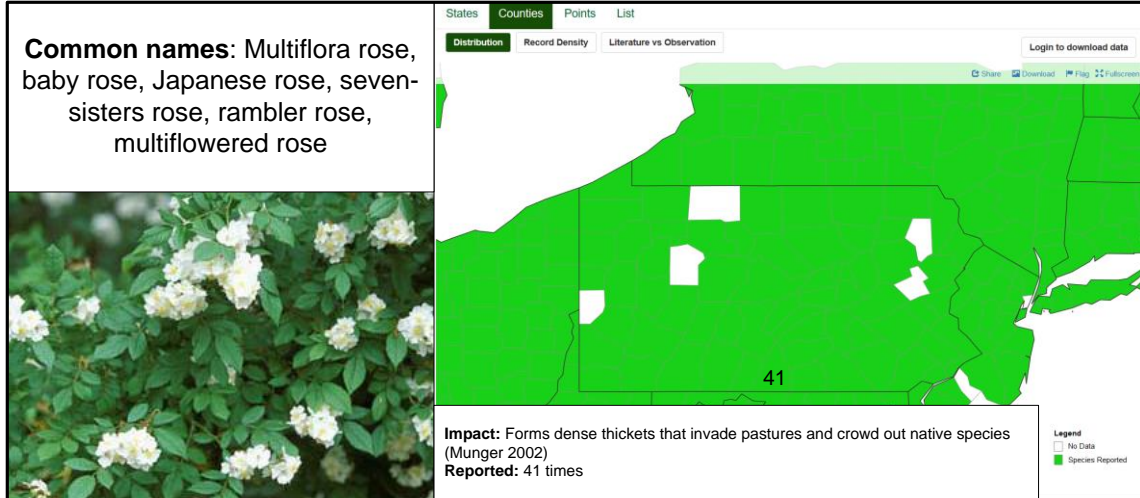


Figure 4.3.10.128: Multiflora Rose



Figure 4.3.10.129: Musk Thistle



Figure 4.3.10.130: Oriental Bittersweet

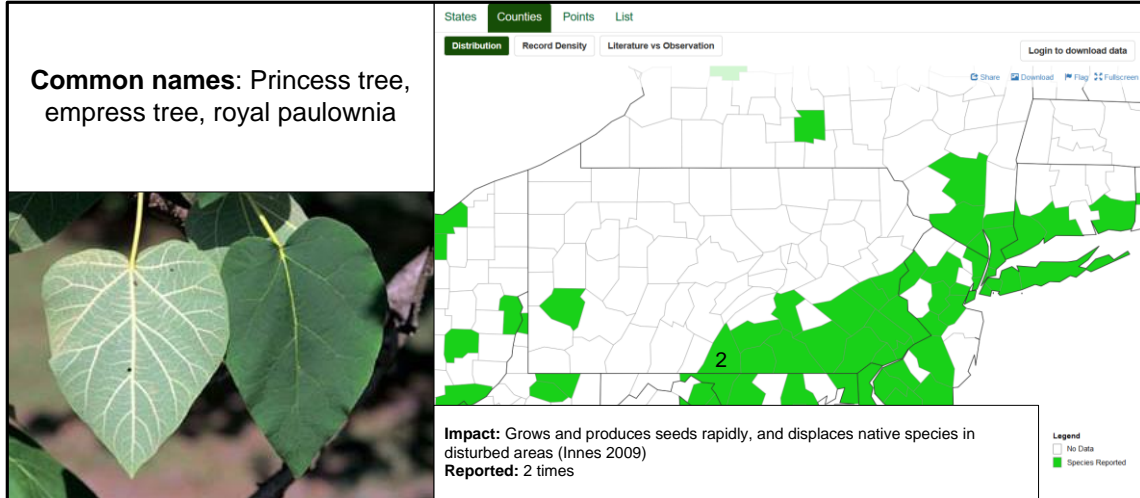


Figure 4.3.10.1.31: Princess Tree



Figure 4.3.10.1.32: Quackgrass



Figure 4.3.10.1.33: St. Johnswort

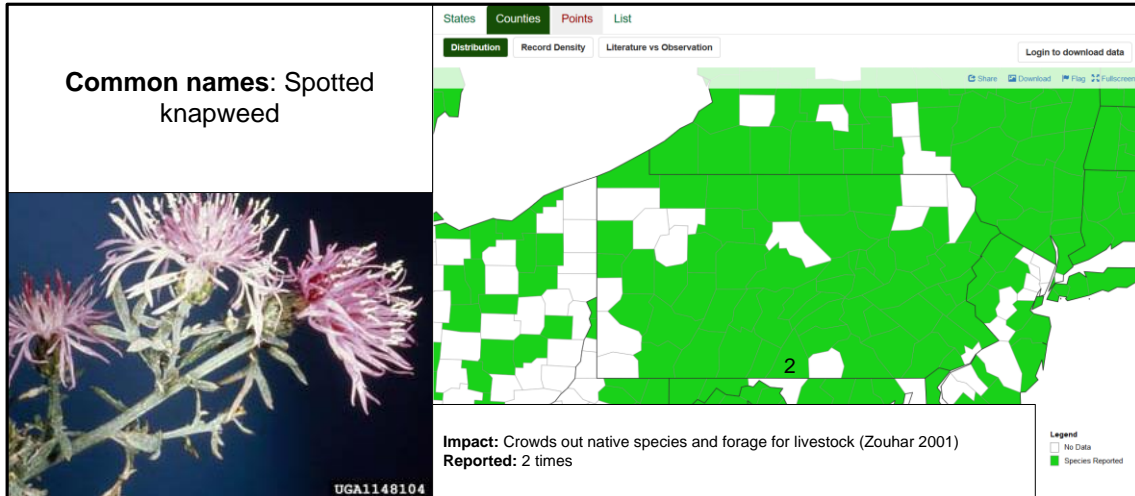


Figure 4.3.10.134: Spotted Knapweed

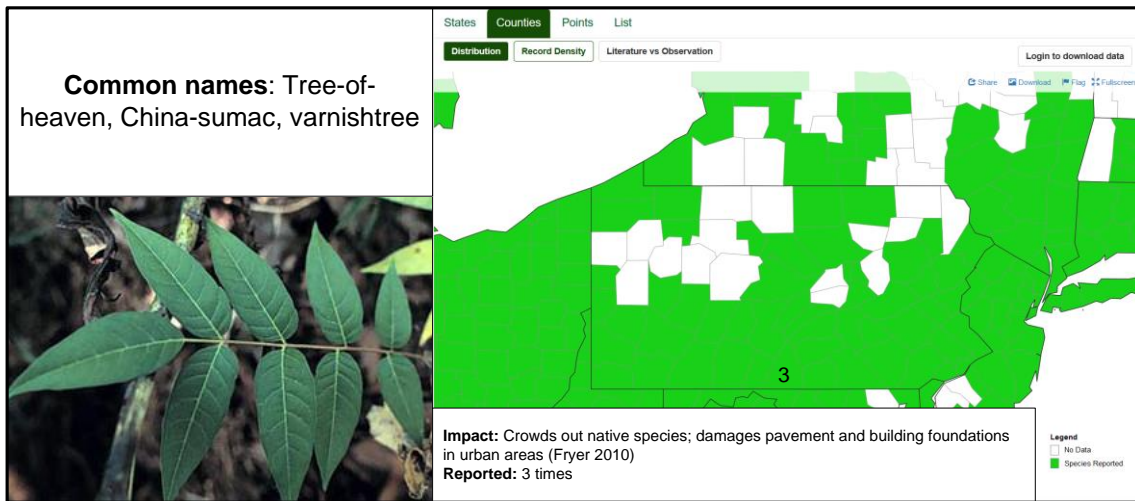


Figure 4.3.10.135: Tree-of-Heaven

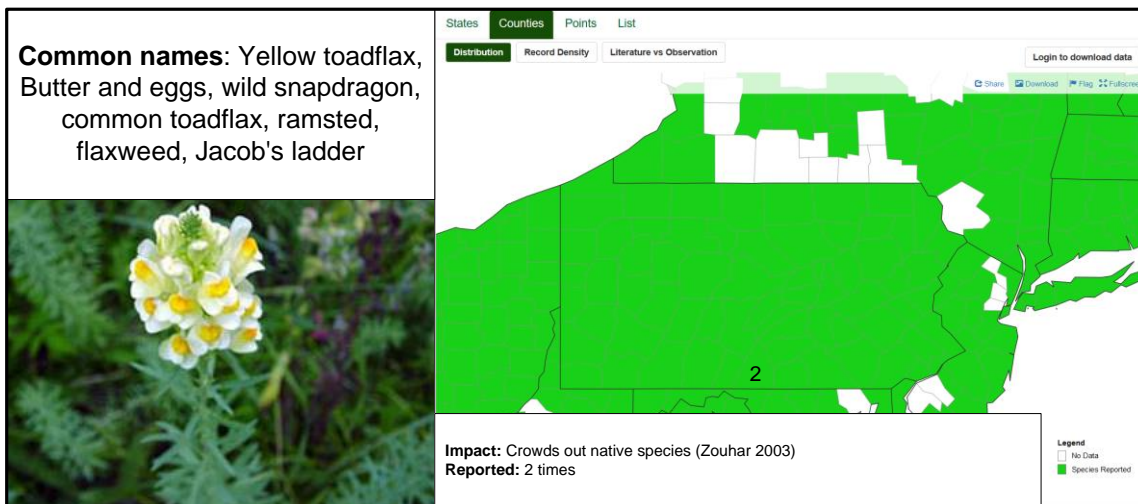


Figure 4.3.10.136: Yellow Toadflax

Additionally, the Penn State University Agricultural Extension of Franklin County identified an additional plant that is invasive and dangerous to livestock and humans, Poison Hemlock (see **Figure 4.3.10.1.37**). This biennial plant grows along roadsides, fallow areas, fence rows, pastures, and creeks. Poison hemlock is toxic and can be fatal to humans, pets, and all classes of livestock if ingested in relatively small quantities (less than 1% of body weight). Poison Hemlock is aggressively spreading in many regions of Pennsylvania including Franklin County.



Figure 4.3.10.1.37: Poison Hemlock

It should be noted, the reported number of observations of each of these plants species can seem extremely low, so low as to not raise concern. However, as few as one observed instance of an invasive species in an area is enough to raise concerns, as not all events or observations are reported, partially due to the perceptions of the observers. A person may not see these as foreign species and discount them as simple weeds or wild flowers.

4.3.10.2. Range of Magnitude

The magnitude of invasive species threats ranges from nuisance to a widespread killer. Some invasive species like the Brown Marmorated Stink Bugs are a danger to fruits, orchards, and vegetables, but do not harm humans. Other invasive species can cause significant changes in the composition of Pennsylvania ecosystems. For example, the Emerald Ash Borer has a 99% mortality rate for any ash tree it infects. Didymo, an aggressive form of algae, can clog waterways and smother native aquatic plants and animals. Still more invasive species can cause widespread illness or death in humans; one species of particular concern with this magnitude is Anthrax, considered by the Centers for Disease Control and Prevention (CDC) to be a Category A agent that may pose a significant, widespread threat to public health.

The magnitude of an invasive species threat is generally amplified when the ecosystem or host species is already stressed, such as in times of drought. The already weakened state of the native ecosystem causes it to more easily succumb to an infestation.

4.3.10.3. Past Occurrence

Invasive species have been entering the Commonwealth since the arrival of early European settlers, but not all occurrences have required government action. The first invasive species outbreak requiring state attention occurred in 1862 when legislation was enacted to provide for the destruction of and to prevent the spread of Canada Thistle, Johnson Grass, and Marijuana. Since then, there have been 26 acts and quarantines enacted to prevent the spread of invasive species.

The Pennsylvania Invasive Species Council (PISC) has begun tackling human and animal pathogens, aquatics, insects, mammals, plant pathogens, and vascular plants through management programs between the PA Fish and Boat Commission, the Game Commission, the Department of Agriculture, and DCNR. Notably, the PISC lists management programs for feral swine, kudzu, giant hogweed, mile-a-minute, emerald ash borer, plum pox virus, zebra and quagga mussels, and viral hemorrhagic septicemia under its “completed actions.” This does not mean that these threats have been eliminated; rather, it indicates that there is an active management plan in place to reduce future occurrences.

4.3.10.4. Future Occurrence

According to the PISC, the probability of future occurrence for invasive species threats is on the rise because of the growing volume of transported goods, increasing technology, efficiency and speed of transportation, and expanding international trade agreements. Expanded global trade has created opportunities for many organisms to be transported to and establish themselves in new countries and regions. In 2009 alone, Pennsylvania imported over \$115 billion in goods from abroad, including agricultural, forestry, and fisheries goods that commonly carry unknown pests⁶⁸. Furthermore, climate change is contributing to the introduction of new invasive species. As maximum and minimum seasonal temperatures change, pests are able to establish themselves in previously inhospitable climates. This also gives introduced species an earlier start and increases the magnitude of their growth. This may shift the dominance of ecosystems in the favor of nonnative species.

In order to combat the increase in future occurrences, the PISC, which is a collaboration of state agencies, public organizations, and federal agencies released the Invasive Species Management Plan in April 2010. This plan outlines the Commonwealth’s goals for the management of the spread of nonnative invasive species as well as creates a framework for responding to threats through research, action, and public outreach and communication. More information on the Management Plan can be found online at www.invasivespeciescouncil.com. Individual management plans by PISC member agencies and organizations will also help to reduce the number and/or magnitude of invasive species threats in the future.

An area of great concern is the near exponential rise in confirmed Lyme Disease cases in Franklin County. This rise may be due to better detection and awareness programs or it could be an indication of the proliferation of the Deer Tick that carries the disease. Better education on the host organism and protection measures could help stem this growth, but serious consideration

⁶⁸ U.S. Census, 2010

needs to occur on eradication measures for the host or this hazard could reach epidemic proportions.

Because of the plethora of environments that harbor many of the invasive species, Franklin County will continue to be an area of high potential for such incidences. The probability of future Invasive Species incidents is considered *highly likely*, as defined by the Risk Factor probability criteria (**Section 4.4**).

4.3.10.5. Vulnerability Assessment

Invasive species threats do not generally impact buildings; instead, they impact landscapes, crops, and people (in the case of human-borne pathogens). Because of this wide array of invasive species present in Pennsylvania, most jurisdictions are vulnerable to some kind of invasive species threat.

The spread of pathogens is not a commonly considered an invasive species threat, but there is one pathogen that is raising concerns for the citizens of Franklin County and that is Lyme Disease. Detection and awareness programs are still being developed, but the accurate number of actual cases is believed to be a factor of 10 more than what is being reported. Until a more accurate detection program can be put in place, it will be hard to implement prevention programs that will be effective to control the spread of this pathogen. The exponential rise in Lyme Disease cases in Franklin County will eventually start to impact the economy by burdening health and medical resources. This will especially be true for those patients that have not been properly diagnosed, but are impacted by the chronic and debilitating symptoms. Add to that the costs of missed work or increased cases of medical disability and you can start to realize the scope of the impact this hazard can bring to the county.

The invasive species on the Pennsylvania Department of Agriculture's list of most significant threats are the ones that attack crops and trees. As a result, the most vulnerable jurisdictions are those with the Commonwealth's highest concentration of agricultural production, as well as the highest concentration of the timber and logging industry. In Pennsylvania, losses will vary from jurisdiction to jurisdiction depending on the aggressiveness of the invasive species of concern. Jurisdictional losses due to invasive species threats stem from three sources: lost revenue from diseased, damaged, or deceased crops, livestock, lumber, etc.; economic losses from the cost of eradication programs; and losses in the form of illness or death of humans. The total value of Pennsylvania's agricultural products is nearly \$6 billion; an invasive species that affects agricultural products and production can cause significant losses to the Commonwealth's economy.

According to the 2011 County Business Patterns data collected for Pennsylvania, the agriculture, forestry, fishing, and hunting industry boasts an annual payroll of nearly \$86 million across the nearly 500 establishments in Pennsylvania. Franklin County ranks number 4 in the state in total agricultural cash receipts (market value of all agricultural products = \$413,806,000). Additionally, statewide Franklin County ranks number 2 in the production of milk, cattle, melons, and corn for silage and number 3 for fruit and berry production. See **Figure 2.1.8, Section 2**, for a map of Franklin County's Agricultural resources and land breakdown.

Franklin County Hazard Mitigation Plan - 2018

Based on all the information available, every community in Franklin County is equally vulnerable to the direct impacts of Invasive Species.

Figure 4.3.10.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Invasive Species hazard. One can see that 10 of 22 municipalities rated this threat as either a Major or Moderate event. This is a Minor threat ranked number 15 overall for Franklin County. However, due to the potential impact to the agricultural industry in the county and the associated economic risks it could bring, there will still be considerable effort in the development of mitigation plans for this hazard in **Section 6**.

Franklin County Hazard Mitigation Plan - 2018


 <h2 style="text-align: center;">Invasive Species Hazard Threat Risk Assessment</h2>											Risk Factor Scale			
											Catastrophic	Major	Moderate	Minor
												3.0 – 4.0		
												2.5 - 2.9		
												2.0 - 2.4		
												1.5 – 1.9		
												1.0 – 1.4		
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF	
Antrim Township	2	30%	2	30%	3	20%	1	10%	4	10%	2.3	10.17%	0.2339	
Chambersburg Borough	4	30%	1	30%	4	20%	1	10%	4	10%	2.8	13.64%	0.3819	
Fannett Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	1.68%	0.0218	
Greencastle Borough	1	30%	2	30%	4	20%	4	10%	4	10%	2.5	2.57%	0.0643	
Greene Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	11.55%	0.1502	
Guilford Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	9.59%	0.1247	
Hamilton Township	2	30%	1	30%	4	20%	1	10%	4	10%	2.2	7.18%	0.1580	
Letterkenny Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	1.53%	0.0199	
Lurgan Township	1	30%	1	30%	4	20%	1	10%	4	10%	1.9	1.40%	0.0266	
Mercersburg Borough	2	30%	1	30%	4	20%	1	10%	4	10%	2.2	0.99%	0.0218	
Metal Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	1.20%	0.0156	
Mont Alto Borough	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	1.12%	0.0146	
Montgomery Township	3	30%	1	30%	4	20%	1	10%	4	10%	2.5	4.02%	0.1005	
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	4	10%	1.5	0.17%	0.0026	
Peters Township	1	30%	1	30%	1	20%	4	10%	4	10%	1.6	2.85%	0.0456	
Quincy Township	2	30%	1	30%	3	20%	4	10%	4	10%	2.3	3.52%	0.0810	
Shippensburg Borough	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	0.71%	0.0092	
Southampton Township	1	30%	1	30%	1	20%	3	10%	4	10%	1.5	5.48%	0.0822	
St Thomas Township	2	30%	2	30%	2	20%	3	10%	4	10%	2.3	3.87%	0.0890	
Warren Township	2	30%	1	30%	3	20%	3	10%	4	10%	2.2	0.24%	0.0053	
Washington Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	9.53%	0.1239	
Waynesboro Borough	2	30%	1	30%	4	20%	1	10%	4	10%	2.2	7.02%	0.1544	
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)												1.926		

Figure 4.3.10.5.1: Municipal Invasive Species Threat Vulnerability Self-Assessment

There is a wide range of environmental impacts caused by invasive species. The aggressive nature of many invasive species can cause significant reductions in biodiversity by crowding out native species. This can affect the health of individual host organisms as well as the overall well-being of the effected ecosystem. Beyond causing human, animal, and plant harm, there are secondary impacts of invasive species that go beyond harm to host species and ecosystems, particular in the case of invasive species that attack forests. Pennsylvania's forests prevent soil degradation and erosion, protect watersheds, stabilize slopes, and absorb carbon dioxide emissions. The key role of forests in the hydrologic system means that if forest land is wiped out, the effects of erosion and flooding will be amplified. There is also an impact on agricultural harvests like honey, potatoes, and stone fruits. As a county with strong agricultural population, invasive species remain a hazard for Franklin County's economic livelihood.

4.3.11. Landslide

A landslide is described in the Commonwealth of Pennsylvania 2013 Standard All-Hazard Mitigation Plan⁶⁹ as the downward and outward movement of slope-forming soil, rock, and vegetation reacting to the force of gravity. There are several different types of landslides⁷⁰, including:

- **Rock Fall** - Abrupt, downward movements of rock or earth, or both, that detach from steep slopes or cliffs. The falling material usually strikes the lower slope at angles less than the angle of fall, causing bouncing. The falling mass may break on impact, may begin rolling on steeper slopes, and may continue until the terrain flattens.
- **Rock Topple** - The forward rotation out of a slope of a mass of soil or rock around a point or axis below the center of gravity of the displaced mass. Toppling is sometimes driven by gravity exerted by the weight of material upslope from the displaced mass. Sometimes toppling is due to water or ice in cracks in the mass. Topples can consist of rock, debris (coarse material), or earth materials (fine-grained material). Topples can be complex and composite.
- **Rotational Landslide** - A landslide on which the surface of rupture is curved upward (spoon-shaped) and the slide movement is more or less rotational about an axis that is parallel to the contour of the slope. The displaced mass may, under certain circumstances, move as a relatively coherent mass along the rupture surface with little internal deformation. The head of the displaced material may move almost vertically downward, and the upper surface of the displaced material may tilt backwards toward the scarp. If the slide is rotational and has several parallel curved planes of movement, it is called a slump.
- **Translational Landslide** - The mass in a translational landslide moves out, or down and outward, along a relatively planar surface with little rotational movement or backward tilting. This type of slide may progress over considerable distances if the surface of rupture is sufficiently inclined, in contrast to rotational slides, which tend to restore the

⁶⁹ PEMA, 2013

⁷⁰ Highland, L. M., and Bobrowsky, 2008

slide equilibrium. The material in the slide may range from loose, unconsolidated soils to extensive slabs of rock, or both. Translational slides commonly fail along geologic discontinuities such as faults, joints, bedding surfaces, or the contact between rock and soil. In northern environments the slide may also move along the permafrost layer.

- **Lateral Spread** - Lateral spreads usually occur on very gentle slopes or essentially flat terrain, especially where a stronger upper layer of rock or soil undergoes extension and moves above an underlying softer, weaker layer. Such failures commonly are accompanied by some general subsidence into the weaker underlying unit. In rock spreads, solid ground extends and fractures, pulling away slowly from stable ground and moving over the weaker layer without necessarily forming a recognizable surface of rupture. The softer, weaker unit may, under certain conditions, squeeze upward into fractures that divide the extending layer into blocks. In earth spreads, the upper stable layer extends along a weaker underlying unit that has flowed following liquefaction or plastic deformation. If the weaker unit is relatively thick, the overriding fractured blocks may subside into it, translate, rotate, disintegrate, liquefy, or even flow.
- **Debris Flow** - A form of rapid mass movement in which loose soil, rock and sometimes organic matter combine with water to form a slurry that flows down slope. They have been informally and inappropriately called “mudslides” due to the large quantity of fine material that may be present in the flow. Occasionally, as a rotational or translational slide gains velocity and the internal mass loses cohesion or gains water, it may evolve into a debris flow. Dry flows can sometimes occur in cohesionless sand (sand flows). Debris flows can be deadly as they can be extremely rapid and may occur without any warning.

Landslides may be triggered by both natural and human-caused changes in the environment, including heavy rain, rapid snow melt, steepening of slopes through construction or erosion, earthquakes, and changes in groundwater levels. Areas that are generally prone to landslide hazards include previous landslide areas, the bases of steep slopes, the bases of drainage channels, developed hillsides, and areas recently burned by forest and brush fires⁷¹. Human activities that contribute to slope failure include altering the natural slope gradient, increasing soil water content, and removing vegetation cover.

4.3.11.1. Location and Extent

According to the 2013 PA HMP, landslides have occurred in many parts of Pennsylvania but are most abundant and troublesome in much of the western and north-central portions of the state and adjacent states⁷². Rock falls and other slope failures can occur in areas of Franklin County with moderate to steep slopes. Areas experiencing erosion, decline in vegetation cover, and earthquakes are also susceptible to landslides. **Figure 4.3.11.1** shows areas of low, moderate, and high landslide susceptibility as identified by PA DCNR⁷³.

⁷¹ Delano, H. L., and Wilshusen, 2001

⁷² PEMA, 2013

⁷³ Delano, H. L., and Wilshusen, 2001

Franklin County Hazard Mitigation Plan - 2018

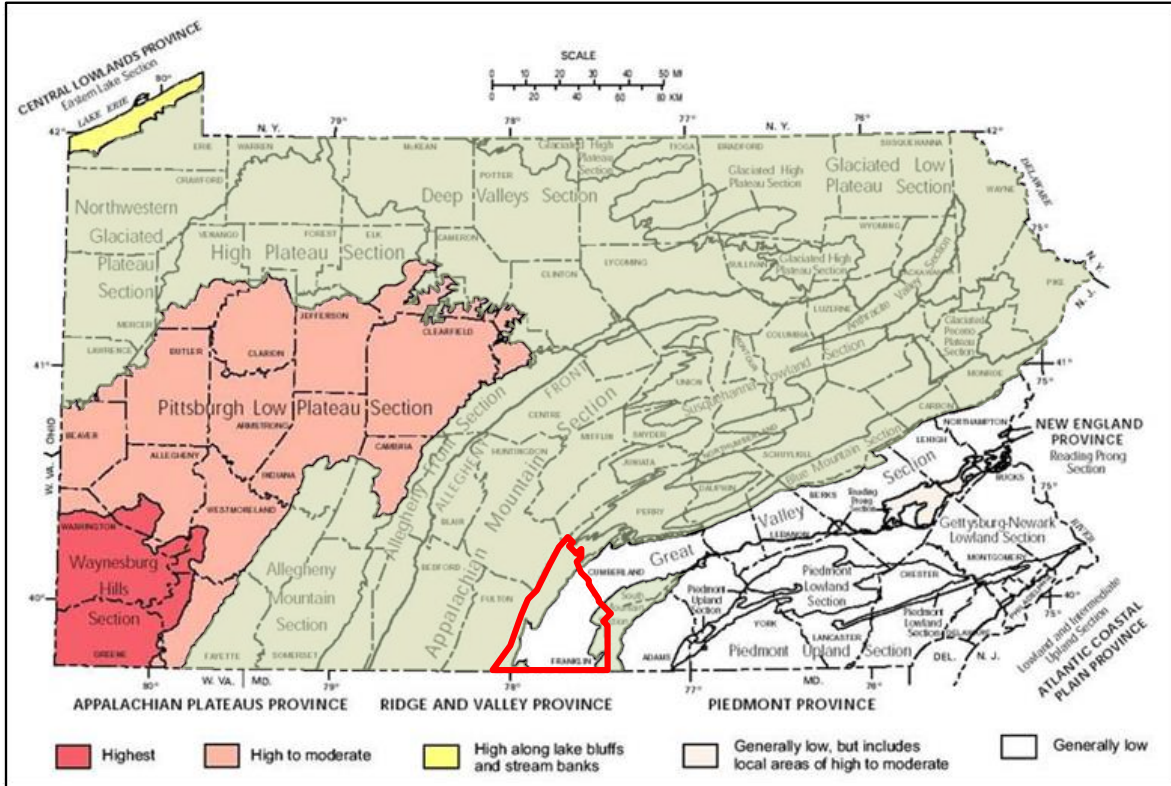


Figure 4.3.11.1: Landslide Susceptibility in Pennsylvania (highlight added)

The particular areas of Franklin County that are susceptible to Landslides are depicted in tan/yellow on **Figure 4.3.11.2** below. As you can see all of Fannett, Metal, and Warren Townships are included as well as parts of Letterkenny, Lurgan, Hamilton, St Thomas, Peters, Montgomery, Southampton, Greene, Guilford, Quincy, and Washington Townships. The risk of Landslides in Franklin County is generally low, but does include areas of high to moderate risk based on the local geology.

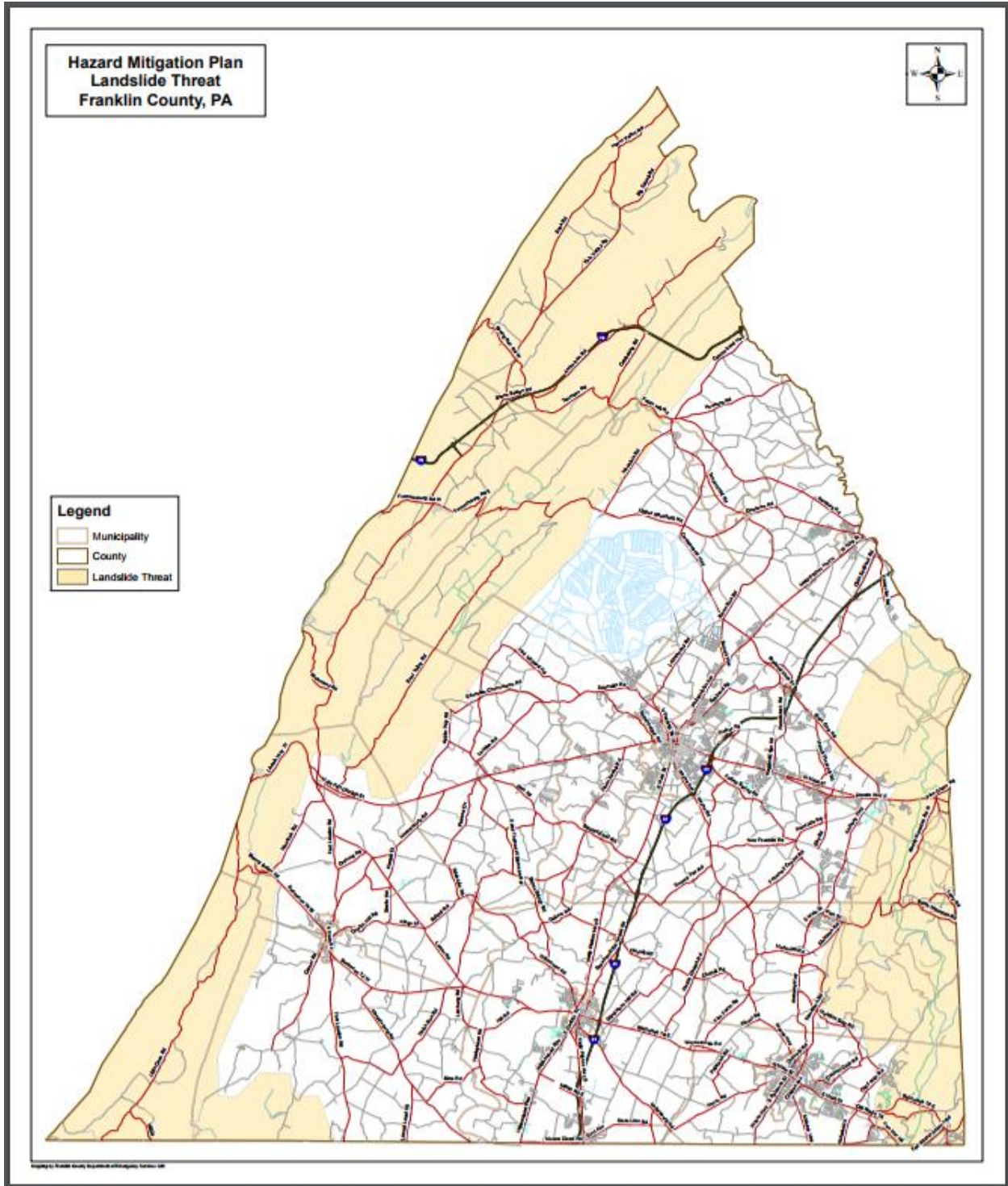


Figure 4.3.11.2: Areas of Landslide Susceptibility of Franklin County

4.3.11.2. Range of Magnitude

Landslides affect manmade structures whether they are directly on or near a landslide. Residential dwellings built on unstable slopes may experience partial damage to complete destruction as landslides destabilize or destroy foundations, walls, surrounding property, and

above-ground and underground utilities. Landslides can affect residential areas either on a large regional basis (in which many dwellings are affected) or on an individual site basis (where only one structure or part of a structure is affected). Also, landslide damage to one individual property's lifelines (such as trunk sewer, water, or electrical lines and common-use roads) can affect the lifelines and access routes of other surrounding properties. Commercial structures are affected by landslides in much the same way residential structures are affected. In such a case, consequences may be great if the commercial structure is a common-use structure, such as a food market, which may experience an interruption in business due to landslide damage to the actual structure and/or damage to its access roadways⁷⁴.

Fortunately, deaths and injuries caused by landslides are rare in Pennsylvania, and most landslides in the State are moderate to slow moving, damaging things rather than people. Almost all of the known deaths caused by landslides have occurred when rock falls or other slides along highways have involved vehicles. Storm-induced debris flows are the only other type of landslide likely to cause death and injuries⁷⁵. As residential and recreational development increases on and near steep mountain slopes, the hazards from these events will also increase.

4.3.11.3. Past Occurrence

Pennsylvania has a long history of significant landslide activity, most of which is in the western and north central part of the state. This has resulted from a combination of humid temperature climate, locally steep and rugged topography, and great diversity in the erosion and weathering characteristics of relatively near surface sedimentary rocks. Human activities such as commercial, industrial, and residential developments, transportation, and mining often compound landslide problems.

A comprehensive inventory of landslide events across the entire Commonwealth is not available and the USGS does not maintain a formal inventory of landslides. Instead, the USGS Landslide Hazards Program collects data as events are reported to the agency.

There has been no significant reporting of landslides within Franklin County within the past 40 years. We have experienced several small rock slides impacting mountain roads, but nothing with any significant damage to life or property.

4.3.11.4. Future Occurrence

Mismanaged or intense development in steeply sloped areas could increase the frequency of landslides in Franklin County. Building and road construction are contributing factors to landslides, as they can often undermine or steepen otherwise stable soil.

Increased deforestation and soil disturbances caused by development on sloped areas would further increase these risks. As timbering and development of sloped land continue, the risks of significant landslides increase.

⁷⁴ Highland, L. M., and Bobrowsky, 2008

⁷⁵ PEMA, 2013

4.3.11.5. Vulnerability Assessment

Communities in Franklin County have not been historically highly vulnerable to landslides. However, transportation roads flanked by high terrain and buildings constructed at the top or bottom of steep slopes should be considered vulnerable to this hazard. **Figure 4.3.11.5.1** below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Landslide hazard.

Franklin County Hazard Mitigation Plan - 2018


		<h2 style="text-align: center;">Landslide Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
												Catastrophic	3.0 – 4.0	
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF	
Antrim Township	1	30%	2	30%	1	20%	4	10%	1	10%	1.6	10.17%	0.1627	
Chambersburg Borough	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	13.64%	0.1773	
Fannett Township	1	30%	1	30%	1	20%	1	10%	1	10%	1.0	1.68%	0.0168	
Greencastle Borough	1	30%	2	30%	2	20%	4	10%	1	10%	1.8	2.57%	0.0463	
Greene Township	1	30%	1	30%	1	20%	2	10%	1	10%	1.1	11.55%	0.1271	
Guilford Township	1	30%	2	30%	1	20%	4	10%	1	10%	1.6	9.59%	0.1534	
Hamilton Township	1	30%	1	30%	2	20%	4	10%	1	10%	1.5	7.18%	0.1077	
Letterkenny Township	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	1.53%	0.0199	
Lurgan Township	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	1.40%	0.0182	
Mercersburg Borough	1	30%	1	30%	1	20%	1	10%	1	10%	1.0	0.99%	0.0099	
Metal Township	1	30%	2	30%	2	20%	4	10%	1	10%	1.8	1.20%	0.0216	
Mont Alto Borough	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	1.12%	0.0146	
Montgomery Township	2	30%	1	30%	2	20%	4	10%	1	10%	1.8	4.02%	0.0724	
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	1	10%	1.2	0.17%	0.0020	
Peters Township	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	2.85%	0.0371	
Quincy Township	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	3.52%	0.0458	
Shippensburg Borough	1	30%	1	30%	1	20%	2	10%	1	10%	1.1	0.71%	0.0078	
Southampton Township	1	30%	1	30%	1	20%	3	10%	1	10%	1.2	5.48%	0.0658	
St Thomas Township	2	30%	1	30%	1	20%	4	10%	1	10%	1.6	3.87%	0.0619	
Warren Township	2	30%	2	30%	3	20%	3	10%	1	10%	2.2	0.24%	0.0053	
Washington Township	1	30%	1	30%	1	20%	1	10%	1	10%	1.0	9.53%	0.0953	
Waynesboro Borough	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	7.02%	0.0913	
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)													1.360	

Figure 4.3.11.5.1: Municipal Landslide Threat Vulnerability Self-Assessment

Franklin County Hazard Mitigation Plan - 2018

From the municipal self-assessment and the population at risk, it is obvious that the threat of this hazard is perceived to be very low for Franklin County. That does not mean that the hazard can be discounted, as Critical Facilities and Infrastructure can be impacted by this threat, raising the level of concern.

Table 4.3.11.5.1 illustrates the number of vulnerable critical structures and facilities by jurisdiction in Franklin County located in the “generally low to local areas of high to moderate” landslide susceptibility areas.

Municipality	Total Number of Critical Facilities	Critical Facilities in Risk Areas
Antrim Township	75	0
Chambersburg Borough	97	0
Fannett Township	27	25
Greencastle Borough	24	0
Greene Township	100	12
Guilford Township	85	5
Hamilton Township	47	1
Letterkenny Township	20	3
Lurgan Township	21	7
Mercersburg Borough	10	0
Metal Township	15	14
Mont Alto Borough	6	2
Montgomery Township	12	2
Orrstown Borough	1	0
Peters Township	22	7
Quincy Township	48	16
Shippensburg Borough	5	0
Southampton Township	30	3
St Thomas Township	20	0
Warren Township	2	2
Washington Township	46	16
Waynesboro Borough	45	0
Totals	758	115

Table 4.3.11.5.1: Critical Facilities within Landslide Local High/Moderate Risk Areas

There are several critical facilities that fall into the landslide threat areas of Franklin County. Impact to any one of these facilities could result in significant loss for those communities.

However, based on available historical data and the municipal threat assessments (See **Figure 4.4.2.1**), the future occurrence of landslides can be considered *unlikely* as defined by the Risk Factor Methodology criteria (See **Section 4.4**). This threat should not be ignored, but it is understood that resources and mitigation objectives will likely be focused on those hazards that have a higher probability of occurrence.

4.3.12. Lightning Strike

A lightning flash is the result of a transfer of significant charge between two charged objects. Lightning discharges can occur inter-cloud, cloud-to-cloud, cloud-to-air, and cloud-to-ground (see **Figure 4.3.12.1** below). Generally, cloud-to-ground (CG) lightning has the greatest immediate impact on our lives. A CG strike can kill, destroy equipment, start fires, and disturb power delivery systems.

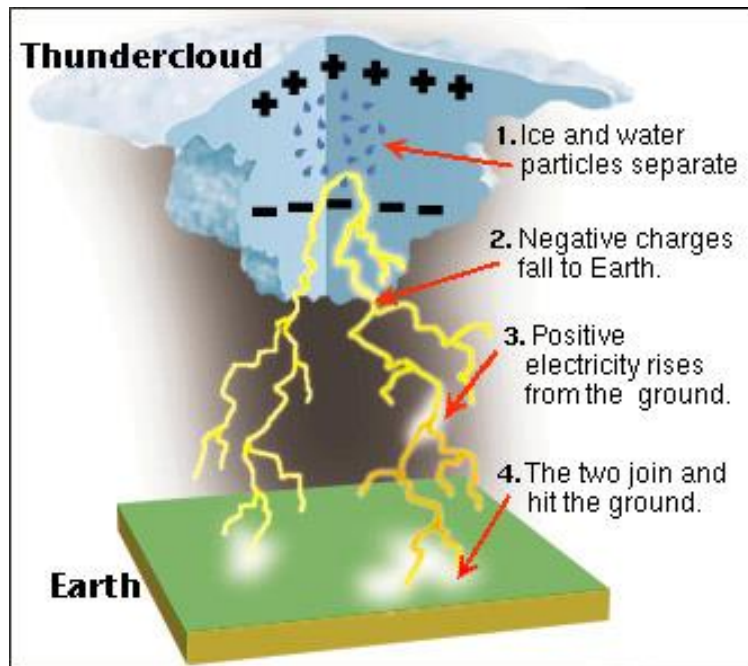


Figure 4.3.12.1: Formation of Lightning⁷⁶

4.3.12.1. Location and Extent

Each year in the United States, more than 400 people are struck by lightning. On average, between 55 and 60 people are killed; hundreds of others suffer permanent neurological disabilities⁷⁷. Lightning can occur with all thunderstorms, making all of Franklin County susceptible. Different geographic areas experience varying event frequencies, but in all cases lightning strikes and associated fatalities occur primarily during the Summer months (April through September). While the impact of lightning events is highly localized, strong storms can result in numerous widespread events over a broad area.

⁷⁶ Buthaina/Wikspaces.com

⁷⁷ NOAA/NWS

4.3.12.2. Range of Magnitude

Because Lightning damage is largely unreported, statistics vary considerably. However, information gathered by the Weather Channel indicates that Pennsylvania is ranked in the top ten states for lightning related deaths⁷⁸ (See **Figure 4.3.12.2.1** below).

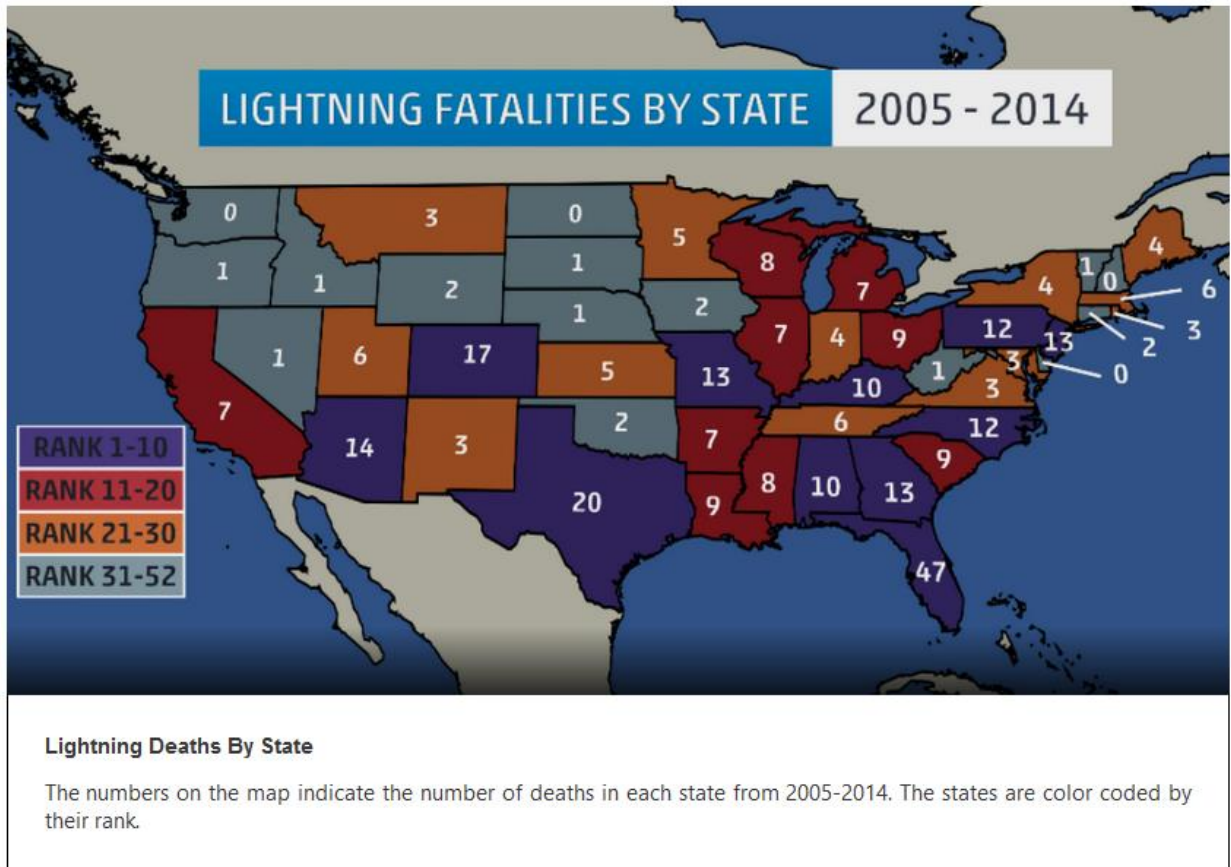


Figure 4.3.12.2.1: Lightning Deaths in the U.S. (2005-2014)

4.3.12.3. Past Occurrence

A search of the National Centers for Environmental Information’s (NCEI) Storm Events Database returned no recorded lightning strike events for Franklin County between 1993 and 2017. This does not indicate that lightning has not occurred in our county in that time period, just that there has been no reported damage or fatalities in our county. Therefore, to get a better idea of how often lightning strikes occur in the county, a sampling of data from NOAA’s National Environmental Satellite, Data, and Information (ESDI) Service was performed. See **Figure 4.3.12.3.1** below for a data sample.

⁷⁸ The Weather Channel, 2015

Franklin County Hazard Mitigation Plan - 2018

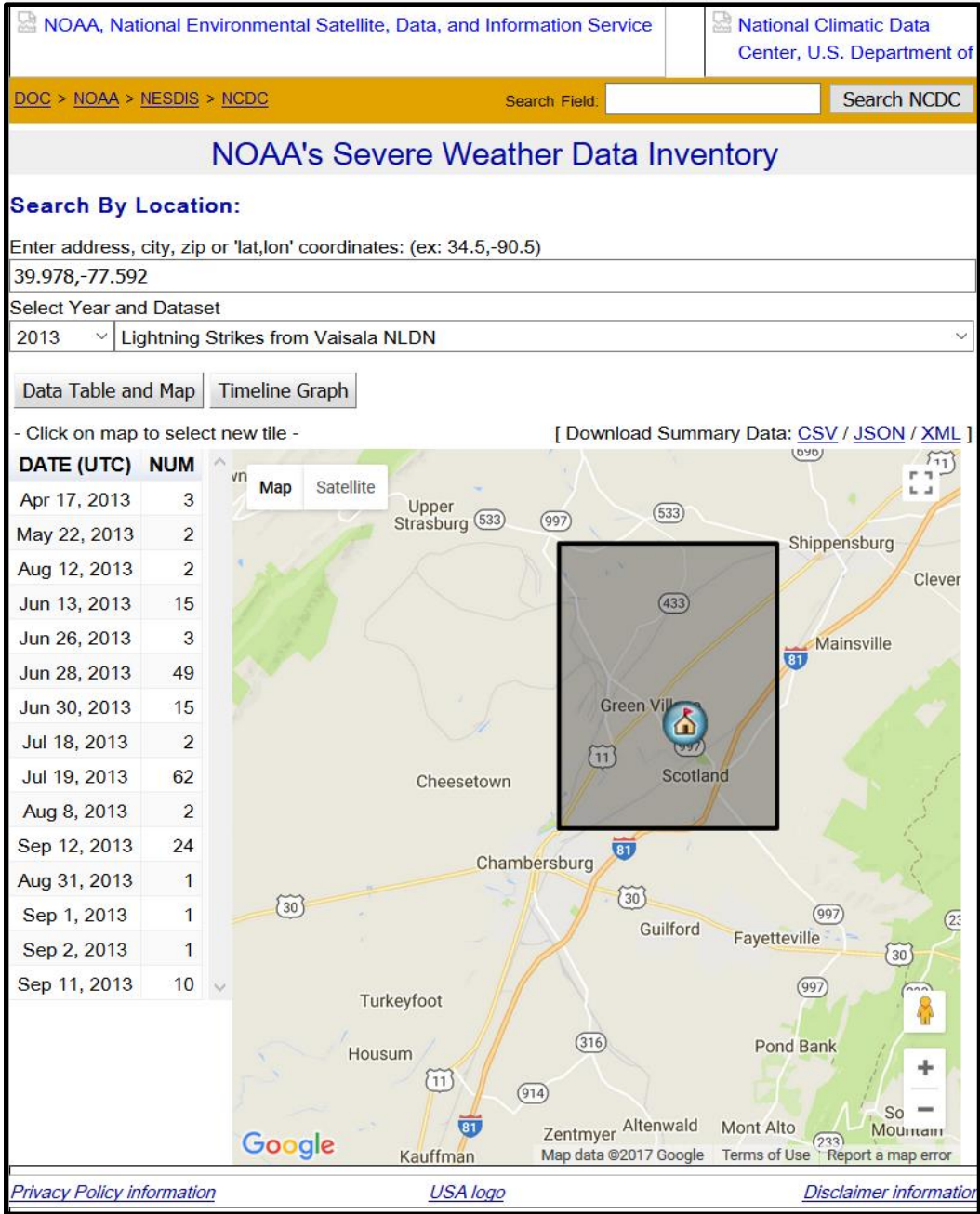


Figure 4.3.12.3.1: Sample Data from NOAA, National Environmental Satellite Data, and Information (ESDI) Service

This data set is extremely large. In order to get a sense of the number of lightning occurrences in our county, we only sampled a relatively small portion of the county from the ESDI data. **Figure 4.3.12.3.2** below illustrates the quadrants sampled.

Franklin County Hazard Mitigation Plan - 2018

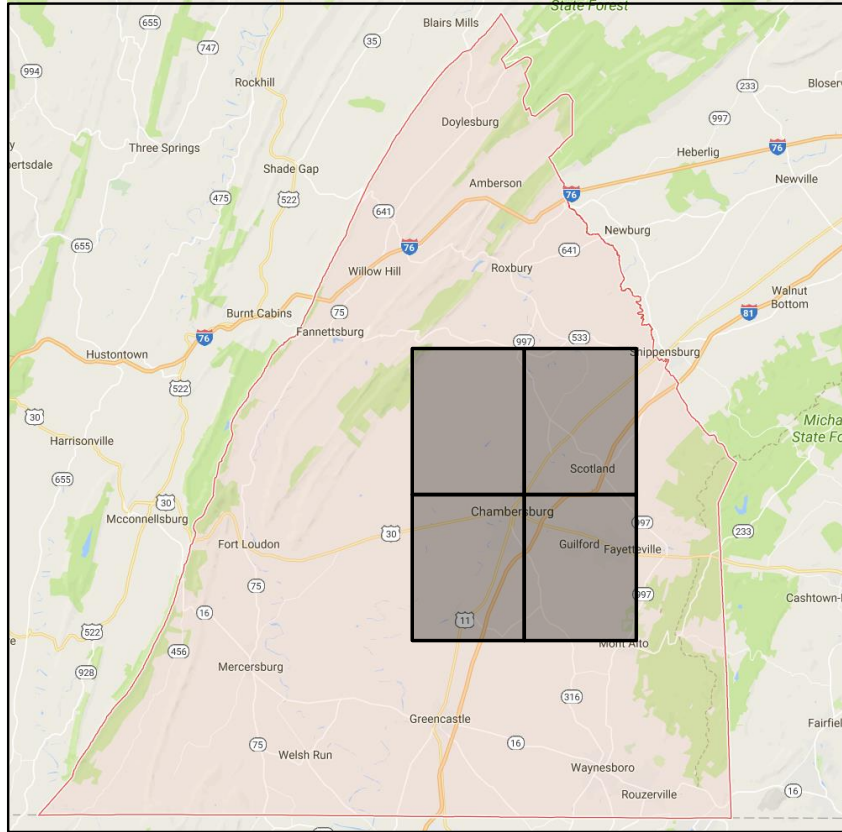


Figure 4.3.12.3.2: Sample Set of ESDI Data for Franklin County

The data was collected for 2007 to 2017 from the 4 shaded quadrants in **Figure 4.3.12.3.2**. The data was not easily extracted from the ESDI database, which is why we selected the smaller data set to give us a representative example of the lightning threat in Franklin County. **Table 4.3.12.3.1** below reflects the total number of lightning strikes observed via satellite per month for the sampled area.

Month	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
January	0	1	0	0	0	0	0	0	0	0	0
February	0	1	1	0	8	0	0	0	0	7	2
March	1	0	2	0	4	35	0	0	0	0	14
April	6	374	0	13	35	9	5	14	48	0	34
May	387	13	81	102	360	152	29	139	28	0	7
June	535	155	268	235	119	53	219	109	291	57	96
July	86	163	293	127	70	495	480	402	155	193	79
August	488	292	78	137	60	190	11	65	31	291	429
September	12	63	4	36	588	78	141	30	37	17	49
October	24	0	0	11	1	8	0	6	30	4	0
November	0	0	0	10	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0	0	0	0	0
Annual Totals	1539	1062	727	671	1245	1020	885	765	620	569	710

Table 4.3.12.3.1: Lightning Strikes in the Franklin County Sample Area (2007-2017)

It is easily seen from the data above that Franklin County gets an abundant amount of lightning strikes per year. It is also clear that the heavy threat months are April through September, the Summer months.

4.3.12.4. Future Occurrence

Lightning can be expected with any severe storm event. While injuries or fatalities have not been documented in Franklin County, it is still a very real threat to our communities. The future occurrence of lightning strikes can be considered *likely* as defined by the Risk Factor Methodology Probability criteria (**Section 4.4**).

4.3.12.5. Vulnerability Assessment

To understand risk, a community must evaluate the assets that are exposed or vulnerable to the identified hazard area. For Lightning Strike events, all of Franklin County has been identified as the hazard area. Therefore, all critical facilities, population, and infrastructure as outlined in **Section 2, Tables 2.4.4 and 2.4.6** are vulnerable.

Figure 4.3.12.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Lightning Strike hazard. One can see that 5 of 22 municipalities rated this threat as either a Catastrophic or Major event. Additionally, 9 of the remaining 17 municipalities rated this as a Moderate threat. This was ranked as the number 8 threat in Franklin County and is considered a Moderate threat.

Franklin County Hazard Mitigation Plan - 2018


	<h2 style="text-align: center;">Lightning Strike Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 - 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 - 1.9	
Insignificant	1.0 - 1.4												
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	3	30%	2	30%	2	20%	4	10%	1	10%	2.4	10.17%	0.2441
Chambersburg Borough	4	30%	1	30%	1	20%	4	10%	1	10%	2.2	13.64%	0.3001
Fannett Township	2	30%	2	30%	4	20%	4	10%	1	10%	2.5	1.68%	0.0420
Greencastle Borough	3	30%	2	30%	1	20%	4	10%	1	10%	2.2	2.57%	0.0565
Greene Township	4	30%	1	30%	1	20%	4	10%	1	10%	2.2	11.55%	0.2541
Guilford Township	2	30%	1	30%	2	20%	3	10%	1	10%	1.7	9.59%	0.1630
Hamilton Township	2	30%	1	30%	4	20%	4	10%	1	10%	2.2	7.18%	0.1580
Letterkenny Township	3	30%	1	30%	3	20%	4	10%	1	10%	2.3	1.53%	0.0352
Lurgan Township	2	30%	1	30%	1	20%	4	10%	1	10%	1.6	1.40%	0.0224
Mercersburg Borough	3	30%	1	30%	4	20%	4	10%	1	10%	2.5	0.99%	0.0248
Metal Township	2	30%	2	30%	1	20%	4	10%	1	10%	1.9	1.20%	0.0228
Mont Alto Borough	2	30%	1	30%	1	20%	4	10%	1	10%	1.6	1.12%	0.0179
Montgomery Township	4	30%	2	30%	4	20%	4	10%	1	10%	3.1	4.02%	0.1246
Orrstown Borough	2	30%	1	30%	1	20%	3	10%	1	10%	1.5	0.17%	0.0026
Peters Township	2	30%	1	30%	1	20%	2	10%	1	10%	1.4	2.85%	0.0399
Quincy Township	3	30%	2	30%	1	20%	4	10%	1	10%	2.2	3.52%	0.0774
Shippensburg Borough	2	30%	1	30%	1	20%	2	10%	1	10%	1.4	0.71%	0.0099
Southampton Township	3	30%	2	30%	3	20%	4	10%	1	10%	2.6	5.48%	0.1425
St Thomas Township	3	30%	2	30%	2	20%	4	10%	1	10%	2.4	3.87%	0.0929
Warren Township	2	30%	2	30%	3	20%	4	10%	1	10%	2.3	0.24%	0.0055
Washington Township	2	30%	1	30%	2	20%	4	10%	1	10%	1.8	9.53%	0.1715
Waynesboro Borough	3	30%	2	30%	4	20%	4	10%	1	10%	2.8	7.02%	0.1966
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)													2.204

Figure 4.3.12.5.1: Municipal Lightning Strike Threat Vulnerability Self-Assessment

Even though there is little to no historical data on casualties or damage due to lightning strike events in Franklin County, the sheer number of lightning strikes recorded in the ESDI data indicates that it is only a matter of time before one of these events results in fatalities and/or critical facility damage.

4.3.13. Mass Food and Animal Feed Contamination

Mass food or animal feed contamination hazards occur when food or food sources are contaminated with pathogenic bacteria, viruses, or parasites, as well as chemical or natural toxins. They may lead to food borne illnesses and/or interruptions in the food supply. Contamination may occur due to natural food borne illnesses and chemical, biological, radiological, or nuclear exposure.

Also according to the CDC, some pathogens are frequently transmitted by food contaminated by infected persons. The presence of any one of the following signs or symptoms in persons who handle food may indicate infection by a pathogen that could be transmitted to others through handling the food supply:

- diarrhea
- vomiting
- open skin sores
- boils
- fever
- dark urine
- jaundice

The failure of food-handlers to wash hands in certain situations (such as after using the toilet, handling raw meat, cleaning spills, or carrying garbage), wear clean disposable gloves, or use clean utensils is responsible for the food borne transmission of these pathogens. Non-food borne routes of transmission, such as from one person to another, are also major contributors in the spread of these pathogens. Some pathogens usually cause disease when food is intrinsically contaminated or cross contaminated during production, processing or transportation, but may also be contaminated when prepared by infected persons. Bacterial pathogens in this category often cause disease after bacteria have multiplied in food after it has been kept at improper temperatures permitting their multiplication to an infectious dose. Preventing food contact by persons who have an acute diarrheal illness will decrease the risk of transmitting these pathogens. The following list represents the types of pathogens that may be transmitted by an infected food handler:

- Astroviruses
- Bacillus cereus
- Campylobacter jejuni
- Clostridium perfringens
- Cryptosporidium species
- Entamoeba histolytica
- Enterohemorrhagic E coli

- Enterotoxigenic E coli
- Giardia intestinalis
- Hepatitis A virus
- Nontyphoidal Salmonella
- Noroviruses
- Rotaviruses
- Salmonella Typhi
- Sapoviruses
- Shigella species
- Staphylococcus aureus
- Streptococcus pyogenes
- Taenia solium - cysticercosis
- Vibrio cholera
- Yersinia enterocolitica

The FDA Food Safety Modernization Act (FSMA) final rule is aimed at preventing intentional adulteration from acts intended to cause wide-scale harm to public health, including acts of terrorism targeting the food supply. Such acts, while not likely to occur, could cause illness, death, economic disruption of the food supply absent mitigation strategies. Acts of intentional adulteration may take many forms, including acts of disgruntled employees or economically motivated adulteration. The goal of this rule is to prevent acts intended to cause wide-scale harm. Economic adulteration is addressed in the final preventive controls rules for human and animal foods⁷⁹.

Animal feed, pet food, and specialty pet food are all considered Commercial Feed under the Pennsylvania Commercial Feed Act, and are regulated through the inspection of Pennsylvania manufacturing and distribution (retail and wholesale) establishments for compliance with labeling, licensing and Current Good Manufacturing Practices (CGMPs). Samples of animal feed are collected and analyzed to ensure feed is not adulterated and meets label guarantees.

4.3.13.1. Location and Extent

Contamination occurrences can happen at any time and in any place in Pennsylvania and are sometimes regional or even national events. Franklin County ranks number 4 in the state in total agricultural cash receipts (market value of all agricultural products = \$413,806,000). Additionally, statewide Franklin County ranks number 2 in the production of milk, cattle, melons, and corn for silage and number 3 for fruit and berry production. Because of its high agriculture production, an incident of contamination must be considered. **Figure 2.1.8, Section 2**, shows a map of Franklin County's Agricultural Resources and land breakdown. **Figure 4.3.13.1.1** illustrates the diversity of livestock and **Figure 4.3.13.1.2** shows the value of livestock and food production of Franklin County that would be impacted by a mass food contamination scenario.

⁷⁹ USDHHS/FDA, 2017

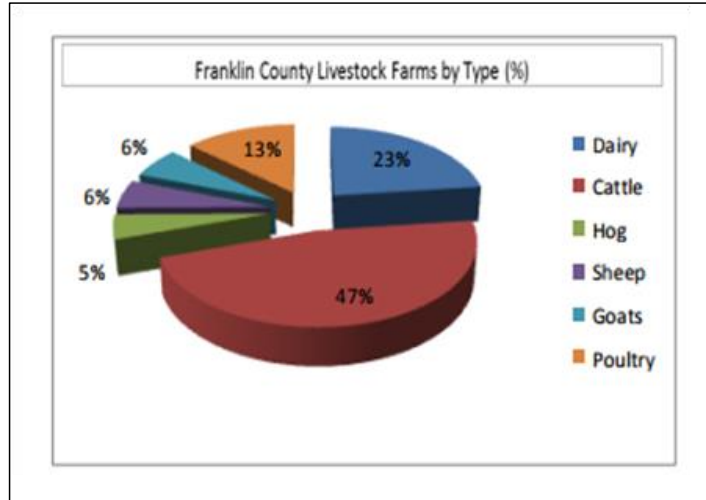


Figure 4.3.13.1.1: Diversity of Livestock in Franklin County (2012)

Milk Cows and Production:	\$ 159,263,000
Cattle and Calves:	\$ 29,530,000
Apples and Peaches:	\$ 8,918,360
Corn for Silage:	\$ 17,579,100
Barley:	\$ 1,212,780
Corn for Grain:	\$ 17,521,800
Hay (all types):	\$ 24,037,800
Layers and Eggs:	\$ 52,564,000
Total - Cash Receipts	\$ 304,450,000

Figure 4.3.13.1.2: Monetary Value of Livestock and Food Production in Franklin County (2012)

In addition, a major concern of mass food and animal feed contamination hazards is that, in general, places only have a 3-day supply of food. The food supply chain is very vulnerable to interruption, whether or not the product comes from Pennsylvania. An interruption in the food supply would be a major vulnerability for the health and survival of Pennsylvania communities.

4.3.13.2. Range of Magnitude

Like Invasive Species (**Section 4.3.10**), mass food and animal feed contamination hazards can vastly vary based on the type of contamination, the method of contamination, and the origin of contamination. Different pathogens and chemicals that can contaminate human food and animal feed have varying degrees of aggressiveness that can range from an upset stomach to serious illness, hospitalization, and even death. For example, according to the CDC’s 2011 food borne illness estimates, Norovirus is responsible for over 5 million illnesses each year but the number of deaths it causes is significantly lower (149 in 2011). A possible worst case scenario would be if there was large-scale campylobacter or salmonella outbreak found in Pennsylvania’s poultry farms. An event like this would cause human suffering but would also have a crippling effect on the state’s poultry production and farm-based economy.

According to the most recent census for Franklin County conducted by the USDA, **Table 4.3.13.2.1** shows the market values for crops and livestock sold in Franklin County⁸⁰.

Ranked items among the 67 state counties and 3,079 U.S. counties, 2012		
Item	Quantity	State Rank
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD (\$1,000)		
Total value of agricultural products sold	413,806	4
Value of crops including nursery and greenhouse	89,217	6
Value of livestock, poultry, and their products	324,589	2
VALUE OF SALES BY COMMODITY GROUP (\$1,000)		
Grains, oilseeds, dry beans, and dry peas	55,816	4
Tobacco	-	-
Cotton and cottonseed	-	-
Vegetables, melons, potatoes, and sweet potatoes	7,627	2
Fruits, tree nuts, and berries	9,418	3
Nursery, greenhouse, floriculture, and sod	2,627	29
Cut Christmas trees and short rotation woody crops	241	18
Other crops and hay	13,487	2
Poultry and eggs	71,114	5
Cattle and calves	47,670	2
Milk from cows	177,871	2
Hogs and pigs	25,362	4
Sheep, goats, wool, mohair, and milk	500	8
Horses, ponies, mules, burros, and donkeys	(D)	(D)
Aquaculture	(D)	10
Other animals and other animal products	904	10
TOP CROP ITEMS (acres)		
Forage-land used for all hay and haylage, grass silage, and greenchop	68,366	3
Corn for grain	42,378	4
Corn for silage	38,373	2
Soybeans for beans	21,101	5
Wheat for grain, all	9,632	4
TOP LIVESTOCK INVENTORY ITEMS (number)		
Layers	1,879,710	4
Broilers and other meat-type chickens	446,062	13
Pullets for laying flock replacement	440,941	4
Turkeys	331,081	3
Cattle and calves	126,421	2

Table 4.3.13.2.1: Total Agricultural Economic Value for Franklin County (2012)

4.3.13.3. Past Occurrence

According to representatives from the Department of Agriculture, mass food and animal feed contamination events are difficult to capture as they occur because of the lapse in time between infection and manifestation of an illness. Usually, they are isolated events. However, in recent years, Pennsylvania has been involved in the following outbreak events:

⁸⁰ USDA, 2012

- 2013 - Live Poultry-Salmonella.
- 2013 - Ground Beef-Salmonella.
- 2012 - Live Poultry-Salmonella
- 2012 - Dry Dog Food-Salmonella.
- 2012 - Raw Clover Sprouts at Jimmy John's Restaurants-E. coli.
- 2011 - Kosher Broiled Chicken Livers-Salmonella.
- 2011 - Turkish Pine Nuts-Salmonella 471 Pennsylvania.
- 2011 - Ground Turkey-Salmonella.
- 2011 - Papaya-Salmonella.
- 2011 - Lebanon Bologna-E. coli.
- 2010 - Alfalfa Sprouts-Salmonella.
- 2010 - Romaine Lettuce-E. coli.

This is not an exhaustive list of past occurrences but illustrates that Pennsylvanians have been sickened by contaminations in other states.

Since 2006, Pennsylvania has had at least 7 disease outbreaks linked to raw milk consumption, involving almost 200 persons. The outbreaks have been caused most commonly by campylobacter bacteria, with the remainder caused by salmonella.

In 2012, the largest food borne outbreak related to raw milk in the state occurred in Franklin County. The Pennsylvania Department of Health confirmed 78 cases of campylobacter bacteria were connected to unpasteurized milk sold in mid-January. Of the cases, 68 people were sickened in Pennsylvania, 5 in Maryland, 2 in New Jersey and 3 in West Virginia. At least 9 people were hospitalized⁸¹.

4.3.13.4. Future Occurrence

The CDC estimates that 1 in 6 people gets sick from contaminated food each year, but those events are expected to be individualized and small in scope. The focus of this as a hazard is on large-scale contamination and illness. With the aggressive testing and food safety outreach the Department of Agriculture conducts, the overall probability of a mass food or animal feed contamination event is considered *possible* as defined in **Section 4.4**.

Food safety depends on strong partnerships. The CDC, the U.S. Food and Drug Administration (FDA), and USDA's Food Safety and Inspection Service collaborate at the federal level to promote food safety. State and local health departments and food industries also play critical roles in all aspects of food safety. CDC provides the vital link between illness in people and the food safety systems of government agencies and food producers. The CDC takes action by:

- Tracking the occurrence of food borne illnesses.
- Managing the DNA fingerprinting network (PulseNet) for food borne illness-causing bacteria in all states to detect outbreaks.
- Facilitating and leading outbreak investigations.

⁸¹ Gleiter, Sue, 2012

- Monitoring antibiotic-resistant infections.
- Collaborating with state and local health departments to develop new and better methods to detect, investigate, respond to, and control outbreaks.
- Defining the public health burden of food borne illness.
- Attributing illnesses to specific foods and settings.
- Targeting prevention measures to meet food safety goals.
- Providing data and analyses to inform food safety action and policy.

4.3.13.5. Vulnerability Assessment

Communities with large populations of the elderly and the very young are more vulnerable to this kind of an event as they are usually the most susceptible to food borne illnesses. The cost of treating a widespread disease will depend on the virus or bacterium in question, the availability of vaccination or treatment, and the severity of symptoms. The CDC estimates that infections of Salmonella alone create \$365 million in direct medical costs annually, some of which would certainly be experienced in Pennsylvania.

The physical plant and facilities of the Commonwealth are not likely to be damaged by a mass food or animal feed contamination event. However, high rates of absenteeism associated with a pandemic or an infectious disease will likely lead to significant economic costs in lost productivity and increased medical costs in nearly all state agencies. Additionally, the 106 agricultural critical facilities would face lost revenues depending on the type and magnitude of the contamination event.

As of November 2017, according to the PA Department of Agriculture, there are 15 licensed animal feed plants in Franklin County.

Figure 4.3.13.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Mass Food and Animal Feed Contamination hazard. One can see that only 3 of 22 municipalities rated this threat as either a Catastrophic or Major event. Additionally, only 2 of the remaining 19 municipalities rated this as a Moderate threat. This was ranked as the number 22 threat in Franklin County and is considered a Minor threat.

Franklin County Hazard Mitigation Plan - 2018


 <h2 style="text-align: center;">Mass Food/Animal Feed Contamination Hazard Threat Risk Assessment</h2>											Risk Factor Scale		
											Catastrophic	3.0 – 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 – 1.9	
											Insignificant	1.0 – 1.4	
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	1	30%	2	30%	2	20%	1	10%	2	10%	1.6	10.17%	0.1627
Chambersburg Borough	2	30%	1	30%	1	20%	4	10%	2	10%	1.7	13.64%	0.2319
Fannett Township	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	1.68%	0.0185
Greencastle Borough	1	30%	3	30%	1	20%	1	10%	2	10%	1.7	2.57%	0.0437
Greene Township	1	30%	1	30%	1	20%	4	10%	2	10%	1.4	11.55%	0.1617
Guilford Township	1	30%	3	30%	2	20%	1	10%	2	10%	1.9	9.59%	0.1822
Hamilton Township	1	30%	1	30%	2	20%	4	10%	2	10%	1.6	7.18%	0.1149
Letterkenny Township	1	30%	1	30%	2	20%	1	10%	2	10%	1.3	1.53%	0.0199
Lurgan Township	1	30%	1	30%	3	20%	4	10%	2	10%	1.8	1.40%	0.0252
Mercersburg Borough	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	0.99%	0.0109
Metal Township	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	1.20%	0.0132
Mont Alto Borough	1	30%	1	30%	2	20%	4	10%	2	10%	1.6	1.12%	0.0179
Montgomery Township	3	30%	3	30%	4	20%	2	10%	2	10%	3.0	4.02%	0.1206
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	2	10%	1.3	0.17%	0.0022
Peters Township	1	30%	1	30%	1	20%	2	10%	2	10%	1.2	2.85%	0.0342
Quincy Township	2	30%	2	30%	2	20%	4	10%	2	10%	2.2	3.52%	0.0774
Shippensburg Borough	1	30%	1	30%	4	20%	4	10%	2	10%	2.0	0.71%	0.0142
Southampton Township	1	30%	2	30%	1	20%	3	10%	2	10%	1.6	5.48%	0.0877
St Thomas Township	3	30%	2	30%	3	20%	4	10%	2	10%	2.7	3.87%	0.1045
Warren Township	2	30%	3	30%	3	20%	3	10%	2	10%	2.6	0.24%	0.0062
Washington Township	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	9.53%	0.1048
Waynesboro Borough	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	7.02%	0.0772
Municipal Weighted Average Risk Factor (RF)(<i>Updated 12/10/2020</i>)													1.631

Figure 4.3.13.5.1: Municipal Mass Food/Animal Feed Contamination Threat Vulnerability Self-Assessment

The major identified environmental impact of mass food and animal feed contamination is, if there were to be a mass killing of animals, how to deal with the waste disposal of what could be a significant number of animals. If this waste disposal is not planned for, rotting carcasses could cause environmental degradation in the form of water pollution. They might also have a role in spreading infectious disease. Additionally, there are primary impacts to public health and to the agricultural economy in Pennsylvania. Should there be a mass food or animal feed contamination event, even if the event is not focused in Pennsylvania, the potential losses from fear-based cancellation of food orders could be devastating. This would also cause a surplus of animals on Pennsylvania farms that agricultural producers cannot feed but also cannot sell.

4.3.14. Nuclear Incident

Nuclear accidents themselves are classified into 3 categories:

- **Criticality accidents:** Involves loss of control of nuclear assemblies or power reactors.
- **Loss-of-coolant accidents:** Occurs whenever a reactor coolant system experiences a break or opening large enough so that the coolant inventory in the system cannot be maintained by the normally operating make-up system.
- **Loss-of-containment accidents:** Involves the release of radioactivity from materials such as tritium, fission products, plutonium, and natural, depleted, or enriched uranium. Points of release have been containment vessels at fixed facilities or damaged packages during transportation accidents.

Nuclear facilities must notify the appropriate authorities in the event of an accident. The Nuclear Regulatory Commission (NRC) uses 4 classification levels for nuclear incidents⁸²:

- **Unusual Event:** Under this category, events are in process or have occurred which indicate potential degradation in the level of safety of the plant. No release of radioactive material requiring offsite response or monitoring is expected unless further degradation occurs.
- **Alert:** If an alert is declared, events are in process or have occurred which involve an actual or potential substantial degradation in the level of safety of the plant. Any releases of radioactive material from the plant are expected to be limited to a small fraction of the EPA Protective Action Guides (PAGs).
- **Site Area Emergency:** A site area emergency involves events in process or which have occurred that result in actual or likely major failures of plant functions needed for protection of the public. Any releases of radioactive material are not expected to exceed the EPA PAGs except near the site boundary.
- **General Emergency:** A general emergency involves actual or imminent substantial core damage or melting of reactor fuel with the potential for loss of containment integrity.

⁸² Nuclear Regulatory Commission

Radioactive releases during a general emergency can reasonably be expected to exceed the EPA PAGs for more than the immediate site area.

The accident at the Three Mile Island Generating Station in March 1979 remains the nation's only nuclear incident at the *General Emergency level* and remains the worst nuclear incident on record in the Commonwealth and the nation. During this incident, equipment malfunctions, design-related problems, and worker errors led to a partial meltdown of the TMI Unit 2 reactor core.

4.3.14.1. Location and Extent

Through a Memorandum of Understanding (MOU), the Nuclear Regulatory Commission (NRC) and FEMA share federal oversight for nuclear/radiological emergency response planning matters for licensed nuclear power plants. Their mutual efforts will be directed toward more effective plans and related preparedness measures at and in the vicinity of nuclear reactors and fuel cycle facilities. The MOU between the agencies was signed on January 14, 1980, in response to the president's decision of December 7, 1979, stating that FEMA will coordinate all federal planning for the off-site impact of nuclear/radiological emergencies; take the lead for assessing off-site nuclear/radiological emergency response plans and preparedness; make findings and determinations as to the adequacy and capability of implementing off-site plans; and communicate those findings and determinations to the NRC. The NRC reviews those FEMA findings and determinations, in conjunction with the NRC's on-site findings, to determine the overall state of emergency preparedness.

A separate MOU, dated October 22, 1980, deals with NRC and FEMA cooperation and responsibilities in response to an actual or potential nuclear/radiological emergency. Operations Response Procedures have been developed that implement the provisions of the Incident Response MOU. These documents are intended to be consistent with the Federal Radiological Emergency Response Plan, which describes the relationships, roles, and responsibilities of federal agencies for responding to accidents involving peacetime nuclear/radiological emergencies.

Portions of Franklin County are within the Ingestion Exposure Pathway Emergency Planning Zone (EPZ) (within 50 miles) of the TMI facility in Dauphin County. The other 4 nuclear plants in Pennsylvania are more than 50 miles away from Franklin County; this distance exceeds the Plume-Exposure and Ingestion Exposure Pathway EPZs for nuclear emergencies, so these other facilities are considered a minimal threat to the County. **Figure 4.3.14.1.1** illustrates the location of the nuclear facilities in the Commonwealth and their associated ingestion areas.

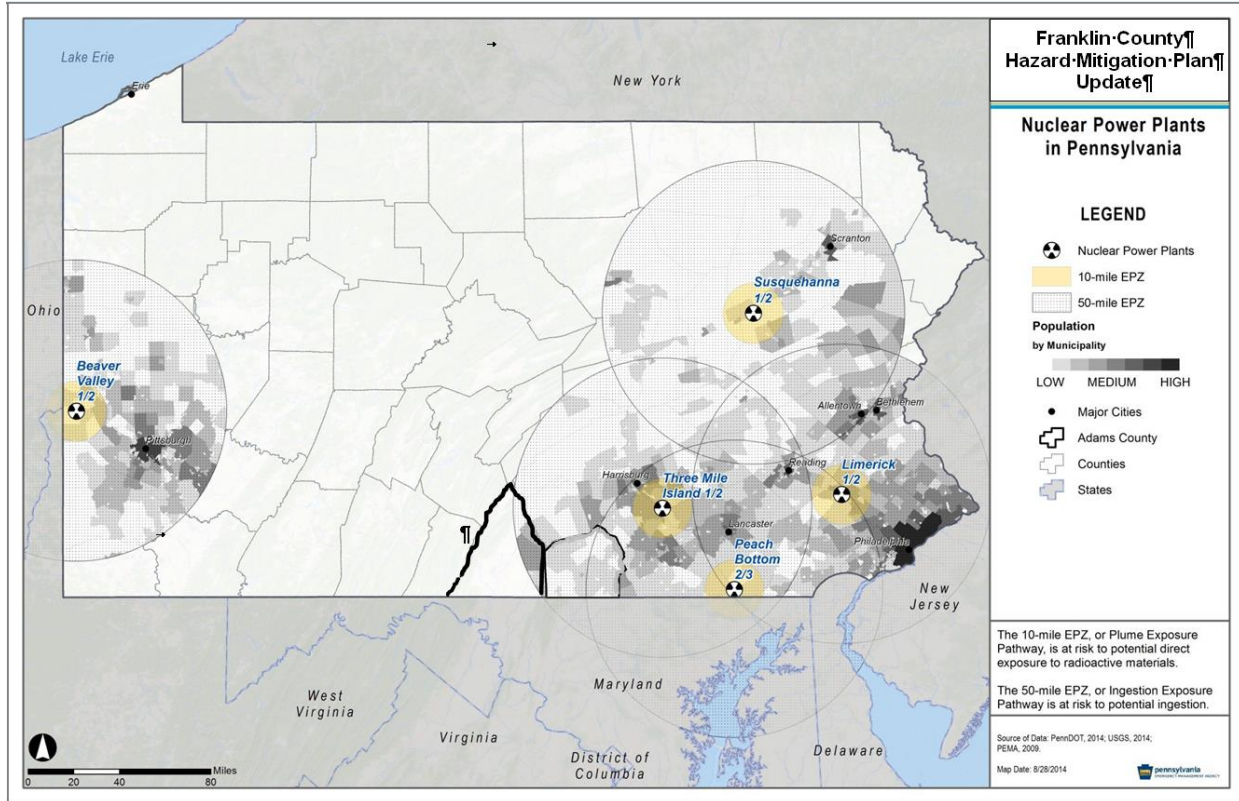


Figure 4.3.14.1.1: Pennsylvania Nuclear Power Plant Locations

The NRC encourages the use of Probabilistic Risk Assessments (PRAs) to estimate quantitatively the potential risk to public health and safety when considering the design, operations, and maintenance practices at nuclear power plants. PRAs typically focus on accidents that can severely damage the core and that may challenge containment. FEMA, PEMA, and county governments have formulated Radiological Emergency Response Plans (RERPs) to prepare for nuclear/radiological emergencies at the 5 nuclear power-generating facilities in the Commonwealth of Pennsylvania. These plans include the following:

- A Plume Exposure Pathway EPZ within a radius of 10 miles from each powerplant.
- An Ingestion Exposure Pathway EPZ within a radius of 50 miles from each plant.

Plume Exposure Pathway refers to whole-body external exposure to gamma radiation from the plume and from deposited materials and inhalation exposure from the passing radioactive plume. The duration of primary exposures could range in length from hours to days. The Ingestion Exposure Pathway refers to exposure primarily from ingestion of water or foods such as milk and fresh vegetables that have been contaminated with radiation.

The County RERPs, which are part of the County Emergency Operations Plan, also include the following:

- Preventive and emergency protective actions.
- Response levels and associated protective action guides (PAGs) for food.

- Recommended PAGs within an Ingestion Exposure Pathway EPZ.
- Information for farmers to assist in protection of their livestock and crops from radioactive contamination.

Nuclear facilities must notify the appropriate authorities in the event of an accident. The federally recognized classification levels are Unusual Event, Alert, Site Area Emergency, and General Emergency. After a nuclear/radiological incident, the main concern is the effect on the health of the population near the incident. External radiation, inhalation, and ingestion of radioactive isotopes can cause acute health effects (death, severe health impairment), chronic health effects (cancers), and psychological effects that can affect health. Additional considerations include the long-term effects to the environment and agriculture.

4.3.14.2. Range of Magnitude

TMI is the closest nuclear power plant to Franklin County; portions of the County lie within the Ingestion Exposure Pathway EPZ designated for nuclear/radiological emergencies. The magnitude of a nuclear incident differs for those within the Plume Exposure Pathway EPZ and those within the Ingestion Exposure Pathway EPZ. The Plume Exposure Pathway refers to whole-body external exposure to gamma radiation from a radioactive plume and from deposited materials and inhalation exposure from the passing radioactive plume. The duration of primary exposures could range in length from hours to days. The Ingestion Exposure Pathway refers to exposure primarily from ingestion of water or foods such as milk and fresh vegetables that have been contaminated with radiation.

The worst-case radiological release event would be a major release of radioactive material from the Three Mile Island Nuclear Generating Station. This event would cause a great deal of fear for residents of south central Pennsylvania. In addition, as a support county, Franklin County would be impacted by large numbers of evacuees clogging the county's transportation networks. Finally, there is the potential for radioactive contamination to reach Franklin County, possibly necessitating the evacuation of portions of the county. Specific impacts depend on the extent of the spread of the contamination.

The nuclear industry has adopted pre-determined, site-specific Emergency Action Levels (EALs). The EALs provide the framework and guidance to observe, address, and classify the severity of site-specific events and conditions that are communicated to off-site emergency response organizations⁸³. There are additional EALs that specifically deal with issues of security, such as threats of airborne attack, hostile action within the facility, or facility attack. These EALs ensure that appropriate notifications for the security threat are made in a timely manner. Each facility is also equipped with a public alerting system, which includes a number of sirens to alert the public located in the Plume Ingestion Pathway EPZ. This alerting system is activated by the counties of each specific EPZ. Emergency notifications and instructions are communicated to the public via the Emergency Alert System as activated by the PEMA Commonwealth Response Coordination Center (CRCC). State officials also have the capability to send emergency messages as text messages to mobile devices.

⁸³ Nuclear Regulatory Commission

4.3.14.3. Past Occurrence

Nuclear incidents rarely occur, but the incident at Three Mile Island is the worst fixed-nuclear facility accident in U.S. history. The resulting contamination and state of the reactor core led to the development of a 14-year cleanup and scientific effort. Additionally, the *President's Commission on the Accident at Three Mile Island* examined the costs of the accident, concluding, "The accident at Three Mile Island on March 28, 1979, generated considerable economic disturbance. Some of the impacts were short term, occurring during the first days of the accident. Many of the impacts were experienced by the local community; others will be felt at the regional and national levels." The report concluded: "It appears clear that the major costs of the TMI Unit 2 accident are associated with the emergency management replacement power and the plant refurbishment or replacement. The minimum cost estimate of nearly \$1 billion supports the argument that considerable additional resources can be cost effective if spent to guard against future accidents."

Despite the severity of the damage, no injuries due to radiation exposure occurred. However, numerous studies were conducted to determine the measurable health effects related to radiation and/or stress. More than a dozen epidemiological and stress related studies conducted to date have found no discernible direct health effects to the population in the vicinity of the plant. However, one study conducted by the DOH's Three Mile Island Health Research Program did find evidence of psychological stress⁸⁴.

The accident at Three Mile Island had a profound effect on the residents, emergency management community, government officials and nuclear industry, not only in Pennsylvania, but nationwide. There were minimal requirements for off-site emergency planning for nuclear power stations prior to this accident. Afterwards, comprehensive, coordinated, and exercised plans were developed for the state, counties, school districts, special facilities (hospitals, nursing homes and detention facilities) and municipalities to assure the safety of the population. Costs associated with an event at one of the Commonwealth's nuclear facilities, be it real or perceived, are significant. The mitigation efforts put in place immediately following the 1979 accident continue until today. The Commonwealth Nuclear/Radiological plan which is a successor of the original "Annex E" is a result of the Commonwealth's efforts to address the many components of mitigation planning. The comprehensive planning involved with the 5 nuclear facilities is an ongoing effort. Plans are reviewed and amended on an annual basis. Recent amendments to various planning documents and station procedures include the efforts to enhance station security measures and the means to bolster communications and response in the event of terrorist activities.

There have been no significant nuclear incidents at Three Mile Island since the last plan update.

4.3.14.4. Future Occurrence

Pennsylvania is home to the only nuclear power plant *General Emergency* in the nation. Since the Three Mile Island incident, nuclear power has become significantly safer and is one of the most heavily regulated industries in the nation. Despite the knowledge gained since then, there

⁸⁴ National Energy Institute, 2014

is still the potential for a similar accident to occur again at one of the 5 nuclear generating facilities in the Commonwealth. The Nuclear Energy Agency of the Organization for Economic Co-Operation and Development notes that studies estimate the chance of protective barriers failing in a modern nuclear facility at less than one in 100,000 per year⁸⁵. Nuclear incident occurrences may also occur as a result of intentional actions; these acts are addressed under **Section 4.3.18: Terrorism**.

The probability of future nuclear incidents is *unlikely*, as defined by the Risk Factor probability criteria (**Section 4.4**). However, if an event were to occur, Franklin County would likely host displaced persons and the agricultural yield could be compromised because the county is at least partially in the 50-mile EPZ.

4.3.14.5. Vulnerability Assessment

Figure 4.3.14.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Nuclear Incident hazard. One can see that 5 of 22 municipalities rated this threat as either a Catastrophic or Major event. Of the remaining 17 municipalities, only 1 rated Nuclear Incident as a Moderate threat. This was ranked as the number 21 threat in Franklin County and is considered overall to be a Minor threat.

⁸⁵ World Nuclear Association, 2016

Franklin County Hazard Mitigation Plan - 2018


											Risk Factor Scale		
											Catastrophic	3.0 - 4.0	
 <h2 style="text-align: center;">Nuclear Incident Hazard Threat Risk Assessment</h2>											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 - 1.9	
											Insignificant	1.0 - 1.4	
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	2	30%	3	30%	3	20%	4	10%	4	10%	2.9	10.17%	0.2949
Chambersburg Borough	1	30%	1	30%	1	20%	3	10%	4	10%	1.5	13.64%	0.2046
Fannett Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	1.68%	0.0218
Greencastle Borough	1	30%	2	30%	4	20%	4	10%	4	10%	2.5	2.57%	0.0643
Greene Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	11.55%	0.1502
Guilford Township	1	30%	2	30%	1	20%	4	10%	4	10%	1.9	9.59%	0.1822
Hamilton Township	1	30%	1	30%	1	20%	4	10%	4	10%	1.6	7.18%	0.1149
Letterkenny Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	1.53%	0.0199
Lurgan Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	1.40%	0.0182
Mercersburg Borough	1	30%	4	30%	1	20%	4	10%	4	10%	2.5	0.99%	0.0248
Metal Township	1	30%	1	30%	1	20%	4	10%	4	10%	1.6	1.20%	0.0192
Mont Alto Borough	1	30%	1	30%	1	20%	2	10%	4	10%	1.4	1.12%	0.0157
Montgomery Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	4.02%	0.0523
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	4	10%	1.5	0.17%	0.0026
Peters Township	1	30%	1	30%	4	20%	1	10%	4	10%	1.9	2.85%	0.0542
Quincy Township	1	30%	2	30%	4	20%	1	10%	4	10%	2.2	3.52%	0.0774
Shippensburg Borough	1	30%	2	30%	4	20%	4	10%	4	10%	2.5	0.71%	0.0178
Southampton Township	1	30%	2	30%	1	20%	4	10%	4	10%	1.9	5.48%	0.1041
St Thomas Township	1	30%	1	30%	1	20%	4	10%	4	10%	1.6	3.87%	0.0619
Warren Township	2	30%	3	30%	4	20%	4	10%	4	10%	3.1	0.24%	0.0074
Washington Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	9.53%	0.1239
Waynesboro Borough	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	7.02%	0.0913
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)												1.723	

Figure 4.3.14.5.1: Municipal Nuclear Incident Threat Vulnerability Self-Assessment

The effects and impacts of a nuclear/radiological threat depend on the type of radiation released, the duration of the release, the volume of the release, and the existing weather conditions, such as wind speed and direction. Franklin County is located within the 50-mile ingestion zone for the TMI facility.

The County's primary vulnerability to nuclear incidents comes in the form of food, soil, and water contamination. In terms of vulnerable land, the 242,634 acres of farmland held in Franklin County's 1,596 farms are vulnerable to radiological contamination in a nuclear incident⁸⁶. In 2012, the market value of all agricultural products of these farms exceeded \$413 million. While unlikely that all agricultural products would be lost in the event of a nuclear incident, the County could expect some portion of that \$413 million to be lost. Time of year also impacts the vulnerability and losses estimated for a nuclear incident; an incident that occurs during the prime growing and harvesting season will have a larger impact on the County. For example, the incident at Three Mile Island occurred in the off-season; as a result, the Pennsylvania Department of Agriculture estimated that agricultural losses for the entire Commonwealth were not more than \$1 million.

Water contamination is also a concern in nuclear incidents. There are 9 large water systems in the county such as Chambersburg, Guilford, Bear Valley and so forth. There are approximately 30 community systems in the county; many of these serve mobile home parks, villages, and small developments in rural areas. Approximately 65 % of the households are on public water with 35% on private wells or cisterns. They are all vulnerable to the effects of a nuclear incident.

4.3.15. Pandemic and Infectious Disease

A pandemic is the sudden outbreak of a new infectious disease that spreads easily from one person to another and attacks the population of an extensive region, including several countries and/or continents. There have been 5 flu pandemics during the last century; the Spanish Flu, the Asian Flu, the Hong Kong Flu, the Swine Flu, and just recently COVID-19.

Generally, pandemic diseases cause sudden, pervasive illness in all age groups on a global scale. Pandemic events cover a wide geographic area and can affect large populations, depending on the disease. The exact size and extent of an infected population is dependent upon how easily the illness is spread, the mode of transmission, and the amount of contact between infected and non-infected persons.

4.3.15.1. Location and Extent

Franklin County is primarily concerned with the possibility of pandemic outbreaks of various forms of influenza, West Nile Virus, or the Zika virus. Pandemic influenza planning began in response to the H5N1 (avian) flu outbreak in Asia, Africa, Europe, the Pacific and the Near East in the late 1990s and early 2000s. H5N1 did not reach pandemic proportions in the United States, but the county began actively planning for an occurrence of an influenza pandemic. As stated in the Pennsylvania Department of Health Influenza Pandemic Response Plan, "an

⁸⁶ USDA, 2012

influenza pandemic is inevitable and will probably give little warning”⁸⁷. Influenza, also known as “the flu”, is a contagious disease that is caused by the influenza virus and most commonly attacks the respiratory tract in humans. Influenza is considered to have pandemic potential if it is novel, meaning that people have no immunity to it, virulent, meaning that it causes deaths in normally healthy individuals, and easily transmittable from person-to-person.

Listed below are basic descriptions of identified diseases with identified pandemic potential and their expected impact:

- The Bird Flu is a disease of wild, domesticated, and farm birds. The newer type of bird flu referred to as highly pathogenic avian influenza (HPAI) H5N1 is of concern. HPAI has the potential to spread to humans who have had direct or close contact with sick or dead poultry that were infected with the virus. Human infections are considered to be rare, but 60% of those infected have died. Most cases of human transmission have occurred in other countries; however, the first case of human infection in the Americas was reported in Canada in January 2014.
- The West Nile Virus is carried by mosquitoes and can infect birds, animals and people. Most species of mosquitoes found in Pennsylvania do not carry the virus. In some cases, the virus could cause encephalitis in humans, which is an infection of the brain. The peak season is usually April through October.
- Influenza continues to remain a concern in Pennsylvania due to the potential to spread quickly. During the 2016/2017 flu season, there were 994 confirmed cases of influenza in Franklin County⁸⁸. It is estimated that the numbers are much higher because most do not seek treatment for this virus. According to the Pennsylvania Department of Health, it is estimated that 5 to 20 percent of Pennsylvanians contract the flu each year, and 120 to 2,000 die from complications associated with influenza.
- The Zika virus is a mosquito-borne flavivirus that is transmitted primarily by Aedes mosquitoes. According to the World Health Organization, it is of particular concern because it is believed to cause microcephaly and Guillani-Barre syndrome. It has also been linked to other neurological complications.
- COVID-19 is a novel coronavirus that started in Wuhan, China in December of 2019. It was declared a pandemic by the CDC & WHO on 3/11/2020. Community transmission of this novel virus is occurring, and Franklin County has had substantial increases in cases. Vaccines were just approved in December 2020.

4.3.15.2. Range of Magnitude

The magnitude of a pandemic in Franklin County will range significantly depending on the aggressiveness of the virus in question and the ease of transmission. Pandemic influenza is fairly

⁸⁷ DOH, 2005

⁸⁸ DOH, 2017

easily transmitted from person-to-person compared to West Nile, but advances in medical technologies have greatly reduced the number of deaths caused by influenza over time. In terms of lives lost, the impact various pandemic influenza outbreaks have had globally over the last century has declined. The 1918 Spanish Flu pandemic remains the worst-case pandemic event on record. Nearly 24,000 Pennsylvanians died during the first month of the disease. It is estimated that 350,000 Pennsylvanians had been struck with the flu, about 150,000 of whom were from Philadelphia alone⁸⁹.

In contrast, the severity of illness from recent influenza viruses has varied, with the gravest cases occurring mainly among those considered at high risk. High risk populations considered more vulnerable include children, the elderly, pregnant women, and chronic disease patients with reduced immune system capacity. Most people infected with H1N1 (swine flu) in 2009 and 2010 outbreak recovered without needing medical treatment. This strain of the flu has continued to circulate in the United States. The 2014 season is the first since 2009 that H1N1 has been so predominant in the United States.

The magnitude of a pandemic may be exacerbated by the fact that pandemics occur over large areas and will cause outbreaks across the United States, thus limiting the ability to transfer assistance from one jurisdiction to another. Additionally, effective preventative and therapeutic measures, including vaccines and other medication, will likely be in short supply or will not be available.

There are no true environmental impacts in pandemic disease outbreaks, but there may be significant economic and social costs beyond the possibility of deaths. Widespread illness may increase the likelihood of shortages of personnel to perform essential community services. In addition, high rates of illness and worker absenteeism occur within the business community, and these contribute to social and economic disruption. Social and economic disruptions could be temporary but may be amplified in today's closely interrelated and interdependent systems of trade and commerce. Social disruption may be greatest when rates of absenteeism impair essential services, such as power, transportation, and communications.

4.3.15.3. Past Occurrence

The first cases of the West Nile virus in humans in Pennsylvania occurred in 2001⁹⁰. West Nile Virus has been found in Franklin County. In 2017 alone, there were 45 positive mosquito samples in Franklin County and 3 cases confirmed in animals seen by veterinarians (in this case all horses). However, it has yet to affect any humans in Franklin County.

As of Dec 2017, there were 385 CDC confirmed cases of Zika virus in the United States, of which 6 were from Pennsylvania. **Figure 4.3.15.3.1** below illustrates the distribution of Zika cases throughout the United States.

⁸⁹ FluTracker.com

⁹⁰ DOH, 2001

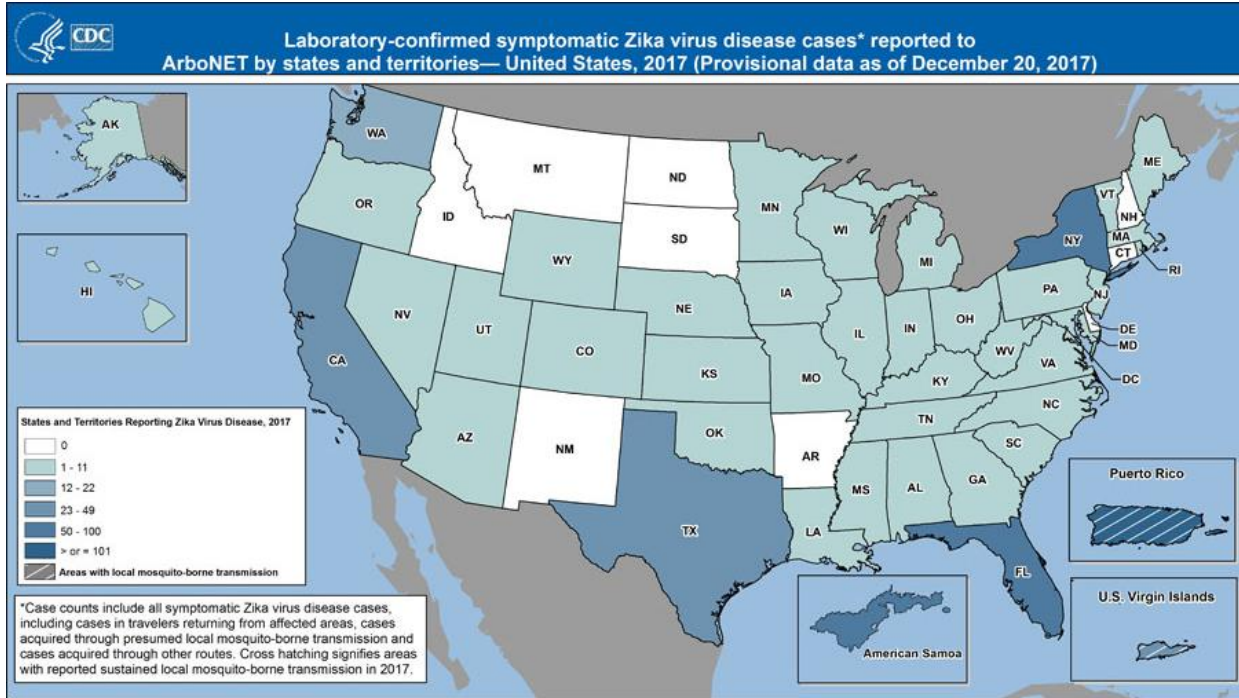


Figure 4.3.15.3.1: Confirmed Cases of Zika Virus in the United States (2017)⁹¹

There have been several pandemic influenza outbreaks which have occurred over the past 100 years. A list of events worldwide is shown in **Table 4.3.15.3.1**.

Years	Name	Subtype	Extent of Outbreak
2020-Present	COVID-19	Novel Coronavirus	Ongoing Pandemic
2009-Present	Swine Flu	H1N1	Ongoing Pandemic
1968-1969	Hong Kong Flu	H3N2	Estimated Deaths: USA: 34,000 World-wide: 700,000
1957-1958	Asian Flu	H2N2	Estimated Deaths: USA: 70,000 World-wide: 1-2 million
1918-1919	Spanish Flu	H1N1	Estimated Deaths: USA: 675,000 World-wide: 50 million

Table 4.3.15.3.1: Influenza Outbreaks in Past 100 Years

⁹¹ CDC, 2017

Franklin County Hazard Mitigation Plan - 2018

Deaths occurred in the United States as a result of the Spanish Flu, Asian flu, and Hong Kong Flu outbreaks. The Spanish Flu claimed 675,000 lives in the United States, and there were 350,000 cases in Pennsylvania. This outbreak affected healthy adults between 20-50 years old. Most deaths resulting from the Asian Flu occurred between September 1957 and March 1958. There were about 70,000 deaths in the United States and approximately 15% of the population of Pennsylvania was affected. The Asian Flu affected both the very young and the very old.

The first cases of the Hong Kong Flu in the U.S. were detected in September 1968 with deaths peaking between December 1968 and January 1969⁹². Those most affected by this flu were the very old and those with underlying medical conditions.

Franklin County mirrors the rest of the world with Influenza being the most prevalent and most likely disease to reach pandemic proportions. **Table 4.3.15.3.2** shows the total number of confirmed cases of Influenza in the county since 2008. The figures for the 2017/2018 season are only partial, but it can be seen that we are already near the total numbers for the 2016/2017 season and we still have 7 months to go.

Flu Season	Inclusive Dates	Influenza Type			Total
		A	B	Unidentified	
2017/2018*	10/1/2017 – 2/10/2018*	712	193	0	905*
2016/2017	10/2/2016 – 9/30/2017	709	285	0	994
2015/2016	10/4/2015 – 10/1/2016	371	194	0	565
2014/2015	9/28/2014 – 10/3/2015	797	113	1	911
2013/2014	9/29/2013 – 9/27/2014	413	36	1	450
2012/2013	10/10/2012 – 4/13/2013	--	--	--	709
2011/2012	--	--	--	--	28
2010/2011	--	--	--	--	366
2009/2010	--	--	--	--	321
2008/2009	--	--	--	--	163

* Indicates incomplete data for the 2017/2018 flu season

Table 4.3.15.3.2: Franklin County Influenza Cases (2008-2018)⁹³

4.3.15.4. Future Occurrence

The precise timing of pandemic influenza is uncertain, but occurrences are most likely when the influenza Type A virus makes a dramatic change, or antigenic shift, that results in a new or

⁹² GlobalSecurity.org

⁹³ DOH, 2018

“novel” virus to which the population has no immunity. This emergence of a novel virus is the first step toward a pandemic⁹⁴. That is what happened with COVID-19.

West Nile Virus could potentially impact Franklin County in the future as it is carried and spread by mosquitoes. The probability of the virus infecting animals or humans in the county is low, because most species of mosquitoes found in Pennsylvania don’t carry the virus, and the state as a whole has taken precautions to avoid the spread of the virus such as killing mosquito larvae and by monitoring birds, mosquitoes, people, and horses.

Influenza is already a problem in the county and with the strain that has hit in the 2017/2018 flu season, it is set to be the worst season in at least a decade. This strain will not reach pandemic levels, but it is an indication that as the virus mutates and inherits resistance to antibiotics, a pandemic is a distinct possibility in the near future.

The whole country is in the midst of the COVID-19 pandemic. Vaccines were approved in December 2020 for front-line workers, but it will be well into 2021 until the vaccine is available to most of the population.

On the whole, the future probability of the pandemic event in Franklin County can be considered *possible* as defined by the Risk Factor ranking probability criteria (see **Section 4.4**).

4.3.15.5. Vulnerability Assessment

Figure 4.3.15.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Pandemic and Infectious Disease hazard. One can see that 7 of 22 municipalities rated this threat as either a Catastrophic or Major event. Additionally, 6 of the remaining 15 municipalities rated this as a Moderate threat. This was the big mover because of the COVID-19 virus and ranked as the number 6 threat in Franklin County and is considered a Moderate threat.

⁹⁴ CDC

Franklin County Hazard Mitigation Plan - 2018

Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor Scale		
											Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	2	30%	2	30%	2	20%	1	10%	4	10%	2.1	10.17%	0.2136
Chambersburg Borough	1	30%	1	30%	4	20%	1	10%	4	10%	1.9	13.64%	0.2592
Fannett Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	1.68%	0.0218
Greencastle Borough	1	30%	2	30%	4	20%	4	10%	4	10%	2.5	2.57%	0.0643
Greene Township	4	30%	4	30%	4	20%	1	10%	4	10%	3.7	11.55%	0.4274
Guilford Township	1	30%	3	30%	3	20%	1	10%	4	10%	2.3	9.59%	0.2206
Hamilton Township	1	30%	1	30%	3	20%	2	10%	4	10%	1.8	7.18%	0.1292
Letterkenny Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	1.53%	0.0199
Lurgan Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	1.40%	0.0182
Mercersburg Borough	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	0.99%	0.0129
Metal Township	3	30%	4	30%	2	20%	2	10%	4	10%	3.1	1.20%	0.0372
Mont Alto Borough	2	30%	1	30%	2	20%	4	10%	4	10%	2.1	1.12%	0.0235
Montgomery Township	2	30%	4	30%	3	20%	4	10%	4	10%	3.2	4.02%	0.1286
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	4	10%	1.5	0.17%	0.0026
Peters Township	1	30%	1	30%	1	20%	2	10%	4	10%	1.4	2.85%	0.0399
Quincy Township	2	30%	3	30%	4	20%	1	10%	4	10%	2.8	3.52%	0.0986
Shippensburg Borough	1	30%	2	30%	4	20%	1	10%	4	10%	2.2	0.71%	0.0156
Southampton Township	2	30%	2	30%	2	20%	4	10%	4	10%	2.4	5.48%	0.1315
St Thomas Township	4	30%	3	30%	2	20%	2	10%	4	10%	3.1	3.87%	0.1200
Warren Township	3	30%	1	30%	3	20%	3	10%	4	10%	2.5	0.24%	0.0060
Washington Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	9.53%	0.1239
Waynesboro Borough	1	30%	3	30%	3	20%	1	10%	4	10%	2.3	7.02%	0.1615
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)												2.275	

Figure: 4.3.15.5.1: Municipal Pandemic and Infectious Disease Threat Vulnerability Self-Assessment

Certain population groups are at higher risk of pandemic flu infection. This population group includes people 65 years and older, children younger than 5 years old, pregnant women, and people of any age with certain chronic medical conditions. Such conditions include but are not limited to diabetes, heart disease, asthma, and kidney disease⁹⁵. Schools, convalescent centers, and other institutions serving those younger than 5 years old and older than 65 years old are locations conducive to faster transmission of pandemic influences since populations identified as being at high risk are concentrated at these facilities. Due to these possibilities, we may need to take precautions like social distancing or the use of dust masks (similar to those used in some Asian countries) to stem the spread of these viruses as a mitigation action in the future.

4.3.16. Radon Exposure

Radon is a cancer-causing natural radioactive gas that you can't see, smell, or taste. It is a large component of the natural radiation that humans are exposed to and can pose a serious threat to public health when it accumulates in poorly ventilated residential and occupation settings. According to the U.S. Environmental Protection Agency (EPA), Radon is estimated to cause approximately 21,000 lung cancer deaths per year, second only to smoking as the leading cause of lung cancer⁹⁶. An estimated 40% of the homes in Pennsylvania are believed to have elevated Radon levels⁹⁷. This section provides a profile and vulnerability assessment for the Radon exposure hazard.

4.3.16.1. Location and Extent

Radioactivity caused by airborne Radon has been recognized for many years as an important component in the natural background radioactivity exposure of humans. It was not until the 1980s that the wide geographic distribution of elevated values in houses and the possibility of extremely high Radon values in houses were recognized. In 1984, routine monitoring of employees leaving the Limerick nuclear power plant near Reading, PA, showed that readings on Mr. Stanley Watras frequently exceeded expected radiation levels, yet only natural, nonfission- product radioactivity was detected on him. Radon levels in his home were detected around 2,500 pico Curies per Liter (pCi/L), much higher than the 4 pCi/L guideline of the EPA or even the 67 pCi/L limit for uranium miners. As a result of this event, the Reading Prong section of Pennsylvania where Mr. Watras lived became the focus of the first large-scale Radon scare in the world.

However, Radon (i.e. ^{222}Rn), which has a half-life of 3.8 days, is a widespread hazard. The distribution of Radon is correlated with the distribution of Radium (i.e. ^{226}Ra), its immediate radioactive parent, and with Uranium, its original ancestor. Due to the short half-life of Radon, the distance that Radon atoms can travel from their parent before decay is generally limited to distances of feet or tens of feet. Three (3) sources of Radon in houses are now recognized:

- Radon in soil air that flows into the house;
- Radon dissolved in water from private wells and exsolved during water usage (this is

⁹⁵ CDC

⁹⁶ EPA

⁹⁷ DEP, 2016

- rarely a problem in Pennsylvania); and
- Radon emanating from Uranium-rich building materials (e.g. concrete blocks or gypsum wallboard)(this is not known to be a problem in Pennsylvania)⁹⁸.

Figure 4.3.16.1.1 illustrates radon entry points into a home.

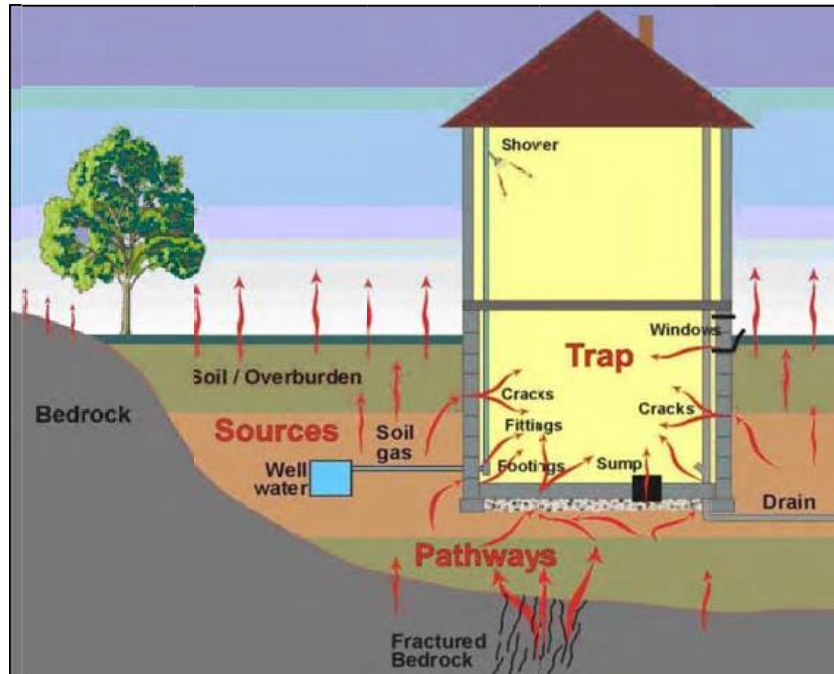


Figure 4.3.16.1.1: Sketch of Radon Entry Points into a House⁹⁹

Each county in Pennsylvania is classified as having a low, moderate, or high Radon hazard potential. A majority of counties across the Commonwealth, particularly counties in eastern Pennsylvania, have a high hazard potential. The average indoor Radon screening level for these counties is greater than 4 pCi/L. Franklin County is located in Zone 1 – High Radon Potential as noted in **Figure 4.3.16.1.2** below.

⁹⁸ EPA, 1983

⁹⁹ Arizona Geological Survey, 2012

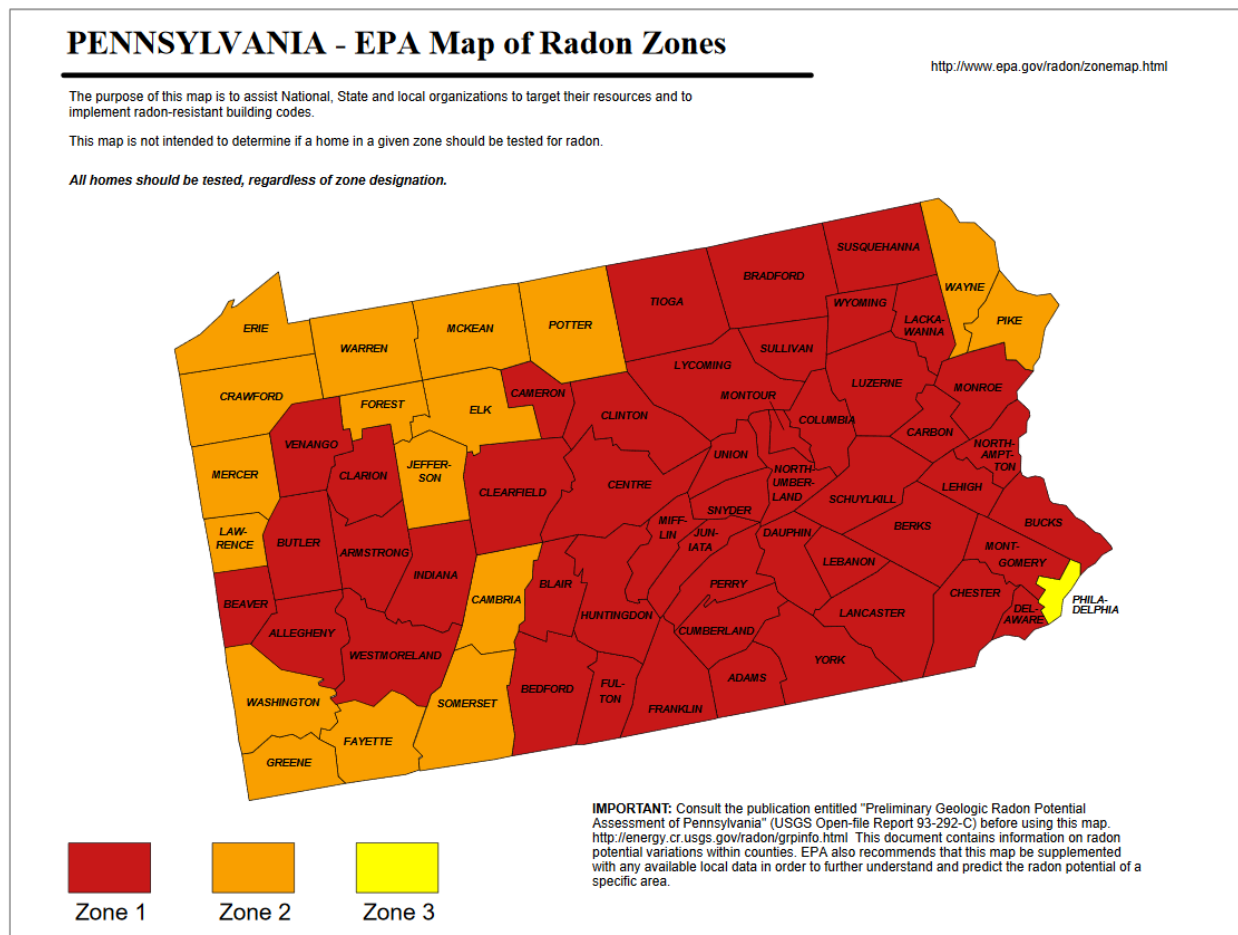


Figure 4.3.16.1.2: Radon Hazard Zones in Pennsylvania (2014)¹⁰⁰

High Radon levels were initially thought to be exacerbated in houses that are tightly sealed, but it is now recognized that rates of air flow into and out of houses, plus the location of air inflow and the radon content of air in the surrounding soil, are key factors in Radon concentrations. Outflows of air from a house, caused by a furnace, fan, thermal “chimney” effect, or wind effects, require that air be drawn into the house to compensate. If the upper part of the house is tight enough to impede influx of outdoor air (Radon concentration generally <0.1 pCi/L), then an appreciable fraction of the air may be drawn in from the soil or fractured bedrock through the foundation and slab beneath the house, or through cracks and openings for pipes, sumps, and similar features. Soil gas typically contains from a few hundred to a few thousand pCi/L of Radon; therefore, even a small rate of soil gas inflow can lead to elevated Radon concentrations in a house.

The Radon concentration of soil gas depends upon a number of soil properties, the importance of which is still being evaluated. In general, 10 to 50% of newly formed Radon atoms escape the host mineral of their parent Radium and gain access to the air-filled pore space. The Radon content of soil gas clearly tends to be higher in soils containing higher levels of Radium and Uranium, especially if the Radium occupies a site on or near the surface of a grain from which

¹⁰⁰ EPA, 2014

the Radon can easily escape. The amount of pore space in the soil and its permeability for air flow, including cracks and channels, are important factors determining Radon concentration in soil gas and its rate of flow into a house. Soil depth, moisture content, mineral host, form of Radium, and other soil properties may also be critical factors. For houses built on bedrock, fractured zones may supply air having Radon concentrations similar to those in deep soil.

Areas where houses have high levels of Radon can be divided into 3 groups in terms of Uranium content in rock and soil:

- Areas of very elevated Uranium content (>50 parts per million [ppm]) around Uranium deposits and prospects: Although very high levels of Radon can occur in such areas, the hazard normally is restricted to within a few hundred feet of the deposit. In Pennsylvania, such localities occupy an insignificant area.
- Areas of common rocks having higher than average Uranium content (5 to 50 ppm): In Pennsylvania, such rock types include granitic and felsic alkali igneous rocks and black shales. In the Reading Prong, high Uranium values in rock or soil and high Radon levels in houses are associated with Precambrian granitic gneisses commonly containing 10 to 20 ppm Uranium, but locally containing more than 500 ppm Uranium. In Pennsylvania, elevated Uranium occurs in black shales of the Devonian Marcellus Formation and possibly the Ordovician Martinsburg Formation. High Radon values are locally present in areas underlain by these formations.
- Areas of soil or bedrock that have normal Uranium content but properties that promote high Radon levels in houses: This group is incompletely understood at present. Relatively high soil permeability can lead to high Radon, the clearest example being houses built on glacial eskers. Limestone-dolomite soils also appear to be predisposed for high Radon levels in houses, perhaps because of the deep clay-rich residuum in which Radium is concentrated by weathering on iron oxide or clay surfaces, coupled with moderate porosity and permeability. The importance of carbonate soils is indicated by the fact that Radon contents in 93% of a sample of houses built on limestone-dolomite soils near State College, Centre County, exceeded 4 pCi/L, and 21 percent exceeded 20 pCi/L, even though the Uranium values in the underlying bedrock are all in the normal range of 0.5 to 5 ppm Uranium¹⁰¹.

According to the 2013 PA HMP, Radon tends to exist as a gas or as a dissolved atomic component in groundwater. In Pennsylvania, the most problematic source of Radon in houses is Radon in soil gas that flows into the house. Even a small rate of soil gas inflow can lead to elevated Radon concentrations in a house. The state plan indicates that current data on the abundance and distribution of Radon in Pennsylvania homes is incomplete and biased, but the plan identifies general patterns. Values exceeding the Environmental Protection Agency's guidelines occur in all regions of the state. The highest proportion of elevated values includes South Central PA and Franklin County¹⁰².

¹⁰¹ PEMA, 2013

¹⁰² PEMA, 2013

Franklin County Hazard Mitigation Plan - 2018

4.3.16.2. Range of Magnitude

Exposure to Radon is the second leading cause of lung cancer after smoking. It is the number one cause of lung cancer among non-smokers. As stated earlier, Radon is responsible for about 21,000 lung cancer deaths every year; approximately 2,900 of which occur among people who have never smoked. Lung cancer is the only known effect on human health from exposure to Radon in air and thus far, there is no evidence that children are at greater risk of lung cancer than are adults¹⁰³. The main hazard is actually from the Radon daughter products (218Po, 214Pb, and 214Bi), which may become attached to lung tissue and induce lung cancer by their radioactive decay. **Table 4.3.16.2.1** shows the relationship between various Radon levels, probability of lung cancer, comparable risks from other hazards, and action thresholds.

Years	If 1,000 people were exposed to this level over a lifetime ...*	Risk of cancer from Radon exposure compares to ...**	Action Threshold
Smokers			
20	About 260 people could get lung cancer	250 times the risk of drowning	Fix Structure
10	About 150 people could get lung cancer	200 times the risk of dying in a home fire	Fix Structure
8	About 120 people could get lung cancer	30 times the risk of dying in a fall	Fix Structure
4	About 62 people could get lung cancer	5 times the risk of dying in a car crash	Fix Structure
2	About 32 people could get lung cancer	6 times the risk of dying from poison	Consider fixing between 2 and 4 pCi/L
1.3	About 20 people could get lung cancer	(Average indoor Radon level)	Reducing Radon levels below 2 pCi/L is difficult
0.4	About 3 people could get lung cancer	(Average outdoor Radon level)	
Non-Smokers			
20	About 36 people could get lung cancer	35 times the risk of drowning	Fix Structure
10	About 18 people could get lung cancer	20 times the risk of dying in a home fire	Fix Structure
8	About 15 people could get lung cancer	4 times the risk of dying in a fall	Fix Structure
4	About 7 people could get lung cancer	The risk of dying in a car crash	Fix Structure
2	About 4 people could get lung cancer	The risk of dying from poison	Consider fixing between 2 and 4 pCi/L
1.3	About 2 people could get lung cancer	(Average indoor Radon level)	Reducing Radon levels below 2 pCi/L is difficult
0.4		(Average outdoor Radon level)	
<small>NOTE: Risk may be lower for former smokers. * Lifetime risk of lung cancer deaths from EPA Assessment of Risks from Radon in Homes (EPA 402-R-03-003). ** Comparison data calculated using the Centers for Disease Control and Prevention's 1999-2001 National Center for Injury Prevention and Control Reports.</small>			

Table 4.3.16.2.1: Radon Risk for Smokers and Non-Smokers¹⁰⁴

¹⁰³ EPA, 2016

¹⁰⁴ EPA, 2016

According to the EPA, the average Radon concentration in the indoor air of U.S. homes is about 1.3 pCi/L. The EPA recommends homes be fixed if the radon level is 4 pCi/L or more. However, because there are no known safe levels of exposure to Radon, the EPA also recommends that Americans consider fixing their home for Radon levels between 2 pCi/L and 4 pCi/L. As shown in **Table 4.3.16.2.1**, a smoker exposed to Radon has a much higher risk of lung cancer.

The worst-case scenario for Radon exposure would be that a large area of tightly sealed homes providing residents high levels of exposure over a prolonged period of time without the residents being aware¹⁰⁵.

4.3.16.3. Past Occurrence

Current data on abundance and distribution of Radon in Pennsylvania houses is considered incomplete and potentially biased, but some general patterns exist.

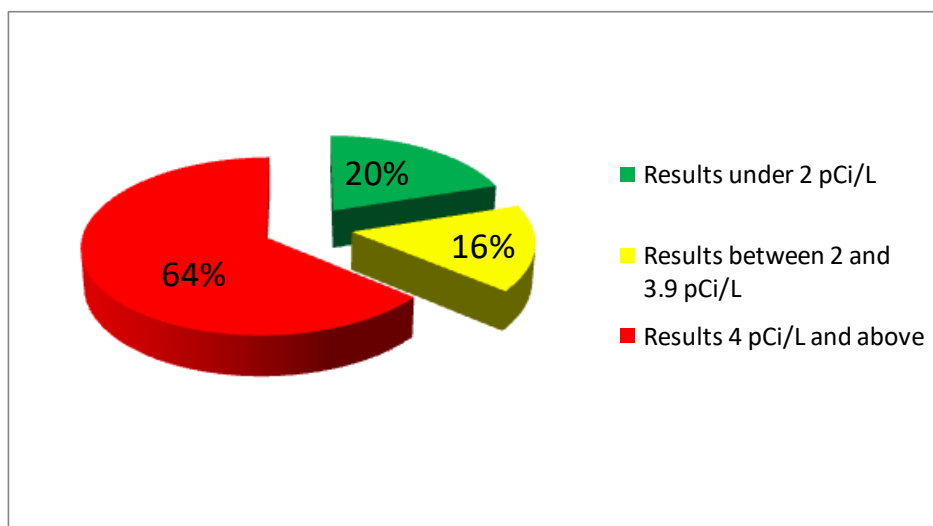


Figure 4.3.16.3.1: Percentage of Franklin County Homes and Radon Levels (2017)¹⁰⁶

Values exceeding the EPA guideline of 4 pCi/L occur in all regions of the Commonwealth. The highest proportion of elevated Radon values in the Commonwealth exist is in a zone extending from central Pennsylvania to southeastern Pennsylvania. High values in the latter area are attributed to known Uranium-rich granitic gneisses, accentuated by local factors such as shear zones, and include a surprising number of extremely high Radon values (>200 pCi/L). Information on average Radon levels by zip code in Pennsylvania can be obtained from the DEP at:

<http://www.depreportingservices.state.pa.us/ReportServer/Pages/ReportViewer.aspx?/Radon/RadonZip>¹⁰⁷.

¹⁰⁵ PEMA, 2013

¹⁰⁶ Bureau of Radiation Protection

¹⁰⁷ DEP

4.3.16.4. Future Occurrence

Radon exposure is inevitable given present soil, geologic, and geomorphic factors across Pennsylvania. Development in areas where previous Radon levels have been significantly high will continue to be more susceptible to exposure. However, new incidents of concentrated exposure may occur with future development or deterioration of older structures. Exposure can be limited with proper testing for both past and future development and appropriate mitigation measures¹⁰⁸.

4.3.16.5. Vulnerability Assessment

To understand risk, a community must evaluate the assets that are exposed or vulnerable to the identified hazard area. For Radon Exposure, all of Franklin County has been identified as the hazard area. Therefore, all critical facilities, houses, population, and infrastructure as outlined in **Tables 2.4.4 and 2.4.6, Section 2** are vulnerable.

Figure 4.3.16.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Radon Exposure hazard. One can see that 5 of 22 municipalities rated this threat as either a Major or Moderate event. This was ranked as the number 20 threat in Franklin County and is considered a Minor threat.

¹⁰⁸ PEMA, 2016

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	<h2 style="text-align: center;">Radon Exposure Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 - 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 - 1.9	
Insignificant	1.0 - 1.4												
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	2	30%	1	30%	3	20%	1	10%	4	10%	2.0	10.17%	0.2034
Chambersburg Borough	4	30%	1	30%	3	20%	1	10%	4	10%	2.6	13.64%	0.3546
Fannett Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	1.68%	0.0218
Greencastle Borough	1	30%	1	30%	1	20%	4	10%	4	10%	1.6	2.57%	0.0411
Greene Township	1	30%	1	30%	1	20%	4	10%	4	10%	1.6	11.55%	0.1848
Guilford Township	1	30%	1	30%	1	20%	2	10%	4	10%	1.4	9.59%	0.1343
Hamilton Township	1	30%	1	30%	2	20%	4	10%	4	10%	1.8	7.18%	0.1292
Letterkenny Township	3	30%	1	30%	4	20%	1	10%	4	10%	2.5	1.53%	0.0383
Lurgan Township	2	30%	1	30%	1	20%	1	10%	4	10%	1.6	1.40%	0.0224
Mercersburg Borough	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	0.99%	0.0129
Metal Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	1.20%	0.0156
Mont Alto Borough	1	30%	1	30%	1	20%	4	10%	4	10%	1.6	1.12%	0.0179
Montgomery Township	2	30%	1	30%	3	20%	4	10%	4	10%	2.3	4.02%	0.0925
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	4	10%	1.5	0.17%	0.0026
Peters Township	1	30%	1	30%	1	20%	4	10%	4	10%	1.6	2.85%	0.0456
Quincy Township	2	30%	2	30%	2	20%	4	10%	4	10%	2.4	3.52%	0.0845
Shippensburg Borough	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	0.71%	0.0092
Southampton Township	1	30%	1	30%	1	20%	3	10%	4	10%	1.5	5.48%	0.0822
St Thomas Township	2	30%	1	30%	1	20%	1	10%	4	10%	1.6	3.87%	0.0619
Warren Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	0.24%	0.0031
Washington Township	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	9.53%	0.1239
Waynesboro Borough	1	30%	1	30%	1	20%	1	10%	4	10%	1.3	7.02%	0.0913
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)												1.773	

Figure 4.3.16.5.1: Municipal Radon Exposure Threat Vulnerability Self-Assessment

4.3.17. Subsidence, Sinkhole

Subsidence is the downward movement of earth surface material. It involves little or no horizontal movement.

A sinkhole is a basin-like, funnel shaped, or vertical sided depression in the land surface. In general, sinkholes form by the subsidence of unconsolidated materials or soils into voids created by dissolution of the underlying soluble bedrock.

There are three general types of sinkholes: collapse, subsidence, and solution. These different types of sinkholes generally correspond to the thickness of the sediments overlying limestone. The sediments and water contained in the unsaturated zone, surficial aquifer system, and the confining layer are collectively referred to as overburden. Collapse sinkholes are most common in areas where overburden is thick, but the confining layer is breached or absent. Subsidence sinkholes form where the overburden is thin and only a veneer of sediments is present overlaying the limestone (See **Figure 4.3.17.1** below). Solution sinkholes form where the overburden is absent and the limestone is exposed at the land surface.

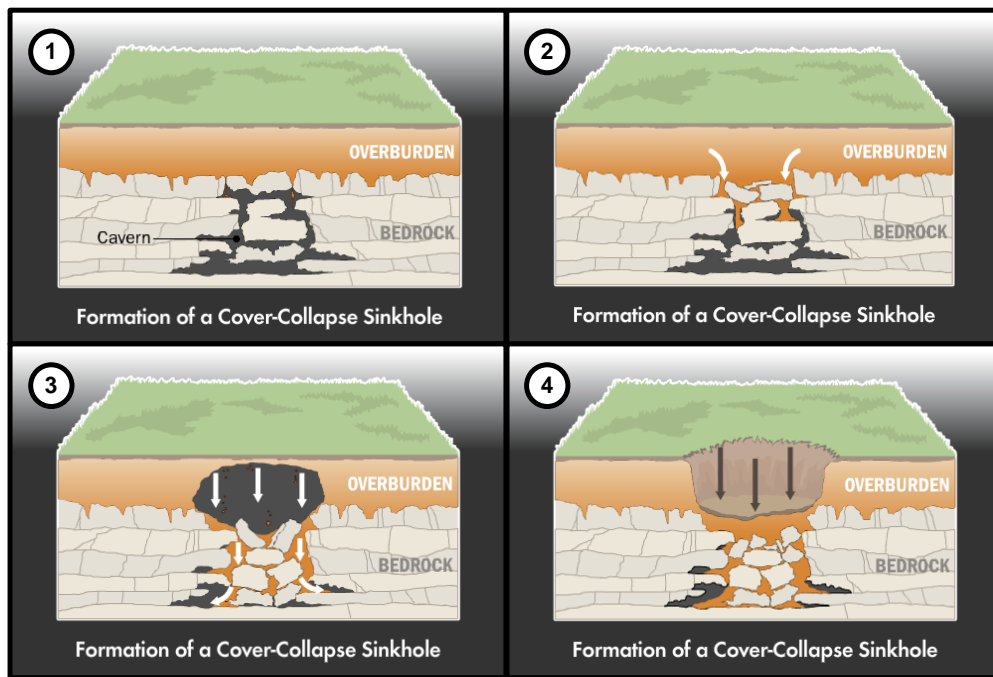


Figure 4.3.17.1: Formation of a Collapse Sinkhole¹⁰⁹

4.3.17.1. Location and Extent

Subsidence occurs naturally due to the physical and chemical weathering of certain types of bedrock (solid rock that underlies soil or other unconsolidated surface material). Subsidence can also occur as a result of underground mining, excessive pumping of groundwater, or subsurface erosion due to the failure of existing utility lines. All of these can produce surface features that

¹⁰⁹ Silverman, Jacob

appear similar, but not all are naturally occurring. Some are solely the result of human activities¹¹⁰.

Figure 4.3.17.1.1 below shows a map of Pennsylvania indicating areas of sinkholes and surface depressions consistence with subsidence events. As one can see from this map, Franklin County has a significant portion (approximately 40%) of our land area susceptible to subsidence events. Almost every municipality has areas covered by the susceptible regions except for Lurgan Township and Orrstown Borough.

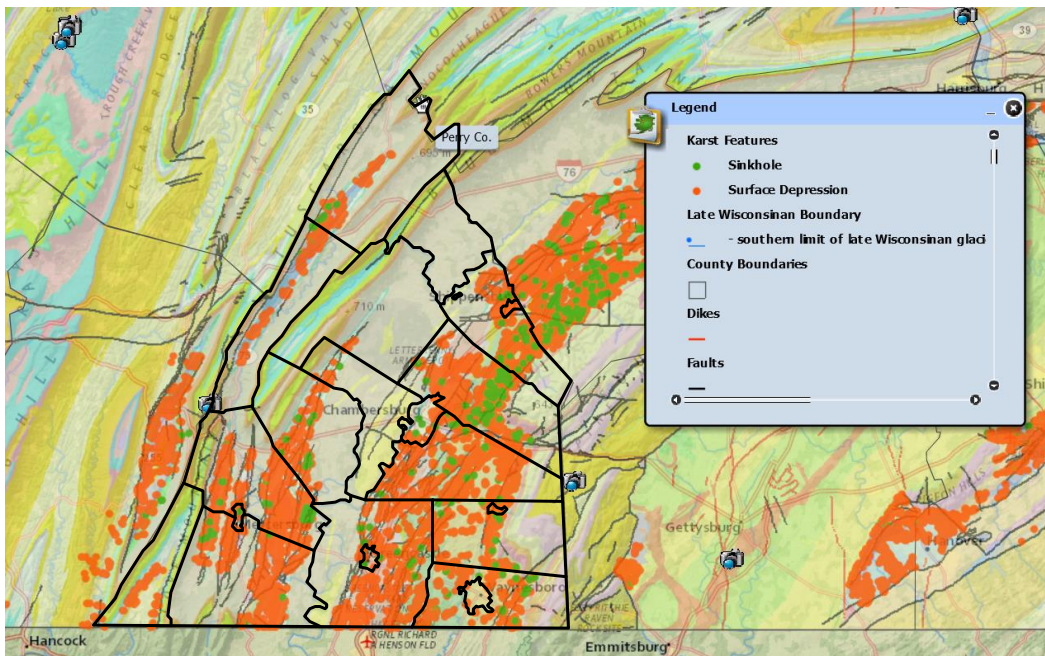


Figure 4.3.17.1.1: Areas of Franklin County Susceptible to Subsidence (2017)¹¹¹

4.3.17.2. Range of Magnitude

Franklin County currently has no significant mining industry, but we were able to identify areas of the county impacted by surface mines in the past. Additionally, Franklin County does have considerable deposits of limestone that is utilized in several quarry operations. It is estimated that 32% of the land is considered limestone. Subsidence and sinkhole events can cause severe damage in urban environments, although gradual events can be addressed before significant damage occurs. If long-term subsidence or sinkhole formation is not recognized and mitigation measures are not implemented, fractures or complete collapse of building foundations and roadways may result. Therefore, we should be aware of the potential hazard of sinkholes.

There have been several incidences of sinkholes throughout the county. These incidents were for the most part minor and resulted in no loss of property or lives. **Figure 4.3.17.2.1** shows the geological make-up of Pennsylvania (highlight added for Franklin County). As can be seen from this map, Franklin County has rock formations from several Geologic Eras with distinct rock

¹¹⁰ DCNR, 2015

¹¹¹ DCNR Interactive Map of Pennsylvania

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compositions (sandstone and limestone) which provide the right conditions for subsidence (See Table 4.3.17.2.1 below).

Geologic Era	Age	Rock Formations
Devonian	365-405 Million yrs	Red sandstone, gray shale, black shale, limestone, and chert.
Ordovician	430-500 Million yrs	Shale, limestone, dolomite, and sandstone.
Cambrian	500-570 Million yrs	Limestone, dolomite, sandstone, shale, quartzite, and phyllite.
Precambrian	>570 Million yrs	Gneiss, granite, anorthosite, metabasalt, metarhyolite, and marble.

Table 4.3.17.2.1: Geologic Composition of Franklin County

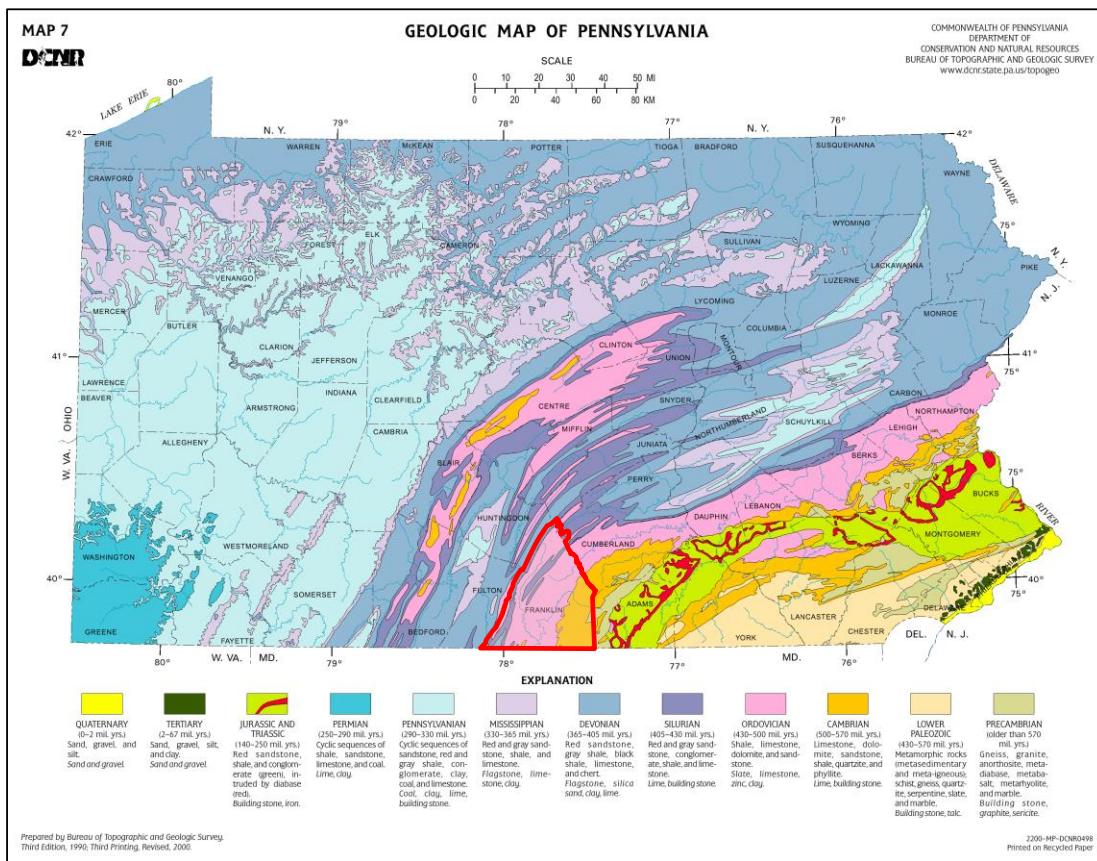


Figure 4.3.17.2.1: Geologic Map of Pennsylvania (2000)¹¹²

4.3.17.3. Past Occurrence

We were able to get a data pull from the PA DCNR, Bureau of Topographic and Geologic Survey for Franklin County. This data contains the current recorded subsidence events for Franklin County to include mines, caves, sinkholes, and surface depressions. We specifically did not try to analyze all of the data related to surface depressions as the total number recorded in

¹¹² DCNR, Bureau of Topographic and Geologic Survey, 2000

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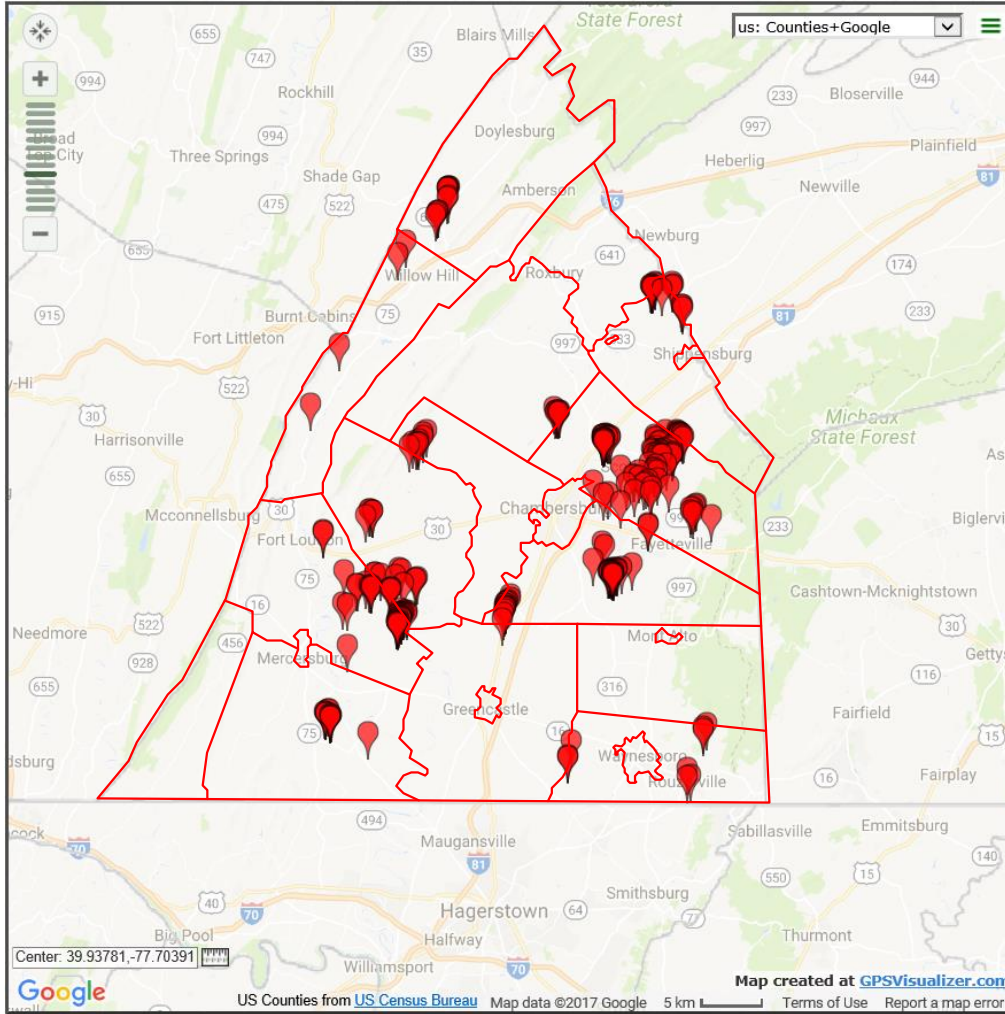


Figure 4.3.17.3.3: Location of Sinkholes in Franklin County (2017)¹¹⁵

¹¹⁵ DCNR, Bureau of Topographic and Geologic Survey, 2017

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Municipality	Sinkholes	Surface Mines	Caves	Totals
Antrim Township	9	1	0	10
Chambersburg Borough	0	0	0	0
Fannett Township	12	5	0	17
Greencastle Borough	0	0	0	0
Greene Township	94	9	0	103
Guilford Township	36	3	0	39
Hamilton Township	2	1	1	4
Letterkenny Township	0	5	0	5
Lurgan Township	0	0	0	0
Mercersburg Borough	0	0	0	0
Metal Township	4	0	0	4
Mont Alto Borough	0	0	0	0
Montgomery Township	12	2	0	14
Orrstown Borough	0	0	0	0
Peters Township	47	0	3	50
Quincy Township	0	3	0	3
Shippensburg Borough	0	0	0	0
Southampton Township	15	3	0	18
St Thomas Township	20	5	0	25
Warren Township	0	0	0	0
Washington Township	9	7	0	16
Waynesboro Borough	0	0	0	0
Totals	260	44	4	308

Table 4.3.17.3.1: Subsidence Events/Features Recorded in Franklin County (2017)¹¹⁶

The data presented above illustrates the susceptibility of certain regions of our county to subsidence. Even though all municipalities do not show an event, it only means that events were not reported. These events often go unnoticed or unreported if there is no significant property damage.

4.3.17.4. Future Occurrence

Sinkhole occurrence is a continuing phenomenon and is fairly common in the carbonate areas of the Cumberland Valley, but the impact is relatively low based on past occurrences. However, as the rural areas of the county become increasingly developed due to more people moving out of

¹¹⁶ DCNR, Dept of Conservation and Natural Resources, 2017

the Boroughs and into the Townships, the strain on underground aquifers will increase. This will pose an even greater threat for sinkholes in those areas resulting from groundwater depletion.

Based on geological conditions, subsidence events are likely to continue to occur in the future for the areas of the Cumberland Valley underlain by carbonate bedrock (See **Figure 4.3.17.2.1** above) and experiencing increased development.

It is difficult to calculate financial losses for all existing buildings, critical facilities and infrastructure from potential sinkhole formations in the county. However, we have plotted the susceptibility area in our GIS mapping system to determine the number of critical facilities and infrastructure in each municipality that are at risk to this threat (See **Figure 4.3.17.4.1** and **Table 4.3.17.4.1** below).

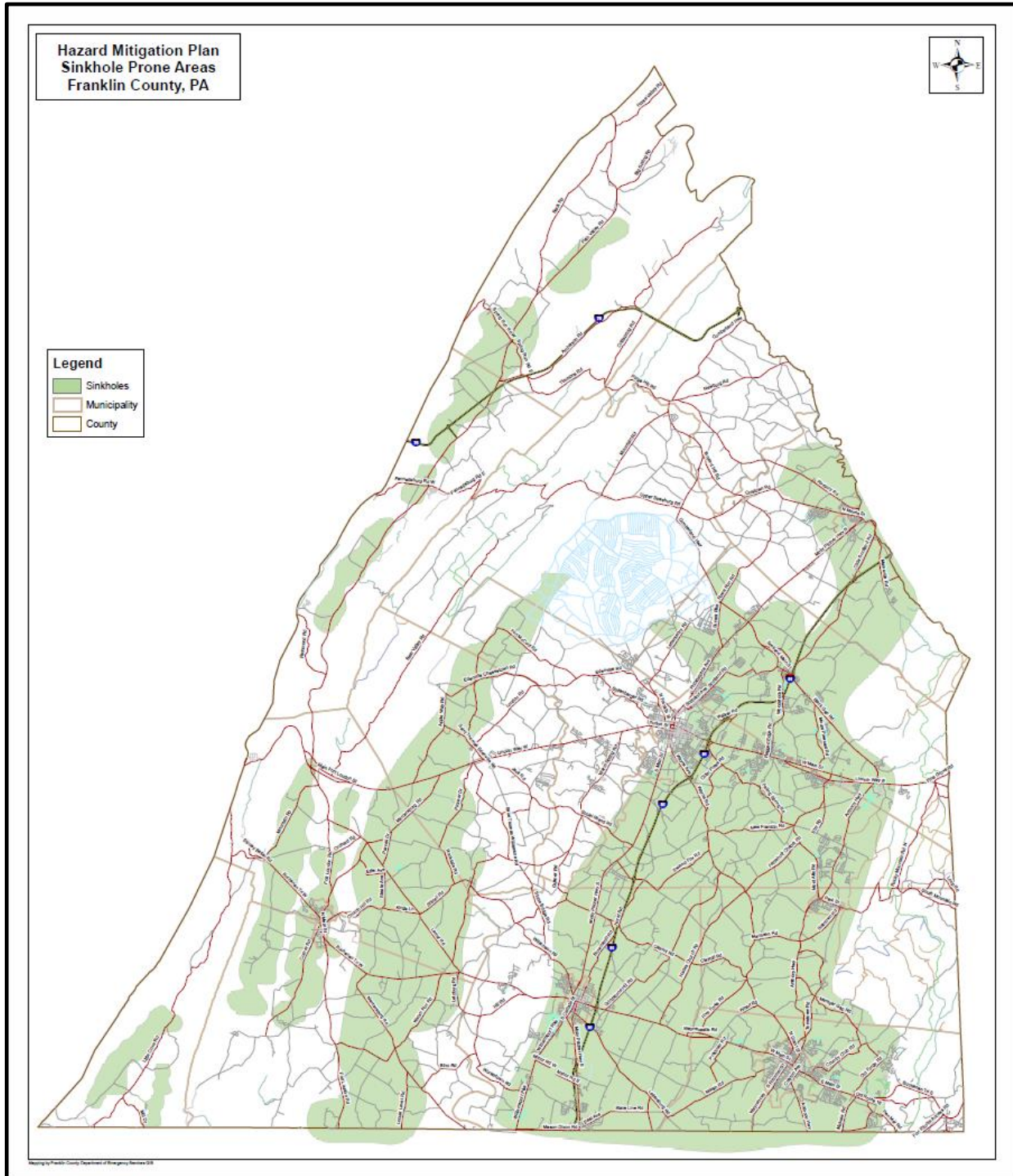


Figure 4.3.17.4.1: Areas of Susceptibility to Sinkholes in Franklin County

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Municipality	Total Number of Critical Facilities	Critical Facilities in Risk Areas
Antrim Township	75	65
Chambersburg Borough	97	51
Fannett Township	27	7
Greencastle Borough	24	25
Greene Township	100	83
Guilford Township	85	82
Hamilton Township	47	4
Letterkenny Township	20	0
Lurgan Township	21	0
Mercersburg Borough	10	5
Metal Township	15	5
Mont Alto Borough	6	6
Montgomery Township	12	6
Orrstown Borough	1	0
Peters Township	22	9
Quincy Township	48	31
Shippensburg Borough	5	5
Southampton Township	30	18
St Thomas Township	20	6
Warren Township	2	0
Washington Township	46	34
Waynesboro Borough	45	47
Totals	758	489

Table 4.3.17.4.1: Critical Facilities in Sinkhole Susceptible Areas by Municipality

From the information above, it is easily seen that the susceptibility area amounts to approximately 40% of the land area of Franklin County (See **Figure 4.3.17.1.1** above). Additionally, it is evident that we have several critical facilities and infrastructure in these susceptible areas that cause concern for this threat. Therefore, the future occurrence of subsidence and sinkholes is considered *possible* as defined by the Risk Factor Methodology probability criteria (refer to **Section 4.4**).

4.3.17.5. Vulnerability Assessment

Figure 4.3.17.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Subsidence/Sinkhole hazard. One can see that only 5 of 22 municipalities rated this threat as either a Major or Moderate event. This was ranked as the number 17 threat in Franklin County and is considered a Minor threat.

Franklin County Hazard Mitigation Plan - 2018


	<h2 style="text-align: center;">Subsidence/Sinkhole Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 - 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 - 1.9	
Insignificant	1.0 - 1.4												
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	3	30%	2	30%	1	20%	4	10%	1	10%	2.2	10.17%	0.2237
Chambersburg Borough	4	30%	1	30%	1	20%	4	10%	1	10%	2.2	13.64%	0.3001
Fannett Township	1	30%	1	30%	1	20%	1	10%	1	10%	1.0	1.68%	0.0168
Greencastle Borough	2	30%	1	30%	1	20%	4	10%	1	10%	1.6	2.57%	0.0411
Greene Township	2	30%	1	30%	1	20%	4	10%	1	10%	1.6	11.55%	0.1848
Guilford Township	4	30%	2	30%	2	20%	4	10%	1	10%	2.7	9.59%	0.2589
Hamilton Township	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	7.18%	0.0933
Letterkenny Township	2	30%	1	30%	2	20%	4	10%	1	10%	1.8	1.53%	0.0275
Lurgan Township	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	1.40%	0.0182
Mercersburg Borough	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	0.99%	0.0129
Metal Township	1	30%	2	30%	1	20%	4	10%	1	10%	1.6	1.20%	0.0192
Mont Alto Borough	1	30%	1	30%	1	20%	1	10%	1	10%	1.0	1.12%	0.0112
Montgomery Township	3	30%	2	30%	4	20%	4	10%	1	10%	2.8	4.02%	0.1126
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	1	10%	1.2	0.17%	0.0020
Peters Township	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	2.85%	0.0371
Quincy Township	3	30%	1	30%	1	20%	4	10%	1	10%	1.9	3.52%	0.0669
Shippensburg Borough	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	0.71%	0.0092
Southampton Township	3	30%	2	30%	3	20%	4	10%	1	10%	2.6	5.48%	0.1425
St Thomas Township	2	30%	1	30%	1	20%	4	10%	1	10%	1.6	3.87%	0.0619
Warren Township	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	0.24%	0.0031
Washington Township	1	30%	1	30%	1	20%	1	10%	1	10%	1.0	9.53%	0.0953
Waynesboro Borough	2	30%	1	30%	1	20%	4	10%	1	10%	1.6	7.02%	0.1123
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)													1.850

Figure 4.3.17.5.1: Municipal Subsidence/Sinkhole Threat Vulnerability Self-Assessment

From the information above, it can be said that the majority of communities in Franklin County are vulnerable on some level to the Subsidence/Sinkhole threat. However, the impact to lives and level of property damage for this threat has been negligible to date.

4.3.18. Terrorism

The term “terrorism” refers to intentional, criminal, malicious acts, but the functional definition of terrorism can be interpreted in many ways. Officially, terrorism is defined in the Code of Federal Regulations (CFR) as “...the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives” (28 CFR §0.85). Terrorists use threats to create fear, to try to convince citizens of the powerlessness of their government, and/or to get publicity for their cause.

International terrorism: Perpetrated by individuals and/or groups inspired by or associated with designated foreign terrorist organizations or nations (state-sponsored). For example, the December 2, 2015 shooting in San Bernardino, CA, that killed 14 people and wounded 22 which involved a married couple who radicalized for some time prior to the attack and were inspired by multiple extremist ideologies and foreign terrorist organizations.

Domestic terrorism: Perpetrated by individuals and/or groups inspired by or associated with primarily U.S.-based movements that espouse extremist ideologies of a political, religious, social, racial, or environmental nature. For example, the June 8, 2014 Las Vegas shooting, during which two police officers inside a restaurant were killed in an ambush-style attack, which was committed by a married couple who held anti-government views and who intended to use the shooting to start a revolution¹¹⁷.

4.3.18.1. Location and Extent

Terrorism is a threat everywhere, but there are a number of important considerations in evaluating terrorism hazards, such as the existence of facilities, landmarks, or other buildings of international, national, regional, or local importance. High-risk targets for acts of terrorism include military and civilian government facilities, international airports, large cities, high-profile landmarks. Terrorists might also target large public gatherings and events indoor or outdoor, water and food supplies, utilities, and corporate centers. Furthermore, terrorists are capable of spreading fear by sending explosives or chemical and biological agents through the mail (FEMA, April 2009). Nonetheless, terrorism can take many forms and terrorists have a wide range of personal, political, religious or cultural agendas. Therefore, **all locations** are a potential terrorist target.

Of particular concern are the critical facilities in Franklin County. Police stations, hospitals, fire stations, schools, wastewater treatment plants, and a military installation (Letterkenny Army Depot) along with critical infrastructure such as bridges, tunnels, electric generation and distribution facilities, public water supplies, and government buildings may be potential terrorist targets. Damage to these facilities and infrastructure could cripple transportation routes and

¹¹⁷ FBI

commerce. Additionally, there are 139 Superfund Amendments and Reauthorization Act (SARA) Title III facilities as well as many transportation routes vital to the entire Commonwealth traversing Franklin County, making intentional hazard material releases a potential threat to citizens and the environment.¹¹⁸ For Terrorism, all of Franklin County has been identified as the hazard area. Therefore, all critical facilities, houses, population, and infrastructure as outlined in **Tables 2.4.4 and 2.4.6, Section 2** are vulnerable.

4.3.18.2. Range of Magnitude

Terrorist attacks can take many forms, including agro-terrorism, arson/incendiary attack, armed attack, assassination, biological agent, chemical agent, cyber-terrorism, conventional bomb, hijackings, intentional hazardous material release, kidnapping, nuclear bomb and radiological agent (FEMA April 2009). Explosives have been the traditional method of conducting terrorism, but intelligence suggests that the possibility of biological or chemical terrorism is increasing. The severity of terrorist incidents depends upon the method of attack, the proximity of the attack to people, animals, or other assets and the duration of exposure to the incident or attack device. For example, chemical agents are poisonous gases, liquids or solids that have toxic effects on people, animals, or plants. Many chemical agents can cause serious injuries or death. In this case, severity of injuries depends on the type and amount of the chemical agent used and the duration of exposure.

Biological agents are organisms or toxins that have illness-producing effects on people, livestock and crops. Some biological agents cannot be easily detected and may take time to develop. Therefore, it can be difficult to know that a biological attack has occurred until victims display symptoms. In other cases, the effects are immediate. Those affected by a biological agent require the immediate attention of professional medical personnel. Some agents are contagious which may result in the need for victims to be quarantined.

In recent years, cyber-terrorism has become a larger threat than in years past. Cyber-terrorism can be defined as activities intended to damage, disrupt, or exploit vital computer systems. These acts can range from taking control of a host website to using networked resources to directly cause destruction and harm. Protection of databases and infrastructure appear to be the main goals at this point in time. Cyber-terrorists can be difficult to identify because the internet provides a meeting place for individuals from various parts of the world. Individuals or groups planning a cyber-attack are not organized in a traditional manner, as they are able to effectively communicate over long distances without delay. The largest threat to institutions from cyber-terrorism comes from any processes that are networked and controlled via computer. Any vulnerability that could allow access to sensitive data or processes should be addressed and any possible measures taken to harden those resources to attack.

Active assailant, as defined by the US Department of Homeland Security, is an individual actively engaged in killing or attempting to kill people in a confined area; in most cases, active assailants use firearm(s) and there is no pattern or method to their selection of victims. Recent high-profile incidents involving active assailants include; the Sandy Hook Elementary school shootings in Newtown, Connecticut, the shooting in the Aurora, Colorado movie theater, Pulse

¹¹⁸ PEMA, 2013

Nightclub mass shooting in Orlando Florida, the deadliest mass shooting incident in U.S. history in Las Vegas, Nevada at the Mandalay Bay Resort and Casino, and the most recent mass shooting at the First Baptist Church in Sutherland Springs, Texas. Historical active assailant events include the 1982 Wilkes-Barre, Pennsylvania mass shootings, the Nickel Mines Pennsylvania hostage taking and shootings, the Virginia Tech shootings, the Columbine High School shootings, and the University of Texas, Austin shootings. No substantive research has yet been compiled to address the potential vulnerability to an active assailant incident. As a very open, public society, these incidents are easier to accomplish for those bent on doing harm. Some of these incidents have occurred in public places, and some in places that are considered more restricted (like elementary schools and high schools). There is no discernible pattern to the location chosen by the assailant.

Instances of terrorism in Franklin County have thankfully thus far been minimal. A worst-case scenario for a terrorism event in Franklin County would be if a “dirty bomb” combining radioactive material with conventional explosives were to be detonated at a large gathering of people at a large athletic event or a heavily attended school or community function. On the given day and specific location, a significant number of individuals would be exposed to the bomb’s radiation both at the time of detonation and after the fact as the radiation spread. The explosive device could damage or even topple buildings, spark utility outages area-wide, and/or ignite large-scale fires. Another potential lethal and injurious situation for terrorism in Franklin County is where a “known or lone wolf” individual rents or uses some type of vehicle and drives into a crowd or a group of people along a street or at some type of event. An incident of this depiction occurred on October 31, 2017 in Manhattan, New York City, where an individual drove a rental truck on a bike path and killed at least eight people while injuring 11 more. Another harmful scenario for Franklin County would be if the water or food supply is intentionally contaminated in an act of agro-terrorism. Franklin County ranks second in the state in many valuable agricultural commodities. Not only would this act of terrorism endanger the lives of people and livestock in the county, it would adversely affect the local economy¹¹⁹.

4.3.18.3. Past Occurrence

There has been a high consciousness of terrorist activity in the press with few catastrophic events. The most significant terrorist attack on US soil occurred on September 11, 2001. Flight 93, the fourth hijacked aircraft in the attack, crashed in Somerset County, Pennsylvania. Another significant recent terrorist event was the detonation of a pair of homemade pressure cooker bombs at the finish line of the Boston Marathon. This event killed 3 people and injured a further 264 people¹²⁰.

Franklin County experienced a case of domestic terrorism between September 10 and 24, 2008. During this time frame there were 10 pipe bombing incidents in St. Thomas Township. Through a joint investigation conducted by the Pennsylvania State Police; the Bureau of Alcohol, Tobacco and Firearms; and the U.S. Postal Service Inspector Division, three local high school students were arrested and charged as juveniles with Possessing Weapons of Mass Destruction, Causing or Risking a Catastrophe, Recklessly Endangering Another Person, and Possession of

¹¹⁹ PEMA, 2013

¹²⁰ PEMA, 2013

Franklin County Hazard Mitigation Plan - 2018

Instruments of Crime from statutes found in the Pennsylvania Crimes Code. Fortunately, no one was seriously injured during this crime spree¹²¹. **Table 4.3.18.3.1** illustrates the previously recorded events in Franklin County that can be categorized as Terrorist Activity.

Threat/Suspected Terrorist Activity Type	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Totals
Bomb Threat	0	0	0	0	0	0	4	2	2	0	8
Suspicious Activity	261	240	183	215	338	258	322	349	404	348	2,918
Suspicious Package	11	8	3	10	11	8	11	11	17	13	103
Terrorist Activity	14	10	4	3	1	0	1	2	2	0	37
Threats – Non-Specified	180	153	178	177	228	208	202	212	258	235	2,031
Totals	446	411	368	405	578	474	540	576	683	596	5,097

Table 4.3.18.3.1: Threat/Suspected Terrorist Activity Events Reported in Franklin County (2007-2016)¹²²

4.3.18.4. Future Occurrence

Based on historical events, Franklin County and Pennsylvania can expect to experience terrorist incidents and suspicious activities sometime in the near future. Note that this estimate is based on the occurrence of past events over a short period of time and is not the result of detailed statistical sampling. Although previous events have not resulted in what are considered significant terrorist attacks, the severity of a future incident cannot be predicted with a sufficient level of certainty. Prediction of terrorist attacks is almost impossible because terrorism is a result of human factors. As long as fringe groups maintain radically different ideas than that of the government or general population, terrorism is a possibility¹²³.

4.3.18.5. Vulnerability Assessment

Figure 4.3.18.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Terrorism hazard. One can see that 4 of 22 municipalities rated this threat as either a Catastrophic or Major event. Of the remaining 18 municipalities, only 6 ranked this as a Moderate threat. This was ranked as the number 16 threat in Franklin County and is considered a Minor threat.

¹²¹ The Herald Mail, 2008

¹²² Franklin County CAD System, 2007-2017

¹²³ PEMA, 2013

Franklin County Hazard Mitigation Plan - 2018


	<h2 style="text-align: center;">Terrorism Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 – 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 – 1.9	
											Insignificant	1.0 – 1.4	
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	2	30%	1	30%	2	20%	4	10%	2	10%	1.9	10.17%	0.1932
Chambersburg Borough	1	30%	1	30%	1	20%	4	10%	2	10%	1.4	13.64%	0.1910
Fannett Township	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	1.68%	0.0185
Greencastle Borough	2	30%	4	30%	3	20%	4	10%	2	10%	3.0	2.57%	0.0771
Greene Township	2	30%	1	30%	2	20%	4	10%	2	10%	1.9	11.55%	0.2195
Guilford Township	1	30%	3	30%	2	20%	4	10%	2	10%	2.2	9.59%	0.2110
Hamilton Township	1	30%	1	30%	3	20%	4	10%	2	10%	1.8	7.18%	0.1292
Letterkenny Township	3	30%	4	30%	4	20%	4	10%	2	10%	3.5	1.53%	0.0536
Lurgan Township	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	1.40%	0.0154
Mercersburg Borough	1	30%	4	30%	4	20%	4	10%	2	10%	2.9	0.99%	0.0287
Metal Township	2	30%	2	30%	2	20%	4	10%	2	10%	2.2	1.20%	0.0264
Mont Alto Borough	1	30%	1	30%	1	20%	4	10%	2	10%	1.4	1.12%	0.0157
Montgomery Township	3	30%	3	30%	3	20%	4	10%	2	10%	3.0	4.02%	0.1206
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	2	10%	1.3	0.17%	0.0022
Peters Township	1	30%	1	30%	1	20%	4	10%	2	10%	1.4	2.85%	0.0399
Quincy Township	2	30%	2	30%	4	20%	1	10%	2	10%	2.3	3.52%	0.0810
Shippensburg Borough	1	30%	1	30%	2	20%	4	10%	2	10%	1.6	0.71%	0.0114
Southampton Township	2	30%	2	30%	2	20%	4	10%	2	10%	2.2	5.48%	0.1206
St Thomas Township	2	30%	2	30%	1	20%	4	10%	2	10%	2.0	3.87%	0.0774
Warren Township	1	30%	2	30%	1	20%	4	10%	2	10%	1.7	0.24%	0.0041
Washington Township	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	9.53%	0.1048
Waynesboro Borough	2	30%	2	30%	1	20%	4	10%	2	10%	2.0	7.02%	0.1404
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)												1.881	

Figure 4.3.18.5.1: Municipal Terrorism Threat Vulnerability Self-Assessment

All communities in Franklin County are vulnerable on some level, directly or indirectly, to a terrorist attack. However, communities where the previously mentioned potential targets are located should be considered more vulnerable. Larger populated areas are the most vulnerable to terrorist attacks due to the sheer size of these areas, density of the population, and concentration of critical infrastructure located there.

4.3.19. Tornado, Windstorm

A tornado is a violently rotating column of air extending from the base of a thunderstorm down to the ground. Tornadoes are capable of completely destroying well-made structures, uprooting trees, and hurling objects through the air like deadly missiles. Tornadoes can occur at any time of day or night and at any time of the year. Although tornadoes are most common in the Central Plains and the southeastern United States, they have been reported in all 50 states¹²⁴. Wind speeds in tornadoes can range from 65 to over 200 mph. Although tornadoes occur in many parts of the world, these destructive forces of nature are found most frequently in the United States east of the Rocky Mountains during the Spring and Summer seasons. Tornadoes are most frequent during late afternoon into early evening, the warmest hours of the day.

Straight-line winds and windstorms are experienced on a more region-wide scale. While such winds usually accompany tornadoes, straight-line winds are caused by the movement of air from areas of higher pressure to areas of low pressure. Stronger winds are the result of greater differences in pressure. Windstorms are generally defined with sustained wind speeds of 40 mph or greater lasting for one hour or longer, or winds of 58 mph or greater for any duration.

4.3.19.1. Location and Extent

Both tornado and windstorm events can occur throughout Pennsylvania. Tornado events are usually localized. However, severe thunderstorms may result in conditions favorable to the formation of numerous or long-lived tornadoes. Tornado movement is characterized in two ways: direction and speed of spinning winds and forward movement of the tornado, also known as the storm track. Most tornadoes have wind speeds of 110 mph or less, are approximately 250 feet across, and travel a few miles before dissipating. Some attain wind speeds of more than 300 mph, stretch more than a mile across, and stay on the ground for dozens of miles. Some tornadoes never touch the ground and are short-lived, while others may touch the ground several times.

Wind events can vary in spatial size from small micro-scale events which take place over only a few hundred meters to large-scale synoptic wind events often associated with warm or cold fronts.

4.3.19.2. Range of Magnitude

Tornadoes cause an average of 70 fatalities and 1,500 injuries in the United States each year¹²⁵. There are regions of the United States that have a higher level of tornado activity, such as

¹²⁴ NOAA/NWS

¹²⁵ Missouri Storm Aware

Tornado Alley in the Mid-West, but all areas of the country are susceptible to them, including Franklin County.

Tornadoes vary in size and severity and were measured by the Fujita Scale until February 2007. At that time, the scale was retooled to allow for a better indicator of damage from the storms. This new scale is called the Enhanced Fujita Scale. **Figure 4.3.19.2.1** shows both scales. The Fujita scale is included because the historical tornado events for Franklin County can be reported using either scale, depending on when they occurred.

Fujita Scale		Enhanced Fujita Scale* <small>* In use since 2007</small>	
F-0	40–72 mph winds	EF-0	65–85 mph winds
F-1	73–112 mph	EF-1	86–110 mph
F-2	113–157 mph	EF-2	111–135 mph
F-3	158–206 mph	EF-3	136–165 mph
F-4	207–260 mph	EF-4	166–200 mph
F-5	261–318 mph	EF-5	>200 mph

Figure 4.3.19.2.1: Fujita and Enhanced Fujita Scales

There are two types of alerts for tornado activity, they are defined below:

- **Tornado Watch:** Tornadoes are possible, be prepared. Weather conditions favor thunderstorms capable of producing tornadoes in and near the defined watch area.
- **Tornado Warning:** Tornadoes are expected, seek shelter. A tornado is occurring or will shortly develop in or near the defined watch area.

Pennsylvania averages 12 tornadoes per year, resulting in an average of 1 fatality. Counties in a high risk tornado area include York County, Lancaster County, and Dauphin County (all part of the South Central Task Force Region that includes Franklin County). The largest tornado on record in this region occurred on 05/31/1985, measuring an F4 on the Fujita-Pearson scale¹²⁶.

4.3.19.3. Past Occurrence

Franklin County has experienced 13 recorded tornado events on 10 separate days since 1950¹²⁷. **Figure 4.3.19.3.1** shows a map of these tornado events in Franklin County since 1950.

¹²⁶ Homefacts

¹²⁷ NOAA/NCEI

Franklin County Hazard Mitigation Plan - 2018

#	Location	Municipality	Date	Time	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
1	Milnor	Antrim Township	8/26/2012	1256	EF0	0	0	\$10K	\$1.5K
2	Zumbro	Guilford Township	5/26/2011	1710	EF1	0	0	\$10K	\$0
3	Chambersburg	Greene Township	9/17/2004	1918	F1	0	0	\$0	\$0
4	St Thomas	Peters Township	9/17/2004	1828	F1	0	0	\$0	\$0
5	Greencastle	Antrim Township	9/17/2004	1814	F1	0	0	\$0	\$0
6	Shippensburg	Shippensburg Borough	7/30/1996	1830	F1	0	0	\$0	\$0
7	Waynesboro	Waynesboro Borough	7/19/1996	1330	F1	0	0	\$0	\$0
8	Pond Bank	Guilford Township	4/30/1994	2010	F2	0	2	\$500K	\$0
9	Greencastle	Antrim Township	4/30/1994	2000	F1	0	0	\$50K	\$0
10	Lemasters	Peters Township	6/19/1992	1120	F0	0	0	\$25K	\$0
11	Mont Alto	Quincy Township	6/20/1989	1756	F1	0	0	\$25K	\$0
12	Scotland	Greene Township	3/21/1976	1050	F0	0	0	\$2.5K	\$0
13	Fayetteville	Greene Township	7/29/1974	1900	F1	0	0	\$25K	\$0
Totals						0	2	\$647.5K	\$1.5K

Table 4.3.19.3.1: List of Tornado Events in Franklin County (1950-2018)

Franklin County has experienced 252 recorded High Wind/Thunderstorm Wind events on 188 separate days since 1950¹²⁸. **Table 4.3.19.3.2** shows the municipalities where these events occurred in Franklin County since 1950.

¹²⁸ NOAA/NCEI

Franklin County Hazard Mitigation Plan - 2018

Municipality	# of Events	Deaths	Injuries	Property Damage	Crop Damage
Antrim Township	19	0	0	\$71,000	\$0
Chambersburg Borough	22	0	1	\$55,500	\$0
Fannett Township	11	0	0	\$26,000	\$0
Greencastle Borough	12	0	0	\$19,500	\$0
Greene Township	13	0	0	\$510,500	\$0
Guilford Township	24	0	0	\$39,000	\$0
Hamilton Township	37	0	0	\$69,500	\$0
Letterkenny Township	9	0	0	\$51,000	\$0
Lurgan Township	4	0	0	\$10,000	\$0
Mercersburg Borough	20	0	0	\$31,500	\$0
Metal Township	3	0	0	\$5,000	\$0
Mont Alto Borough	0	0	0	\$0	\$0
Montgomery Township	3	0	0	\$10,000	\$0
Orrstown Borough	0	0	0	\$0	\$0
Peters Township	1	0	0	\$12,000	\$0
Quincy Township	10	0	0	\$6,000	\$0
Shippensburg Borough	4	0	0	\$12,000	\$0
Southampton Township	2	0	0	\$0	\$0
St Thomas Township	7	0	0	\$32,500	\$0
Warren Township	2	0	0	\$5,000	\$0
Washington Township	13	0	0	\$27,500	\$0
Waynesboro Borough	24	0	0	\$25,000	\$0
Countywide Events	12	1	0	\$58,450	\$4,000
Totals	252	1	1	\$1,076,950	\$4,000

Table 4.3.19.3.2: Roll-up of Thunderstorm Wind and High Wind Events in Franklin County (1950-2018)¹²⁹

Appendix H contains a complete list of all recorded Windstorm events with the deaths, injuries, and property damage assessed for each occurrence.

¹²⁹ NOAA/NCEI

4.3.19.4. Future Occurrence

While the chance of being hit by a tornado is small, the damage that results when the tornado arrives is devastating. An EF4 tornado can have wind velocities of 200 mph, resulting in a force of more than 100 pounds per square foot of surface area. This is a “wind load” that exceeds the design limits of most buildings. Unlike some hazards, tornadoes are not specific to select parts of the county. Rather, a tornado could strike any part of the county, and at any time, and could cause as much or as little damage as possible for the given magnitude event.

Based on tornado activity in Pennsylvania between 1950 and 2002, most of Franklin County lays within the area of 10-20 events (See **Figure 4.3.19.4.1** below), all in the F0/EF0, F1/EF1, and F2/EF2 ranges (See **Table 4.3.19.3.1** above). This equates to roughly 1 tornado every 4 years.

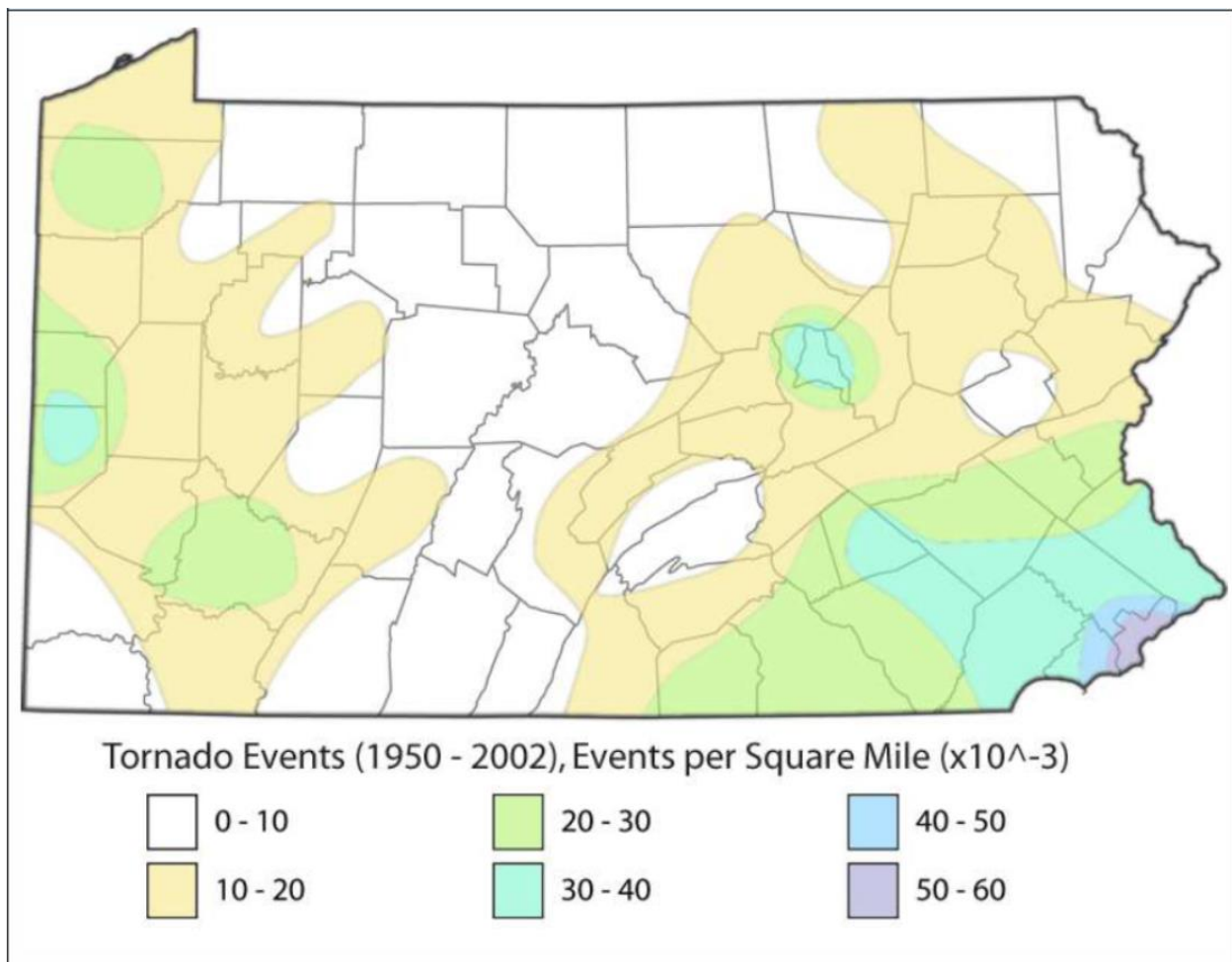


Figure 4.3.19.4.1: Tornado Events for Pennsylvania (1950-2002)¹³⁰

Based on the Tornado and Windstorm event history of Franklin County, the future occurrences of tornadoes and/or windstorms should be considered *highly likely* as defined by the Risk Factor ranking probability criteria (See **Section 4.4**).

¹³⁰ PEMA, 2013

4.3.19.5. Vulnerability Assessment

Based on all the information available, every community in Franklin County is equally vulnerable to the direct impacts of Tornadoes and Windstorms. For Tornadoes and Windstorms, all of Franklin County has been identified as the hazard area. Therefore, all critical facilities, houses, population, and infrastructure as outlined in **Tables 2.4.4 and 2.4.6, Section 2** are vulnerable.

Figure 4.3.19.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Tornado and Windstorm hazard. One can see that 9 of 22 municipalities rated this threat as either a Catastrophic or Major event. Furthermore, 8 of the remaining 13 municipalities have it ranked as a Moderate threat. This is a Moderate threat ranked number 3 highest for Franklin County and will garner significant attention during the Mitigation Strategy in **Section 6**.

Franklin County Hazard Mitigation Plan - 2018


											Risk Factor Scale		
											Catastrophic	3.0 – 4.0	
 <h2 style="text-align: center;">Tornado/Windstorm Hazard Threat Risk Assessment</h2>											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 – 1.9	
											Insignificant	1.0 – 1.4	
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	4	30%	3	30%	3	20%	2	10%	1	10%	3.0	10.17%	0.3051
Chambersburg Borough	2	30%	3	30%	2	20%	4	10%	1	10%	2.4	13.64%	0.3274
Fannett Township	2	30%	2	30%	4	20%	4	10%	1	10%	2.5	1.68%	0.0420
Greencastle Borough	2	30%	4	30%	4	20%	4	10%	1	10%	3.1	2.57%	0.0797
Greene Township	2	30%	2	30%	2	20%	4	10%	1	10%	2.1	11.55%	0.2426
Guilford Township	3	30%	2	30%	4	20%	4	10%	1	10%	2.8	9.59%	0.2685
Hamilton Township	2	30%	2	30%	4	20%	4	10%	1	10%	2.5	7.18%	0.1795
Letterkenny Township	3	30%	1	30%	3	20%	4	10%	1	10%	2.3	1.53%	0.0352
Lurgan Township	2	30%	2	30%	3	20%	4	10%	1	10%	2.3	1.40%	0.0322
Mercersburg Borough	2	30%	3	30%	4	20%	4	10%	1	10%	2.8	0.99%	0.0277
Metal Township	1	30%	1	30%	2	20%	4	10%	1	10%	1.5	1.20%	0.0180
Mont Alto Borough	2	30%	1	30%	3	20%	3	10%	1	10%	1.9	1.12%	0.0213
Montgomery Township	3	30%	3	30%	4	20%	4	10%	1	10%	3.1	4.02%	0.1246
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	1	10%	1.2	0.17%	0.0020
Peters Township	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	2.85%	0.0371
Quincy Township	3	30%	2	30%	4	20%	1	10%	1	10%	2.5	3.52%	0.0880
Shippensburg Borough	2	30%	3	30%	2	20%	2	10%	1	10%	2.2	0.71%	0.0156
Southampton Township	2	30%	2	30%	2	20%	4	10%	1	10%	2.1	5.48%	0.1151
St Thomas Township	3	30%	2	30%	2	20%	4	10%	1	10%	2.4	3.87%	0.0929
Warren Township	2	30%	2	30%	3	20%	4	10%	1	10%	2.3	0.24%	0.0055
Washington Township	2	30%	1	30%	2	20%	4	10%	1	10%	1.8	9.53%	0.1715
Waynesboro Borough	3	30%	2	30%	4	20%	4	10%	1	10%	2.8	7.02%	0.1966
Municipal Weighted Average Risk Factor (RF)(Updated 12/10/2020)												2.427	

Figure 4.3.19.5.1: Municipal Tornado/Windstorm Threat Vulnerability Self-Assessment

Windstorm events related to Thunderstorms and High Winds are more common in Franklin County than are tornadoes, but the impacts to life and property of these events tends to be much smaller and localized. Combined there have been 265 Tornado and Windstorm events in Franklin County since 1950. Fortunately, the impacts to life have been relatively small with only 1 death and 3 injuries. On the other hand, property and crop damages have been significant, with \$1,724,450 in property damages and \$5,500 in crop damages.

Tornadoes and Windstorms will occur again in Franklin County and mitigation plans will have to be crafted to reduce the threat to life and property of our citizens.

4.3.20. Transportation Accident

Transportation hazards can include, but are not limited to: hazardous materials in transit, vehicular accidents, aviation accidents, and at-grade railroad crossings and roadways vulnerable to floods. For the purposes of this plan, transportation accidents are defined as incidents involving highway, rail, and air travel.

4.3.20.1. Location and Extent

Within Franklin County, there are over 1,700 miles of roads and streets, over 400 bridges, 2 intermodal terminals, 1 airport, and about 149 miles of railways. Primary key routes move traffic and goods in and out of Franklin County. The following routes are considered primary key routes: I-81, I-76, US Route 30, US Route 11, and PA 16. Secondary key routes typically move traffic and goods within Franklin County. The following routes are considered secondary key routes: PA 997, PA 316, PA 75, PA 416, PA 433, PA 696, PA 641 and PA 533. **Figure 4.3.20.1.1** below identifies where these key secondary routes intersect. **Figure 4.3.20.1.2** shows where these intersections are in the county that can be high accident areas or choke points for evacuations.

SR	997	641	533	433	416	316	233	75	30	16	11
11	X		X	X		X			X	X	
16	X					X		X			
30	X				X		X	X			
75		X	X		X						
233	X										
316											
416											
433			X								
533	X										
641	X										
997											

Figure 4.3.20.1.1: Secondary Route Intersections in Franklin County

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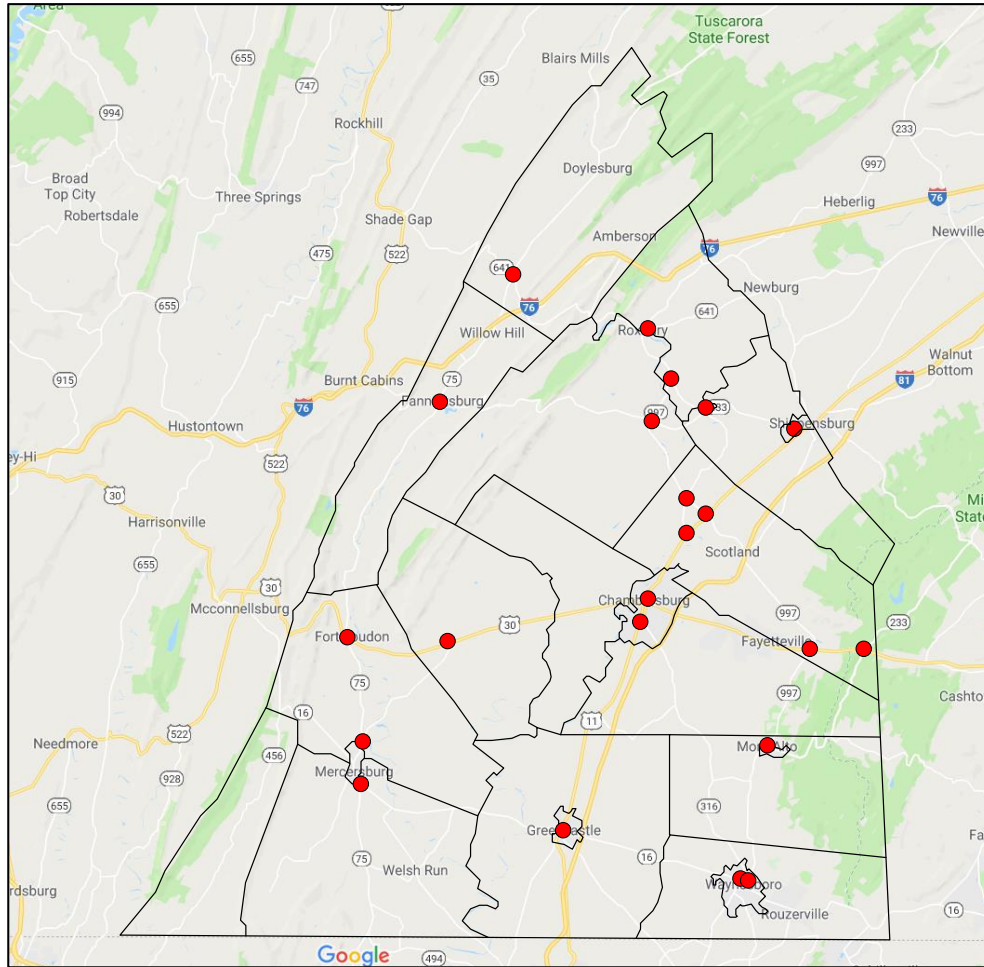


Figure 4.3.20.1.2: Locations of Key Secondary Route Intersections

Railroad Lines:

The county has two main railroad lines within its borders: Norfolk Southern Railroad Line and CSX Railroad Line. The Norfolk Southern Railroad line runs along the center of Franklin County paralleling US Route 11 and I-81. The Norfolk Southern Railroad transverses through the following municipalities: Shippensburg Borough, Southampton Township, Greene Township, Chambersburg Borough, Guilford Township, Antrim Township, and Greencastle Borough. This railroad line utilizes a combination of at-grade crossing, and above and under grade road/street crossings. Out of the two aforementioned railroad lines, Norfolk Southern Railroad Line is built through densely populated areas in Franklin County. **Figure 4.3.20.1.3** depicts our railroad system.

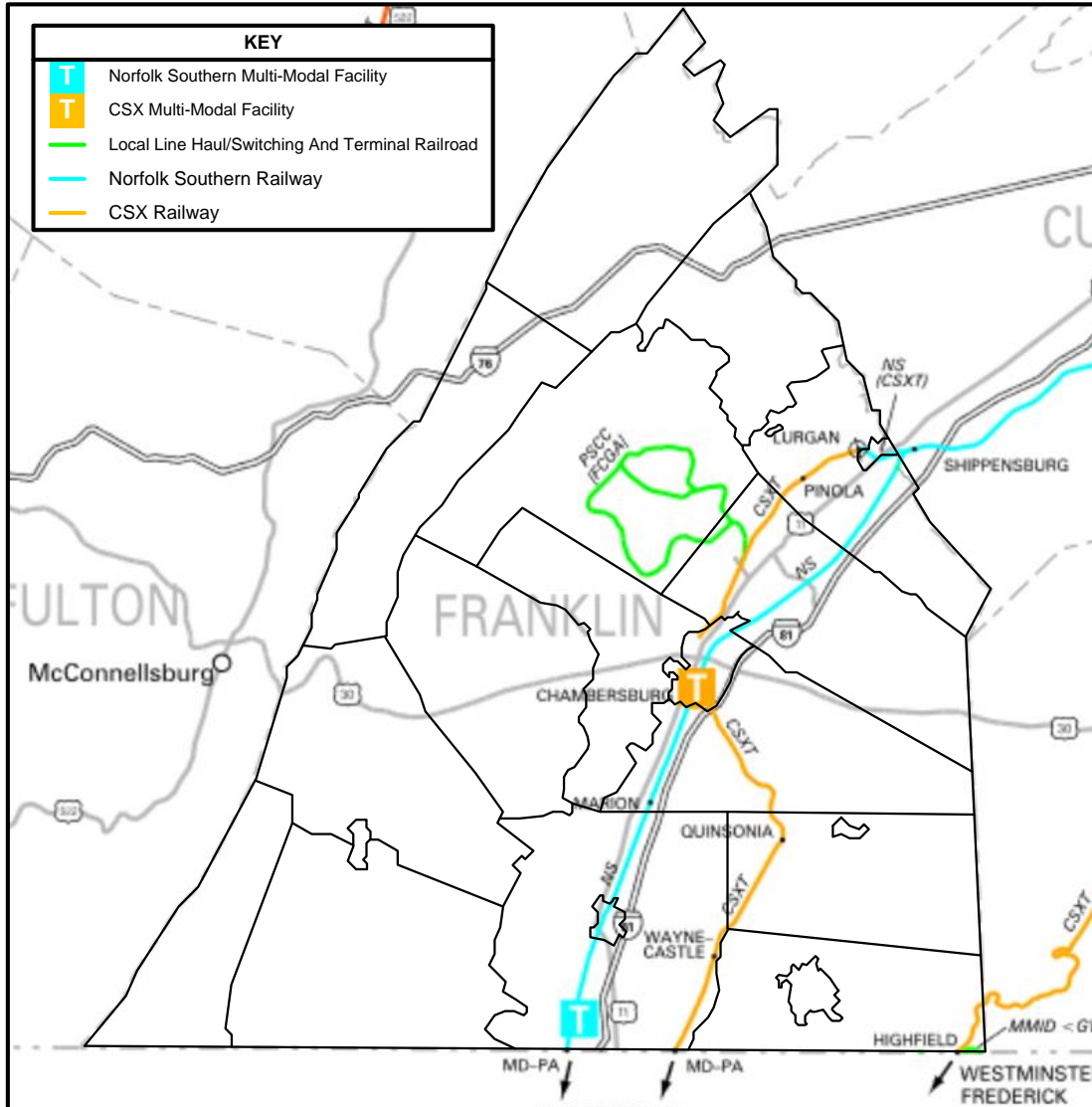


Figure 4.3.20.1.3: Railroad and Intermodal Terminals in Franklin County¹³¹

Rail accidents generally fit into 1 of 3 categories¹³²:

- Derailment – the train leaves the rails.
- Collision – a train strikes another train, vehicle, or person.
- Other – including objects on the rails, fires, or explosions.

Intermodal Terminals:

The county has 2 intermodal (railroad) terminals. One owned by Norfolk Southern in Antrim Township and the second owned by CSX in Guilford Township. Millions of goods enter or exit these 2 terminals by railcar or truck/tractor trailer thus creating additional usage on the road system and railroad line system (see **Figure 4.3.20.1.4** below for usage of these track systems in PA).

¹³¹ PennDOT, 2017

¹³² PEMA, 2013

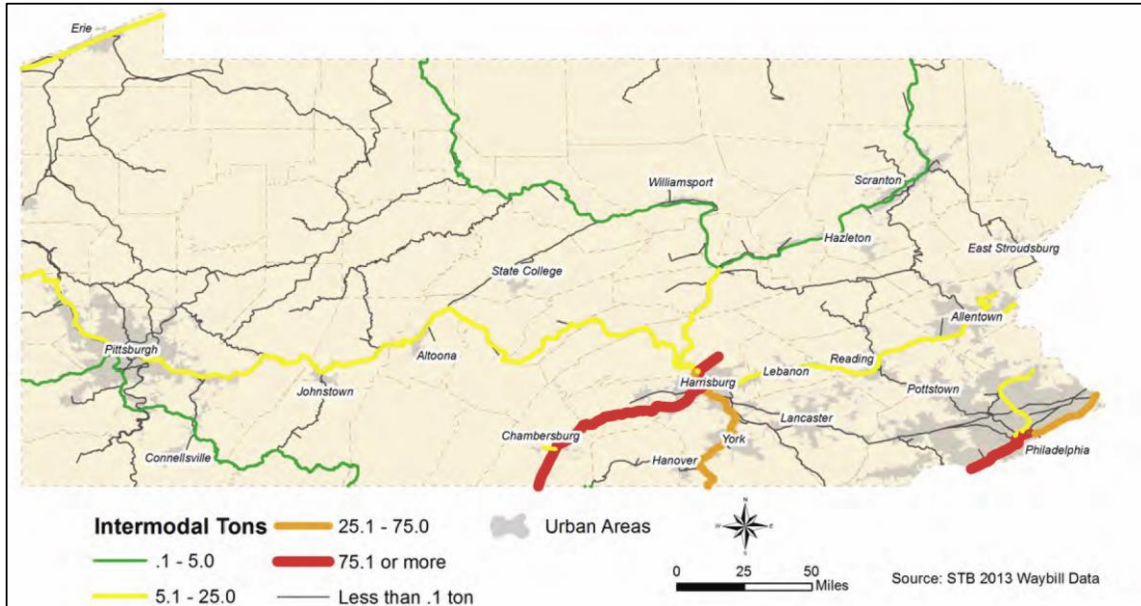


Figure 4.3.20.1.4: Intermodal Movement Flows in PA by Tonnage (2013)¹³³

Aviation:

The county has 1 publicly owned airport, the Franklin County Regional Airport (FCRA). Its governing authority is the Susquehanna Area Regional Airport Authority (SARAA). SARAA, in addition to the FCRA (formally known as the Chambersburg Municipal Airport) is in control of the Harrisburg International Airport, Capital City Airport, and the Gettysburg Regional Airport. SARAA’s website notes that “FCRA hosts approximately 10,000 operations each year including recreational flying, agricultural spraying, corporate and business flying, aerial inspections and various community events”¹³⁴. SARAA’s website also notes that “FCRA is home to the only full-service skydiving center in South Central Pennsylvania.” FCRA is located 2-3 miles north of the Borough of Chambersburg and just south of Letterkenny Army Depot. FCRA is generally located near agricultural fields (abutting land use), single family countryside homes, and a suburban style housing development. Due to the county’s proximity to Harrisburg International Airport, Capital City Airport, PA Air National Guard (in Middletown, PA and Fort Indiantown Gap, PA), 167th Airlift Wing (West Virginia Air National Guard in Martinsburg, WV), and the Hagerstown-Washington County Regional Airport, the county’s airspace is frequently visited by larger aircraft for multiple purposes including commercial and military training. A five-mile radius area around each airport could be considered a high-risk area since most aviation incidents occur near land or take-off sites. Air traffic flyovers present the possibility of injury, damage to structures, and fire, if an aircraft were to crash. For more information regarding aviation in Franklin County, please view the Franklin County Long-Range Transportation Plan

(http://franklincountypa.gov/ckeditorfiles/files/Planning/planning_Franklin_LRTP-AdoptedMay12013.pdf). **Figure 4.3.20.1.5** depicts the location of FCRA and nearby aviation facilities with the 5, 10, and 20 mile radii annotated. **Figure 4.3.20.1.6** is a closer view of the Franklin County Regional Airport (FRCA).

¹³³ PennDOT, 2016

¹³⁴ Harrisburg International Airport

Franklin County Hazard Mitigation Plan - 2018

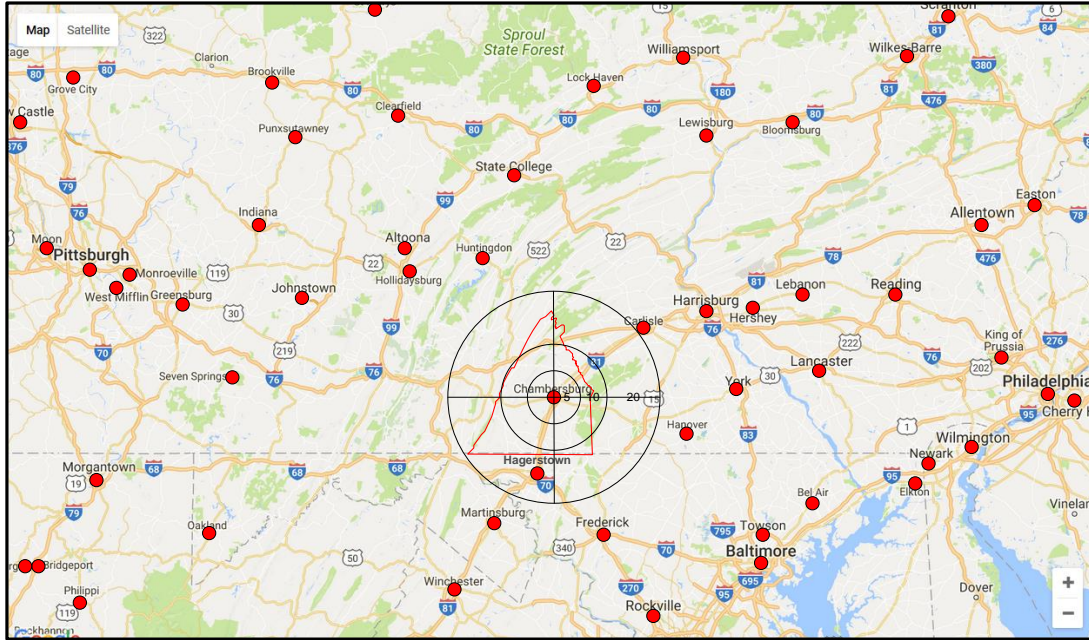


Figure 4.3.20.1.5: Location of FCRA and Nearby Public Airports in Franklin County

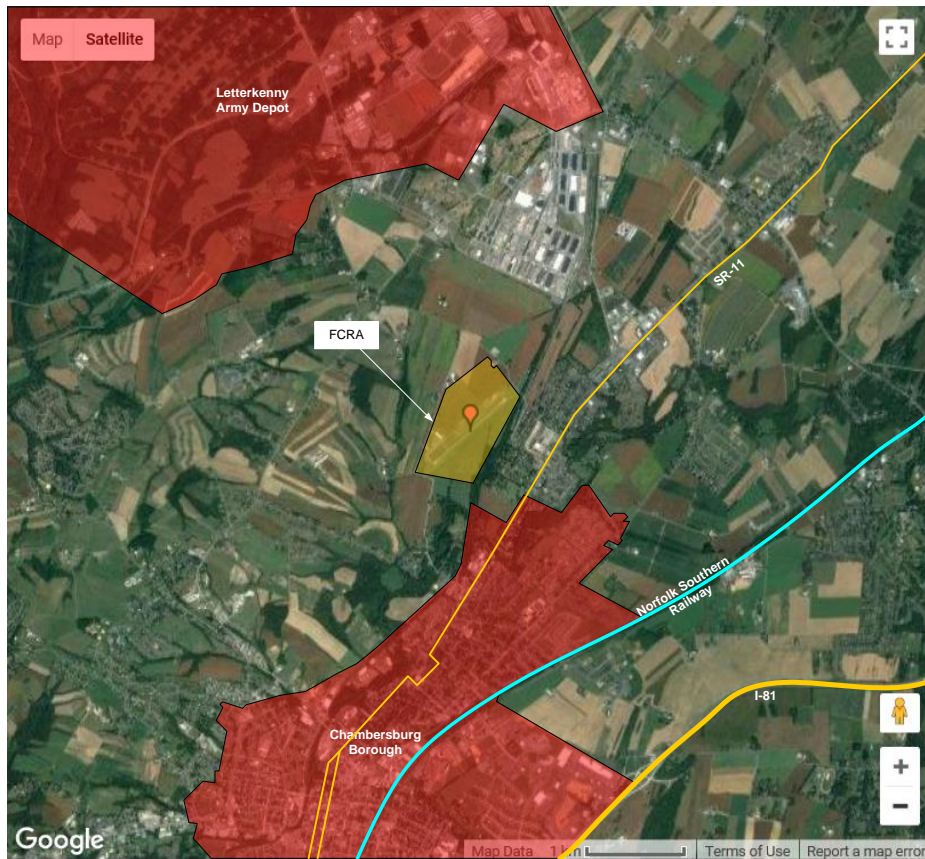


Figure 4.3.20.1.6: Franklin County Regional Airport (FCRA)

The Federal Aviation Administration (FAA) and the National Transportation Safety Board (NTSB) are the agencies responsible for monitoring air travel and investigation accidents. Some

of the most common causes of aviation accidents occur as a result of violations of FAA and NTSB regulations. Some other causes of accidents include, but are not limited to:

- Pilot or flight crew errors – Pilot errors are the number one cause of aviation accidents and account for the highest number of fatalities. Pilots have the responsibility to transport passengers safely from one place to another and follow the FAA and NTSB regulations to better ensure passenger safety. If a pilot or flight crew makes an error, an accident may occur.
- Faulty equipment – Faulty aircraft equipment or mechanical features are another common cause of an aviation accident.
- Aircraft design flaws – The manufacturer of an aircraft is responsible for an aviation accident if the structural design is flawed and results in an accident.
- Failure to properly fuel or maintain the aircraft – If any regulations and safety standards set by the FAA or NTSB are violated, an accident may occur.
- Negligence of Federal Air Traffic Controllers – The failure of air traffic controllers to properly monitor the airways is another cause of aviation accidents (Aviation Law News, Date Unknown).

Highway and Bridge:

Franklin County's (2013) Long-Range Transportation Plan (LRTP) notes that the county's highway network includes the Pennsylvania Turnpike (I-76), I-81, 15 state routes, 2 US Routes (11 and 30), and more than 100 local roads. Based on mileage, local roads represent the majority of the system (70%), however, only 12% percent of the daily vehicle miles traveled (DVMT) in Franklin County are on local roads. The majority of travel occurs on I-76 and I-81, which traverse the county. These 2 routes accommodate 38% of the county's DVMT, but only account for 2% of roadway mileage in the county. The LRTP also describes the bridge system in Franklin County: There are a total of 411 state- and locally-owned bridges in Franklin County. The PennDOT Bridge Management System (BMS) identifies 306 bridges greater than 8 feet and 15 bridges 8 feet or less in length on the state-owned network. Fourteen (14) percent of the bridges greater than 8 feet in length are structurally deficient. On the locally-owned network there are 90 bridges that are greater than or equal to 20 feet in length, of which, 11% are structurally deficient. An unknown number of local bridges with a total length of less than 20 feet are also located throughout the county.

From State Line, PA to Shippensburg, PA (Southampton Township), Franklin County has 8 existing and 1 planned (future) interchanges with I-81 as well as 2 interchanges with I-76. However, the majority of the average daily traffic occurs on I-81, US 11, US 30 and SR (PA) 16.

The highway and bridge system also includes traffic signals. The county's traffic signal system contains a total of 119 traffic signals. Seventy-five (75) percent of these traffic signals are concentrated in and around Chambersburg Borough and along Route 16 in the Boroughs of Greencastle and Waynesboro. Chambersburg Borough accounts for 42% of the signals in the county's system, with a total of 50 signals within its jurisdiction.

The LRTP notes that 98 state owned bridges greater than 8 feet within Franklin County are structurally deficient, functionally obsolete, or posted for weight. More specifically, 4 state-

Franklin County Hazard Mitigation Plan - 2018

owned bridges have been posted for weight, which are located near Orrstown Borough, village of Cove Gap, village of Turkey Foot, and the Village of Concord. Of the 90 locally-owned bridges with a total length greater than 20 feet, 11% (10 bridges) are structurally deficient (SD) and 22% (20 bridges) are functionally obsolete (FO). Six (6) local bridges are posted for weight restrictions and 1 bridge is closed. Refer to **Table 4.3.20.1.1** below for a listing of these local bridge conditions.

Location	Feature Intersected	# of Spans	Year Built	Year Reconstructed	Length (Ft)	Post Status	Structurally Deficient	Functionally Obsolete
1 mile NE of SR 4006	Conococheague Creek, West Branch	1	1930	1972	36	Posted for Load	Yes	No
2.3 miles SE of SR 641	Conodoquinet Creek	1	1885	--	109	Posted for Load	Yes	No
0.7 miles N of SR 416	Licking Creek	1	1883	1957	74	Posted for Load	No	Yes
3.5 miles SE Mercersburg/Conococ	Conococheague Creek West Branch	1	1904	1963	130	Posted for Load	No	Yes
1 mile SW of SR 4010	Wilson Run	1	1962	--	33	Posted for Load	No	No
Back Creek; Williamson	Back Creek	1	1876	--	119	Closed Bridge	Yes	No
1.8 miles SE Waynesboro/Red Run	Red Run	1	1935	1984	36	Posted for Load	Yes	No

Figure 4.3.20.1.1: Hazardous Conditions of Locally Owned Bridges in Franklin County¹³⁵

Figure 4.3.20.1.7 depicts the county’s highway and bridge systems.

¹³⁵ Franklin County Long-Range Transportation Plan, 2013

Non-motorized Transportation:

Franklin County boasts a multitude of natural and built resources for bicyclist, pedestrian, and horse and buggy use. In Franklin County's more populated communities, pedestrians can walk along sidewalks and cross at numerous crosswalks and signalized intersections. Bicyclists can take advantage of Bicycle Route "S" that traverses the entire county as well as the existing grid street network in the county's larger communities and the recreation/exercise routes that extend throughout the countryside. Numerous recreational trails travel throughout the county, including nationally-recognized hiking and bicycling destinations. In northwestern Franklin County, where buggy traffic is heaviest, varying levels of accommodation exist along the county's roadway network, mainly in the form of wide shoulders. It is important to note the severity of a non-motorized versus motorized accidents/incidents, due to the high concentration of Amish communities in Franklin County and a growing bicycling community.

4.3.20.2. Range of Magnitude

A transportation hazard may be defined as a condition created by moving anything by common carrier. Transportation hazards can be divided into two categories: hazards created by the material that is being transported; and hazards created by the transportation medium. Transportation systems available in Franklin County include air, rail, and road/highway/street. A major accident in each of these transportation systems is possible. All of these systems and supporting transportation resources provide services locally, regionally, and nationally.

Vehicular Accidents/Hazards: A vehicular accident is a road/highway/street incident that usually involves one vehicle colliding with another vehicle or other road/highway/street user or an animal or stationary roadside object (e.g.: telephone pole, building, or a tree). A vehicular accident may result in injury, property damage, or possibly fatalities. Many factors contribute to vehicle accidents/incidents, including equipment failure, poor road conditions, weather, traffic volume, and driver behavior.

Aviation Accidents/Hazards: According to the International Civil Aviation Organization, an aviation accident is an occurrence with the operation of an aircraft that takes place between the time a person boards the aircraft with the intention of flying to a destination to the time the person disembarks the aircraft. There are 3 different situations that qualify as an aviation accident:

- A person is fatally or seriously injured.
- The aircraft sustains damage or structural failure.
- The aircraft is missing or inaccessible.

An aviation incident is an occurrence, other than an accident, associated with operation of an aircraft that affects or could affect the safety of operation¹³⁷.

Hazardous Materials (HAZMAT) in Transit: A HAZMAT is defined as a substance or material determined to be capable of posing an unreasonable risk to health, safety, or property when

¹³⁷ National Business Aviation Association

transported. They come in various forms that can cause death, serious injury, long-lasting health effects, and damage to buildings, homes, and other property. As stated previously in the HAZMAT definition, unreasonable risk covers a broad range of health, fire, and environmental considerations. HAZMAT substances include explosives, flammable solids, substances that become dangerous when wet, oxidizing substances, and toxic liquids. An accident involving a vehicle carrying HAZMAT becomes a HAZMAT incident if the HAZMAT leaks, is involved in a fire, or if the potential for release, or other hazards exists. Hazards can occur during production, storage, transportation, use, or disposal¹³⁸. Additional effects of the release of hazardous materials from transportation accidents are addressed in the Environmental Hazard profile (**Section 4.3.5**).

Railway Accidents/Hazards: Railway accidents are accidents involving one or more trains.

Transportation accidents described here include incidents involving road, air, and rail travel. At a minimum, transportation accidents can result in damage to the vehicles and minor injuries to passengers and drivers. At worst, significant transportation accidents can result in death or serious injury or extensive property loss or damage coupled with business interruptions and hours of congestion. Most air incidents are non-fatal and cause minor injuries or property damage. The majority of motor vehicle crashes are non-fatal in Pennsylvania, but as of 2012, Penn DOT estimated that every hour (across the Commonwealth) 10 people are injured in a car crash, and every 7 hours someone dies as a result of a car crash. Most fatal crashes occur in the summer months of July, August, and September. The expected impacts of transportation accidents are amplified by the fact that there is often little warning of accidents.

The environmental impacts of transportation accidents can vary greatly. In the case of a simple motor vehicle crash, train derailment, or aviation accident, the environmental impact is minimal. However, if the accident involves any type of vehicle moving chemicals or other hazardous materials, the impact will be considerably larger and may include an explosion or the release of potentially hazardous material.

4.3.20.3. Past Occurrence

County-wide vehicle crash analysis data was collected from PennDot for the years 2011 through 2015. An analysis of this data was conducted to logically group the crashes into common condition and causal factors. This analysis can be seen in **Table 4.3.20.3.1** below. The analysis allowed the project team to identify trends to indicate safety concerns. The data shows that most vehicle crashes are a single vehicle, run-off-the-road type of accidents generally involving fixed objects. It also shows that about half of these accidents are occurring on local versus state roads. However, the analysis becomes a little more interesting when you look at some of the causal factors. Driver impairment and experience/ability seem to be leading causes of most accidents and they tend to occur more often at intersections. It is understood that most accidents involve multiple factors and conditions and this chart captures single accidents with multiple entries, but it does give us empirical data in which to make some mitigation decisions to reduce the overall risk to the travelling public.

¹³⁸ Ready.gov

Franklin County Hazard Mitigation Plan - 2018

Accident Description	2011	2012	2013	2014	2015
Total Crashes	1,468	1,453	1,370	1,441	1,505
Single Vehicle Run-Off-The-Road Crashes	618	632	608	625	645
Hit Fixed Object Crashes	497	479	519	496	512
Hit Utility Pole Crashes	154	148	162	178	181
Hit Tree Crashes	97	119	108	86	111
Hit Guiderail Crashes	66	76	72	69	77
Intersection Crashes	464	411	414	453	425
Stop Controlled Intersection Crashes	195	155	162	193	179
Signalized Intersection Crashes	134	104	117	125	132
Running Red Light Crashes	38	34	28	25	33
Pedestrian Crashes	26	35	20	27	29
Bicycle Crashes	8	13	10	14	7
Driver Impairment Crashes	415	416	446	442	476
Distracted Driver Crashes	174	177	188	183	213
Alcohol-Related Crashes	142	141	129	141	131
Drinking Driver Crashes	139	139	127	138	130
Aggressive Driving Crashes	60	47	80	72	85
Drowsy/Asleep Driver Crashes	39	51	49	46	47
Driver Experience/Ability Related Crashes	382	386	368	415	435
Crashes Involving a 65+ Year Old Driver	261	263	271	311	314
Crashes Involving a 65-74 Year Old Driver	151	149	153	185	187
Crashes Involving a 75+ Year Old Driver	110	114	118	126	127
Crashes Involving a 16-17 Year Old Driver	121	123	97	104	121
Crashes Involving a 17 Year Old Driver	88	90	68	75	83
Crashes Involving a 16 Year Old Driver	33	33	29	29	38
Local Road (only) Crashes	301	328	298	283	304
Unrestrained Crashes	192	198	135	161	156
Heavy Truck Crashes	64	99	97	78	91
Head-on / Opposite Direction Side Swipe Crashes	84	86	84	83	87
Motorcycle Crashes	51	60	55	53	58
Vehicle Failure Related Crashes (any factor)	45	52	47	69	55
Speeding Crashes	38	32	39	47	44
Work Zone Crashes	28	33	16	12	9
Cross Median Crashes	9	9	14	11	11
Train/Trolley with Motor Vehicle Crashes	1	0	1	1	1

Table 4.3.20.3.1: Vehicle Accidents in Franklin County (2011-2015)¹³⁹

In addition to the analysis above, in October 2017, PennDOT reported the 5-year Rolling Average Baseline for 2012-2016 for Franklin County. They reported 22 fatalities, 1.524 fatality rate, 53.8 number of serious injuries, 3.722 serious injury rate, and 7 non-motorized fatalities and

¹³⁹ PennDOT, 2015

Franklin County Hazard Mitigation Plan - 2018

serious injuries.

We performed a search of our Computer Aided Dispatch (CAD) system to see how many Pedestrian related accidents and incidents were recorded in the county between October 2010 and April 2017. **Table 4.3.20.3.2** lists all pedestrian accidents responded to in the county including all fatal, injury, and non-injury events.

Municipality	Accidents with Fatalities	Accidents with Injuries	Accidents without Injuries	Total Pedestrian Accidents
Antrim Township	0	22	0	22
Chambersburg Borough	2	188	39	229
Fannett Township	0	2	0	2
Greencastle Borough	0	27	4	31
Greene Township	1	29	2	32
Guilford Township	0	30	0	30
Hamilton Township	0	17	0	17
Letterkenny Township	0	0	0	0
Lurgan Township	0	2	0	2
Mercersburg Borough	0	6	0	6
Metal Township	0	2	0	2
Mont Alto Borough	0	4	0	4
Montgomery Township	1	2	0	3
Orrstown Borough	0	1	0	1
Peters Township	2	5	0	7
Quincy Township	0	7	0	7
Shippensburg Borough	0	7	0	7
Southampton Township	1	11	0	12
St Thomas Township	1	11	0	12
Warren Township	0	0	0	0
Washington Township	0	32	9	41
Waynesboro Borough	3	90	10	103
Totals	11	208	64	570

Table 4.3.20.3.2: Pedestrian Accidents in Franklin County (2010-2017)

Franklin County is also a busy area for commercial and private aviation traffic. A search of the

Franklin County Hazard Mitigation Plan - 2018

National Transportation Board (NTSB) and Federal Aviation Administration’s (FAA) accident/incident databases as well as other online resources was performed for Franklin County. We were able to uncover several incidents and accidents that have occurred in Franklin County since 1965. **Figure 4.3.20.3.1** below shows the geographic location of the accidents that were uncovered. **Table 4.3.20.3.3** below shows all aviation incidents and accidents that were discovered.

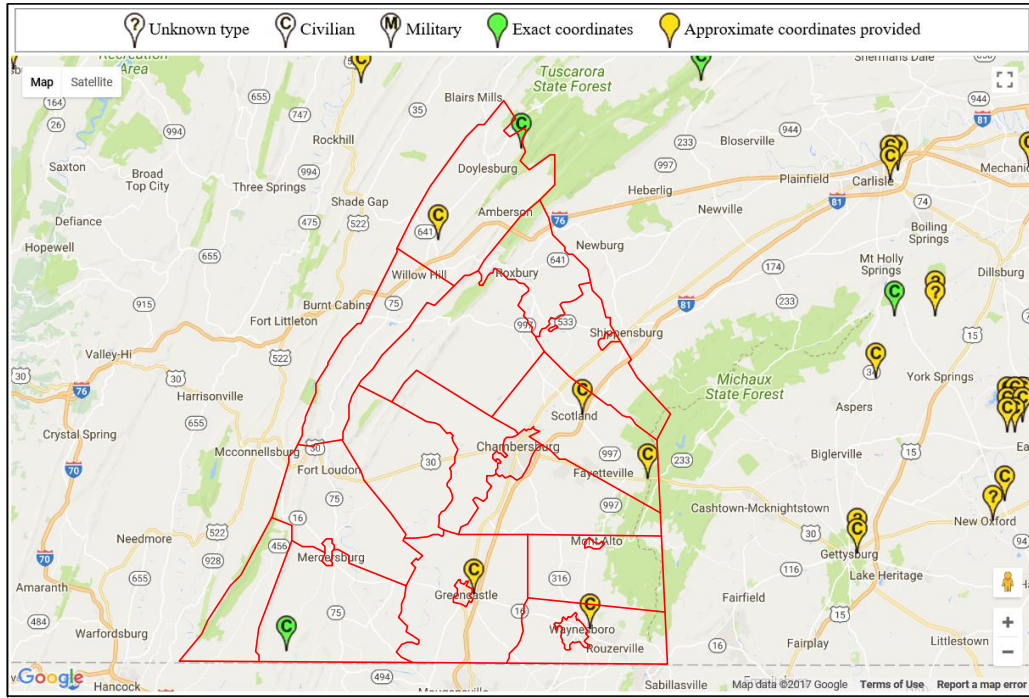


Figure 4.3.20.3.1: Aviation Accidents in Franklin County (1965-2018)¹⁴⁰

¹⁴⁰ Baker, Lee C, 2009-2011

Franklin County Hazard Mitigation Plan - 2018

Date	Location	Event Type	Airport (if appropriate)	Event description	Injuries/Fatalities (if known)
4/12/2009	Chambersburg, PA	Incident	Franklin County Regional Airport	Landing	
4/25/2006	Montgomery Township	Accident		Cessna 172L crash	1 fatality plane
1/14/2004	Chambersburg, PA	Incident	Franklin County Regional Airport	Roll-out (Fixed Wing)	
8/15/2002	Chambersburg, PA	Incident	Franklin County Regional Airport	To initial climb (1 st Power Reduction)	
8/3/2000	Chambersburg, PA	Incident	Franklin County Regional Airport	Other Ground Operations	
6/8/2000	Chambersburg, PA	Incident	Franklin County Regional Airport	Normal Cruise	
11/18/1998	Chambersburg, PA	Incident		Forced Precautionary Landing from cruise	
8/8/1998	Chambersburg, PA	Incident		Level Off Touchdown	
10/8/1996	Fannett Township	Accident		Beech F33A crash	2 fatalities plane
6/15/1996	Chambersburg, PA	Incident		Parachute Jumping	
8/20/1994	Chambersburg, PA	Incident		Forced Precautionary Landing from cruise	
8/16/1994	Waynesboro Borough	Accident		Cessna 320C crashed	2 fatalities plane/ 2 fatalities ground
5/12/1992	Chambersburg, PA	Incident	Lost Acres	Level Off Touchdown	
11/18/1998	Chambersburg, PA	Incident	Franklin County Regional Airport	Forced Precautionary Landing from cruise	
3/3/1984	Chambersburg, PA	Incident	Franklin County Regional Airport	Force Precautionary Landing	
12/7/1984	Chambersburg, PA	Incident	Chambersburg Municipal Airport	Ground Taxi, other airplane	
8/16/1982	Greene Township	Accident		Cessna A152 crash	
11/28/1981	Chambersburg, PA	Incident	Chambersburg Municipal Airport	Roll-out (Fixed Wing)	
8/18/1979	Greene Township	Accident		Cessna 172M crash	
1/15/1978	Chambersburg, PA	Incident		Forced Precautionary Landing from cruise	
6/18/1972	Fannett Township	Accident		Beech 23 crash	
8/15/1965	Greencastle Borough	Accident		Piper PA-22 crash	

Table 4.3.20.3.3: Aviation Accidents & Incidents Franklin County (1965-2018)^{141,142}

As one can see, we have had several accidents and incidents over the past 50 years, but only one accident in the past 20 years in Franklin County. The aviation industry is highly regulated and takes lessons learned from accidents and incidents to improve overall safety of the travelling

¹⁴¹ Baker, Lee C., 2009-2011

¹⁴² NTSB, Aviation Accident Database & Synopses

Franklin County Hazard Mitigation Plan - 2018

public. As a result, the accident trend in Franklin County has dropped significantly. However, we do have a small regional airport and several mountain ridges surrounding the county. Since pilot error is a general contributing factor to most private plane crashes, the aviation accident threat is still a viable concern to the travelling public as well as those living nearby this regional airport.

Federal Railroad Administration (FRA) defines an accident/incident as a reportable event. These include (1) collisions, derailments, and other events involving the operation of on track equipment; (2) impacts between railroad on-track equipment and highway users at crossings; and (3) all other incidents or exposures that cause a fatality or injury to any person. Accidents/incidents are divided into three groups:

- 1. Train accident.** A safety-related event involving on-track rail equipment, causing monetary damage to the rail equipment and track.
- 2. Highway-rail grade crossing incidents.** Any impact between a rail and highway user at a designated crossing site.
- 3. Other incidents.** Any death, injury, or occupational illness of a railroad employee that is not the result of a “train accident” or “highway-rail incident.”

Even with the significant freight train traffic in Franklin County due to the 2 Intermodal Railroads Hubs (Norfolk Southern & CSX), we have only recorded 1 accident between 2004 and 2014 (see **Figure 4.3.20.3.2** below).

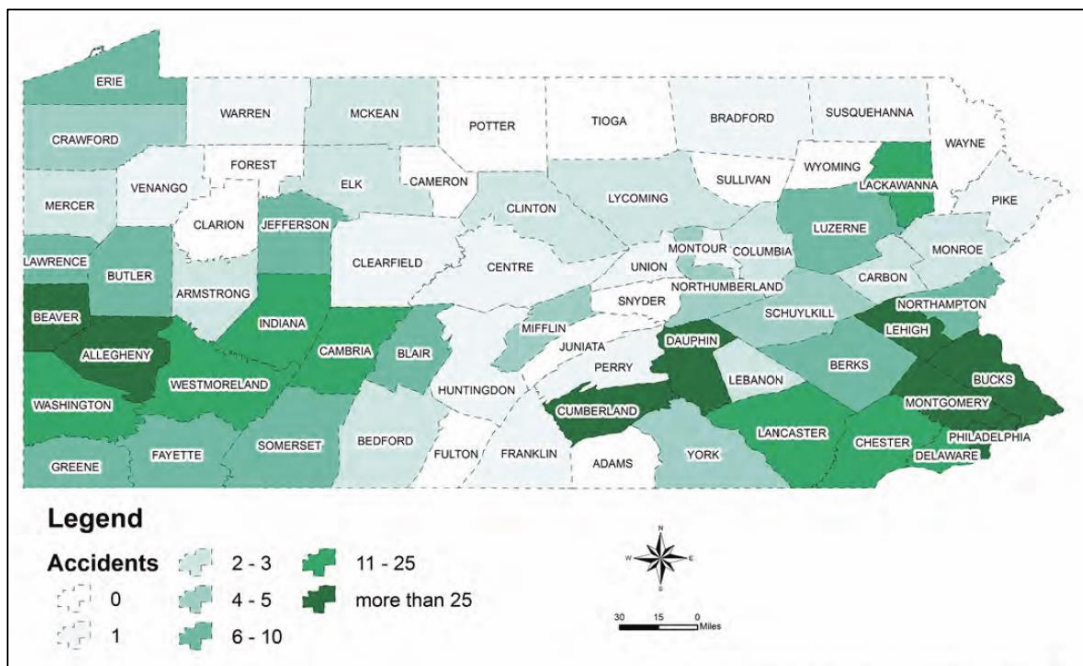


Figure 4.3.20.3.2: Total Train Incidents in PA by County (2004-2014)¹⁴³

¹⁴³ PennDOT, 2016

Franklin County Hazard Mitigation Plan - 2018

However, the number of train crossing collisions (incidents) in that same timeframe is a bit higher, between 11 and 25 in the same time period (See **Figure 4.3.20.3.3** below).

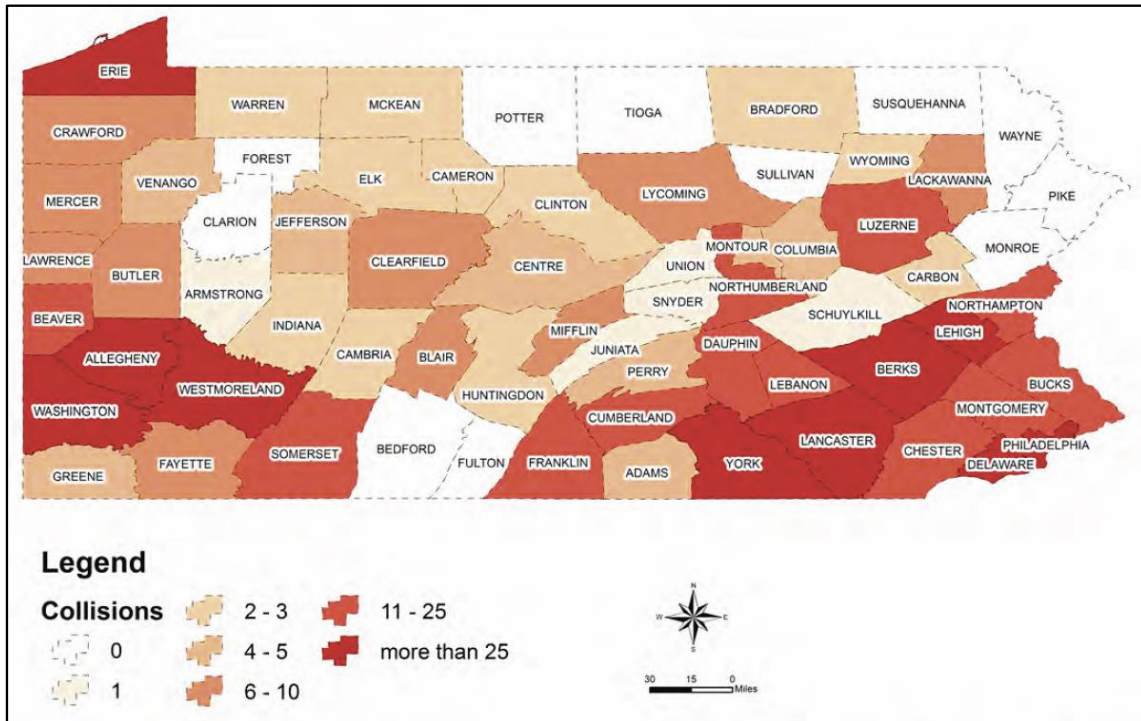


Figure 4.3.20.3.3: Total Crossing Collisions in PA by County (2004-2014)¹⁴⁴

We performed a search of our CAD system to see how many railway related accidents and incidents were recorded in the county between October 2010 and April 2017. **Table 4.3.20.3.4** lists all railroad accidents and incidents in which rail company units were dispatched. This includes a significant amount of incidents involving maintenance and repair of crossing signals as well as reports of trespass or impingement on the railway right-of-way.

¹⁴⁴ PennDOT, 2016

Franklin County Hazard Mitigation Plan - 2018

Municipality	Train Incident	Highway Rail Grade Crossing Incident	Other Incidents		Totals
			Maintenance Calls	Right-of-way impingement	
Antrim Township	0	1	13	3	17
Chambersburg Borough	0	1	63	8	72
Fannett Township	0	0	0	0	0
Greencastle Borough	0	0	0	0	0
Greene Township	0	0	22	0	22
Guilford Township	1	2	75	12	90
Hamilton Township	0	0	0	0	0
Letterkenny Township	0	0	1	0	1
Lurgan Township	0	0	0	0	0
Mercersburg Borough	0	0	0	0	0
Metal Township	0	0	0	0	0
Mont Alto Borough	0	0	0	0	0
Montgomery Township	0	0	0	0	0
Orrstown Borough	0	0	0	0	0
Peters Township	0	0	0	0	0
Quincy Township	0	0	7	1	8
Shippensburg Borough	0	0	0	0	0
Southampton Township	0	0	20	5	25
St Thomas Township	0	0	0	0	0
Warren Township	0	0	0	0	0
Washington Township	0	0	7	4	11
Waynesboro Borough	0	0	0	0	0
Totals	1	4	208	33	246

Table 4.3.20.3.4: Railway Accidents and Incidents in Franklin County (2010-2017)

4.3.20.4. Future Occurrence

Transportation hazards are impossible to accurately predict, but an analysis of the data provided

above can provide general areas of concern to allow for the development of mitigation actions for each municipality.

New highway and logistic/warehouse construction, including the addition of interchange 12 on I-81 (Guilford Springs Road) and the industrial zoned land between US Route 11 and I-81 (between Chambersburg and Marion) will likely result in increased trucking and traffic congestion. However, there is some hope that the Greater Chambersburg Traffic Signal Improvement Project will properly coordinate traffic signals to help improve the flow of vehicle traffic. Additionally, the current trend of shopping is moving from purchasing products at the 'brick and mortar' stores to online will continue and we will likely see an increase in delivery vehicles across all types of highways, roads, and streets.

Non-motorized accidents may continue to occur at the same level in Franklin County until driver behavior and/or highways/roads/streets are rebuilt or renovated to include the non-motorized user (e.g.: wider shoulder for horse and buggy use).

The average rate of aviation accidents nationwide is 8.47 accidents per 100,000 flight hours. Therefore, the likelihood of an aviation incident in the county is considered low.

A review of the railway accident/incident information above indicates that the numbers of accidents in the county will remain relatively low. However, it is expected as increased train traffic continues due to our 2 intermodal facilities, the number of railway incidents will continue to rise.

4.3.20.5. Vulnerability Assessment

Transportation systems available in the county include rail, road/street, and air. Hazards associated with transportation can either be created by natural hazards that affect the roadway or rail system, the material being transported, or created by the transportation medium itself. Overall, the probability of future transportation accidents can be considered *highly likely* according to the Risk Factor Methodology (See **Section 4.4**).

Figure 4.3.20.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Transportation Accident hazard. One can see that only 4 of 22 municipalities rated this threat as either a Catastrophic or Major event. However, 10 of the remaining 18 municipalities have it ranked as a Moderate threat. This is a Moderate threat ranked number 10 highest for Franklin County and will garner significant attention during the Mitigation Strategy in **Section 6**.

Franklin County Hazard Mitigation Plan - 2018


											Risk Factor Scale		
											Catastrophic	3.0 – 4.0	
 <h2 style="text-align: center;">Transportation Accident Hazard Threat Risk Assessment</h2>											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 – 1.9	
											Insignificant	1.0 – 1.4	
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	4	30%	3	30%	3	20%	4	10%	1	10%	3.2	10.17%	0.3254
Chambersburg Borough	4	30%	1	30%	1	20%	4	10%	1	10%	2.2	13.64%	0.3001
Fannett Township	2	30%	2	30%	2	20%	4	10%	1	10%	2.1	1.68%	0.0353
Greencastle Borough	3	30%	2	30%	1	20%	4	10%	1	10%	2.2	2.57%	0.0565
Greene Township	2	30%	1	30%	1	20%	4	10%	1	10%	1.6	11.55%	0.1848
Guilford Township	4	30%	2	30%	4	20%	4	10%	1	10%	3.1	9.59%	0.2973
Hamilton Township	2	30%	1	30%	2	20%	4	10%	1	10%	1.8	7.18%	0.1292
Letterkenny Township	4	30%	1	30%	2	20%	4	10%	1	10%	2.4	1.53%	0.0367
Lurgan Township	3	30%	1	30%	2	20%	4	10%	1	10%	2.1	1.40%	0.0294
Mercersburg Borough	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	0.99%	0.0129
Metal Township	3	30%	3	30%	2	20%	4	10%	1	10%	2.7	1.20%	0.0324
Mont Alto Borough	2	30%	1	30%	2	20%	4	10%	1	10%	1.8	1.12%	0.0202
Montgomery Township	2	30%	2	30%	2	20%	4	10%	1	10%	2.1	4.02%	0.0844
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	1	10%	1.2	0.17%	0.0020
Peters Township	2	30%	1	30%	1	20%	4	10%	1	10%	1.6	2.85%	0.0456
Quincy Township	2	30%	3	30%	2	20%	4	10%	1	10%	2.4	3.52%	0.0845
Shippensburg Borough	2	30%	3	30%	2	20%	4	10%	1	10%	2.4	0.71%	0.0170
Southampton Township	3	30%	3	30%	3	20%	4	10%	1	10%	2.9	5.48%	0.1589
St Thomas Township	3	30%	1	30%	2	20%	4	10%	1	10%	2.1	3.87%	0.0813
Warren Township	1	30%	1	30%	2	20%	3	10%	1	10%	1.4	0.24%	0.0034
Washington Township	1	30%	1	30%	1	20%	1	10%	1	10%	1.0	9.53%	0.0953
Waynesboro Borough	2	30%	3	30%	1	20%	4	10%	1	10%	2.2	7.02%	0.1544
Municipal Weighted Average Risk Factor (RF)(Updated 12/10/2020)													2.187

Figure 4.3.20.5.1: Municipal Transportation Accident Threat Vulnerability Self-Assessment

Potential losses from transportation hazards include human health and life, property, and natural resources. Vehicular accidents, flooded roadways, aviation accidents, and accidents at public railroad crossings at grade may result in injury or death to drivers and passengers on the road, the public in the immediate vicinity, and emergency services personnel. The number of people exposed depends on population density, both by day and night, and on the proportions located indoors and outdoors.

As a result of insufficient data, a full loss estimate was not completed for the transportation hazard. Loss of roadway use would affect thousands of commuters, employment, day-to-day operations within the county, and delivery of critical municipal and emergency services. Disruption of one or more of these modes of transportation can lead to the congestion of another, and not only affect the county, but the region as a whole. Increased development in the county and region will contribute to increased road and rail traffic.

While it is not possible to predict when and where a transportation accident will occur, the local fire and police departments, as well as the Pennsylvania State Police, are generally well-equipped and prepared to respond to these situations. In addition, established emergency procedures are in place and remediation occurs in a timely manner, so any infrastructure would be repaired as needed. However, these events can be costly.

In regards to vehicular accidents, data indicates that these are frequent occurrences and as traffic increases, the potential for vehicular accidents also can occur. Law enforcement, driver education, and transportation management efforts can help to reduce the potential for accidents. Existing and future mitigation efforts should continue to be developed and employed to reduce the potential impact of such events and prepare the county and local responders for these situations.

4.3.21. Urban Fire and Explosion

Urban fire and explosion hazards incorporate vehicle and building/structure fires as well as overpressure rupture, overheat, or other explosions that do not ignite. Statewide, this hazard occurs in the denser, more urbanized areas and occurs most often in residential structures.

4.3.21.1. Location and Extent

Structural fires within Franklin County have had a detrimental impact on life and property just like in any other county over the past decade. In today's time there is a never ending change in building material that has created a threat of fire loss on a regular basis.

4.3.21.2. Range of Magnitude

The severity of any structure fire varies and is measured according to any losses associated with an incident. If the structure fire is a residential structure the impact to a local economy will be more minimal, unlike if it were to be a commercial structure. The loss of life caused by a structure fire is opposite of the two impacts above. Normally the loss of life in a structure fire is more common to occur within a residential structure rather than a commercial structure.

In Franklin County most structure fires occur in a residential structure and are limited in duration and resources needed. While most of these fires are in the smaller aspect, the risk for large fires within a commercial structure is present every day. Many of the commercial structures within Franklin County have experienced some type of small fire but they have been contained, but still could lead to a large catastrophic fire.

4.3.21.3. Past Occurrence

Franklin County experiences a number of urban fires, most of which are small and affect a limited number of structures at a single event. Franklin County has little to no history of explosion events over the last 10 years. A detail analysis of the Franklin County CAD System was performed to collect data on urban fires in Franklin County. **Table 4.3.21.3.1** shows all the responses to commercial/business/industry fires in Franklin County from April 2007 through April 2017. This does include agricultural building fires as this is a leading industry in the county.

Franklin County Hazard Mitigation Plan - 2018

Municipality	Business/ Industry Fires	Silo Fires	Barn Fires	Totals
Antrim Township	28	3	19	50
Chambersburg Borough	88	1	1	90
Fannett Township	4	0	13	17
Greencastle Borough	17	0	0	17
Greene Township	44	0	20	64
Guilford Township	45	2	21	68
Hamilton Township	13	0	15	28
Letterkenny Township	5	1	2	8
Lurgan Township	3	0	3	6
Mercersburg Borough	12	0	1	13
Metal Township	7	0	4	11
Mont Alto Borough	1	0	0	1
Montgomery Township	2	0	13	15
Orrstown Borough	0	0	0	0
Peters Township	4	4	12	20
Quincy Township	13	0	11	24
Shippensburg Borough	23	0	0	23
Southampton Township	13	1	13	27
St Thomas Township	6	1	16	23
Warren Township	0	0	2	2
Washington Township	20	0	7	27
Waynesboro Borough	43	0	0	43
Totals	391	13	173	577

Table 4.3.21.3.1: Commercial Fire Responses (2007-2017)

Table 4.3.21.3.2 shows the residential fire response in the county from April 2007 through April 2017.

Franklin County Hazard Mitigation Plan - 2018

Municipality	Chimney Fires	House Fires	Mobile Home Fires	Shed/Out Building Fires	Garage Fires	Appliance Fires	Multi-Dwelling Fires	Totals
Antrim Township	27	68	14	24	2	3	1	139
Chambersburg Borough	31	180	0	11	0	22	70	314
Fannett Township	12	19	4	10	2	0	0	47
Greencastle Borough	5	34	2	2	0	3	11	57
Greene Township	35	97	22	17	4	2	7	184
Guilford Township	40	95	4	15	2	5	9	170
Hamilton Township	21	59	13	24	1	5	11	134
Letterkenny Township	9	18	5	6	0	2	0	40
Lurgan Township	8	22	0	3	0	0	0	33
Mercersburg Borough	7	11	0	0	0	0	2	20
Metal Township	11	9	4	9	1	1	0	35
Mont Alto Borough	3	9	1	3	0	0	0	16
Montgomery Township	8	41	2	11	1	0	0	63
Orrstown Borough	0	1	0	0	0	0	1	2
Peters Township	17	30	4	14	4	1	1	71
Quincy Township	20	32	9	12	1	1	1	76
Shippensburg Borough	5	41	2	0	1	2	16	67
Southampton Township	16	43	13	8	3	5	1	89
St Thomas Township	22	31	14	14	2	1	1	85
Warren Township	1	6	0	2	0	1	0	10
Washington Township	36	82	16	10	0	2	9	155
Waynesboro Borough	12	118	1	8	0	8	39	186
Totals	346	1,046	130	203	24	64	180	1,993

Table 4.3.21.3.2: Residential Fire Responses (2007-2017)

Franklin County Hazard Mitigation Plan - 2018

There were several different types of fire responses captured in our CAD analysis that either applied to both residential and commercial responses, or were a false positive for actual fire response. These incidents are captured in **Table 4.3.21.3.3** below.

Municipality	Automatic Fire Alarms	Arson	Electrical Fires	Rekindle Fires	Smoke Inside	Totals
Antrim Township	450	0	4	1	2	457
Chambersburg Borough	2,809	14	7	0	20	2,850
Fannett Township	64	0	1	0	0	65
Greencastle Borough	266	2	2	0	6	276
Greene Township	1,404	0	6	0	8	1,418
Guilford Township	671	0	1	0	5	677
Hamilton Township	238	0	2	3	1	244
Letterkenny Township	43	0	0	0	0	43
Lurgan Township	15	0	0	2	0	17
Mercersburg Borough	515	1	0	0	2	518
Metal Township	18	0	0	0	1	19
Mont Alto Borough	281	0	1	0	2	284
Montgomery Township	128	0	1	0	3	132
Orrstown Borough	0	0	0	0	0	0
Peters Township	86	0	0	0	4	90
Quincy Township	341	0	2	2	0	345
Shippensburg Borough	276	0	0	0	7	283
Southampton Township	179	0	3	0	2	184
St Thomas Township	105	0	4	0	2	111
Warren Township	4	0	0	0	0	4
Washington Township	563	2	6	1	5	577
Waynesboro Borough	555	7	8	0	9	579
Totals	9,011	26	48	9	79	9,173

Table 4.3.21.3.3: Miscellaneous Fire Response Activity (2007-2017)

As one can see from the data above, Franklin County has over 3 times as many residential fire responses as we do commercial responses. It was not possible to collect the damages to life or property due to these fires. However, as indicated in **Section 4.3.21.3.2** above, the cost associated with residential fires is far smaller than that of commercial fires, but loss of life tends to be greater.

4.3.21.4. Future Occurrence

The future occurrence of urban fire and explosion events can be considered *likely* as defined by the Risk Factor Methodology probability criteria (**Section 4.4**). Residential fires are more common within Franklin County but industrial fires have a potentially higher risk because of the

possibility of there being flammable chemicals and greater fuel sources which make industrial fires to be the greater risk due to those factors.

4.3.21.5. Vulnerability Assessment

Figure 4.3.21.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Urban Fire and Explosion hazard. One can see that only seven 7 of 22 municipalities rated this threat as either a Major or Moderate event. This is a Minor threat for Franklin County ranked number 19 overall, but will still garner some attention during the Mitigation Strategy in **Section 6**.

Franklin County Hazard Mitigation Plan - 2018


	<h2 style="text-align: center;">Urban Fire/Explosion Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 – 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 – 1.9	
Insignificant	1.0 – 1.4												
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	2	30%	2	30%	2	20%	4	10%	1	10%	2.1	10.17%	0.2136
Chambersburg Borough	4	30%	2	30%	2	20%	4	10%	1	10%	2.7	13.64%	0.3683
Fannett Township	1	30%	1	30%	1	20%	1	10%	1	10%	1.0	1.68%	0.0168
Greencastle Borough	1	30%	1	30%	2	20%	3	10%	1	10%	1.4	2.57%	0.0360
Greene Township	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	11.55%	0.1502
Guilford Township	1	30%	2	30%	1	20%	4	10%	1	10%	1.6	9.59%	0.1534
Hamilton Township	1	30%	1	30%	3	20%	4	10%	1	10%	1.7	7.18%	0.1221
Letterkenny Township	2	30%	2	30%	2	20%	4	10%	1	10%	2.1	1.53%	0.0321
Lurgan Township	2	30%	1	30%	1	20%	4	10%	1	10%	1.6	1.40%	0.0224
Mercersburg Borough	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	0.99%	0.0129
Metal Township	1	30%	1	30%	1	20%	2	10%	1	10%	1.1	1.20%	0.0132
Mont Alto Borough	2	30%	1	30%	2	20%	4	10%	1	10%	1.8	1.12%	0.0202
Montgomery Township	3	30%	2	30%	2	20%	4	10%	1	10%	2.4	4.02%	0.0965
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	1	10%	1.2	0.17%	0.0020
Peters Township	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	2.85%	0.0371
Quincy Township	1	30%	2	30%	1	20%	4	10%	1	10%	1.6	3.52%	0.0563
Shippensburg Borough	2	30%	3	30%	1	20%	4	10%	1	10%	2.2	0.71%	0.0156
Southampton Township	2	30%	2	30%	2	20%	4	10%	1	10%	2.1	5.48%	0.1151
St Thomas Township	1	30%	1	30%	1	20%	4	10%	1	10%	1.3	3.87%	0.0503
Warren Township	1	30%	2	30%	2	20%	4	10%	1	10%	1.8	0.24%	0.0043
Washington Township	1	30%	1	30%	1	20%	1	10%	1	10%	1.0	9.53%	0.0953
Waynesboro Borough	2	30%	3	30%	1	20%	4	10%	1	10%	2.2	7.02%	0.1544
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)												1.788	

Figure 4.3.21.5.1: Municipal Urban Fire and Explosion Threat Vulnerability Self-Assessment

Franklin County Hazard Mitigation Plan - 2018

The areas within Franklin County that should be considered more vulnerable to urban fires and explosions are the areas where large buildings are located or the development is close. Franklin County has two more densely populated municipalities with populations over 5,000. They are the Borough of Chambersburg at 20,691 (rated as a Major event) and the Borough of Waynesboro at 10,845 (rated as a Moderate event) per the 2016 US Census estimate.

As of December 31, 2006, all communities in Pennsylvania are required to comply with the Uniform Construction Codes. This includes requirements to comply with both the International Fire Code and the International Wildland Urban Interface Code. The adoption and enforcement of these codes will hopefully decrease the overall vulnerability of structures in Franklin County. However, these regulations will only affect new construction, as well as additions and renovations to existing structures. Older buildings that do not meet the criteria established in these modern fire codes will continue to remain vulnerable to urban fire and explosion events.

To give a better perspective on this issue, we looked at the 2011-2015 American Community Survey 5-yr estimate numbers to determine the age of the houses in the county and some predictions on future construction. However, since the Census does not break up the ages of the houses on the 2006 date of the adoption of the Uniform Construction Code, we had to make the age cut-line at the year 2000. What this means to our analysis is that the true percentage of houses built after the Uniform Construction Code was adopted is significantly smaller than our assessed number. Even so, you can see that the percentage of houses built after the year 2000 in the county is only 17% (see **Table 4.3.21.5.1** below). That means at least 83% of the homes in the county were built using the older construction codes. Again, because we used 2000 instead of 2006, this number of older homes is most certainly larger, but one can see the order of magnitude problem we have in the county as a result of older construction.

Franklin County Hazard Mitigation Plan - 2018

Municipalities	% of Houses built in Time Period							Estimated number of houses in municipality	% of houses built after 2000, per municipality	Estimated number of houses built after 2000 in municipality	% of houses built after 2000, in the county
	2014 and later	2010 to 2013	2000 to 2009	1980 1999	1960 to 1979	1940 to 1959	1939 or earlier				
Antrim Township	0.7	1.3	23.2	29.3	25.7	11.3	8.4	5508	25.2	1388	25.2
Chambersburg Borough	0.0	1.4	12.0	16.9	16.2	21.7	31.8	8873	13.4	1189	13.4
Fannett Township	0.0	1.2	7.8	25.8	22.3	12.2	30.8	1041	9.0	94	9.0
Greencastle Borough	0.0	0.0	15.1	19.5	24.2	20.3	20.9	1856	15.1	280	15.1
Greene Township	0.0	2.5	19.6	28.9	28.0	11.4	9.6	7261	22.1	1605	22.1
Guilford Township	0.0	0.2	16.3	31.8	28.6	11.8	11.3	6250	16.5	1031	16.5
Hamilton Township	0.0	2.2	19.7	33.1	23.5	14.6	7.0	4669	21.9	1023	21.9
Letterkenny Township	0.0	0.6	6.1	30.2	33.4	14.8	14.9	1044	6.7	70	6.7
Lurgan Township	0.5	0.0	10.1	16.9	28.5	27.5	16.5	843	10.6	89	10.6
Mercersburg Borough	0.0	0.0	5.4	15.2	15.4	18.7	45.3	774	5.4	42	5.4
Metal Township	0.4	0.0	9.4	35.2	23.8	11.5	19.7	955	9.8	94	9.8
Mont Alto Borough	0.0	0.0	9.2	20.8	27.6	21.5	20.8	700	9.2	64	9.2
Montgomery Township	0.0	0.5	21.3	24.0	26.7	8.2	19.3	2496	21.8	544	21.8
Orrstown Borough	0.0	0.0	0.0	3.1	11.5	42.7	42.7	109	0	0	0
Peters Township	1.9	0.5	11.2	16.1	30.9	17.6	21.7	1734	13.6	236	13.6
Quincy Township	0.0	0.0	9.7	34.1	29.5	10.8	15.9	2120	9.7	206	9.7
Shippensburg Borough	0.0	0.8	8.5	16.2	25.3	17.3	31.9	2898	9.3	270	9.3
Southampton Township	0.0	2.5	21.4	35.2	20.3	13.6	7.1	3339	23.9	798	23.9
St Thomas Township	0.0	0.0	11.6	16.1	36.1	16.5	19.8	2397	11.6	278	11.6
Warren Township	0.0	9.4	12.2	31.7	18.0	3.6	25.2	166	21.6	36	21.6
Washington Township	0.3	3.2	18.1	30.6	22.5	11.6	13.9	6144	21.6	1327	21.6
Waynesboro Borough	0.0	1.6	10.3	12.6	13.5	22.3	39.7	5148	11.9	613	11.9
County Totals								66,325		11,277	17.0 %

Table 4.3.21.5.1: Estimated Age of Homes in Franklin County (2011-2015)¹⁴⁵

¹⁴⁵ US Census Bureau, American Community Survey 5-Year Estimates, 2011-2015

4.3.22. Utility Interruption

Utilities as defined in this Hazard Mitigation Plan refer to power, water, sewer, communications, and gas services. These services are essential to the normal operations of the people of Franklin County as well as the economy that supports them.

Interruptions to these services can be caused by many factors, including weather events, geological events, construction accidents, vehicle accidents, and intentional man-made destruction. Utilities that employ above-ground wiring (power and communications) are especially vulnerable to the effects of other hazards such as high wind, heavy snow, ice, rain, and vehicular accidents. These events can be small in nature and very hard to track. However, they can be quite large and impact entire regions of the state and/or country.

4.3.22.1. Location and Extent

Utility interruptions in electric, water, communications, sewer, and gas services are common in Franklin County. However, a majority of our interruptions are electric related. Most of the power and communications interruptions are caused by third party vehicular accidents and affect a small number of the population for a short amount of time. Water, sewer, and gas interruptions frequently occur in the county but are localized and usually due to human error as well.

Weather, such as severe thunderstorms, wind storms, and winter storms, increase the chance of a regional power or communications disruption. These types of events also require more resources and manpower during the response and recovery stages. These larger events are rare in the county, but have occurred here in the past.

4.3.22.2. Range of Magnitude

Most severe utility interruptions and power failures are regional events. A loss of utilities can have numerous impacts including, but not limited to, food spoilage, loss of water supply (damaged pipeline/pump failure), loss of heating or air conditioning, basement flooding, lack of indoor lighting, and lack of telephone and internet services. These issues range from a minor nuisance to a full hazard event, but the degree of damage or harm depends on the population affected and the severity/duration of the outage.

At a minimum, utility interruptions can cause short term disruption in the normal operations of business, government, and private citizen functioning and activities like traffic signals, elevators, and retail sales. The impacts of a utility outage can be compounded by coinciding with other hazard events, such as a severe winter storm. In these cases, high risk populations are in peril as they rely on these utilities to maintain safe temperatures in their homes and businesses.

4.3.22.3. Past Occurrence

Information on past events of this nature had to be extracted from the Franklin County 911 Dispatch Center's CAD system. Individual searches on keywords and/or responding units had to be performed against the entire data set of all 911 incidents. This created a large subset of data

Franklin County Hazard Mitigation Plan - 2018

that had to be manually inspected for relevant details. In order to get pertinent information and keep the data collection manageable, the range or search dates was limited to 2 years.

Table 4.3.22.3.1 shows the number of communications and power outages addressed by the Franklin County 911 Operations Center from May 2015 to Apr 2017. Inspection of this chart reveals that over 69% of all power/communications incidents involved above ground utility lines or equipment. Some of these incidents were due to wind/storm/tree damage, but about half were due to vehicular accidents.

Municipality	Wires Down	Maintenance	Pole Damage – Auto Accident	Power Outage	Totals
Antrim Township	4	10	8	2	24
Chambersburg Borough	0	0	1	1	2
Fannett Township	5	3	3	0	11
Greencastle Borough	4	4	4	1	13
Greene Township	25	9	12	4	50
Guilford Township	13	7	13	5	38
Hamilton Township	5	3	4	3	15
Letterkenny Township	2	2	1	1	6
Lurgan Township	4	3	2	0	9
Mercersburg Borough	2	1	0	1	4
Metal Township	1	0	5	1	7
Mont Alto Borough	3	1	3	1	8
Montgomery Township	10	5	11	1	27
Orrstown Borough	0	0	0	0	0
Peters Township	9	2	7	1	19
Quincy Township	5	3	8	1	17
Shippensburg Borough	0	1	0	0	1
Southampton Township	3	1	10	1	15
St Thomas Township	6	8	6	2	22
Warren Township	3	1	1	0	5
Washington Township	14	9	21	1	45
Waynesboro Borough	15	8	11	8	42
Totals	133*	81	131*	35	380
* Incidents Involving Above Ground Utilities = 264/380 = 0.6947 = 69.47%					

Table 4.3.22.3.1: Reported Communications and Power Incidents (2015-2017)¹⁴⁶

¹⁴⁶ Franklin County CAD System, 2007-2017

Franklin County Hazard Mitigation Plan - 2018

Table 4.3.22.3.2 below captures the gas utility outages from May 2007 through April 2017. This chart reveals that over 36% of the incidents reported are due to human error either by way of a vehicle accident or construction/digging without having the utility lines surveyed first.

Municipality	Gas Leak Residence/ Business	Maintenance	Transmission Line Leak	Gas Leak – Vehicle Accident	Gas Leak – Digging/ Construction	Totals
Antrim Township	3	2	1	4	0	10
Chambersburg Borough	7	1	0	0	0	8
Fannett Township	0	0	0	0	0	0
Greencastle Borough	6	0	0	1	2	9
Greene Township	2	0	0	5	0	7
Guilford Township	9	4	1	6	4	24
Hamilton Township	0	0	2	0	0	2
Letterkenny Township	0	0	0	0	0	0
Lurgan Township	0	0	0	0	0	0
Mercersburg Borough	1	0	0	1	1	3
Metal Township	0	0	0	0	0	0
Mont Alto Borough	3	0	0	2	1	6
Montgomery Township	0	2	0	1	0	3
Orrstown Borough	0	0	0	0	0	0
Peters Township	0	0	0	0	0	0
Quincy Township	1	1	0	4	1	7
Shippensburg Borough	0	0	0	0	0	0
Southampton Township	6	1	0	1	0	8
St Thomas Township	0	0	0	0	0	0
Warren Township	0	0	0	0	0	0
Washington Township	5	2	0	2	1	10
Waynesboro Borough	19	0	0	2	7	28
Totals	62	13	4	29*	17*	125
* Accidents Involving Human Error = 46/125 = 0.3651 = 36.51%						

Table 4.3.22.3.2: Reported Gas Utility Outages (2007-2017)¹⁴⁷

¹⁴⁷ Franklin County CAD System, 2007-2017

Franklin County Hazard Mitigation Plan - 2018

Table 4.3.22.3.3 below captures the water and sewage service outages from May 2007 through April 2017. The biggest take-away from this chart is that there are 3 municipalities (Antrim Township, Chambersburg Borough, and Washington Township) that make up 63% of all water and sewage outages in the county. These municipalities account for over 32% of the total population of the county, which can account for this higher percentage, but it may also indicate aging infrastructure systems that could be a target for mitigation.

Municipality	Water Main/ Service Interruption	Sewer Line Back-ups/Leaks	Fire Hydrant Leaks/Accidents	Water Quality Issues (Turbidity)	Totals
Antrim Township	15	27	5	0	47*
Chambersburg Borough	37	8	9	0	54*
Fannett Township	0	0	0	0	0
Greencastle Borough	3	3	1	0	7
Greene Township	13	1	3	0	17
Guilford Township	25	4	0	0	29
Hamilton Township	7	3	0	0	10
Letterkenny Township	0	0	0	0	0
Lurgan Township	4	0	0	0	4
Mercersburg Borough	3	0	0	0	3
Metal Township	0	0	0	0	0
Mont Alto Borough	0	0	0	0	0
Montgomery Township	0	0	0	0	0
Orrstown Borough	0	0	0	0	0
Peters Township	5	1	0	0	6
Quincy Township	0	1	0	0	1
Shippensburg Borough	0	0	0	0	0
Southampton Township	8	0	1	0	9
St Thomas Township	3	0	0	0	3
Warren Township	0	0	0	0	0
Washington Township	48	3	2	2	55*
Waynesboro Borough	1	1	0	0	2
Totals	172	52	21	2	247
* Total number of outages from these three municipalities is 63% of the total in the county					

Figure 4.3.22.3.3: Reported Water/Sewer Utility Outages (2007-2017)¹⁴⁸

¹⁴⁸ Franklin County CAD System, 2007-2017

4.3.22.4. Future Occurrence

Utility interruptions are difficult to predict. Franklin County expects several utility interruptions each year, but they are generally minor in nature and have a short duration. Long-term utility disruptions are more likely to occur during severe weather events, but provisions are in place with local municipalities and the American Red Cross to open heating/cooling centers for these longer duration events to protect the at-risk populations. Considering the historical information and outlook for recurrence, it is assessed that the probability of a Utility Interruption happening again in Franklin County is *highly likely* as defined by the Risk Factor Methodology Probability criteria (**Section 4.4**).

4.3.22.5. Vulnerability Assessment

Utility interruptions most severely affect individuals with access and functional needs (e.g., children, the elderly, and individuals with special medical needs). Special medical equipment will not function without power. Likewise, a loss of air conditioning during periods of extreme heat or the loss of heat during extreme cold can be especially detrimental to those with medical needs, children, and the elderly. Additionally, a lack of clean, potable water has health implications for all people, and a lack of water supply may also impact the sewer system and the availability of sewer service.

All critical facilities are vulnerable to utility interruptions, especially the loss of power. Therefore, all critical facilities, houses, population, and infrastructure as outlined in **Tables 2.4.4 and 2.4.6, Section 2** are vulnerable. The establishment of reliable backup power at these facilities is extremely important to continue to provide for the health, safety, and well-being of population and economy of Franklin County.

Figure 4.3.22.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Utility Interruption hazard. One can see that 10 of 22 municipalities rated this threat as either a Catastrophic or Major event. Furthermore, 7 of the remaining 12 municipalities have it ranked as a Moderate threat. This is a Moderate threat for Franklin County ranked number 4 overall and will garner significant attention during the Mitigation Strategy in **Section 6**.

Franklin County Hazard Mitigation Plan - 2018


	<h2 style="text-align: center;">Utility Interruption Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 – 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 – 1.9	
Insignificant	1.0 – 1.4												
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	2	30%	2	30%	3	20%	4	10%	2	10%	2.4	10.17%	0.2441
Chambersburg Borough	4	30%	1	30%	4	20%	4	10%	2	10%	2.9	13.64%	0.3956
Fannett Township	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	1.68%	0.0185
Greencastle Borough	2	30%	2	30%	4	20%	4	10%	2	10%	2.6	2.57%	0.0668
Greene Township	2	30%	1	30%	2	20%	4	10%	2	10%	1.9	11.55%	0.2195
Guilford Township	4	30%	1	30%	4	20%	4	10%	2	10%	2.9	9.59%	0.2781
Hamilton Township	2	30%	1	30%	3	20%	4	10%	2	10%	2.1	7.18%	0.1508
Letterkenny Township	3	30%	1	30%	3	20%	4	10%	2	10%	2.4	1.53%	0.0367
Lurgan Township	2	30%	1	30%	3	20%	4	10%	2	10%	2.1	1.40%	0.0294
Mercersburg Borough	2	30%	1	30%	4	20%	4	10%	2	10%	2.3	0.99%	0.0228
Metal Township	3	30%	2	30%	3	20%	4	10%	2	10%	2.7	1.20%	0.0324
Mont Alto Borough	3	30%	1	30%	4	20%	4	10%	2	10%	2.6	1.12%	0.0291
Montgomery Township	4	30%	2	30%	3	20%	4	10%	2	10%	3.0	4.02%	0.1206
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	2	10%	1.3	0.17%	0.0022
Peters Township	2	30%	1	30%	2	20%	4	10%	2	10%	1.9	2.85%	0.0542
Quincy Township	3	30%	2	30%	4	20%	4	10%	2	10%	2.9	3.52%	0.1021
Shippensburg Borough	2	30%	2	30%	4	20%	4	10%	2	10%	2.6	0.71%	0.0185
Southampton Township	3	30%	1	30%	3	20%	4	10%	2	10%	2.4	5.48%	0.1315
St Thomas Township	4	30%	2	30%	2	20%	4	10%	2	10%	2.8	3.87%	0.1084
Warren Township	3	30%	2	30%	3	20%	4	10%	2	10%	2.7	0.24%	0.0065
Washington Township	2	30%	1	30%	2	20%	4	10%	2	10%	1.9	9.53%	0.1811
Waynesboro Borough	3	30%	1	30%	2	20%	4	10%	2	10%	2.2	7.02%	0.1544
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)													2.402

Figure 4.3.22.5.1: Municipal Utility Interruption Threat Vulnerability Self-Assessment

No data regarding economic impacts from utility interruptions in Franklin County is available. However, utility interruptions can cause economic impacts stemming from lost income, spoiled food and other goods, costs to the owners/operators of the utility facilities, and costs to government and community service groups.

In Franklin County the risk factor for Utility Interruptions future occurrence is major. These minor interruptions are generally short lived and are more frequent. However, if the outage lasts for an extended period of time, medical facilities and nursing homes become extremely vulnerable.

4.3.23. Wildfire

A wildfire is an uncontrolled fire in an area of combustible vegetation that occurs in the countryside or rural area.

4.3.23.1. Location and Extent

Franklin County experiences a number of fires every year, most of which are small and affect one or more residential structures. However, a significant portion of county land consists of forests or farms, which are more prone to wildfires.

Wildfires occur throughout wooded and open vegetation areas of Pennsylvania. They can occur any time of the year, but mostly occur during long, dry hot spells. Any small fire, if not quickly detected and suppressed, can get out of control. Wildfires can be started by human negligence, lightning strikes, and rare instances of spontaneous combustion.

Data collected from DCNR (see **Appendix I**) shows that for Pennsylvania, the greatest potential for wildfires is in the Spring months of March, April and May, and, to a lesser extent, the Autumn months of October and November. In the Spring, bare trees allow sunlight to reach the forest floor, drying fallen leaves and other ground debris. In the Fall, dried leaves are also fuel for fires. The percentage of wildfires occurring each month in Pennsylvania is shown in **Figure 4.3.23.1.1** below.

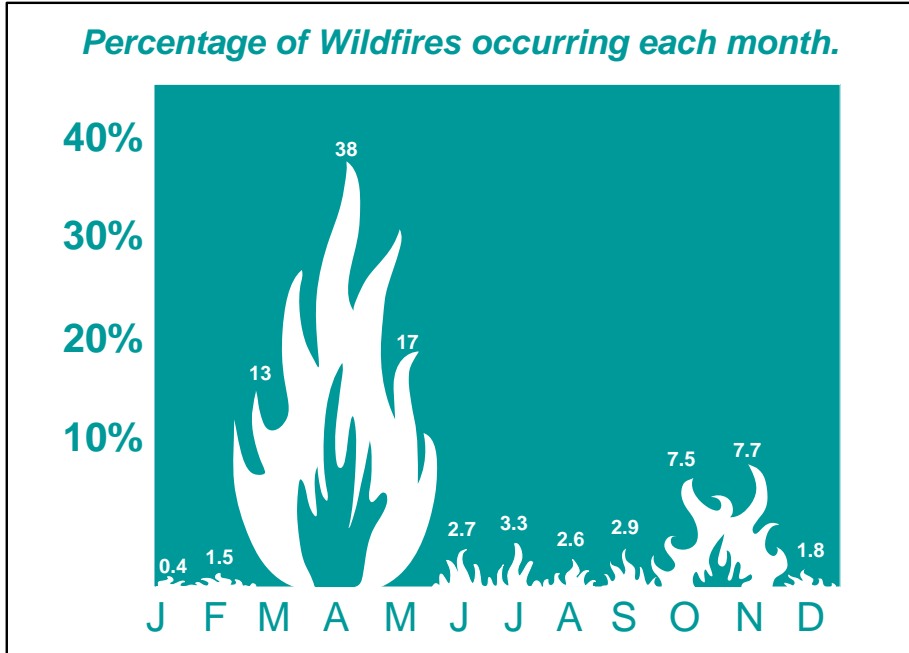


Figure 4.3.23.1.1: Percentage of PA Wildfires Each Month (1940-2015)¹⁴⁹

A review of the Wildfire data in the county’s CAD system shows that this pattern is somewhat different for Franklin County. We see a leveling out of the occurrence per month and a distinct rise in the Summer months (see **Figure 4.3.23.1.2** below).

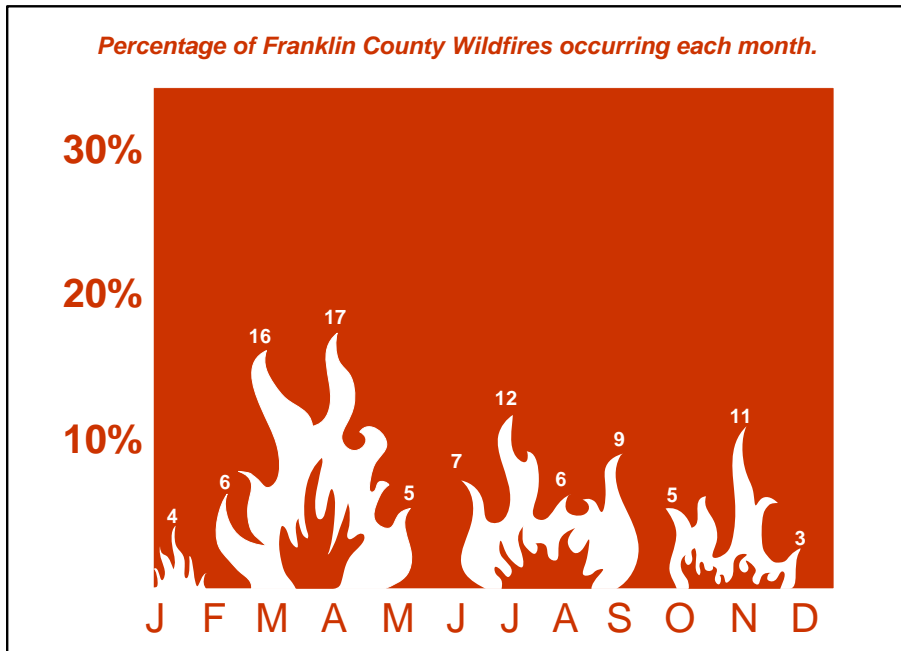


Figure 4.3.23.1.2: Percentage of Franklin County Wildfires per Month (2007-2017)

¹⁴⁹ Franklin County CAD System, 2007-2017

The differences in these charts could simply be the amount of data used in our local analysis. Our set covered roughly 10 years of data versus the 75 years of the PA data set. However, it does indicate that a local trend could be developing in our county over the past 10 years, possibly due to local drought conditions (see **Section 4.3.3**).

4.3.23.2. Range of Magnitude

As stated above, wildfires can occur at any time of the year, but mostly occur during long, dry, hot spells. Any small fire in a wooded area, if not quickly detected and suppressed, can get out of control. Most wildfires are caused by human carelessness, negligence, and ignorance. However, some are precipitated by lightning strikes and in rare instances, spontaneous combustion.

Wildfires in the Commonwealth of Pennsylvania can occur in fields, grass, and brush as well as in the forest itself. In Franklin County, much of the western and southeast portions of the County consist of forested areas (See **Figure 2.4.1, Section 2**). Under dry conditions or droughts, wildfires have the potential to burn forests as well as croplands. Ninety-eight (98) percent of wildfires in Pennsylvania are caused by people, often by debris burns. Several fires have started in a private backyard and traveled through dead grasses and weeds into bordering woodlands.

An uncontrolled fire (wildfire) is one of the most destructive fires caused by nature or man. It kills people, livestock, and wildlife. It destroys property, valuable timber, forage, and inestimable scenic and recreational value.

Vegetation loss is often an environmental concern with wildfires, but it typically is not a serious impact since natural re-growth occurs with time. The most significant environmental impact is the potential for severe erosion, silting of stream beds and reservoirs, and flooding due to ground-cover loss following a fire event.

4.3.23.3. Past Occurrence

An analysis of our CAD system was done to extract all instances of Brush and Mountain Fires in the county over the past ten years. **Table 4.3.23.3.1** illustrates the findings of this analysis.

Franklin County Hazard Mitigation Plan - 2018

Municipality	Brush Fires	Mountain Fires	Totals
Antrim Township	186	0	186
Chambersburg Borough	145	0	145
Fannett Township	48	8	56
Greencastle Borough	16	0	16
Greene Township	120	1	*121
Guilford Township	171	10	*181
Hamilton Township	73	3	76
Letterkenny Township	32	2	34
Lurgan Township	40	2	42
Mercersburg Borough	13	0	13
Metal Township	38	5	43
Mont Alto Borough	8	0	8
Montgomery Township	98	8	106
Orrstown Borough	0	0	0
Peters Township	70	10	80
Quincy Township	93	16	*109
Shippensburg Borough	6	0	6
Southampton Township	86	1	*87
St Thomas Township	80	1	81
Warren Township	13	4	17
Washington Township	126	5	*131
Waynesboro Borough	41	0	41
Totals	1503	76	1579
* Municipalities that make up part of the Michaux State Forrest; 629/1579 = 40% of the wildfires in the county.			

Table 4.3.23.3.1: Wildfire Events in Franklin County (2007-2017)

A major concern with respect to wildfires is the Michaux State Forest, located in Franklin, Cumberland, and Adams Counties. The Michaux State Forest totals more than 85,000 acres and

Franklin County Hazard Mitigation Plan - 2018

is utilized for not only recreational purposes, but also wood products and timber resources. Numerous local communities in the 3-county area also depend on the forest for its pure water supplies. Therefore, fires within the forest can have severe impacts on the well-being of residents and the local economy.

According to the DCNR, Forestry Bureau, there have been a total of 38.26 acres burned as a result of wildfires in the Michaux State Forest between 2011 and 2017. These forest fires are the result of numerous causes, including campfires, debris, lightning, and smoking. **Table 4.3.23.3.2** below lists the wildfire occurrences in the Michaux State Forrest since 2011. **Figure 4.3.23.3.1** plots these fires on the map to show the areas impacted by these wildfires.

Date	Municipality	Wildfire Name	Acres Impacted	Cause
2/18/2017	Quincy Township	Pulpit Rock	7.00	Camp Fire
11/9/2016	Quincy Township	Snowy Mt	1.00	Incendiary
10/24/2016	Guilford Township	Brown Rocks	5.00	Incendiary
9/23/2016	Quincy Township	Moonshine	0.10	Camp Fire
11/21/2015	Guilford Township	White Rocks	0.01	Camp Fire
9/28/2015	Greene Township	Rocky Mountain	0.01	Camp Fire
4/19/2015	Guilford Township	Smith Corl Ridge	0.10	Debris Burning
4/13/2015	Guilford Township	White Rock Rd	0.25	Incendiary
4/8/2015	Quincy Township	Oak Rd	0.50	Incendiary
4/2/2015	Guilford Township	Corls Ridge Rd	0.50	Debris Burning
11/5/2014	Greene Township	Heisey Rd	0.25	Miscellaneous
11/2/2014	Greene Township	Mt Cydonia 2	0.10	Incendiary
11/1/2014	Greene Township	Mt Cydonia	0.10	Incendiary
9/12/2014	Southampton Township	Stillhouse Powerline	0.01	Equipment Use
8/31/2014	Guilford Township	White Rocks 2	1.70	Camp Fire
8/27/2014	Guilford Township	White Rocks	0.01	Camp Fire
3/15/2014	Quincy Township	Monns Gap	1.00	Incendiary
11/14/2013	Greene Township	Ridge Rd	0.01	Incendiary
9/10/2013	Quincy Township	WWII Reenactment	0.10	Equipment Use
4/7/2013	Quincy Township	Spruce Rd	0.50	Debris Burning
1/19/2013	Southampton Township	Stillhouse Powerline	0.80	Miscellaneous
4/11/2012	Quincy Township	Powerline	0.10	Incendiary
4/7/2012	Washington Township	Weather Stone	7.10	Debris Burning
4/6/2012	Quincy Township	Brown	0.01	Debris Burning
1/20/2012	Quincy Township	Staley Rd	0.25	Incendiary
7/18/2011	Washington Township	Rattlesnake Run Rd	0.02	Incendiary
7/12/2011	Quincy Township	Swift Run	10.50	Miscellaneous
6/14/2011	Washington Township	Appalachian Trail	0.12	Incendiary
2/19/2011	Guilford Township	Landfill	1.00	Equipment Use
2/16/2011	Guilford Township	Knouse Pond	0.11	Miscellaneous
Total			38.26 Acres	

Table 4.3.23.3.2: Wildfires in Michaux State Forest (2011-2017)

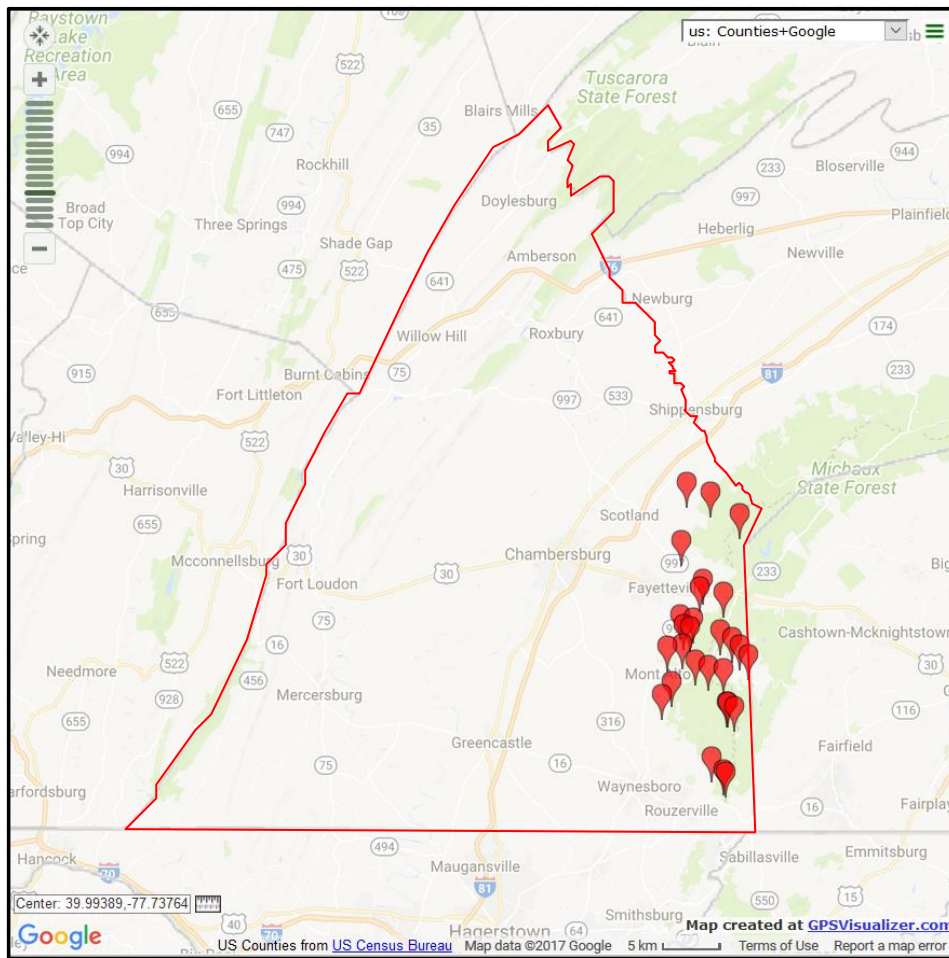


Figure 4.3.23.3.1: Wildfires in Michaux State Forest (2011-2017)

4.3.23.4. Future Occurrence

Weather conditions like drought can increase the likelihood of fires burning out of control and becoming a wildfire. Any fire, without the quick response or attention of firefighters, forestry personnel, or visitors to the forest, has the potential to become a wildfire. The probability of future wildfires should be considered *likely* according to the Risk Factor Methodology (see **Section 4.4**). However, the likelihood of one of those fires attaining significant size and intensity is unpredictable and highly dependent on environmental conditions and firefighting response. Weather conditions, particularly drought events (see **Section 4.3.3** for the Drought hazard), increase the likelihood of wildfires occurring.

4.3.23.5. Vulnerability Assessment

Analyzing the Past Occurrence data and the causal factors of wildfires, it is apparent that Franklin County will continue to experience these events. However, there is no data to indicate any loss of life and little data to indicate that the events we have experienced have resulted in significant financial losses. Therefore, even though the likelihood of recurrence is moderate, the

impact of these incidents has been low. It is still a viable threat to the county, and mitigation actions can be put in place to further reduce the occurrence rate and impact of these events. One action that we have added is to restart the Franklin County Firewise program and encourage municipal participation to raise awareness of the threat and implement preventive measures.

Figure 4.3.23.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Wildfire hazard. One can see that only 3 of 22 municipalities rated this threat as a Major event, and none of those are the municipalities in the Michaux State Forest. Furthermore, only 5 of the remaining 19 municipalities have it ranked as a Moderate threat. This is considered a Minor threat for Franklin County, ranked number 18 overall. Mitigation Actions will be developed to counter this threat in the Mitigation Strategy in **Section 6**.

Franklin County Hazard Mitigation Plan - 2018


	<h2 style="text-align: center;">Wildfire Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 – 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 – 1.9	
Insignificant	1.0 – 1.4												
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	2	30%	2	30%	2	20%	4	10%	2	10%	2.2	10.17%	0.2237
Chambersburg Borough	1	30%	1	30%	2	20%	4	10%	2	10%	1.6	13.64%	0.2182
Fannett Township	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	1.68%	0.0185
Greencastle Borough	1	30%	1	30%	1	20%	3	10%	2	10%	1.3	2.57%	0.0334
Greene Township	2	30%	1	30%	1	20%	4	10%	2	10%	1.7	11.55%	0.1964
Guilford Township	1	30%	1	30%	2	20%	4	10%	2	10%	1.6	9.59%	0.1534
Hamilton Township	1	30%	1	30%	3	20%	4	10%	2	10%	1.8	7.18%	0.1292
Letterkenny Township	4	30%	2	30%	2	20%	4	10%	2	10%	2.8	1.53%	0.0428
Lurgan Township	2	30%	1	30%	3	20%	2	10%	2	10%	1.9	1.40%	0.0266
Mercersburg Borough	1	30%	1	30%	1	20%	4	10%	2	10%	1.4	0.99%	0.0139
Metal Township	2	30%	3	30%	2	20%	4	10%	2	10%	2.5	1.20%	0.0300
Mont Alto Borough	1	30%	1	30%	1	20%	4	10%	2	10%	1.4	1.12%	0.0157
Montgomery Township	2	30%	2	30%	2	20%	4	10%	2	10%	2.2	4.02%	0.0884
Orrstown Borough	1	30%	1	30%	1	20%	3	10%	2	10%	1.3	0.17%	0.0022
Peters Township	1	30%	1	30%	1	20%	4	10%	2	10%	1.4	2.85%	0.0399
Quincy Township	2	30%	2	30%	2	20%	4	10%	2	10%	2.2	3.52%	0.0774
Shippensburg Borough	1	30%	1	30%	1	20%	4	10%	2	10%	1.4	0.71%	0.0099
Southampton Township	2	30%	2	30%	2	20%	4	10%	2	10%	2.2	5.48%	0.1206
St Thomas Township	2	30%	2	30%	2	20%	4	10%	2	10%	2.2	3.87%	0.0851
Warren Township	2	30%	3	30%	2	20%	4	10%	2	10%	2.5	0.24%	0.0060
Washington Township	2	30%	1	30%	2	20%	4	10%	2	10%	1.9	9.53%	0.1811
Waynesboro Borough	1	30%	1	30%	1	20%	1	10%	2	10%	1.1	7.02%	0.0772
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)												1.789	

Figure 4.3.23.5.1: Municipal Wildfire Threat Vulnerability Self-Assessment

It is important to note that most wildfires in Pennsylvania are human-caused. As a result, the occurrence of future wildfire events will strongly depend on patterns of human activity. Events are more likely to occur in wildfire-prone areas experiencing new or additional development. Wildfires may also be more likely after Invasive Species (**Section 4.3.10**) infestations or Windstorm events (**Section 4.3.19**); these events would add additional potential fuel load to fire-prone locations.

4.3.24. Winter Storm

Winter storms consist of cold temperatures, heavy snow or ice and sometimes strong winds. They begin as low-pressure systems that move through Pennsylvania either following the jet stream or developing as extra-tropical cyclonic weather systems over the Atlantic Ocean called Nor'easters.

4.3.24.1. Location and Extent

Winter Storms can, and usually do, impact the entire county. Within Franklin County, there are variations in the average amount of snowfall that is received because of geography and elevation differences. The higher elevations receive on average 25-50 inches, whereas the lower elevations see between 10-25 inches, as shown in **Figure 4.3.24.1.1**¹⁵⁰.

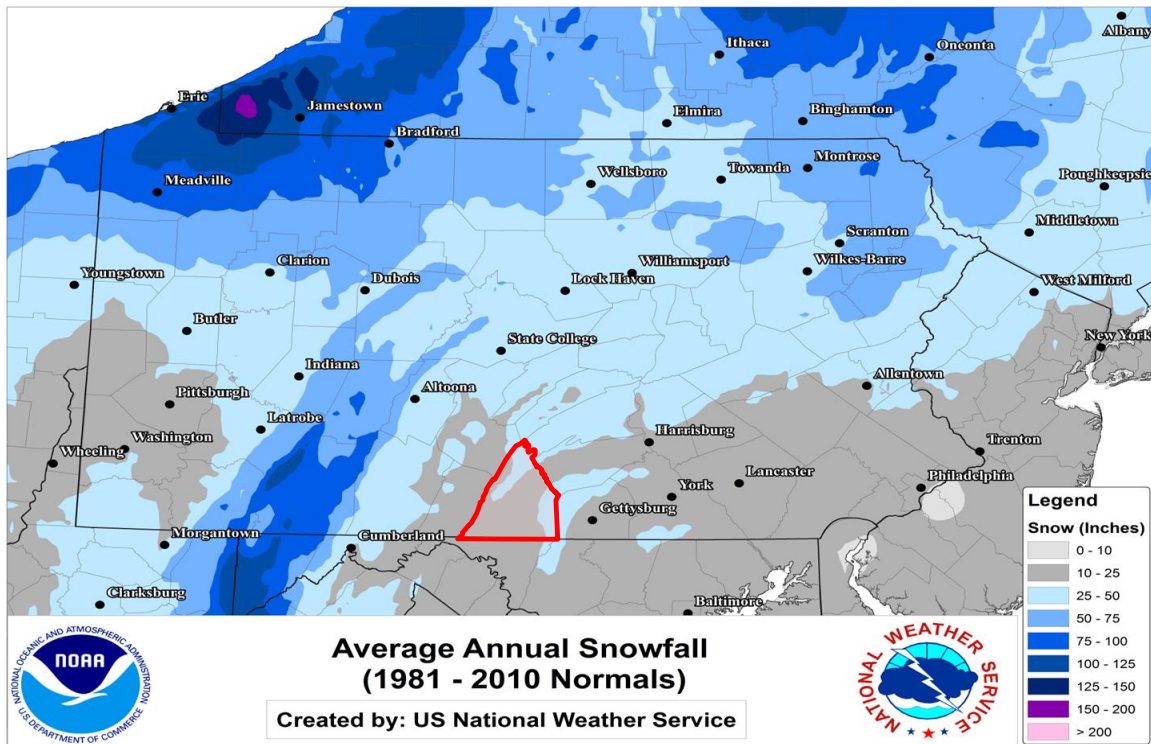


Figure 4.3.24.1.1: Average Annual Snowfall for Franklin County PA (1981-2010)

¹⁵⁰ NOAA/NWS

4.3.24.2. Range of Magnitude

A winter storm can adversely affect roadways, utilities, business activities, and can cause hypothermia, frostbite, or loss of life. These storms may introduce heavy snow, ice, winter flooding, and extreme cold temperatures into the region¹⁵¹. This section will only discuss heavy snow and ice conditions. Extreme cold temperatures and winter flooding are covered in **Section 4.3.6** and **Section 4.3.7** respectively.

Heavy Snow: Heavy snow can immobilize a region and paralyze a community by closing major transportation arteries, thus stranding commuters, stopping the flow of supplies, and disrupting emergency and medical services. Accumulations of snow can cause roofs to collapse and knock down trees and power lines leading to humanitarian and medical crises during periods of reduced mobility. Rural homes and farms may be isolated for days and unprotected livestock may be lost. The cost of snow removal, repairing damages, and the loss of business can have severe economic impacts on our municipalities. The following are examples of snow conditions common in Franklin County¹⁵²:

- **Blizzard** – Winds of 35 mph or more with snow and blowing snow reducing visibility to less than ¼ mile for 3 hours or more.
- **Blowing Snow** – Wind-driven snow that reduces visibility. Blowing snow may be falling snow and/or snow on the ground picked up by the wind.
- **Snow Squalls**- Brief, intense snow showers accompanied by strong, gusty winds. Accumulation may be significant.
- **Snow Showers** – Snow falling at varying intensities for brief periods of time. Some accumulation is possible.
- **Snow Flurries** – Light snow falling for short durations with little or no accumulation.

Ice: Heavy accumulations of ice can bring down trees and topple utility poles and communications towers. Ice can disrupt communications and power for days while utility companies repair extensive damage. Even small accumulations of ice can be extremely dangerous to motorists and pedestrians. Bridges and overpasses are particularly dangerous because they freeze before other surfaces. The following are ice conditions that impact Franklin County:

- **Freezing Rain** - Frozen precipitation that melts upon encountering warmer air only to refreeze on cold surfaces upon reaching the ground as a sheet of ice.
- **Sleet** – Frozen precipitation that melts upon encountering warmer air but refreezes prior to hitting the ground.

¹⁵¹ NOAA/NES, 2008

¹⁵² NOAA/NES, 2008

4.3.24.3. Past Occurrence

Franklin County and the Commonwealth of Pennsylvania have a long history of severe winter weather. Franklin County has experienced the following types of severe winter weather events (See **Table 4.3.24.3.1** below) since 1993, according to the National Centers for Environmental Information (NCEI)¹⁵³:

Severe Winter weather Type	Occurrences
Blizzards/Heavy Snow	28
Ice Storm	6
Winter Storm	19
Totals	53

Table 4.3.24.3.1: Severe Winter Weather Events for Franklin County (1993-2018)

From this data, one can see that Franklin County has experienced 53 winter storm events, since 1993. The NCEI data on past occurrence for winter storm events is the most comprehensive list of data available for the county. The county does not have or maintain data on damages caused by winter storms at the local level.

There have been a number of key past winter storm events for Franklin County. However, the most significant one was on January 22-24, 2016. The storm, named Winter Storm Jonas by The Weather Channel, dumped over 29 inches of snow in 48 hrs in parts of Franklin County¹⁵⁴. This resulted in 21 of 22 municipalities as well as the county enacting disaster declarations. Both state and federal partners declared disasters as well. As a result of this one winter storm, Franklin County and our municipalities filed for well over \$900,000 in federal disaster relief funding to cover the manpower (overtime), equipment, and material costs required to return to normal operations.

Table 4.3.24.3.2 below specifically lists all of the Blizzard/Heavy Snow Events; **Table 4.3.24.3.3** lists the Ice Storms; and **Table 4.3.24.3.4** lists all the Winter Storms Franklin County since 1993:

¹⁵³ NOAA/NCEI

¹⁵⁴ The Herald Mail, 2016

Franklin County Hazard Mitigation Plan - 2018

Location	Severe Weather Event	Date
Multiple Counties	Heavy Snow	11/25/2014
Multiple Counties	Heavy Snow	2/13/2014
York, Franklin, Schuylkill, Lebanon, Adams, Fulton, Bedford, Lancaster, Somerset, and Dauphin	Heavy Snow	2/3/2014
Fulton, Cambria, Somerset, Bedford, Adams, Franklin, Blair, and Huntingdon	Heavy Snow	3/6/2013
Multiple Counties	Heavy Snow	10/29/2011
York, Adams, Cumberland, Franklin, Cambria, Huntingdon, Blair, Bedford, Somerset, and Fulton	Heavy Snow	2/21/2011
Adams, York, Lancaster, Lebanon, Franklin, Dauphin, Bedford, Fulton, and Somerset	Heavy Snow	1/26/2011
Multiple Counties	Heavy Snow	3/16/2007
Multiple Counties	Heavy Snow	12/9/2005
Multiple Counties	Heavy Snow	2/24/2005
Multiple Counties	Heavy Snow	2/3/2004
York, Somerset, Huntingdon, Fulton, Cambria, Blair, Bedford, Adams, and Franklin	Heavy Snow	1/25/2004
Multiple Counties	Heavy Snow	12/5/2003
Multiple Counties	Heavy Snow	2/16/2003
Multiple Counties	Heavy Snow	2/6/2003
Multiple Counties	Heavy Snow	12/25/2002
Multiple Counties	Heavy Snow	12/5/2002
Multiple Counties	Heavy Snow	1/6/2002
Multiple Counties	Heavy Snow	3/4/2001
Multiple Counties	Heavy Snow	1/20/2001
Multiple Counties	Heavy Snow	1/30/2000
Multiple Counties	Heavy Snow	1/25/2000
Multiple Counties	Heavy Snow	3/14/1999
Somerset, Bedford, and Franklin	Heavy Snow	1/28/1998
Multiple Counties	Heavy Snow	12/29/1997
Multiple Counties	Heavy Snow	11/28/1996
Multiple Counties	Heavy Snow	1/12/1996
Multiple Counties	Blizzard	1/7/1996

Table 4.3.24.3.2: Blizzard/Heavy Snow Events in Franklin County (1993-2018)¹⁵⁵

¹⁵⁵ NOAA/NCEI

Franklin County Hazard Mitigation Plan - 2018

Location	Severe Weather Event	Date
Adams and Franklin	Ice Storm	1/5/2014
Multiple Counties	Ice Storm	1/6/2009
Multiple Counties	Ice Storm	2/6/2004
Multiple Counties	Ice Storm	12/10/2002
Centre, Somerset, Fulton, Cambria, Bedford, and Franklin	Ice Storm	10/29/2002
Multiple Counties	Ice Storm	1/15/1998

Table 4.3.24.3.3: Ice Storm Events in Franklin County (1993-2018)

Location	Severe Weather Event	Date
Multiple Counties	Winter Storm	3/13/2017
Multiple Counties	Winter Storm	2/15/2016
Multiple Counties	Winter Storm	1/22/2016
Multiple Counties	Winter Storm	2/4/2014
Multiple Counties	Winter Storm	12/14/2013
Multiple Counties	Winter Storm	2/9/2010
Multiple Counties	Winter Storm	2/5/2010
Multiple Counties	Winter Storm	12/19/2009
Multiple Counties	Winter Storm	1/27/2009
Multiple Counties	Winter Storm	2/1/2008
Multiple Counties	Winter Storm	12/15/2007
Multiple Counties	Winter Storm	2/13/2007
Multiple Counties	Winter Storm	12/16/2005
Multiple Counties	Winter Storm	12/13/2000
Multiple Counties	Winter Storm	2/18/2000
Multiple Counties	Winter Storm	1/14/1999
Multiple Counties	Winter Storm	1/8/1999
Multiple Counties	Winter Storm	1/2/1999
Multiple Counties	Winter Storm	2/13/1997

Table 4.3.24.3.4: Winter Storm Events in Franklin County (1993-2018)

4.3.24.4. Future Occurrence

Winter storms are a regular annual occurrence in Franklin County and should be considered *highly likely*, based on the Risk Factor criteria (See **Section 4.4**).

Table 4.3.24.4.1 below shows the snow and sleet totals per month from January 2012 through December 2017 for Franklin County PA¹⁵⁶. There are 3 reporting locations in Franklin County; Chambersburg (USC00361354), Greencastle (US1PAFN0001) and South Mountain (USC00368308). From this table, one can see that the probability of snow/sleet related events is high, especially in December, January, February, and March. In these months, one can also see that the total accumulation varies widely, but the possibility of depths over 6 inches can be easily

¹⁵⁶ NOAA/NCEI, Global Summary for Months 2012 through 2017 for Franklin County PA

Franklin County Hazard Mitigation Plan - 2018

achieved. There is no reason to believe the winter weather trends shown in **Table 4.3.24.4.1** below will not continue.

Snow/Sleet in Inches per Month since 2012																		% Chance on average of Snow/Sleet in Month	Average Accumulation in inches if it does Snow/Sleet per month	
	2012			2013			2014			2015			2016			2017				
	Chambersburg (USC00361354)	Greencastle (USIPAFN0001)	South Mountain (USC368308)	Chambersburg (USC00361354)	Greencastle (USIPAFN0001)	South Mountain (USC368308)	Chambersburg (USC00361354)	Greencastle (USIPAFN0001)	South Mountain (USC368308)	Chambersburg (USC00361354)	Greencastle (USIPAFN0001)	South Mountain (USC368308)	Chambersburg (USC00361354)	Greencastle (USIPAFN0001)	South Mountain (USC368308)	Chambersburg (USC00361354)	Greencastle (USIPAFN0001)			South Mountain (USC368308)
January	4.2			2.9	2.5	4.2	7.5	5.6	13.2	14.2	9.4	14.3	29.9	30.0	34.3	2.4	0.8	2.4	100%	9.9
February				4.4	0.8	6.2		4.1	25.6	7.4	5.3	7.4	6.4	5.1	8.8	2.0	0.8	3.0	83%	5.8
March				13.4	7.0	16.1			8.1	11.9	6.5	13.6	0.3	0.5	0.8	14.3	8.0	17.1	83%	7.8
April															0.5				17%	0.2
May																			0%	
June																			0%	
July																			0%	
Aug																			0%	
September																			0%	
October																			0%	
November	0.5		0.5				5.0	3.0	4.3										33%	2.2
December	10.9	5.1	11.8		3.5	10.1			1.0				1.2		2.6	4.7	2.2	5.9	83%	3.9

Table 4.3.24.4.1: Snow/Sleet per Month for Franklin County (2012-2017)

4.3.24.5. Vulnerability Assessment

Based on all the information available, every community in Franklin County is equally vulnerable to the direct impacts of winter storms. However residents in the mountainous areas of the county may be more susceptible to disasters during severe storms, due to hazardous road conditions on steep inclines. This is especially true when emergency medical assistance may be required during the snow event.

Figure 4.3.24.5.1 below lists the vulnerability self-assessments of each of the Franklin County municipalities for the Winter Storm hazard. One can see that 13 of 22 municipalities rated this threat as either a Catastrophic or Major event. Furthermore, 7 of the remaining 9 municipalities rated this as a Moderate threat. This is a Major threat to Franklin County ranked number 1 overall and will garner significant attention during the Mitigation Strategy in **Section 6**.

Franklin County Hazard Mitigation Plan - 2018


	<h2 style="text-align: center;">Winter Storm Hazard Threat Risk Assessment</h2>										Risk Factor Scale		
											Catastrophic	3.0 - 4.0	
											Major	2.5 - 2.9	
											Moderate	2.0 - 2.4	
											Minor	1.5 - 1.9	
Insignificant	1.0 - 1.4												
Municipality	Probability (1-4)	30%	Impact (1-4)	30%	Spatial (1-4)	20%	Warning Time (1-4)	10%	Duration (1-4)	10%	Risk Factor (RF)	% of County Population	Contribution to County RF
Antrim Township	4	30%	2	30%	4	20%	1	10%	3	10%	3.0	10.17%	0.3051
Chambersburg Borough	4	30%	1	30%	4	20%	2	10%	3	10%	2.8	13.64%	0.3819
Fannett Township	2	30%	2	30%	4	20%	1	10%	3	10%	2.4	1.68%	0.0403
Greencastle Borough	2	30%	2	30%	4	20%	1	10%	3	10%	2.4	2.57%	0.0617
Greene Township	3	30%	2	30%	4	20%	1	10%	3	10%	2.7	11.55%	0.3119
Guilford Township	4	30%	1	30%	4	20%	1	10%	3	10%	2.7	9.59%	0.2589
Hamilton Township	2	30%	2	30%	4	20%	2	10%	3	10%	2.5	7.18%	0.1795
Letterkenny Township	4	30%	2	30%	4	20%	2	10%	3	10%	3.1	1.53%	0.0474
Lurgan Township	3	30%	2	30%	4	20%	3	10%	3	10%	2.9	1.40%	0.0406
Mercersburg Borough	3	30%	1	30%	4	20%	1	10%	3	10%	2.4	0.99%	0.0238
Metal Township	2	30%	1	30%	3	20%	1	10%	3	10%	1.9	1.20%	0.0228
Mont Alto Borough	2	30%	2	30%	4	20%	1	10%	3	10%	2.4	1.12%	0.0269
Montgomery Township	3	30%	3	30%	4	20%	1	10%	3	10%	3.0	4.02%	0.1206
Orrstown Borough	2	30%	1	30%	2	20%	3	10%	3	10%	1.9	0.17%	0.0032
Peters Township	2	30%	1	30%	4	20%	2	10%	3	10%	2.2	2.85%	0.0627
Quincy Township	4	30%	2	30%	4	20%	1	10%	3	10%	3.0	3.52%	0.1056
Shippensburg Borough	2	30%	2	30%	4	20%	1	10%	3	10%	2.4	0.71%	0.0170
Southampton Township	3	30%	2	30%	3	20%	4	10%	3	10%	2.8	5.48%	0.1534
St Thomas Township	3	30%	2	30%	2	20%	3	10%	3	10%	2.5	3.87%	0.0968
Warren Township	4	30%	2	30%	4	20%	1	10%	3	10%	3.0	0.24%	0.0072
Washington Township	2	30%	1	30%	3	20%	3	10%	3	10%	2.1	9.53%	0.2001
Waynesboro Borough	3	30%	2	30%	4	20%	1	10%	3	10%	2.7	7.02%	0.1895
Municipal Weighted Average Risk Factor (RF) (Updated 12/10/2020)												2.656	

Figure 4.3.24.5.1: Municipal Winter Storm Threat Vulnerability Self-Assessment

Franklin County Hazard Mitigation Plan - 2018

Because of the frequency of winter storms in Franklin County, strategies have been developed at the county and municipal level to respond to these events. Snow removal and utility repair equipment are prepositioned to respond to typical snow/ice events. Additionally, the use of auxiliary heat and electricity supplies, such as wood burning stoves, kerosene heaters, and gasoline powered generators reduce the vulnerability of the population to extreme cold temperatures commonly associated with winter storms.

Vulnerability to the effects of winter storms on buildings is dependent on the type and age of the structure. **Table 4.3.24.5.1** below lists “built on” date percentages for residences in our municipalities. It is evident that a large portion of the housing in the county was built prior to 1960 (34.1%). Due to older building codes at time of construction and the impacts of age (and/or lack of maintenance) on facilities built before 1960, one would expect to see an increase in hazards related to snow and ice loads during severe winter weather¹⁵⁷. This is especially true for residences in the Boroughs of Chambersburg, Waynesboro, Mercersburg, and Orrstown, where the percentage of houses built before 1960 is over 50%.

Municipalities	% of Houses built in Time Period							Estimated number of houses in municipality	Estimated number of houses built before 1960 in municipality	% of houses built before 1960, per municipality
	2014 and later	2010 to 2013	2000 to 2009	1980 1999	1960 to 1979	1940 to 1959	1939 or earlier			
Chambersburg Borough	0.0	1.4	12.0	16.9	16.2	21.7	31.8	8873	4747	53.5
Waynesboro Borough	0.0	1.6	10.3	12.6	13.5	22.3	39.7	5148	3192	62.0
Washington Township	0.3	3.2	18.1	30.6	22.5	11.6	13.9	6144	1567	25.5
Greene Township	0.0	2.5	19.6	28.9	28.0	11.4	9.6	7261	1525	21.0
Guilford Township	0.0	0.2	16.3	31.8	28.6	11.8	11.3	6250	1444	23.1
Shippensburg Borough	0.0	0.8	8.5	16.2	25.3	17.3	31.9	2898	1426	49.2
Antrim Township	0.7	1.3	23.2	29.3	25.7	11.3	8.4	5508	1085	19.7
Hamilton Township	0.0	2.2	19.7	33.1	23.5	14.6	7.0	4669	1009	21.6
St Thomas Township	0.0	0.0	11.6	16.1	36.1	16.5	19.8	2397	870	36.3
Greencastle Borough	0.0	0.0	15.1	19.5	24.2	20.3	20.9	1856	765	41.2
Southampton Township	0.0	2.5	21.4	35.2	20.3	13.6	7.1	3339	691	20.7
Montgomery Township	0.0	0.5	21.3	24.0	26.7	8.2	19.3	2496	686	27.5
Peters Township	1.9	0.5	11.2	16.1	30.9	17.6	21.7	1734	681	39.3
Quincy Township	0.0	0.0	9.7	34.1	29.5	10.8	15.9	2120	566	26.7
Mercersburg Borough	0.0	0.0	5.4	15.2	15.4	18.7	45.3	774	495	64.0
Fannett Township	0.0	1.2	7.8	25.8	22.3	12.2	30.8	1041	448	43.0
Lurgan Township	0.5	0.0	10.1	16.9	28.5	27.5	16.5	843	371	44.0
Letterkenny Township	0.0	0.6	6.1	30.2	33.4	14.8	14.9	1044	310	29.7
Metal Township	0.4	0.0	9.4	35.2	23.8	11.5	19.7	955	298	31.2
Mont Alto Borough	0.0	0.0	9.2	20.8	27.6	21.5	20.8	700	296	42.3
Orrstown Borough	0.0	0.0	0.0	3.1	11.5	42.7	42.7	109	93	85.4
Warren Township	0.0	9.4	12.2	31.7	18.0	3.6	25.2	166	48	28.8
County Totals								66325	22612	34.1

Table 4.3.24.5.1: Percentages of House Built Prior to 1960 per Municipality (2011-2015)¹⁵⁸

¹⁵⁷ US Census Bureau, American Community Survey 5-Year Estimates, 2011 - 2015

¹⁵⁸ US Census Bureau, American Community Survey 5-Year Estimates, 2011 - 2015

People residing in structures lacking adequate equipment to protect against cold temperatures or significant snow and ice are more vulnerable to winter storm events and contingency plans need to be developed for possible evacuation and relocation. Even for communities that are prepared to respond to winter storms, severe events involving snow accumulations that exceed 6 or more inches in a 12-hour period can cause a large number of traffic accidents, strand motorists due to drifting snow, interrupt power and communications systems, and cause failure of inadequately designed or maintained roof systems.

Additional vulnerabilities exist due to icy and snow covered roadways. This is a potential risk on all roads, even the most widely travelled routes in the county. The areas of most concern are those routes in Franklin County that are considered major arteries for traffic through the Cumberland Valley region (i.e. I-81 and I-76, The PA Turnpike).

4.4. Hazard Vulnerability Summary

4.4.1. Methodology

Ranking hazards helps communities set goals and priorities for mitigation based on their vulnerabilities. A Risk Factor (RF) is a tool used to measure the degree of risk for identified hazards in a particular planning area. The RF can also be used to assist local community officials in ranking and prioritizing those hazards that pose the most significant threat to their area based on a variety of factors deemed important by the planning team and other stakeholders involved in the hazard mitigation planning process. The RF system relies mainly on historical data, local knowledge, general consensus opinions from the planning team and information collected through development of the hazard profiles included in **Section 4.3**. The RF approach produces numerical values that allow identified hazards to be ranked against one another; the higher the RF value, the greater the hazard risk.

RF values were obtained by assigning varying degrees of risk to 5 categories for each of the 24 hazards profiled in this Hazard Mitigation Plan update. Those categories include: *probability*, *impact*, *spatial extent*, *warning time* and *duration*. Each degree of risk was assigned a value ranging from 1 to 4. The weighting factor is shown in **Table 4.4.1.1**. To calculate the RF value for a given hazard, the assigned risk value for each category was multiplied by the weighting factor. The sum of all 5 categories equals the final RF value, as demonstrated in the example equation in **Figure 4.4.1.1** below:

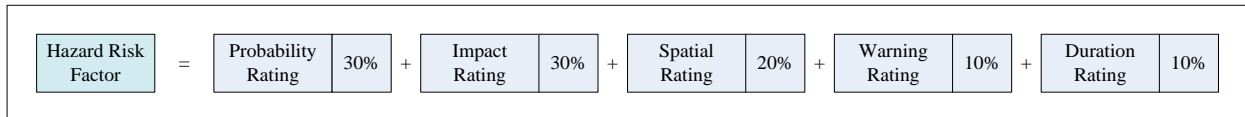


Figure 4.4.1.1: Risk Factor (RF) Equation

Table 4.4.1.1 summarizes each of the five categories used for calculating an RF for each hazard. According to the weighting scheme applied, the highest possible value is a 4.0.

Franklin County Hazard Mitigation Plan - 2018

RISK ASSESSMENT CATEGORY	DEGREE OF RISK			Weight Value	
	LEVEL	CRITERIA	INDEX		
PROBABILITY <i>What is the likelihood of a hazard event occurring in a given year?</i>	UNLIKELY	LESS THAN 1% ANNUAL PROBABILITY	1	30%	
	POSSIBLE	BETWEEN 1% & 49.9% ANNUAL PROBABILITY	2		
	LIKELY	BETWEEN 50% & 90% ANNUAL PROBABILITY	3		
	HIGHLY LIKELY	GREATER THAN 90% ANNUAL PROBABILITY	4		
IMPACT <i>What, in terms of injuries, damage, death, and economic impact, would you anticipate to be minor, limited, critical, or catastrophic when a significant hazard event occurs?</i>	MINOR	VERY FEW INJURIES, IF ANY. ONLY MINOR PROPERTY DAMAGE & MINIMAL DISRUPTION ON QUALITY OF LIFE. TEMPORARY SHUTDOWN OF CRITICAL FACILITIES.	1	30%	
	LIMITED	MINOR INJURIES ONLY. MORE THAN 10% OF PROPERTY IN AFFECTED AREA DAMAGED OR DESTROYED. COMPLETE SHUTDOWN OF CRITICAL FACILITIES FOR MORE THAN ONE DAY.	2		
	CRITICAL	MULTIPLE DEATHS/INJURIES POSSIBLE. MORE THAN 25% OF PROPERTY IN AFFECTED AREA DAMAGED OR DESTROYED. COMPLETE SHUTDOWN OF CRITICAL FACILITIES FOR MORE THAN ONE WEEK.	3		
	CATASTROPHIC	HIGH NUMBER OF DEATHS/INJURIES POSSIBLE. MORE THAN 50% OF PROPERTY IN AFFECTED AREA DAMAGED OR DESTROYED. COMPLETE SHUTDOWN OF CRITICAL FACILITIES FOR 30 DAYS OR MORE.	4		
SPATIAL EXTENT <i>How large of an area could be impacted by a hazard event? Are impacts localized or regional?</i>	NEGLIGIBLE	LESS THAN 1% OF AREA AFFECTED	1	20%	
	SMALL	BETWEEN 1% & 10% OF AREA AFFECTED	2		
	MODERATE	BETWEEN 10% & 50% OF AREA AFFECTED	3		
	LARGE	BETWEEN 50% AND 100% OF AREA AFFECTED	4		
WARNING TIME <i>Is there usually some lead time associated with the hazard event? Are impacts localized or regional?</i>	MORE THAN 24 HRS	SELF DEFINED	(NOTE: Levels of warning time and criteria that define them may be adjusted based on hazard addressed.)	1	10%
	12 TO 24 HRS	SELF DEFINED		2	
	6 TO 12 HRS	SELF DEFINED		3	
	LESS THAN 6 HRS	SELF DEFINED		4	
DURATION <i>How long does the hazard event usually last?</i>	LESS THAN 6 HRS	SELF DEFINED	(NOTE: Levels of warning time and criteria that define them may be adjusted based on hazard addressed.)	1	10%
	LESS THAN 24 HRS	SELF DEFINED		2	
	LESS THAN 1 WEEK	SELF DEFINED		3	
	MORE THAN 1 WEEK	SELF DEFINED		4	

Table 4.4.1.1: Summary of Risk Factor Approach Used to Rank Hazards at the Municipal Level

4.4.2. Ranking Results

Since our first and most important priority in emergency response is to protect the lives of Franklin County citizens, the Risk Factors for each municipality were weighed based on the 2018 Census estimate population results. This means that population density is also a factor in determining the Franklin County Risk Factor roll-up. We also expanded our Risk Factor results grading scale to five levels (See **Table 4.4.2.1** below).

Risk Factor Scale	
Catastrophic	3.0 – 4.0
Major	2.5 - 2.9
Moderate	2.0 - 2.4
Minor	1.5 – 1.9
Insignificant	1.0 – 1.4

Table 4.4.2.1: Risk Factor Scale for Hazard Assessments

This more granular scale allows for a finer distinction at the municipal level to identify those hazards that require immediate attention and those that can be more methodically mitigated.

Each municipality was sent a survey based on the methodology identified in **Section 4.4.1**. However, the municipalities were only asked to score 4 of the 5 threat characteristics. The “Duration” characteristic was standardized at the county level to make sure that a hazard occurring in one part of the county was in line with the same type of hazard occurring in another part of the county. That is, we did not want the survey data skewed because the “Duration” of the events was wildly varied. For example, if we are assessing a Winter Storm hazard threat, we know that the storm is not going to last longer in Chambersburg than in Waynesboro, on average. The numbers we used for the “Duration” of hazards characteristic were taken verbatim from the Pennsylvania 2013 Standard State All-Hazard Mitigation Plan for each threat. A copy of this Survey is included in **Appendix E** of this Hazard Mitigation Plan.

Using the methodology described in **Section 4.4.1** and the minor alterations listed above, **Figure 4.4.2.1** below lists the County roll-up weighted Risk Factors calculated for each of the 24 potential hazards identified in this Hazard Mitigation Plan Update.

Franklin County Hazard Mitigation Plan - 2018

Franklin County Hazard Threat Assessment Roll-Up																								
Risk Factor Scale		Montgomery TWP	Antrim TWP	Quincy TWP	Greencastle Borough	Warren TWP	Chambersburg Borough	Southampton TWP	Guilford TWP	Letterkenny TWP	Greene TWP	Mont Alto Borough	Waynesboro Borough	St Thomas TWP	Shippensburg Borough	Lurgan TWP	Hamilton TWP	Mercersburg Borough	Metal TWP	Peters TWP	Washington TWP	Fannett TWP	Orrstown Borough	Municipal Weighted Average
Catastrophic	3.0 – 4.0																							
Major	2.5 - 2.9																							
Moderate	2.0 - 2.4																							
Minor	1.5 – 1.9																							
Insignificant	1.0 – 1.4																							
Winter Storm		3.0	3.0	3.0	2.4	3.0	2.8	2.8	2.7	3.1	2.7	2.4	2.7	2.5	2.4	2.9	2.5	2.4	1.9	2.2	2.1	2.4	1.9	2.656
Hurricane, Tropical Storm, Nor'easter		2.8	2.8	2.8	2.8	2.5	2.5	2.4	2.5	2.6	2.8	1.8	2.8	2.4	2.3	2.7	1.9	2.2	1.8	2.2	2.5	1.3	1.8	2.518
Tornado, Windstorm		3.1	3.0	2.5	3.1	2.3	2.4	2.1	2.8	2.3	2.1	1.9	2.8	2.4	2.2	2.3	2.5	2.8	1.5	1.3	1.8	2.5	1.2	2.427
Utility Interruption		3.0	2.4	2.9	2.6	2.7	2.9	2.4	2.9	2.4	1.9	2.6	2.2	2.8	2.6	2.1	2.1	2.3	2.7	1.9	1.9	1.1	1.3	2.402
Extreme Temperatures		2.7	2.4	2.7	2.4	2.5	2.7	1.9	2.4	2.4	2.4	1.9	2.4	2.5	2.1	2.3	1.9	2.4	1.7	2.2	1.7	2.2	1.4	2.309
Pandemic and Infectious Disease		3.2	2.1	2.8	2.5	2.5	1.9	2.4	2.3	1.3	3.7	2.1	2.3	3.1	2.2	1.3	1.8	1.3	3.1	1.4	1.3	1.3	1.5	2.275
Drought		2.5	2.6	2.2	2.5	2.6	2.2	2.4	2.2	3.1	2.2	2.0	2.5	2.9	2.2	1.5	1.9	2.2	2.0	1.9	1.8	2.2	1.5	2.251
Lightning Strike		3.1	2.4	2.2	2.2	2.3	2.2	2.6	1.7	2.3	2.2	1.6	2.8	2.4	1.4	1.6	2.2	2.5	1.9	1.4	1.8	2.5	1.5	2.204
Dam Failure		2.1	1.9	2.0	2.5	2.3	2.6	2.4	1.8	1.6	2.2	1.6	2.5	2.1	1.5	3.3	2.0	1.6	2.1	1.6	2.6	1.3	1.5	2.189
Transportation Accident		2.1	3.2	2.4	2.2	1.4	2.2	2.9	3.1	2.4	1.6	1.8	2.2	2.1	2.4	2.1	1.8	1.3	2.7	1.6	1.0	2.1	1.2	2.187
Environmental Hazards (HAZMAT Release)		2.2	2.4	2.4	2.6	2.0	1.9	2.7	2.8	2.7	2.0	2.2	1.7	2.0	2.4	1.9	1.8	1.1	2.2	1.4	2.2	1.1	1.3	2.138
Flood, Flash Flood, Ice Jam		2.3	2.0	2.7	2.5	2.3	1.7	2.3	2.4	2.3	1.9	1.5	1.8	2.5	1.9	2.3	1.9	1.2	2.1	2.2	2.5	2.5	1.4	2.107
Hailstorm		2.2	2.1	2.0	2.4	2.3	2.8	2.1	2.6	2.0	1.8	1.9	2.5	2.4	2.0	2.5	2.2	2.2	1.2	1.2	1.0	1.0	1.5	2.106
Earthquake		2.2	2.0	1.6	2.3	2.4	2.8	2.7	2.0	1.9	2.3	1.1	2.5	1.3	1.9	1.6	1.9	2.8	2.0	1.3	1.0	1.0	1.2	2.042
Invasive Species		2.5	2.3	2.3	2.5	2.2	2.8	1.5	1.3	1.3	1.3	1.3	2.2	2.3	1.3	1.9	2.2	2.2	1.3	1.6	1.3	1.3	1.5	1.926
Terrorism		3.0	1.9	2.3	3.0	1.7	1.4	2.2	2.2	3.5	1.9	1.4	2.0	2.0	1.6	1.1	1.8	2.9	2.2	1.4	1.1	1.1	1.3	1.881
Subsidence, Sinkhole		2.8	2.2	1.9	1.6	1.3	2.2	2.6	2.7	1.8	1.6	1.0	1.6	1.6	1.3	1.3	1.3	1.3	1.6	1.3	1.0	1.0	1.2	1.850
Wildfire		2.2	2.2	2.2	1.3	2.5	1.6	2.2	1.6	2.8	1.7	1.4	1.1	2.2	1.4	1.9	1.8	1.4	2.5	1.4	1.9	1.1	1.3	1.789
Urban Fire and Explosion		2.4	2.1	1.6	1.4	1.8	2.7	2.1	1.6	2.1	1.3	1.8	2.2	1.3	2.2	1.6	1.7	1.3	1.1	1.3	1.0	1.0	1.2	1.788
Radon Exposure		2.3	2.0	2.4	1.6	1.3	2.6	1.5	1.4	2.5	1.6	1.6	1.3	1.6	1.3	1.6	1.8	1.3	1.3	1.6	1.3	1.3	1.5	1.773
Nuclear Incident		1.3	2.9	2.2	2.5	3.1	1.5	1.9	1.9	1.3	1.3	1.4	1.3	1.6	2.5	1.3	1.6	2.5	1.6	1.9	1.3	1.3	1.5	1.723
Mass Food and Animal Feed Contamination		3.0	1.6	2.2	1.7	2.6	1.7	1.6	1.9	1.3	1.4	1.6	1.1	2.7	2.0	1.8	1.6	1.1	1.1	1.2	1.1	1.1	1.3	1.631
Civil Disturbance		2.7	1.3	1.6	1.4	1.8	1.7	2.2	1.7	1.4	1.4	1.7	1.1	2.0	1.9	1.4	1.6	1.6	1.1	1.4	1.1	1.1	1.3	1.552
Landslide		1.8	1.6	1.3	1.8	2.2	1.3	1.2	1.6	1.3	1.1	1.3	1.3	1.6	1.1	1.3	1.5	1.0	1.8	1.3	1.0	1.0	1.2	1.360
Average Score		2.52	2.27	2.26	2.24	2.23	2.21	2.21	2.17	2.15	1.93	1.70	2.04	2.18	1.92	1.90	1.89	1.87	1.85	1.59	1.55	1.49	1.40	
2019 Census Population Estimate %		4.02	10.17	3.52	2.57	0.24	13.64	5.48	9.59	1.53	11.55	1.12	7.02	3.87	0.71	1.40	7.18	0.99	1.20	2.85	9.53	1.68	0.17	

Figure 4.4.2.1: Franklin County “Roll-up” Weighted Risk Factors (Updated 12/10/2020)

Franklin County Hazard Mitigation Plan - 2018

Based on the results in **Figure 4.4.2.1** above, there are 2 *Major* risks, 12 *Moderate* risks, 9 *Minor* risks, and 1 *Insignificant* risk hazard in Franklin County. Mitigation actions were developed for all risk hazards (see **Section 6.4**). You can see from **Figure 4.4.2.1** that each municipality has different priorities for each risk hazard. These priorities are being kept in this Hazard Mitigation Plan to allow for the municipalities to reference these risk assessments for use in updating their Emergency Operations Plans. This is also a means to increase HMP plan integration throughout the county.

The methodology outlined in **Sections 4.4.1 & 4.4.2** were briefed to the Hazard Mitigation Planning Team at the 5 Oct 2017 HMP Team meeting and approved unanimously (see **Appendix B** for meeting minutes). The results, **Figure 4.4.2.1**, were briefed at the 13 Dec 2017 HMP Team meeting for final approval and inclusion in the HMP. The HMPT approved the results for inclusion in the HMP update (see **Appendix B** for meeting minutes).

When we compared our hazard rankings with the list included in the Pennsylvania State Hazard Mitigation Plan of 2018, we noticed that we had some significant differences in the priorities (see **Table 4.4.2.2** below). Specifically, we noticed that the Flood, Flash Flood and Ice Jam hazard was ranked considerably lower for our county. However, based on the information in our County Profile (see **Section 2.1, Figure 2.1.4**) and the Hazard Vulnerability Assessment in this HMP Update, one can see that we have no rivers that run through our county, unlike much of the rest of the state. We do have a couple major streams that run through the county and they do sometimes come over their banks, but not to the level to cause catastrophic damages like some other counties. Consequently, our rankings are representative of the geography, history, and prevailing trends in hazard threats for our county as assessed by each individual municipality.

Hazard Threat	County HMP 2020	County Ranking 2020	County HMP 2019	County Ranking 2019	County HMP 2018	County Ranking 2018	State HMP 2018	State Ranking 2018
Winter Storm	2.656	1	2.708	1	2.640	1	3.1	2
Hurricane, Tropical Storm, Nor'easter	2.518	2	2.485	4	2.493	2	2.6	4
Tornado, Windstorm	2.427	3	2.508	3	2.414	3	2.2	20
Utility Interruption	2.402	4	2.511	2	2.400	4	2.8	3
Extreme Temperatures	2.309	5	2.296	5	2.304	6	2.3	11
Pandemic and Infectious Disease	2.275	6	1.959	14	2.007	13	2	25
Drought	2.251	7	2.235	7	2.273	7	2	24
Lightning Strike	2.204	8	2.251	6	2.263	8	2.2	18
Dam Failure	2.189	9	2.205	9	2.170	9	2.4	7
Transportation Accident	2.187	10	2.221	8	2.316	5	2.4	9
Environmental Hazards (HAZMAT Release)	2.138	11	2.176	10	2.142	11	2.5	6
Flood, Flash Flood, Ice Jam	2.107	12	2.152	11	2.117	12	3.4	1
Hailstorm	2.106	13	2.101	12	2.160	10	1.9	29
Earthquake	2.042	14	2.070	13	1.949	15	1.9	28
Invasive Species	1.926	15	1.957	15	1.981	14	2.1	21
Terrorism	1.881	16	1.894	17	1.840	18	2	26
Subsidence, Sinkhole	1.850	17	1.916	16	1.872	16	1.7	33
Wildfire	1.789	18	1.789	19	1.794	20	2.4	10
Urban Fire and Explosion	1.788	19	1.827	18	1.822	19	1.9	30
Radon Exposure	1.773	20	1.750	21	1.841	17	2.1	22
Nuclear Incident	1.723	21	1.780	20	1.684	21	2.4	8
Mass Food and Animal Feed Contamination	1.631	22	1.586	22	1.624	22	1.7	32
Civil Disturbance	1.552	23	1.537	23	1.512	23	2	23
Landslide	1.360	24	1.351	24	1.369	24	2.2	17

Table 4.4.2.2: 2020 County Versus 2018 PA State Hazard Rankings

4.4.3. Potential Loss Estimates

Based on various kinds of available data, potential loss estimates were established for flood, flash flood, and ice jam, and tornado/windstorms. Estimates provided in this section are based on information provided from the Franklin County GIS and Tax Assessment Departments as well as previous events. Estimates are considered *potential* in that they generally represent losses that could occur in a countywide hazard scenario. In events that are localized, losses may be lower, while regional events could yield higher losses.

Potential loss estimates have 4 basic components, including:

- Replacement Value: Current cost of returning an asset to its pre-damaged condition, using present-day cost of labor and materials.
- Content Loss: Value of building's contents, typically measured as a percentage of the building replacement value.
- Functional Loss: The value of a building's use or function that would be lost if it were damaged or closed.
- Displacement Cost: The dollar amount required for relocation of the function (business or service) to another structure following a hazard event.

The structure data used in this plan includes building values provided in the county tax assessment database (base year 1961) and the 2014 GIS structure overlay. These values are representative of Replacement Value alone; Content Loss, Functional Loss, and Displacement Cost are not included. To get an estimated value in today's dollars, the figures were multiplied by a factor of 7.63. This is the value given to the county by the state and is based on the prior year sales for the county. **Table 4.4.3.1** illustrates the range of structure assessed values in Franklin County at the parcel level.

Franklin County Hazard Mitigation Plan - 2018

Municipality	Total # of Resident Parcels	Assessed Value of Residential Parcels (1961 \$)	Estimated Value of Residential Parcels (2017 \$)	Total # of Commercial Parcels	Assessed Value of Commercial Parcels (1961 \$)	Estimated Value of Commercial Parcels (2017 \$)	Estimated Value of All Parcels (2017 \$)
Antrim Township	5,123	\$117,445,710.00	\$896,110,767.30	157	\$21,897,970.00	\$167,081,511.10	\$1,063,192,278.40
Chambersburg Borough	6,021	\$102,551,060.00	\$782,464,587.80	870	\$88,126,100.00	\$672,402,143.00	\$1,454,866,730.80
Fannett Township	791	\$10,713,090.00	\$81,740,876.70	33	\$724,340.00	\$5,526,714.20	\$87,267,590.90
Greencastle Borough	1,438	\$30,497,140.00	\$232,693,178.20	147	\$8,426,130.00	\$64,291,371.90	\$296,984,550.10
Greene Township	6,180	\$133,737,510.00	\$1,020,417,201.30	260	\$30,372,350.00	\$231,741,030.50	\$1,252,158,231.80
Guilford Township	5,499	\$128,490,040.00	\$980,379,005.20	308	\$56,945,740.00	\$434,495,996.20	\$1,414,875,001.40
Hamilton Township	3,532	\$78,639,040.00	\$600,015,875.20	133	\$7,790,290.00	\$59,439,912.70	\$659,455,787.90
Letterkenny Township	1,029	\$15,742,350.00	\$120,114,130.50	28	\$704,720.00	\$5,377,013.60	\$125,491,144.10
Lurgan Township	639	\$10,935,450.00	\$83,437,483.50	21	\$544,960.00	\$4,158,044.80	\$87,595,528.30
Mercersburg Borough	530	\$7,952,760.00	\$60,679,558.80	93	\$4,084,150.00	\$31,162,064.50	\$91,841,623.30
Metal Township	801	\$9,030,650.00	\$68,903,859.50	34	\$992,550.00	\$7,573,156.50	\$76,477,016.00
Mont Alto Borough	548	\$8,103,410.00	\$61,829,018.30	19	\$1,035,040.00	\$7,897,355.20	\$69,726,373.50
Montgomery Township	1,950	\$40,938,040.00	\$312,357,245.20	27	\$3,521,840.00	\$26,871,639.20	\$339,228,884.40
Orrstown Borough	72	\$794,220.00	\$6,059,898.60	3	\$59,150.00	\$451,314.50	\$6,511,213.10
Peters Township	1,583	\$24,937,150.00	\$190,270,454.50	67	\$1,904,040.00	\$14,527,825.20	\$204,798,279.70
Quincy Township	1,688	\$26,880,840.00	\$205,100,809.20	52	\$5,338,390.00	\$40,731,915.70	\$245,832,724.90
Shippensburg Borough	459	\$8,970,030.00	\$68,441,328.90	32	\$1,975,930.00	\$15,076,345.90	\$83,517,674.80
Southampton Township	2,394	\$49,185,120.00	\$375,282,465.60	85	\$87,206,620.00	\$665,386,510.60	\$1,040,668,976.20
St Thomas Township	1,776	\$32,665,700.00	\$249,239,291.00	76	\$2,956,770.00	\$22,560,155.10	\$271,799,446.10
Warren Township	85	\$1,540,680.00	\$11,755,388.40	1	\$41,400.00	\$315,882.00	\$12,071,270.40
Washington Township	4,976	\$113,023,070.00	\$862,366,024.10	231	\$17,883,910.00	\$136,454,233.30	\$998,820,257.40
Waynesboro Borough	3,305	\$48,178,830.00	\$367,604,472.90	314	\$15,587,760.00	\$118,934,608.80	\$486,539,081.70
County Totals	50,419	\$1,000,951,890.00	\$7,637,262,920.70	2,991	\$358,120,150.00	\$2,732,456,744.50	\$10,369,719,665.20

Table 4.4.3.1: Franklin County Assessed Structure Values (2017)

Several of the hazards profiled in this plan can impact the entire county. From **Figure 4.4.3.1** above, it is apparent that Franklin County has in excess of \$10B in structure value alone. If Content Loss, Functional Loss, and Displacement Cost values were included, this number would be substantially larger. This means that a catastrophic loss impacting the entire county (e.g. 7.2 earthquake) could see losses approaching that of major hurricanes on the East Coast.

Thankfully, the chances of a county-wide disaster such as this are minimal.

Another way of thinking about losses for floods is to look at the number of claims and the dollar amount of loss experienced by NFIP communities. In Franklin County, there are 355 NFIP policies in force; these policies have accumulated 175 claims since 1978. The historical value of these claims exceeds \$1 million. Looking at these historical losses, Greene Township has the most losses with over \$480,000 in claims paid since 1978.

Table 4.4.3.2 illustrates the NFIP policy coverage and claims filed from 1978 to 2017. This is an incomplete representation of losses due to flooding as it does not capture uninsured losses, but it is a good indicator of loss trends due to flooding in Franklin County.

Franklin County Hazard Mitigation Plan - 2018

Municipality	Number of Policies	Total Coverage	Number of Claims	Value of Claims
Antrim Township	27	\$5,769,500	8	\$14,973
Chambersburg Borough	66	\$12,880,400	30	\$141,079
Fannett Township	2	\$259,600	0	\$0
Greencastle Borough	5	\$1,325,000	6	\$8,382
Greene Township	59	\$11,722,900	66	\$481,448
Guilford Township	28	\$6,363,300	4	\$17,407
Hamilton Township	15	\$3,365,000	10	\$18,343
Letterkenny Township	6	\$1,470,000	0	\$0
Lurgan Township	4	\$940,000	2	\$3,284
Mercersburg Borough	8	\$1,961,800	2	\$797
Metal Township	1	\$130,000	1	\$881
Mont Alto Borough	12	\$1,154,400	0	\$0
Montgomery Township	6	\$1,040,500	1	\$9,036
Peters Township	9	\$1,647,000	2	\$4,598
Quincy Township	18	\$3,728,700	1	\$0
Southampton Township	14	\$2,741,700	16	\$187,056
St Thomas Township	21	\$3,733,500	10	\$57,665
Warren Township	1	\$49,500	0	\$0
Washington Township	46	\$10,525,100	8	\$34,471
Waynesboro Borough	7	\$1,547,200	8	\$36,443
Total	355	\$72,355,100	175	\$1,015,873

Table 4.4.3.2: NFIP Policies and Claims (1978-2017)

Table 4.4.3.3 below lists all the critical facilities and private/commercial structures that fall with the 1% annual chance floodplain by municipality. It should be noted that the values of the buildings in the floodplain were taken from the tax assessment database (base year 1961). The values were multiplied by a factor of 7.63 to get the estimated current year value. This factor is given to the county by the state and is based off of sales in the previous year. Additionally, the costs only reflect land and structure value of the property. It does not include Content Loss, Functionality Loss, or Displacement Costs. Furthermore, there are some properties in the database that reflect a \$0 assessment due to their taxable status. Therefore, the value numbers below are very conservative and actual loss values could be substantially higher.

Franklin County Hazard Mitigation Plan - 2018

Municipality	Total Number of Critical Facilities in Municipality	Number of Critical Facilities in 1% Floodplain	Value of Critical Facilities in 1% Floodplain (1961)	Estimated (2017) Value of Critical Facilities in 1% Floodplain	Number of Private/ Commercial Buildings in 1% Floodplain	Value of Private/ Commercial Buildings in 1% Floodplain	Estimated (2017) Value of Private/ Commercial Buildings in 1% Floodplain
Antrim Township	75	2	\$2,590	\$19,762	241	\$3,709,060	\$28,300,128
Chambersburg Borough	97	12	\$8,404,750	\$64,128,243	249	\$11,221,080	\$85,616,840
Fannett Township	27	2	\$23,540	\$179,610	81	\$573,660	\$4,377,026
Greencastle Borough	24	0	\$0	\$0	0	\$0	\$0
Greene Township	100	9	\$155,650	\$1,187,610	727	\$7,372,310	\$56,250,725
Guilford Township	85	4	\$23,420	\$178,695	169	\$6,158,110	\$46,986,379
Hamilton Township	47	2	\$6,190	\$47,230	57	\$810,760	\$6,186,099
Letterkenny Township	20	1	\$32,720	\$249,654	73	\$27,445,470	\$209,408,936
Lurgan Township	21	2	\$35,260	\$269,034	32	\$289,240	\$2,206,901
Mercersburg Borough	10	0	\$0	\$0	34	\$232,750	\$1,775,883
Metal Township	15	1	\$4,600	\$35,098	55	\$430,810	\$3,287,080
Mont Alto Borough	6	2	\$42,310	\$322,825	71	\$425,780	\$3,248,701
Montgomery Township	12	2	\$0	\$0	112	\$2,195,410	\$16,750,978
Orrstown Borough	1	0	\$0	\$0	0	\$0	\$0
Peters Township	22	2	\$7,400	\$56,462	142	\$4,062,700	\$30,998,401
Quincy Township	48	7	\$41,960	\$320,155	230	\$4,027,890	\$30,732,801
Shippensburg Borough	5	0	\$0	\$0	1	\$0	\$0
Southampton Township	30	1	\$24,040	\$183,425	113	\$2,068,990	\$15,786,394
St Thomas Township	20	2	\$2,300	\$17,549	102	\$1,660,800	\$12,671,904
Warren Township	2	0	\$0	\$0	19	\$308,030	\$2,350,269
Washington Township	46	7	\$451,670	\$3,446,242	262	\$4,770,950	\$36,402,349
Waynesboro Borough	45	0	\$0	\$0	12	\$314,980	\$2,403,297
Total	758	58	\$9,258,400	\$70,641,592	2,782	\$78,078,780	\$595,741,091
Total Estimated (2017) Value of Structures in 1% Floodplain							\$666,382,683

Table 4.4.3.3: Franklin County Critical Facilities in the 1% Floodplain (2017)

For the remaining hazards where loss estimates could not be determined, loss estimates are generalized based on the historical impact of the hazard. For droughts, the losses are largely agricultural; as a result, losses are expected to be some portion of Franklin County’s \$413 million in annual agricultural production (refer to **Table 4.3.13.2.1**), depending on the magnitude of the event. For nuclear incidents, losses in the 50-mile EPZ are largely crop and livestock-based; as a result, they will also be some portion of the county’s agricultural production. Losses associated with Radon exposure are related to healthcare costs and lost wages, and the average mitigation cost for addressing this hazard is \$1,200 per home, according to the EPA.

Losses associated with particular natural weather-related hazard events are sometimes reported to the National Climatic Data Center (NCDC) with the event. While these historic losses give a glimpse of potential losses in hazard events, they are not reported for all events and should be considered a broad estimate. Tornado and windstorm events have had losses totaling over \$1.72 million in property loss and crop damage (refer to **Tables 4.3.19.3.1** and **4.3.19.3.2**). These events have also led to 1 death and 3 injuries. For winter storm events, only 1 of the past events had losses reported with that event; it had monetary losses estimated at over \$900,000 county-wide.

4.4.4. Future Development and Vulnerability

Risk and vulnerability to natural and human-made hazard events are not static. Risk will increase or decrease as counties and municipalities see changes in land use and development as well as changes in population. Franklin County is expected to experience a variety of factors

Franklin County Hazard Mitigation Plan - 2018

that will, in some areas, increase vulnerability to hazards while in other areas, vulnerability may stay static or even be reduced.

Population change is perhaps the most significant indicator of changes in vulnerability in the future. As discussed in **Section 2.3**, the total population of Franklin County has grown by 19.9% from 2000 to 2019, but population change has been highly variable between jurisdictions. The population change in the county over time can be seen in **Table 4.4.4.1** below.

Municipality	Population 1970	Population 1980	% Change 1970-1980	Population 1990	% Change 1980-1990	Population 2000	% Change 1990-2000	Population 2010	% Change 2000-2010	Population 2016 est	% Change 2010-2016	Population 2019 est	% Change 2010-2019	% Change 1970-2019
Southampton Township	3,292	4,604	39.9%	5,484	19.1%	6,138	11.9%	7,987	30.1%	8,519	6.7%	8,495	6.4%	158.1%
Hamilton Township	4,921	6,504	32.2%	7,745	19.1%	8,949	15.5%	10,788	20.5%	11,155	3.4%	11,125	3.1%	126.1%
Antrim Township	7,378	9,326	26.4%	10,107	8.4%	12,504	23.7%	14,893	19.1%	15,547	4.4%	15,768	5.9%	113.7%
Montgomery Township	3,221	4,252	32.0%	4,558	7.2%	4,949	8.6%	6,116	23.6%	6,196	1.3%	6,230	1.9%	93.4%
Greene Township	9,504	11,470	20.7%	11,930	4.0%	12,284	3.0%	16,700	35.9%	17,554	5.1%	17,898	7.2%	88.3%
Washington Township	8,514	9,616	12.9%	11,119	15.6%	11,559	4.0%	14,009	21.2%	14,586	4.1%	14,770	5.4%	73.5%
Letterkenny Township	1,419	1,960	38.1%	2,251	14.8%	2,074	-7.9%	2,318	11.8%	2,353	1.5%	2,377	2.5%	67.5%
Guilford Township	9,291	10,567	13.7%	11,893	12.5%	13,100	10.1%	14,531	10.9%	14,793	1.8%	14,866	2.3%	60.0%
Fannett Township	1,640	2,016	22.9%	2,309	14.5%	2,309	0.0%	2,548	10.4%	2,598	2.0%	2,601	2.1%	58.6%
Metal Township	1,205	1,576	30.8%	1,612	2.3%	1,721	6.8%	1,866	8.4%	1,871	0.3%	1,853	-0.7%	53.8%
St. Thomas Township	3,931	5,711	45.3%	5,861	2.6%	5,775	-1.5%	5,935	2.8%	5,978	0.7%	6,005	1.2%	52.8%
Warren Township	262	269	2.7%	310	15.2%	334	7.7%	369	10.5%	376	1.9%	368	-0.3%	40.5%
Lurgan Township	1,649	1,986	20.4%	2,026	2.0%	2,014	-0.6%	2,151	6.8%	2,179	1.3%	2,170	0.9%	31.6%
Chambersburg Borough	17,315	16,174	-6.6%	16,647	2.9%	17,862	7.3%	20,268	13.5%	20,691	2.1%	21,143	4.3%	22.1%
Greencastle Borough	3,293	3,679	11.7%	3,600	-2.1%	3,722	3.4%	3,996	7.4%	4,035	1.0%	3,986	-0.3%	21.0%
Peters Township	3,838	4,060	5.8%	4,090	0.7%	4,251	3.9%	4,430	4.2%	4,449	0.4%	4,414	-0.4%	15.0%
Mont Alto Borough	1,532	1,592	3.9%	1,395	-12.4%	1,357	-2.7%	1,705	25.6%	1,730	1.5%	1,729	1.4%	12.9%
Waynesboro Borough	10,011	9,726	-2.8%	9,578	-1.5%	9,617	0.4%	10,568	9.9%	10,845	2.6%	10,886	3.0%	8.7%
Quincy Township	5,264	5,792	10.0%	5,704	-1.5%	5,846	2.5%	5,541	-5.2%	5,494	-0.8%	5,451	-1.6%	3.6%
Orrstown Borough	262	247	-5.7%	220	-10.9%	231	5.0%	262	13.4%	265	1.1%	260	-0.8%	-0.8%
Mercersburg Borough	1,727	1,617	-6.4%	1,640	1.4%	1,540	-6.1%	1,561	1.4%	1,554	-0.4%	1,532	-1.9%	-11.3%
Shippensburg Borough	1,364	885	-35.1%	1,003	13.3%	1,119	11.6%	1,076	-3.8%	1,083	0.7%	1,100	2.2%	-19.4%
County Totals	100,833	113,629	12.7%	121,082	6.6%	129,255	6.7%	149,618	15.8%	153,851	2.8%	155,027	3.6%	53.7%

Table 4.4.4.1: Franklin County Population Percentage Changes (1970-2019)

From 1970 to 2019 only 3 municipalities lost a portion of their population, but it is clear that a trend exists showing a more rapid growth of the Townships immediately surrounding our most populous Boroughs. This population reallocation also impacts land use as farms and forests are being replaced with suburban developments to make room for this population transfer within the county.

Franklin County has grown moderately in the last 10 years (significantly over the last 45 years), but the county expects to remain largely rural due to our roots in an agricultural based economy. Hazard vulnerability and loss potential will still be higher in the places with higher population densities, but suburban growth will likely create increases in loss potential as more people will be living closer to areas more prone to hazards such as subsidence, utility interruptions, winter storms, and wildfires.

5. Capability Assessment

5.1. Update Process Summary

Franklin County has a number of resources it can access to implement hazard mitigation initiatives including emergency response measures, local planning and regulatory tools, administrative assistance and technical expertise, fiscal capabilities, and participation in local, regional, state, and federal programs. The presence of these resources enables community resiliency through actions taken before, during, and after a hazard event.

Our team struggled with how to gather the capabilities data from the municipalities in an efficient and effective manner. We attended a briefing from Ms Jennifer Long (Columbia County EMC) and her deputy Ms. Jessica Shoup at the Pennsylvania Governor’s Emergency Preparedness Summit in Oct 2017 about their efforts to complete their HMP update without use of a contractor. We contacted the Columbia County EMA office to discuss the use of the surveys they had developed for their HMP Update. Thanks to their eager support, we were able to modify two of their surveys to create one combined capabilities survey to be used for our data collection. From the municipal responses to this *Capability Assessment Survey*, we were able to assemble an inventory of the most critical local planning tools available. It also identifies emergency management capabilities and the processes used for implementation of the National Flood Insurance Program.

While the capability assessment serves as a good instrument for identifying local capabilities, it also provides a means for recognizing gaps and weaknesses that can be resolved through future Mitigation Actions. The results of this assessment provide critical information for developing an effective Mitigation Strategy.

FCDES sent out the *Municipal Capability Survey* to all 22 municipalities in the county. We received survey responses from every municipality in the county, again giving us a 100% participation rate. However, when analyzing the responses against known state and federal reporting, we found some discrepancies that caused us concern. We were able to clarify these discrepancies with a meeting between the Franklin County Plans Department and Franklin County Emergency Services. This meeting was held on 30 May 2018 (see **Appendix B** for Meeting Minutes) and the outcome of this meeting resulted in amendments to the data collected via the *Municipal Capabilities Survey*. We are confident that this update to the data collected results in a true representation of the capabilities of the municipalities in Franklin County.

5.2. Capability Assessment Findings

5.2.1. Planning and Regulatory Capability

Some of the most important planning and regulatory capabilities that can be utilized for hazard mitigation include Comprehensive Plans, Building Codes, Floodplain Ordinances, Subdivision and Land Development Ordinances (SALDOs), and Zoning Regulations. These tools provide mechanisms for the implementation of adopted hazard mitigation strategies.

Franklin County Hazard Mitigation Plan - 2018

Table 5.2.1.1 briefly summarizes the local government capabilities of the Franklin County municipalities that will facilitate implementation of the mitigation strategy. Franklin County has 15 townships and 7 boroughs within its boundaries that have a very important relationship in which they share resources to ensure effective implementation of ordinances and codes. As a special note, Shippensburg Borough offices are located in Cumberland County, but a portion of this municipality does lie within Franklin County. This is a split municipality that has support from and responsibilities to 2 counties (Franklin and Cumberland).

Municipality	Comprehensive Plan	Building Code	Floodplain Regulations – NFIP Participant	Subdivision & Land Development Regulations	Zoning Regulations
Antrim Township	Yes	Yes	Yes	Yes	Yes
Chambersburg Borough	Yes	Yes	Yes	Yes	Yes
Fannett Township	Yes	Yes	Yes	Yes	No
Greencastle Borough	No	Yes	Yes	Yes	Yes
Greene Township	Yes	Yes	Yes	Yes	Yes
Guilford Township	Yes	Yes	Yes	Yes	Yes
Hamilton Township	No	Yes	Yes	Yes	No
Letterkenny Township	Yes	Yes	Yes	Yes	No
Lurgan Township	Yes	Yes	Yes	Yes	No
Mercersburg Borough	No	Yes	Yes	Yes	Yes
Metal Township	No	Yes	Yes	Yes	No
Mont Alto Borough	No	Yes	Yes	Yes	Yes
Montgomery Township	Yes	Yes	Yes	Yes	No
Orrstown Borough	No	Yes	No	No	No
Peters Township	Yes	Yes	Yes	Yes	No
Quincy Township	Yes	Yes	Yes	Yes	Yes
Shippensburg Borough	Yes	Yes	Yes	Yes	Yes
Southampton Township	Yes	Yes	Yes	Yes	Yes
St Thomas Township	Yes	Yes	Yes	Yes	No
Warren Township	No	Yes	Yes	Yes	No
Washington Township	Yes	Yes	Yes	Yes	Yes
Waynesboro Borough	Yes	Yes	Yes	Yes	Yes

Table 5.2.1.1: Franklin County Municipality Planning/Regulatory Capabilities

Franklin County Hazard Mitigation Plan - 2018

Comprehensive Plans promote sound land use and regional cooperation among local governments to address planning issues. These plans serve as the official policy guide for influencing the location, type and extent of future development by establishing the basis for decision-making and review processes on zoning matters, subdivision and land development, land uses, public facilities and housing needs over time. Of our 22 municipalities, 15 have local comprehensive land-use plans. County governments are required by law to adopt a comprehensive plan, while local municipalities may do so at their option. The existing countywide Comprehensive Plan for Franklin County was developed in 2012. Future comprehensive plan updates and improvements will consider the 2018 HMP findings.

Franklin County also has a Greenway and Open Space Plan, written in 2007. This plan is an advisory document that provides strategies for the enhancement of parks, recreational opportunities and services, greenways, trails, and open space countywide. The plan also provides direction and initiatives for protecting open space and natural resources.

Building codes regulate construction standards for new construction and substantially renovated buildings. Standards can be adopted that require resistant or resilient building design practices to address hazard impacts common to a given community. In 2003, the Commonwealth of Pennsylvania implemented Act 45 of 1999, the Uniform Construction Code (UCC), a comprehensive building code that establishes minimum regulations for most new construction, including additions and renovations to existing structures. All municipalities in Franklin County are required to adhere to the UCC. On December 10, 2009 the Commonwealth adopted regulations of the 2009 International Code Council's codes. The effective date of the regulations is December 31, 2009. Since all municipalities in Franklin County are required to abide by the UCC they also are required to enforce the 2009 building code regulations for all building permits submitted after December 31, 2009.

Through administration of floodplain ordinances, municipalities can ensure that all new construction or substantial improvements to existing structures located in the floodplain are flood-proofed, dry-proofed, or built above anticipated flood elevations. Floodplain ordinances may also prohibit development in certain areas altogether. The National Flood Insurance Program (NFIP) establishes minimum ordinance requirements which must be met in order for that community to participate in the program. However, a community is permitted and in fact, encouraged, to adopt standards which exceed NFIP requirements. Twenty-one (21) of 22 municipalities participate in the NFIP program; see **Section 5.2.1.1** below for details.

Subdivision and Land Development Ordinances (SALDOs) are intended to regulate the development of housing, commercial, industrial or other uses, including associated public infrastructure, as land is subdivided into buildable lots for sale or future development. Within these ordinances, guidelines on how land will be divided, the placement and size of roads and the location of infrastructure can reduce exposure of development to hazard events. Twenty-one (21) of the 22 municipalities have adopted and enforce their own subdivision and land development ordinance.

Zoning ordinances allow for local communities to regulate the use of land in order to protect the interests and safety of the general public. Zoning ordinances can be designed to address unique

conditions or concerns within a given community. They may be used to create buffers between structures and high-risk areas, limit the type or density of development and/or require land development to consider specific hazard vulnerabilities. Twelve (12) of the 22 municipalities in Franklin County have zoning regulations.

The Pennsylvania legislature enacted the Stormwater Management Act (Act 167 of 1978), commonly called Act 167. The Act enables the regulation of development and activities that cause accelerated runoff and encourages watershed-based planning and management of stormwater. The Pennsylvania Department of Environmental Protection (DEP) is the public agency charged with overseeing implementation of the Act 167 plans. Act 167 Stormwater Management Plans are intended to improve stormwater management practices, mitigate potential negative impacts from future land uses, and to improve the condition of impaired waterways. Sixteen (16) of our 22 municipalities have a Stormwater Management Plan in place.

Figure 5.2.1.1 shows the percentage of the various categories of Planning & Regulatory Capabilities that are possessed by the municipalities in Franklin County.

Franklin County Hazard Mitigation Plan - 2018

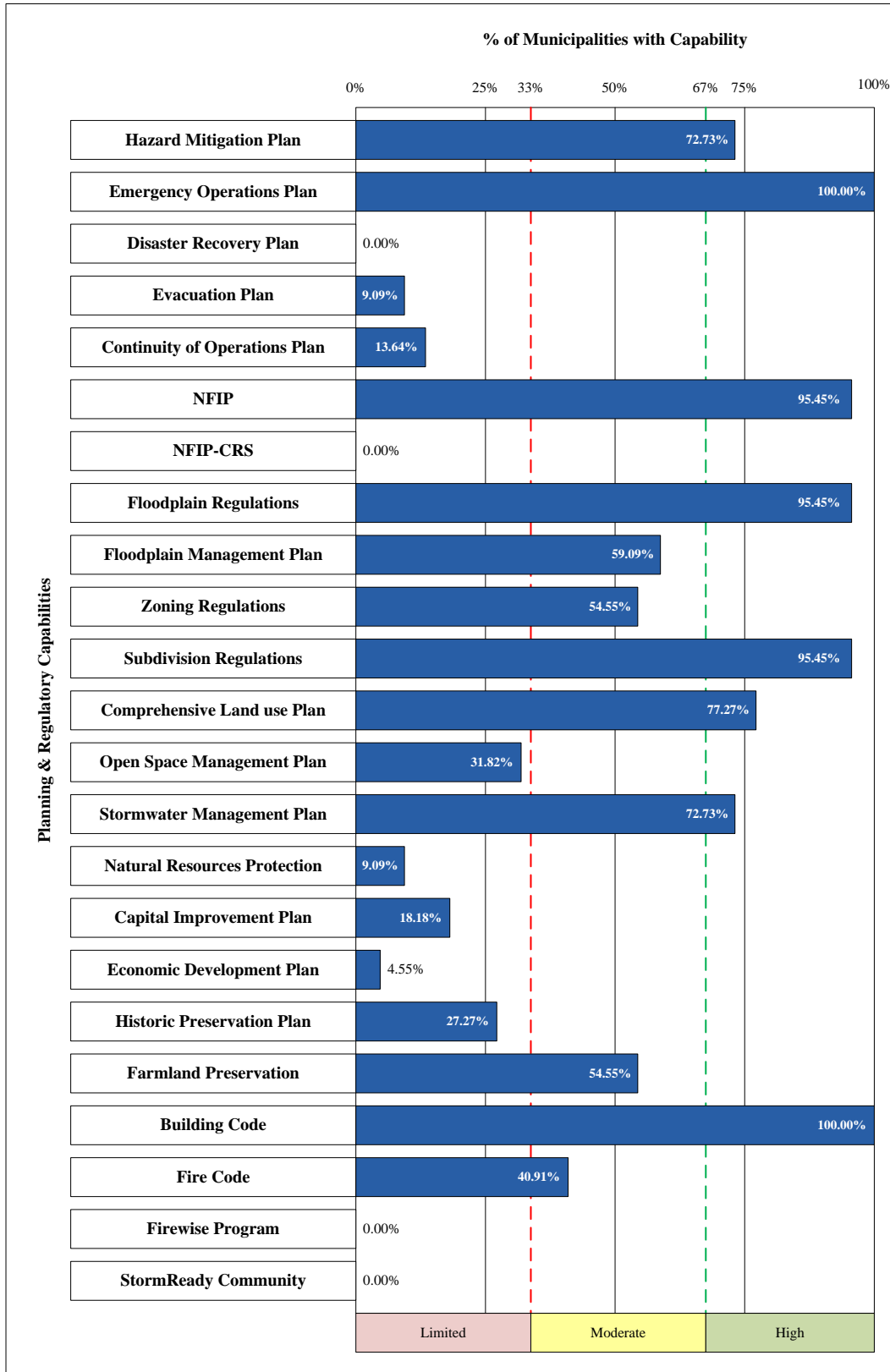


Figure 5.2.1.1: Franklin County Municipal Planning & Regulatory Capabilities

Franklin County Hazard Mitigation Plan - 2018

5.2.1.1 Participation in the National Flood Insurance Program (NFIP)

Twenty (21) of 22 municipalities in Franklin County have at least one NFIP insured property. The only municipality that does not have any flood insurance policies is Orrstown Borough. Even though the report below does not include Shippensburg Borough (Franklin County), we were able to verify that this municipality is compliant with NFIP through *FEMA Community Status Report*, dated 30 May 2018. The program is managed by local municipalities participating in the program through ordinance adoption and floodplain regulation. A table summarizing the NFIP participation as reported by FEMA is shown in **Table 5.2.1.1.1**. The NFIP capabilities at the municipal level are shown in **Figure 5.2.1.1.1** below.

Federal Emergency Management Agency NFIP Policy and Claims Report PENNSYLVANIA						
CID	Community	Number Policies	Total Coverage	Total Premium	Total Claims Since 1978	Total Paid Since 1978
** FRANKLIN COUNTY **						
420469	CHAMBERSBURG, BOROUGH OF	66	\$ 12,880,400	\$ 111,247	30	\$ 141,079
420470	GREENCASTLE, BOROUGH OF	5	\$ 1,325,000	\$ 3,800	6	\$ 8,382
420471	MERCERSBURG, BOROUGH OF	8	\$ 1,961,800	\$ 14,162	2	\$ 797
420472	MONT ALTO, BOROUGH OF	12	\$ 1,154,400	\$ 8,656	0	\$ 0
420473	WAYNESBORO, BOROUGH OF	7	\$ 1,547,200	\$ 4,578	8	\$ 36,443
421233	ANTRIM, TOWNSHIP OF	27	\$ 5,769,500	\$ 14,036	8	\$ 14,973
421649	GREENE, TOWNSHIP OF	59	\$ 11,722,900	\$ 46,451	66	\$ 481,448
421650	GUILFORD, TOWNSHIP OF	28	\$ 6,363,300	\$ 13,615	4	\$ 17,407
421651	HAMILTON, TOWNSHIP OF	15	\$ 3,365,000	\$ 6,044	10	\$ 18,343
421652	LURGAN, TOWNSHIP OF	4	\$ 940,000	\$ 2,947	2	\$ 3,284
421653	METAL, TOWNSHIP OF	1	\$ 130,000	\$ 1,094	1	\$ 881
421654	PETERS, TOWNSHIP OF	9	\$ 1,647,000	\$ 5,443	2	\$ 4,598
421655	QUINCY, TOWNSHIP OF	18	\$ 3,728,700	\$ 13,959	1	\$ 0
421656	ST. THOMAS, TOWNSHIP OF	21	\$ 3,733,500	\$ 15,478	10	\$ 57,665
421657	SOUTHAMPTON, TOWNSHIP OF	14	\$ 2,741,700	\$ 12,047	16	\$ 187,056
421658	WASHINGTON, TOWNSHIP OF	46	\$ 10,525,100	\$ 36,389	8	\$ 34,481
422424	FANNETT, TOWNSHIP OF	2	\$ 259,600	\$ 2,474	0	\$ 0
422425	LETTERKENNY, TOWNSHIP OF	6	\$ 1,470,000	\$ 2,333	0	\$ 0
422426	MONTGOMERY, TOWNSHIP OF	6	\$ 1,040,500	\$ 3,648	1	\$ 9,036
422427	WARREN, TOWNSHIP OF	1	\$ 49,500	\$ 719	0	\$ 0
County Total :		355	\$ 72,355,100	\$ 319,120	175	\$ 1,015,873
State Total :		355	\$ 72,355,100	\$ 319,120	175	\$ 1,015,873

Table 5.2.1.1.1: Franklin County NFIP Participation

Franklin County Hazard Mitigation Plan - 2018

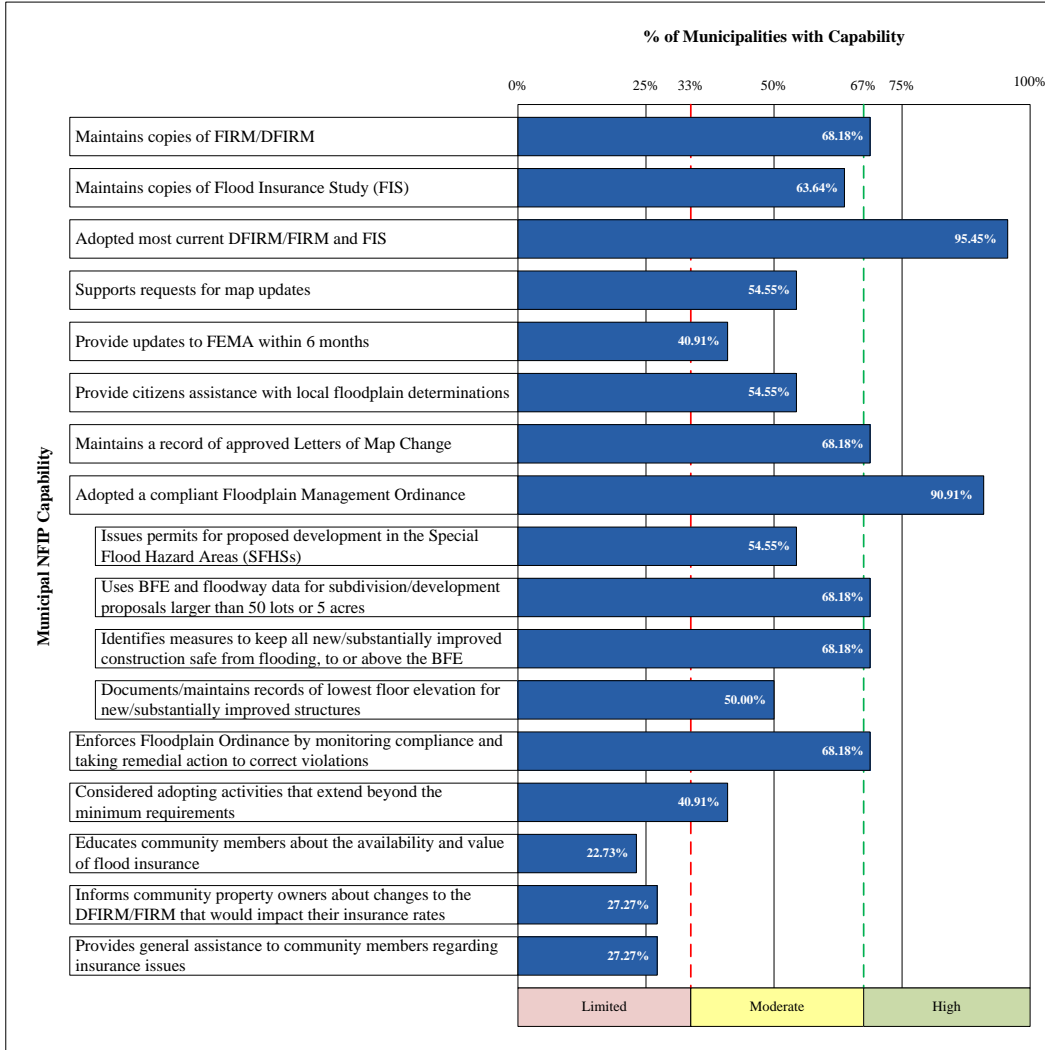


Figure 5.2.1.1.1: Summary of Franklin County NFIP Capabilities

Permitting processes for building construction and development in a Special Flood Hazard Area (SFHA) are implemented at the municipal level through local Ordinances (e.g. Zoning, Subdivision and Land Development, and Floodplain Ordinances).

FEMA Region III makes available to all communities, an Ordinance review checklist which lists the minimum requirements for Floodplain Management Ordinances. This checklist helps communities to develop an effective Floodplain Management Ordinance that meets Federal requirements for participation in the NFIP.

The Pennsylvania Department of Community and Economic Development (DCED), provides communities, based on their CFR, Title 44, Section 60.3 level of regulations, with a model ordinance document to assist them in meeting the minimum requirements established in the NFIP and Act 166. These model ordinances contain provisions that are more restrictive than State and Federal requirements. These provisions include, but are not limited to:

- Prohibiting manufactured homes in the floodway.

Franklin County Hazard Mitigation Plan - 2018

- Prohibiting manufactured homes within the area measured 50 feet landward from the top-of bank of any watercourse within a special flood hazard area.
- Special requirements for recreational vehicles within the special flood hazard area.
- Special requirement for accessory structures.
- Prohibiting new construction and development within the area measured 50 feet landward from the top-of bank of any watercourse within a special flood hazard area.
- Providing the County Conservation District an opportunity to review and comment on all applications and plans for any proposed construction or development in any identified floodplain area.

Act 166 mandates municipal participation in and compliance with the NFIP if SFHA has been mapped. It also establishes higher regulatory standards for new or substantially improved structures which are used for the production or storage of dangerous materials as defined by the Act, by prohibiting them in the floodway. Additionally, the Act establishes the requirement that a Special Permit be obtained prior to any construction or expansion of any manufactured home park, hospital, nursing home, jail and prison if said structure is located within a special flood hazard area.

As new DFIRMS are published, the Pennsylvania State NFIP Coordinator housed at DCED, works with communities to ensure the timely and successful adoption of an updated Floodplain Management Ordinance by reviewing and providing feedback on existing and draft ordinances. In addition, DCED provides guidance and technical support through Community Assistance Contacts and Community Assistance Visits.

Franklin County municipalities are currently using 2012 DFIRMs (published 18 Jan 2012). These digital maps greatly enhance mitigation capabilities, as they relate to identifying flood hazards. They are a significant improvement to the previously implemented paper Flood Insurance Rate Maps. Residents and municipal officials can receive mapping assistance from the Franklin County GIS department upon request.

The NFIP's Community Rating System (CRS) was implemented in 1990 to recognize and encourage community floodplain management activities that exceed the minimum NFIP standards. Section 541 of the 1994 Act amends Section 1315 of the 1968 Act to codify the CRS in the NFIP, and expands the CRS goals to specifically include incentives to reduce the risk of flood-related erosion and to encourage measures that protect natural and beneficial floodplain functions. These goals have been incorporated into the CRS, and communities now receive credit toward premium reductions for activities that contribute to them. Franklin County currently has **no** municipalities participating in the CRS program. Based on the threat rankings in **Section 4** and the fact that Franklin County does not have a river within our borders, it is not too surprising that our communities have not yet looked at these increased mitigation measures for the flooding hazard. That is not to say that these advanced measures should not be encouraged or analyzed for implementation, but we do need to address our hazards and mitigation actions in a priority order.

5.2.2. Administration and Technical Capability

Administrative capability is described as an adequacy of departmental and personnel resources for the implementation of mitigation-related activities. Technical capability relates to an adequacy of knowledge and technical expertise of local government employees or the ability to contract outside resources for this expertise in order to effectively execute mitigation activities. Common examples of skill sets and technical personnel needed for hazard mitigation include:

- Planners with knowledge of land development/management practices.
- Engineers or professionals trained in construction practices related to buildings and/or infrastructure (e.g. building inspectors).
- Planners or engineers with an understanding of natural and/or human caused hazards.
- Emergency managers.
- Floodplain managers.
- Land surveyors.
- Scientists familiar with hazards in the community.
- Staff with the education or expertise to assess community vulnerability to hazards.
- Personnel skilled in geographic information systems.
- Resource development staff or grant writers.
- Fiscal staff to handle complex grant application processes.

Based on assessment results, municipalities in Franklin County have moderate to high administrative and technical staff levels needed to conduct hazard mitigation activities. Specifically, we are well staffed in emergency management and planning capabilities. In general, the larger, more populated, jurisdictions have the most technical capabilities. However, there are some areas that we do need to strengthen. Of the 22 municipalities in Franklin County: only 13 of the municipalities have access to personnel for floodplain management; 10 for grant writing; 9 have access to personnel who might assist with land surveying, 8 have GIS capabilities; and 7 with personnel who could assist with scientific work related to community hazards. See **Figure 5.2.2.1** for a chart representing the total percentage of each Administrative & Technical capability that is found within the responding municipalities.

Franklin County Hazard Mitigation Plan - 2018

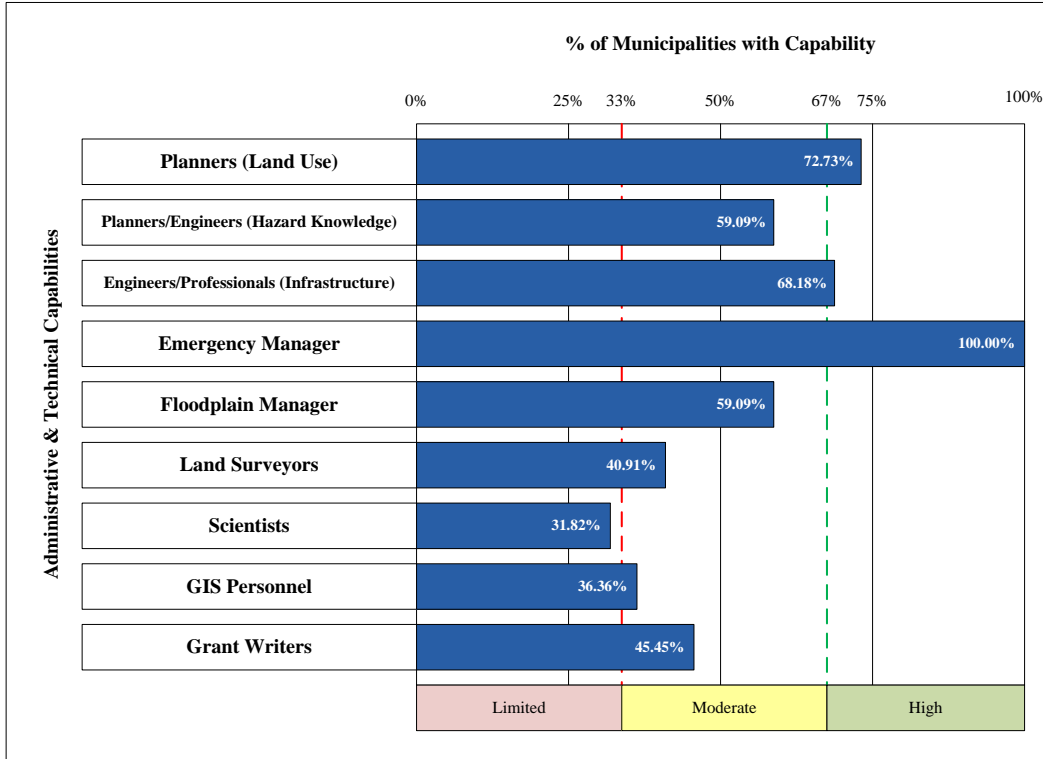


Figure 5.2.2.1: Franklin County Municipal Administrative & Technical Capabilities

5.2.2.1 Emergency Management

The Franklin County Department of Emergency Services (FCDES) coordinates countywide emergency management efforts. Each municipality has a designated local emergency management coordinator (Local EMC) who possesses a unique knowledge of the impact hazard events have on their community. The Emergency Management Services Code (PA Title 35) requires that all municipalities in the Commonwealth have a Local Emergency Operations Plan (EOP) which is recommended to be updated every 2 years. According to the Capability Assessment Surveys completed by participating municipal leaders and information from emergency management personnel, all of the jurisdictions in the county have an EOP, but the majority of these plans are dated 2003 (13 of 22). The update of this HMP will drive an update at the local level for their EOPs. The manner in which the *Hazard Vulnerability Analysis (HVA)* was completed provides every municipality in the county the first step in updating their EOP by essentially completing the required hazard analysis (Section 2) for them. A countywide EOP also exists and was updated immediately following acceptance and approval of this HMP. Additionally, FCDES provides major training exercises and instructional workshops to emergency personnel, elected officials, and the general population in order to ensure that personnel are properly trained.

The Franklin County GIS Department provides mapping and technical assistance to municipalities. Other local organizations that could act as partners in mitigating natural and human-made hazards include the Penn State Cooperative Agriculture Extension, environmental advocacy groups, and watershed associations.

Franklin County Hazard Mitigation Plan - 2018

State agencies which can provide technical assistance for mitigation activities include, but are not limited to:

- Pennsylvania Emergency Management Agency (PEMA)
- Pennsylvania Department of Community and Economic Development (DCED)
- Pennsylvania Department of Conservation and Natural Resources (DCNR)
- Pennsylvania Department of Environmental Protection (DEP)
- Pennsylvania Department of Transportation (PennDOT)

Federal agencies which can provide technical assistance for mitigation activities include, but are not limited to:

- Federal Emergency Management Agency (FEMA)
- United States Army Corp of Engineers (USACE)
- Department of Housing and Urban Development (HUD)
- Department of Agriculture
- Economic Development Administration
- FEMA Emergency Management Institute (EMI)
- Environmental Protection Agency (EPA)
- Small Business Administration

5.2.2.2 Municipal Political Capability and Self-Assessment

One of the most difficult capabilities to evaluate involves the political will of a jurisdiction to enact meaningful policies and implement projects designed to mitigate hazard events. The adoption of *Hazard Mitigation Actions* may be seen as an impediment to growth and economic development. In many cases, mitigation may not generate interest among local officials when compared with competing priorities. Therefore, the local political climate must be considered when designing mitigation strategies, as it could be the most difficult hurdle to overcome in accomplishing the adoption or implementation of specific actions.

The *Capability Assessment Survey* (included in **Appendix E**) was used to capture information on each jurisdiction's political capability. Survey respondents were asked to identify examples of political capability, such as guiding development away from hazard areas, restricting public investments or capital improvements within hazard areas, or enforcing local development standards that go beyond minimum state or federal requirements (i.e. building codes, floodplain management ordinances, etc...). These examples were used to guide respondents in scoring their community on a scale of "unwilling" (0) to "very willing" (5) to adopt policies and programs that reduce hazard vulnerabilities. **Figure 5.2.2.1** below shows the results of the municipal political will assessments for all Franklin County municipalities.

Franklin County Hazard Mitigation Plan - 2018

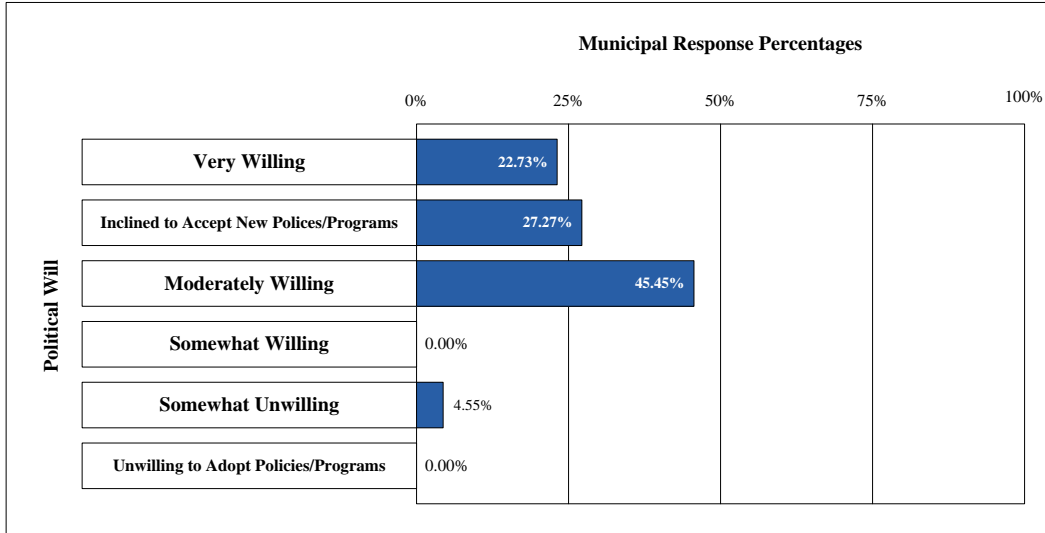


Figure 5.2.2.2.1: Franklin County Community Political Capability

In addition to the inventory and analysis of specific local capabilities, the *Capability Assessment Survey* required each local jurisdiction to conduct its own self-assessment of its capability to effectively implement hazard mitigation activities. As part of this process, municipal officials were encouraged to consider the barriers to implementing proposed mitigation strategies in addition to the mechanisms that could enhance or further such strategies. In response to the survey questionnaire, local officials classified each of the capabilities as either “limited (1),” “moderate (2)” or “high (3).” Figure 5.2.2.2.2 summarizes the results of the self-assessment survey as a percentage of the responses received.

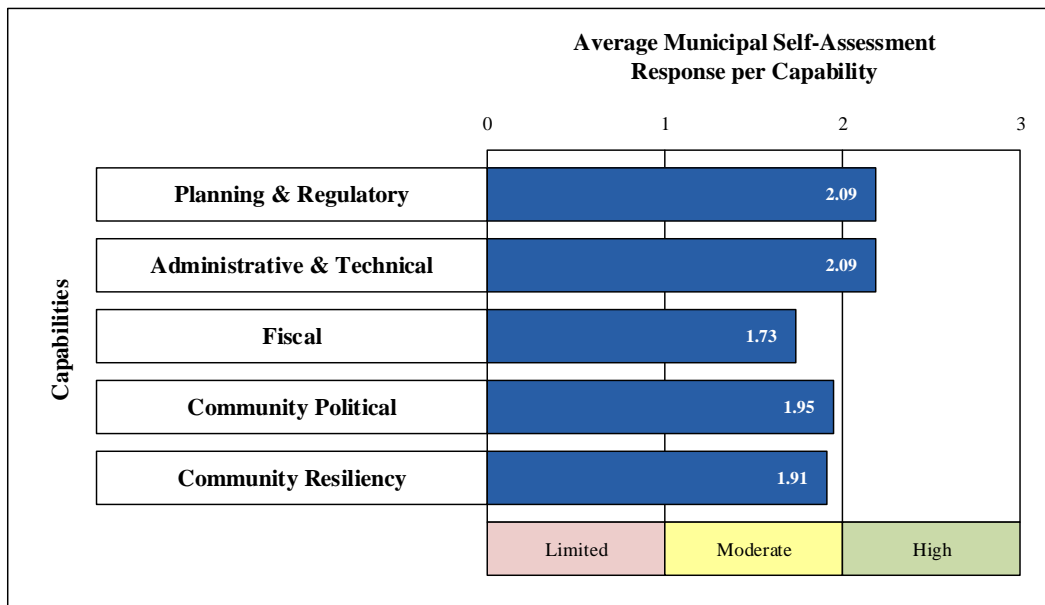


Figure 5.2.2.2.2: Franklin County Municipal Capabilities Self-Assessment

Combined, these two factors indicate that we are willing to embrace new initiatives even though we are confident in our existing capabilities, which creates a good environment for hazard mitigation.

5.2.3. Financial Capability

The decision and capacity to implement mitigation-related activities is often strongly dependent on the presence of local financial resources. While some mitigation actions are less costly than others, it is important that money is available locally to implement policies and projects. Financial resources are particularly important if communities are trying to take advantage of state or federal mitigation grant funding opportunities that require local-match contributions. Based on survey results, most municipalities within the County perceive fiscal capability to be extremely limited. Two (2) types of fiscal capabilities are more common in Franklin County. The first is Community Development Block Grant (CDBG) Funding; all jurisdictions in Franklin County are eligible for CDGB funding. Chambersburg, Waynesboro, and Shippensburg receive independent CDBG funding, whereas the rest of the municipalities work through the County Planning Department for access to a consolidated grouping of CDGB funds. The second is not a funding source but rather partnering agreements between municipalities that enable resource sharing.

State programs which may provide financial support for mitigation activities include, but are not limited to:

- Community Conservation Partnerships Program
- Community Revitalization Program
- Floodplain Land Use Assistance Program
- Growing Greener Program
- Keystone Grant Program
- Local Government Capital Projects Loan Program
- Land Use Planning and Technical Assistance Program
- Pennsylvania Heritage Areas Program
- Pennsylvania Recreational Trails Program
- Shared Municipal Services
- Technical Assistance Program

Federal programs which may provide financial support for mitigation activities include, but are not limited to:

- Disaster Housing Program
- Emergency Conservation Program
- Emergency Management Performance Grants
- Emergency Watershed Protection Program
- Hazard Mitigation Grant Program (HMGP)
- Flood Mitigation Assistance (FMA) Program
- Non-insured Crop Disaster Assistance Program
- Pre-Disaster Mitigation (PDM) Program
- Section 108 Loan Guarantee Programs
- Severe Repetitive Loss Grant Program (SRL)
- Weatherization Assistance Program

Figure 5.2.3.1 below shows the Fiscal Capabilities of Municipalities relating to availability of funds specifically for Hazard Mitigation.

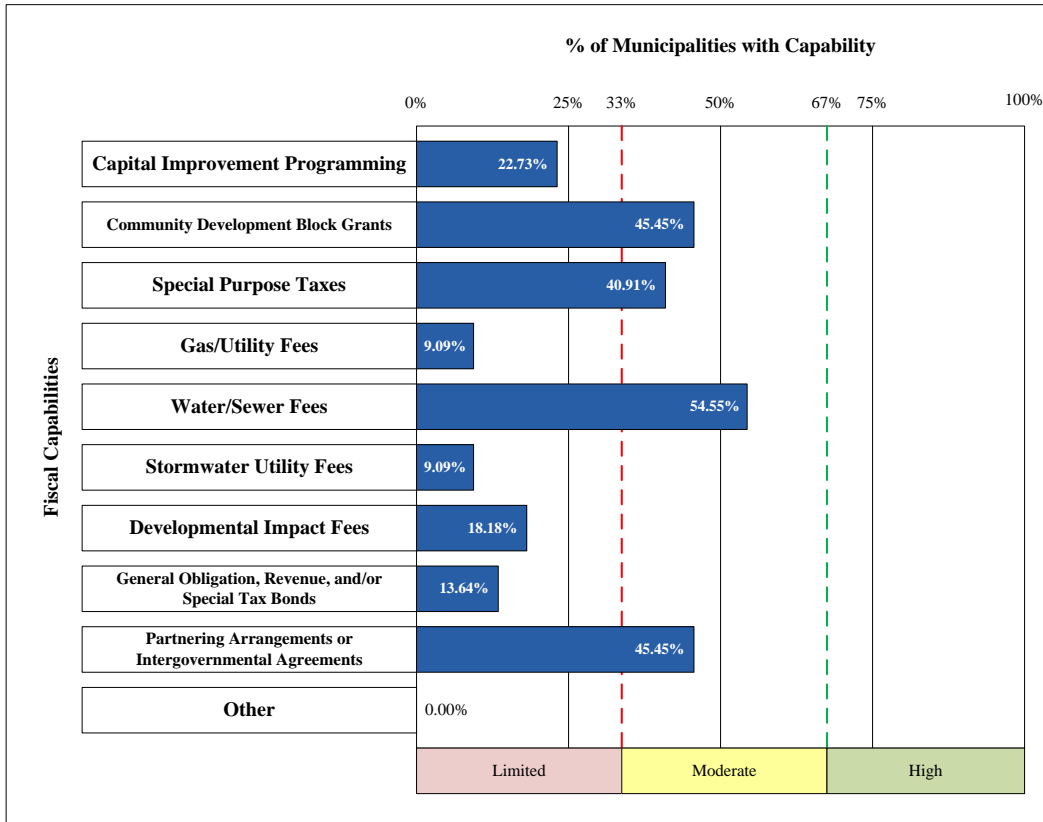


Figure 5.3.2.1: Franklin County Municipal Fiscal Capabilities

The analysis of this data, along with the population statistics in **Section 2**, shows that we are continually growing community in the state, but the sizes of our municipalities are still small enough that the revenue generating efforts are not sufficient to support major mitigation action project implementation independent of federal funding.

5.2.4. Education and Outreach

Franklin County is a member of the StormReady Program sponsored by the National Weather Service (NWS). **Figure 5.2.4.1** below is a map of all StormReady communities in Pennsylvania. **Table 5.2.4.1** lists all the Pennsylvania StormReady Communities. A StormReady community provides early warning information, public outreach, and education to the general public to increase awareness and preparedness for all types of weather related events.

Franklin County Hazard Mitigation Plan - 2018

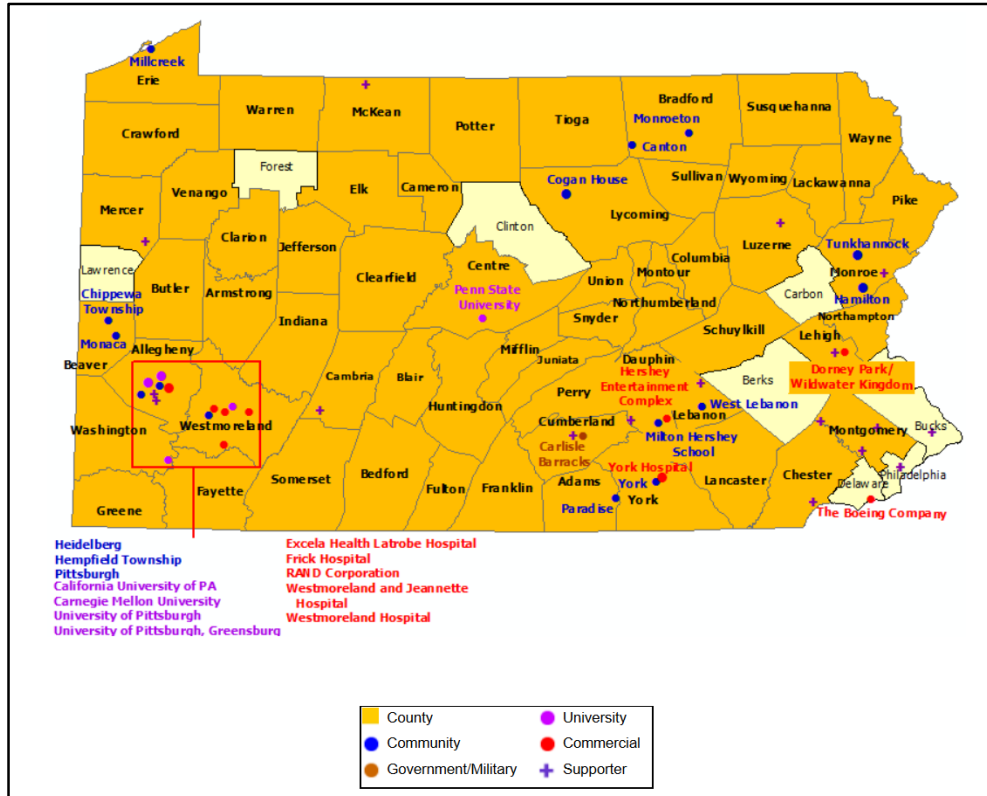


Figure 5.2.4.1: Map of PA Storm Ready Sites (2017)

Franklin County Hazard Mitigation Plan - 2018

Counties				Communities
Adams	Crawford	Lebanon	Schuykill	Canton
Allegheny	Cumberland	Lehigh	Snyder	Chippewa Township
Armstrong	Dauphin	Luzerne	Somerset	Cogan House
Beaver	Elk	Lycoming	Sullivan	Hamilton Township
Bedford	Erie	McKean	Susquehanna	Heidelberg
Blair	Fayette	Mercer	Tioga	Hempfield Township
Bradford	Franklin	Mifflin	Union	Millcreek
Butler	Fulton	Monroe	Venango	Milton Hershey School
Cambria	Greene	Montgomery	Warren	Monaca
Cameron	Huntingdon	Montour	Washington	Monroeton
Centre	Indiana	Northampton	Wayne	Paradise Township
Chester	Jefferson	Northumberland	Westmoreland	Pine Township
Clarion	Juniata	Perry	Wyoming	Pittsburgh
Clearfield	Lackawanna	Pike	York	Tunkhannock
Columbia	Lancaster	Potter		West Lebanon
				York
Government/Military Sites	Universities	Commercial Sites		
Carlisle Barracks	California Univ. of PA Carnegie Mellon Univ. Penn State Univ. Univ. of Pittsburgh Univ. of Pittsburg, Greensburg	The Boeing Company Dorney Park/Wildwater Kingdom Excela Health Latrobe Hospital Frick Hospital Hershey Entertainment Complex	RAND Corp. Westmoreland/Jeanette Hospital Westmoreland Hospital York Hospital	
Supporters				
Bridestone - Allentown	St Christopher's Hospital for Children		Montgomery Mall	
Bridgestone - Fredericksburg	Univ. of Pittsburgh, Bradford		Oxford Valley Mall	
Dickinson College	Univ. of Pittsburgh, Johnstown		Philadelphia Mills	
Longwood Gardens	Grove City Premium Outlets		Philadelphia Premium Outlets	
Mountain Productions Inc.	King of Prussia Mall		Ross Park Mall	
PA Emergency Management Agency	Lehigh Valley Mall		South Hills Village	
			The Crossings Premium Outlets	

Table 5.2.4.1: List of PA Storm Ready Sites (2017)¹⁵⁹

Franklin County also partners with the Franklin County Public Safety Training Center (FCPSTC) to provide a wide range of emergency preparedness, management, and response courses for elected officials, emergency management personnel (county and local), first responder communities, and the general public. The FCPSTC is an organization founded under the Franklin County Fire Chiefs Association (FCFCA) and is primarily focused on providing first responder training. Through this partnership, Franklin County is able to offer most of this training to our citizens free of charge.

FCDES is also implementing a community outreach program. We provide informational and preparedness briefings to community organizations, schools, daycares, and local medical facilities. These outreach sessions cover topics such as: fire safety, severe weather preparedness, disaster preparedness & recovery, and hazard mitigation. Our program is small, but growing. Table 5.2.4.2 lists the outreach events we have held since 2016.

¹⁵⁹ NOAA/NWS, 2017

Franklin County Hazard Mitigation Plan - 2018

Date	Organization	Discussion Topic
8/31/2016	Franklin Fulton Mental Health Association	DES Overview, Fire, and Shelter in Place
10/20/2016	Kiwanis	DES Structure, Capabilities & Mission
10/26/2016	Penn State University – Mont Alto Campus	DES Overview & National Incident Management System (NIMS)
11/9/2016	Community Forum	DES Duties, Responsibilities, and Capabilities
2/15/2017	Penn State University – Mont Alto Campus	DES Overview & National Incident Management System (NIMS)
8/30/2017	Franklin Fulton Mental Health Association	General Preparedness, Fire, Shelter in Place, and Weather Warning
9/8/2017	PA State Rep Rob Kaufman Senior Fair - 2017	General Preparedness, Fire, Shelter in Place, and Weather Warning
10/17/2017	Kiwanis	DES Duties, Responsibilities, and Capabilities
4/12/2018	Shippensburg Order of the Scottish Rite	DES Duties, Responsibilities, and Capabilities; Hazard Mitigation Planning

Table 5.2.4.2: Franklin County Outreach Events (2016-2018)

5.2.5. Plan Integration

There are numerous existing regulatory and planning mechanisms in place at the state, county, and municipal level of government which support hazard mitigation planning efforts. These tools include the *Commonwealth of Pennsylvania Standard All-Hazard Mitigation Plan*, *Franklin County Comprehensive Plan*, *Franklin County Emergency Operations Plan*, *Franklin County Long-Range Transportation Plan*, *Franklin County Greenway and Open Spaces Plan*, local Emergency Operation Plans, and various local Administrative and Regulatory Plans.

Information from several of these documents has been incorporated into this plan and mitigation actions have been developed to further integrate these planning mechanisms into the hazard mitigation planning process. In particular, this plan uses information on identified land use patterns and land development priorities from the *Franklin County Comprehensive Plan* in order to establish vulnerability pertaining to future development. The *Franklin County Greenway and Open Spaces Plan* provided valuable information relating to the land use and development, particularly of the forested and recreations areas of the county.

Section 4 of this HMP was repackaged as a stand-alone updated *Hazard Vulnerability Analysis (HVA)* for Franklin County, dated March 2018 (Updated Dec 2020). It provides extensive information on past occurrences, vulnerabilities, and risks. Additionally, **Section 4** was constructed to retain the municipal threat priorities that we collected. This was done to allow for a jump off point for all county municipalities to update their Emergency Operations Plans (EOPs) creating an HMP plan integration linkage to the municipal level. This information essentially completes Section 2 of their EOPs for them. Most of our municipal EOPs are dated circa 2003, so this provides them some momentum to make those updates in the short-term.

The *Pennsylvania State Hazard Mitigation Plan* was used extensively throughout the update to ensure uniformity with the state plan as well as concurrence with particular hazard information. Additionally, Franklin County participated in the update of the Pennsylvania Hazard Mitigation Plan, completed in 2018. We have been able to use some of the information learned in our update process to assist in improving the state HMP, thus completing the feedback loop between the state and our local plan.

Data and technical information from the Franklin County GIS System was incorporated into the plan in the form of flood plain data, building envelopes, hazard area overlays, and critical infrastructure. Floodplain management ordinance information was used to aid in the establishment of local capabilities in addition to the municipal participation in the NFIP.

Franklin County is in the process of updating all of our *Continuity of Operations Plans* for governmental facilities and operations. The threat assessment completed in **Section 4** is being used to establish the threat environment for these plans. Based on the comprehensive nature of this plan, the HMPT believes that this document will be highly useful when updating and developing other planning initiatives in the county. **Figure 5.2.5.1** below highlights where these plan integration linkages already exist and where we envision further integration to come to light.

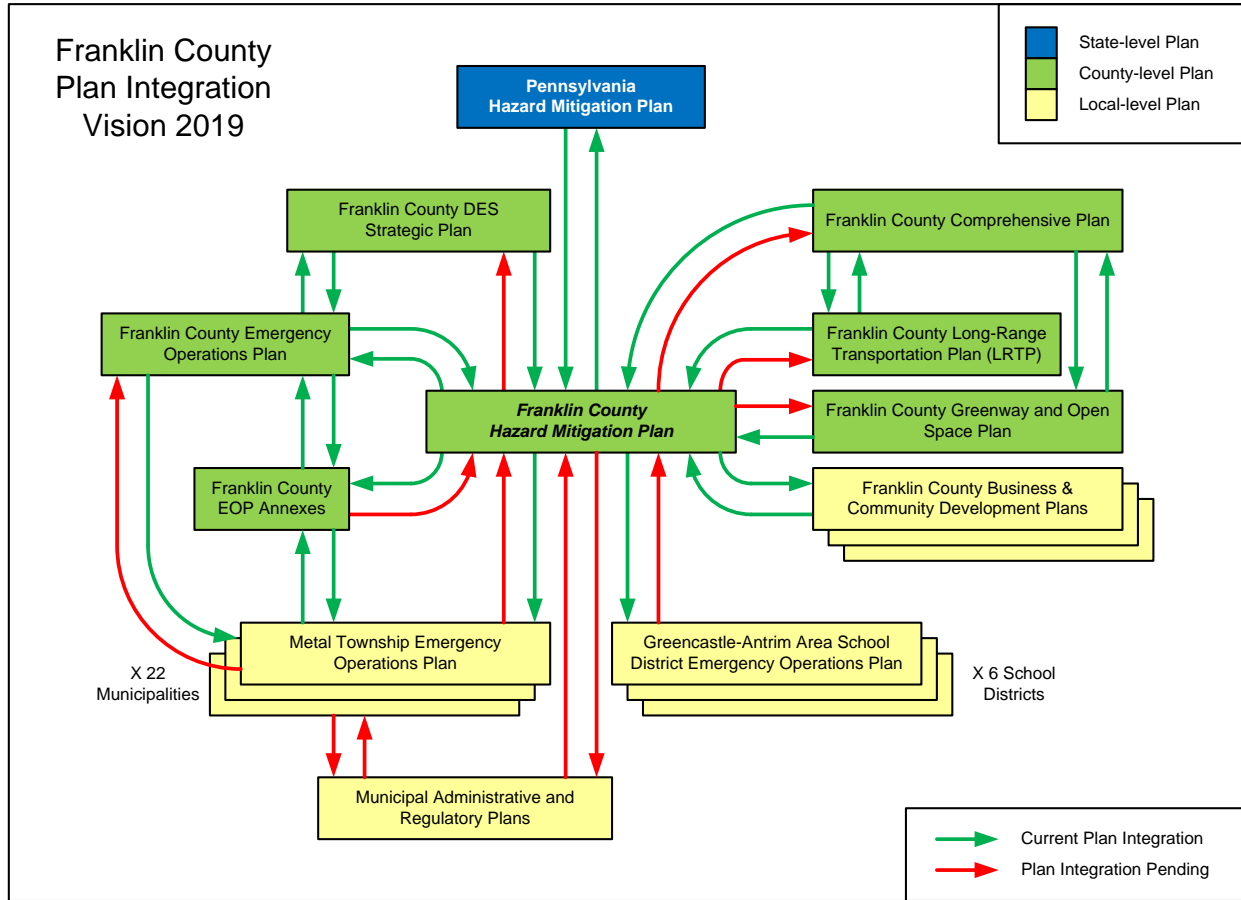


Figure 5.2.5.1: Franklin County Vision for Plan Integration

Figure 5.2.5.2 provides a further illustration of these plan linkages

Franklin County Hazard Mitigation Plan - 2018

One can see that the process of updating the Franklin County Hazard Mitigation Plan has already initiated several plan integration linkages. The task of the HMPT is to continue these efforts during our annual update meetings as well as being participating members on the planning processes for all the plans being developed or updated at the state, county, and local levels.

6. Mitigation Strategy

Mitigation Goals are general guidelines that explain what the county wants to achieve. Goals are usually expressed as broad policy statements representing desired long-term results. Mitigation Objectives describe strategies or implementation steps to attain the identified goals. Objectives are more specific statements than goals; the described steps are usually measurable and can have a defined completion date.

6.1. Update Process Summary

At the beginning of the update process for the 2018 Franklin County Hazard Mitigation Plan (HMP), the team reviewed the existing 2014 Franklin County HMP. The team identified several weaknesses and deficiencies of our old plan; one of these areas was the Mitigation Strategy Section.

The 2014 Franklin County HMP did not cover the Mitigation Strategy thoroughly. It did identify 4 goals, but did not list any objectives to meet these goals. Additionally, it did identify 38 actions to be taken, but did not tie these actions to any of the goals established.

An assessment on our progress of completing these proposed actions from the 2014 HMP is contained in **Appendix J** of this document. Several of these actions (31) are worth maintaining and will be carried over into our new strategy. Seven (7) of these actions were removed or discontinued and the explanations are included in **Appendix J**.

The 4 identified goals from the 2014 HMP are shown in **Table 6.1.1** below.

Old Goal 1	Create an organizational structure for accountability to follow through with plan maintenance. Maintain a sense of regional accountability, whereas, a hazard in one municipality may affect another.
Old Goal 2	Promote actions that support economic development and public/private partnerships within Franklin County.
Old Goal 3	Encourage municipalities, through education, to promote public awareness of current and/or potential hazards within their communities.
Old Goal 4	Strengthen land use and zoning ordinances regarding floodplain regulation. Identify resources within each community.

Table 6.1.1: 2014 Franklin County HMP Goals

The HMPT decided to rework the entire Mitigation Strategy to give us a more robust and integrated plan to achieve meaningful hazard mitigation. In doing so, the team decided to start fresh and select a new set of goals (**Figure 6.1.1**) with associated objectives to better identify a manageable Mitigation Strategy. Furthermore, the Goals/Objectives identified in this plan are specifically cross-walked to link them to one or more of the Goals/Objectives identified in the *Franklin County Department of Emergency Services Strategic Plan*. This was done to help fully integrate the HMP into the overall emergency planning process for Franklin County. This

linkage was briefed to and unanimously approved by the HMPT via survey after the 13 Dec 2017 meeting (see survey results in **Appendix K**).

GOAL 1: Protect the lives, health, safety, and property of the citizens of Franklin County from the impacts of all hazards.
GOAL 2: Increase public awareness regarding all hazards, preparedness, and mitigation.
GOAL 3: Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of all hazards.
GOAL 4: Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.

Figure 6.1.1: New 2018 Franklin County Hazard Mitigation Goals

6.2. Mitigation Goals and Objectives

Based on the discussion in **Section 6.1** above, **Figure 6.2.1** below captures our revised Goals and their associated linkages to the FCDES Strategic Plan.

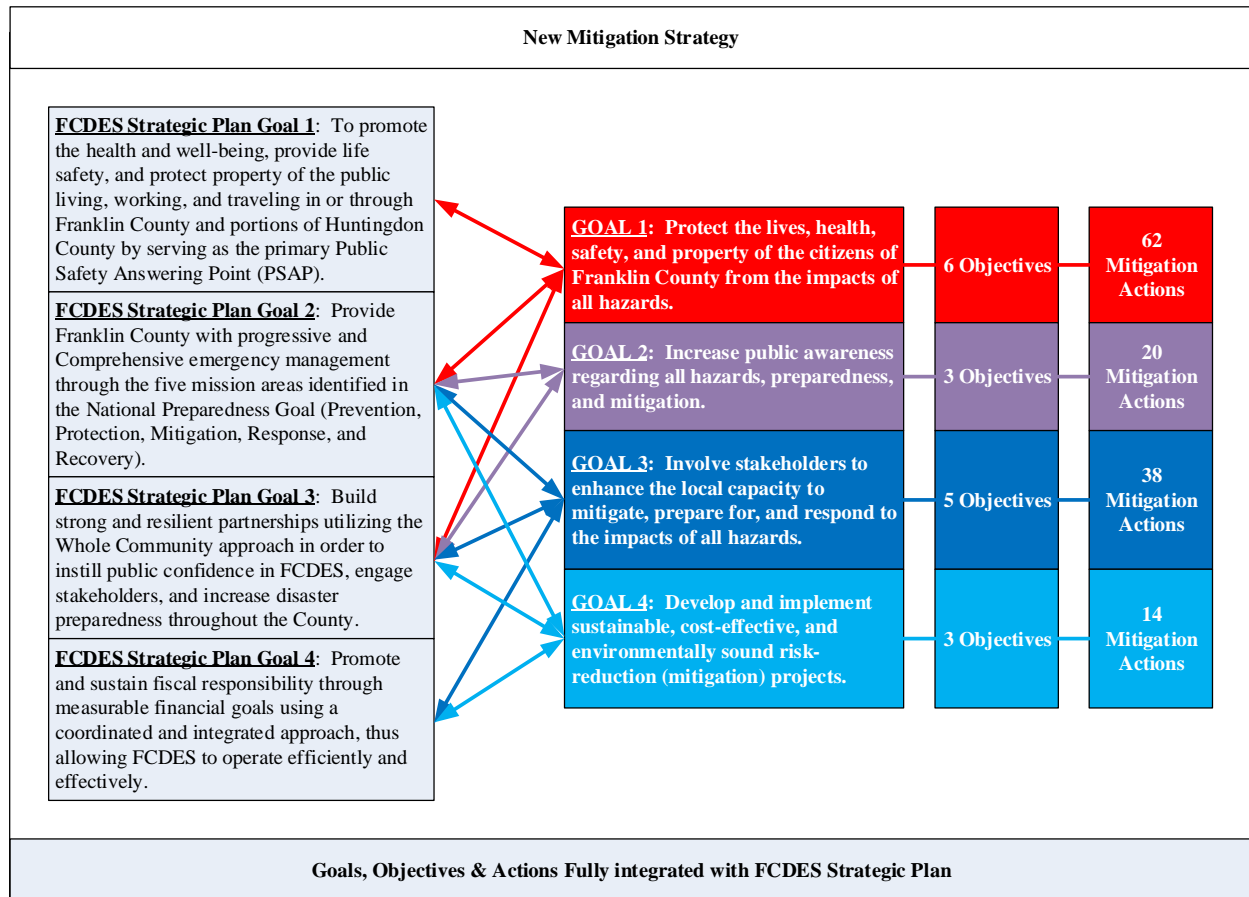


Figure 6.2.1: New HMP Goals and Linkages to FCDES Strategic Plan

Franklin County Hazard Mitigation Plan - 2018

Figures 6.2.2 below shows the 4 Mitigation Strategy Goals and their associated Objectives as well as the linkages to the Objectives in the FCDES Strategic Plan.

GOAL 1: Protect the lives, health, safety, and property of the citizens of Franklin County from the impacts of all hazards.	FCDES Strategic Plan Objective Linkages	GOAL 3: Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of all hazards.	FCDES Strategic Plan Objective Linkages
OBJECTIVE 1A: Develop, improve, and protect systems that provide early warnings, emergency response communications, and evacuation procedures.	Objectives: 1.10, 1.12, 2.7, 2.8, 2.11, 2.12 & 2.14	OBJECTIVE 3A: Strengthen codes and land use planning/enforcement, so that new construction or redevelopment can avoid or withstand the impacts of all hazards.	Objectives: 2.5, 2.6, 2.13, 2.14, 3.1, 3.2 & 4.2
OBJECTIVE 1B: Provide adequate, safe, and efficient evacuation routes and shelters during hazard events.	Objectives: 1.13, 2.7, 2.8 & 2.12	OBJECTIVE 3B: Regulate construction/development in the county to prevent increases in runoff and subsequent increases in flood flows.	Objective: 2.5
OBJECTIVE 1C: Protect public services and critical facilities, including infrastructure, from loss of use during all hazard events and potential damage from such events.	Objectives: 1.1-1.7, 2.1, 2.2, 2.4, 2.7, 2.8 & 2.12	OBJECTIVE 3C: Provide information to municipal officials regarding available funding for mitigation projects.	Objectives: 2.6, 3.1 & 4.2
OBJECTIVE 1D: Establish partnerships among all levels of local government, the private sector and/or non-governmental organizations to improve and implement methods to protect people and property.	Objectives: 3.1-3.3	OBJECTIVE 3D: Improve the participation rate in the National Flood Insurance Program (NFIP).	Objective: 2.5
OBJECTIVE 1E: Reduce all hazard-related risks/vulnerabilities to potentially isolated populations within the county.	Objectives: 1.2, 2.1, 2.7, 2.8, 2.11, 2.12, 2.13 & 3.1	OBJECTIVE 3E: Encourage mitigation through incentive-based programs, such as the Community Rating System (CRS), Firewise, and Storm Ready programs.	Objectives: 2.6 & 3.1
OBJECTIVE 1F: Support first responder agencies to augment/increase/enhance the recruitment and retention of their volunteer service members.	Objectives: 1.13, 2.7, 2.8, 2.11, 2.13, 3.1, 3.2	GOAL 4: Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.	FCDES Strategic Plan Objective Linkages
GOAL 2: Increase public awareness regarding all hazards, preparedness, and mitigation.	FCDES Strategic Plan Objective Linkages	OBJECTIVE 4A: Retrofit, purchase, or relocate structures in high hazard areas, including those known to be repetively damaged.	Objectives: 2.6, 3.1 & 4.2
OBJECTIVE 2A: Use the best available data, science, and technologies to educate the public and improve understanding of the location and potential impacts of all hazards, the vulnerability of building types/community development patterns, and the measures needed to protect life safety.	Objectives: 2.11, 2.12, 3.1 & 3.2	OBJECTIVE 4B: Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans.	Objective: 2.5
OBJECTIVE 2B: Develop preparedness information/outreach programs to disseminate information on all hazard disaster response.	Objective: 3.2	OBJECTIVE 4C: Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and the use of natural processes.	Objectives: 2.6 & 3.1
OBJECTIVE 2C: Ensure that all citizens and stakeholders are well trained (or offered training) regarding all hazards and appropriate prevention and mitigation activities.	Objectives: 3.2 & 3.3		

Figure 6.2.2: HMP Goals/Objectives and DES Strategic Plan Linkages

Ultimately, the 2018 plan Goals and Objectives are consistent with the priorities and concerns expressed by the municipal representatives via a discussion conducted at the Mitigation Strategy Meeting (13 Dec 2017). Minor changes in wording and one additional Objective (**1F**) were incorporated into the Mitigation Strategy (see **Appendix B** for meeting minutes).

6.3. Identification and Analysis of Mitigation Techniques

Appendix 11 of the Pennsylvania All-Hazard Mitigation Planning Standard Operating Guide (SOG), developed by PEMA, prescribes 4 mitigation techniques: Local Plans and Regulations, Structural and Infrastructure Projects, Natural Systems Protection, and Education and Awareness. Franklin County used this guide to identify mitigation techniques, and develop/evaluate mitigation actions. These mitigation techniques are defined below:

Local Plans and Regulations: These actions include government authorities, policies, or codes that influence the way land and buildings are developed and built.

Structure and Infrastructure Projects: These actions involve modifying existing structures and infrastructure or constructing new structures to reduce hazard vulnerability.

Natural Systems Protection: These are actions that minimize damage and losses and also preserve or restore the functions of natural systems.

Education and Awareness: These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them, and may also include participation in national programs.

Table 6.3.1 provides a matrix identifying the mitigation techniques used for the hazards identified in the county. The specific actions associated with these techniques are included in **Section 6.4** of this document.

Franklin County Hazard Mitigation Plan - 2018

Hazard Threat	Local Plans and Regulations	Structure and Infrastructure Projects	Natural Systems Protection	Education and Awareness Programs
All Hazards	X	X		X
Winter Storm	X	X		X
Hurricane, Tropical Storm, Nor'easter	X	X		X
Tornado/Windstorm	X	X		X
Utility Interruption	X	X		X
Transportation Accident	X	X		X
Extreme Temperatures	X	X		X
Drought	X			X
Lightning Strike	X			X
Dam Failure	X	X		X
Hailstorm	X			X
Environmental Hazards	X	X		X
Flood/Flash Flood/Ice Jam	X	X	X	X
Pandemic and Infectious Disease	X			
Invasive Species				X
Earthquake	X	X		X
Subsidence/Sinkhole	X			
Radon Exposure				X
Terrorism	X			X
Urban Fire and Explosion	X	X		X
Wildfire			X	X
Nuclear Incident	X			X
Mass Food/Animal Feed Contamination	X			X
Civil Disturbance	X			X
Landslide	X	X		

Table 6.3.1: Mitigation Techniques Used to Address Hazards in Franklin County

We added a category of hazard threat to **Table 6.3.1** above, “All Hazards”. This was done to allow for mitigation actions that addressed all of the hazards by their implementation, but not pollute the rest of the data in the table that applies to individual hazards. An example of this type of action would be: “To incorporate local data in HAZUS models.” This type of action would improve our preparedness and response posture for all hazards, not just a single or small group of hazards. There are several mitigation actions of this type in **Section 6.4**.

6.4. Mitigation Action Plan

The Mitigation Strategy/Risk Assessment Meeting was held on 13 Dec 2018 to develop a framework for the Mitigation Action Plan (see meeting minutes in **Appendix B**). The team was provided the list of mitigation actions that were carried over from the 2014 plan (31) with some additions (41) developed at the county level. In the 16 Feb 2018 HMP Planning Meeting, the

Franklin County Hazard Mitigation Plan - 2018

HMPT and all municipalities were tasked to provide mitigation actions to cover projects that could mitigate hazards in their jurisdiction as well as cover gaps identified in their responses to the Municipal Capabilities survey (see **Appendix B** for meeting minutes). This produced 62 additional mitigation actions bringing the total number developed to 134.

Each one of these Mitigation Actions is tied to the Goals/Objectives discussed in **Section 6.2**. **Tables 6.4.1- 6.4.16** present the Mitigation Actions that were developed by the HMPT for this update.

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
1A1	All Hazards	Assign and train additional County employees and volunteers to assist the Emergency Operations Center (EOC) staff, so they can be called upon in the event of major emergencies.	Staff Time	Within 2 years
1A2	All Hazards	Incorporate local data in HAZUS models.	Staff Time	Continuous
1A3	All Hazards	Conduct routine (monthly) inspections, regular maintenance, and annual tests on all emergency communications equipment, public address systems, and alert sirens to ensure unhindered operation during an emergency event.	Staff Time; County/Municipal General Account; DHS – Homeland Security Grant Program (HSGP); FEMA Hazard Mitigation Assistance Programs	Continuous
1A4	All Hazards	Improve emergency management warning and response capabilities and procedures to better protect the public through continued implementation of an early warning or alert systems that utilize cloud based (Everbridge, IPAWS, Wireless Emergency Alerts) communications technologies to distribute texts, phone calls, email alerts, or social media messages.	Staff Time; DHS – Homeland Security Grant Program (HSGP); FEMA Hazard Mitigation Assistance Programs	Continuous
1A5	All Hazards	Design and implement a Mass Emergency Notification System for Green Township. Township emergency notification system would contact residents within a geographical area of emergencies such as flooding, hazardous materials incidents, evacuations, police and fire related incidents.	DHS – Homeland Security Grant Program (HSGP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
1A6	Flood, Flash Flood & Ice Jam	Research and coordinate with PEMA and NWS on installation of an Integrated Flood Observation and Warning System (IFLOWS) Stream Gauge on the Conococheague Creek near the Chambersburg Waste Treatment facility to provide early warning of Flash Flood Conditions for Franklin County.	USGS Grants; DHS – Homeland Security Grant Program (HSGP); FEMA Hazard Mitigation Assistance Programs	Within 2 years
1B1	All Hazards	Evaluate and update evacuation and sheltering plans throughout Franklin County annually.	Staff Time; US Department of Housing and Urban Development (HUD) – Emergency Shelter Grants Program/Emergency Solutions Grant (ESG) Program	Continuous
1B2	Extreme Temperatures; Winter Storm; Hurricane, Tropical Storm & Nor'easter; Flood, Flash Flood & Ice Jam	Identify and promote awareness of community shelters. These facilities would provide temporary refuge for the county's vulnerable populations during periods of extreme cold or heat.	Staff Time; US Department of Housing and Urban Development (HUD) – Emergency Shelter Grants Program/Emergency Solutions Grant (ESG) Program	Continuous
1B3	Winter Storm; Extreme Temperatures	Review and assess for the need to upgrade insulation in commercial or residential buildings that currently house or will house high-risk populations during extreme winter weather events.	DHS – Homeland Security Grant Program (HSGP); US Department of Housing and Urban Development (HUD) – Emergency Shelter Grants Program/Emergency Solutions Grant (ESG) Program; FEMA Hazard Mitigation Assistance Programs	Within 2 years

Table 6.4.1: Franklin County HMP – 2018 Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
1B4	All Hazards	Develop, staff, fund, and exercise a robust County Animal Response Team (CART) capability to provide care and shelter for a wide variety of animals from livestock to exotic pets during a mass relocation event.	American Society for the Prevention of Cruelty to Animals (ASPCA) – Emergency and Disaster Grants; FEMA Hazard mitigation Assistance Programs	Within 3 years
1C1	All Hazards	Review and evaluate facilities, equipment, personnel, and other resources needed to support emergency responses annually and update County/Municipal Resource Books.	Staff Time	Continuous
1C2	Environmental Hazards	Develop a comprehensive assessment and safety exam of all SARA facilities every two years.	Staff Time; Hazardous Materials Response Fund (HMRF); Local Emergency Planning Committee (LEPC) Reimbursement Account	Continuous
1C3	Tornado/ Windstorm; Earthquake; Hurricane, Tropical Storm & Nor'easter; Flood, Flash Flood & Ice Jam	Develop a Debris Management Plan to include quick “Help Sheets/checklists” built upon various types of incidents and events.	Staff Time	Within 2 years
1C4	Environmental Hazards; Nuclear Incident	Ensure and expand the capabilities of regional decontamination team to include providing mass, emergency, and technical decontamination.	Seek Prioritization in SCTF Funding	Within 3 years
1C5	Environmental Hazards	Develop and maintain a cache of hazardous materials mitigation supplies for deployment as needed.	Hazardous Materials Response Fund (HMRF); Local Emergency Planning Committee (LEPC) Reimbursement Account	Continuous
1C6	All Hazards	Conduct hazard response practice drills and emergency management exercises on an annual basis.	Staff Time; Hazardous Materials Response Fund (HMRF); Local Emergency Planning Committee (LEPC) Reimbursement Account; County/Municipal General Account	Continuous
1C7	Utility Interruption; Transportation Accident	Work with utility companies to improve right-of-way tree management and encourage the burying of utility lines, especially in high frequency outage areas.	Federal Transportation Enhancements Program – Transportation Enhancements (TE) Funds – Transportation Equity Act of the 21 st Century (TEA-21); DCED – Downtown and Communities Opportunity Grants; FEMA Hazard Mitigation Assistance Programs	Within 5 years
1C8	Nuclear Incident	Upgrade/maintain Radiological Emergency Preparedness activities, Radiological Testing/Response Equipment, and Franklin County Annex E for the Three Mile Island Power Station to ensure they comply with FEMA’s 2016 Radiological Emergency Preparedness Program guidance.	Staff Time; Radiological Emergency Response Fund (RERF) Grant; Hazardous Materials Response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account	Continuous
1C9	Dam Failure; Flood, Flash Flood & Ice Jam	Foster increased cooperation and communication between Franklin County EMC and the owners of privately held dams that might impact downstream communities through outreach, education, and dam failure scenarios or exercises, as appropriate.	Staff Time; National Dam Safety Program; Pennsylvania Infrastructure Investment Authority (PENNVEST) Loan and Grant Program; H2O PA Grant Program; Growing Greener; Dam Owners	Within 2 years

Table 6.4.2: Franklin County HMP – 2018 Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
1C10	Winter Storm; Tornado/ Windstorm, Hurricane, Tropical Storm & Nor'easter; Extreme Temperatures; Utility Interruption	Identify a source of back-up power for all critical facilities including schools, government buildings, medical facilities, and emergency services (police, fire & EMS).	USDA Rural Development Grants; DHS – Homeland Security Grant Program (HSGP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
1C11	Urban Fire & Explosion	Demolish abandoned or collapsed structures and clean up junk and debris.	DCED – Community Development Block Grant – Disaster Recovery (CDBG-DR); US Department of Housing and Urban Development (HUD) – Housing Preservation Grants; FEMA Hazard Mitigation Assistance Programs	Within 5 years
1C12	Hurricane, Tropical Storm & Nor'easter; Tornado/ Windstorm; Winter Storm; Transportation Accident; Utility Interruption	Township Road Crews and Borough Public Works Departments partner with PennDOT and County Maintenance to identify, manage, and if warranted clear (to limits of the right-of-way) roadside brush and trees that could block roadways following a severe storm.	Department of Conservation of Natural Resources; USDA Natural Resources Conservation Service; FEMA Hazardous Mitigation Assistance Programs	Continuous
1C13	Earthquake; Urban Fire & Explosion	Perform an engineering analysis to determine the feasibility of mandatory or voluntary installation of seismic shutoff valves on natural gas meters at commercial and residential buildings.	FEMA National Earthquake Hazards Reduction Program (NEHRP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
1C14	Dam Failure; Flood, Flash Flood & Ice Jam	Develop plans and coordinate the breaching of the W. H. Walker Dam in Fannettsburg. Work with DEP and Army Corps of Engineers to breach dam due to abandonment and disrepair to prevent inundation to the Path Valley area.	Staff Time; Municipal General Account; National Dam Safety Program Grant; Pennsylvania Infrastructure Investment Authority (PENNVEST) Loan and Grant Program; H2O PA – High Hazard Unsafe Dam Projects; Growing Greener; Dam Owners; American Rivers Association; Ducks Unlimited; USACE Silver Jackets	Within 5 years
1C15	Drought	Improve tracking and collection of boil water advisories throughout the county to identify potential problem areas for mitigation project development.	Staff Time	Within 2 years
1C16	Transportation Accident	Install traffic signal to mitigate accidents at intersection (Grandpoint Rd. and North Parkwood Dr.).	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery *TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)	Within 5 years

Table 6.4.3: Franklin County HMP – 2018 Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
1C17	Transportation Accident	Collect data and engineer a solution to reduce congestion and number of accidents at critical intersection (Kohler Rd. at Walker Rd.).	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery *TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)	Within 5 years
1C18	Transportation Accident	Widen I-81 to 6 lanes (3 each direction) between Exits 17 and 20 to assist in reduction of traffic congestion.	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery *TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)	Within 5 years
1C19	Transportation Accident	Execute a traffic analysis survey on SR 997 (Black Gap Road) to Scotland, PA to determine if reduction in speed limit could reduce accidents. Multiple accidents in the area with at least 1 fatality.	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery *TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)	Within 5 years
1C20	Transportation Accident	Work with PennDOT to analyze traffic patterns at the I-81 Northbound Exit 20 off-ramp to determine if the deceleration lane is of sufficient length. Engineer, plan, and implement a solution to address the deficiencies found. Multiple accidents in this area.	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery *TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)	Within 5 years

Table 6.4.4: Franklin County HMP – 2018 Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
1C21	Transportation Accident	Partner with PennDOT to determine proper sight distance for intersection (SR 997 (Cumberland Hwy) and Smith Rd.). Engineer, plan, and implement solutions to address the deficiencies found.	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery *TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)	Within 5 years
1C22	Transportation Accident	Partner with PennDOT to evaluate the need for new turning lanes and traffic signals at intersection (Coffee Ave, SR 433, and SR 997) (Letterkenny Army Depot Main Gate). Engineer, plan, and implement solutions to address the deficiencies found.	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery *TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)	Within 5 years
1C23	Transportation Accident	Perform traffic study to determine if traffic signals are warranted at intersection (Siloam Rd, SR 11 (Philadelphia Ave), and Chancellor Dr) (2 fatal accidents at this intersection). Engineer, plan, and implement solutions to address the deficiencies found.	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery *TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)	Within 5 years
1C24	Transportation Accident	Perform traffic study to address the sight distance at intersection (Mower Rd. and Walker Rd.). Engineer, plan, and implement solutions to address the deficiencies found.	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery *TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)	Within 5 years

Table 6.4.5: Franklin County HMP – 2018 Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
1C25	Transportation Accident	Perform traffic study at intersection of SR 997 (Black Gap Rd) and Byers Rd. to determine if reduction in speed limit or traffic signal could reduce accidents. Engineer, plan, and implement solutions to address the deficiencies found.	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery *TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCEd – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)	Within 5 years
1C26	Transportation Accident	Study the feasibility of replacing the one lane bridge over Mountain Run at Coldsmith Rd. and Church Rd. to reduce accidents. Engineer, plan, and implement solutions to address the deficiencies found.	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery *TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCEd – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)	Within 5 years
1C27	Transportation Accident	Perform a study on the bridge overpasses at Pine Stump Rd. and Woodstock Rd. to determine if width and height could be increased to reduce accidents. Engineer, plan, and implement solutions to address the deficiencies found.	Federal Railroad Administration Grants; FEMA Hazard Mitigation Assistance Programs	Within 5 years
1C28	Transportation Accident	Procure battery back-up for all traffic signals in Greene Township. Battery back-up would assist in traffic flow during a power outage. This would reduce the need for emergency personnel at an intersection to direct traffic.	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery *TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCEd – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)	Within 5 years
1C29	All Hazards	Procure a generator for the Greene Township Emergency Management Agency Office. This generator will need to be 30,000 KW, fuel source will be Natural Gas.	DHS – Homeland Security Grant Program (HSGP); DCEd – Local Government Capital Project Loan Program (LGCPL); USDA Rural Development Grants; FEMA Hazard Mitigation Assistance Programs	Within 5 years
1C30	All Hazards	Research and develop a Continuity of Operations Plan (COOP) for Hamilton Township to assure the continuous operations of critical facilities and services during disasters/emergencies.	Staff Time	Within 2 years
1C31	All Hazards	Research and develop a Continuity of Operations Plan (COOP) for Waynesboro Borough to assure the continuous operations of critical facilities and services during disasters/emergencies.	Staff Time	Within 2 years

Table 6.4.6: Franklin County HMP – 2018 Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
1C32	All Hazards	Research and develop a Continuity of Operations Plan (COOP) for Quincy Township to assure the continuous operations of critical facilities and services during disasters/emergencies.	Staff Time	Within 2 years
1C33	All Hazards	Research and develop a Continuity of Operations Plan (COOP) for Guilford Township to assure the continuous operations of critical facilities and services during disasters/emergencies.	Staff Time	Within 2 years
1C34	All Hazards	Research and develop a Continuity of Operations Plan (COOP) for Washington Township to assure the continuous operations of critical facilities and services during disasters/emergencies.	Staff Time	Within 2 years
1C35	All Hazards	Research and develop a Continuity of Operations Plan (COOP) for Antrim Township to assure the continuous operations of critical facilities and services during disasters/emergencies.	Staff Time	Within 2 years
1C36	All Hazards	Research and develop a Continuity of Operations Plan (COOP) for Montgomery Township to assure the continuous operations of critical facilities and services during disasters/emergencies.	Staff Time	Within 2 years
1C37	All Hazards	Research and develop a Continuity of Operations Plan (COOP) for Warren Township to assure the continuous operations of critical facilities and services during disasters/emergencies.	Staff Time	Within 2 years
1D1	All Hazards	Review Mutual Aid Agreements annually and recommend changes/updates as required.	Staff Time	Continuous
1D2	All Hazards	Assist municipalities in the preparation and maintenance of Municipal Emergency Operations Plans (EOPs).	Staff Time	Continuous
1D3	All Hazards	Foster relationships with other counties so that Franklin County may utilize mutual aid in Emergency Operations Center (EOC) positions.	Staff Time	Continuous
1D4	Mass Food & Animal Feed Contamination	Coordinate with local USDA and PSU Agriculture Extension representatives to develop a Mass Food Contamination annex to the Franklin County Emergency Operations Plan.	Staff Time	Within 2 years
1D5	Terrorism; Utility Interruption	Encourage Utility and Pipeline companies to prepare vulnerability studies to identify and remediate potential exploitable threats and problems.	Staff Time; Federal Transportation Enhancements Program – Transportation Enhancements (TE) Funds – Transportation Equity Act of the 21 st Century (TEA-21); DCED – Downtown and Communities Opportunities Grants	Within 3 years

Table 6.4.7: Franklin County HMP – 2018 Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
1D6	Civil Disturbance; Terrorism	Work with local Police Departments, Pennsylvania State Police, and First Responders to provide civil disturbance response training. Provide police presence at controversial events with large crowd gatherings as a means of discouraging conflict.	Staff Time; County/municipal General Account; PEMA Sponsored training; FEMA EMI Institute; FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs	Within 1 year
1D7	Landslide; Transportation Accident	Work with Public Works and PennDot to identify high hazard roads in mountain passes and cut-areas to identify potential initiatives for cut backs off the right-of-way, fence, or wall/barrier projects to mitigate the damage of rockslide or falling debris hazards.	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery *TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)	Continuous
1D8	Earthquake; Tornado/ Windstorm; Hurricane, Tropical Storm & Nor'easter; Terrorism	Work with local industry partners (i.e. IESI & Parks) to assess the capacity of landfills to accommodate Earthquake debris. Develop coordination plans for disposal of debris in the aftermath of an earthquake.	Staff Time	Within 2 years
1D9	Environmental Hazards	Assess the possibility of forming a Township/ County Hazardous Materials Team. Analyze the number of trained volunteers or career persons in the county versus the required staff needed to form a hazardous materials team.	Hazardous Materials Response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account	Within 5 years
1E1	All Hazards	Provide assistance to municipalities in implementing individual hazard mitigation actions supporting high risk communities.	Staff time; County/Municipal General Account; FEMA Hazard Mitigation Assistance Programs	Continuous
1E2	Transportation Accident	Maintain/develop traffic re-route plans and coordinate them with neighboring municipalities for traffic accidents that impact major arteries in the County.	Staff Time	Within 2 years
1E3	Pandemic & Infectious Disease	Develop and implement a Pandemic Response Plan early and in a coordinated effort with layered approach – individuals, community, county, and regional measures.	Staff Time	Within 3 years
1E4	Drought	Survey, document, and incorporate private well locations in Franklin County into the GIS database for analyses of available water resources.	Staff Time; USDA – Rural Development Water and Environmental (WEP) Programs (population under 10,000)	Within 3 years
1F1	All Hazards	Partner with the Franklin County Public Safety Training Center (FCPSTC), the Franklin County Fire Chiefs Association (FCFCA), the Emergency Alliance, and other first responder groups in the county to organize and execute outreach programs and open houses to educate the community on responder capabilities and showcase opportunities for community service.	Staff Time; FCFCA/FCPSTC Training Account; County General Account	Continuous

Table 6.4.8: Franklin County HMP – 2018 Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
1F2	All Hazards	Perform a Fire & EMS services study throughout the Township to assess and identify causes and/or solutions to the decline in first responder volunteerism.	Staff Time; DCED – Municipal Assistance Program	Within 5 years
2A1	All Hazards	Train additional personnel on the use of GIS systems to support emergency operations.	Staff Time	Within 2 years
2A2	Flood, Flash Flood & Ice Jam	Where acquisition is not feasible, advise homeowners/businesses of preferred mitigation alternatives (e.g. elevation & Floodproofing).	Staff Time; County General Account; PEMA Sponsored Training; FEMA EMI Institute; FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs	Continuous
2A3	All Hazards	Maintain and update the county Hazard Vulnerability Analysis (HVA) annually. Utilize the HVA to prioritize risk reduction strategies and funding opportunities.	Staff Time	Annually
2A4	All Hazards	Improve communications between the public and emergency management services through social media (i.e. Facebook & Twitter).	Staff Time; County General Account; DHS – Homeland Security Grant Program (HSGP)	Continuously
2A5	Tornado/ Windstorm; Hurricane, Tropical Storm & Nor'easter; Winter Storm	Conduct outreach to residents of mobile home parks or trailers on how and why to anchor trailers to protect against severe weather conditions.	Staff Time; PEMA Sponsored Training; FEMA EMI Institute; FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs	Within 1 year
2A6	Radon Exposure	Create and distribute electronic and print information on Radon exposure and Radon mitigation systems to homeowners throughout the County, especially those in areas with elevated Radon test levels.	Staff Time; County General Fund; Hazardous Materials response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account	Within 2 years
2A7	Winter Storm	Create information pamphlets and outreach programs to discuss the older building codes and subsequent deficiencies in snow load capabilities for citizens with older homes in the County.	Staff Time; PEMA Sponsored Training; FEMA – EMI Institute; FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs	Within 2 years
2A8	Hailstorm; Tornado/ Windstorm; Hurricane, Tropical Storm & Nor'easter	Promote public awareness of hail-resistant building and construction practices including the use of structural bracing, window shutters, laminated glass in window panes, and hail resistant roof shingles.	Staff Time; County/Municipal General Account; PEMA Sponsored Training; FEMA – EMI Institute; FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs	Within 2 years
2A9	Subsidence/ Sinkholes	Map abandoned mine shafts, caves, and potentially vulnerable areas to cave-ins or subsidence.	Staff Time	Continuous
2A10	Lightning Strike	Work with the PSU Agriculture Extension to develop an information Pamphlet on lightning arrestors and implementation of these devices on barns and out-buildings to protect against lightning strike fires and livestock deaths.	Staff Time; County General Account; PEMA Sponsored Training; FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs; USDA Grants	Within 1 year
2B1	All Hazards	Continue to maintain webpages where presentations, training documentation, and webinars can be posted. This will allow municipal officials to access the information at their own schedule and pace.	Staff Time	Continuous

Table 6.4.9: Franklin County HMP – 2018 Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
2B2	All Hazards	Increase funding and resources for public outreach and education with focused programs designed to address the highest risks in the community with the goal of reducing community risk and the cost of emergencies in the community.	Staff Time; County General Account; PEMA Sponsored Training; FEMA – EMI Institute; FCDES Training Budget; Hazardous Materials Response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account; FEMA Hazard Mitigation Assistance Programs	Within 1 year
2B3	Urban Fire & Explosion	Continue and/or develop programs to increase home safety and disaster prevention (e.g. smoke/CO detector installs) for citizens that are members of high risk populations.	Staff Time; PEMA Sponsored Training; FEMA – EMI Institute; FCDES Training Budget; Hazardous Materials Response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account; FEMA Hazard Mitigation Assistance Programs	Continuous
2B4	Invasive Species	Develop, maintain, and disseminate an Invasive Species Plants and Animals listing for citizen education and future Land Use development planning.	Staff Time; USDA Grant and Partnership Programs for Invasive Species	Within 2 years
2C1	All Hazards	On an annual basis, conduct Municipal Officials training and/or state sponsored training courses to address hazard mitigation topics, such as Damage Assessment, Storm Water Management, Mutual Aid Agreements, Public Disaster Assistance, and the Hazard Mitigation Grant Program.	Staff Time; PEMA Sponsored Training; FEMA – EMI Institute; FCDES Training Budget; Hazardous Materials Response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account; FEMA Hazard Mitigation Assistance Programs	Continuous
2C2	Urban Fire & Explosion	Identify and implement incentives to encourage municipal officials to participate in fire prevention and response training.	Staff Time; PEMA Sponsored Training; FEMA – EMI Institute; FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs	Within 1 year
2C3	Terrorism	Promote inter and intra-agency coordination on potential terrorist activity. This can be accomplished through training, exercises, and networked information systems.	Staff Time; PEMA Sponsored Training; FEMA – EMI Institute; FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs	Continuous
2C4	Dam Failure; Flood, Flash Flood & Ice Jam	Work with privately held dam owners, DEP, and Fish and Boat Commission to determine inspection dates or trigger new inspections for all dams in Franklin County. Seek mitigation actions for deficiencies uncovered in the data collection.	Staff Time; Municipal General Account; National Dam Safety Program Grant; Pennsylvania Infrastructure Investment Authority (PENNVEST) Loan and Grant Program; H2O PA – High Hazard Unsafe Dam Projects; Growing Greener; Dam Owners; American Rivers Association; Ducks Unlimited; USACE Silver Jackets	Within 2 years
2C5	All Hazards	Establish program to educate residents on emergency management.	Staff Time; PEMA Sponsored Training; FEMA – EMI Institute; FCDES Training Budget; Hazardous Materials Response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account; FEMA Mitigation Assistance Programs	Within 2 years

Table 6.4.10: Franklin County HMP – 2018 Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
2C6	Flood, Flash Flood & Ice Jam	Research, develop, and execute an annual Floodplain Management Outreach Program to educate the municipalities on NFIP, DFIRM, and their associated requirements and regulations to assure a common understanding across the county.	Staff Time	Within 1 year
3A1	All Hazards	Map new housing developments as plans are approved for the purpose of emergency and land use planning.	Staff Time	Continuous
3A2	Flood, Flash Flood & Ice Jam	Utilize most recent hazard assessment, including the National Flood Plain reports and historical records, when planning or authorizing building projects, including significant renovations.	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population)	Continuous
3A3	All Hazards	Adopt and support codes that restrict building and developing in areas identified as being high risk for natural and man-made incidents.	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population)	Within 3 years
3A4	All Hazards	Continue to stringently enforce all building codes in effect.	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population)	Continuous
3A5	All Hazards	Work with municipalities to integrate County Hazard Mitigation Plan into municipal Comprehensive Plans, Subdivision and Land Use Development Ordinances, and Zoning Ordinances.	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population)	Within 1 year
3A6	Flood, Flash Flood & Ice Jam	Research and develop Zoning Regulations for St Thomas Township to specify which zones can be used for residential, commercial, institutional, or open space purposes. Additionally, regulate the placement (SFHA restrictions), bulk (or density), and the elevation of structures (to or above the BFE).	Staff Time	Within 5 years
3A7	All Hazards	Coordinate between Lurgan Township, Letterkenny Township, and Fannet Township on an update to the Joint Comprehensive Plan. Last update was in 2007.	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); Community Development Block Grants; USDA Rural Development Water and Environmental (WEP) Programs (population under 10,000)	Within 2 years
3A8	All Hazards	Research, assess, and if feasible, develop a Comprehensive Land Use plan to guide the future development actions of Greencastle Borough.	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); Community Development Block Grants; USDA Rural Development Water and Environmental (WEP) Programs (population under 10,000)	Within 2 years

Table 6.4.11: Franklin County HMP – 2018 Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
3A9	All Hazards	Research, assess, and if feasible, develop a Comprehensive Land Use plan to guide the future development actions of Mont Alto Borough.	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); Community Development Block Grants; USDA Rural Development Water and Environmental (WEP) Programs (population under 10,000)	Within 2 years
3A10	All Hazards	Research, assess, and if feasible, develop an Evacuation Plan for Shippensburg Borough (Franklin County) to address large scale disaster scenarios.	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); Community Development Block Grants; USDA Rural Development Water and Environmental (WEP) Programs (population under 10,000)	Within 2 years
3B1	Flood, Flash Flood & Ice Jam	Utilize engineered solutions to slow or alter streams to limit damage to the built environment.	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B2	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From Chambersburg Borough to SR 11).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B3	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From SR 11 to Cornertown Rd.).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B4	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From Cornertown Rd. to Sycamore Grove Rd.).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B5	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From Sycamore Grove Rd. to Scotland Main St. at rail road overpass).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B6	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From Scotland Main St. at rail road overpass to Scotland Rd.).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B7	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From Scotland Rd. to Interstate I-81).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B8	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From Interstate I-81 to Brindle Rd.).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years

Table 6.4.12: Franklin County HMP – 2018 Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
3B9	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From Brindle Rd. to Woodstock Rd.).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B10	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From Brindle Rd. to Main St. Fayetteville).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B11	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From Woodstock Rd. to Mt Pleasant Rd.).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B12	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From Mt Pleasant Rd. to Area East of Mt Shadow Subdivision).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B13	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From Mt Pleasant Rd. to Brookens Rd.).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B14	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From Brookens Rd. to Ridge Rd.).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B15	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From Mt Pleasant Rd. to Coldspring Rd.).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B16	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From Coldspring Rd. to SR 997 (Black Gap Road)).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B17	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From Coldspring Rd. to SR 30 (Lincoln Way East)).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B18	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From SR 997 (Black Gap Road) to Houser Rd.).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B19	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From SR 997 (Black Gap Rd) to SR 30 (Lincoln Way East)).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years

Table 6.4.13: Franklin County HMP – 2018 Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
3B20	Flood, Flash Flood & Ice Jam	Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed (From SR 30 (Lincoln Way East) to South of SR 30 (Lincoln Way East)).	DCED – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
3B21	Flood, Flash Flood & Ice Jam	Research and develop a Stormwater Management Plan for Mercersburg Borough in compliance with DEP’s Act 167.	Staff Time	Within 2 years
3B22	Flood, Flash Flood & Ice Jam	Research and develop a Stormwater Management Plan for Orrstown Borough in compliance with DEP’s Act 167.	Staff Time	Within 2 years
3C1	All Hazards	Advocate for municipalities to find alternative methods of funding to the Hazard Mitigation Program.	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE)	Within 2 years
3D1	Flood, Flash Flood & Ice Jam	Encourage municipal compliance with NFIP and PA Act 166 Floodplain development regulations and/or encourage more restrictive requirements, as appropriate by conducting training and inspection workshops.	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population)	Within 3 years
3D2	Flood, Flash Flood & Ice Jam	Research and develop a Floodplain Management Plan for Peters Township to meet the requirements of the National Flood Insurance Program (NFIP).	Staff Time	Within 2 years
3D3	Flood, Flash Flood & Ice Jam	Research and develop a Floodplain Management Plan for Chambersburg Borough to meet the requirements of the National Flood Insurance Program (NFIP).	Staff Time	Within 2 years
3E1	Wildfire	Enroll municipalities in the Firewise program. Encourage municipalities to reduce the vulnerability of critical facilities to wildfire by methods such as: increasing buffers and introduction of defensive spaces, identifying potential fire breaks, and providing assistance to FCDES to identify vulnerable structures.	Staff Time; County General Account; FEMA Hazard Mitigation assistance Programs	Within 1 year
3E2	Winter Storm; Hurricane, Tropical Storm & Nor’easter; Tornado/ Windstorm; Lightning Strike; Hailstorm; Flood, Flash Flood & Ice Jam	Continue participation in the National Weather Service StormReady Program.	Staff Time	Continuous
4A1	Flood, Flash Flood & Ice Jam	Evaluate the area of Mickey’s Inn Trailer Park for possible acquisition and repurpose under the Flood Mitigation Program.	Staff Time; Municipal General Account; FEMA Hazard Mitigation Assistance Programs	Within 5 years
4A2	Flood, Flash Flood & Ice Jam	Evaluate the area of Lincoln Dell Camping Area for possible acquisition and repurpose under the Flood Mitigation Program.	Staff Time; Municipal General Account; FEMA Hazard Mitigation Assistance Programs	Within 5 years

Table 6.4.14: Franklin County HMP – 2018 Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
4A3	Flood, Flash Flood & Ice Jam	Identify underdeveloped floodplain and wetland areas through the enforcement of county or municipal Subdivision and Land Development Ordinances (SALDO's), and when available, seek grants to acquire public open space for passive recreational uses in an effort to minimize/prevent potential flooding damages and enhance the regional environment.	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population); FEMA Hazard Mitigation Assistance Programs	Within 5 years
4A4	Flood, Flash Flood & Ice Jam	Establish a voluntary acquisition program of floodway properties (McClays Mill Rd, along the Conodoquinet Creek) based on Fair Market Value. Retain in public ownership and rezone as a conservation area.	Staff Time; Municipal General Account; FEMA Hazard Mitigation Assistance Programs	Within 5 years
4A5	Flood, Flash Flood & Ice Jam	Research, identify, and pursue acquisition of land parcels/structures in floodplains for demolition and relocation to reduce exposure to flood damage losses, to include options for mitigation reconstruction for homeowners that are reluctant to relocate.	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs	Within 5 years
4B1	Flood, Flash Flood & Ice Jam	Encourage municipalities to update their storm water regulations as needed. A model PA DEP Ordinance is available online that can be used.	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population); FEMA Hazard Mitigation Assistance Programs	Within 2 years
4B2	Flood, Flash Flood & Ice Jam	Ensure proper enforcement of municipal Floodplain Ordinances.	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population)	Continuous
4B3	Drought	Update and implement a comprehensive water resources management plan that analyzes the County's anticipated water use in an effort to identify suspected water supply shortages and potential new water supply sources.	Staff Time; FEMA Hazard Mitigation Assistance Programs	Within 3 years
4B4	Flood, Flash Flood & Ice Jam	Ensure municipal compliance with local watershed-specific Act 167 Storm Water Management Plan 2001 and Ordinances.	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population)	Continuous
4B5	Flood, Flash Flood & Ice Jam	Conduct drainage system and ditch line maintenance & upgrades throughout the county to prevent roadway flooding. Ensure existing drainage systems are adequate and functioning properly in order to reduce impacts related to flash flooding and storm water runoff.	Community Development Block Grant (CDBG); DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)	Within 5 years
4B6	Dam Failure	Perform preliminary/conceptual design work and permitting for the upgrade to the Antietam Dam spillway to meet the required capacity for 100% of the Probable Maximum Flood level.	Staff Time; Municipal General Account; FEMA Hazard Mitigation Assistance Programs	Within 5 years

Table 6.4.15: Franklin County HMP – 2018 Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Action #	Hazard Assessed	Mitigation Action Description	Possible Funding	Performance Period
4C1	All Hazards	Monitor and evaluate mitigation actions annually and update the Hazard Mitigation Plan every five years.	Staff Time; FEMA Hazard mitigation Assistance Programs	Continuous
4C2	All Hazards	Continue to refine the Hazard Mitigation Planning Committee list to broaden participation throughout the entire Franklin County community. Conduct biannual meetings to discuss current trends in risk and/or required HMP updates.	Staff Time	Continuous
4C3	Hailstorm; Winter Storm; Tornado/ Windstorm; Hurricane, Tropical Storm & Nor'easter; Flood, Flash Flood & Ice Jam; Extreme Temperatures; Drought	Partner with the local PSU Agriculture Extension to look into crop insurance saturation rates in the county to determine the availability of insurance and any cost prohibitive factors that may be present.	Staff Time	Within 3 years

Table 6.4.16: Franklin County HMP – 2018 Mitigation Actions

The 2018 HMP originally had 133 Mitigation Actions. As part of the 2019 Annual Update, the Waynesboro Municipal Authority submitted a mitigation action to address a proposed structural upgrade to the Antietam Dam Spillway. This action was submitted and approved by both PEMA and FEMA (See **Appendix C, Figures C.37.1 – C.37.8**). It was integrated and prioritized as number 47 in our updated Mitigation Action Plan for the 2019 Annual Update.

These 134 Mitigation Actions will require substantial time commitments from staff at the county and local municipalities. Those that participated in the development of the 2020 HMP Update believe that these actions are attainable and can be implemented over the next 5-year cycle. While all activities will be pursued over the next 5 years, the reality of limited time and resources requires the identification of high-priority mitigation actions. Prioritization allows the individuals and organizations involved to focus their energies and ensure progress on mitigation activities.

As such, these Mitigation Actions were evaluated using 11 criteria/factors. Ten (10) were directly taken from the *FEMA Local Mitigation Planning Handbook*. We added 1 to evaluate potential cost. These feasibility criteria/factors are listed in **Table 6.4.17** below and have been prioritized and weighted to make sure those factors most important to our community are given due regard.

Franklin County Hazard Mitigation Plan - 2018

Rank	Wt	Evaluation Criteria
1	4	Life Safety: Will the action directly protect lives and prevent injuries?
2	4	Property Protection: Will the action significantly eliminate or reduce damage to structures and infrastructure?
3	3	Technical: Is the mitigation action technically feasible?
4	2	Legal: Does the community have the authority to implement the proposed measure?
5	2	Environmental: Will the action provide environmental benefits and will it comply with local, state, and federal environmental regulations?
6	1	Political: Does the action have public and political support?
7	1	Cost: Is the cost of the project balanced by the cost avoidance of future disasters?
8	1	Administrative: Is there adequate staffing and funding available to implement the action in a timely manner?
9	1	Local Champion: Is there a strong advocate for the action or project among local departments and agencies who will support the action’s implementation?
10	1	Social: Will the action be acceptable to the community or will it cause any one segment of the population to be disproportionately impacted?
11	1	Other Community Objectives: Does the action support the community’s Comprehensive Plan? Does it impact more than one hazard?

Table 6.4.17: Evaluation Factors for Proposed Mitigation Actions

Each mitigation action was evaluated on each of the factors outlined in **Table 6.4.1.17**. Each factor could be rated with 1 of 3 possible responses. These responses are listed and explained in **Table 6.4.18** below.

Possible Response	Explanation
1	Action meets or exceeds the evaluation criteria.
0	Evaluation criteria is not applicable to or not fully met by the proposed action.
-1	Action does not meet the evaluation criteria or has possible negative consequences.

Table 6.4.18: Possible Scoring Response to Evaluate Mitigation Action Factors

Each of these responses was multiplied by their associated factor weight to produce a factor score. These factor scores (for each mitigation) were added together to achieve a cumulative

Franklin County Hazard Mitigation Plan - 2018

total for the mitigation action evaluation. These composite numbers were then ranked based on highest score being the most important mitigation action and the lowest score being the least important. This methodology was discussed and approved by the HMPT at the 30 Apr 2018 HMP Update meeting (see **Appendix B** for meeting minutes). The results of this scoring are outlined in **Tables 6.4.19-6.4.3.22** below. Refer to **Appendix L** to view the rationale for the scoring of the each Mitigation Action seen in the tables below.

Franklin County Hazard Mitigation Plan - 2018

Rank	ID	Life Safety (4)	Property Protection (4)	Technical (3)	Legal (2)	Environmental (2)	Political (1)	Cost (1)	Administrative (1)	Local Champion (1)	Social (1)	Other Community Objectives (1)	Total Score
1	1C2	1	1	1	1	1	1	1	1	1	1	0	20
2	1D4	1	1	1	1	1	1	1	0	1	1	0	19
3	3B21	1	1	1	1	1	1	1	0	1	1	0	19
4	3B22	1	1	1	1	1	1	1	0	1	1	0	19
5	3D2	1	1	1	1	1	1	1	0	1	1	0	19
6	3D3	1	1	1	1	1	1	1	0	1	1	0	19
7	1F2	1	1	1	1	0	1	1	1	1	1	1	19
8	2C5	1	1	1	1	0	1	1	1	1	1	1	19
9	4B4	1	1	1	1	1	0	1	0	1	1	0	18
10	1D7	1	1	1	1	1	0	0	1	1	0	1	18
11	3E2	1	1	1	1	0	1	1	1	1	0	1	18
12	2C1	1	1	1	1	0	1	1	1	1	0	1	18
13	2B1	1	1	1	1	0	1	1	0	1	1	1	18
14	2A7	1	1	1	1	0	1	1	0	1	1	0	17
15	3B2	1	1	1	1	1	1	-1	0	1	1	0	17
16	3B3	1	1	1	1	1	1	-1	0	1	1	0	17
17	3B4	1	1	1	1	1	1	-1	0	1	1	0	17
18	3B5	1	1	1	1	1	1	-1	0	1	1	0	17
19	3B6	1	1	1	1	1	1	-1	0	1	1	0	17
20	3B7	1	1	1	1	1	1	-1	0	1	1	0	17
21	3B8	1	1	1	1	1	1	-1	0	1	1	0	17
22	3B9	1	1	1	1	1	1	-1	0	1	1	0	17
23	3B10	1	1	1	1	1	1	-1	0	1	1	0	17
24	3B11	1	1	1	1	1	1	-1	0	1	1	0	17
25	3B12	1	1	1	1	1	1	-1	0	1	1	0	17
26	3B13	1	1	1	1	1	1	-1	0	1	1	0	17
27	3B14	1	1	1	1	1	1	-1	0	1	1	0	17
28	3B15	1	1	1	1	1	1	-1	0	1	1	0	17
29	3B16	1	1	1	1	1	1	-1	0	1	1	0	17
30	3B17	1	1	1	1	1	1	-1	0	1	1	0	17
31	3B18	1	1	1	1	1	1	-1	0	1	1	0	17
32	3B19	1	1	1	1	1	1	-1	0	1	1	0	17
33	3B20	1	1	1	1	1	1	-1	0	1	1	0	17
34	2C2	1	1	1	1	0	1	1	0	1	0	1	17
35	2A5	1	1	1	1	0	1	1	0	1	0	1	17
36	1F1	1	1	1	1	0	1	1	0	1	0	1	17

Table 6.4.19: Scoring of Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Rank	ID	Life Safety (4)	Property Protection (4)	Technical (3)	Legal (2)	Environmental (2)	Political (1)	Cost (1)	Administrative (1)	Local Champion (1)	Social (1)	Other Community Objectives (1)	Total Score
37	1C6	1	1	1	1	0	1	1	0	1	0	1	17
38	1C30	1	1	1	1	0	1	1	0	1	0	1	17
39	1C31	1	1	1	1	0	1	1	0	1	0	1	17
40	1C32	1	1	1	1	0	1	1	0	1	0	1	17
41	1C33	1	1	1	1	0	1	1	0	1	0	1	17
42	1C34	1	1	1	1	0	1	1	0	1	0	1	17
43	1C35	1	1	1	1	0	1	1	0	1	0	1	17
44	1C36	1	1	1	1	0	1	1	0	1	0	1	17
45	1C37	1	1	1	1	0	1	1	0	1	0	1	17
46	2B2	1	1	1	1	0	1	0	0	1	1	1	17
47	4B6	1	1	1	1	0	1	-1	1	1	1	1	17
48	4B2	1	1	1	0	1	1	1	1	1	0	0	17
49	3A3	1	1	1	0	1	1	1	0	1	0	1	17
50	3A10	1	0	1	1	1	1	1	1	1	1	1	17
51	3A7	0	1	1	1	1	1	1	1	1	1	1	17
52	3A8	0	1	1	1	1	1	1	1	1	1	1	17
53	3A9	0	1	1	1	1	1	1	1	1	1	1	17
54	3A4	1	1	1	1	1	0	0	0	1	-1	1	16
55	2A10	1	1	1	1	0	1	1	0	1	0	0	16
56	2A2	1	1	1	1	0	1	1	0	1	0	0	16
57	2A4	1	1	1	1	0	1	1	0	1	-1	1	16
58	1C16	1	1	1	1	0	1	-1	1	1	1	0	16
59	1C17	1	1	1	1	0	1	-1	1	1	1	0	16
60	1A5	1	1	1	1	0	1	-1	0	1	1	1	16
61	1C9	1	1	1	0	1	1	1	0	1	-1	1	16
62	2C3	1	1	1	0	0	1	1	1	1	1	0	16
63	1C5	0	1	1	1	1	1	1	1	1	1	0	16
64	3A1	0	1	1	1	1	1	1	0	1	1	1	16
65	1C8	1	1	1	1	1	0	1	-1	0	0	0	15
66	1C14	1	1	1	1	1	0	-1	0	1	-1	1	15
67	3D1	1	1	1	1	0	1	0	0	1	0	0	15
68	1C26	1	1	1	1	0	1	-1	1	1	0	0	15
69	1C24	1	1	1	1	0	1	-1	0	1	1	0	15
70	1C28	1	1	1	1	0	1	-1	0	1	1	0	15
71	1A6	1	1	1	1	0	1	-1	0	1	1	0	15
72	1D2	1	1	1	1	0	-1	1	0	1	0	1	15

Table 6.4.20: Scoring of Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Rank	ID	Life Safety (4)	Property Protection (4)	Technical (3)	Legal (2)	Environmental (2)	Political (1)	Cost (1)	Administrative (1)	Local Champion (1)	Social (1)	Other Community Objectives (1)	Total Score
73	3A2	1	1	1	0	1	0	1	0	1	0	0	15
74	3E1	1	1	1	0	1	0	1	0	1	0	0	15
75	1C4	1	1	1	0	1	0	0	1	1	0	0	15
76	2C6	1	1	1	0	0	1	1	0	1	1	0	15
77	1D6	1	1	1	0	0	0	1	0	1	1	1	15
78	2C4	1	1	1	-1	1	0	1	1	1	0	1	15
79	1B2	1	0	1	1	0	1	1	1	1	1	1	15
80	1A3	1	0	1	1	0	1	1	1	1	1	1	15
81	2B4	0	1	1	1	1	1	1	0	1	1	0	15
82	3A6	0	1	1	1	1	1	1	0	1	1	0	15
83	3A5	0	1	1	1	1	0	1	0	1	1	1	15
84	4B5	1	1	1	0	1	0	0	0	1	0	0	14
85	1C19	1	1	1	0	0	1	0	1	1	0	0	14
86	4A5	1	1	1	-1	1	1	0	0	1	1	0	14
87	1B1	1	0	1	1	0	1	1	0	1	1	1	14
88	1E4	0	1	1	1	1	1	1	0	1	0	0	14
89	4B3	0	1	1	1	1	1	0	0	1	1	0	14
90	1A2	0	1	1	1	1	1	0	-1	1	1	1	14
91	2A8	0	1	1	1	0	1	1	0	1	1	1	14
92	4B1	1	1	1	0	1	0	0	0	1	-1	0	13
93	4A3	1	1	1	0	1	0	0	0	1	-1	0	13
94	3B1	1	1	1	0	1	0	-1	0	1	0	0	13
95	2B3	1	1	1	0	0	1	0	0	1	0	0	13
96	1C20	1	1	1	0	0	1	-1	0	1	1	0	13
97	1C21	1	1	1	0	0	1	-1	0	1	1	0	13
98	1C22	1	1	1	0	0	1	-1	0	1	1	0	13
99	1C23	1	1	1	0	0	1	-1	0	1	1	0	13
100	1C25	1	1	1	0	0	1	-1	0	1	1	0	13
101	1C13	1	1	1	0	0	0	1	0	0	0	1	13
102	4A1	1	1	1	-1	1	1	0	0	1	0	0	13
103	4A2	1	1	1	-1	1	1	0	0	1	0	0	13
104	4A4	1	1	1	-1	1	1	0	0	1	0	0	13
105	1E1	1	1	0	1	0	0	0	0	1	1	1	13
106	1E2	1	0	1	1	0	1	1	0	1	1	0	13
107	2A6	1	0	1	1	0	1	1	0	1	1	0	13
108	1E3	1	0	1	1	0	1	1	0	1	1	0	13

Table 6.4.21: Scoring of Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

Rank	ID	Life Safety (4)	Property Protection (4)	Technical (3)	Legal (2)	Environmental (2)	Political (1)	Cost (1)	Administrative (1)	Local Champion (1)	Social (1)	Other Community Objectives (1)	Total Score
109	4C3	0	1	1	1	0	1	1	0	1	0	1	13
110	1D8	0	0	1	1	1	1	1	1	1	1	1	13
111	1C18	1	1	1	0	0	0	-1	0	1	1	0	12
112	1C10	1	1	1	0	0	0	-1	0	1	0	1	12
113	1C7	1	1	1	0	0	0	-1	0	1	0	1	12
114	1A4	1	0	1	1	0	1	1	0	1	-1	1	12
115	1C29	1	0	1	1	0	1	-1	0	1	1	1	12
116	1B3	1	0	1	1	0	1	-1	0	1	1	1	12
117	1C12	0	1	1	0	1	1	0	0	1	0	1	12
118	1C3	0	0	1	1	0	1	1	1	1	1	1	12
119	1C11	1	1	1	0	1	0	-1	0	0	-1	0	11
120	1B4	0	1	1	1	0	0	-1	0	1	1	1	11
121	1C1	0	0	1	1	0	1	1	1	1	1	1	12
122	4C1	0	0	1	1	0	1	1	1	1	1	1	11
123	1D1	0	0	1	1	0	1	1	1	1	1	1	11
124	1A1	0	0	1	1	0	1	1	1	1	1	1	11
125	1C27	1	1	1	-1	0	1	-1	0	1	0	0	10
126	1D9	1	1	0	1	0	-1	-1	0	1	1	0	10
127	4C2	0	0	1	1	0	1	1	1	1	0	1	10
128	3C1	0	0	1	1	0	1	1	0	1	1	1	10
129	1D3	0	0	1	1	0	1	1	0	1	1	1	10
130	2A1	0	0	1	1	0	1	1	0	1	1	1	10
131	1C15	0	0	1	1	0	1	1	0	1	1	0	9
132	2A3	0	0	1	1	0	1	1	0	1	0	1	9
133	1D5	0	1	1	0	0	0	-1	0	1	0	1	8
134	2A9	0	0	1	-1	1	1	1	0	1	0	0	6

Table 6.4.22: Scoring of Mitigation Actions

Each of the actions in **Figures 6.4.1-6.4.134** below document the community or communities participating in the action, the overall ranking for the action, action description, mitigation technique(s), hazard(s) addressed, the lead agency or department, implementation schedule, and potential funding sources.

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County	ACTION 1C2: Develop a comprehensive assessment and safety exam of all SARA facilities every two years.
ACTION #: 1	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Environmental Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, HAZMAT Coordinator
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; Hazardous Materials Response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account

Figure 6.4.1: Mitigation Action 1

COMMUNITY: Franklin County	ACTION 1D4: Coordinate with Local USDA and PSU Agriculture Extension representatives to develop a Mass Food Contamination annex to the Franklin County Emergency Operations Plan.
ACTION #: 2	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Mass Food & Animal Feed Contamination
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Planning Coordinator
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.2: Mitigation Action 2

COMMUNITY: Mercersburg Borough	ACTION 3B21: Research and develop a Stormwater Management Plan for Mercersburg Borough in compliance with DEP's Act 167.
ACTION #: 3	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Mercersburg Borough EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.3: Mitigation Action 3

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Orrstown Borough	ACTION 3B22: Research and develop a Stormwater Management Plan for Orrstown Borough in compliance with DEP's Act 167.
ACTION #: 4	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Orrstown Borough EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.4: Mitigation Action 4

COMMUNITY: Peters Township	ACTION 3D2: Research and develop a Floodplain Management Plan for Peters Township to meet the requirements of the National Flood Insurance Program (NFIP).
ACTION #: 5	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Peters Township EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.5: Mitigation Action 5

COMMUNITY: Chambersburg Borough	ACTION 3D3: Research and develop a Floodplain Management Plan for Chambersburg Borough to meet the requirements of the National Flood Insurance Program (NFIP).
ACTION #: 6	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Chambersburg Borough EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.6: Mitigation Action 6

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Greene Township	ACTION 1F2: Perform a fire & EMS services study throughout the Township to assess and identify causes and/or solutions to the decline in first responder volunteerism.
ACTION #: 7	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	Staff Time; PA Department of Community and Economic Development (DCED) – Municipal Assistance Program

Figure 6.4.7: Mitigation Action 7

COMMUNITY: Greene Township	ACTION 2C5: Establish program to educate residents on emergency management.
ACTION #: 8	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time; PEMA Sponsored Training, FEMA - EMI Institute; FCDES Training Budget; Hazardous Materials Response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.8: Mitigation Action 8

COMMUNITY: Franklin County & All Municipalities	ACTION 4B4: Ensure municipal compliance with local watershed-specific Act 167 Storm water Management Plan 2001 and Ordinances.
ACTION #: 9	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department, Planner; Local Government Plans Official
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population)

Figure 6.4.9: Mitigation Action 9

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Municipalities	ACTION 1D7: Work with Public Works and PennDOT to identify high hazard roads in mountain passes and cut-areas to identify potential initiatives for cut-backs off the right-of-way, fence, or wall/barrier projects to mitigate the damage of rockslide or falling debris hazards.
ACTION #: 10	
MITIGATION TECHNIQUE(S):	Structure and Infrastructure Projects; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Landslide; Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Local Government, Public Works Supervisor
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery (TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)

Figure 6.4.10: Mitigation Action 10

COMMUNITY: Franklin County & All Municipalities	ACTION 3E2: Continue/start participation in the National Weather Service StormReady Program.
ACTION #: 11	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	Winter Storm; Hurricane Tropical Storm, Nor'easter; Tornado/Windstorm; Lightning Strike; Hail Storm; Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, EMC; Local EMCs
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time

Figure 6.4.11: Mitigation Action 11

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County	ACTION 2C1: On an annual basis, conduct Municipal Officials training and/or state sponsored training courses to address hazard mitigation topics, such as Damage Assessment, Storm Water Management, Mutual Aid Agreements, Public Disaster Assistance, and the Hazard Mitigation Grant Program.
ACTION #: 12	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Operations & Training Officer
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; PEMA Sponsored training, FEMA - EMI Institute; FCDES Training Budget; Hazardous Materials Response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.12: Mitigation Action 12

COMMUNITY: Franklin County	ACTION 2B1: Continue to maintain webpages where presentations, training documentation, and webinars can be posted. This will allow municipal officials to access the information at their own schedule and pace.
ACTION #: 13	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County IS, Application Support Specialist
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time

Figure 6.4.13: Mitigation Action 13

COMMUNITY: Franklin County	ACTION 2A7: Create information pamphlets and outreach programs to discuss the older building codes and subsequent deficiencies in snow load capabilities for citizens with older homes in the County
ACTION #: 14	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Winter Storm
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department, Planner
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time; PEMA Sponsored training, FEMA - EMI Institute; FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.14: Mitigation Action 14

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Greene Township	ACTION 3B2: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Chambersburg Borough to SR 11).
ACTION #: 15	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.15: Mitigation Action 15

COMMUNITY: Greene Township	ACTION 3B3: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From SR 11 to Cornertown Rd.).
ACTION #: 16	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.16: Mitigation Action 16

COMMUNITY: Greene Township	ACTION 3B4: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Cornertown Rd. to Sycamore Grove Rd.).
ACTION #: 17	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.17: Mitigation Action 17

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Greene Township	ACTION 3B5: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Sycamore Grove Rd. to Scotland Main St. at rail road overpass).
ACTION #: 18	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.18: Mitigation Action 18

COMMUNITY: Greene Township	ACTION 3B6: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Scotland Main St. at rail road overpass to Scotland Rd.).
ACTION #: 19	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.19: Mitigation Action 19

COMMUNITY: Greene Township	ACTION 3B7: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Scotland Rd. to Interstate I-81).
ACTION #: 20	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.20: Mitigation Action 20

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Greene Township	ACTION 3B8: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Interstate I-81 to Brindle Rd.).
ACTION #: 21	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.21: Mitigation Action 21

COMMUNITY: Greene Township	ACTION 3B9: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Brindle Rd. to Woodstock Rd.).
ACTION #: 22	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.22: Mitigation Action 22

COMMUNITY: Greene Township	ACTION 3B10: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Brindle Rd. to Main St. Fayetteville).
ACTION #: 23	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.23: Mitigation Action 23

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Greene Township	ACTION 3B11: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Woodstock Rd. to Mt Pleasant Rd.).
ACTION #: 24	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.24: Mitigation Action 24

COMMUNITY: Greene Township	ACTION 3B12: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Mt Pleasant Rd. to Area East of Mt Shadow Subdivision).
ACTION #: 25	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.25: Mitigation Action 25

COMMUNITY: Greene Township	ACTION 3B13: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Mt Pleasant Rd. to Brookens Rd.).
ACTION #: 26	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.26: Mitigation Action 26

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Greene Township	ACTION 3B14: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Brookens Rd. to Ridge Rd.).
ACTION #: 27	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.27: Mitigation Action 27

COMMUNITY: Greene Township	ACTION 3B15: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Mt Pleasant Rd. to Coldspring Rd.).
ACTION #: 28	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.28: Mitigation Action 28

COMMUNITY: Greene Township	ACTION 3B16: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Coldspring Rd. to SR 997 (Black Gap Road)).
ACTION #: 29	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.29: Mitigation Action 29

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Greene Township	ACTION 3B17: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Coldspring Rd. to SR 30 (Lincoln Way East)).
ACTION #: 30	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.30: Mitigation Action 30

COMMUNITY: Greene Township	ACTION 3B18: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From SR 997 (Black Gap Road) to Houser Rd.).
ACTION #: 31	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.31: Mitigation Action 31

COMMUNITY: Greene Township	ACTION 3B19: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From SR 997 (Black Gap Rd) to SR 30 (Lincoln Way East)).
ACTION #: 32	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.32: Mitigation Action 32

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Greene Township	ACTION 3B20: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From SR 30 (Lincoln Way East) to South of SR 30 (Lincoln Way East)).
ACTION #: 33	
MITIGATION TECHNIQUE(S):	Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.33: Mitigation Action 33

COMMUNITY: Franklin County & All Municipalities	ACTION 2C2: Identify and implement incentives to encourage municipal officials to participate in fire prevention and response training.
ACTION #: 34	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	Urban Fire & Explosion
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, EMC; Local EMCs
IMPLEMENTATION SCHEDULE:	Within 1 year
FUNDING SOURCE:	Staff Time; PEMA Sponsored training, FEMA - EMI Institute; FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.34: Mitigation Action 34

COMMUNITY: Franklin County & All Municipalities	ACTION 2A5: Conduct outreach to residents of mobile home parks or trailers on how and why to anchor trailers to protect against severe weather conditions.
ACTION #: 35	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	Tornado/Windstorm, Hurricane, Tropical Storm, Nor'easter, Winter Storm
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Operations & Training Officer; Local EMCs
IMPLEMENTATION SCHEDULE:	Within 1 year
FUNDING SOURCE:	Staff Time; PEMA Sponsored training, FEMA - EMI Institute; FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.35: Mitigation Action 35

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County	ACTION 1F1: Partner with the Franklin County Public Safety Training Center (FCPSTC), the Franklin County Fire Chiefs Association (FCFCA), the Emergency Alliance, and other first responder groups in the county to organize and execute outreach programs and open houses to educate the community on responder capabilities and showcase opportunities for community service.
ACTION #: 36	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Operation & Training Officer
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; FCFCA/FCPSTC Training Account; County General Account

Figure 6.4.36: Mitigation Action 36

COMMUNITY: Franklin County & All Municipalities	ACTION 1C6: Conduct hazard response practice drills and emergency management exercises on an annual basis.
ACTION #: 37	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, EMC; Local EMCs
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; Hazardous Materials Response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account; County/Municipal General Account

Figure 6.4.37: Mitigation Action 37

COMMUNITY: Hamilton Township	ACTION 1C30: Research and develop a Continuity of Operations Plan (COOP) for Hamilton Township to assure the continuous operations of critical facilities and services during disasters/emergencies.
ACTION #: 38	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Hamilton Township EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.38: Mitigation Action 38

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Waynesboro Borough	ACTION 1C31: Research and develop a Continuity of Operations Plan (COOP) for Waynesboro Borough to assure the continuous operations of critical facilities and services facilities during disasters/emergencies.
ACTION #: 39	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Waynesboro Borough EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.39: Mitigation Action 39

COMMUNITY: Waynesboro Borough	ACTION 1C32: Research and develop a Continuity of Operations Plan (COOP) for Quincy Township to assure the continuous operations of critical facilities and services facilities during disasters/emergencies.
ACTION #: 40	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Quincy Township EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.40: Mitigation Action 40

COMMUNITY: Guilford Township	ACTION 1C33: Research and develop a Continuity of Operations Plan (COOP) for Guilford Township to assure the continuous operations of critical facilities and services facilities during disasters/emergencies.
ACTION #: 41	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Guilford Township EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.41: Mitigation Action 41

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Washington Township	ACTION 1C34: Research and develop a Continuity of Operations Plan (COOP) for Washington Township to assure the continuous operations of critical facilities and services facilities during disasters/emergencies.
ACTION #: 42	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Washington Township EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.42: Mitigation Action 42

COMMUNITY: Antrim Township	ACTION 1C35: Research and develop a Continuity of Operations Plan (COOP) for Antrim Township to assure the continuous operations of critical facilities and services facilities during disasters/emergencies.
ACTION #: 43	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Antrim Township EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.43: Mitigation Action 43

COMMUNITY: Montgomery Township	ACTION 1C36: Research and develop a Continuity of Operations Plan (COOP) for Montgomery Township to assure the continuous operations of critical facilities and services facilities during disasters/emergencies.
ACTION #: 44	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Montgomery Township EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.44: Mitigation Action 44

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Warren Township	ACTION 1C37: Research and develop a Continuity of Operations Plan (COOP) for Warren Township to assure the continuous operations of critical facilities and services during disasters/emergencies.
ACTION #: 45	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Warren Township EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.45: Mitigation Action 45

COMMUNITY: Franklin County	ACTION 2B2: Increase funding and resources for public outreach and education with focused programs designed to address the highest risks in the community with the goal of reducing community risk and the cost of emergencies in the community.
ACTION #: 46	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Director
IMPLEMENTATION SCHEDULE:	Within 1 year
FUNDING SOURCE:	Staff Time; County General Account; PEMA Sponsored training, FEMA - EMI Institute; FCDES Training Budget; Hazardous Materials Response Fund (HMRP) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.46: Mitigation Action 46

COMMUNITY: Washington Township	ACTION 4B6: Perform preliminary/conceptual design work and permitting for the upgrade to the Antietam Dam spillway to meet the required capacity for 100% of the Probable Maximum Flood level.
ACTION #: 47	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Dam Failure; Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Waynesboro Borough Authority
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	Staff Time; Municipal General Account; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.47: Mitigation Action 47

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County	ACTION 4B2: Ensure proper enforcement of municipal Floodplain Ordinances.
ACTION #: 48	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects; Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department, Planner
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population)

Figure 6.4.48: Mitigation Action 48

COMMUNITY: Franklin County & All Municipalities	ACTION 3A3: Adopt and support codes that restrict building and developing in areas identified as being high risk for natural and man-made incidents.
ACTION #: 49	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department, Planner; Local Government Plans Official
IMPLEMENTATION SCHEDULE:	Within 3 years
FUNDING SOURCE:	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population)

Figure 6.4.49: Mitigation Action 49

COMMUNITY: Shippensburg Borough	ACTION 3A10: Research, assess, and if feasible, develop an Evacuation Plan for Shippensburg Borough (Franklin County) to address large scale disaster scenarios.
ACTION #: 50	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Shippensburg Borough EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); Community Development Block Grants; USDA Rural Development Water and Environmental (WEP) Programs (population under 10,000)

Figure 6.4.50: Mitigation Action 50

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Fannett Township Lurgan Township Letterkenny Township ACTION #: 51	ACTION 3A7: Coordinate between Lurgan Township, Letterkenny Township, and Fannett Township to update their Joint Comprehensive Plan, last update was in 2007.
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Lurgan Township EMC, Letterkenny Township EMC, and Fannett Township EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); Community Development Block Grants; USDA Rural Development Water and Environmental (WEP) Programs (population under 10,000)

Figure 6.4.51: Mitigation Action 51

COMMUNITY: Greencastle Borough ACTION #: 52	ACTION 3A8: Research, assess, and if feasible, develop a Comprehensive Land Use plan to guide the future development actions of Greencastle Borough.
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Greencastle Borough EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); Community Development Block Grants; USDA Rural Development Water and Environmental (WEP) Programs (population under 10,000)

Figure 6.4.52: Mitigation Action 52

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Mont Alto Borough	ACTION 3A9: Research, assess, and if feasible, develop a Comprehensive Land Use plan to guide the future development actions of Mont Alto Borough.
ACTION #: 53	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Mont Alto Borough EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); Community Development Block Grants; USDA Rural Development Water and Environmental (WEP) Programs (population under 10,000)

Figure 6.4.53: Mitigation Action 53

COMMUNITY: Franklin County & All Municipalities	ACTION 3A4: Continue to stringently enforce all building codes in effect.
ACTION #: 54	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department, Planner; Local Governments Plans Official
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population)

Figure 6.4.54: Mitigation Action 54

COMMUNITY: Franklin County; PSU Agriculture Extension	ACTION 2A10: Work with PSU Agriculture Extension to develop an information Pamphlet on lightning arrestors and implementation of these devices on barns and out-buildings to protect against lightning strike fires and livestock deaths.
ACTION #: 55	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Lightning Strike
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Planning Coordinator; PSU Ag Extension Representative
IMPLEMENTATION SCHEDULE:	Within 1 year
FUNDING SOURCE:	Staff Time; County General Account; PEMA Sponsored training, FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs; USDA Grants

Figure 6.4.55: Mitigation Action 55

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County	ACTION 2A2: Where acquisition is not feasible, advise homeowners/businesses of preferred mitigation alternatives (e.g. elevation & floodproofing).
ACTION #: 56	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department, Planner
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; County General Account; PEMA Sponsored Training, FEMA - EMI Institute; FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.56: Mitigation Action 56

COMMUNITY: Franklin County & All Municipalities	ACTION 2A4: Improve communications between the public and emergency management services through social media (i.e. Facebook & Twitter).
ACTION #: 57	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, EMC; Local EMCs
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; County General Account; DHS – Homeland Security Grant Program (HSGP)

Figure 6.4.57: Mitigation Action 57

COMMUNITY: Greene Township	ACTION 1C16: Install traffic signal to mitigate accidents at intersection (Grand Point Rd. and North Parkwood Dr.).
ACTION #: 58	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery (TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)

Figure 6.4.58: Mitigation Action 58

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Greene Township	ACTION 1C17: Collect data and engineer a solution to reduce congestion and number of accidents at critical intersection (Kohler Rd. at Walker Rd.)
ACTION #: 59	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery (TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)

Figure 6.4.59: Mitigation Action 59

COMMUNITY: Greene Township	ACTION 1A5: Design and implement an Mass Emergency Notification System for Greene Township. Township emergency notification system would contact residents within a geographical area of emergencies such as flooding, hazardous materials incidents, evacuations, police and fire related incidents.
ACTION #: 60	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	DHS – Homeland Security Grant Program (HSGP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.60: Mitigation Action 60

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County	<u>ACTION 1C9:</u> Foster increased cooperation and communications between Franklin County EMC and the owners of privately held dams that might impact downstream communities through outreach, education, and dam failure scenarios or exercises, as appropriate.
ACTION #: 61	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Dam Failure; Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time; National Dam Safety Program; Pennsylvania Infrastructure Investment Authority (PENNVEST) Loan and Grant Program; H2O PA Grant Program; Growing Greener; Dam Owners

Figure 6.4.61: Mitigation Action 61

COMMUNITY: Franklin County & All Municipalities	<u>ACTION 2C3:</u> Promote inter and intra-agency coordination on potential terrorist activity. This can be accomplished through training, exercises, and networked information systems.
ACTION #: 62	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Terrorism
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, EMC; Local EMCs
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; PEMA Sponsored training, FEMA - EMI Institute; FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.62: Mitigation Action 62

COMMUNITY: Franklin County	<u>ACTION 1C5:</u> Develop and maintain a cache of hazardous materials mitigation supplies for deployment as needed.
ACTION #: 63	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Environmental Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, HAZMAT Coordinator
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Hazardous Materials Response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account

Figure 6.4.63: Mitigation Action 63

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County	ACTION 3A1: Map new housing developments as plans are approved for the purpose of emergency and land use planning.
ACTION #: 64	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County IS, GIS Specialist; Franklin County Plans Department, Planner
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time

Figure 6.4.64: Mitigation Action 64

COMMUNITY: Franklin County	ACTION 1C8: Upgrade/maintain Radiological Emergency Preparedness activities, Radiological Testing/Response Equipment, and Franklin County Annex E for the Three Mile Island Power Station to ensure they comply with FEMA’s 2016 Radiological Preparedness Program guidance.
ACTION #: 65	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Nuclear Incident
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Radiological Officer
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; Radiological Emergency Response Fund (RERF) Grant; Hazardous Materials Response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account

Figure 6.4.65: Mitigation Action 65

COMMUNITY: Metal Township	ACTION 1C14: Develop plans and coordinate the breaching of the W. H. Walker Dam in Fannettsburg. Work with DEP and Army Corps of Engineers to breach dam due to abandonment and disrepair to prevent inundation to the Path Valley area.
ACTION #: 66	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Dam Failure; Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Metal Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	Staff Time; Municipal General Account; National Dam Safety Program Grant; Pennsylvania Infrastructure Investment Authority (PENNVEST) Loan and Grant Program; H2O PA – High Hazard Unsafe Dam Projects; Growing Greener; Dam Owners; American Rivers Association; Ducks Unlimited; USACE Silver Jackets

Figure 6.4.66: Mitigation Action 66

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County	ACTION 3D1: Encourage municipal compliance with NFIP and PA Act 166 Floodplain development regulations and/or encourage more restrictive requirements, as appropriate by conducting training and inspection workshops.
ACTION #: 67	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department, Planner
IMPLEMENTATION SCHEDULE:	Within 3 years
FUNDING SOURCE:	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population)

Figure 6.4.67: Mitigation Action 67

COMMUNITY: Greene Township	ACTION 1C26: Study the feasibility of replacing the one lane bridge over Mountain Run at Coldsmith Rd and White Church Rd to reduce accidents. Engineer, plan, and implement solutions to address the deficiencies found.
ACTION #: 68	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery (TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)

Figure 6.4.68: Mitigation Action 68

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Greene Township	ACTION 1C24: Perform traffic study to address the sight distance at intersection. (Mower Rd. and Walker Rd.). Engineer, plan, and implement solutions to address the deficiencies found.
ACTION #: 69	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery (TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)

Figure 6.4.69: Mitigation Action 69

COMMUNITY: Greene Township	ACTION 1C28: Procure battery back-up for all traffic signals in Greene Township. Battery back-up would assist in traffic flow during a power outage. This would reduce the need for emergency personnel at an intersection to direct traffic.
ACTION #: 70	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery (TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)

Figure 6.4.70: Mitigation Action 70

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County	ACTION 1A6: Research and coordinate with PEMA and NWS on installation of an Integrated Flood Observation and Warning System (IFLOWS) Stream Gauge on the Conococheague Creek near the Chambersburg Waste Treatment facility to provide early warning of Flash Flood Conditions for Franklin County.
ACTION #: 71	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time; USGS Grants; DHS – Homeland Security Grant Program (HSGP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.71: Mitigation Action 71

COMMUNITY: Franklin County	ACTION 1D2: Assist municipalities in the preparation and maintenance of Municipal Emergency Operations Plans (EOPs).
ACTION #: 72	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Planning Coordinator
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time

Figure 6.4.72: Mitigation Action 72

COMMUNITY: Franklin County & All Municipalities	ACTION 3A2: Utilize most recent hazard assessment, including the National Flood Plain Reports and historical records, when planning or authorizing building projects, including significant renovations.
ACTION #: 73	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department, Planner; Local EMCs
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population)

Figure 6.4.73: Mitigation Action 73

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County & All Municipalities	ACTION 3E1: Renew/start Franklin County/Municipal Firewise programs and encourage municipalities to reduce the vulnerability of critical facilities to wildfire by methods such as: increasing buffers and introduction of defensive spaces, identifying potential fire breaks, and providing assistance to FCDES to identify vulnerable structures.
ACTION #: 74	
MITIGATION TECHNIQUE(S):	Natural Systems Protection; Education and Awareness Programs
HAZARD(S) ADDRESSED:	Wildfire
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, IMT Coordinator; Local EMCs
IMPLEMENTATION SCHEDULE:	Within 1 year
FUNDING SOURCE:	Staff Time; County General Account; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.74: Mitigation Action 74

COMMUNITY: Franklin County	ACTION 1C4: Ensure and expand the capabilities of regional decontamination team to include providing mass, emergency, and technical decontamination.
ACTION #: 75	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Environmental Hazards; Nuclear Incident
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Radiological Officer
IMPLEMENTATION SCHEDULE:	Within 3 years
FUNDING SOURCE:	Seek Prioritization in SCTF Funding

Figure 6.4.75: Mitigation Action 75

COMMUNITY: Franklin County	ACTION 2C6: Research, develop, and execute an annual Floodplain Management Outreach Program to educate the municipalities on NFIP, DFIRM, and their associated requirements and regulations to assure a common understanding across the county.
ACTION #: 76	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department, Planner
IMPLEMENTATION SCHEDULE:	Within 1 year
FUNDING SOURCE:	Staff Time

Figure 6.4.76: Mitigation Action 76

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County	ACTION 1D6: Work with local Police Departments, Pennsylvania State Police, and First Responders to provide civil disturbance response training. Provide police presence at controversial events with large crowd gatherings as a means of discouraging conflict.
ACTION #: 77	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Civil Disturbance; Terrorism
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Operations & Training Officer
IMPLEMENTATION SCHEDULE:	Within 1 year
FUNDING SOURCE:	Staff Time; County/Municipal General Account; PEMA Sponsored Training, FEMA - EMI Institute; FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.77: Mitigation Action 77

COMMUNITY: Franklin County	ACTION 2C4: Work with privately held dam owners, DEP, and Fish and Boat Commission to determine inspection dates or trigger new inspections for all dams in Franklin County. Seek mitigation actions for deficiencies uncovered in the data collection.
ACTION #: 78	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Dam Failure; Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, EMC
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time; Municipal General Account; National Dam Safety Program Grant; Pennsylvania Infrastructure Investment Authority (PENNVEST) Loan and Grant Program; H2O PA – High Hazard Unsafe Dam Projects; Growing Greener; Dam Owners; American Rivers Association; Ducks Unlimited; USACE Silver Jackets

Figure 6.4.78: Mitigation Action 78

COMMUNITY: Franklin County & All Municipalities	ACTION 1B2: Identify and promote awareness of community shelters. These facilities would provide temporary refuge for the county’s vulnerable populations during periods of extreme cold or heat.
ACTION #: 79	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	Extreme Temperatures; Winter Storm; Hurricane, Tropical Storm, Nor’easter; Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, EMC; Local EMCs
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; US Department of Housing and Urban Development (HUD) – Emergency Shelter Grants Program/Emergency Solutions Grants (ESG) Program

Figure 6.4.79: Mitigation Action 79

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County & All Municipalities	ACTION 1A3: Conduct routine (monthly) inspections, regular maintenance, and annual tests on all emergency communications equipment, public address systems, and alert sirens to ensure unhindered operation during an emergency event.
ACTION #: 80	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Communications/911 Coordinator; Local EMCs
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; County/Municipal General Account; DHS – Homeland Security Grant Program (HSGP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.80: Mitigation Action 80

COMMUNITY: Franklin County; PSU Agriculture Extension	ACTION 2B4: Develop, maintain, and disseminate an Invasive Species Plants and Animals listing for citizen education and future Land Use development planning.
ACTION #: 81	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	Invasive Species
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Planning Coordinator; PSU Ag Extension Representative
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time; USDA Grant and Partnership Programs for Invasive Species

Figure 6.4.81: Mitigation Action 81

COMMUNITY: St Thomas Township	ACTION 3A6: Research and develop Zoning Regulations for St Thomas Township to specify which zones can be used for residential, commercial, institutional, or open space purposes. Additionally, regulate the placement (SFHA restrictions), bulk (or density), and the elevation of structures (to or above the BFE).
ACTION #: 82	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	St Thomas Township EMC
IMPLEMENTATION SCHEDULE:	With 5 years
FUNDING SOURCE:	Staff Time

Figure 6.4.82: Mitigation Action 82

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County & All Municipalities	ACTION 3A5: Work with municipalities to integrate County Hazard Mitigation Plan into Municipal Comprehensive Plans, Subdivision and Land Use Ordinances, and Zoning Ordinances.
ACTION #: 83	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department, Planner; Local Government Plans Official
IMPLEMENTATION SCHEDULE:	With 1 year
FUNDING SOURCE:	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population)

Figure 6.4.83: Mitigation Action 83

COMMUNITY: All Municipalities	ACTION 4B5: Conduct drainage system and ditch line maintenance & upgrades throughout the county to prevent roadway flooding. Ensure existing drainage systems are adequate and functioning properly in order to reduce impacts related to flash flooding and storm water runoff.
ACTION #: 84	
MITIGATION TECHNIQUE(S):	Structure and Infrastructure Projects; Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ices Jam
LEAD AGENCY/ DEPARTMENT:	Municipal Public Works, Roadway Supervisors
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	Community Development Block Grant (CDBG); DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)

Figure 6.4.84: Mitigation Action 84

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Greene Township	ACTION 1C19: Execute a traffic analysis survey on SR 997 (Black Gap Rd) to Scotland, PA to determine if reduction in speed limit could reduce accidents. Multiple accidents in the area with at least 1 fatality.
ACTION #: 85	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery (TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)

Figure 6.4.85: Mitigation Action 85

COMMUNITY: Franklin County & All Municipalities	ACTION 4A5: Research, identify, and pursue acquisition of land parcels/structures in floodplains for demolition and relocation to reduce exposure to flood damage losses, to include options for mitigation reconstruction for homeowners that are reluctant to relocate.
ACTION #: 86	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects; Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County EMC, Local EMCs, Local Government, Leadership & Public Works Departments
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.86: Mitigation Action 86

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County & All Municipalities	ACTION 1B1: Evaluate and update evacuation routes and sheltering plans throughout Franklin County annually.
ACTION #: 87	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Planning Coordinator; Local EMCs
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; US Department of Housing and Urban Development (HUD) – Emergency Shelter Grants Program/Emergency Solutions Grant (ESG) Program

Figure 6.4.87: Mitigation Action 87

COMMUNITY: Franklin County	ACTION 1E4: Survey, document, and incorporate private well locations in Franklin County into GIS database for analyses of available water resources.
ACTION #: 88	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Drought
LEAD AGENCY/ DEPARTMENT:	Franklin County IS, GIS Specialist
IMPLEMENTATION SCHEDULE:	Within 3 years
FUNDING SOURCE:	Staff Time; USDA – Rural Development Water and Environmental (WEP) Programs (population under 10,000)

Figure 6.4.88: Mitigation Action 88

COMMUNITY: Franklin County & All Municipalities	ACTION 4B3: Update and implement a comprehensive water resources management plan that analyzes the County’s anticipated water use in an effort to identify suspected water supply shortages and potential new water supply sources.
ACTION #: 89	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Drought
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department, Planner; Local Government Plans Official
IMPLEMENTATION SCHEDULE:	Within 3 years
FUNDING SOURCE:	Staff Time; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.89: Mitigation Action 89

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County	ACTION 1A2: Incorporate local data in HAZUS models.
ACTION #: 90	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County IS, GIS Specialist
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time

Figure 6.4.90: Mitigation Action 90

COMMUNITY: Franklin County	ACTION 2A8: Promote public awareness of hail-resistant building and construction practices including the use of structural bracing, window shutters, laminated glass in window panes, and hail resistant roof shingles.
ACTION #: 91	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	Hailstorm; Tornado/Windstorm; Hurricane, Tropical Storm, Nor'easter
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department, Planner
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time; County/Municipal General Account; PEMA Sponsored Training, FEMA - EMI Institute; FCDES Training Budget; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.91: Mitigation Action 91

COMMUNITY: Franklin County & All Municipalities	ACTION 4B1: Encourage municipalities to update their storm water regulations as needed. A model PA DEP Ordinance is available online that can be used.
ACTION #: 92	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects; Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department, Planner; Local EMCs
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population)

Figure 6.4.92: Mitigation Action 92

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County & All Municipalities	ACTION 4A3: Identify underdeveloped floodplain and wetland areas through the enforcement of county or municipal Subdivision and Land Development Ordinances (SALDOs), and when available, seek grants to acquire public open space for passive recreational uses in an effort to minimize/prevent potential flooding damages and enhance the regional environment.
ACTION #: 93	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects; Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department, Planner; Local Government Plans Official
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE); USDA – Rural Development Water and Environmental (WEP) Program (under 10,000 population); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.93: Mitigation Action 93

COMMUNITY: Franklin County & All Municipalities	ACTION 3B1: Utilize engineered solutions to slow or alter streams to limit damage to the built environment.
ACTION #: 94	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects; Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, EMC; Local EMCs
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	PA Department of Community and Economic Development (DCED) – Watershed Restoration and Protection Program (WRPP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.94: Mitigation Action 94

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County & All Municipalities	ACTION 2B3: Continue and/or develop programs to increase home safety and disaster prevention (e.g. smoke/CO detector installs) for citizens that are members of high risk populations.
ACTION #: 95	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	Urban Fire & Explosion
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, IMT Coordinator; Local EMCs
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; PEMA Sponsored Training, FEMA - EMI Institute; FCDES Training Budget; Hazardous Materials Response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.95: Mitigation Action 95

COMMUNITY: Greene Township	ACTION 1C20: Work with PennDOT to analyze traffic patterns at the I-81 Northbound Exit 20 off-ramp to determine if the deceleration lane is of sufficient length. Engineer, plan, and implement a solution to address the deficiencies found. Multiple accidents in this area.
ACTION #: 96	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery (TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)

Figure 6.4.96: Mitigation Action 96

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Greene Township	ACTION 1C21: Partner with PennDOT to determine proper sight distance for intersection (SR 997 (Cumberland Hwy) and Smith Rd.). Engineer, plan, and implement solutions to address the deficiencies found.
ACTION #: 97	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery (TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)

Figure 6.4.97: Mitigation Action 97

COMMUNITY: Greene Township	ACTION 1C22: Partner with PennDOT to evaluate the need for new turning lanes and traffic signals at intersection (Coffee Ave, SR 433, and SR 997). (Letterkenny Army Depot Main Gate). Engineer, plan, and implement solutions to address the deficiencies found.
ACTION #: 98	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery (TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)

Figure 6.4.98: Mitigation Action 98

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Greene Township	ACTION 1C23: Perform traffic study to determine if traffic signals are warranted at intersection. (Siloam Rd, SR 11 (Philadelphia Ave), and Chancellor Dr) (2 fatal accidents at this intersection). Engineer, plan, and implement solutions to address the deficiencies found.
ACTION #: 99	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery (TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)

Figure 6.4.99: Mitigation Action 99

COMMUNITY: Greene Township	ACTION 1C25: Perform traffic study at intersection of SR 997 (Black Gap Road) and Byers Rd. to determine if reduction in speed limit or traffic signal could reduce accidents. Engineer, plan, and implement solutions to address the deficiencies found.
ACTION #: 100	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery (TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)

Figure 6.4.100: Mitigation Action 100

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: All Municipalities	ACTION 1C13: Perform an engineering analysis to determine the feasibility of mandatory or voluntary installation of seismic shutoff valves on natural gas meters at commercial and residential buildings.
ACTION #: 101	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects; Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Earthquake; Urban Fire & Explosion
LEAD AGENCY/ DEPARTMENT:	Local Government, Leadership & Public Works Departments
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	FEMA National Earthquake Hazards Reduction Program (NEHRP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.101: Mitigation Action 101

COMMUNITY: Greene Township	ACTION 4A1: Evaluate the property of Mickey’s Inn Trailer Park for possible acquisition and repurpose under the Flood Mitigation Program.
ACTION #: 102	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects; Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township, EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	Staff Time; Municipal General Account; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.102: Mitigation Action 102

COMMUNITY: Greene Township	ACTION 4A2: Evaluate the property of the Lincoln Dell Camping Area for possible acquisition and repurpose under the Flood Mitigation Program.
ACTION #: 103	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects; Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Greene Township, EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	Staff Time; Municipal General Account; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.103: Mitigation Action 103

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Southampton Township	ACTION 4A4: Establish a voluntary acquisition program of floodway properties (McClays Mill Rd, along the Conodoquinet Creek) based on Fair Market Value. Retain in public ownership and rezone as a conservation area.
ACTION #: 104	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects; Natural Systems Protection
HAZARD(S) ADDRESSED:	Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Southampton Township Board of Supervisors
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	Staff Time; Municipal General Account; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.104: Mitigation Action 104

COMMUNITY: Franklin County & All Municipalities	ACTION 1E1: Provide assistance to municipalities in implementing individual hazard mitigation actions supporting high risk communities.
ACTION #: 105	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, EMC, Local EMCs
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; County/Municipal General Account; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.105: Mitigation Action 105

COMMUNITY: Municipalities	ACTION 1E2: Maintain/develop traffic re-route plans and coordinate them with neighboring municipalities for traffic accidents that impact major arteries in the County.
ACTION #: 106	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Local EMCs; Local Government, Public Works Supervisor
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.106: Mitigation Action 106

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County & All Municipalities	ACTION 2A6: Create and distribute electronic and print information on Radon exposure and Radon mitigation systems to homeowners throughout the County, especially those in areas with elevated Radon test levels.
ACTION #: 107	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	Radon Exposure
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, HAZMAT Coordinator; Local EMCs
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time; County General Fund; Hazardous Materials Response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account

Figure 6.4.107: Mitigation Action 107

COMMUNITY: Franklin County: Medical Community; SCTF Medical Working Group	ACTION 1E3: Develop and implement a Pandemic Response Plan early and in a coordinated effort with layered approach – individuals, community, county, and regional measures.
ACTION #: 108	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Pandemic & Infectious Disease
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Planning Coordinator; Franklin County MH/ID/EI, Program Specialist
IMPLEMENTATION SCHEDULE:	With 3 years
FUNDING SOURCE:	Staff Time

Figure 6.4.108: Mitigation Action 108

COMMUNITY: Franklin County; PSU Agriculture Extension	ACTION 4C3: Partner with the local PSU Agriculture Extension to look into crop insurance saturation rates in the county to determine the availability of insurance and any cost prohibitive factors that may be present.
ACTION #: 109	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Hailstorm; Winter Storm; Tornado/Windstorm, Hurricane, Tropical Storm, Nor'easter; Flood, Flash Flood & Ice Jam; Extreme Temperatures; Drought
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Planning Coordinator; PSU Agriculture Extension Representative
IMPLEMENTATION SCHEDULE:	Within 3 years
FUNDING SOURCE:	Staff Time

Figure 6.4.109: Mitigation Action 109

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County & All Municipalities	ACTION 1D8: Work with local industry partners (i.e. IESI & Parks) to assess the capacity of landfills to accommodate Earthquake or other hazard debris. Develop coordination plans for disposal of debris in the aftermath of a natural or man-made disaster.
ACTION #: 110	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Earthquake; Tornado/Windstorm; Hurricane, Tropical Storm, Nor'easter; Terrorism
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Planning Coordinator; Local Government, Public Works Supervisor
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.110: Mitigation Action 110

COMMUNITY: Greene Township	ACTION 1C18: Widen I-81 to 6 lanes (3 each direction) between Exit 17 and 20 to assist in reduction of traffic congestion.
ACTION #: 111	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	USDOT – Surface Transportation Improvement Grant; Transportation Investment Generating Economic Recovery (TIGER) Program; Federal Highway Administration (FHA) – Congestion Mitigation and Air Quality (CMAQ) Program; DCED – Pennsylvania Infrastructure Bank (PIB); PennDOT – Highway Safety and Traffic Engineering Grants; USDA – Rural Development Grants (population under 20,000)

Figure 6.4.111: Mitigation Action 111

Franklin County Hazard Mitigation Plan - 2018

<p>COMMUNITY: Franklin County; All Municipalities; Franklin County School Districts; Summit Health; Private Medical Providers; Utility Companies; Franklin County First Responder Agencies</p> <p>ACTION #: 112</p>	<p>ACTION 1C10: Identify a source of back-up power for a critical facilities including schools, government buildings, medical facilities, and emergency services (police, fire & EMS).</p>
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Winter Storm; Tornado/Windstorm, Hurricane, Tropical Storm & Nor'easter; Extreme Temperatures; Utility Interruption
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department; Local Governments Leaders; Utilities Owners; Medical Providers; School Superintendants, Franklin County Fire & EMS Chiefs; Franklin County Police Chiefs
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	USDA Rural Development Grants; DHS – Homeland Security Grant Program (HSGP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.112: Mitigation Action 112

<p>COMMUNITY: Franklin County & All Municipalities</p> <p>ACTION #: 113</p>	<p>ACTION 1C7: Work with utility companies to improve right-of-way tree management and encourage the burying of utility lines, especially in high frequency outage areas.</p>
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Utility Interruption; Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department; Local Governments
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	Federal Transportation Enhancements Program – Transportation Enhancements (TE) Funds – Transportation Equity Act of the 21 st Century (TEA-21); DCED – Downtown and Communities Opportunity Grants; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.113: Mitigation Action 113

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County & All Municipalities	ACTION 1A4: Improve emergency management warning and response capabilities and procedures to better protect the public through continued implementation of early warning or alert systems that utilize cloud-based (Everbridge, IPAWS, Wireless Emergency Alerts) communications technologies to distribute texts, phone calls, email alerts, or social media messages.
ACTION #: 114	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, EMC; Local EMCs
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; DHS – Homeland Security Grant Program (HSGP); FEMA Hazard Mitigation Assistance Programs

Figure 6.4.114: Mitigation Action 114

COMMUNITY: Greene Township	ACTION 1C29: Procure a generator for the Greene Township Emergency Management Agency Office. This generator will need to be 30,000 KW, fuel source will be Natural Gas.
ACTION #: 115	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	DHS – Homeland Security Grant Program (HSGP); DCED – Local Government Capital Project Loan Program (LGCPL); USDA Rural Development Grants; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.115: Mitigation Action 115

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County & All Municipalities	ACTION 1B3: Review and assess for the need to upgrade insulation in commercial or residential buildings that currently house or will house high-risk populations during extreme winter weather events.
ACTION #: 116	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	Winter Storm; Extreme Temperatures
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Planning Coordinator; Local EMCs
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	DHS – Homeland Security Grant Program (HSGP); US Department of Housing and Urban Development (HUD) – Emergency Shelter Grants Program/Emergency Solutions Grant (ESG) Program; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.116: Mitigation Action 116

COMMUNITY: All Municipalities	ACTION 1C12: Township Road Crews and Borough Public Works Departments partner with PennDOT and County Maintenance to identify, manage, and if warranted clear (to limits of the right-of-way) roadside brush and trees that could block roadways following a severe storm.
ACTION #: 117	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects; Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Hurricane, Tropical Storm & Nor’easter; Tornado/Windstorm; Winter Storm; Transportation Accident; Utility Interruption
LEAD AGENCY/ DEPARTMENT:	Local Government, Public Works Departments
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Department of Conservation of Natural Resources; USDA Natural Resources Conservation Service; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.117: Mitigation Action 117

COMMUNITY: Franklin County & All Municipalities	ACTION 1C3: Develop a Debris Management Plan to include quick “help sheets/ checklists” built upon various types of incidents and events.
ACTION #: 118	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Tornado/Windstorm; Earthquake; Hurricane, Tropical Storm & Nor’easter; Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Planning Coordinator; Local EMCs
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.118: Mitigation Action 118

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: All Municipalities	ACTION 1C11: Demolish abandoned or collapsed structures and clean up junk and debris.
ACTION #: 119	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects; Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Urban Fire & Explosion
LEAD AGENCY/ DEPARTMENT:	Local Government, Leadership & Public Works Departments
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	DCED – Community Development Block Grant – Disaster Recovery (CDBG-DR); US Department and Housing and Urban Development (HUD) - Housing Preservation Grants; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.119: Mitigation Action 119

COMMUNITY: Franklin County	ACTION 1B4: Develop, staff, fund, and exercise a robust County Animal Response Team (CART) capability to provide care and shelter for a wide variety of animals from livestock to exotic pets during an mass relocation event.
ACTION #: 120	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Operations & Training Officer
IMPLEMENTATION SCHEDULE:	Within 3 years
FUNDING SOURCE:	American Society for the Prevention of Cruelty to Animals (ASPCA) – Emergency and Disaster Grants; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.120: Mitigation Action 120

COMMUNITY: Franklin County & All Municipalities	ACTION 1C1: Review and evaluate facilities, equipment, personnel, and other resources needed to support emergency response annually and update County/Municipal Resource Books.
ACTION #: 121	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, IMT Coordinator; Local EMCs
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time

Figure 6.4.121: Mitigation Action 121

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County	ACTION 4C1: Monitor, evaluate, and update mitigation actions annually and execute a full document update of the Hazard Mitigation Plan every five years.
ACTION #: 122	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Planning Coordinator
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.122: Mitigation Action 122

COMMUNITY: Franklin County & All Municipalities	ACTION 1D1: Review Mutual Aid Agreements annually and recommend changes/ updates as required.
ACTION #: 123	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Planning Coordinator; Local EMCs
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time

Figure 6.4.123: Mitigation Action 123

COMMUNITY: Franklin County	ACTION 1A1: Assign and train additional County employees and volunteers to assist the Emergency Operations Center (EOC) staff, so they can be called upon in the event of major emergencies.
ACTION #: 124	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, EOC Manager
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.124: Mitigation Action 124

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Greene Township	ACTION 1C27: Perform a study on the bridge overpasses at Pine Stump Rd. and Railroad Rd. to determine if width and height could be increased to reduce accidents. Engineer, plan, and implement solutions to address the deficiencies found.
ACTION #: 125	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Transportation Accident
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	Federal Railroad Administration Grants; FEMA Hazard Mitigation Assistance Programs

Figure 6.4.125: Mitigation Action 125

COMMUNITY: Greene Township	ACTION 1D9: Assess the possibility of forming a Township/County Hazardous Materials Team. Analyze the number of trained volunteers or career persons in the county versus the required staff needed to form a hazardous materials team.
ACTION #: 126	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Environmental Hazards
LEAD AGENCY/ DEPARTMENT:	Greene Township EMC
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	Hazardous Materials Response Fund (HMRF) Grant; Local Emergency Planning Committee (LEPC) Reimbursement Account

Figure 6.4.126: Mitigation Action 126

COMMUNITY: Franklin County	ACTION 4C2: Continue to refine the Hazard Mitigation Planning Committee list to broaden participation throughout the entire Franklin County Community. Conduct biannual meetings to discuss current trends in risk and/or required HMP updates.
ACTION #: 127	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Planning Coordinator
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time

Figure 6.4.127: Mitigation Action 127

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County	ACTION 3C1: Advocate for municipalities to find alternative methods of funding to the Hazard Mitigation Program.
ACTION #: 128	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department, Planner; Franklin County Grant Management, Grant Coordinator
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time; Community Assistance Program – State Support Services Element (CAP-SSSE)

Figure 6.4.128: Mitigation Action 128

COMMUNITY: Franklin County	ACTION 1D3: Foster relationships with other counties so that Franklin County may utilize mutual aid in Emergency Operations Center (EOC) positions.
ACTION #: 129	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, EMC
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time

Figure 6.4.129: Mitigation Action 129

COMMUNITY: Franklin County	ACTION 2A1: Train additional personnel on the use of GIS systems to support emergency operations.
ACTION #: 130	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County IS, GIS Specialist
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.130: Mitigation Action 130

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County	ACTION 1C15: Improve tracking and collection of boil water advisories throughout the county to identify potential problem areas for mitigation project development.
ACTION #: 131	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations; Education and Awareness Programs
HAZARD(S) ADDRESSED:	Drought
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, 911 Coordinator
IMPLEMENTATION SCHEDULE:	Within 2 years
FUNDING SOURCE:	Staff Time

Figure 6.4.131: Mitigation Action 131

COMMUNITY: Franklin County & All Municipalities	ACTION 2A3: Maintain and update the county Hazard Vulnerability Analysis (HVA) annually. Utilize the HVA to prioritize risk reduction strategies and funding opportunities.
ACTION #: 132	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	All Hazards
LEAD AGENCY/ DEPARTMENT:	Franklin County DES, Planning Coordinator; Local EMCs
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time

Figure 6.4.132: Mitigation Action 132

COMMUNITY: Franklin County & All Municipalities	ACTION 1D5: Encourage Utility and Pipeline companies to prepare vulnerability studies to identify and remediate potential exploitable threats and problems.
ACTION #: 133	
MITIGATION TECHNIQUE(S):	Education and Awareness Programs; Local Plans and Regulations
HAZARD(S) ADDRESSED:	Terrorism; Utility Interruption
LEAD AGENCY/ DEPARTMENT:	Franklin County Plans Department
IMPLEMENTATION SCHEDULE:	Within 3 years
FUNDING SOURCE:	Staff Time; Federal Transportation Enhancements Program – Transportation Enhancements (TE) Funds – Transportation Equity Act of the 21 st Century (TEA-21); DCED – Downtown and Communities Opportunity Grants

Figure 6.4.133: Mitigation Action 133

Franklin County Hazard Mitigation Plan - 2018

COMMUNITY: Franklin County	ACTION 2A9: Map abandoned mine shafts, caves, and potentially vulnerable areas to cave ins or subsidence.
ACTION #: 134	
MITIGATION TECHNIQUE(S):	Local Plans and Regulations
HAZARD(S) ADDRESSED:	Subsidence/Sinkholes
LEAD AGENCY/ DEPARTMENT:	Franklin County IS, GIS Specialist
IMPLEMENTATION SCHEDULE:	Continuous
FUNDING SOURCE:	Staff Time

Figure 6.4.134: Mitigation Action 134

Of the 134 Mitigation Actions submitted, 39 of them are common to all municipalities. These are shown in **Table 6.4.23** below.

Mitigation Actions Common to All Municipalities
1A3, 1A4, 1B1, 1B2, 1B3, 1C1, 1C3, 1C6, 1C7, 1C10, 1C11, 1C12, 1C13, 1D1, 1D5, 1D7, 1D8, 1E1, 1E2, 2A3, 2A4, 2A5, 2A6, 2B3, 2C2, 2C3, 3A2, 3A3, 3A4, 3A5, 3B1, 3E1, 3E2, 4A3, 4A5, 4B1, 4B3, 4B4, 4B5

Table 6.4.23: Mitigation Actions Common to All Municipalities

Municipalities also submitted specific Mitigation Actions to cover projects and initiatives in their jurisdictions. These are outlined in **Table 6.4.24** below.

Franklin County Hazard Mitigation Plan - 2018

Municipality	Mitigation Actions Unique to Municipalities	Number of Mitigation Actions
Antrim Township	1C35	1
Chambersburg Borough	3D3	1
Fannett Township	3A7	1
Greencastle Borough	3A8	1
Greene Township	1A5, 1C16, 1C17, 1C18, 1C19, 1C20, 1C21, 1C22, 1C23, 1C24, 1C25, 1C26, 1C27, 1C28, 1C29, 1D9, 1F2, 2C5, 3B2, 3B3, 3B4, 3B5, 3B6, 3B7, 3B8, 3B9, 3B10, 3B11, 3B12, 3B13, 3B14, 3B15, 3B16, 3B17, 3B18, 3B19, 3B20, 4A1, 4A2	39
Guilford Township	1C33	1
Hamilton Township	1C30	1
Letterkenny Township	3A7	1
Lurgan Township	3A7	1
Metal Township	1C14	1
Mercersburg Borough	3B21	1
Mont Alto Borough	3A9	1
Montgomery Township	1C36	1
Orrstown Borough	3B22	1
Peters Township	3D2	1
Quincy Township	1C32	1
Shippensburg Borough	3A10	1
Southampton Township	4A4	1
St Thomas Township	3A6	1
Warren Township	1C37	1
Washington Township	1C34	1
Waynesboro Borough	4B6, 1C31	2

Figure 6.4.24: Municipal Specific Mitigation Actions

Franklin County Hazard Mitigation Plan - 2018

The Mitigation Strategy is required to contain at least one Mitigation Action for every threat profiled in **Section 4.3**. **Table 6.4.25** shows that every threat profiled in this HMP is in fact covered by at least one Mitigation Action.

Hazard Threat	Specific Actions Addressing this Hazard	Total Number of Actions Addressing this Hazard
All Hazards	1A1, 1A2, 1A3, 1A4, 1A5, 1B1, 1B4, 1C1, 1C6, 1C29, 1C30, 1C31, 1C32, 1C33, 1C34, 1C35, 1C36, 1C37, 1D1, 1D2, 1D3, 1E1, 1F1, 1F2, 2A1, 2A3, 2A4, 2B1, 2B2, 2C1, 2C5, 3A1, 3A3, 3A4, 3A5, 3A7, 3A8, 3A9, 3A10, 3C1, 4C1, 4C2	42
Winter Storm	1B2, 1B3, 1C10, 1C12, 2A5, 2A7, 3E2, 4C3	8
Hurricane, Tropical Storm, Nor'easter	1B2, 1C3, 1C10, 1C12, 1D8, 2A5, 2A8, 3E2, 4C3	9
Tornado/Windstorm	1C3, 1C10, 1C12, 1D8, 2A5, 2A8, 3E2, 4C3	8
Utility Interruption	1C7, 1C10, 1C12, 1D5	4
Transportation Accident	1C7, 1C12, 1C16, 1C17, 1C18, 1C19, 1C20, 1C21, 1C22, 1C23, 1C24, 1C25, 1C26, 1C27, 1C28, 1D7, 1E2	17
Extreme Temperatures	1B2, 1B3, 1C10, 4C3	4
Drought	1C15, 1E4, 4B3, 4C3	4
Lightning Strike	2A10, 3E2	2
Dam Failure	4B6, 1C9, 1C14, 2C4	4
Hailstorm	2A8, 3E2, 4C3	3
Environmental Hazards	1C2, 1C4, 1C5, 1D9	4
Flood/Flash Flood/Ice Jam	1A6, 1B2, 1C3, 1C9, 1C14, 2A2, 2C4, 2C6, 3A2, 3A6, 3B1, 3B2, 3B3, 3B4, 3B5, 3B6, 3B7, 3B8, 3B9, 3B10, 3B11, 3B12, 3B13, 3B14, 3B15, 3B16, 3B17, 3B18, 3B19, 3B20, 3B21, 3B22, 3D1, 3D2, 3D3, 3E2, 4A1, 4A2, 4A3, 4A4, 4A5, 4B1, 4B2, 4B4, 4B5, 4C3	46
Pandemic and Infectious Disease	1E3	1
Invasive Species	2B4	1
Earthquake	1C3, 1C13, 1D8	3
Subsidence/Sinkhole	2A9	1
Radon Exposure	2A6	1
Terrorism	1D5, 1D6, 1D8, 2C3	4
Urban Fire and Explosion	1C11, 1C13, 2B3, 2C2	4
Wildfire	3E1	1
Nuclear Incident	1C4, 1C8	2
Mass Food/Animal Feed Contamination	1D4	1
Civil Disturbance	1D6	1
Landslide	1D7	1
Summary: 42 – Actions that address All Hazards (in Blue) 19 – Actions that address multiple Hazards 72 – Actions that address a single Hazard (in Red) 133 – Total Mitigation Actions		

Table 6.4.25: Mitigation Actions by Threat Profiled

Franklin County Hazard Mitigation Plan - 2018

6.5. Mitigation Action Annual Updates

As part of the HMP annual review process each Mitigation Action is evaluated to record any progress, add new actions, and/or recommend closure of those actions that have been completed. **Table 6.5.1** below records the progress on the 2018 Mitigation Action Plan as reviewed in December of 2019 and 2020.

Rank	Number	Project Status
1	1C2	Currently being done, project to be maintained.
7	1F2	Study complete, project completed.
11	3E2	Franklin County renewed or membership in the StormReady Program through 2021, project to be maintained.
13	2B1	Working with County Communications Coordinator to set up a landing page for Emergency Preparedness information, project to be maintained.
18	3B5	Project partially completed, waiting on additional permits, project to be maintained until complete.
19	3B6	Project not completed, project to be maintained.
36	1F1	Established annual open house for FCPSTC and participate in outreach programs across the county, project to be maintained.
37	1C6	Execute at least 2 weather exercises and multiple EOC recall drills annually, project to be maintained.
46	2B2	Completed the following trainings: fire extinguisher, hazmat awareness, weather preparedness, EMS/EMA response to COVID. Project to be maintained.
47	4B6	New Mitigation Action being added as part of the 2019 update. Requested by Waynesboro Borough Authority, project to be maintained.
57	2A4	Actively manage a DES Facebook and DES Twitter account to get public service information out via social media, project to be maintained.
58	1C16	Project completed.
59	1C17	Project is designed, waiting on permits. Construction in 2021, project to be maintained.
63	1C5	Currently maintained in DES warehouse, project to be maintained.
64	3A1	Done as needed through Franklin County GIS Office, project to be maintained.
65	1C8	Project and Annex E to be revisited as the closure of Three Mile Island has changed the need for biannual exercises. Still need a radiological response plan, but should be modified in scope. Increased RAD officers by 3. Project to be maintained.
67	3D1	Planning office and DES reached out to municipalities for flood prone areas, project to be maintained.
68	1C26	Bridge is designed, waiting on permits, project to be maintained.
69	1C24	Study completed, stop sign added making the intersection a three-way stop, project completed.
70	1C28	Project completed.
72	1D2	County HVA updated annually as part of the HMP process and given to the municipalities to assist in completing Section 2 of their EOPs. Open offer for support for review and comment on municipal EOPs, project to be maintained.
76	2C6	Coordinating a FEMA training session through PEMA to bring a Letter of Map Change training session to Franklin County in Nov of 2019, project to be maintained.
78	2C4	Implemented a plan for annual visits to all high hazard dams potentially impacting Franklin County. Any issues or deficiencies noted will be forwarded to land owner and associated regulatory agency, project to be maintained.
79	1B2	All shelters are identified and relationship with local Red Cross chapter in place to assess and modify current plan to address changing needs, project to be maintained.
80	1A3	All systems tested monthly, project to be maintained.
87	1B1	Shelter plans coordinated with American Red Cross. Project to be maintained.
105	1E1	Worked with Greene Twp on stream restoration project. Project to be maintained.
108	1E3	Distribution Management Plan and Mass Vaccination Plan completed, working with DOH on COVID-19 vaccination clinic, project to be maintained.
110	1D8	Draft Debris Management Plan under development, project to be maintained.
114	1A4	Working IPAWS integration and training to improve county's posture to disseminate information near-real time, project to be maintained.
118	1C3	Developed Debris Management Plan as Annex to EOP, project to be maintained.
121	1C1	FCDES updates the Notification and Resource Manual (Volume IV - NARM) of our EOP annually, project to be maintained.
122	4C1	Currently being worked as an annual update to reduce the amount of changes needed in the 5-year update, project to be maintained.
127	4C2	Reviewed and updated the committee list, project to be maintained.
128	3C1	County assisted Greene Township in getting funding for their in-stream dam removal initiative, project to be maintained.
129	1D3	Attended Cumberland Co. and Fulton Co. HMP initiatives to assist in their updates and establishing a partnering relationship, project to be maintained.
130	2A1	Planning coordinator trained on GIS, will continue to train staff. Project to be maintained.
132	2A3	Being accomplished via the annual HMP update, project to be maintained.
134	2A9	Listing of mines/abandoned mines developed to augment the subsidence threat assessment, project to be maintained.

Table 6.5.1: 2020 Annual HMP Mitigation Action Update Status

7. Plan Maintenance

7.1. Update Process Summary

The government entities of Franklin County and our municipalities have been integral in the drafting of this HMP update. All Franklin County municipalities have reviewed and approved the plan for staffing to PEMA and FEMA for acceptance. Upon “Approval Pending Adoption” from FEMA, the final draft of this plan was sent to all municipalities for approval and adoption.

7.2. Monitoring, Evaluating, and Updating the Plan

FCDES staff, representatives from stakeholders (internal and external), the Hazard Mitigation Plan Steering Group (HMPSG), and the general public will be invited to review the plan annually or more often if a major event occurs, to recommend changes to the plan. Any change in hazard will also be incorporated into the HVA at these annual reviews. These reviews shall occur 12 months following plan adoption, and every 12 months thereafter.

This plan will be formally updated every 5 years using information gathered from annual reviews and observations. Planning for this semi-decadal update shall begin immediately following the 4 year annual review and shall be completed approximately 3 months prior to the 5 year anniversary (see **Figure 7.2.1** below).

Franklin County Hazard Mitigation Plan - 2018

Year	Activity	Participants
1	Annual Review and Update	HMPT Steering Group FCDES & County Staff County EMC/Local EMCs Municipal Leaders Community Groups Non-Government Organizations Citizens
2	Annual Review and Update	HMPT Steering Group FCDES & County Staff County EMC/Local EMCs Municipal Leaders Community Groups Non-Government Organizations Citizens
3	Annual Review and Update	HMPT Steering Group FCDES & County Staff County EMC/Local EMCs Municipal Leaders Community Groups Non-Government Organizations Citizens
4	Annual Review and Update	HMPT Steering Group FCDES & County Staff County EMC/Local EMCs Municipal Leaders Community Groups Non-Government Organizations Citizens
5	Semi-decadal Review and Update	HMPT Steering Group FCDES & County Staff County EMC/Local EMCs Municipal Leaders Community Groups Non-Government Organizations Citizens

Figure 7.2.1: Franklin County HMP Maintenance Schedule

Annual evaluations shall consist of input and observations from the entire HMP Team to include:

- Addition of Mitigation Actions
- Mitigation Action Progress
- Hazard Changes/Additions
- Update/Modify Plan Goals/Objectives

- Additions/Changes to the Hazard Mitigation Planning Team

FCDES will be responsible for monitoring progress and incorporating changes to the HMP annually.

7.3. Continued Public Involvement

As was done during the development of the 2018 Hazard Mitigation Plan (HMP) update, the HMPSG will involve the public during the annual evaluation and update of the HMP through various workshops and meetings. The public will have access to an electronic copy of the current HMP through their local municipal office, Franklin County Department of Emergency Services, or the Franklin County Plans Department. FCDES will also keep a paper copy of the plan in the Emergency Operations Center (EOC), should a citizen not have ready electronic access. Information on upcoming events related to the HMP or solicitation for comments will be announced via social media and Franklin County webpage (<http://www.franklincountypa.gov/>) postings. The HMPSG will incorporate all relevant comments during the next update of the HMP.

8. Plan Adoption

Plan was submitted to the Pennsylvania State Hazard Mitigation Officer on July 26, 2018. It was forwarded to FEMA for final review and approval on August 17, 2018. FEMA granted approval-pending-adoption on September 12, 2018. Full approval from FEMA was received on November 28, 2018.

Appendix M of this plan includes copies of the local adoption resolutions passed by Franklin County and its municipal governments. Adoption resolution templates were provided to assist the County and municipal governments with recommended language for adoption of the HMP.

**Franklin County 2018 Hazard Mitigation Plan
County Adoption Resolution**

Resolution No. _____
Franklin County, Pennsylvania

WHEREAS, the municipalities of Franklin County, Pennsylvania are most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, Franklin County acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2018 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, local municipal officials, and the citizens of Franklin County, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2018 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2018 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the County of Franklin that:

- The Franklin County 2018 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the County, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2018 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this _____ day of _____, 2018

ATTEST:

FRANKLIN COUNTY COMMISSIONERS

By _____

By _____

By _____

**Franklin County 2018 Hazard Mitigation Plan
Municipal Adoption Resolution**

Resolution No. _____

<Borough/Township of Municipality Name>, Franklin County, Pennsylvania

WHEREAS, the <Borough/Township of Municipality Name>, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the <Borough/Township of Municipality Name> acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2018 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of <Borough/Township of Municipality Name>, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2018 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2018 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the <Borough/Township of Municipality Name>:

- The Franklin County 2018 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the <Borough/Township>, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2018 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this _____ day of _____, 2018

ATTEST: <BOROUGH/TOWNSHIP OF MUNICIPALITY NAME>

By _____

By _____

9. Appendices

Appendix A: Bibliography

Appendix B: Meeting Minutes/Sign-In Sheets/Briefings

Appendix C: Correspondence/Participation/Public Outreach

Appendix D: Worksheet Survey Responses

Appendix E: Franklin County HMP Data Collection Tools

Appendix F: Special Flood Hazard Area Terminology

Appendix G: County DFRIM Maps

Appendix H: County Windstorm Events

Appendix I: County Wildfire Data - DCNR

Appendix J: Analysis of 2014 HMP Action Plan

Appendix K: On-Line Survey Results

Appendix L: Score Sheet of Grading Mitigation Actions

Appendix M: County and Municipal HMP Adoption Resolutions

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Section 5

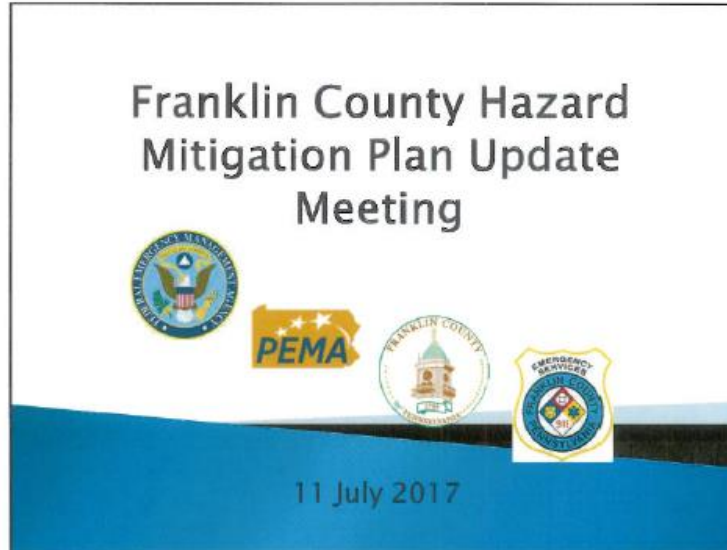
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Section 7

Section 8

6/19/2018



1

Figure B.1.1: Briefing for 11 July 2017 HMP Steering Group Meeting – Page 1 of 5

6/19/2018

Objectives Checklist

- ▶ County buy-in/support to long-term initiative.
- ▶ List of external entities to invite to project kick-off for full committee.
- ▶ Select date for project kick-off.
- ▶ Concurrence on proposed schedule and way ahead.
- ▶ Approval to distribute Hazard Assessment Survey.

HMP Background

- ▶ Planning document mandated by FEMA to identify and assess potential local disasters
 - To be updated every 5 years - tied to federal grant/disaster relief
 - Should be linked to state HMP - ours does
 - Municipalities are to either have their own or use the county HMP
- ▶ Why such a long lead time (due May 2019)?
 - PEMA has identified at least 26 hazards for PA
 - Our hazards should be a large subset of these (24 of 26)
 - Coastal Erosion & Levee Failure not applicable for Franklin County
 - Each hazard requires a full vulnerability assessment
 - Approval processes at state and federal level
- ▶ Our current plan is dated May 2014
 - 175 pages (46 of which are GIS maps) ← **Help Needed**
 - Only addressed 8 of the potential hazards
- ▶ Community involvement & buy-in is critical
 - Need to determine the external partners for this endeavor

2

Figure B.1.2: Briefing for 11 July 2017 HMP Steering Group Meeting – Page 2 of 5

6/19/2018

Community Composition

- ▶ American Red Cross & other non-profits
- ▶ Local Emergency Management officials
- ▶ Historical Societies
- ▶ Local Industry
- ▶ Chambers of Commerce
- ▶ Tax Assessor
- ▶ Utility Providers
- ▶ First Responders
- ▶ Communications Providers
- ▶ Local Farmers
Franklin County Agricultural Society
- ▶ Community Development partners
- ▶ School Districts

We need the right number and right mix to be successful.

HMP Plan Structure

- ▶ Title/Routing (3 pages)
- ▶ **Executive Summary (4 pages)**
- ▶ Introduction (3 pages)
- ▶ **Community Profile (18 pages)(GIS)**
- ▶ Planning Process (3 pages)
- ▶ **Risk Assessment (77 pages)(GIS)**
 - Only 8 hazards previously addressed in old plan
 - 24 of 26 hazards → this section will be much longer
- ▶ **Capability Assessment (15 pages)**
- ▶ **Mitigation Strategy (12 pages)**
- ▶ Plan Maintenance (2 pages)
- ▶ Appendices (38 pages)

3

Figure B.1.3: Briefing for 11 July 2017 HMP Steering Group Meeting – Page 3 of 5

6/19/2018

Work Breakdown

- ▶ Geography/Land-use Working Group
 - Geography & Development
- ▶ Weather Working Group
 - Hazard Analysis
- ▶ Census/History Working Group
 - Population Demographics
 - Disaster history
 - Municipal compliance (NFIP/Storm Water Mngt)
- ▶ Fiscal/Financial Working Group
 - Fiscal Resources for Capabilities and Mitigation
- ▶ Man-Made Hazards Working Group
 - Hazard Analysis
- ▶ Natural Hazards Working Group
 - Hazard analysis
- ▶ Agricultural Working Group
 - Hazard Analysis
 - Agricultural Demographics

Work Breakdown

Franklin County Department of
Emergency Services

Work Breakdown Structure for 2018 Franklin
County Hazard Mitigation Plan Update

Revised: 05/18/2017
Date: 06/19/2018
Page: 1 of 1

Figure B.1.4: Briefing for 11 July 2017 HMP Steering Group Meeting – Page 4 of 5

FRANKLIN COUNTY DEPARTMENT OF EMERGENCY SERVICES

390 NEW YORK AVENUE
CHAMBERSBURG, PA 17201-7883



PHONE: (717) 264-2813

FAX: (717) 267-2813

6 Oct 2017

MEMO FOR RECORD

SUBJECT: HMP MEETING MINUTES


FROM: FRANKLIN COUNTY DES PLANNING COORDINATOR

1. The initial Kick-Off meeting for the Franklin County Hazard Mitigation Plan Update was held at the Chambersburg Areas Senior High School on 5 Oct 2017 at 1830 hrs. We had 19 members from Franklin County offices, School Districts, Municipal EMCs, PEMA, and community leaders attend the meeting (see attached Attendance Sheet).
2. DES briefed the team on the details that make up the Hazard Mitigation Plan (HMP) and what we need to do to get the plan updated. Additionally, we briefed the team on the need to complete an update to our Hazard Vulnerability Assessment (HVA) as it is currently dated 2012 and does not address the full range of hazards contained in the PA HMP.
3. As part of the discussion on the HVA, we briefed the methodology of using the hazard threat surveys to determine hazard risk factors for 24 of the 26 hazards identified in the PA HMP. We asked the team to vote on the methodology used to approve the plan identified to update the HVA. The vote was carried unanimously and solidified as our plan. The team was also asked to review the preliminary results of this methodology which provided a prioritization of the 24 hazards in Franklin County. We currently have 20 of the 22 surveys returned representing 97% of Franklin County's population. The team was asked if they were comfortable with the current rankings, understanding that they would change a bit with the remaining 2 surveys to be integrated. The team again agreed to the ranking without dissent.
4. We discussed the task sharing of the hazard profiles. A chart was briefed with a nomination list (see attached PowerPoint slides) of team leads for each threat profile to be created. The team reviewed the list and had no dissent. The threat profile folders that were created will be disseminated to all personnel that were not able to attend the meeting.
5. We did entertain and pose a few questions during the session:

Figure B.3.1: Meeting Minutes for 5 Oct 2017 HMP Kick-off Meeting – Page 1 of 2

Appendix B: Meeting Minutes/Correspondence

- a. How were the survey responses generated for each municipality?
Answer – They were sent to the Municipal leaders and Local EMCs to convene, discuss, and provide scores for the threat hazards (see attached survey) as they specifically pertain to their geology, geography and demographics. They responses are the municipal's ranking and the county supports their assessment and will not seek to influence them.
- b. Can we have a survey sent out to seek dates for the next bi-monthly meeting?
Answer – Yes, we will provide a survey with nominations of dates for the next meeting that will be held in the mid-December time-frame.
- c. What is the best time of day to hold these meetings for maximum participation? Would the team be able to support a meeting during normal working hours (0800-1630 hrs)?
Answer – The team agreed that a day-time meeting may produce better attendance. We will try this for the next meeting. We will also try to provide a dial in access to those members that cannot make the physical meeting, but would still like to participate.
- d. Are we required to have the Environmental Impacts paragraph in the Threat profiles (asked to PEMA rep)?
Answer – The PEMA rep reviewed the most recent Hazard Mitigation SOG from the state and this is no longer a requirement.
- e. If a municipality were to "not participate" in the HMP Update as determined by FEMA, how would it impact a school in that municipality? Would they be locked out of federal funding for disaster relief/mitigation (asked to PEMA)?
Answer – The PEMA rep stated that the school and all entities in that municipality would in fact lose the ability to seek federal funding for disaster and mitigation funding due to the lack of coverage by an approved HMP.
6. Team members were informed that a Google Drive has been set up for the Franklin County HMP Update and that they would be given access to that drive. The team was also directed to address any questions on the HMP Update, process, or taskings to the project lead, Bob Povlich. The meeting adjourned at 1915 hrs.

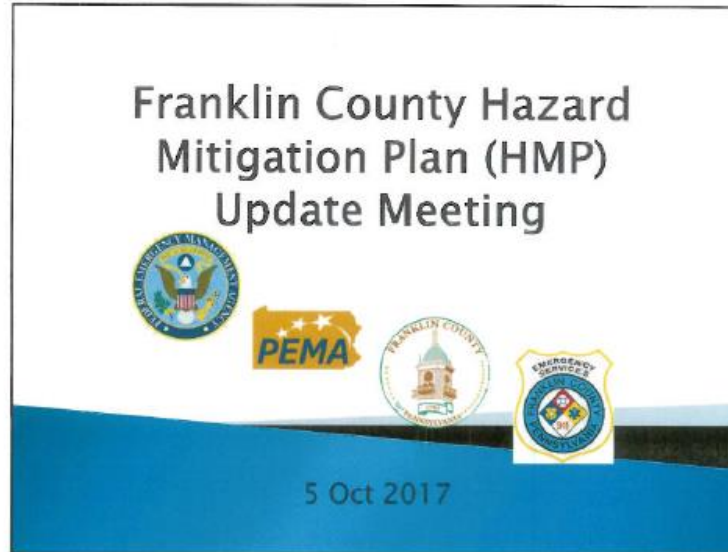

ROBERT W. POVlich JR
Planning Coordinator
Franklin County DES

Attachments:

Attendance sheet 10052017.pdf
Franklin County Hazard Mitigation Plan Update 10052017.ppt
HMP_Survey_07112017.pdf
Point of Contact.pdf

Figure B.3.2: Meeting Minutes for 5 Oct 2017 HMP Kick-off Meeting – Page 2 of 2



6/19/2018



1



Figure B.4.1: Briefing for 5 Oct Kick-Off Meeting – Page 1 of 9

6/19/2018



HMP Background

- ▶ Planning document mandated by FEMA to identify and assess potential local disasters
 - To be updated every 5 years - tied to federal grant/disaster relief
 - Should be linked to state HMP - ours does
 - Municipalities either have their own or adopt the county HMP
 - All municipalities must adopt plan within 30 days of publishing
- ▶ Why such a long lead time (due May 2019)?
 - PEMA has identified at least 26 hazards for PA
 - Our hazards are a large subset of these (24 of 26)
 - Coastal Erosion & Levee Failure not applicable for Franklin County
 - Each hazard requires a full vulnerability assessment
 - Approval processes at state and federal level
- ▶ Our current plan is dated May 2014
 - 175 pages (46 of which are GIS maps)
 - Only addressed 8 of the 26 potential hazards
- ▶ Community involvement & buy-in is critical



HMP Plan Structure



- ▶ Title/Routing (3 pages)
- ▶ **Executive Summary (4 pages) - not required**
- ▶ Introduction (3 pages)
- ▶ **Community Profile (18 pages)(GIS)**
- ▶ Planning Process (3 pages)
- ▶ **Risk Assessment (77 pages)(GIS)**
 - Only 8 hazards previously addressed in old plan
 - 24 of 26 hazards → this section will be much longer
- ▶ **Capability Assessment (15 pages)**
- ▶ **Mitigation Strategy (12 pages)**
- ▶ Plan Maintenance (2 pages)
- ▶ Plan adoption - not previous done
- ▶ Appendices (38 pages)

We have to restructure our document to match HMP Template. Page count will drastically increase with the hazard additions.

Figure B.4.2: Briefing for 5 Oct Kick-Off Meeting – Page 2 of 9

6/19/2018



Surveys And Responses

- ▶ Sent to all 22 municipalities on 17 Jul
 - Were due 28 Aug 2017
- ▶ 20 of 22 responses received
 - Greencastle & Warren
- ▶ Missing surveys represent 2.92% of population

Municipality	Population		Response Rate	
	2010	2017	Returned	Not Returned
Greencastle				
Warren				
Greencastle & Warren				
Franklin County				

Methodology

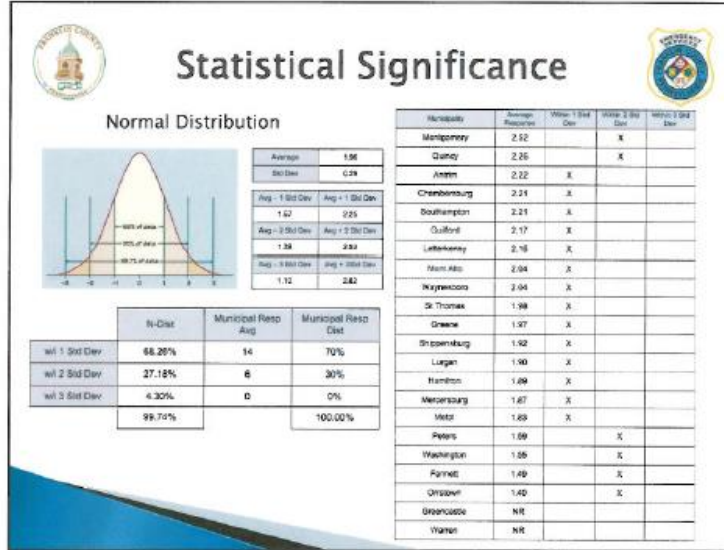



Hazard Risk Factor	=	Probability Rating 30%	+	Impact Rating 30%	+	Spatial Rating 20%	+	Warning Rating 10%	+	Duration Rating 10%
--------------------	---	------------------------	---	-------------------	---	--------------------	---	--------------------	---	---------------------

- ▶ Asked for ratings on 4 of 5 risk characteristics
 - "Duration of Incident" kept standard for county across all surveys
 - Based on ratings from PA HMP
 - Assumes hazard in Guilford has same duration as a hazard in Fannett
 - Try to keep responses standard at County (apples to apples)
- ▶ Hazard Risk Formula calculated for each hazard assessed
 - Probability (30%)
 - Impact (30%)
 - Spatial (20%)
 - Warning Time (10%)
 - Durations (10%)
- ▶ For County Roll-up responses were weighted
 - Based upon 2010 Census population
 - Assures threats are assessed considering population at risk

Figure B.4.4: Briefing for 5 Oct Kick-Off Meeting – Page 4 of 9

6/19/2018



Threat Profiles

- ▶ Use PEMA Guide/HMP and other county profiles as a guide (in threat folders)
 - Make it specific to Franklin County
- ▶ Cite your sources – just like a book report
 - Gives credit to original sources
 - Adds validation to your assessment
 - Use footnotes in your MS Word document to cite sources
- ▶ Choose sources wisely
 - Wikipedia not a preferred source
 - Stick to state/federal sources and recognized experts
- ▶ Times New Roman, 12 font

Figure B.4.6: Briefing for 5 Oct Kick-Off Meeting – Page 6 of 9

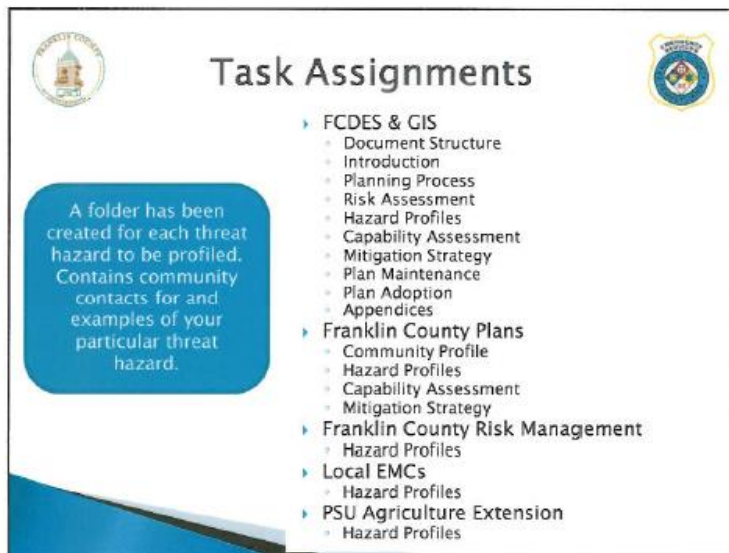
6/19/2018



The slide features the Franklin County logo on the top left and right. The title "Threat Profile Template" is centered at the top. Below the title is a bulleted list of sub-sections for a landslide threat profile.

Threat Profile Template

- ▶ 4.3.x: Landslide
 - 4.3.x.1: Location and Extent
 - Where it can/has happened (include maps/graphs)
 - How much of the county could be impacted
 - 4.3.x.2: Range of Magnitude
 - How big of an impact could it have
 - 4.3.x.3: Past Occurrence
 - How prevalent has the hazard been to the county
 - Use historical data
 - 4.3.x.4: Future Occurrence
 - Where would you likely see it in the county in the future
 - Potential impact
 - 4.3.x.5: Vulnerability Assessment
 - Potential impact to people and critical facilities
 - 4.3.x.6: Environmental Impacts
 - Discuss the potential impacts to the environment if hazard occurs



The slide features the Franklin County logo on the top left and right. The title "Task Assignments" is centered at the top. On the left side, there is a blue rounded rectangle containing text. On the right side, there is a bulleted list of tasks assigned to various departments.

Task Assignments

A folder has been created for each threat hazard to be profiled. Contains community contacts for and examples of your particular threat hazard.

- ▶ FCDES & GIS
 - Document Structure
 - Introduction
 - Planning Process
 - Risk Assessment
 - Hazard Profiles
 - Capability Assessment
 - Mitigation Strategy
 - Plan Maintenance
 - Plan Adoption
 - Appendices
- ▶ Franklin County Plans
 - Community Profile
 - Hazard Profiles
 - Capability Assessment
 - Mitigation Strategy
- ▶ Franklin County Risk Management
 - Hazard Profiles
- ▶ Local EMCs
 - Hazard Profiles
- ▶ PSU Agriculture Extension
 - Hazard Profiles

Figure B.4.7: Briefing for 5 Oct Kick-Off Meeting – Page 7 of 9

Blue Folder Contents

Left Pocket

- Profiling Hazards PA All-Hazard Mitigation Planning SOG
- Landslide Threat profile for Franklin County
- Email contacts for all invited partners
- Suggested subject matter experts to support your profile

Right Pocket

- Profile Examples
 - Columbia County
 - Westmoreland County
 - PA HMP
- Use as a guide for references and depth of analysis
- Do not copy and Paste

Hazard Threat	Proposed Responsible Organization	Proposed Point of Contact	Supporting Organizations
Winds/Storm	FCDES / Planning Coord.	Bob Pavlich	PEMA Weather / Historical Societies
Hurricane/Tropical Storm, Nor'easter	FCDES/Planning Coord./PEMA Weather	Bob Pavlich	PEMA Weather / Historical Societies
Tornado/Windstorm	FCDES/Planning Coord./PEMA Weather	Bob Pavlich	PEMA Weather / Historical Societies
Hailstorm	FCDES/Planning Coord./PEMA Weather	Bob Pavlich	PEMA Weather / Historical Societies
Lightning Strike	FCDES/Planning Coord./PEMA Weather	Bob Pavlich	PEMA Weather / Historical Societies
Extreme Temperatures	FCDES/Planning Coord./PEMA Weather	Bob Pavlich	PEMA Weather / NWS/ Historical Societies
Landslide	FCDES / Planning Coord.	Bob Pavlich	USGS / Historical Societies
Territorial	FCDES	Jiste Carter	PSP / PA DOP
Dam Failure	FCDES	Joanne Sheets	US Army COE
Environmental Hazards	FCDES / HAZMAT Coord.	Matt Kendall	LEPC / PA DEP
Radon Exposure	FCDES HAZMAT Coord.	Matt Kendall	PA DEP
Susdenca/Drinhole	FCDES	Travis Sims	USGS / Historical Societies
Urban Fire and Explosion	FCDES / Ops & Trng	Travis Sims	Local Fire Depts / DCON
Wildfire	FCDES MIT Coord.	Kelly Knepper	PEMA / Exelon
Nuclear Incident	FCDES / Radiological Officer	Kelly Knepper	PEMA / Historical Societies
Flood/Fresh Flood/ice Jam	Franklin County Planning Dept.	Phil Tanquins	PEMA / Historical Societies
Transportation Accident	Franklin County Planning Dept.	Phil Tanquins	Franklin County
Earthquake	Franklin County Risk Mgmt.	Loretta McClure	Franklin County GIS
Civil Disturbance	Franklin County Risk Mgmt.	Loretta McClure	PSP / Local Police Depts / FC Sheriff
Pandemic and Infectious Disease	Franklin County Human Services	Cori Selhammer	Chambersburg Hospital / Waynesboro Hospital
Utility Interruption	Local Municipality	Shawn Conwell	Local Utility Providers
Invasive Species	PSU Agriculture Extension	Cassie Yoer	USDA / Local Farmers
Mass Food and Animal Food Contamination	PSU Agriculture Extension	Cassie Yoer	USDA / Local Farmers
Drought	PSU Agriculture Extension	Cassie Yoer	USDA / Local Farmers

Figure B.4.8: Briefing for 5 Oct Kick-Off Meeting – Page 8 of 9

6/19/2018



The slide features two logos at the top: the Franklin County seal on the left and the Emergency Management logo on the right. The title "Community Integration" is centered between them. A list of community contacts is on the left, and a blue callout box on the right explains that a folder of recommended contacts will be provided.

Community Integration

- ▶ American Red Cross & other non-profits
- ▶ Local Emergency Management officials
- ▶ Historical Societies
- ▶ Local Industry
- ▶ Chambers of Commerce
- ▶ Tax Assessor
- ▶ Utility Providers
- ▶ First Responders
- ▶ Communications Providers
- ▶ Local Farmers
Franklin County Agricultural Society
- ▶ Community Development partners
- ▶ School Districts

A list of recommended community contacts for your particular hazard threat are included in the folder you will receive.

Figure B.4.9: Briefing for 5 Oct Kick-Off Meeting – Page 9 of 9

Appendix B: Meeting Minutes/Correspondence



Franklin County Emergency Services Alliance

franklinalliance@gmail.com

Meeting Date: 12/9/2017

Name	Organization	email (if not currently receiving)
Don Eskilem	ST THOMAS	
George Rot	FANNETT TWP	
BOB FULICH	FCDES	
Diane Burkhardt	FCFC Bondville	
Shawn Corwell	Greene Township.	
Dale Myers III	Lurgan / Letterkenny PHVFC	
Anna Swartz	Metal Twp	
Frank Holdro	Sulford Twp.	
RICH TROUP	HAMILTON	
Laudy Negley	Hamilton	
SM CRESSON	SOUTHAMPTON	
P. Ted Reed	GRRSTOWN BORO	
KEVIN BARLES	RAC/BREWSTER	
Pat Heagle	Borough of Waynesburg Medic 2	
JAKE CRIDDER	FCDES	

Figure B.6: Sign-In Sheet for 9 December 2017 Emergency Alliance Meeting

FRANKLIN COUNTY DEPARTMENT OF EMERGENCY SERVICES

390 NEW YORK AVENUE
CHAMBERSBURG, PA 17201-7883



PHONE: (717) 264-2813

FAX: (717) 267-2813

13 Dec 2017

MEMO FOR RECORD

SUBJECT: HMP UPDATE MEETING – HVA AND MITIGATION STRATEGY DISCUSSIONS

FROM: FRANKLIN COUNTY DES PLANNING COORDINATOR

1. We held an HMP update meeting today (13 Dec 2017) to discuss the acceptance of the final version of the Hazard Vulnerability Analysis (HVA) Risk Factor Prioritization as well as the proposed HMP Mitigation Strategy. The meeting was held at the Franklin County Public Safety Training Center (FCPSTC). Of the 132 Hazard Mitigation Planning Team (HMPT) members invited to the meeting, 52 attended this session. Refer to the attached Sign-In sheet for attendee specifics.
2. The first agenda item was to discuss and approve the HVA Risk Factor Prioritization for inclusion in the draft document. The HVA methodology that was approved at the 5 Oct meeting was again explained to the HMP Team. The municipalities were informed that their priorities for threats in their jurisdiction are maintained in the HMP document. The county is required to provide a roll-up of these municipal threats and that the threats from every municipality was used in conjunction with the associated percentage of county population residing in each municipality to create a weighted average risk factor for each threat identified. These risk factors were then ranked from highest to lowest to get the county's threat prioritization. Refer to the attached Slide 3 of the *Franklin County Hazard Mitigation Plan Update 12132017v2* briefing for specific details on the prioritization.
3. The next discussion area was the review of the 2014 HMP Mitigation Strategy. The HMPT was informed of the 4 Goals that were in the plan and that they were not linked to anything externally or internally in the HMP. It was also briefed that the existing plan had 38 Mitigation Actions identified and that even though they were linked to the hazard threats, they were not linked to the HMP Goals previously identified. Refer to Slide 8 of attached *Franklin County Hazard Mitigation Plan Update 12132017v2* briefing.
4. A new Mitigation Strategy was proposed that linked the 4 new HMP Goals not only to newly developed HMP Objectives, but also to an overarching, county-level external strategic plan, the Franklin County Emergency Services Strategic Plan, revised 2016

Figure B.7.1: Meeting Minutes for 13 Dec 2017 HMP Meeting – Page 1 of 5

Appendix B: Meeting Minutes/Correspondence

(Refer to Slide 9 of attached brief). Each proposed Goal and underlying Objectives were discussed. It was decided that under Goal #1, that we needed to add an Objective to talk about supporting the first responder agencies in the county to augment/increase/enhance the recruitment and retention of their volunteer service member community. This is a good addition to the Mitigation Plan and will be included. The approval of the linkage to the FCDES Strategic Plan was put on hold until a copy of that plan could be sent to HMPT members for review. This plan will be sent to all HMPT members to review and electronic voting/approval of this county-level plan linkage will be used to finalize approval/disapproval. The internal document structure of the proposed new Goals/Objectives was approved by the HMPT to include the additional Objective for Goal #1 discussed above.

5. The biggest point of discussion during this brief was the methodology used to finalize the HVA for inclusion in the HMP. A team member was concerned that their municipality's threat prioritization was in some cases significantly different than those of neighboring municipalities. The HVA methodology was explained again to the team with the understanding that it was fully expected that each municipality would have different ratings for each hazard threat based upon geography, resources, experience, and disposition of the population in that municipality. The team member was also concerned that the hazard threats were not well defined to create a common understanding of the threats to the municipalities completing the hazard threat survey. The member was provided a copy of the survey that was given to every municipality that included the PA HMP definitions for each of the threats that were asked to be assessed. Several other HMPT members cited examples as to why these differences are expected. The primary goal of this HVA process was to make sure the county used the municipal priorities to create a risk factor roll-up, and not just select the priorities without municipal input. As a Commonwealth, Pennsylvania sees the municipalities as the seat of authority on disaster mitigation and planning and this methodology holds true to that premise. The HMPT voted on and approved the HVA Risk Factor Prioritization. The member with the original question on the HVA asked if they could relook at their survey responses. We have no issue with these changes, but we will need to freeze changes to the HVA relatively quickly for inclusion in the HMP. It is understood by all members that the HMP is a living document to be reviewed and edited on an annual basis and that the HVA is only a snapshot in time. Changes to priorities for hazard threats will be addressed at these annual reviews/updates.
6. There were several questions that came up during the HMP discussions. These questions and corresponding answers are documented below:
 - a. Why are the hazard threat assessments so widely different even between neighboring municipalities? How were municipalities to have a common understanding of the threat hazards?
ANSWER: As explained above, each communities' threats are expected to be rated differently based upon geography, available resources, experience, and disposition of the population in that municipality. The county's priorities were based off a weighted average (due to municipal population) of the municipal risk factors for each threat to determine the county's assessment for risk factor priorities, but each municipality's priorities are maintained in the HMP document. Additionally, the municipalities were given the accepted PA State

Figure B.7.2: Meeting Minutes for 13 Dec 2017 HMP Meeting – Page 2 of 5

Appendix B: Meeting Minutes/Correspondence

HMP definitions of all applicable hazard threats with the surveys to provide this common understanding of the threats to be assessed.

- b. When will the public be brought into the discussion of the HMP? How will the residents know?
ANSWER: The next meeting in February 2018 will be open to the public to participate in the HP Update process as we are slated to discuss capabilities and mitigation actions. Additionally, as Sections of the HMP document reach draft stage, they will be posted on-line for public review and comment. The delay on open-public participation was intentional to allow for a foundation of the HMP to be established. We did not want the start of the update process to get bogged down by special interests early on. We are at a stage now that discussions on special public interest items can be addressed without hindering progress. Also, solicitation of public Mitigation Actions will also be done, via on-line venues, to increase the public's participation.
- c. Can we table the approval for the FCDES Strategic Plan Linkage until all members have a chance to review this plan?
ANSWER: Yes. We will send out a copy of the Franklin County Department of Emergency Service's Strategic Plan for HMPT members to review. The team will then be asked to vote electronically on the approval to link these two planning documents. A timeframe will be established on this vote, and non-response within the allotted timeframe will be considered concurrence.
- d. Can you explain the status of the adoption of the current (2014) Franklin County HMP?
ANSWER: After the 2014 Franklin County HMP was "Approved Pending Adoption", the municipalities were to pass a resolution adopting this plan. Otherwise, they would have to develop their own HMP to be eligible for the non-emergency federal hazard mitigation grant funding. Something in the process was broken, as only 3 of our 22 municipalities had adopted the plan as of 29 Nov 2017. FCDES, working with PEMA and FEMA, has restarted this adoption process to get our municipalities covered by the existing County HMP until the new update is ready for adoption in May of 2019. Six (6) municipalities have passed resolutions adopting the 2014 HMP in the past week and they currently are at FEMA for approval. Several other municipalities are in the process of doing this. This will allow more of our municipalities to be eligible for the non-emergency federal hazard mitigation grant funding in 2018.
- e. It is important to get elected officials' participation in these HMP discussions. What steps are being taken to make sure municipal elected officials are involved in this process?
ANSWER: Every elected official, with influence on emergency operations, and Local EMC in the county is included in all correspondence pertaining to the HMP update process. Additionally, the county is participating in regularly scheduled elected official events, such as the Emergency Services Alliance and Township Supervisors Conference to brief the status and importance of HMP participation. Participation from all municipalities to date has been good, but it is worthwhile

Figure B.7.3: Meeting Minutes for 13 Dec 2017 HMP Meeting – Page 3 of 5

Appendix B: Meeting Minutes/Correspondence

to keep this initiative in front of the elected officials to make sure participation is maintained.

- f. Will the general public be provided these hazard threat surveys to input their priorities into this process?
ANSWER: This was considered at the onset of the HVA methodology development. However, since Pennsylvania is a Commonwealth, the municipalities are the seat of authority on disaster mitigation and planning. This being the case, it was decided, that the municipalities would be responsible for addressing their citizens priorities in their surveys for threat hazards in their jurisdiction. This HVA methodology was approved at the 5 Oct 2017 HMP Update meeting.
- g. Are the Objectives and associated Mitigation Actions prioritized?
ANSWER: At this point, no. However, once we determine the specific Goals/Objectives/Actions to be included in the HMP Mitigation Strategy, each Mitigation Action will be prioritized based on the prescribed methodology in *Appendix 12 of the PEMA All-Hazard Mitigation Planning Standard Operating Guide* (See Attachment).
- h. How are we addressing the need to use various communications sources (social media, Wireless Emergency Alert, Twitter, ...etc.) to convey critical emergency warning alerts and disseminate planning/preparedness information to the general public on these threats?
ANSWER: Specific Mitigation Actions were added to the HMP Mitigation Strategy that address the need to continue to use alternative communications sources, such as those above, to get warnings and info to the public in Franklin County. We are encouraging the municipalities to submit additional Mitigation Actions to address these concerns specifically for their jurisdictions. These proposed Mitigation Actions will be sent out electronically for HMPT members to review and augment. All Mitigation Actions will be discussed for approval at the next HMP Update meeting.
- i. How does the HVA cover the varying range of storms that could be a threat (i.e how are sleet, hail, blizzard, thunderstorms classified as they could come with varying intensities)?
ANSWER: Each hazard threat profile has paragraphs that discuss "Location and Extent" as well as "Range of Magnitude". It is in these paragraphs that the varying types and intensities of these hazards are identified from minor inconveniences to major catastrophes. The threat assessments are based on worst case scenario of hazards. It is understood that a tornado can cause little to no damage or be completely devastating. The HVA is simply intended to provide an assessment on probability of occurrence and impact if it does (again, as a worst case scenario).
- j. How is the government going to account for threats like the H1N1 flu outbreak?
ANSWER: Pandemic and Infectious Disease is one of the hazard threats identified for Franklin County and a hazard profile is being developed to address it. We are in cooperation with the local medical community to assure their

Figure B.7.4: Meeting Minutes for 13 Dec 2017 HMP Meeting – Page 4 of 5

Appendix B: Meeting Minutes/Correspondence

concerns and capabilities are folded into the process. Additionally, we have proposed a Mitigation Action that would have County Health and Human Services, County Emergency Services, and Local Health care providers coordinate and draft an Annex to the Franklin County Emergency Operations Plan specifically to address the concerns of a pandemic in the county.

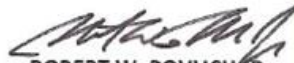
k. Where will tick-borne illnesses fall in the HVA?

ANSWER: The tick itself would be covered under Invasive Species, but the associated illness would fall under Pandemic and Infectious Disease. These two, like other hazard threats, can be linked. The real issue would be what hazard is being addressed by the proposed mitigation action. If eradication of the tick is the mitigation action, then it would apply to Invasive Species. If a treatment plan for the illness is part of the action, then it would be applied to the Pandemic and Infectious Disease threat.

l. Will the Mitigation Actions contain metrics to measure progress?

ANSWER: Yes, where applicable. Some actions lend themselves to metrics to evaluate progress, such as number of households participating in the NFIP program. Some, like the purchase and repurpose of a property do not...they are either completed or not. The bigger issue is that the Mitigation Actions are to be reviewed every year and be evaluated for progress. This has been lax in the past and needs to be rectified. A review of the existing mitigation actions for the 2014 HMP is underway and will be discussed and voted upon at the next HMP Update meeting.

7. The HMPT was informed that the next update meeting would be held in the Feb 2018 timeframe. A survey will again be sent out to solicit the best date/time for the meeting, as this process more than doubled our attendance for this meeting. The HMPT members were also informed that we would discuss the wrap-up of items from this meeting as well as begin discussion on the Capabilities section for the HMP document. A copy of these meeting minutes and associated documentation will be sent to all HMPT members. The meeting was adjourned at 1230 hrs.

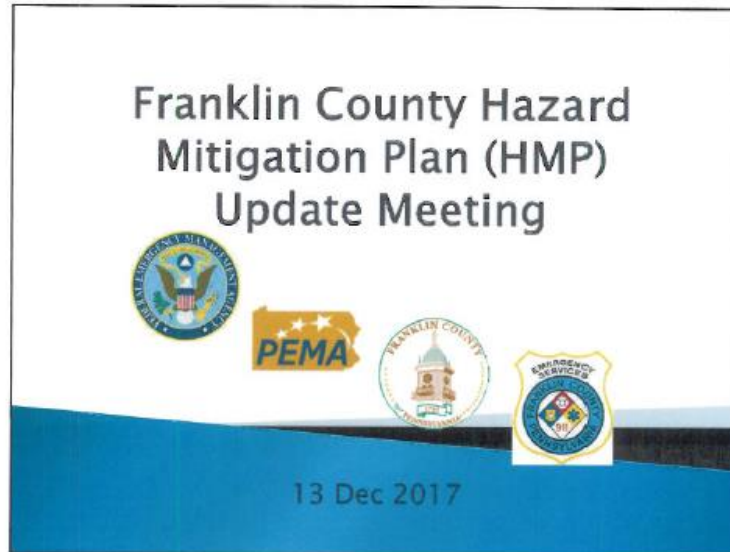

ROBERT W. POVLICH JR
Planning Coordinator
Franklin County DES

3 Attachments:

Attendance Sheet 12132017.pdf
Franklin County Hazard Mitigation Plan Update 12132017v2.ppt
Appendix 12 of the PEMA All-Hazard
Mitigation Planning Standard Operating Guide.pdf

Figure B.7.5: Meeting Minutes for 13 Dec 2017 HMP Meeting – Page 5 of 5

6/19/2018



1

Figure B.8.1: Briefing for 13 Dec 2017 HMP Meeting – Page 1 of 8


6/19/2018




Threat Profiles



- ▶ 12 of 24 complete and integrated into draft HMP document
 - 20 draft profiles turned in for integration
 - 4 drafts still being worked
- ▶ All were to be completed by 13 Dec 2017
 - Maps and data collection delaying Wildfire, Subsidence, Environmental Hazards & Flooding
 - All must complete with maps and integrated by 15 Jan 2018
- ▶ Delays could impact:
 - Mitigation Strategy Development
 - Capability Assessment and Identification
 - Overall time to get to rough draft of document



Threat Profile Status



1	Winter Storm	FCDES	13	Pandemic/Infectious Disease <i>(in queue)</i>	FFCMH
2	Hurricane/Tropical Storm/Nor'easter	FCDES	14	Invasive Species <i>(in queue)</i>	PSU Ag Ext.
3	Tornado/Windstorm	FCDES	15	Earthquake	Risk Mngt
4	Utility Interruption	Greene TWP	16	Subsidence/Sinkhole <i>(GIS map)</i>	FCDES
5	Transportation Accident <i>(in queue)</i>	Plans Dept.	17	Radon Exposure	FCDES
6	Extrema Temperatures	FCDES	18	Terrorism	FCDES
7	Drought <i>(in queue)</i>	PSU Ag Ext.	19	Urban Fire and Explosion	FCDES
8	Lightning Strike	FCDES	20	Wildfire	FCDES
9	Dem Failure	FCDES	21	Nuclear Incident	FCDES
10	Hailstorm	FCDES	22	Mass Food/Animal Feed Contamin. <i>(in queue)</i>	PSU Ag Ext.
11	Environmental Hazards <i>(missing 1 map)</i>	FCDES	23	Civil Disturbance	Risk Mngt
12	Flood/Flash Flood/Ice Jam <i>(need RISK maps)</i>	Plans Dept.	24	Landslide	FCDES
Status					
Complete and Integrated		Integrated - Missing Maps		Draft Received - Integration in progress	
Tasked Out - No Draft Received					

Figure B.8.3: Briefing for 13 Dec 2017 HMP Meeting – Page 3 of 8

6/19/2018

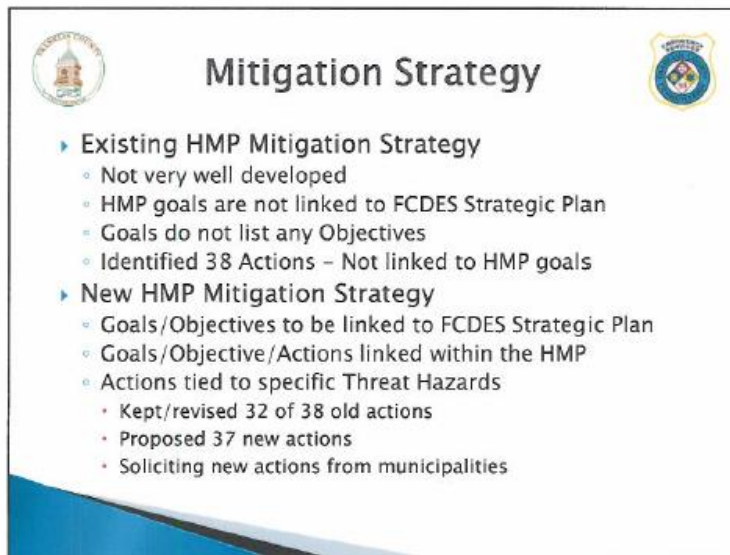
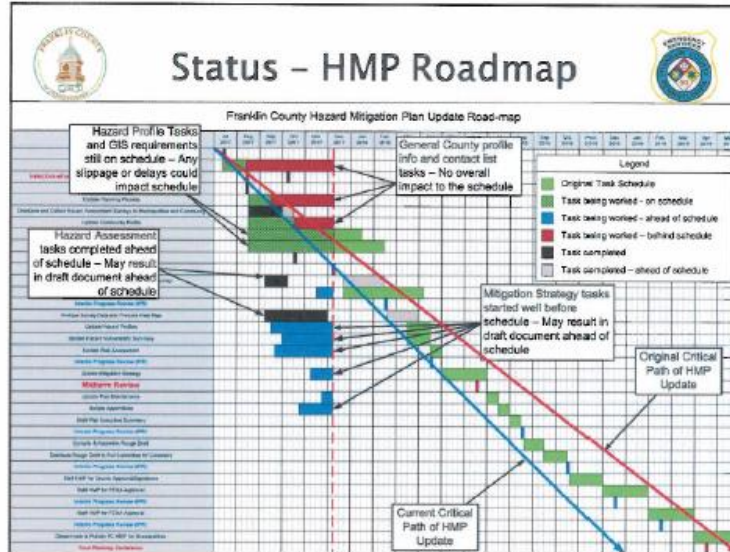


Figure B.8.4: Briefing for 13 Dec 2017 HMP Meeting – Page 4 of 8

6/19/2018





Goals/Objectives Linkages

GOAL 1: Protect the lives, health, safety, and property of the citizens of Franklin County from the impacts of all hazards.	FCDES Strategic Plan Objective Linkages
OBJECTIVE 1A: Develop, improve, and protect systems that provide early warnings, emergency response communications, and evacuation procedures.	Objectives: 1.10, 1.12, 2.7, 2.8, 2.11, 2.12 & 2.14
OBJECTIVE 1B: Provide adequate, safe, and efficient evacuation routes and shelters during hazard events.	Objectives: 1.13, 2.7, 2.8 & 2.12
OBJECTIVE 1C: Protect public services and critical facilities, including infrastructure, from loss of use during all hazard events and potential damage from such events.	Objectives: 1.1-1.7, 2.1, 2.2, 2.4, 2.7, 2.8 & 2.12
OBJECTIVE 1D: Establish partnerships among all levels of local government, the private sector and/or non-governmental organizations to improve and implement methods to protect people and property.	Objectives: 3.1-3.3
OBJECTIVE 1E: Reduce all hazard-related risks/vulnerabilities to potentially isolated populations within the county.	Objectives: 1.2, 2.1, 2.7, 2.8, 2.11, 2.12, 2.13 & 3.1

Figure B.8.5: Briefing for 13 Dec 2017 HMP Meeting – Page 5 of 8


6/19/2018

 Goals/Objectives Linkages 	
GOAL 2: Increase public awareness regarding all hazards, preparedness, and mitigation.	FCDES Strategic Plan Objective Linkages
OBJECTIVE 2A: Use the best available data, science, and technologies to educate the public and improve understanding of the location and potential impacts of all hazards, the vulnerability of building types/community development patterns, and the measures needed to protect life safety.	Objectives: 2.11, 2.12, 3.1 & 3.2
OBJECTIVE 2B: Develop preparedness information/outreach programs to disseminate information on all hazard disaster response.	Objective: 3.2
OBJECTIVE 2C: Ensure that all citizens and stakeholders are well trained (or offered training) regarding all hazards and appropriate prevention and mitigation activities.	Objectives: 3.2 & 3.3


 Goals/Objectives Linkages 	
GOAL 3: Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of all hazards.	FCDES Strategic Plan Objective Linkages
OBJECTIVE 3A: Strengthen codes and land use planning/enforcement, so that new construction or redevelopment can avoid or withstand the impacts of all hazards.	Objectives: 2.5, 2.6, 2.13, 2.14, 3.1, 3.2 & 4.2
OBJECTIVE 3B: Regulate construction/development in the county to prevent increases in runoff and subsequent increases in flood flows.	Objective: 2.5
OBJECTIVE 3C: Provide information to municipal officials regarding available funding for mitigation projects.	Objectives: 2.6, 3.1 & 4.2
OBJECTIVE 3D: Improve the participation rate in the National Flood Insurance Program (NFIP).	Objective: 2.5
OBJECTIVE 3E: Encourage mitigation through incentive-based programs, such as the Community Rating System (CRS), Firewise, and Storm Ready programs.	Objectives: 2.6 & 3.1

Figure B.8.6: Briefing for 13 Dec 2017 HMP Meeting – Page 6 of 8

6/19/2018



Goals/Objectives Linkages



GOAL 4: Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.	FCDES Strategic Plan Objective Linkages
OBJECTIVE 4A: Retrofit, purchase, or relocate structures in high hazard areas, including those known to be repetively damaged.	Objectives: 2.6, 3.1 & 4.2
OBJECTIVE 4B: Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans.	Objective: 2.5
OBJECTIVE 4C: Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and the use of natural processes.	Objectives: 2.6 & 3.1



- 
- ### Decision Points
- 
- ▶ Accept final HVA for inclusion in HMP?
 - Methodology approved at 5 Oct 2017 meeting
 - Vote – Approve/Disapprove
 - ▶ Agree with linkage to FCDES Strategic Plan?
 - Any other foundation documents for better linkage?
 - Vote – Approve/Disapprove
 - ▶ Comfortable with New Goals?
 - Any adds/changes/deletes?
 - Vote – Approve/Disapprove
 - ▶ Are the Objectives sufficient to meet Goals?
 - Any adds/changes/deletes?
 - Vote – Approve/ Disapprove

Figure B.8.7: Briefing for 13 Dec 2017 HMP Meeting – Page 7 of 8

6/19/2018

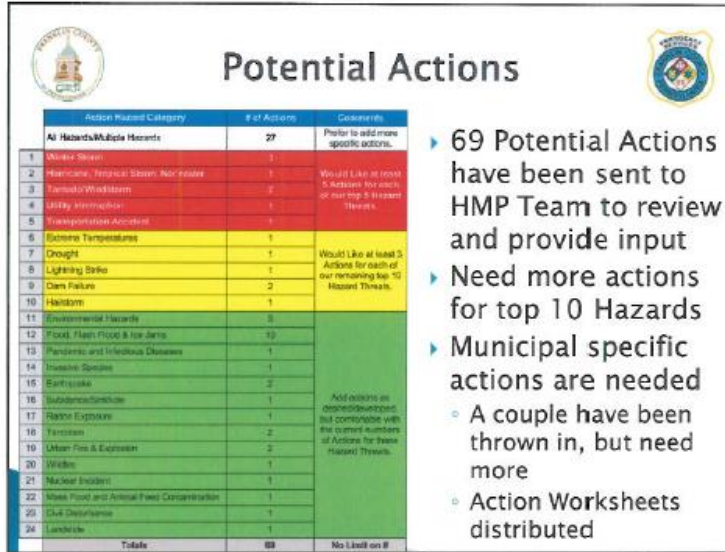



Figure B.8.8: Briefing for 13 Dec 2017 HMP Meeting – Page 8 of 8

Appendix B: Meeting Minutes/Correspondence



Franklin County Department of Emergency Services Sign-In Sheet

Event	Hazard Mitigation Plan Update – Mitigation strategy Meeting		
Dates/Times	12/13/2017 (1100-1300)		

Initials/Sign-in	Name	Organization	Phone
	Adams, Joseph	PA DEP	
<i>MAA</i>	Alleman, Mary Ann	FCDES	<i>717-264-2813</i>
<i>JKA</i>	Atkins, Justin	NRCS-Chambersburg	<i>717-264-8074</i>
	Barnes, Lee	CSX	
<i>JB</i>	Beckner, Teresa	FC Finance Dept	
<i>SLB</i>	Benshoff, Sarah	FC GIS	
<i>Kevin Berkheimer</i>	Berkheimer, Kevin	Columbia Gas of PA	<i>717-515-9535</i>
	Bingaman, Bobby	PennDot	
	Bitner, Doug	FC EMS Council	
	Bladen, Warren	Adams County EMC	
	Bock, Michael	Waynesboro Boro. EMC	
	Boyd, Bob	Lurgan TWP Sup.	
	Brake, John	Peters TWP Sup.	
	Brown, Cherie	LEAD EMC	
<i>RJB</i>	Brubaker, Roy	DCNR	<i>717-352-2211</i>
	Bumbaugh, Kerry	Quincy TWP EMC	
<i>David</i>	Burkett, David	Fannett-Metal SD	<i>717-349-3011</i>
	Burns, Todd	Greene TWP Sup.	
	Carroll, Kristin	Chambersburg Area SD	
	Cook, Gregory	Guilford TWP Sup.	
<i>Shawn</i>	Corwell, Shawn	Greene TWP EMC/FCEA	<i>717-263-9668</i>
<i>WC</i>	Crider, Jacob	FC EMC	<i>717-264-2813</i>
	Duffey, Jim	FCCTC	
<i>Rob L</i>	Eberly, Rodney	Antrim Township	<i>717-597-3814</i>
	Epley, John	Shippensburg Borough Mgr.	
	Eshleman, Don	St Thomas TWP EMC	
	Farner, Dan	Waynesboro Hospital	
<i>DCF</i>	Finch, Dave	Chambersburg Boro. EMC	<i>717-729-7126 cell</i>
	Finch, Jennifer	Hagerstown Herald Mail	
	Fultz, Rich	Perry County EMC	
	Garling, Mark	Mont Alto Boro. EMC	
<i>Jeff Geesaman</i>	Geesaman, Jeff	Washington TWP Sup.	<i>717-262-3120</i>

Figure B.9.1: Sign-In Sheet for 13 December 2017 HMP Update Meeting – Page 1 of 5



Franklin County Department of Emergency Services Sign-In Sheet

Event	Hazard Mitigation Plan Update – Mitigation strategy Meeting
Dates/Times	12/13/2017 (1100-1300)

Initials/Sign-in	Name	Organization	Phone
	Geesaman, Mary	Corpus Christi	
	Gossard, Michael	Mont Alto Boro. Mgr.	
	Graham, Brad	Antrim TWP	
<i>Carrie Gray</i>	Gray, Carrie	FC Administrator	717-830-7771
<i>Beverly Green</i>	Green, Beverly	First Energy Corp/Penelec	814-947-6303
<i>Bob Gunder</i>	Gunder, Bob	Quincy TWP	717-762-5679
	Hamm, Rick	SCTF EWG Lead	
<i>John Hart</i>	Hart, John	FC Comm. Chief Clerk	<i>Comm. Clerk</i>
<i>R. David Hayes</i>	Hayes, R. David	Washington Co. MD EMC	<i>270-318-4737 CHARLES JIMMER</i>
	Himes, Gary	Hamilton TWP EMC	
<i>Frank Hobbs</i>	Hobbs, Frank	Guilford TWP EMC	717-729-2847
	Hoover, Gregory	Shippensburg Area SD	
	Hull, Ann	FC Historical Society	
	Hykes, M.	PennDot	
	Jung, Peter	NOAA/NWS – State College	
<i>Anita Keller</i>	Keller, Anita	FC Tax Services	717-261-3802
	Keller, Dave	County Commissioner	
	Kemper, Lori	Adams Electric	
<i>Matthew Kendall</i>	Kendall, Matthew	FCDES/FCFCA /LetterKenny	717-729-0973
	Kepple, Don	DCNR	
<i>Michael Kessinger</i>	Kessinger, Michael	Hamilton TWP Sup.	717 729-9598
<i>David Kline</i>	Kline, David	First Energy Corp/West Pen	301-491-9100
	Kline, Tod, Dr.	Waynesboro Area SD	
	Knepper, Kelly	FCDES	
	Lail, Victor	Dominion Transp. Inc.	
<i>Laura Laucks</i>	Laucks, Laura	PEMA	
	Lindenmuth, David	Shippensburg Boro. EMC	
	Little, Bill	FC LEPC	
<i>Dan May</i>	May, Dan	Chambersburg Mall	717-816-5009
<i>Loretta McClure</i>	McClure, Loretta	FC Risk Management	717-261-3819
	Meek, Jim	Washington TWP EMC	
	Meyers, Craig	Greencastle Boro/Antrim TWP EMC	

Figure B.9.2: Sign-In Sheet for 13 December 2017 HMP Update Meeting – Page 2 of 5

Appendix B: Meeting Minutes/Correspondence



Franklin County Department of Emergency Services Sign-In Sheet

Event	Hazard Mitigation Plan Update – Mitigation strategy Meeting
Dates/Times	12/13/2017 (1100-1300)

Initials/Sign-in	Name	Organization	Phone
	Miller, Anne	Penn State – Mont Alto	
	Miller, Linda	FC Register/Recorder	
	Mistick, Barbara, Dr.	Wilson College	
	Mowen, Jackie	Waynesboro Chamb. of Comm.	
	Murr, Tim	CVCS	
	Myers, Charles	Letterkenny TWP Sup.	
	Myers III, Dale	Lurgan TWP EMC	
<i>Randy Negley</i>	Negley, Randy	Hamilton TWP Sup.	
	Nevada, Steve	FC Asst. Administrator	717-264-2413
	Newell, David, Dr.	Scotland Campus	
	Noll, Greg	SCTF	
<i>Anthony Ogburn</i>	Ogburn, Anthony	RACES	717-552-1909
	Padasak, Joseph, Dr.	Chambersburg Area SD	
	Perrin, Steve	Texas Eastern	
	Peters, Ed	Chambersburg Area SD	
	Petersheim, Angie	Shalom Christian Acad.	
	Pezon, Ron	Chambersburg Electric Co.	
<i>Robert Povlich</i>	Povlich, Robert	FCDES	717-264-2813
	Prowant, Doug	Orrstown Boro. Mgr.	
	Purdy, Noel	Chambersburg Chamb. Of Comm.	
	Radford, Mari	FEMA	
	Ratliff, Eden	Greencastle Boro. Mgr.	
<i>Paul T Reed</i>	Reed, Ted	Orrstown Boro. EMC	717-729-1644
	Ressler, John	Warren TWP EMC/Sup.	
	Rife, Mike	Montgomery TWP Sup.	
	Rock, Dave	PennDot	
	Ross, Todd	Valley Rural Electric	
	Rotz, Sam	Peters TWP EMC	
	Sajeski, Eugene	PEMA	
	Schiamanna, David	Chambersburg Area Dev. Corp.	
<i>Cori Seilhamer</i>	Seilhamer, Cori	FFCMH/ID	717-372-1931
<i>Justin Shaulis</i>	Shaulis, Justin	Cumberland Co. Png Coord	717-218-2914

Figure B.9.3: Sign-In Sheet for 13 December 2017 HMP Update Meeting – Page 3 of 5

Appendix B: Meeting Minutes/Correspondence



Franklin County Department of Emergency Services
Sign-In Sheet

Event	Hazard Mitigation Plan Update – Mitigation strategy Meeting
Dates/Times	12/13/2017 (1100-1300)

Initials/Sign-in	Name	Organization	Phone
JS	Sheets, Joanne	FCDES	
DS	Shields, Doug	Southampton TWP EMC	717-729-8588
	Shively, Robert	Cumberland Co EMC	
	Shupe, William	Columbia Gas of PA	
TS	Sims, Travis	FCDES	
	Sites, Steve	Fannett TWP EMC	
TS	Sollenberger, Tim	St Thomas TWP Sup.	717-369-2411
JS	Soubier, James	FCSPTC/FCPCA	
	Stains, Jason	Waynesboro Boro. Mgr.	
MS	Steinbugl, Matthew	NWS Central PA WFO	
	Stevens, Melissa	Chambersburg Area SD	
	Stonehill, Jeff	Chambersburg Boro. Mgr.	
DRS	Stoner, Dave	Franklin County Conserv. Dist.	
	Stoner, Dusty	Mercersburg Boro. EMC	
	Stoy, Derek	Acting Mercersburg Boro. Mgr.	
	Strait, Ruth	Fulton County EMC	
	Strine, Matthew, Dr.	Tuscarora SD	
AHS	Swales, Anna	Metal Township EMC	717-349-7452
	Szabo, Ernest	PEMA Hazard Mitigation	
	Tarquino, Phil	FC Plans Dept.	717-261-3855
	Thierwechter, John	FCDES	
	Thomas, Bob	County Commissioner	717-261-3810
	Thompson, Joe	Acting Huntingdon Co. EMC	
	Thrush, Sam	FC Plans Dept.	717-261-3855
	Titus, Katherine	Mercersburg Academy	
	Trail, Kendra, Dr.	Greencastle-Antrim SD	
	Varner, Eric	Letterkenny TWP EMC	
	Walter, Leslie	Salvation Army Chambersburg	
	Watson, Barbara	NOAA/NWS	
	Weaver, Allen	Juniata Co. EMC	
	Weigle, Sharon	USDA Farm Service Agency	
AW	White, Allen	American Red Cross	717-243-5211

Figure B.9.4: Sign-In Sheet for 13 December 2017 HMP Update Meeting – Page 4 of 5

**Local EMC's Quarterly Meeting Agenda
Thursday, January 25, 2018 6:00 PM**

- A. Call to order
- B. Old business
 - Hazard Mitigation Plan Update
- C. New business
- D. Presentation on Cave Search and Rescue by Mr. Patrick Minnick, Waynesboro, PA. His presentation provides tips on cave safety, rescue and who to contact in a cave emergency.
- E. Matters for the good of the order and next meeting date
- F. Adjournment

Figure B.10: Local EMC Meeting 25 Jan 2018 Agenda

FRANKLIN COUNTY DEPARTMENT OF EMERGENCY SERVICES

390 NEW YORK AVENUE
CHAMBERSBURG, PA 17201-7883



PHONE: (717) 264-2813

FAX: (717) 267-2813

16 Feb 2018

MEMO FOR RECORD

SUBJECT: HAZARD MITIGATION PLAN (HMP) MEETING

FROM: FRANKLIN COUNTY DES PLANNING COORDINATOR

1. We held an HMP meeting (16 Feb 2018) to discuss the progress of the plan to date, the review of the draft Hazard Vulnerability Analysis (HVA), Mitigation Actions, and the Municipal Capabilities Survey. Each of these discussion items are captured in the following paragraphs.
2. **HMP Status/Roadmap:** We briefed about our Steering Group meeting with FEMA/PEMA held on 1 Feb 2018. We explained that both FEMA and PEMA were pleased with our progress and FEMA has even sent their review comments back. These comments have already been integrated in the new draft. We also talked about the timelines for the Mitigation Strategy (Section 6) and Capabilities Section (Section 5). Due to the fact that the Capabilities Section will identify gaps to be addressed in the Mitigation Strategy as actions, it was determined that these two sections of the document would have to be done at the same time. In order to stay on our accelerated timeline, both of these Sections need to be closed for input and a draft started by May 2018. The discussions on suspenses to meet this timeline are covered in the next three paragraphs.
3. **Review of HVA:** The HVA was posted on 1 Feb 2018 for the HMPT review and 6 Feb 2018 public review. We discussed the need for a closure date for the review and comment of the HVA. A date was proposed of 28 Feb 2018 to close this initial draft review. This date was approved by the HMPT as a suspense for this action. All comments and recommended changes are due by that date. The team was informed that one final review of the HVA Section with all comments and changes will be made after these inputs have been integrated. The posting of the final draft for approval and inclusion in the HMP will be determined after the 28 Feb 2018 closure date.
4. **Mitigation Actions:** The original suspense for the municipal mitigation action submission was 31 Jan 2018. However, after looking into the requirements for the Capabilities Section, it was determined that mitigation actions would need to be drafted to address any gaps that were identified in the Municipal Capabilities Survey. This fact was overlooked at the

Figure B.12.1: Meeting Minutes for 16 Feb 2018 HMP Meeting – Page 1 of 2

Appendix B: Meeting Minutes/Correspondence

time the original suspense was levied. We discussed the need to extend this suspense until after the information collection from the Municipal Capabilities Survey was complete. The Team agreed that the new suspense for municipal mitigation actions should coincide with the closeout date for the Capabilities Survey, and that date was set at 23 Mar 2018. We also offered DES Planning Coordinator assistance to any municipality that is having a difficult time determining what projects or initiatives qualify as mitigation actions.

5. **Municipal Capability Survey**: We explained the need to identify inherent planning and regulatory capabilities at the municipalities to mitigate hazards. This is the focal point of Section 5 of the HMP. To collect this information we modified two surveys that the Columbia County EMC used in their recent HMP Update. We combined the questions into one 11 page survey that was to be sent to the municipal officials to answer. The survey was shown to the team and they agreed that this survey would be sufficient to collect this data. We asked the team about the best way to distribute this, either via email, certified letter, or both. The team decided to send it out via email first and only follow up with a certified letter if the responses were lagging. The team voted and agreed to distribute the survey with a suspense of 23 Mar 2018.

One question arose during the discussion. It was about how to determine if our existing planning efforts at the municipal level were sufficient to address the hazards outlined in the HVA. It was explained that the Franklin County Plans Department has some of this information already and that the survey would determine what actual existed at the municipal level. Only when all the information is collected can we make a determination on level of mitigation or coverage that exists. It was suggested that we get the critical players; County Plans, Emergency Services, and key municipal officials together to discuss this question in depth. We will schedule this as a topic to be addressed at the next HMP meeting in April 2018, since all pertinent players attend the HMP meetings and we should have a better idea of the municipal capabilities from the survey by that time.

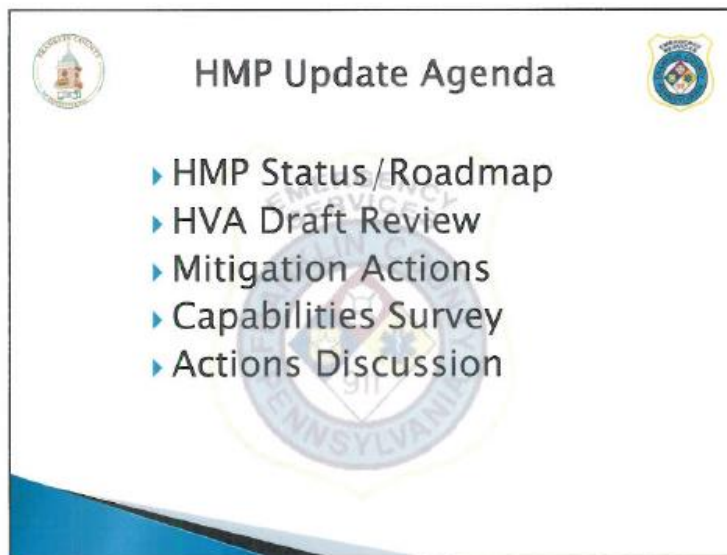
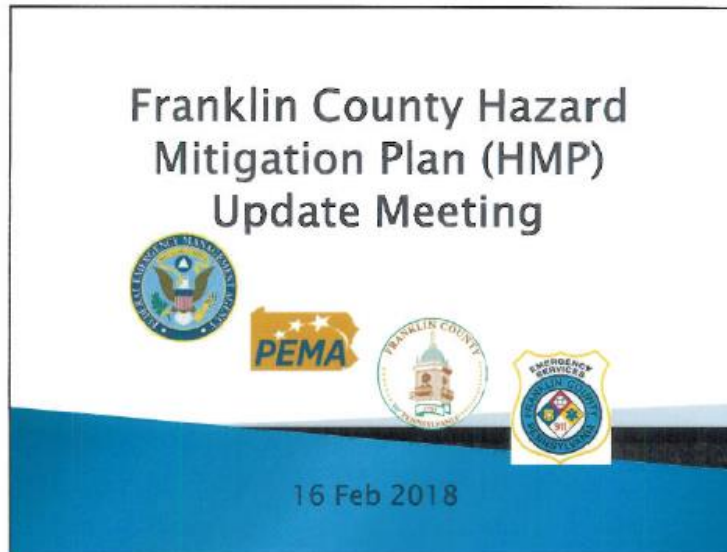
6. Overall, the meeting was valuable in setting the course to address the bulk of the work required to complete the HMP update before the end of this calendar year, well ahead of the May 2019 deadline. The next few months will be critical to achieving our timeline goals and we anticipate the Municipal Capabilities Survey will be the toughest challenge to complete. As municipalities have questions or comments about this survey we encourage them to contact me at 717-264-2813 to discuss their issues or set up a time for us to come to their offices to have a one on one session. We will send out a date/time survey to schedule the next meeting in the April 2018 timeframe.


ROBERT W. POVlich JR
Planning Coordinator
Franklin County DES

2 Attachments:
Attendance Sheet 02162018.pdf
Municipal Capabilities Survey.pdf

Figure B.12.2: Meeting Minutes for 16 Feb 2018 HMP Meeting – Page 2 of 2

6/19/2018



1

Figure B.13.1: Briefing for 16 Feb 2018 HMP Meeting – Page 1 of 4

6/19/2018

HMP update Status

- ▶ 1 Feb 2018 FEMA/PAMA Progress Meeting
 - On track or ahead of schedule
 - Minor changes for HVA suggested
 - Guidance on Capabilities and Mitigation Sections
 - Overall - very happy with efforts to date
- ▶ HVA sent to HMPT for review on 2/1/2018
 - Posted for public comment on 2/6/2018
 - Included Sections 1, 2, 4 & Appendices
- ▶ Mitigation Strategy (Section 6)
 - Pending municipal mitigation action submission
 - Municipal submissions were due 31 Jan 2018
 - None received, needs to stay open until Section 5 is complete
- ▶ Capabilities (Section 5)
 - Begins with municipal survey
 - Survey to be approved at this meeting
 - Survey may indicate areas for Mitigation Action input

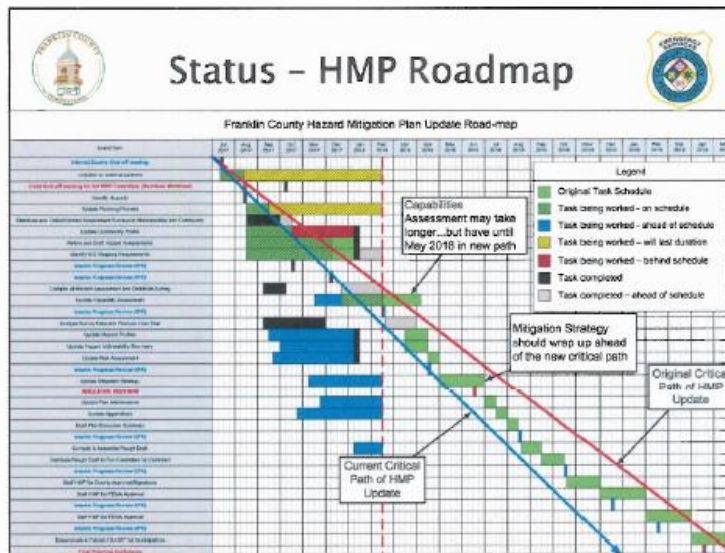
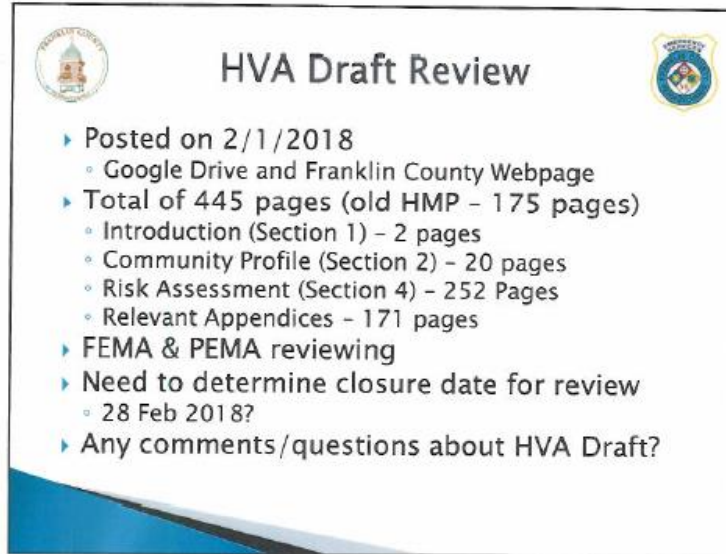


Figure B.13.2: Briefing for 16 Feb 2018 HMP Meeting – Page 2 of 4

6/19/2018



HVA Draft Review

- ▶ Posted on 2/1/2018
 - Google Drive and Franklin County Webpage
- ▶ Total of 445 pages (old HMP – 175 pages)
 - Introduction (Section 1) – 2 pages
 - Community Profile (Section 2) – 20 pages
 - Risk Assessment (Section 4) – 252 Pages
 - Relevant Appendices – 171 pages
- ▶ FEMA & PEMA reviewing
- ▶ Need to determine closure date for review
 - 28 Feb 2018?
- ▶ Any comments/questions about HVA Draft?





Mitigation Actions

- ▶ Original submission date of 31 Jan 2018
 - Needs to be extended
 - Capabilities Section may identify gaps for actions
 - Building/Subdivision Ordinances
 - Land Use Plan
 - Comprehensive Plan
 - Floodplain Management Plan
 - Waste Water Management Plan
- ▶ Need to finish Sections 5 & 6 by May 2018
 - Will have to be done at same time
 - Must have mitigation actions from municipalities



Figure B.13.3: Briefing for 16 Feb 2018 HMP Meeting – Page 3 of 4

6/19/2018



Capabilities Survey

- ▶ Need to determine what is currently in place
 - Ordinances/Plans
 - Mitigation Projects
 - Personnel Roles/Responsibilities
 - Political Will
- ▶ Municipal Capabilities Survey
 - Modified tool developed by Columbia County - 11 pages
 - Planning and Regulatory Capability
 - National Flood Insurance Program Survey
 - Administrative and Technical Capability
 - Fiscal Capability
 - Community Political Capability
 - Self Assessment of Capabilities
- ▶ Geared towards municipal leaders vs Local EMCs
- ▶ 100% participation is critical
 - How do we get there by May 2018?
 - Email vs certified letters - both?




Decision Points

- ▶ Time Frame for HVA Review
 - Recommend 2/28/2018 closure/comment submission
 - **Vote - Approve/Disapprove**
- ▶ Extend Mitigation Action submission
 - After Capabilities Survey Completion - date TBD
 - **Vote - Approve/Disapprove**
- ▶ Approve Capabilities Survey immediate release to municipalities
 - Email vs Certified letter
 - **Vote - Approve/Disapprove**
- ▶ Response time frame for Capabilities Survey
 - Recommend 3/23/2018 for suspense
 - **Vote - Approve/Disapprove**

Figure B.13.4: Briefing for 16 Feb 2018 HMP Meeting – Page 4 of 4

Appendix B: Meeting Minutes/Correspondence



Franklin County Department of Emergency Services Sign-In Sheet

Event	Hazard Mitigation Plan Update – HVA/Mitigation Action Meeting
Dates/Times	2/16/2018 (0900-1100)

Initials/Sign-in	Name	Organization	Phone
	Adams, Joseph	PA DEP	
<i>Mary Ann Alleman</i>	Alleman, Mary Ann	FCDES	
	Atkins, Justin	NRCS-Chambersburg	
	Barnes, Lee	CSX	
	Beckner, Teresa	FC Finance Dept	
<i>Sarah J. Benschoff</i>	Benschoff, Sarah	FC GIS	
	Berkheimer, Kevin	Columbia Gas of PA	
	Bingaman, Bobby	PennDot	
	Bitner, Doug	FC EMS Council	
	Bladen, Warren	Adams County EMC	
<i>Michael Bock</i>	Bock, Michael	Waynesboro Boro. EMC	717 729-9178
	Boyd, Bob	Lurgan TWP Sup.	
	Brake, John	Peters TWP Sup.	
	Brown, Charles	Washington Co. MD EMC	
	Brown, Cherie	LEAD EMC	
	Brubaker, Roy	DCNR	
	Bumbaugh, Kerry	Quincy TWP EMC	
	Burkett, David	Fannett-Metal SD	
	Burns, Todd	Greene TWP Sup.	
	Carroll, Kristin	Chambersburg Area SD	
<i>Shawn Corwell</i>	Corwell, Shawn	Greene TWP EMC/FCEA	717-491-6444
<i>Jacob Crider</i>	Crider, Jacob	FC EMC	717-264-2813
	Duffey, Jim	FCCTC	
	Eberly, Rodney	Antrim Township	
	Epley, John	Shippensburg Borough Mgr.	
	Eshleman, Don	St Thomas TWP EMC	
<i>Dan Farner</i>	Farner, Dan	Waynesboro Hospital	
	Finch, Dave	Chambersburg Boro. EMC	
	Finch, Jennifer	Hagerstown Herald Mail	
	Fleagal, Patrick	Waynesboro Borough	
<i>Anastasia Fritchey</i>	Fritchey, Anastasia	FC Plans Dept.	
	Fultz, Rich	Perry County EMC	

Figure B.14.1: Sign-In Sheet for 16 February 2018 HMP Update Meeting – Page 1 of 5

Appendix B: Meeting Minutes/Correspondence



Franklin County Department of Emergency Services
Sign-In Sheet

Event	Hazard Mitigation Plan Update – HVA/Mitigation Action Meeting
Dates/Times	2/16/2018 (0900-1100)

Initials/Sign-in	Name	Organization	Phone
	Garling, Mark	Mont Alto Boro. EMC	
<i>Jeff B. Geesaman</i>	Geesaman, Jeff	Washington TWP Sup.	717-762-9610
<i>Vincent McMullen</i>	Geesaman, Mary	Corpus Christi	(717) 263-5036
	Gordon, Matthew	Waynesboro Area SD	
	Gossard, Michael	Mont Alto Boro. Mgr.	
<i>Brad Graham</i>	Graham, Brad	Antrim TWP	717-597-3818
	Gray, Carrie	FC Administrator	
	Green, Beverly	First Energy Corp/Penelec	
	Gunder, Bob	Quincy TWP	
	Hamm, Rick	SCTF EWG Lead	
	Hart, John	FC Comm. Chief Clerk	
	Hayes, R. David	Washington Co. MD EMC	
<i>Frank Hobbs</i>	Himes, Gary	Hamilton TWP EMC	
<i>Eric Holtzman</i>	Hobbs, Frank	Guilford TWP EMC	
	Holtzman, Eric	Waynesboro Area SD	717-404-8363
	Hoover, Gregory	Shippensburg Area SD	
	Hull, Ann	FC Historical Society	
	Hykes, M.	PennDot	
	Jung, Peter	NOAA/NWS – State College	
	Keller, Anita	FC Tax Services	
	Keller, Dave	County Commissioner	
	Kemper, Lori	Adams Electric	
<i>Matthew Kendall</i>	Kendall, Matthew	FCDES/ FCFOA /Letterkenny	
	Kepple, Don	DCNR	
	Kessinger, Michael	Hamilton TWP Sup.	
<i>David Kline</i>	Kline, David	First Energy Corp/West Pen	301-991-9100
	Kline, Tod, Dr.	Waynesboro Area SD	
<i>Kelly Knepper</i>	Knepper, Kelly	FCDES	
<i>Chip Kolb</i>	Kolb, Chip	Lurgan Township	717-552-7855
	Lail, Victor	Dominion Transp. Inc.	
	Laucks, Laura	PEMA	
	Leiss, Todd	PA Turnpike	

Figure B.14.2: Sign-In Sheet for 16 February 2018 HMP Update Meeting – Page 2 of 5

Appendix B: Meeting Minutes/Correspondence




Franklin County Department of Emergency Services Sign-In Sheet

Event	Hazard Mitigation Plan Update – HVA/Mitigation Action Meeting
Dates/Times	2/16/2018 (0900-1100)

Initials/Sign-in	Name	Organization	Phone
	Lindenmuth, David	Shippensburg Boro. EMC	
	Little, Bill	FC LEPC	
	May, Dan	Chambersburg Mall	
	McClure, Loretta	FC Risk Management	
	Meek, Jim	Washington TWP EMC	
<i>(Signature)</i>	<i>MYERS</i> Meyers, Craig	Greencastle Boro./Antrim TWP EMC	<i>717-729-3372</i>
	Miller, Anne	Penn State – Mont Alto	
	Miller, Linda	FC Register/Recorder	
	Mistick, Barbara, Dr.	Wilson College	
	Mowen, Jackie	Waynesboro Chamb. of Comm.	
	Murr, Tim	CVCS	
	Myers, Charles	Letterkenny TWP Sup.	
	Myers III, Dale	Lurgan TWP EMC	
<i>(Signature)</i>	Negley, Randy	Hamilton TWP Sup.	
	Nevada, Steve	FC Asst. Administrator	
	Newell, David, Dr.	Scotland Campus	
	Noll, Greg	SCTF	
<i>(Signature)</i>	Ogburn, Anthony	RACES	
	Padasak, Joseph, Dr.	Chambersburg Area SD	
	Perrin, Steve	Texas Eastern	
	Peters, Ed	Chambersburg Area SD	
	Petersheim, Angie	Shalom Christian Acad.	
	Pezon, Ron	Chambersburg Electric Co.	
<i>(Signature)</i>	Povlich, Robert	FCDES	
	Prowant, Doug	Orrstown Boro. Mgr.	
	Purdy, Noel	Chambersburg Chamb. Of Comm.	
	Radford, Mari	FEMA	
	Ratliff, Eden	Greencastle Boro. Mgr.	
	Reed, Ted	Orrstown Boro. EMC	
	Ressler, John	Warren TWP EMC/Sup.	
	Rife, Mike	Montgomery TWP Sup.	
	Rock, Dave	PennDot	

Figure B.14.3: Sign-In Sheet for 16 February 2018 HMP Update Meeting – Page 3 of 5

Appendix B: Meeting Minutes/Correspondence



Franklin County Department of Emergency Services Sign-In Sheet

Event	Hazard Mitigation Plan Update – HVA/Mitigation Action Meeting
Dates/Times	2/16/2018 (0900-1100)

Initials/Sign-in	Name	Organization	Phone
	Ross, Todd	Valley Rural Electric	
	Rotz, Sam	Peters TWP EMC	
	Sajeski, Eugene	PEMA	
	Schiamanna, David	Chambersburg Area Dev. Corp.	
	Schooley, Travis	Quincy Township	
<i>CS</i>	Seilhamer, Cori	FFCMH/ID	
	Shaulis, Justin	Cumberland Co. Ping Coord	
<i>JH</i>	Sheets, Joanne	FCDES	
<i>DS</i>	Shields, Doug	Southampton TWP EMC	
	Shively, Robert	Cumberland Co EMC	
<i>JS</i>	Sholes, Justin	FCCTC	
	Shupe, William	Columbia Gas of PA	
<i>TS</i>	Sims, Travis	FCDES	
	Sites, Steve	Fannett TWP EMC	
	Sourbier, James	FCSTPC/FCPCA	
	Stains, Jason	Waynesboro Boro. Mgr.	
	Steinbugl, Matthew	NWS Central PA WFO	
	Stevens, Melissa	Chambersburg Area SD	
	Stonehill, Jeff	Chambersburg Boro. Mgr.	
	Stoner, Dave	Franklin County Conserv. Dist.	
	Stoner, Dusty	Mercersburg Boro. EMC	
	Stoy, Derek	Acting Mercersburg Boro. Mgr.	
	Strait, Ruth	Fulton County EMC	
	Strine, Matthew, Dr.	Tuscarora SD	
	Summer, Charles	Washington Co. MD EMC	
	Swailles, Anna	Metal Township EMC	
	Szabo, Ernest	PEMA Hazard Mitigation	
	Tarquino, Phil	FC Plans Dept.	
<i>JH</i>	Thierwechter, John	FCDES	
	Thomas, Bob	County Commissioner	
	Thompson, Joe	Acting Huntingdon Co. EMC	
<i>ST</i>	Thrush, Sam	FC Plans Dept.	

Figure B.14.4: Sign-In Sheet for 16 February 2018 HMP Update Meeting – Page 4 of 5

**Local EMC's Quarterly Meeting Agenda
Thursday, April 26, 2018 6:00 PM**

- A. Call to order
- B. Old business
- C. New business
 - Local EMC Appreciation Luncheon for July 2018's meeting.
- D. Update and status on the Franklin County Hazard Mitigation Plan (HMP) by Mr. Bob Povlich, DES Planning Coordinator. By attending this presentation it provides the path of active participation in the update of this plan by local EMC's for their respective municipalities. This is just another step in ensuring your municipality can adopt the County's HMP and not have to create your own plan.
- E. Matters for the good of the order and next meeting date
- F. Adjournment

Figure B.15: Local EMC Meeting 25 Jan 2018 Agenda

FRANKLIN COUNTY DEPARTMENT OF EMERGENCY SERVICES

390 NEW YORK AVENUE
CHAMBERSBURG, PA 17201-7883



PHONE: (717) 264-2813

FAX: (717) 267-2813

30 Apr 2018

MEMO FOR RECORD

SUBJECT: HAZARD MITIGATION PLAN (HMP) MEETING

FROM: FRANKLIN COUNTY DES PLANNING COORDINATOR

1. We held an HMP meeting (30 Apr 2018) to discuss the progress of the plan, the status of the Municipal Capabilities survey, submission of Mitigation Actions, and the municipal participation to date. Each of these discussion items are captured in the following paragraphs. The attendance at this meeting is captured in the attached sign-in sheet.
2. **HMP Status/Roadmap:** We briefed the progress of the drafting of Sections 5 & 6 (Capabilities and Mitigation Strategy respectively). We explained that the delay in the receipt of the Capabilities Survey from 10 of the 22 municipalities has absorbed all of the slack that we had gained in the schedule with the early work done on the Mitigation Strategy. This means that we are no longer ahead of schedule and in jeopardy of falling behind schedule if these surveys are not received by 11 May 2018. This started a discussion on pressing forward with the drafts without the responses from these municipalities. This is something that the team does not want to do, but if we continue to delay the drafting of these sections we run the risk of the current plan going out of date before the update is complete. This would punish all of the municipalities, especially the ones that have been active the entire planning process.
3. **Municipal Capability Survey:** We have repeatedly contacted the municipal leaders to get this survey completed. Since 16 Feb, when the survey was sent to the municipal leaders (Borough Managers and Township Supervisors) by the DES Director, we have made contact with them at least 3 times to get this information collected, the latest being a personal request to the Borough Managers and Township Supervisors by the DES Director on 18 Apr 2018. We recommended to the HMP Team to impose a closure date on the Capabilities Survey of 11 May 2018 with a caveat that the County EMC and the DES Planning Coordinator make one last attempt to get the survey information via a telephone call to each Borough Manager or Township Supervisor. The HMPT approved this course of action. Immediately after the meeting, DES was able to make 100% contact with all parties that still owed a survey response. We again offered to make a personal visit to each of the municipalities to assist them in completing the surveys. We are currently scheduling

Figure B.17.1: Meeting Minutes for 30 April 2018 HMP Meeting – Page 1 of 2

Appendix B: Meeting Minutes/Correspondence

personal visits with 3 municipalities, 3 are drafting their response, and 3 has already sent a response in. One municipality declined our support due to competing priorities, but is going to attempt to get the survey done independently. We will try everything in our power to get these surveys returned, but we need the cooperation of the municipalities to get this done. As a note, the only way we were able to get the hazard threat surveys 100% complete, earlier in the HMP update process, was to make it a priority for the municipalities to complete it by setting a deadline and being willing to move forward without their data. This is what we are trying to do with this approved deadline for the Capabilities Survey.

4. **Mitigation Actions:** We gave a brief discussion on the total number of mitigation actions received to date and which municipalities still needed to send one in. As part of the discussion on the Capabilities Survey, DES agreed to generate a mitigation action for the municipalities that complete the Capabilities Survey. These mitigation actions would be constructed to address any planning gaps identified in the surveys. The bottom line is that if the municipalities all completed the Capabilities Survey, DES would make sure all other requirements for the municipalities to complete, except for final draft review, would be taken care of for them. The only other issue on mitigation actions was to determine a way to rank them and that led to the discussion in the paragraph below.
5. **Municipal Participation Status:** We presented a methodology that modified the scheme set forth in the *FEMA Local Mitigation Handbook*. We used the 10 factors directed by FEMA and added a "Cost" factor as requested by PEMA. We then weighted these factors to make sure we captured the priorities of all the jurisdictions in the county. It was agreed that we would use the factors and weights presented to rank our actions (see attached PowerPoint slides). It was also understood by the HMP Team that the approval of this methodology would result in the subsequent approval of the mitigation action ratings without a specific review or discussion. The HMP Team was informed that all rationale for mitigation action scoring will be included in the HMP document as Appendix L, so transparency on the ranking will be provided to the entire team. This methodology was approved by the HMP Team and once all mitigation actions are collected and scored, for all participating municipalities, Section 6 will be completed.
6. The meeting was very important as it set the path forward to get the HMP update done and stay on schedule. We have tried everything in our power to assure 100% participation from the municipalities in this HMP update process. We have made 100% verbal contact with all municipalities still working on their surveys and have set a firm date for their completion. It is our intent to work personally with every municipality to get this complete, but it is going to take the willingness of the municipalities to accept this help to get all the things done that are required.


ROBERT W. POVlich JR
Planning Coordinator
Franklin County DES

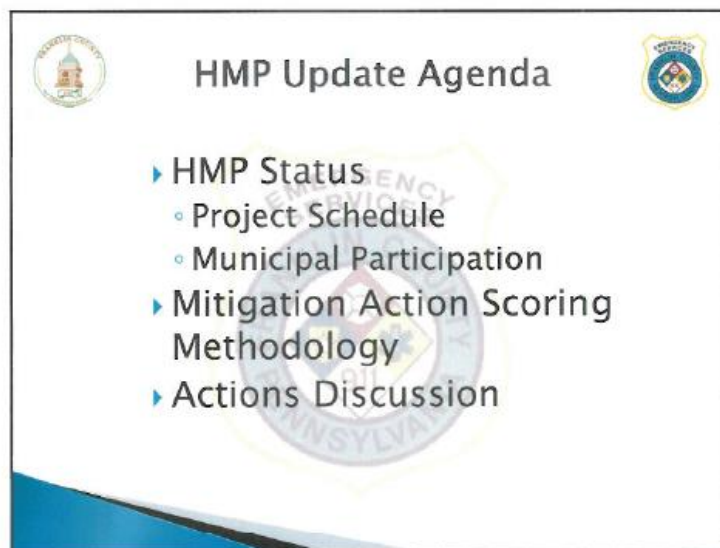
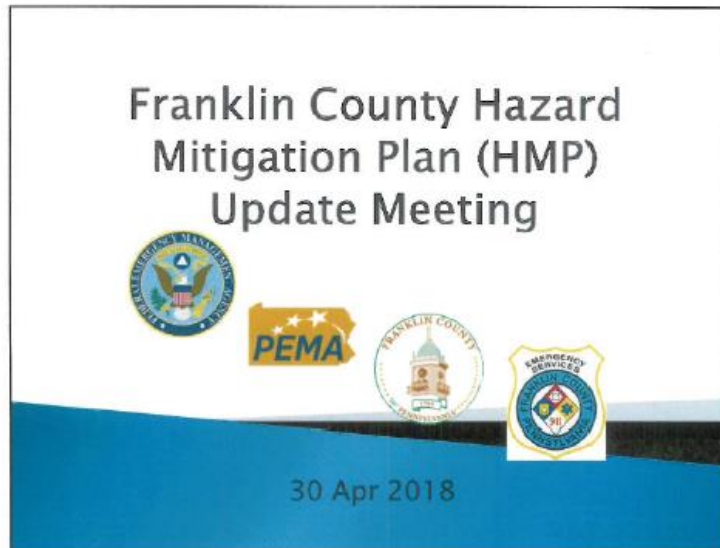
2 Attachments:

Attendance Sheet 04302018.pdf

Franklin County Hazard Mitigation Plan Update 04302018.pdf

Figure B.17.2: Meeting Minutes for 30 April 2018 HMP Meeting – Page 2 of 2

5/9/2018



1

Figure B.18.1: Briefing for 20 Apr 2018 HMP Meeting – Page 1 of 6

5/9/2018

HMP update Status

- ▶ Capabilities (Section 5)
 - Capabilities Surveys were due 23 Mar 2018
 - Only 12 of 22 received
- ▶ Mitigation Strategy (Section 6)
 - Mitigation Actions were due 23 Mar 2018
 - Have actions for 13 of 22 municipalities
 - Survey completion → mitigation action generation
- ▶ Delays in receiving Capabilities Surveys have pushed us back to original timeline
 - If not complete by 11 May 18, schedule is impacted
 - Some municipalities may have to be left behind

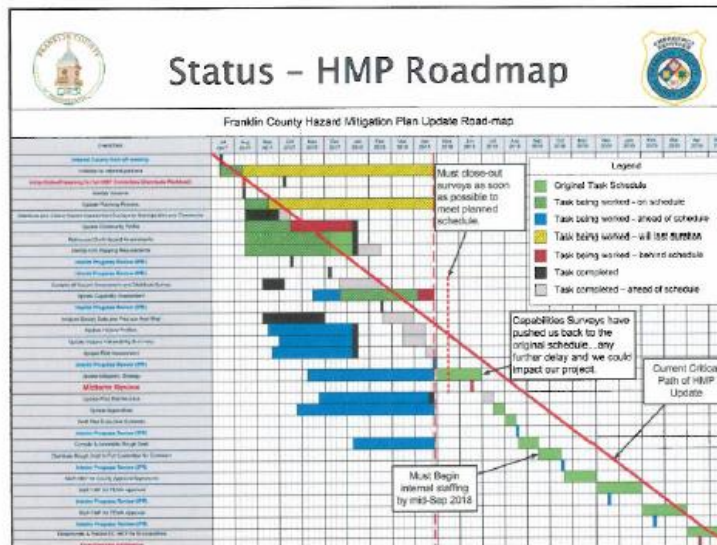


Figure B.18.2: Briefing for 20 Apr 2018 HMP Meeting – Page 2 of 6

5/9/2018

Participation Update

Municipality	Planning Process	Hazard Identification & Risk Assessment	Mitigation Strategy	Plan Review, Evaluation & Implementation
Arden Township	Yes, but no Capability Survey	Yes	Yes, but no Mitigation Action	
Chambersburg Borough	Yes	Yes	Yes	
Farmett Township	Yes, but no Capability Survey	Yes	Yes	
Greencastle Borough	Yes, but no Capability Survey	Yes	No	
Greene Township	Yes	Yes	Yes	
Guilford Township	Yes, but no Capability Survey	Yes	Yes, but no Mitigation Action	
Harrisburg Township	Yes	Yes	Yes	
Lebanon Township	Yes	Yes	Yes	
Lurgan Township	Yes	Yes	Yes	
Metz Township	Yes	Yes	Yes	
Marysville Borough	Yes	Yes	Yes	
More Alto Borough	Yes, but no Capability Survey	Yes	No	
Montgomery Township	No	Yes	No	
Oriskany Borough	Yes, but no Capability Survey	Yes	Yes, but no Mitigation Action	
Piketon Township	Yes	Yes	Yes	
Quincy Township	Yes	Yes	Yes	
Shippensburg Borough	No	Yes	No	
Southampton Township	Yes	Yes	Yes	
St Thomas Township	Yes	Yes	Yes	
Warren Township	Yes, but no Capability Survey	Yes	No	
Washington Township	Yes, but no Capability Survey	Yes	Yes, but no Mitigation Action	
Waynesboro Borough	Yes	Yes	Yes	

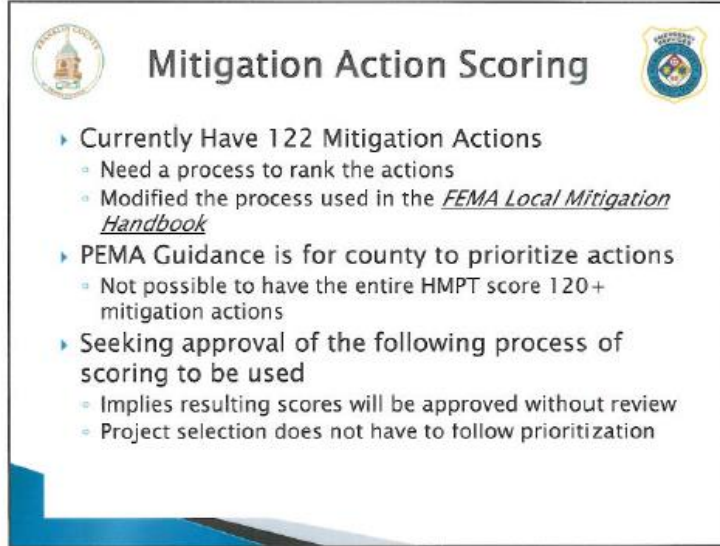
Participation Update

Municipality	Planning Process	Hazard Identification & Risk Assessment	Mitigation Strategy	Plan Review, Evaluation & Implementation
Arden Township	Yes, but no Cap. Survey	Yes	Yes, but no Mitigation Action	
Chambersburg Borough	Yes	Yes	Yes	
Farmett Township	Yes, but no Capability Survey	Yes	Yes	
Greencastle Borough	Yes, but no Capability Survey	Yes	No	
Greene Township	Yes	Yes	Yes	
Guilford Township	Yes, but no Capability Survey	Yes	Yes, but no Mitigation Action	
Harrisburg Township	Yes	Yes	Yes	
Lebanon Township	Yes	Yes	Yes	
Lurgan Township	Yes	Yes	Yes	
Metz Township	Yes	Yes	Yes	
Marysville Borough	Yes	Yes	Yes	
More Alto Borough	Yes, but no Capability Survey	Yes	No	
Montgomery Township	No	Yes	No	
Oriskany Borough	Yes, but no Capability Survey	Yes	Yes, but no Mitigation Action	
Piketon Township	Yes	Yes	Yes	
Quincy Township	Yes	Yes	Yes	
Shippensburg Borough	No	Yes	No	
Southampton Township	Yes	Yes	Yes	
St Thomas Township	Yes	Yes	Yes	
Warren Township	Yes, but no Capability Survey	Yes	No	
Washington Township	Yes, but no Capability Survey	Yes	Yes, but no Mitigation Action	
Waynesboro Borough	Yes	Yes	Yes	

If you submit your Capabilities Survey, we will draft a Mitigation Action for you from the capability gaps identified and everything on this chart will turn green.

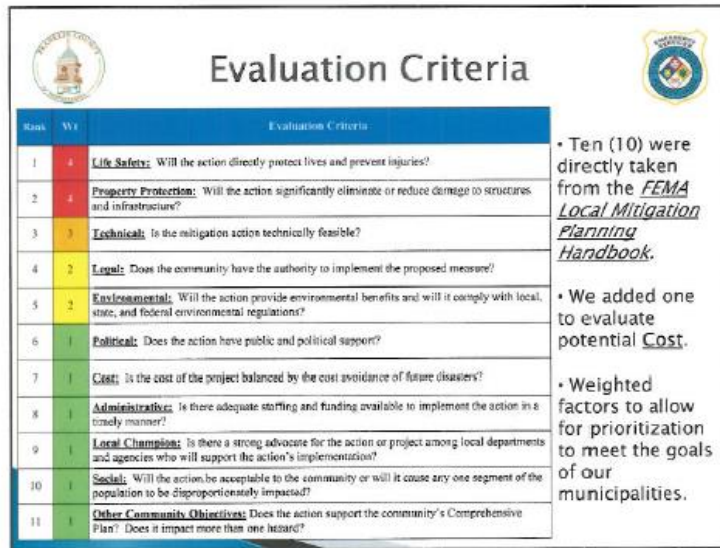
Figure B.18.3: Briefing for 20 Apr 2018 HMP Meeting – Page 3 of 6

5/9/2018



Mitigation Action Scoring

- ▶ Currently Have 122 Mitigation Actions
 - Need a process to rank the actions
 - Modified the process used in the *FEMA Local Mitigation Handbook*
- ▶ PEMA Guidance is for county to prioritize actions
 - Not possible to have the entire HMPT score 120+ mitigation actions
- ▶ Seeking approval of the following process of scoring to be used
 - Implies resulting scores will be approved without review
 - Project selection does not have to follow prioritization



Evaluation Criteria

Rank	Wt	Evaluation Criteria
1	4	Life Safety: Will the action directly protect lives and prevent injuries?
2	4	Property Protection: Will the action significantly eliminate or reduce damage to structures and infrastructure?
3	3	Technical: Is the mitigation action technically feasible?
4	2	Local: Does the community have the authority to implement the proposed measure?
5	2	Environmental: Will the action provide environmental benefits and will it comply with local, state, and federal environmental regulations?
6	1	Political: Does the action have public and political support?
7	1	Cost: Is the cost of the project balanced by the cost avoidance of future disasters?
8	1	Administrative: Is there adequate staffing and funding available to implement the action in a timely manner?
9	1	Local Champion: Is there a strong advocate for the action or project among local departments and agencies who will support the action's implementation?
10	1	Social: Will the action be acceptable to the community or will it cause any one segment of the population to be disproportionately impacted?
11	1	Other Community Objectives: Does the action support the community's Comprehensive Plan? Does it impact more than one hazard?

- Ten (10) were directly taken from the *FEMA Local Mitigation Planning Handbook*.
- We added one to evaluate potential **Cost**.
- Weighted factors to allow for prioritization to meet the goals of our municipalities.

Figure B.18.4: Briefing for 20 Apr 2018 HMP Meeting – Page 4 of 6

5/9/2018

Rating Criteria

Possible Rating	Explanation
1	Action meets or exceeds the evaluation criteria.
0	Evaluation criteria is not applicable to or not fully met by the proposed action.
-1	Action does not meet the evaluation criteria or has possible negative consequences.

- ▶ Tries to remove the subjectivity out of the prioritization
- ▶ Provides a repeatable process for rankings
- ▶ All scoring rationale will be included in HMP

Scoring Example – Action 1A1

Action 1A1 – Assign and train additional County employees and volunteers to assist the Emergency Operations Center (EOC) staff, so they can be called upon in the event of major emergencies.



Resulted in a ranking of 112 out of 122...fairly low.

	Score	Weighted Rating	Total Points	Comments/Notes
EOC Meeting (1)	4	4	4	EOC meeting will not already exist then
Project Procedures (4)	4	16	16	EOC training will not already have priority
Incident (3)	3	9	9	This action is feasible
Legal (2)	2	4	4	EOCIS has the authority to do this
Environmental (2)	2	4	4	Similar projects are negatively impacts the environment
Public (1)	1	1	1	EOCIS has county support to do this
County (1)	1	1	1	EOCIS only
Administration (1)	1	1	1	County has needed EOC, retraining
Local Chapters (1)	1	1	1	EOCIS, EOC
Special (1)	1	1	1	Address the needs of the entire county
Public & Community Outreach (1)	1	1	1	Impact all sectors
Total (12) Projects Action Items			112	

Figure B.18.5: Briefing for 20 Apr 2018 HMP Meeting – Page 5 of 6

5/9/2018

Scoring Example – 3B2



Action 3B2 – Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Chambersburg Borough to SR 11).

Resulted in a ranking of 14 out of 122...fairly high.

	Score	Weighted Score	Weighted Score
Life Safety (1)	4	1	4
Property Protection (1)	4	1	4
Feasibility (3)	3	1	9
Impact (1)	3	1	3
Environment (2)	2	1	2
Political (1)	1	1	1
Cost (1)	1	1	1
Administrative (1)	1	0	0
Local Government (1)	1	1	1
Special (1)	1	1	1
Public & Community Awareness (1)	1	0	0
Total Mitigation Action Score			14

Scoring Worksheet
Flood prevention can save lives
Flood prevention can save property
There is feasible
County Township has the authority to do this
Stream restoration will improve the environment
They have County Township Supervisors support for this
This will require external funding
This will be common work
County Township is not
Address the needs of the Township
Only impacts for Flood, Flood Flood & Sea Level Rise

Decision Points

- ▶ Time Frame for Capabilities Survey Cut-off?
 - Recommend 5/11/2018.
 - Municipalities without completed surveys may be blocked from HMP adoption.
 - Further delays could put entire county at risk of the plan elapsing before update is complete.
 - **Vote - Approve/Disapprove**
- ▶ Mitigation Action Scoring Criteria
 - Recommend approve process as described.
 - **Vote - Approve/Disapprove**

Figure B.18.6: Briefing for 20 Apr 2018 HMP Meeting – Page 6 of 6

Appendix B: Meeting Minutes/Correspondence




Franklin County Department of Emergency Services Sign-In Sheet

Event	Hazard Mitigation Plan Update – HVA/Mitigation Action Meeting
Dates/Times	4/30/2018 (1300-1500)

Initials/Sign-in	Name	Organization	Phone
	Adams, Joseph	PA DEP	
<i>Mary Ann Alleman</i>	Alleman, Mary Ann	FCDES	
	Atkins, Justin	NRCS-Chambersburg	
	Barnes, Lee	CSX	
	Beckner, Teresa	FC Finance Dept	
<i>SLB</i>	Benshoff, Sarah	FC GIS	
	Berkheimer, Kevin	Columbia Gas of PA	
	Bingaman, Bobby	PennDot	
	Bitner, Doug	FC EMS Council	
	Bladen, Warren	Adams County EMC	
	Bloyer, Tiffany	Franklin County Human Resource	
	Bock, Michael	Waynesboro Boro. EMC	
	Boyd, Bob	Lurgan TWP Sup.	
	Brake, John	Peters TWP Sup.	
	Brown, Charles	Washington Co. MD EMC	
	Brown, Cherie	LEAD EMC	
	Brubaker, Roy	DCNR	
	Bumbaugh, Kerry	Quincy TWP EMC	
	Burkett, David	Fannett-Metal SD	
	Burns, Todd	Greene TWP Sup.	
<i>Kristin Carroll</i>	Carroll, Kristin	Chambersburg Area SD	
	Christian, Steve	Chambersburg Area Dev. Corp.	
	Corwell, Shawn	Greene TWP EMC/FCEA	
<i>Jacob Crider</i>	Crider, Jacob	FC EMC	
	Duffey, Jim	FCCTC	
	Eberly, Rodney	Antrim Township	
	Epley, John	Shippensburg Borough Mgr.	
	Eshleman, Don	St Thomas TWP EMC	
	Farner, Dan	Waynesboro Hospital	
<i>Dave Finch</i>	Finch, Dave	Chambersburg Boro. EMC	
	Finch, Jennifer	Hagerstown Herald Mail	
	Fleagal, Patrick	Waynesboro Borough	

Figure B.19.1: Sign-In Sheet for 30 Apr 2018 HMP Update Meeting – Page 1 of 5

Appendix B: Meeting Minutes/Correspondence



Franklin County Department of Emergency Services Sign-In Sheet

Event	Hazard Mitigation Plan Update – HVA/Mitigation Action Meeting
Dates/Times	4/30/2018 (1300-1500)

Initials/Sign-in	Name	Organization	Phone
	Fritchey, Anastasia	FC Plans Dept.	
	Fultz, Rich	Perry County EMC	
	Garling, Mark	Mont Alto Boro. EMC	
<i>JSA</i>	Geesaman, Jeff	Washington TWP Sup.	
	Gordon, Matthew	Waynesboro Area SD	
	Gossard, Michael	Mont Alto Boro. Mgr.	
<i>BG</i>	Graham, Brad	Antrim TWP	
	Gray, Carrie	FC Administrator	
	Green, Beverly	First Energy Corp/Penelec	
	Gunder, Bob	Quincy TWP	
	Hamm, Rick	SCTF EWG Lead	
<i>Plant</i>	Hart, John	FC Special Projects Officer	
	Hayes, R. David	Washington Co. MD EMC	
<i>JUP</i>	Himes, Gary	Hamilton TWP EMC	
<i>JH</i>	Hobbs, Frank	Guilford TWP EMC	
	Holtzman, Eric	Waynesboro Area SD	
	Hoover, Gregory	Shippensburg Area SD	
	Hull, Ann	FC Historical Society	
	Hykes, M.	PennDot	
	Jung, Peter	NOAA/NWS – State College	
	Keller, Anita	FC Tax Services	
	Keller, Dave	County Commissioner	
	Kemper, Lori	Adams Electric	
<i>Master</i>	Kendall, Matthew	FCDES/Letterkenny Twp	
	Kepple, Don	DCNR	
	Kessinger, Michael	Hamilton TWP Sup.	
	Kibbe, Melissa	Letterkenny Township	
	Kline, David	First Energy Corp/West Pen	
	Kline, Tod, Dr.	Waynesboro Area SD	
	Knepper, Kelly	FCDES	
	Kreitz, Chad	Mont Alto Borough	
<i>Chip Kolb</i>	Kolb, Chip	Lurgan Township	

Figure B.19.2: Sign-In Sheet for 30 Apr 2018 HMP Update Meeting – Page 2 of 5

Appendix B: Meeting Minutes/Correspondence



Franklin County Department of Emergency Services
Sign-In Sheet

Event	Hazard Mitigation Plan Update – HVA/Mitigation Action Meeting
Dates/Times	4/30/2018 (1300-1500)

Initials/Sign-in	Name	Organization	Phone
	Lail, Victor	Dominion Transp. Inc.	
	Laucks, Laura	PEMA	
	Lehman, Julia	Franklin County Grants	
	Leiss, Todd	PA Turnpike	
	Lindenmuth, David	Shippensburg Boro. EMC	
	Little, Bill	FC LEPC	
	May, Dan	Chambersburg Mall	
	McClure, Loretta	FC Risk Management	
	McMullen, Vincie	Corpus Christi	
	Meek, Jim	Washington TWP EMC	
	Miller, Anne	Penn State – Mont Alto	
	Miller, Linda	FC Register/Recorder	
	Mistick, Barbara, Dr.	Wilson College	
	Morgan, Stan	Tuscarora School District	
	Mowen, Jackie	Waynesboro Chamb. of Comm.	
	Murr, Tim	CVCS	
	Myers, Charles	Letterkenny TWP Sup.	
	Myers, Craig	Greencastle Boro/Antrim TWP EMC	
	Myers III, Dale	Lurgan TWP EMC	
<i>Randy Negley</i>	Negley, Randy	Hamilton TWP Sup.	<i>717-264-7946</i>
	Nevada, Steve	FC Asst. Administrator	
	Newell, David, Dr.	Scotland Campus	
	Noll, Greg	SCTF	
	Ogburn, Anthony	RACES	
	Padasak, Joseph, Dr.	Chambersburg Area SD	
	Perrin, Steve	Texas Eastern	
<i>Ed Peters</i>	Peters, Ed	Chambersburg Area SD	
<i>Ronald Peters</i>	Peters, Ronald	Fayetteville VFD, EMT	<i>717 261 7790</i>
	Petersheim, Angie	Shalom Christian Acad.	
<i>Ron Pezon</i>	Pezon, Ron	Chambersburg Electric Co.	<i>717 729 7089</i>
	Povlich, Robert	FCDES	
	Prowant, Doug	Orrstown Boro. Mgr.	

Figure B.19.3: Sign-In Sheet for 30 Apr 2018 HMP Update Meeting – Page 3 of 5

Appendix B: Meeting Minutes/Correspondence



Franklin County Department of Emergency Services
Sign-In Sheet

Event	Hazard Mitigation Plan Update – HVA/Mitigation Action Meeting
Dates/Times	4/30/2018 (1300-1500)

Initials/Sign-in	Name	Organization	Phone
	Radford, Mari	FEMA	
	Ratliff, Eden	Greencastle Boro. Mgr.	
	Reed, Ted	Orrstown Boro. EMC	
	Ressler, John	Warren TWP EMC/Sup.	
	Rife, Mike	Montgomery TWP Sup.	
	Rock, Dave	PennDot	
	Ross, Todd	Valley Rural Electric	
	Rotz, Sam	Peters TWP EMC	
	Sajeski, Eugene	PEMA	
	Schooley, Travis	Quincy Township	
	Seilhamer, Cori	FFCMH/ID	
<i>[Signature]</i>	Shaulis, Justin	Cumberland Co. PIng Coord	717-218-2914
<i>[Signature]</i>	Sheets, Joanne	FCDES	
<i>[Signature]</i>	Shields, Doug	Southampton TWP EMC	
	Shively, Robert	Cumberland Co EMC	
<i>[Signature]</i>	Sholes, Justin	FCCTC	
<i>[Signature]</i>	Shupe, William	Columbia Gas of PA	717-812-9123
	Sims, Travis	FCDES	
	Sites, Steve	Fannett TWP EMC	
	Sourbier, James	FCSP/FCPCA	
	Stains, Jason	Waynesboro Boro. Mgr.	
	Steinbugl, Matthew	NWS Central PA WFO	
	Stevens, Melissa	Chambersburg Area SD	
	Stonehill, Jeff	Chambersburg Boro. Mgr.	
	Stoner, Dave	Franklin County Conserv. Dist.	
	Stoner, Dusty	Mercersburg Boro. EMC	
	Stoy, Derek	Acting Mercersburg Boro. Mgr.	
	Strait, Ruth	Fulton County EMC	
	Strine, Matthew, Dr.	Tuscarora SD	
	Summer, Charles	Washington Co. MD EMC	
<i>[Signature]</i>	Swailles, Anna	Metal Township EMC	717-349-7452
	Szabo, Ernest	PEMA Hazard Mitigation	

Figure B.19.4: Sign-In Sheet for 30 Apr 2018 HMP Update Meeting – Page 4 of 5

Appendix B: Meeting Minutes/Correspondence



Franklin County Department of Emergency Services
Sign-In Sheet

Event	Hazard Mitigation Plan Update – HVA/Mitigation Action Meeting
Dates/Times	4/30/2018 (1300-1500)

Initials/Sign-in	Name	Organization	Phone
	Tarquino, Phil	FC Plans Dept.	
<i>JG</i>	Thierwechter, John	FCDES	
<i>RO</i>	Thomas, Bob	County Commissioner	
	Thompson, Joe	Acting Huntingdon Co. EMC	
<i>SJT</i>	Thrush, Sam	FC Plans Dept.	
	Titus, Katherine	Mercersburg Academy	
	Trail, Kendra, Dr.	Greencastle-Antrim SD	
<i>Richard K Trapp</i>	Troup, Richard	Hamilton Twp Supervisor	
	Trueax, Donna	Waynesboro Area SD	
	Ulrich, Dustin	Chambersburg Borough	
	Varner, Eric	Letterkenny TWP EMC	
	Walter, Leslie	Salvation Army Chambersburg	
	Watson, Barbara	NOAA/NWS	
	Weaver, Allen	Juniata Co. EMC	
	Weigle, Sharon	USDA Farm Service Agency	
	Weller, Greg	Montgomery Township	
	White, Allen	American Red Cross	
	Williams, Jon	Chambersburg Hospital	
	Witter, Paul	Southampton TWP Sup.	
	Yost, Cassie	PSU Ag Extension	
	Ziobrowski, Bob	County Commissioner	
	Zimmerman, Sue	St Thomas TWP Sup.	
	Zollo, Anthony	LEAD EMC	
<i>mao</i>	<i>Dakley Mike</i>	<i>GREENFIELD</i>	<i>717 414 606</i>
	<i>Owen, John</i>	<i>EAST HANCOCK TWP</i>	<i>717 838-0711 Ext 103</i>

Figure B.19.5: Sign-In Sheet for 30 Apr 2018 HMP Update Meeting – Page 5 of 5

FRANKLIN COUNTY DEPARTMENT OF EMERGENCY SERVICES

390 NEW YORK AVENUE
CHAMBERSBURG, PA 17201-7883



PHONE: (717) 264-2813

FAX: (717) 267-2813

30 May 2018

MEMO FOR RECORD

SUBJECT: MUNICIPAL CAPABILITIES COORDINATION MEETING

FROM: FRANKLIN COUNTY DES PLANNING COORDINATOR

1. We held a coordination meeting with the Franklin County Plans Department to discuss some inconsistencies with data being reported on the Municipal Capabilities Surveys (see attached Attendance Sheet). We noticed that some of our municipalities were reporting a status that was different than what was recorded at the state level. In particular, we were seeing a negative reply to the National Flood Insurance Program (NFIP) participation and subsequent lack of flood plain regulations/ordinances. We also had some issues with the municipalities not aware of the date of the most recently accepted Digital Flood Insurance Rate Maps (DFIRM) for the county. We wanted to discuss these anomalies with our County Plans Department to get to ground truth on capabilities, as they are involved with the municipalities and FEMA on the floodplain management and DFIRM acceptance processes.
2. The Franklin County Plans Department provided a copy of the FEMA Community Status Book Report for Pennsylvania (dated 5/30/2018), which lists the communities participating in the National Flood Program. From this list we were able to determine that all of our municipalities, except Orrstown Borough, were listed and are NFIP participants. This confirmed our understanding from the state reporting we have received from PEMA. This report also contains the date of the current DFIRM in place for each municipality. Again Orrstown Borough was not captured in this report, but the surrounding municipalities all had a date of 18 Jan 2012, which was also our understanding from previous reporting. However, we did find one anomaly that we were unaware of and that is that Shippensburg Borough (Franklin County) has a current DFIRM date of 16 Mar 2009. This date matched the DFIRM date for Shippensburg Borough (Cumberland County). Since Shippensburg is a split municipality and the majority of it is covered by Cumberland County, we understand this discrepancy. However, when we made our assessment for the flood hazard we used the DFIRM dated 18 Jan 2012 as it applies to the entire county, including the Shippensburg and Orrstown Boroughs, to make our threat calculations. We will have to explain this further in Section 4 of the document to make the distinction clear.

Figure B.20.1: Meeting Minutes for 30 May 2018 Capabilities Coordination Meeting – Page 1 of 2

Appendix B: Meeting Minutes/Correspondence

3. We were also able to discuss several other municipal-level plans that the survey was seeking status on. The Franklin County Plans department was able to help us correct misunderstandings in reporting of Comprehensive Land Use Plans, Open Space Management Plans, Subdivision Regulations, Stormwater Management Plans, and Community Development Block Grants.
4. We did discuss the possible causes of these discrepancies. We were able to determine that our municipalities are still compliant with the NFIP requirements. The likely reason for the errors in reporting is turnover of personnel at the municipal level. This highlights a training issue that needs to be addressed. We did try to cover that gap with mitigation actions in **Section 6** of the HMP.
5. This meeting was very beneficial in understanding the discrepancies we were receiving from the municipal surveys. It also underscored the need for an outreach program from the county to help the municipalities understand and improve their planning processes. We did create a Mitigation Action to research this possibility, and this discussion provided further validation for that action. We will use the information gained in this discussion to amend the reporting by the municipalities from the capabilities survey to complete **Section 5** of the HMP.



ROBERT W. POVlich JR
Planning Coordinator
Franklin County DES

1 Attachment:

Attendance Sheet 05302018.pdf

Figure B.20.2: Meeting Minutes for 30 May 2018 Capabilities Coordination Meeting – Page 2 of 2

FRANKLIN COUNTY DEPARTMENT OF EMERGENCY SERVICES

390 NEW YORK AVENUE
CHAMBERSBURG, PA 17201-7883



PHONE: (717) 264-2813

FAX: (717) 267-2813

18 Jun 2018

MEMO FOR RECORD

SUBJECT: HAZARD MITIGATION PLAN (HMP) MEETING

FROM: FRANKLIN COUNTY DES PLANNING COORDINATOR

1. We held an HMP meeting (18 Jun 2018) to discuss the progress of the plan, the DRAFT Document currently out for Review, the remaining actions, and municipal participation accounting. Each of these discussion items are captured in the following paragraphs. The attendance at this meeting is captured in the attached sign-in sheet.
2. **HMP Status/Roadmap:** With the DRAFT Document out for review and comment, we are nearing the end of the HMP update process. We were able to accelerate the work on Sections 7-9 while waiting on the Municipal Capabilities Survey. We also took this time to draft Section 6, Mitigation Strategy, although we had to wait on all surveys to determine gaps to finalize our Mitigation Action list. If we stick to the original milestones of the timeline, we are about 2 months ahead of schedule. However, as we discussed at this meeting the 2 months allotted for county review and the 2 months for PEMA review were excessive. The PEMA representative did not think it would be two months and the team did not think we would need that much time locally. By moving the PEMA and FEMA reviews forward in the schedule this gives us plenty of review time at the FEMA level. This review could be iterative in nature, so we want to maximize the time afforded to FEMA for this review to make sure we beat the May 2019 suspense.
3. **DRAFT HMP Document Under Review:** As discussed previously, the HMPT did not think that we needed 2 months of review and comment on this DRAFT document at the local level. We already had Sections 1-4 and associated Appendices out for coordination and comment in Feb 2018. We integrated the comments received from the municipalities, PEMA, FEMA, and the general public at that time for those Sections. There are a total of 763 pages in the DRAFT HMP document; this represents an increase of approximately 300 pages from what has already been reviewed in Feb 2018. The discussion then led into what was the appropriate amount of time to give the municipalities to complete their review/comment and send the confirmation email to DES. The DRAFT HMP document has been out for review over a week (8 Jun 2018) and the delta in page total from first draft to final draft is approximately 300 pages (document and appendices). Based on these

Figure B.22.1: Meeting Minutes for 30 May 2018 DRAFT Review Meeting – Page 1 of 3

Appendix B: Meeting Minutes/Correspondence

parameters, the HMPT opened the floor to nominations for a new close-out date for the DRAFT HMP review and coordination. The latest date it could be and still stick to the accelerated timeline was 10 Aug 2018. A member of the team nominated 15 Jul 2018, based on the parameters discussed above. A vote was held and the 15 Jul 2018 date was selected as the close out date. DES will continue to remind the municipalities about this suspense as it approaches so we stick to the new suspense and get this DRAFT HMP to PEMA almost a full month before the proposed accelerated schedule. We want to keep moving forward with this review process in the attempt to get this to the municipalities for resolution and adoption at their first meetings in 2019, well ahead of the May 2019 deadline.

4. **Municipal Participation Status:** To get the DRAFT document ready for posting we had to complete Sections 5 (Capabilities) & 6 (Mitigation Strategy) of the HMP. To do this we needed to get 100% participation in the Municipal Capabilities Survey. All of our municipalities have been active participants throughout the entire HMP Update process. It did take a little longer than anticipated to close out the survey process, but we were able to get the rest of the document (Sections 7-9) ready for immediate release as soon as the last surveys were received. To date, we have had 100% participation from our municipalities in all aspects of the plan update. The only remaining participation parts are the DRAFT document review/approval and the adoption of the plan.
5. **Remaining Actions to Complete:** The team was briefed on the way ahead to get this document complete. We had the discussion about the local review/comment closeout, so it did not need to be covered again. We then discussed the timelines for both PEMA and FEMA review of the document. We originally blocked off 2 months for each organization to complete their review. Built into these blocks of time were the iterative changes that were requested, made, and submitted for a re-evaluation. In our discussions, the PEMA representative seemed to think that the amount of time needed for their review would be less than two months. However, we will keep that block of time reserved for their review in the schedule in case something needs significant changes. If it is done quickly, it will immediately be turned for FEMA review. The PEMA representative seemed to think the 2 months for FEMA review was good, but cautioned that if a disaster strikes in FEMA Region III, it could take longer due to priorities. This is also why we wanted to accelerate the project schedule to give as much time for the FEMA review as possible.

We also discussed the FEMA "Approval Pending Adoption" process. When complete with their comments and satisfied with the adjudication of the requested changes, FEMA will provide the county with an Approval Pending Adoption (APA) letter that notifies the county and our municipalities that the plan has been reviewed by FEMA and ready for adoption. Our plan will not be officially recognized as approved by FEMA until the first municipality adopts the plan. With 100% participation from our municipalities on this plan update, we are striving to get 100% adoption of the plan prior to the May 19 suspense.

The final discussion area was to determine the needs for future HMP meetings. With the DRAFT HMP document in the review process, there will not be much more to discuss by holding a meeting every other month. A discussion was had and a change to the meeting schedule was approved at this meeting. It was decided that DES would electronically staff all coordination and comments received from the PEMA, FEMA, and general public submissions. Any major change request or problems found with our plan could still

Figure B.22.2: Meeting Minutes for 30 May 2018 DRAFT Review Meeting – Page 2 of 3

Appendix B: Meeting Minutes/Correspondence

generate a meeting request, but we decided to postpone the next meeting until after we receive the Approval Pending Adoption from FEMA. This will allow us to focus on the review/comment process and give us one more opportunity after the review process is complete to thank the municipalities for their participation as well as make a push to get 100% plan adoption prior to the May 2019 original suspense. This revised meeting schedule was approved by the HMPT with the understanding that electronic coordination through email would continue with the team throughout the review process.

6. The meeting was very important as it set the path forward to get the HMP update done ahead of the original schedule and maximize the time given to FEMA for document review and approval. It was also important to recognize our municipalities for their involvement with this update process. We have been able to achieve a 100% participation rate throughout the update process, which is only due to their commitment and dedication in improving the emergency preparedness posture for the citizens of our county.



ROBERT W. POVLICH JR
Planning Coordinator
Franklin County DES

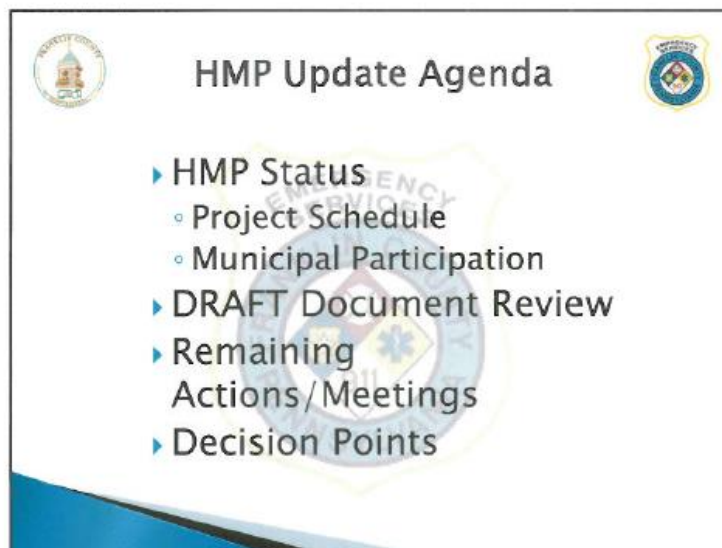
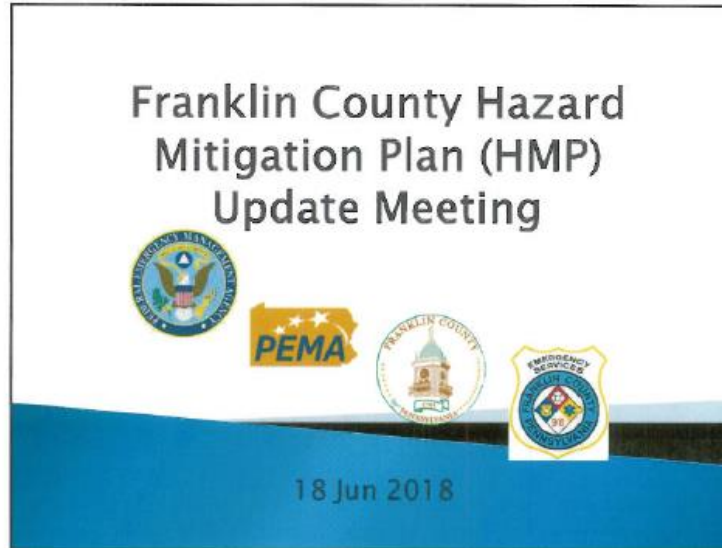
2 Attachments:

Attendance Sheet 06182018.pdf

Franklin County Hazard Mitigation Plan Update 06182018.pdf

Figure B.22.3: Meeting Minutes for 30 May 2018 DRAFT Review Meeting – Page 3 of 3

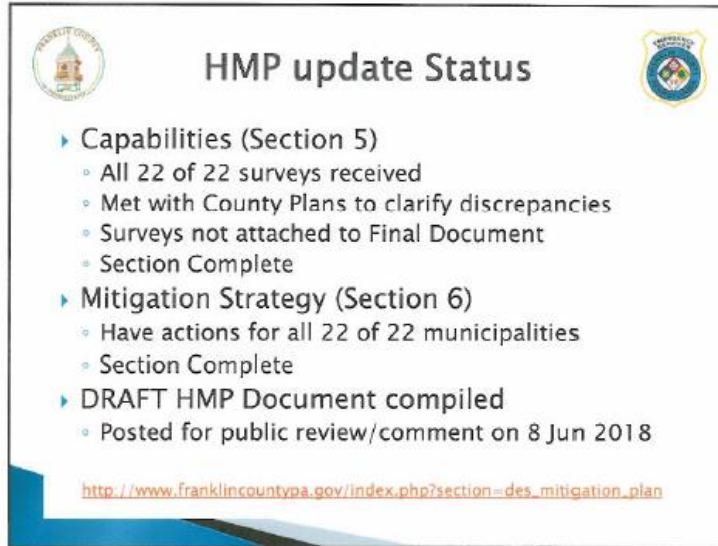
6/19/2018



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Figure B.23.1: Briefing for 18 Jun 2018 HMP Meeting – Page 1 of 5

6/19/2018



HMP update Status

- ▶ Capabilities (Section 5)
 - All 22 of 22 surveys received
 - Met with County Plans to clarify discrepancies
 - Surveys not attached to Final Document
 - Section Complete
- ▶ Mitigation Strategy (Section 6)
 - Have actions for all 22 of 22 municipalities
 - Section Complete
- ▶ DRAFT HMP Document compiled
 - Posted for public review/comment on 8 Jun 2018

http://www.franklincountypa.gov/index.php?section=des_mitigation_plan



HMP Document Posting

A screenshot of a web browser displaying the Franklin County website. The page features a large banner with the text "Franklin County EMPLOYMENT" and "HELP WANTED" in a circular graphic. Below the banner, there are two buttons: "COURT FACILITY IMPROVEMENT PROJECT" and "HAZARD MITIGATION PLAN UPDATE REVIEW". The browser's address bar shows "http://www.franklincountypa.gov".

Figure B.23.2: Briefing for 18 Jun 2018 HMP Meeting – Page 2 of 5

6/19/2018


Participation Update

Municipality	Planning Process	Hazard Identification & Risk Assessment	Mitigation Strategy	Plan Review, Evaluation & Implementation	Plan Adoption
Ashtabula Township	Yes	Yes	Yes	Pending	Pending
Chardon Borough	Yes	Yes	Yes	Pending	Pending
Conant Township	Yes	Yes	Yes	Pending	Pending
Greenfield Borough	Yes	Yes	Yes	Pending	Pending
Starks Township	Yes	Yes	Yes	Yes	Pending
South Township	Yes	Yes	Yes	Pending	Pending
Harford Township	Yes	Yes	Yes	Yes	Pending
Collinwood Township	Yes	Yes	Yes	Pending	Pending
Luzern Township	Yes	Yes	Yes	Pending	Pending
Westland Borough	Yes	Yes	Yes	Pending	Pending
West Township	Yes	Yes	Yes	Pending	Pending
West Alle Borough	Yes	Yes	Yes	Pending	Pending
Montgomery Township	Yes	Yes	Yes	Pending	Pending
Oradown Borough	Yes	Yes	Yes	Pending	Pending
Peers Township	Yes	Yes	Yes	Pending	Pending
Galena Township	Yes	Yes	Yes	Pending	Pending
Shipensburg Borough	Yes	Yes	Yes	Pending	Pending
Southampton Township	Yes	Yes	Yes	Pending	Pending
St. Thomas Township	Yes	Yes	Yes	Pending	Pending
Warren Township	Yes	Yes	Yes	Pending	Pending
Washington Township	Yes	Yes	Yes	Pending	Pending
Wheeler Borough	Yes	Yes	Yes	Pending	Pending

-
- ### DRAFT HMP Review/Comment
- ▶ Full Document Posted for Review/Comment
 - Open to General Public for Comment
 - Municipal comment/approval (**Mandatory Participation**)
 - Email is sufficient for verification of review/approval
 - Comment Form included in draft document
 - Provide Section/Page/Figure or Table Number
 - ▶ Need to determine close out date for review
 - Proposing 10 Aug 2018 as final cut-off date
 - Encourage to complete ASAP
 - Gives 2 full months for public review/comment
 - Permits acceleration of PEMA & FEMA reviews
 - ▶ Comments or questions on review process?


Figure B.23.4: Briefing for 18 Jun 2018 HMP Meeting – Page 4 of 5

6/19/2018



Remaining Actions

- ▶ Complete County-Level Review
 - Changes integrated as received
- ▶ Package for PEMA Review (2 months)
 - Could be finished by 1st week October
- ▶ Package for FEMA Review (2 months)
 - Could be finished by 1st week December
- ▶ Receive "Approval Pending Adoption" from FEMA
- ▶ Staffing for County/Municipal resolutions/adoption
 - Template for Resolution in Section 8, page 397 of HMP
 - Possible for first council/supervisor meetings of 2019
- ▶ Future HMP Meetings?
 - Next meeting normally would be in Aug 2018
 - Postpone until after PEMA review/comment is complete? (October timeframe)
 - Hold off until FEMA "Approved Pending Adoption" is received? (December timeframe)



Decision Points

- ▶ Time Frame for DRAFT Review Cut-off?
 - Recommend 10 Aug 2018 (sooner?)
 - All municipalities required to provide verification of review/comment and approval
 - **Vote - Approve/Disapprove**
- ▶ Future HMP Meetings
 - Opt 1 - Normal schedule (Aug 2018)
 - Opt 2 - Wait for PEMA comments (approx Oct 2018)
 - Opt 3 - Wait for FEMA APP (approx Dec 2018)
 - Opt 4 - No More Meetings - electronic staffing
 - **Vote - Opt 1 / Opt2 / Opt3 / Opt 4**

Figure B.23.5: Briefing for 18 Jun 2018 HMP Meeting – Page 5 of 5

Appendix B: Meeting Minutes/Correspondence




Franklin County Department of Emergency Services
Sign-In Sheet

Event	Hazard Mitigation Plan Update – DRAFT Review Meeting
Dates/Times	6/18/2018 (1200-1400)

Initials/Sign-in	Name	Organization	Phone
	Adams, Joseph	PA DEP	
	Alleman, Mary Ann	FCDES	
	Atkins, Justin	NRCS-Chambersburg	
	Balsley, Mike	Greene TWP	
	Barnes, Lee	CSX	
	Beckner, Teresa	FC Finance Dept	
<i>SARAH BENSHOFF</i>	Benshoff, Sarah	FC GIS	
	Berkheimer, Kevin	Columbia Gas of PA	
	Bingaman, Bobby	PennDot	
	Bitner, Doug	FC EMS Council	
	Bladen, Warren	Adams County EMC	
	Bloyer, Tiffany	Franklin County Human Resource	
	Bock, Michael	Waynesboro Boro. EMC	
	Boyd, Bob	Lurgan TWP Sup.	
	Brake, John	Peters TWP Sup.	
	Brown, Charles	Washington Co. MD EMC	
	Brown, Cherie	LEAD EMC	
	Brubaker, Roy	DCNR	
	Bumbaugh, Kerry	Quincy TWP EMC	
	Burkett, David	Fannett-Metal SD	
	Burns, Todd	Greene TWP Sup.	
	Carroll, Kristin	Chambersburg Area SD	
	Christian, Steve	Chambersburg Area Dev. Corp.	
<i>SMC</i>	Corwell, Shawn	Greene TWP EMC/FCEA	<i>717-263-9160</i>
<i>pre</i>	Crider, Jacob	FC EMC	
	Duffey, Jim	FCCTC	
	Eberly, Rodney	Antrim Township	
	Epley, John	Shippensburg Borough Mgr.	
	Eshleman, Don	St Thomas TWP EMC	
	Farner, Dan	Waynesboro Hospital	
	Finch, Dave	Chambersburg Boro. EMC	
	Finch, Jennifer	Hagerstown Herald Mail	

Figure B.24.1: Sign-In Sheet for 18 Jun 2018 HMP Update Meeting – Page 1 of 6

Appendix B: Meeting Minutes/Correspondence



Franklin County Department of Emergency Services Sign-In Sheet

Event	Hazard Mitigation Plan Update – DRAFT Review Meeting
Dates/Times	6/18/2018 (1200-1400)

Initials/Sign-in	Name	Organization	Phone
	Fleagal, Patrick	Waynesboro Borough	
	Fritchey, Anastasia	FC Plans Dept.	
	Fultz, Rich	Perry County EMC	
	Garling, Mark	Mont Alto Boro. EMC	
<i>JST</i>	Geesaman, Jeff	Washington TWP Sup.	
	Gordon, Matthew	Waynesboro Area SD	
	Gossard, Michael	Mont Alto Boro. Mgr.	
<i>BG</i>	Graham, Brad	Antrim TWP	
<i>CEG</i>	Gray, Carrie	FC Administrator	
	Green, Beverly	First Energy Corp/Penelec	
	Gunder, Bob	Quincy TWP	
	Hamm, Rick	SCTF EWG Lead	
	Hart, John	FC Special Projects Officer	
	Hayes, R. David	Washington Co. MD EMC	
<i>WOB</i>	Himes, Gary	Hamilton TWP EMC	717 446 9632
<i>WOB</i>	Hobbs, Frank	Guilford TWP EMC	717 729 2847
<i>Curf</i>	Holtzman, Eric	Waynesboro Area SD	717 404 8363
	Hoover, Gregory	Shippensburg Area SD	
	Hull, Ann	FC Historical Society	
	Hykes, M.	PennDot	
	Jung, Peter	NOAA/NWS – State College	
<i>Anita Keller</i>	Keller, Anita	FC Tax Services	717-261-3802
	Keller, Dave	County Commissioner	
	Kemper, Lori	Adams Electric	
<i>Matthew</i>	Kendall, Matthew	FCDES/Letterkenny Twp	
	Kepple, Don	DCNR	
	Kessinger, Michael	Hamilton TWP Sup.	
	Kibbe, Melissa	Letterkenny Township	
	Kline, David	First Energy Corp/West Pen	
	Kline, Tod, Dr.	Waynesboro Area SD	
<i>Kelly</i>	Knepper, Kelly	FCDES	717 264 2813
<i>Chad</i>	Kreitz, Chad	Mont Alto Borough	717 729 5277

Figure B.24.2: Sign-In Sheet for 18 Jun 2018 HMP Update Meeting – Page 2 of 6

Appendix B: Meeting Minutes/Correspondence



Franklin County Department of Emergency Services
Sign-In Sheet

Event	Hazard Mitigation Plan Update – DRAFT Review Meeting
Dates/Times	6/18/2018 (1200-1400)

Initials/Sign-in	Name	Organization	Phone
	Kolb, Chip	Lurgan Township	
	Lail, Victor	Dominion Transp. Inc.	
	Laucks, Laura	PEMA	
	Lehman, Julia	Franklin County Grants	
	Leiss, Todd	PA Turnpike	
	Lindenmuth, David	Shippensburg Boro. EMC	
	Little, Bill	FC LEPC	
	May, Dan	Chambersburg Mall	
<i>sjm</i>	McClure, Loretta	FC Risk Management	<i>717-261-3819</i>
	McMullen, Vincie	Corpus Christi	
	Meek, Jim	Washington TWP EMC	
	Miller, Anne	Penn State – Mont Alto	
	Miller, Linda	FC Register/Recorder	
	Mistick, Barbara, Dr.	Wilson College	
	Morgan, Stan	Tuscarora School District	
	Mowen, Jackie	Waynesboro Chamb. of Comm.	
	Murr, Tim	CVCS	
	Myers, Charles	Letterkenny TWP Sup.	
	Myers, Craig	Greencastle Boro/Antrim TWP EMC	
	Myers III, Dale	Lurgan TWP EMC	
	Negley, Randy	Hamilton TWP Sup.	
	Nevada, Steve	FC Asst. Administrator	
	Newell, David, Dr.	Scotland Campus	
	Noll, Greg	SCTF	
<i>ALO</i>	Ogburn, Anthony	RACES	
	Owen, John	E. Pennsboro TWP, Cumb.	
	Padasak, Joseph, Dr.	Chambersburg Area SD	
	Perrin, Steve	Texas Eastern	
	Peters, Ed	Chambersburg Area SD	
	Peters, Ronald	Fayetteville VFD, EMT	
	Petersheim, Angie	Shalom Christian Acad.	
	Pezon, Ron	Chambersburg Electric Co.	

Figure B.24.3: Sign-In Sheet for 18 Jun 2018 HMP Update Meeting – Page 3 of 6

Appendix B: Meeting Minutes/Correspondence



Franklin County Department of Emergency Services
Sign-In Sheet

Event	Hazard Mitigation Plan Update – DRAFT Review Meeting
Dates/Times	6/18/2018 (1200-1400)

Initials/Sign-in	Name	Organization	Phone
<i>[Signature]</i>	Povlich, Robert	FCDES	
	Prowant, Doug	Orrstown Boro. Mgr.	
	Radford, Mari	FEMA	
	Ratliff, Eden	Greencastle Boro. Mgr.	
	Reed, Ted	Orrstown Boro. EMC	
	Ressler, John	Warren TWP EMC/Sup.	
	Rife, Mike	Montgomery TWP Sup.	
	Rock, Dave	PennDot	
	Ross, Todd	Valley Rural Electric	
	Rotz, Sam	Peters TWP EMC	
	Sajeski, Eugene	PEMA	
	Schooley, Travis	Quincy Township	
<i>[Signature]</i>	Seilhamer, Cori	FFCMH/ID	
	Shaulis, Justin	Cumberland Co. PIng Coord	
	Sheets, Joanne	FCDES	
<i>[Signature]</i>	Shields, Doug	Southampton TWP EMC	
	Shively, Robert	Cumberland Co EMC	
	Sholes, Justin	FCCTC	
	Shupe, William	Columbia Gas of PA	
<i>[Signature]</i>	Sims, Travis	FCDES	
	Sites, Steve	Fannett TWP EMC	
	Soubier, James	FCSPTC/FCPCA	
	Stains, Jason	Waynesboro Boro. Mgr.	
	Steinbugl, Matthew	NWS Central PA WFO	
	Stevens, Melissa	Chambersburg Area SD	
	Stonehill, Jeff	Chambersburg Boro. Mgr.	
	Stoner, Dave	Franklin County Conserv. Dist.	
	Stoner, Dusty	Mercersburg Boro. EMC	
	Stoy, Derek	Acting Mercersburg Boro. Mgr.	
	Strait, Ruth	Fulton County EMC	
	Strine, Matthew, Dr.	Tuscarora SD	
	Summer, Charles	Washington Co. MD EMC	

Figure B.24.4: Sign-In Sheet for 18 Jun 2018 HMP Update Meeting – Page 4 of 6

11/26/2019

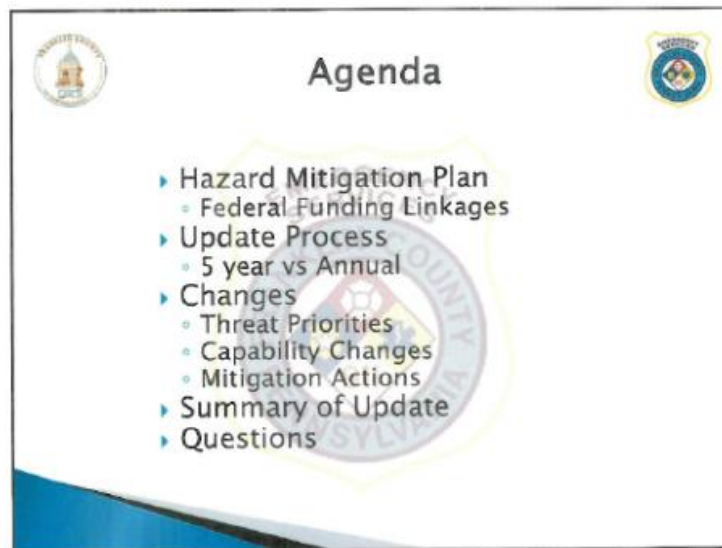


Figure B.25.1: Briefing for 18 Oct 2019 Annual HMP Update Meeting – Page 1 of 5

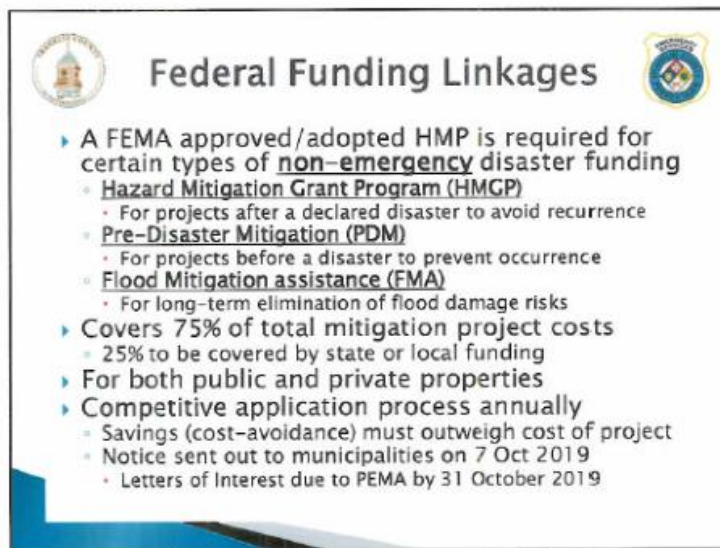
11/26/2019



The slide features the Franklin County seal on the left and the PEMA logo on the right. The title "Hazard Mitigation Plan" is centered at the top. Below the title is a bulleted list of key points regarding the plan's purpose, update requirements, and eligibility for federal funding.

Hazard Mitigation Plan

- ▶ Reduces loss of life and property by lessening the impact of disasters before they happen
 - Key to breaking the cycle of disaster damage, reconstruction, & repeated damage
- ▶ Required to be updated and approved by PEMA & FEMA every 5 yrs
 - Minor updates annually or as needed
- ▶ Municipalities are required to either adopt the County HMP or develop one of their own
 - Franklin County has 100% Municipal Adoption of 2018 HMP
- ▶ Makes our municipalities eligible for certain **non-emergency** federal funding



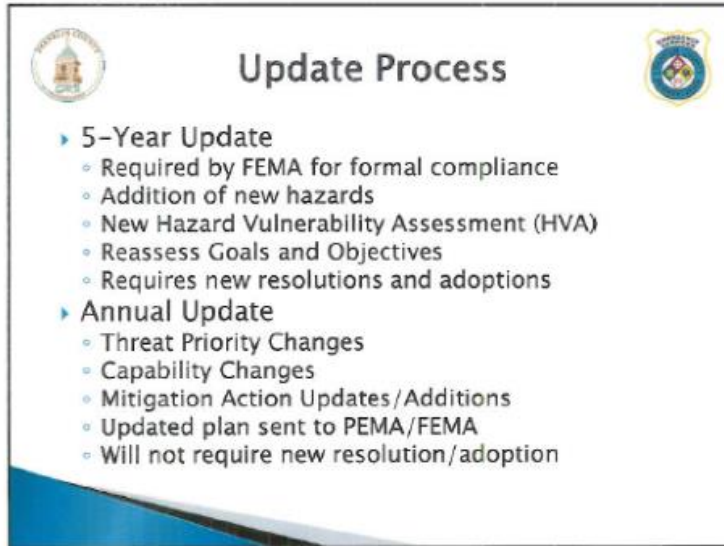
The slide features the Franklin County seal on the left and the PEMA logo on the right. The title "Federal Funding Linkages" is centered at the top. Below the title is a bulleted list detailing the requirements for FEMA-approved disaster funding, including the Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM), and Flood Mitigation Assistance (FMA).

Federal Funding Linkages

- ▶ A FEMA approved/adopted HMP is required for certain types of **non-emergency** disaster funding
 - **Hazard Mitigation Grant Program (HMGP)**
 - For projects after a declared disaster to avoid recurrence
 - **Pre-Disaster Mitigation (PDM)**
 - For projects before a disaster to prevent occurrence
 - **Flood Mitigation assistance (FMA)**
 - For long-term elimination of flood damage risks
- ▶ Covers 75% of total mitigation project costs
 - 25% to be covered by state or local funding
- ▶ For both public and private properties
- ▶ Competitive application process annually
 - Savings (cost-avoidance) must outweigh cost of project
 - Notice sent out to municipalities on 7 Oct 2019
 - Letters of Interest due to PEMA by 31 October 2019

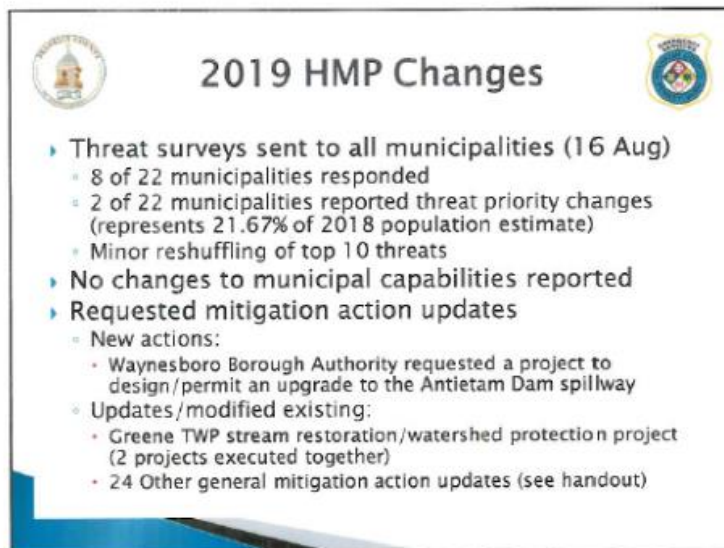
Figure B.25.2: Briefing for 18 Oct 2019 Annual HMP Update Meeting – Page 2 of 5

11/26/2019



Update Process

- ▶ **5-Year Update**
 - Required by FEMA for formal compliance
 - Addition of new hazards
 - New Hazard Vulnerability Assessment (HVA)
 - Reassess Goals and Objectives
 - Requires new resolutions and adoptions
- ▶ **Annual Update**
 - Threat Priority Changes
 - Capability Changes
 - Mitigation Action Updates/Additions
 - Updated plan sent to PEMA/FEMA
 - Will not require new resolution/adoption



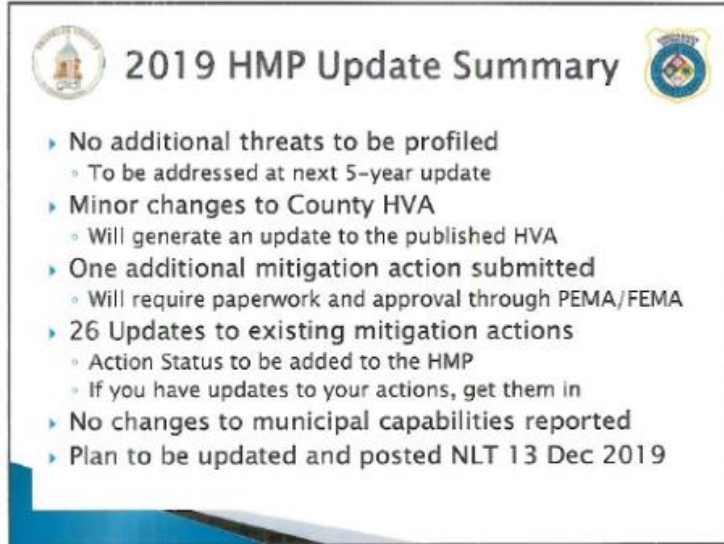
2019 HMP Changes

- ▶ **Threat surveys sent to all municipalities (16 Aug)**
 - 8 of 22 municipalities responded
 - 2 of 22 municipalities reported threat priority changes (represents 21.67% of 2018 population estimate)
 - Minor reshuffling of top 10 threats
- ▶ **No changes to municipal capabilities reported**
- ▶ **Requested mitigation action updates**
 - New actions:
 - Waynesboro Borough Authority requested a project to design/permit an upgrade to the Antietam Dam spillway
 - Updates/modified existing:
 - Greene TWP stream restoration/watershed protection project (2 projects executed together)
 - 24 Other general mitigation action updates (see handout)

3

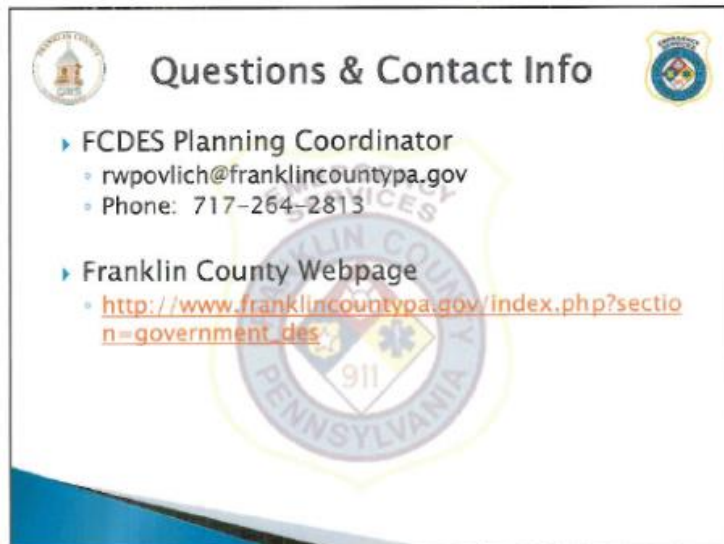
Figure B.25.3: Briefing for 18 Oct 2019 Annual HMP Update Meeting – Page 3 of 5

11/26/2019



2019 HMP Update Summary

- ▶ No additional threats to be profiled
 - To be addressed at next 5-year update
- ▶ Minor changes to County HVA
 - Will generate an update to the published HVA
- ▶ One additional mitigation action submitted
 - Will require paperwork and approval through PEMA/FEMA
- ▶ 26 Updates to existing mitigation actions
 - Action Status to be added to the HMP
 - If you have updates to your actions, get them in
- ▶ No changes to municipal capabilities reported
- ▶ Plan to be updated and posted NLT 13 Dec 2019



Questions & Contact Info

- ▶ FCDES Planning Coordinator
 - rwповlich@franklincountypa.gov
 - Phone: 717-264-2813
- ▶ Franklin County Webpage
 - http://www.franklincountypa.gov/index.php?section=government_des

Figure B.25.5: Briefing for 18 Oct 2019 Annual HMP Update Meeting – Page 5 of 5




Franklin County Department of Emergency Services Sign-In Sheet

Event	Annual Hazard Mitigation Plan Update Meeting
Dates/Times	10/18/2019 (1000-1130)

Initials	Name	Organization	Email
	Alleman, Mary Ann	FCDES	maalleman@franklincountypa.gov
	Alleman, John	Antrim Township EMC	jalleman@twp.antrim.pa.us
	Ardinger, Chris	Tuscarora Area Cham. Of Comm.	cardinger@tachamber.org
	Atkins, Justin	NRCS-Chambersburg	justin.atkins@pa.usda.gov
	Barnes, Lee	CSX	lee_barnes@csx.com
	Barton, Brian	Fulton County EMC	bjbarton@co.fulton.pa.us
	Beckner, Teresa	FC Finance Dept	tbeckner@franklincountypa.gov
	Benedick, Rodney	Tuscarora SD	rodney.benedick@tus.k12.pa.us
SLB	Benshoff, Sarah	FC GIS	sibenshoff@franklincountypa.gov
	Berkheimer, Kevin	Columbia Gas of PA	kiberkheimer@nisource.com
	Betts, Dion, Dr.	Chambersburg SD	dion.betts@casdonline.org
	Bingaman, Bobby	PennDot	robbingama@pa.gov
	Bitner, Doug	FC EMS Council	debitner@geisinger.edu
	Bladen, Warren	Adams County EMC	wpbladen@adamscounty.us
	Bloyer, Tiffany	Franklin County Human Resource	tbloyer@franklincountypa.gov
	Bock, Michael	Waynesboro Boro. EMC	sooflymwb@yahoo.com
	Boyd, Bob	Lurgan TWP Sup.	lurgantwp@embarqmail.com
	Brown, Scott	Shippensburg Area Cham. Of Comm.	director@shippensburg.org
	Brubaker, Roy	DCNR	fd01@pa.gov
	Bumbaugh, Kerry	Quincy TWP EMC	kerry@quincytwp.org
	Burkett, David	Fannett-Metal SD	burkett@fmtigers.org
	Burns, Todd	Greene TWP Sup.	greene@greenetwp.us
	Carter, Gary	Chambersburg SD	gary.carter@casdonline.org
	Confer, Will	Greencastle-Antrim SD	wconfer@gcasd.org
	Cook, Gregory	Guilford TWP Sup.	gtsups@guilfordtwp.us
	Christian, Steve	Chambersburg Area Dev. Corp.	schristian@chambersburg.org
Smc	Corwell, Shawn	Greene TWP EMC/FCEA	scorwell@greenetwp.us
	Cranston, Georgina	Greencastle-Antrim Cham. Of Comm.	georgina@greencastlepachamber.org
JSC	Crider, Jacob	FC EMC	jmcrider@franklincountypa.gov
	Crowder, James	First Energy Corp.	jcrowde@firstenergycorp.com
	Duffey, Jim	FCCTC	jim.duffy@franklinctc.com
	Eshleman, Don	St Thomas TWP EMC	deshleman28@gmail.com

Figure B.26.1: Sign-In Sheet for 18 Oct 2019 Annual HMP Update Meeting – Page 1 of 5

Appendix B: Meeting Minutes/Correspondence



Franklin County Department of Emergency Services Sign-In Sheet

Event	Annual Hazard Mitigation Plan Update Meeting
Dates/Times	10/18/2019 (1000-1130)

Initials	Name	Organization	Email
	Farner, Dan	Waynesboro Hospital	dfarner@summithealth.org
DCF	Finch, Dave	Chambersburg Boro. EMC	dfinch@chambersburgpa.gov
	Fultz, Rich	Perry County EMC	rfultz@perryco.org
	Garling, Mark	Mont Alto Boro. EMC	mark_garling@yahoo.com
Vickroy Ashley	Geesaman, Jeff	Washington TWP Sup.	jbg@washtwp-franklin.org
	Gordon, Matthew	Waynesboro Area SD	matthew_gordon@wasdpa.org
BG	Graham, Brad	Antrim TWP Sup.	bgraham@twp.antrim.pa.us
ceg	Gray, Carrie	FC Administrator	cegray@franklincountypa.gov
	Green, Beverly	First Energy Corp/Penelec	bgreen@firstenergycorp.com
	Gunder, Bob	Quincy TWP Sup.	info@quincytwp.org
	Gavin, Amy	CVCS	agavin@cvcsblazers.com
	Hart, John	FC Special Projects Officer	jahart@franklincountypa.gov
LD	Hayes, R. David	Washington Co. MD EMC	rdhays@washco-md.net
	Himes, Gary	Hamilton TWP EMC	firefighter37@comcast.net
	Hobbs, Frank	Guilford TWP EMC	fhobbs@quilfordtwp.us
DL	Hollenshead, Deb	Hamilton Township	hamiltontwp@comcast.net
	Holtzman, Eric	Waynesboro Area SD	eric_holtzman@wasdpa.org
	Hoover, Gregory	Shippensburg Area SD	gregory.hoover@ship.k12.pa.us
	Hull, Ann	FC Historical Society	history@pa.net
	Hykes, M.	PennDot	mhykes@pa.gov
	Keller, Anita	FC Tax Services	alkeller@franklincountypa.gov
	Keller, Dave	County Commissioner	dskeller@franklincountypa.gov
	Kemper, Lori	Adams Electric	lorik@adamsec.coop
Mark	Kendall, Matthew	FCDES/Letterkenny Twp	mrkendall@franklincountypa.gov
	Kepple, Don	DCNR	dkepple@pa.gov
	Kessinger, Michael	Hamilton TWP Sup.	hamiltontwp@comcast.net
	Kline, David	First Energy Corp/West Pen	dkline@firstenergycorp.com
	Kline, Tod, Dr.	Waynesboro Area SD	tod_kline@wasdpa.org
	Kneedler, Richard, Dr.	Wilson College	richard.kneedler@wilson.edu
	Knepper, Kelly	FCDES	kknepper@franklincountypa.gov
	Lail, Victor	Dominion Transp. Inc.	victor.j.lail@dom.com
	Laucks, Laura	PEMA	llaucks@pa.gov

Figure B.26.2: Sign-In Sheet for 18 Oct 2019 Annual HMP Update Meeting – Page 2 of 5

Appendix B: Meeting Minutes/Correspondence



Franklin County Department of Emergency Services Sign-In Sheet

Event	Annual Hazard Mitigation Plan Update Meeting
Dates/Times	10/18/2019 (1000-1130)

Initials	Name	Organization	Email
	Leab, David	Metal Township EMC	leabs@innernet.net
	Lehman, Julia	FC Communications Dir.	jlehman@franklincountypa.gov
	Leiss, Todd	PA Turnpike	tleiss@paturndpike.com
	Lindenmuth, David	Shippensburg Boro. EMC	djlindenmuth@gmail.com
	Little, Bill	FC LEPC	wslittle@comcast.net
	Long, Mark	Chambersburg SD	mark.long@casdonline.org
	McCarty, Rachael	Warren TWP EMC/Sup.	twp.warren.pa.us@outlook.com
	McClure, Loretta	FC Risk Management	lmcclure@franklincountypa.gov
	Meek, Jim	Washington TWP EMC	jem@washtwp-franklin.org
	Miller, Anne	Penn State – Mont Alto	amc267@psu.edu
<i>JM</i>	Miller, Jason	FCDES	jrmiller@franklincountypa.gov
	Miller, Linda	FC Register/Recorder	lmiller@franklincountypa.gov
	Mosier, Makenzie	FC CART	makenzie2010@hotmail.com
	Mowen, Jackie	Waynesboro Chamb. of Comm.	director@waynesboro.org
	Myers, Charles	Letterkenny TWP Sup.	letterkenny@embarqmail.com
	McCleaf, Earl	Mont Alto Boro. Mgr.	mab@montaltoborough.com
	Myers III, Dale	Lurgan TWP EMC	dalemyers@embarqmail.com
<i>REN</i>	Negley, Randy	Hamilton Township	hamiltontwp@comcast.net
	Nevada, Steve	FC Asst. Administrator	sanevada@franklincountypa.gov
	Newell, David, Dr.	Scotland Campus	drdavidnewell@gmail.com
	Ogburn, Anthony	RACES	anthony@rockbreak.com
	Perrin, Steve	Texas Eastern	srperrin@spectraenergy.com
	Petersheim, Angie	Shalom Christian Acad.	apetersheim@shalomca.com
	Pezon, Ron	Chambersburg Electric Co.	rpezon@chambersburgpa.gov
	Plasterer, Kevin	Shippensburg Boro. Mgr.	kplasterer@shippensburg.pa.us
<i>RG</i>	Povlich, Robert	FCDES	rwovlich@franklincountypa.gov
	Prowant, Doug	Orrstown Boro. Mgr.	prowant@pa.net
<i>SP</i>	Pryor, S. Leiter	Waynesboro Boro. Utilities	leiter@waynesboropa.org
<i>ML</i>	Radford, Mari	FEMA	mari.radford@fema.dhs.gov
	Ratliff, Eden	Greencastle Boro. Mgr./EMC	eratliff@greencastlepa.gov
	Reed, Ted	Orrstown Boro. EMC	preed@kuhncom.net
	Rife, Mike	Montgomery TWP Sup.	montgomerytwp@comcast.net

Figure B.26.3: Sign-In Sheet for 18 Oct 2019 Annual HMP Update Meeting – Page 3 of 5




Franklin County Department of Emergency Services Sign-In Sheet

Event	Annual Hazard Mitigation Plan Update Meeting
Dates/Times	10/18/2019 (1000-1130)

Initials	Name	Organization	Email
	Rock, Dave	PennDot	drock@pa.gov
	Ross, Todd	Valley Rural Electric	tross@valleyrec.com
	Rotz, Sam	Peters TWP EMC/Sup.	peterstownship@comcast.net
	Rotz, George	Fannett TWP Sup.	rotz.fannetttownship@gmail.com
	Sajeski, Eugene	PEMA	esajeski@pa.gov
	Sciamanna, David	CADC	dsciamanna@chambersburg.org
<i>WJS</i>	Seilhamer, Cori	FFCMH/ID	caseilhamer@franklincountypa.gov
<i>JAB</i>	Shaulis, Justin	Cumberland Co. Plng Coord	jshaulis@ccpa.net
<i>JS</i>	Sheets, Joanne	FCDES	jksheets@franklincountypa.gov
<i>DS</i>	Shields, Doug	Southampton TWP EMC	dshields@southamptontownship.org
	Shively, Robert	Cumberland Co EMC	rshively@ccpa.net
	Sholes, Justin	FCCTC	justin.sholes@franklinctc.com
<i>WJS</i>	Shupe, William	Columbia Gas of PA	wshupe@nisource.com
<i>TS</i>	Sims, Travis	FCDES	tesims@franklincountypa.gov
	Sites, Steve	Fannett TWP EMC	rescue_12@hotmail.com
	Smith, Will	FCDES	wsmith@franklincountypa.gov
	Sourbier, James	FC Police Chiefs Assoc.	jsourbier@waynesboropolice.com
	Sollenberger, Tim	St Thomas TWP Sup.	stthomastwp@comcast.net
	Stains, Jason	Waynesboro Boro. Mgr.	jason@waynesboropa.org
	Steinbugl, Matthew	NWS Central PA WFO	matthew.steinbugl@noaa.gov
	Stevenson, Bryan	FCDES	bstevenson@franklincountypa.gov
	Stonehill, Jeff	Chambersburg Boro. Mgr.	jstonehill@chambersburgpa.gov
	Stoner, Dave	Franklin County Conserv. Dist.	davestoner@franklinccd.org
	Stoner, Dusty	Mercersburg Boro. EMC	dsjr124@comcast.net
	Stoy, Derek	Mercersburg Boro. Mgr.	dstoy.mercersburgborough@comcast.net
	Suppo, Chris, Dr.	Shippensburg SD	chris.suppo@ship.k12.pa.us
<i>AS</i>	Swales, Anna	Metal TWP Sup.	Localgov100@embarqmail.com
	Szabo, Ernest	PEMA Hazard Mitigation	erszabo@pa.gov
	Thomas, Steven	FC Plans Dept.	sjthomas@franklincountypa.gov
<i>JK</i>	Thierwechter, John	FCDES	jkthierwechter@franklincountypa.gov
<i>BT</i>	Thomas, Bob	County Commissioner	rthomas@franklincountypa.gov
	Thompson, Joe	Huntingdon Co. EMC	ema@huntingdoncounty.net

Figure B.26.4: Sign-In Sheet for 18 Oct 2019 Annual HMP Update Meeting – Page 4 of 5



Franklin County Department of Emergency Services Sign-In Sheet

Event	Annual Hazard Mitigation Plan Update Meeting
Dates/Times	10/18/2019 (1000-1130)

Initials	Name	Organization	Email
	Titus, Katherine	Mercersburg Academy	titusk@mercersburg.edu
	Trail, Kendra, Dr.	Greencastle-Antrim SD	ktrail@gcasd.org
	Varner, Eric	Letterkenny TWP EMC	evarner@phfd.org
	Walter, Leslie	Salvation Army Chambersburg	leslie.walter@usa.salvationarmy.org
	Watson, Barbara	NOAA/NWS	barbara.watson@noaa.gov
	Weaver, Allen	Juniata Co. EMC	aweaver@juniataco.org
	Weigle, Sharon	USDA Farm Service Agency	sharon.weigle@pa.usda.gov
	Weller, Greg	Montgomery Township EMC	gweller91@gmail.com
	White, Allen	American Red Cross	allen.white@redcross.org
	Williams, Mary Beth, Dr.	Wilson College	marybeth.williams@wilson.edu
	Williams, Jon	Chambersburg Hospital	jwilliams43@wellspan.org
	Witkowski, Loretta	Corpus Christi	lwitkowski@ccschambersburg.org
	Witter, Paul	Southampton TWP Sup.	southamptonfranklin@comcast.net
<i>CLM</i>	Yost, Cassie	PSU Ag Extension	clm275@psu.edu
<i>Bob</i>	Ziobrowski, Bob	County Commissioner	rgziobrowski@franklincountypa.gov
	Zollo, Anthony	LEAD EMC	anthony..m.zollo.civ@mail.mil
	--	Media	nceditor@gmail.com
	--	Public Opinion	jhook@publicopinionnews.com
	--	Public Opinion	newsdesk@publicopinionnews.com
	--	The Record Herald	news@therecordherald.com
	--	Waynesboro Historical Soc.	waynesboro.history@comcast.net
	<i>CHAD Miller</i>	<i>mont Alto Boro</i>	
	<i>Jessica Fogelberg</i>	<i>"</i>	<i>jessica.fogelberg@montaltohistory.com</i>

Figure B.26.5: Sign-In Sheet for 18 Oct 2019 Annual HMP Update Meeting – Page 5 of 5

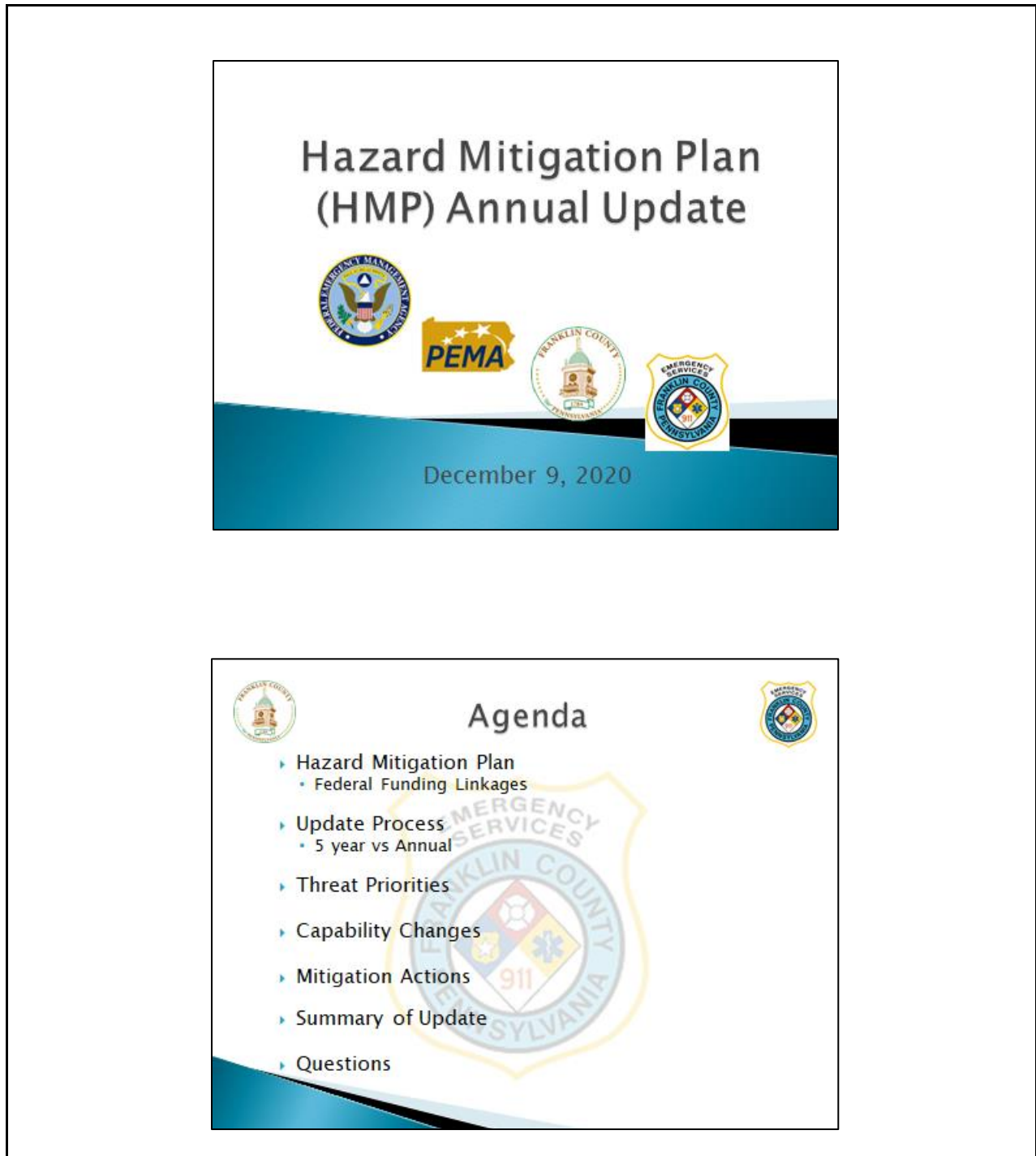






Figure B.27.1: Briefing for 9 Dec 2020 Annual HMP Update Meeting – Page 1 of 8



Hazard Mitigation Plan

- ▶ Helps define the threat environment and reduces loss of life and property by lessening the impact of disasters before they happen
 - Key to breaking the cycle of disaster damage, reconstruction, & repeated damage
- ▶ Required to be updated and approved by PEMA & FEMA every 5 years
 - Minor updates annually or as needed
- ▶ Municipalities are required to either adopt the County HMP or develop one of their own
 - Franklin County has 100% Municipal Adoption of 2018 HMP
- ▶ Makes our municipalities eligible for certain **non-emergency** federal funding



Federal Funding Linkages

- ▶ A FEMA approved/adopted HMP is required for certain types of **non-emergency** disaster funding
 - **Hazard Mitigation Grant Program (HMGP)**
 - For projects after a declared disaster to avoid recurrence
 - **Building Resilient Infrastructure and Communities (BRIC)**
 - Replaces Pre-Disaster Mitigation (PDM), for projects before a disaster to prevent occurrence
 - **Flood Mitigation Assistance (FMA)**
 - For long-term elimination of flood damage risks
- ▶ Covers 75% of total mitigation project costs
 - 25% to be covered by state or local funding
- ▶ BRIC and FMA programs accepting applications until Jan 29, 2021, but PEMA's deadline was Nov 18th

Figure B.27.2: Briefing for 9 Dec 2020 Annual HMP Update Meeting – Page 2 of 8

The figure consists of two presentation slides. The top slide, titled "Update Process", features the Franklin County and Emergency Management logos. It details two update cycles: a 5-Year Update required by FEMA, involving new hazard vulnerability assessments and reassessing goals, due in 2023; and an Annual Update focusing on threat and capability changes, with updated plans sent to PEMA/FEMA. The bottom slide, titled "2020 Threat Priorities", also features the same logos and reports that threat surveys sent to all municipalities on Oct 7 resulted in 7 responses, with 3 reporting priority changes representing 16.54% of the 2019 population estimate. It notes a minor reshuffling of threats and a significant impact from the pandemic.

Figure B.27.3: Briefing for 9 Dec 2020 Annual HMP Update Meeting – Page 3 of 8

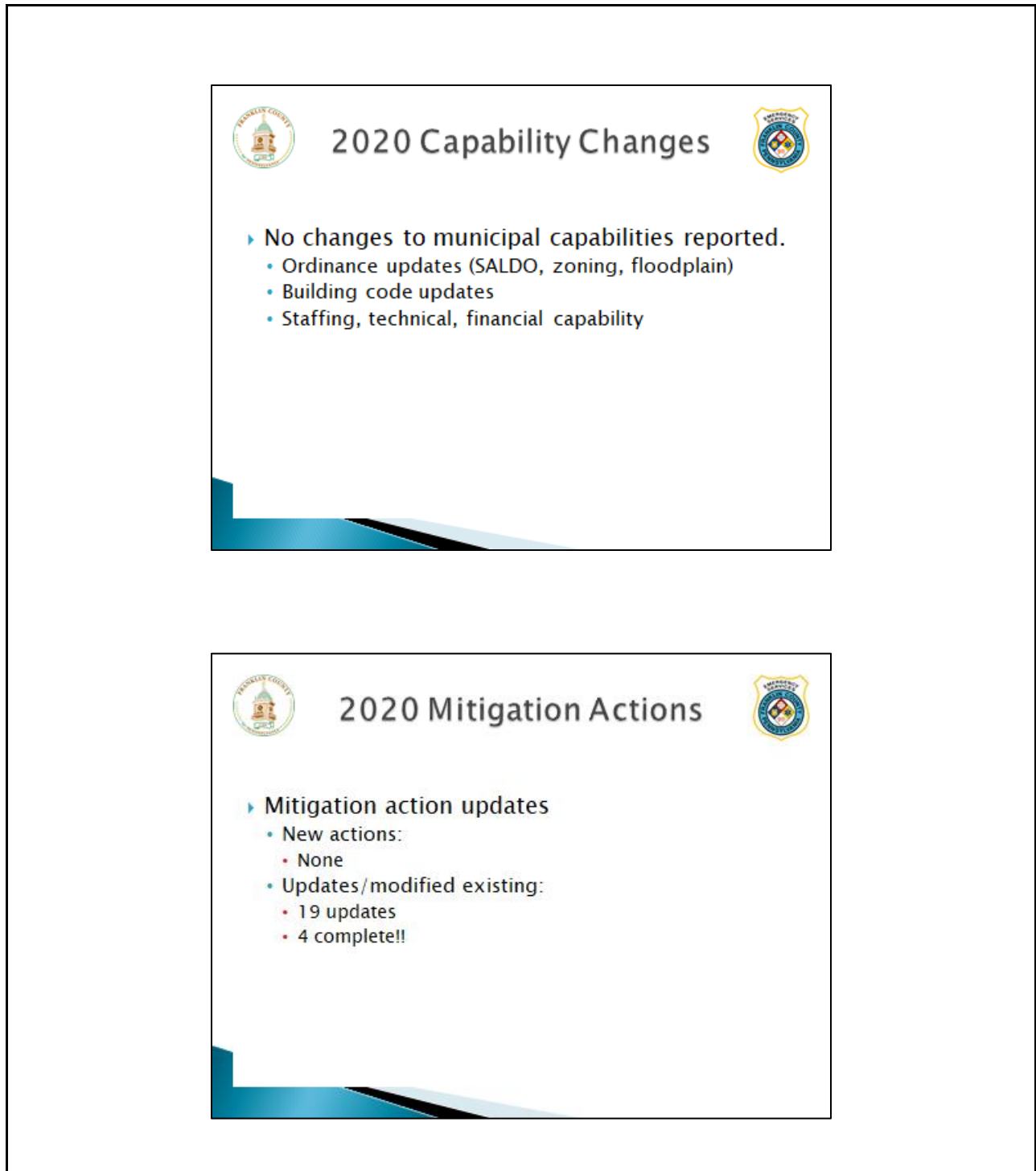


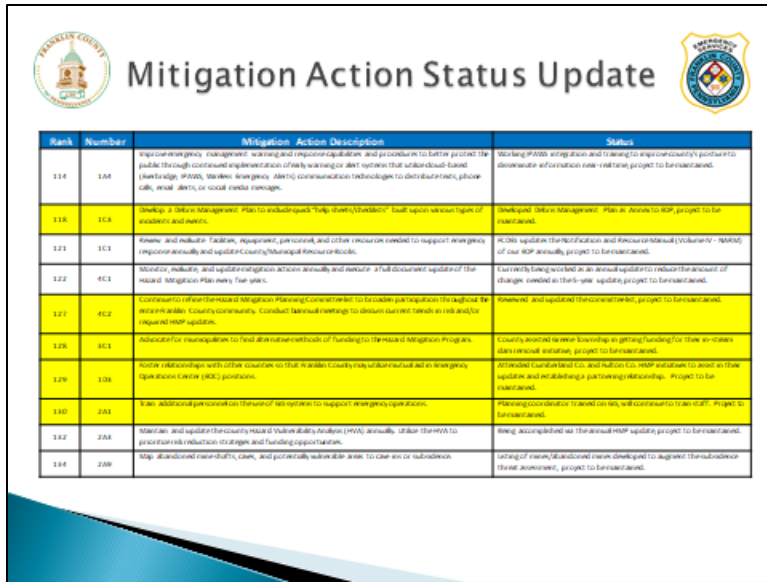
Figure B.27.5: Briefing for 9 Dec 2020 Annual HMP Update Meeting – Page 5 of 8

Appendix B: Meeting Minutes/Correspondence

Rank	Number	Mitigation Action Description	Status
1	252	Develop a comprehensive assessment and safety plan of all SRSA facilities every two years.	Currently being done, project to be finalized.
2	253	Perform a risk-based review study to understand the frequency, severity and safety risks and/or incidents to the facilities for response interventions.	Study completed.
3	254	Continue/expand participation in third annual Weather Awareness Program.	Wadeville County renewed or re-established in the awareness program through 2021, project to be finalized.
18	293	Continue to maintain webpage where presentations, training documentation, and webinars can be posted. We will allow municipal officials to access the information at their own schedule and pace.	Working with County Communications Coordinator to post a landing page for new users. Prepared information, project to be finalized.
19	295	Review Mitigation - Weather Protection. Check status both of status, such as trees, lawns, courts, etc. under all status both of needed to keep. Flow in status both. (Prior to start of season. All to be completed.)	Project partially completed, waiting on additional permits. Project to be finalized.
19	296	Review Mitigation - Weather Protection. Check status both of status, such as trees, lawns, courts, etc. under all status both of needed to keep. Flow in status both. (Prior to start of season. All to be completed.)	Project not completed yet, project to be finalized.
36	375	Partner with Wadeville County Public Safety Emergency (WCPSE), Wadeville County Fire Chiefs Association (WCFCA), the Firewise Alliance, and other first responder groups in the county to organize and execute outreach programs and sign houses to educate the community on response capabilities and disaster opportunities for community service.	Established annual open house for WCPSE and participate in outreach program across the county, project to be finalized.
47	325	Conduct hazard response operations drills and emergency management exercises on an annual basis.	Conduct at least 2 weather exercise and multiple small drills annually, project to be finalized.
48	292	Review funding and resources for public outreach and education with County group assigned to address the highest risk in the community with the goal of reducing community risk and threat of emergency as the community.	Assigned the following design, training, outreach, social media, website, presentations, and other resources. Project to be finalized.
47	299	Perform a risk-based assessment of emergency response capacity for the region to determine the capacity to meet the required capacity for 100% of the population in the region.	Done. Mitigation Action implemented as part of the 2019 update. Requested by the Emergency Management Authority.
57	204	Improve communication between the public and emergency management services through social media (i.e. Facebook & Twitter).	Actively manage a Facebook and Twitter account to get public service information out social media, project to be finalized.
58	323	Install traffic signal to mitigate accidents at intersection of State Rd. and North Parkwood Dr.	Project completed.
59	321	Collect data and review a reduction in road congestion and number of accidents at critical intersections (State Rd. at Valley Rd.).	Project is ongoing, waiting permits, construction in 2021. Project to be finalized.
63	325	Develop and maintain a cache of basic disaster relief supplies for emergency response.	Currently maintained at DHS warehouse, project to be finalized.
64	301	Stop new housing developments in areas approved for the purpose of emergency and land use planning.	Done. All reviewed through Wadeville County set of rules, project to be finalized.
65	326	Stop new housing developments in areas approved for the purpose of emergency and land use planning.	Project and review to be finalized. At the moment, Wadeville County has changed the rules for housing. Will need a categorical response plan, but should be finalized in some increased risk of 6. Project to be finalized.

Rank	Number	Mitigation Action Description	Status
67	301	Encourage emergency response services and SRSA facilities to conduct regular inspections and to encourage maintenance programs, as appropriate, conducting assigned inspection workbooks.	Planning to be completed and to be required for 2021 project to be finalized.
68	323	Study the feasibility of installing the weather forecast station on at Colburn Rd. and State Church Rd. to reduce weather, engine, plan, and engineer solutions to address the different issues.	Weather design, waiting on permits. Project to be finalized.
69	324	Perform a risk-based assessment of emergency response capacity for the region to determine the capacity to meet the required capacity for 100% of the population in the region.	Study is ongoing, waiting on additional funding. Project to be finalized.
70	325	Procedural review back up for all traffic signals in the region. Safety back up would assist in traffic flow during power outage. This would reduce the need for emergency personnel at an intersection to clear traffic.	Project completed.
72	302	Joint participation in the preparation and maintenance of Municipal Emergency Operations Plan (MOP).	County MOP updated annually as part of the HMP process and given to the municipality to assist in completing section 2 of the MOP. Open offer to request for review and comment on municipal MOP, project to be finalized.
76	255	Review, develop, and update annual floodplain management. Outreach Program to educate the municipality on MOP, MOP, and other associated requirements and regulations to ensure a consistent understanding across the county.	Coordinating FEMA training services through FEMA to bring a staff of top change management to Wadeville County in Nov of 2021 project to be finalized.
78	254	Work with priority SRSA members, SRSA, and other local Commission to determine inspection dates of major new inspections for all data in Wadeville County. Seek mitigation action for deficiencies uncovered in the data collection.	Implementing system for annual visit to all high hazard data. Potentially impacting Wadeville County. Any request or deficiency noted will be forwarded to lead owner and associated regulatory agency, project to be finalized.
79	382	Identify and promote awareness of community shelters. Shelter plan would provide temporary refuge for the county's vulnerable populations during periods of emergency or heat.	All shelters are identified and relationship with local fire companies in place to assess and modify current plans to address changes needs, project to be finalized.
80	384	Conduct maintenance inspections, regular maintenance, and annual tests on all emergency communications equipment, public address systems, and AED units to ensure readiness during an emergency event.	All systems tested monthly, project to be finalized.
87	381	Review and update maintenance and training plan throughout Wadeville County annually.	Review plan coordinated with American Red Cross. Project to be finalized.
105	315	Provide assistance to municipalities in implementing individual hazard mitigation actions supporting high risk communities.	Worked with Wadeville County on their mitigation plan. Project to be finalized.
108	310	Develop and implement a Hazardous Waste Management Plan and Site Remediation Plan, including a site remediation plan, and a coordinated effort with other agencies, including county, and regional partners.	Site Remediation Management Plan and Site Remediation Plan completed, working with Wadeville County on site remediation. Project to be finalized.
110	308	Work with local industry partners (e.g. We & Parks) to assess the capacity of landfills to accommodate earthquake or other hazard debris. Develop coordination plans for disposal of debris in the aftermath of a natural or man-made disaster.	DEPT Debris Management Plan under development, project to be finalized.

Figure B.27.6: Briefing for 9 Dec 2020 Annual HMP Update Meeting – Page 6 of 8



Mitigation Action Status Update

Rank	Number	Mitigation Action Description	Status
114	104	Improve emergency management, warning and response capabilities and procedures to better protect the public through continued implementation of newly warning or alert systems that are broadcast based (text/messaging, wireless emergency alert) communication technologies to disseminate emergency phone calls, email alerts, or social media messages.	Working with mitigation and training to improve county's posture to disseminate information via real time project to be completed.
118	118	Develop a Cyber Management Plan to include quick "help desk/ incident" that upon activation report of incidents and alerts.	Developed Cyber Management Plan to be added to HMP project to be completed.
121	101	Review and reduce fuel use, equipment, personnel, and other resources needed to support emergency response annually and update County/Municipal Resource Book.	HVA update the fuel reduction and Resource Book reduction of our HMP annually project to be completed.
122	401	Monitor, reduce, and update mitigation actions annually and measure if full document update of the Hazard Mitigation Plan every five years.	Currently being worked as an annual update to reduce the amount of changes needed in this year update project to be completed.
127	402	Continuously inform the Hazard Mitigation Planning Committee to include participation throughout the process within County community. Conduct biannual meetings to discuss current needs in risk and/or required HMP updates.	Reviewed and updated the committee, project to be completed.
128	401	Advocate for innovative to find alternative methods of funding to the Hazard Mitigation Program.	County involved in new funding in getting funding for the various data needed, updates, project to be completed.
129	100	Acquire knowledge with other counties to that Hamilton County is not mutual aid in emergency operations center (EOC) positions.	Attended Cumberland Co. and Madison Co. HMP updates to assist in the update and establish a partnering relationship. Project to be completed.
130	201	Identify additional personnel on the ground to support emergency operations.	Personnel identified to assist on call, will continue to train staff. Project to be completed.
132	200	Monitor and update the county Hazard Vulnerability Analysis (HVA) annually. Utilize the work to provide risk reduction strategies and funding opportunities.	Being accomplished as the annual HMP update project to be completed.
134	200	Map abandoned residential, care, and potentially vulnerable areas to care and/or residential.	Setting of maps/abandoned areas developed to augment the Hazard Vulnerability Assessment, project to be completed.

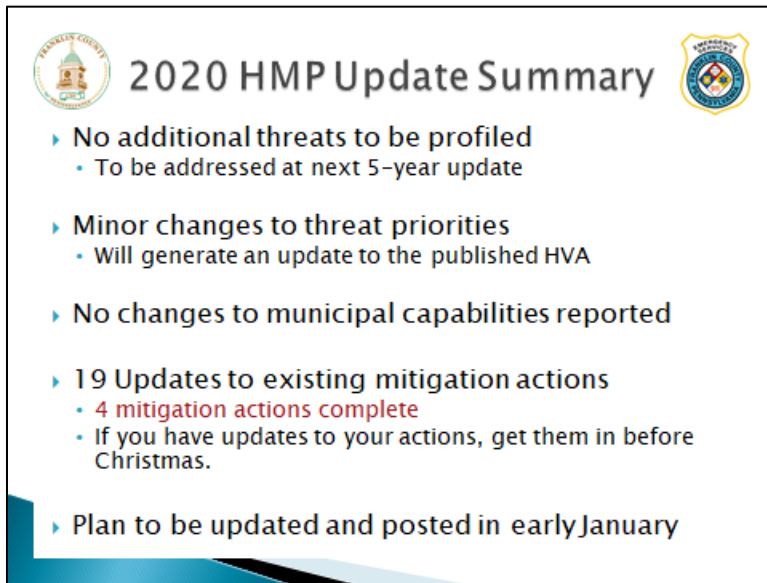
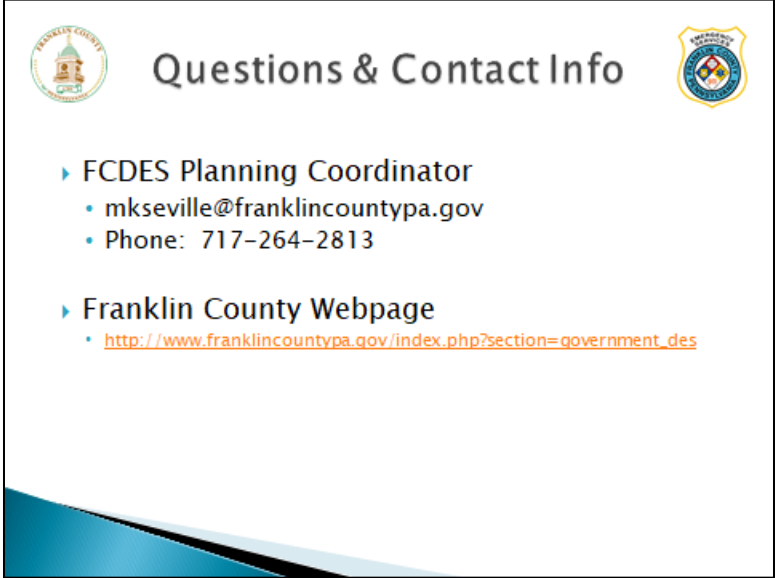
- 
- ### 2020 HMP Update Summary
- ▶ No additional threats to be profiled
 - To be addressed at next 5-year update
 - ▶ Minor changes to threat priorities
 - Will generate an update to the published HVA
 - ▶ No changes to municipal capabilities reported
 - ▶ 19 Updates to existing mitigation actions
 - 4 mitigation actions complete
 - If you have updates to your actions, get them in before Christmas.
 - ▶ Plan to be updated and posted in early January

Figure B.27.7: Briefing for 9 Dec 2020 Annual HMP Update Meeting – Page 7 of 8



The slide features two logos at the top: the Franklin County logo on the left and the Department of Health and Human Services logo on the right. The title 'Questions & Contact Info' is centered between the logos. Below the title, there are two main sections, each preceded by a blue arrowhead. The first section is 'FCDES Planning Coordinator', which includes an email address and a phone number. The second section is 'Franklin County Webpage', which includes a URL. The slide has a blue and black decorative graphic at the bottom left corner.

Questions & Contact Info

- ▶ FCDES Planning Coordinator
 - mkseville@franklincountypa.gov
 - Phone: 717-264-2813
- ▶ Franklin County Webpage
 - http://www.franklincountypa.gov/index.php?section=government_des

Figure B.27.8: Briefing for 9 Dec 2020 Annual HMP Update Meeting – Page 8 of 8

Appendix B: Meeting Minutes/Correspondence

Franklin County HMP Annual Update Meeting - Virtual
Dec. 9, 2020

On Webinar	Name	Organization	E-mail
	Alleman, John	Antrim Twp EMC	jalleman@twp.antrim.pa.us
	Ardinger, Chris	Tuscarora Area Chamber of Commerce	cardinger@tachamber.org
	Atkins, Justin	NRCS-Chambersburg	Justin.Atkins@pa.usda.gov
✓	Barton, Brian	Fulton County EMC	bjbarton@co.fulton.pa.us
	Beckner, Teresa	FC Finance Dept	tbeckner@franklincountypa.gov
	Benedick, Rodney	Tuscarora School District	rodney.benedick@tus.k12.pa.us
✓	Benshoff, Sarah	FC GIS	sibenshoff@franklincountypa.gov
✓	Betts, Dr. Dion	Chambersburg Area School District	dion.betts@casdonline.org
	Bingaman, Bobby	PennDOT	robbingama@pa.gov
	Bitner, Douglas	FC EMS Council	debtiner@geisinger.edu
	Bladen, Warren	Adams County EMC	wpladen@adamscounty.us
	Bloyer, Tiffany	FC Human Resources	tbloyer@franklincountypa.gov
	Bock, Michael	Waynesboro Borough EMC	sooflymwb@yahoo.com
	Boyd, Bob	Lurgan Twp.	lurgantwp@embarqmail.com
✓	Brown, Scott	Shippensburg Area Chamber of Commerce	director@shippensburg.org
	Brubaker, Roy	DCNR	FD01@pa.gov
	Bumbaug, Kerry	Quincy Twp EMC	kerry@quincytwp.org
	Burkett, David	Fannett Metal School District	burkett@fmetigers.org
	Burns, Todd	Greene Twp	greene@greenetwp.us
✓	Carter, Gary	Chambersburg Area School District	gary.carter@casdonline.org
	Christian, Steve	Chambersburg Chamber of Commerce	schristian@chambersburg.org
	Confer, Will	Greencastle Antrim School District	wconfer@gcasd.org
	Cook, Greg	Guilford Twp	gtsups@guilfordtwp.us
	Corwell, Shawn	Greene Twp	scorwell@greeneetwp.us
	Cressler, Sam	Southampton Twp	southamptonfranklin@comcast.net
✓	Crider, Jacob	FCDES	jacrider@franklincountypa.gov
✓	Crowder, Jim	First Energy	jcrowde@firstenergycorp.com
✓	Duffey, Jim	Franklin County Career & Tech	jim.duffey@franklinctc.com
✓	Eshleman, Don	St. Thomas Twp EMC	deshleman28@gmail.com
	Farmer, Dan	Waynesboro Hospital	dfarmer@summithealth.org
✓	Finch, Dave	Chambersburg Borough EMC	dfinch@chambersburgpa.gov
	Flannery, John	County Commissioner	jflannery@franklincountypa.gov
	Fultz, Rich	Perry County EMC	rfultz@perryco.org

Figure B.28.1: Sign-In Sheet for 9 Dec 2020 Annual HMP Update Meeting – Page 1 of 5

Appendix B: Meeting Minutes/Correspondence

Franklin County HMP Annual Update Meeting - Virtual
Dec. 9, 2020

On Webinar	Name	Organization	E-mail
	Garling, Mark	Mont Alto Borough EMC	mark_garling@yahoo.com
	Garvin, Amy	Cumberland Valley Christian School	agarvin@cvcslazers.com
✓	Geesaman, Jeff	Washington Twp	jbg@wasthwp-franklin.org
✓	Goetz, Jason	FC Planning Dept.	jgoetz@franklincountypa.gov
	Gordon, Matthew	Waynesboro Area School District	matthew_gordon@wasdpa.org
	Graham, Brad	Antrim Twp	bgraham@twp.antrim.pa.us
	Gray, Carrie	County Administrator	cegray@franklincountypa.gov
	Green, Beverly	First Energy	bgreen@firstenergycorp.com
	Gunder, Bob	Quincy Twp	info@quincytwp.org
✓	Guseman, Jonathan	NWS State College	jonathan.guseman@noaa.gov
✓	Hanks, Dr. Lura	Greencastle Antrim School District	lhanks@gcasd.org
	Hayes, R. David	Washington Co. MD EMC	rdhays@washco-md.net
	Himes, Gary	Hamilton Twp EMC	firefighter37@comcast.net
	Hobbs, Frank	Guilford Twp EMC	fhobbs@guilfordtwp.us
✓	Holtzman, Eric	Waynesboro Area School District	eric_holtzman@wasdpa.org
	Hull, Ann	FC Historical Society	history@pa.net
	Hykes, M.	PennDOT	mhykes@pa.gov
✓	Keller, Anita	FC Tax Services	alkeller@franklincountypa.gov
	Keller, Dave	County Commissioner	dkeller@franklincountypa.gov
	Kemper, Lori	Adams Electric	lorik@adamsec.coop
✓	Kendall, Matthew	FCDES/LetterKenny Twp	mikendall@franklincountypa.gov
	Kepple, Don	DCNR	dkepple@pa.gov
	Kerstetter, Jim	PEMA	jamkerstet@pa.gov
	Kline, David	First Energy	dkline@firstenergycorp.com
	Kline, Dr. Tod	Waynesboro Area School District	tod_kline@wasdpa.org
	Kneedler, Dr. Richard	Wilson College	richard.kneedler@wilson.edu
	Knepper, Kelly	FCDES	kknepper@franklincountypa.gov
	Lail, Victor	Dominion Transp. Inc.	victor.j.lail@dom.com
	Lander, Jason	Warren Twp EMC	warrenTwpEMC@gmail.com
✓	Laucks, Laura	PEMA	llaucks@pa.gov
	Leab, David	Metal Twp EMC	leabs@innet.net
	Lehman, Julia	FC Communications Director	jlehman@franklincountypa.gov
	Leiss, Todd	PA Turnpike	tleiss@paturnpike.com

Figure B.28.2: Sign-In Sheet for 9 Dec 2020 Annual HMP Update Meeting – Page 2 of 5

Appendix B: Meeting Minutes/Correspondence

Franklin County HMP Annual Update Meeting - Virtual
Dec. 9, 2020

On Webinar	Name	Organization	E-mail
	Lindennuth, David	Shippensburg Borough EMC	djlindennuth@gmail.com
	Little, Bill	FC LEPC	wslittle@comcast.net
	Manahan, Bob	Greencastle Boro	bmanahan@greencastlepa.gov
	McCarty, Rachael	Warren Twp EMC & Supervisor	twp.warren.pa.us@outlook.com
	McCleaf, Earl	Mont Alto Borough	mab@montaloborough.com
	McClure, Loretta	FC Risk Management	jimccure@franklincountypa.gov
	Meek, Jim	Washington Twp EMC	jem@wastwp-franklin.org
	Meyers, Valerie	Greencastle Chamber of Commerce	valerie@greencastlepachamber.org
	Miller, Anne	Penn State Mont Alto	amc267@psu.edu
	Miller, Jason	FCDES	jfmiller@franklincountypa.gov
	Miller, Linda	FC Register/Recorder	lmiller@franklincountypa.gov
	Mills, Kim	FCDES	kmills@franklincountypa.gov
	Moser, Makenzie	FC CART	makenzie2010@hotmail.com
	Mowen, Jackie	Waynesboro Chamber of Commerce	director@waynesboro.org
	Myers, Charles	Letterkenny Twp	letterkenny@embarqmail.com
	Myers III, Dale	Lurgan Twp EMC	dalenmyers@embarqmail.com
	Newell, Dr. David	Scotland Campus	drdavidnewell@gmail.com
	Noll, Gregory	South Central Task Force	gnoll@sctfpa.org
	Ogburn, Anthony	RACES	anthony@rockbreak.com
	Perrin, Steve	Texas Eastern	srperrin@spectraenergy.com
	Peters Township Supervisors	Peters Twp	peterstownship@comcast.net
	Petersheim, Angie	Shalom Christian Academy	apetersheim@shalomca.com
	Pezon, Ron	Chambersburg Electric Co.	rpezon@chambersburgpa.gov
	Plasterer, Kevin	Shippensburg Borough	kplasterer@shippensburg.pa.us
	Povlich, Robert	FCDES	rwovlich@franklincountypa.gov
	Prowant, Doug	Orrstown Borough	theprowants@gmail.com
	Radford, Mari	FEMA	mari.radford@fema.dhs.gov
	Reed, Paul (Ted)	Orrstown Borough EMC	preed@kuhncom.net
	Rife, Mike	Montgomery Twp	montgomerytwp@comcast.net
	Ross, Todd	Valley Rural Electric	tross@valleyrec.com
	Rotz, George	Fannett Twp	rotz.fannettownship@gmail.com
	Rotz, Sam	Peters Twp EMC	peterstownship@comcast.net
	Seilhamer, Cori	FFCMH/ID	caseilhamer@franklincountypa.gov

Figure B.28.3: Sign-In Sheet for 9 Dec 2020 Annual HMP Update Meeting – Page 3 of 5

Appendix B: Meeting Minutes/Correspondence

On Webinar	Name	Organization	E-mail
<input checked="" type="checkbox"/>	Seville, Mary K.	FCDES	mkseville@franklincountypa.gov
<input checked="" type="checkbox"/>	Shaulis, Justin	Cumberland County Planning Coord.	jshaulis@ccpa.net
<input checked="" type="checkbox"/>	Sheets, Joanne	FCDES	jksheets@franklincountypa.gov
	Shively, Robert	Cumberland County EMC	rshively@ccpa.net
	Sholes, Justin	Franklin County Career & Tech	justin.sholes@franklinctc.com
	Shupe, William	Columbia Gas of PA	wshupe@nisource.com
	Sites, Steve	Fannett Twp EMC	rescue_12@hotmail.com
	Smith, Ray	RACES	raysmith@pa.net
	Smith, Will	FCDES	wrsmith@franklincountypa.gov
	Sollenberger, Tim	St. Thomas Twp	stthomastwp@comcast.net
	Sourbier, James	FC Poice Chiefs Assoc.	jsourbier@waynesboropoliice.com
	Stains, Jason	Waynesboro Borough	jason@waynesboropa.org
	Steinbugl, Matthew	NWS Central PA WFO	matthew.steinbugl@noaa.gov
	Stevenson, Bryan	FCDES	bstevenson@franklincountypa.gov
	Stonehill, Jeff	Chambersburg Borough	jstonehill@chambersburgpa.gov
	Stoner, Dave	FC Conservation District	davestoner@franklincd.org
	Stoner, Dusty	Mercersburg Borough EMC	dsj124@comcast.net
	Stoner, Jacob	FCDES	jbstoner@franklincountypa.gov
	Stormchasers, FranklinPa		fcpscwl@gmail.com
	Stoy, Derek	Mercersburg Borough	dstoy.mercersburgborough@comcast.net
	Suppo, Dr. Chris	Shippensburg School District	chrs.suppo@ship.k12.pa.us
	Swales, Anna	Metal Twp	localgov100@embarqmail.com
	Szabo, Ernie	PEMA	erszabo@pa.gov
	Thierwechter, John	Assistant County Administrator	jktierwechter@franklincountypa.gov
	Thomas, Steven	FC Planning Director	sithomas@franklincountypa.gov
	Thompson, Joe	Huntingdon County EMA	ema@huntingdoncounty.net
	Titus, Katherine	Mercersburg Academy	titusk@mercersburg.edu
	Varner, Eric	Letterkeny Twp EMC	evartner@phfd.org
	Walter, Leslie	Salvation Army Chambersburg	Leslie.Walter@use.salvationarmy.org
	Weaver, Allen	Juniata County EMC	aweaver@juniataco.org
	Weigle, Sharon	USDA Farm Service Agency	sharon.weigle@pa.usda.gov
	Weller, Greg	Montgomery Twp EMC	gweller91@gmail.com
	Wertman, Rich	Greencastle Borough EMC	rpw131@hotmail.com

Franklin County HMP Annual Update Meeting - Virtual
Dec. 9, 2020

Figure B.28.4: Sign-In Sheet for 9 Dec 2020 Annual HMP Update Meeting – Page 4 of 5


Appendix B: Meeting Minutes/Correspondence

Franklin County HMP Annual Update Meeting - Virtual
 Dec. 9, 2020

On Webinar	Name	Organization	E-mail
	White, Allen	American Red Cross	allen.white@redcross.org
	Williams, Jon	Chambersburg Hospital	jwilliams43@wellspring.org
	Witkowski, Loretta	Corpus Christi	lwitkowski@ccschambersburg.org
	Ziobrowski, Bob	County Commissioner	rgziobrowski@franklincountypa.gov
	Zollo, Anthony	LEAD EMC	anthony.m.zollo.ctv@mail.mil
		Media	nceditor@gmail.com
		Public Opinion	Newsdesk@publicopinionnews.com
		The Record Herald	news@therecordherald.com
		Waynesboro Historical Society	waynesboro.history@comcast.net

Figure B.28.5: Sign-In Sheet for 9 Dec 2020 Annual HMP Update Meeting – Page 5 of 5

nwповlich@franklincountypa.gov



Hazard Mitigation Plan

Created by: jkthierwechter@franklincountypa.gov · Your response: ✓ Yes, I'm going

Time
10am - 11:30am (Eastern Time)

Date
Tue Jul 11, 2017

Where
DES - Multipurpose Room

Description
Kick-off Meeting with key County personnel.

My Notes

Rooms, etc.
✓ DES - Multipurpose Room

Guests














- ✓  alkeller@franklincountypa.gov
- ✓  jahart@franklincountypa.gov
- ✓  jksheets@franklincountypa.gov
- ✓  jkthierwechter@franklincountypa.gov
- ✓  jmcridder@franklincountypa.gov
- ✓  ljmccclure@franklincountypa.gov
- ✓  maalleman@franklincountypa.gov
- ✓  ptarquino@franklincountypa.gov
- ✓  nwповlich@franklincountypa.gov
- ✓  seblack@franklincountypa.gov
- ✓  tlbeckne@franklincountypa.gov
- ✓  cegray@franklincountypa.gov

Figure C.1: Meeting Invite for 11 Jul 2017 HMPSC Team Meeting (Posted 20 Jun 2017)

Appendix C: Correspondence/Participation/Public Outreach

1/25/2018 Franklin County PA Mail - Franklin County Hazard Mitigation Plan Update - Risk Assessment Survey



Robert Povlich <rwovlich@franklincountypa.gov>

Franklin County Hazard Mitigation Plan Update - Risk Assessment Survey

Jacob Crider <jmcrider@franklincountypa.gov> Mon, Jul 17, 2017 at 3:16 PM
To: donda@centurylink.net, dstoner@mvc56.org, emc@greencastlepa.gov, Eric Varner <evartner@phfd.org>, James.powell@fivesgroup.com, jhammond13@hotmail.com, jlumberger@embarqmail.com, joyler@pa.net, jswope@southamptontpw.com, peterstowshipma@embarqmail.com, sadolini@waynesboropolice.com, sta4ff32@hotmail.com, Anthony Zollo <anthony.m.zollo.civ@mail.mil>, Brad Graham <bgraham@twp.antrim.pa.us>, Cherie Brown <cherie.p.brown.civ@mail.mil>, Craig Myers <craig.myers@rescuehose.com>, Dale Myers III <dmyers@phfd.org>, Dave Finch <dfinch@chambersburgpa.gov>, David Leab <leabs@innernet.net>, David Lindenmuth <djlindenmuth@gmail.com>, Derek Stoy <dstoy.mercersburgborough@comcast.net>, Don Eshleman <deshleman28@gmail.com>, Doug Shields <dshields@southamptontownship.org>, Frank Hobbs <fhobbs@guilfordtwp.us>, Frank Hobbs II <chieffhobbs@comcast.net>, Gary Himes <firefighter37@comcast.net>, Greg Weller <gweller91@gmail.com>, Jason Stains <jason@waynesboropa.org>, Jeff Rion <Haz44Mat@aol.com>, Jim Meek <jem@washtwp-franklin.org>, John Ressler <johnressler.2@gmail.com>, Kelly Knepper <kknepper@pa.net>, Kerry Bumbaugh <kerry@quincytwp.org>, Kurt Wagaman <kwagaman@comcast.net>, Larry Hinkle <lhinkle@nntwp.net>, Mark Garling <mark_garling@yahoo.com>, Matt Renee Funk <1mattfk@gmail.com>, Metal Township <localgov100@embarqmail.com>, Mike Balsley <mbalsley@greenetwp.us>, Mike Balsley <ndwfire@gmail.com>, Mike Bock <sooflymb@yaho.com>, Mike Small <mikesmall@greenetowshipma.com>, Montgomery Township <montgomerytwp@comcast.net>, "Paul T. Reed" <preed@kuhncom.net>, Peters Township Supervisors <peterstowship@comcast.net>, Rodney Eberly <reberly@twp.antrim.pa.us>, Shawn Corwell <scorwell@greenetwp.us>, Steve Sites <rescue_12@hotmail.com>, Steven R Swope <steven.r.swope@jci.com>, bearvalleywater@comcast.net, cfjma@cfjma.com, cmercere@guilfordtwp.us, dougshields@comcast.net, dpculbertson@embarqmail.com, dscheller.mercersburgborough@comcast.net, godonnell@centurylink.net, gtsups@guilfordtwp.us, htma@embarqmail.com, info@quincytwp.org, jnowell@twp.antrim.pa.us, jstonehill@chambersburgpa.gov, kbland@gcasd.org, letterkenny@embarqmail.com, lsuders@cfjma.com, lurgantwp@embarqmail.com, lwengermontalto@comcast.net, manager@wtma.us, michael.w.gossard.civ@mail.mil, prowant@pa.net, smalott@guilfordtwp.us, southamptonfranklin@comcast.net, stthomastwp@comcast.net, sitma1@comcast.net, Ben Thomas <bfthomas2529@comcast.net>, Dale Carbaugh <dalecarbaugh@gmail.com>, Eden Ratliff <eratliff@greencastlepa.gov>, Eric Harbaugh <eharbaugh@guilfordtwp.us>, Greene <greene@greenetwp.us>, Hamilton Township <hamiltontwp@comcast.net>, Jeff Geesaman <Jbg@washtwp-franklin.org>, John Epley <jepley@shippensburg.pa.us>, Mike Christopher <mac@washtwp-franklin.org>, Patricia Kocek <mab@comcast.net>, Patti Strite <pas33@comcast.net>, Tasha Hershey <ldhershey@hotmail.com>, Travis Blubaugh <tblubaugh@gcasd.org>, Vicki Nunemaker <vicki@quincytwp.org>
Cc: John Thierwechter <jkthierwechter@franklincountypa.gov>, Robert Povlich <rwovlich@franklincountypa.gov>, Mary Ann Alleman <maalleman@franklincountypa.gov>, Joanne Sheets <jksheets@franklincountypa.gov>

Good afternoon EMCs, Borough Managers and Township Supervisors,

DES is in the beginning stages of updating the Franklin County Hazard Mitigation Plan (HMP). This plan is the foundation document that shapes how we should organize, train, and equip our first responders to meet the prevailing threats in the county. This plan provides information to determine where best to spend our preparedness dollars to make sure we are able to serve our communities best during disaster response and recovery operations.

We need your assistance throughout the HMP update process and will be sending out meeting notices for your participation, but this next part needs to be done as soon as possible. The first and arguably the most important part of the HMP is the identification and assessment of local hazards. Each municipality has its own unique threats and potentials for hazards. Our existing county HMP only covers eight of the 26 identified hazards in the Pennsylvania HMP. We are looking to make our plan more robust and capture our threat assessment on 24 of the 26 identified state threats. The remaining two threats are Coastal Erosion and Levee Failure and are not applicable to Franklin County.

In order to assist you in assessing these 24 threats for your municipality, we have developed the attached survey document. The first page contains the survey itself with the scoring parameters explained at the bottom of the page. Additionally, the definitions of the threats as defined by PEMA are on the remaining pages. If you have additional threats

<https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=2WGMGQ4tSfE.en.&view=pt&msg=15d51fc2aebf65d9&q=label%3Aread-mail-2017%2...> 1/2

Figure C.2.1: Hazard Assessment Survey Request 17 Jul 2017 – Page 1 of 2

Appendix C: Correspondence/Participation/Public Outreach

1/25/2018 Franklin County PA Mail - Franklin County Hazard Mitigation Plan Update - Risk Assessment Survey

not identified in one of these categories, please add it to your survey. However, most threats can be placed into one of these categories.

We need you to assemble your planning team and discuss this threat assessment for your jurisdiction. You need to assess each category and score it for Probability, Percentage of Municipality Impacted, Warning Time, and Impact (injuries & damage). It is important that we get this information from every jurisdiction in the county as it will be reflected in a table in the report for the overall county assessment. See the current Franklin County HMP for example which is attached. If your municipality does not provide any information it will be apparent to both PEMA and FEMA (i.e. it could impact state and federal funding for your municipality) as this report must be approved by both state and federal offices to be accepted and implemented. We want to make sure we cover the true threat analysis for the county, and also want to kick start your risk analysis for your municipal Emergency Operations Plan.


If you have questions or comments about this survey or the Hazard Mitigation Planning update in general, please contact the DES Planning Coordinator Bob Povlich at [717-264-2813](tel:717-264-2813).


Thanks and have a good rest of the day,

Jake

--
Jacob M. Crider
Emergency Management Coordinator and Assistant Director
Franklin County Department of Emergency Services
390 New York Avenue
Chambersburg, PA 17201
[717-264-2813](tel:717-264-2813)

2 attachments

 **Hazard Mitigation Plan 5th rewrite.pdf**
12572K


 **HMP_Survey_07112017.pdf**
360K

<https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=2WGmGQ4tSfE.en.&view=pt&rmsg=15d51fc2aebf65d9&q=label%3Aread-mail-2017%2...> 2/2

Figure C.2.2: Hazard Assessment Survey Request 17 Jul 2017 – Page 2 of 2

Appendix C: Correspondence/Participation/Public Outreach

8/8/2017 Franklin County PA Mail - Franklin County Hazard Mitigation Plan Update - Risk Assessment Survey (due 28 Aug 2017)



Robert Povlich <rwповlich@franklincountypa.gov>

Franklin County Hazard Mitigation Plan Update - Risk Assessment Survey (due 28 Aug 2017)

Robert Povlich <rwповlich@franklincountypa.gov> Mon, Aug 7, 2017 at 10:25 AM
To: craig.myers@rescuehose.com, Brad Graham <bgraham@twp.antrim.pa.us>, Steve Sites <rescue_12@hotmail.com>, gkrotz@centurylink.net, Shawn Corwell <scorwell@greenetwp.us>, greene@greenetwp.us, Frank Hobbs <fhobbs@guilfordtwp.us>, gtsups@guilfordtwp.us, Gary Himes <firefighter37@comcast.net>, Hamilton Township <hamiltontwp@comcast.net>, Eric Varner <evanner@phfd.org>, letterkenny@embarqmail.com, dmyers@phd.org, lurgantwp@embarqmail.com, David Leab <leabs@innet.net>, Metal Township <localgov100@embarqmail.com>, Greg Weller <gweller91@gmail.com>, Montgomery Township <montgomerytwp@comcast.net>, Peters Township Supervisors <peterstownship@comcast.net>, Kerry Bumbaugh <kerry@quincytwp.org>, info@quincytwp.org, Doug Shields <dshields@southamptontownship.org>, southamptonfranklin@comcast.net, Don Eshleman <deshleman28@gmail.com>, stthomastwp@comcast.net, John Ressler <johnressler.2@gmail.com>, Jim Meek <jem@washtwp-franklin.org>, mac@washtwp-franklin.org, Dave Finch <dfinch@chambersburgpa.gov>, jstonehill@chambersburgpa.gov, emc@greencastlepa.gov, eratliff@greencastlepa.gov, dstoner@mvfc56.org, dscheller.mercersburgborough@comcast.net, mark.garling@yahoo.com, Patricia Kocek <mab@comcast.net>, "Paul T. Reed" <preed@kuhncom.net>, prowant@pa.net, David Lindenmuth <djlindenmuth@gmail.com>, John Epley <jepley@shippensburg.pa.us>, michael bock <sooflymwb@yahoo.com>, Jason Stains <jason@waynesboropa.org>
Cc: John Thierwechter <jkthierwechter@franklincountypa.gov>, Jacob Crider <jmcrider@franklincountypa.gov>, Joanne Sheets <jksheets@franklincountypa.gov>

Municipal Managers & Local EMCs,

We sent out the attached survey on 17 July for your review and completion. This survey is the cornerstone of the update to the the Franklin County Hazard Mitigation Plan (HMP). It will also help you in revising and updating your own Emergency Operations Plan.

In order to keep our HMP update on schedule, we need these surveys completed and returned by 28 Aug 2017. We are trying to schedule a HMP kick-off meeting the last week of August and need to discuss the individual municipal rankings as well as the county roll-up so we can proceed to draft the risk threat assessments.

We have received surveys from the following municipalities (Thank you), but if you wish to update your response based on recent events, you are encouraged to do so:

- Greene TWP
- Guilford TWP
- Hamilton TWP
- Lurgan TWP
- Montgomery TWP
- St Thomas TWP
- Shippensburg Borough
- Waynesboro Borough

We still need responses from the following Municipalities:


- Antrim TWP
- Chambersburg Borough
- Fannett TWP
- Greencastle Borough
- Letterkenny TWP
- Mercersburg Borough
- Metal TWP
- Mont Alto Borough
- Orrstown Borough
- Peters TWP
- Quincy TWP
- Southampton TWP
- Warren TWP
- Washington TWP

<https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=92leTe34hY8.en.&view=pt&msg=15dbd166caf12aca&search=sent&siml=15dbd166caf1...> 1/2

Figure C.3: Second Request for Hazard Assessment Survey 7 Aug 2017

Appendix C: Correspondence/Participation/Public Outreach

8/8/2017 Franklin County PA Mail - Update pages for the Franklin County Hazard Mitigation Plan

 Robert Povlich <rwpvlich@franklincountypa.gov>

Update pages for the Franklin County Hazard Mitigation Plan

Robert Povlich <rwpvlich@franklincountypa.gov> Tue, Aug 8, 2017 at 10:29 AM
To: Phil Tarquino <ptarquino@franklincountypa.gov>, Anita Keller <alkeller@franklincountypa.gov>
Cc: John Thierwechter <jkthierwechter@franklincountypa.gov>, Jacob Crider <jmcrider@franklincountypa.gov>

Mr Tarquino,

From our HMP kick-off meeting, we discussed updating the info in the demographics portion (Section 2) of the HMP. You mentioned that you already have most if not all of this information.

I have attached the pages from Section 2 and a few from Section 4 of the HMP that requiring updating as it relates to the the community profile. I think that most of these pages are taken directly from the Franklin County Comprehensive Plan, so it may not be that difficult to collect and update this info.

Pages numbered 19, 20, & 21 contain data from the 2010 Census and are not likely to have changed unless we have taken a separate audit of the county since 2010. Therefore, the only real pages we need to scrub are 11, 12, 13, 14, 15, 16, 17, 18, 22, 23, 24, 25, 28, 32, 33 & 34.


Page 26 contains info about structure numbers and may be better answered by the tax office representative (Ms Keller), but if you have that info in the Comprehensive Plan, then we can simply pull that over as well.

You can send me the updated pages from the Comprehensive Plan and the verbiage edits of the existing HMP pages and I will update and collate into the new HMP update. If you have any additional information that you feel would benefit the HMP, please send that as well and I will incorporate.

Please let me know if you have questions or concerns. Thanks.

Bob

--
Bob Povlich
Franklin County Emergency Services
Planning Coordinator
717-264-2813


 **Demographic Info for HMP Update.pdf**
3555K

<https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=92leTe34hY8.en.&view=pt&msg=15dc240507751946&search=sent&siml=15dc2405077...> 1/1

Figure C.4: RFI for Demographic Information 8 Aug 2017

Appendix C: Correspondence/Participation/Public Outreach

1/25/2018 Franklin County PA Mail - Franklin County Hazard Mitigation Plan

 Robert Povlich <rwpvlich@franklincountypa.gov>

Franklin County Hazard Mitigation Plan

John Thierwechter <jkthierwechter@franklincountypa.gov> Tue, Sep 26, 2017 at 12:51 PM
To: Dave Keller <dskeller@franklincountypa.gov>, Bob Thomas <rthomas@franklincountypa.gov>, Bob Ziobrowski <rgziobrowski@franklincountypa.gov>, John Hart <jahart@franklincountypa.gov>, Carrie Gray <cegray@franklincountypa.gov>, Steve Nevada <sanevada@franklincountypa.gov>, John Thierwechter <jkthierwechter@franklincountypa.gov>, Jacob Crider <jmcrider@franklincountypa.gov>, Robert Povlich <rwpvlich@franklincountypa.gov>, Matthew Kendall <mrkendall@franklincountypa.gov>, Travis Sims <tesims@franklincountypa.gov>, Kelly Knepper <kknepper@franklincountypa.gov>, Joanne Sheets <jksheets@franklincountypa.gov>, Mary Ann Alleman <maalleman@franklincountypa.gov>, Phil Tarquino <ptarquino@franklincountypa.gov>, Imiller@franklincountypa.gov, Anita Keller <alkeller@franklincountypa.gov>, Loretta McClure <ljmccclure@franklincountypa.gov>, tbeckner@franklincountypa.gov, Brad Graham <bgraham@twp.antrim.pa.us>, Jeffrey Stonehill <jstonehill@chambersburgpa.gov>, gkrotz@centurylink.net, eratliff@greencastlepa.gov, greene@greenetwp.us, gtsups@guilfordtwp.us, hamiltontwp@comcast.net, letterkenny@embarqmail.com, lurgantwp@embarqmail.com, David Leab <leabs@innernet.net>, dscheller.mercersburgborough@comcast.net, Patricia Kocek <mab@comcast.net>, montgmerytwp@comcast.net, prowant@pa.net, peterstowntownship@comcast.net, info@quincytwp.org, jepley@shippensburg.pa.us, southamptonfranklin@comcast.net, stthomastwp@comcast.net, John Ressler <johnressler.2@gmail.com>, "Jeffrey B. Geesaman" <jbg@washtwp-franklin.org>, Jason Stains <jason@waynesboropa.org>, craig.myers@rescuehose.com, Dave Finch <dfinch@chambersburgpa.gov>, Steve Sites <rescue_12@hotmail.com>, Shawn Corwell <scorwell@greenetwp.us>, fhobbs@guilfordtwp.us, firefighter37@comcast.net, Eric Varner <evarner@phfd.org>, Dale Myers III <dmyers@phfd.org>, dstoner@mvfc56.org, Mark Garling <mark_garling@yahoo.com>, Greg Weller <gweller91@gmail.com>, preed@kuhncom.net, kerry@quincytwp.org, David Lindenmuth <djlindenmuth@gmail.com>, Doug Shields <dshields@southamptontownship.org>, Don Eshleman <deshleman28@gmail.com>, jem@washtwp-franklin.org, sooflymwb@yahoo.com, "Radford, Mari" <mari.radford@fema.dhs.gov>, barbara.watson@noaa.gov, peter.jung@noaa.gov, sharon.weigle@pa.usda.gov, "White, Allen" <allen.white@redcross.org>, Leslie.Walter@use.salvationarmy.com, "Szabo, Ernest" <erszabo@pa.gov>, besterline@pa.gov, FD01@pa.gov, robbingama@pa.gov, mhykes@pa.gov, nina.reading@psu.edu, davestoner@embarqmail.com, dsciamanna@chambersburg.org, Jonathan Williams <jonwilliams@summithealth.org>, dfarner@summithealth.org, npurdy@chambersburg.org, director@waynesboro.org, history@pa.net, waynesboro.history@comcast.net, wshupe@nisource.com, victor.j.lail@dom.com, srperrin@spectraenergy.com, lorik@adamsec.coop, rpezon@chambersburgpa.gov, "Green, Beverly M" <bgreen@firstenergycorp.com>, "Kline, David H" <dkline@firstenergycorp.com>, tross@valleyrec.com, "Bitner, Douglas E." <debitner@geisinger.edu>, Jim Sourbier <jsourbier@waynesboropolice.com>, Bill Little <wslittle@comcast.net>, Newsdesk@publicopinionnews.com, Jennifer Fitch <jenniferf@herald-mail.com>, joseph.padasak@casdonline.org, burkettd@fmtigers.org, matthew.strine@tus.k12.pa.us, ktrail@gcasd.org, tod_kline@wasdpa.org, chester.mummau@ship.k12.pa.us, amc267@psu.edu, barbara.mistick@wilson.edu, apetersheim@shalomca.com, tmurr@cvcsblazers.com, jim.duffey@franklinctc.com, dan@shopchambersburgmall.com, titusk@mercersburg.edu, drdavidnewell@gmail.com, mgeesaman@ccschambersburg.org, lee_barnes@csx.com, fcpascwi@gmail.com

Emergency Management Community Partners,

It is again time to update the Franklin County Hazard Mitigation Plan. This plan is the foundation document that shapes how we organize, train, equip, and plan for emergency responses, as well as procure and align resources for catastrophic loss and recovery in our community.

We need your help and participation to make this a document that truly represents the interests of the people we serve, all citizens of Franklin County. In this light, we have scheduled an initial kick-off meeting to discuss the Hazard Mitigation Plan update process and the assessment of threats that was performed using the municipal threat assessment survey responses. The details of this kick-off meeting are below:

Chambersburg Area Senior High School Auditorium
511 South Sixth Street
Chambersburg, PA 17201
October 5, 2017
6:30 pm to about 8:30 pm (may not be a full 2 hrs)

This is a very important meeting, as we need to set our hazard threat priorities to continue the plan update process. We need everyone's opinions and discussion to be heard as a part of this process. If you cannot personally attend, please send a representative from your organization to this meeting. We will schedule several follow-up meetings over the next

<https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=2WGmGQ4SIE.en.&view=pt&msg=15ebf19f0f1a640a&q=label%3Aread-mail-2017%20...> 1/2

Figure C.5.1: Meeting Invite for 5 Oct 2017 HMP Kick-Off Meeting – Page 1 of 2

Appendix C: Correspondence/Participation/Public Outreach

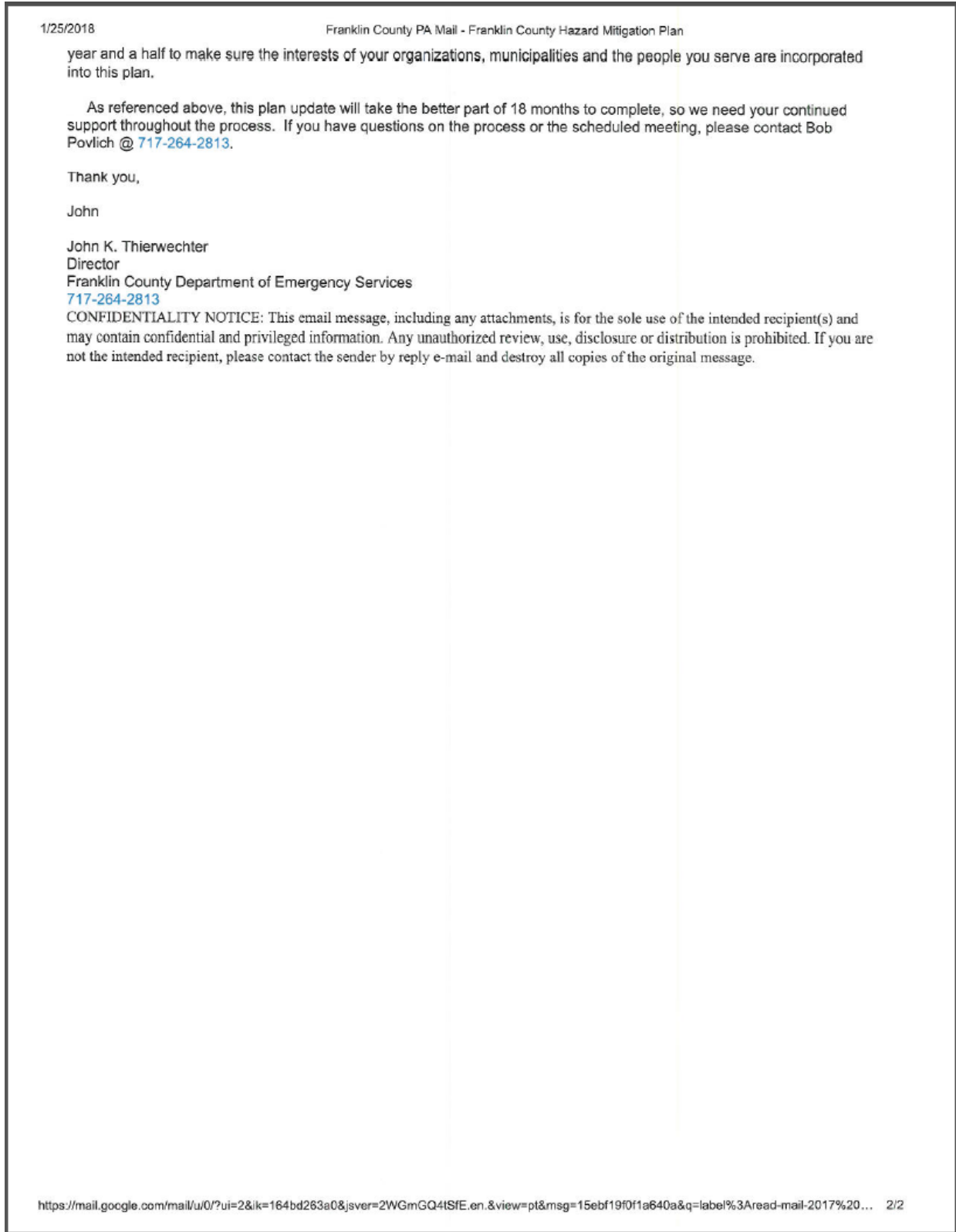


Figure C.5.2: Meeting Invite for 5 Oct 2017 HMP Kick-Off Meeting – Page 2 of 2

rwpovlich@franklincountypa.gov



Franklin County Hazard Mitigation Plan Update Meeting

Created by: rwpovlich@franklincountypa.gov · Your response: ✓ Yes, I'm going

Time
11am - 1pm (Eastern Time)

Date
Wed Dec 13, 2017

Where
Franklin County Public Safety Training Center, 3075 Molly Pitcher Hwy, Chambersburg, PA 17202, USA

Description
All,

The survey results are in and we are going to schedule our next HMP Update meeting for 13 Dec 2017 from 1100 to 1300 hrs. We are going to have the meeting at the Franklin County Public Safety Training Center, address below:

30175 S. Molly Pitcher Highway
Chambersburg, PA 17202

We will be providing lunch with this meeting so we do need RSVPs for everyone attending so we can get a good head count for the meal. You can RSVP using the buttons on this calendar request.

Again, if you are unable to attend, please send a representative to the meeting. We will be discussing the progress on the hazard profiles and the next steps required to continue the draft of the document.

Guests

- ✓ alkeller@franklincountypa.gov
- ✓ allen.white@redcross.org
- ✓ bgreen@firstenergycorp.com
- ✓ burkett@fmtigers.org
- ✓ caseilhamer@franklincountypa.gov
- ✓ cegray@franklincountypa.gov
- ✓ dfarmer@summithealth.org
- ✓ dfinch@chambersburgpa.gov
- ✓ dkline@firstenergycorp.com
- ✓ dshields@southamptontownship.org
- ✓ edward.peters@casdonline.org
- ✓ eratiff@greencastlepa.gov
- ✓ esajeski@pa.gov
- ✓ fhobbs@guilfordtwp.us
- ✓ hamiltontwp@comcast.net
- +1 guest
- Mike Kessinger
- Randy Negley
- ✓ jahart@franklincountypa.gov
- ✓ jbg@washtwp-franklin.org
- ✓ jksheets@franklincountypa.gov
- ✓ jkthierwechter@franklincountypa.gov
- ✓ jmcridder@franklincountypa.gov
- ✓ jonwilliams@summithealth.org
- ✓ James Sourbier
- ✓ kiberkheimer@nisource.com
- ✓ kristin.carroll@casdonline.org
- ✓ ljmcclure@franklincountypa.gov
- ✓ matthew.steinbugl@noaa.gov
- ✓ mrkendall@franklincountypa.gov
- ✓ prowant@pa.net
- ✓ ptarquino@franklincountypa.gov
- ✓ rlthomas@franklincountypa.gov
- ✓ rwpovlich@franklincountypa.gov
- ✓ sanevada@franklincountypa.gov
- ✓ sharon.weigle@pa.usda.gov
- ✓ slbenshoff@franklincountypa.gov
- ✓ sooflymwb@yahoo.com
- ✓ stthomastwp@comcast.net
- ✓ tesims@franklincountypa.gov
- ✓ tbeckne@franklincountypa.gov
- ✓ tmurr@cvcslazers.com
- ✓ wpbladen@adamscounty.us
- ✓ wshupe@nisource.com
- ? dmyers@phfd.org
- ? drock@pa.gov
- ?

Figure C.6.1: Meeting Invite for 13 Dec 2017 HMP Meeting – Page 1 of 3 (Posted 24 Oct 2017)

Appendix C: Correspondence/Participation/Public Outreach



Figure C.6.2: Meeting Invite for 13 Dec 2017 HMP Meeting – Page 2 of 3 (Posted 24 Oct 2017)

Appendix C: Correspondence/Participation/Public Outreach

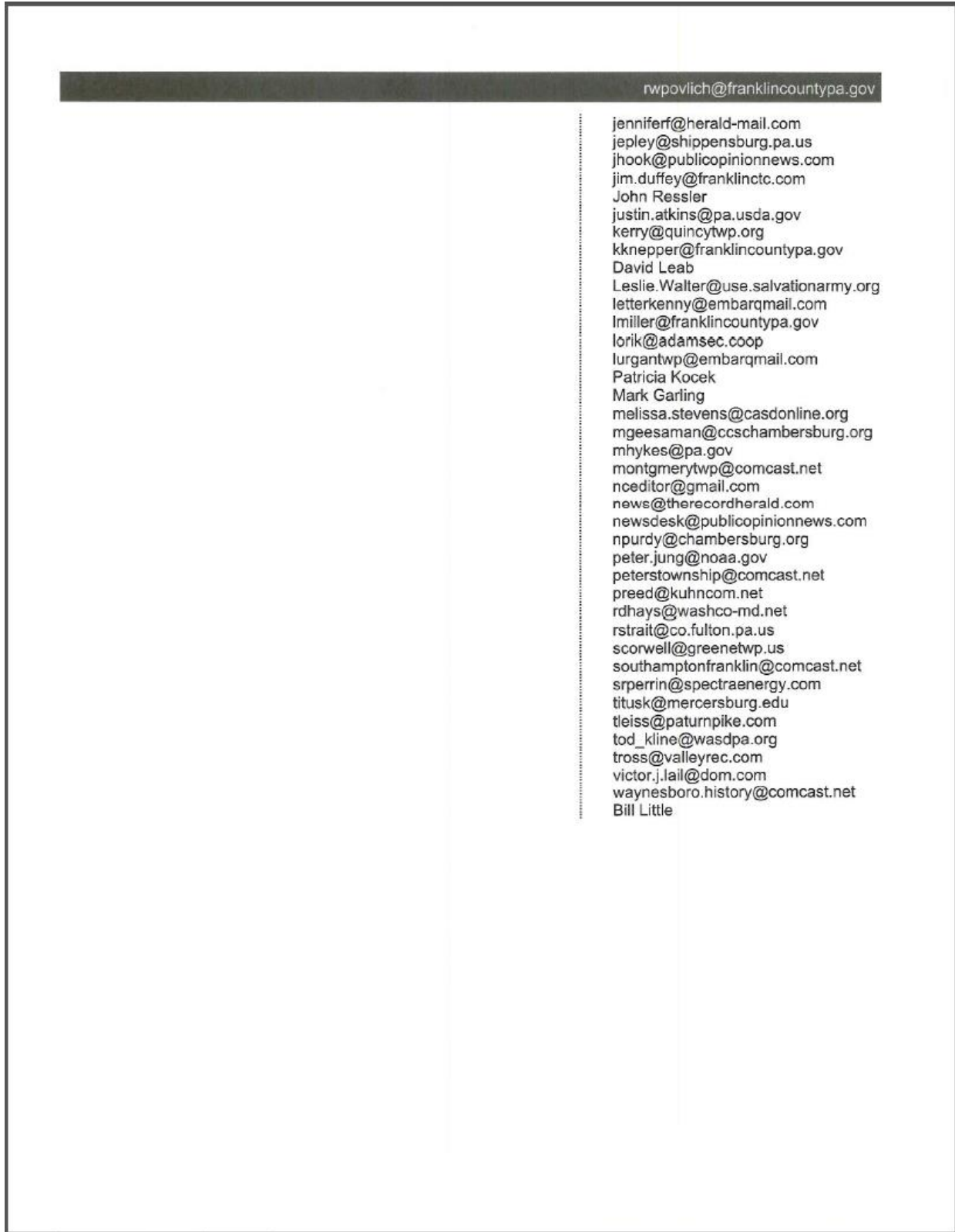


Figure C.6.3: Meeting Invite for 13 Dec 2017 HMP Meeting – Page 3 of 3 (Posted 24 Oct 2017)

Appendix C: Correspondence/Participation/Public Outreach

1/26/2018 Franklin County PA Mail - HMP Mitigation Strategy - Mitigation Action Review and Input Request (31 Jan 2018)



Robert Povlich <rwpvlich@franklincountypa.gov>

HMP Mitigation Strategy - Mitigation Action Review and Input Request (31 Jan 2018)

Robert Povlich <rwpvlich@franklincountypa.gov> Thu, Dec 14, 2017 at 3:41 PM

To: amc267@psu.edu, barbara.mistick@wilson.edu, besterline@pa.gov, cherie.p.brown.civ@mail.mil, dvestoner@franklincod.org, debiter@geisinger.edu, dfarner@summithealth.org, director@waynesboro.org, dkline@firstenergycorp.com, drock@pa.gov, dsciamanna@chambersburg.org, dstoner@mvfc56.org, edward.peters@casdonline.org, ema@huntingdoncounty.net, FD01@pa.gov, gkrotz@centurylink.net, greene@greenetwp.us, gregory.hoover@ship.k12.pa.us, gtsups@guilfordtp.us, info@quincytp.org, jennifer@herald-mail.com, jhook@publicopinionnews.com, jonwilliams@summithealth.org, joseph.padasak@casdonline.org, kristin.carroll@casdonline.org, ktrail@gcasd.org, lee_barnes@csx.com, Leslie.Walter@use.salvationarmy.org, lorik@adamsec.coop, lurgantwp@embarqmail.com, matthew.strine@us.k12.pa.us, mgeesaman@ccschambersburg.org, mhykes@pa.gov, nceditor@gmail.com, news@therecordherald.com, Newsdesk@publicopinionnews.com, prowant@pa.net, rdhays@washco-md.net, rfultz@perryco.org, robbingama@pa.gov, rshamm@embarqmail.com, rstrait@co.fulton.pa.us, sharon.weigle@pa.usda.gov, southamptonfranklin@comcast.net, srperrin@spectraenergy.com, stthomastwp@comcast.net, tburns@greenetwp.us, titusk@mercergburg.edu, tleiss@patumpike.com, tmurr@cvcslazers.com, tod_kline@wasdpa.org, tross@valleyrec.com, victor.j.lail@dom.com, waynesboro.history@comcast.net, wshupe@nisource.com, Allen Weaver <aweaver@juniataco.org>, Allen White <allen.white@redcross.org>, Angie Petersheim <apetersheim@shalomca.com>, Anita Keller <akeller@franklincountypa.gov>, Ann Hull <history@pa.net>, "Anthony M (Tony) CIV USARMY USAMC Zollo (US)" <anthony.m.zollo.civ@mail.mil>, Anthony Ogburn <anthony@rockbreak.com>, Barbara Watson - NOAA Federal <barbara.watson@noaa.gov>, Bill Little <wslittle@comcast.net>, Bob Thomas <rlthomas@franklincountypa.gov>, Bob Ziobrowski <rgziobrowski@franklincountypa.gov>, Brad Graham <bgraham@twp.antrim.pa.us>, Carrie Gray <cegray@franklincountypa.gov>, Cassie Yost <clm275@psu.edu>, Cori Seilhamer <caseilhamer@franklincountypa.gov>, Craig Myers <craig.myers@rescuehose.com>, Dan May <dan@shopchambersburgmail.com>, Dave Finch <dfinch@chambersburgpa.gov>, Dave Keller <dkeller@franklincountypa.gov>, David Burkett <burkett@fimtigers.org>, David Leab <leabs@innemet.net>, David Lindenmuth <djlindenmuth@gmail.com>, David Newell <drdavidnewell@gmail.com>, Derek Stoy <dstoy.mercersburgborough@comcast.net>, Don Eshleman <deshleman28@gmail.com>, Doug Shields <dshields@southamptontownship.org>, Eden Ratliff <eratliff@greencastlepa.gov>, Eric Varner <evarner@phfd.org>, Frank Hobbs <fhobbs@guilfordtp.us>, Franklin Pa Stormchasers <fpcaswi@gmail.com>, Gary Himes <firefighter37@comcast.net>, "Green, Beverly M" <bgreen@firstenergycorp.com>, Greg Weller <gweller91@gmail.com>, Gregory Noll <ggnoll@sctfpa.org>, Hamilton Township <hamiltontwp@comcast.net>, Jacob Crider <jmcrider@franklincountypa.gov>, James Sourbier <jsourbier@waynesboropolice.com>, Jason Stains <jason@waynesboropa.org>, Jeffrey Geesaman <jbg@washtwp-franklin.org>, Jeffrey Stonehill <jstonehill@chambersburgpa.gov>, Jim Duffey <Jim.Duffey@franklincct.com>, Jim Meek <jem@washtwp-franklin.org>, Joanne Sheets <jksheets@franklincountypa.gov>, John Epley <jepley@shippensburg.pa.us>, John Hart <jahart@franklincountypa.gov>, John Ressler <johnressler.2@gmail.com>, John Thierwechter <jkthierwechter@franklincountypa.gov>, "Justin - NRCS Chambersburg, PA Atkins" <Justin.Atkins@pa.usda.gov>, Justin Shaulis <jshaulis@ccpa.net>, Kelly Knepper <kknepper@franklincountypa.gov>, Kerry Bumbaugh <kerry@quincytp.org>, Kevin Berkheimer <kjberkheimer@nisource.com>, Laura Laucks <llaucks@pa.gov>, Linda Miller <lmiller@franklincountypa.gov>, Loretta McClure <ljmccclure@franklincountypa.gov>, Mark Garling <mark_garling@yahoo.com>, Mary Ann Alleman <maalleman@franklincountypa.gov>, Matthew Kendall <mrkendall@franklincountypa.gov>, Matthew Steinbugl - NOAA Federal <matthew.steinbugl@noaa.gov>, Melissa Kibbe <letterkenny@embarqmail.com>, Melissa Stevens <melissa.stevens@casdonline.org>, Metal Township <localgov100@embarqmail.com>, michael bock <sooflymwb@yahoo.com>, Montgomery Township <montgomerytp@comcast.net>, "Myers, Dale III" <dmyers@phfd.org>, Patricia Kocak <mab@comcast.net>, "Paul T. Reed" <preed@kuhncom.net>, Peter Jung - NOAA Federal <peter.jung@noaa.gov>, Peters Township Supervisors <peterstownship@comcast.net>, Phil Tarquino <ptarquino@franklincountypa.gov>, "Radford, Mari" <mari.radford@fema.dhs.gov>, Robert Povlich <rwpvlich@franklincountypa.gov>, Ron Pezon <rpezon@chambersburgpa.gov>, "Sajeski, Eugene" <esajeski@pa.gov>, Samuel Thrush <sjthrush@franklincountypa.gov>, Sarah Benschhoff <slbenschhoff@franklincountypa.gov>, Shawn Corwell <scorwell@greenetwp.us>, "Shively, Robert" <rshively@ccpa.net>, Steve Nevada <sanevada@franklincountypa.gov>, Steve Sites <rescue_12@hotmail.com>, "Szabo, Ernest" <erszabo@pa.gov>, Teresa Beckner <tbeckner@franklincountypa.gov>, Travis Sims <tesims@franklincountypa.gov>, Warren Bladen <wpbladen@adamscounty.us>

HMPT Members,

Attached you will find the Goals/Objectives for the Hazard Mitigation Plan Update we approved at yesterday's meeting. Please take another look at them and if we need to modify or add any new Objectives, please send those changes to me.

<https://mail.google.com/mail/u/0/?ui=2&ik=164bd263e0&jsver=T6mGjKZK00.en.&view=pt&msg=16056c26dd855aeb&q=in%3Asent%20action&cs=tru...> 1/2

Figure C.7.1: RFI for Municipal Mitigation Action Inputs 14 Dec 2017 – Page 1 of 2

Appendix C: Correspondence/Participation/Public Outreach

1/26/2018 Franklin County PA Mail - HMP Mitigation Strategy - Mitigation Action Review and Input Request (31 Jan 2018)

Additionally, as we discussed yesterday, I have attached the proposed Mitigation Actions that we have come up with to date. Please review these Mitigation Actions and suggest changes or deletions. You have also been provided an electronic copy of the Mitigation Action Worksheet for you to submit additional Mitigation Actions for incorporation into the new Mitigation Strategy.

As we discussed, the actions can be very lofty initiatives and you should not constrain yourselves due to funding. These actions should be focused on your municipalities threats and potential projects/plans you can put in place to reduce the risk to your communities. There are no limits to the number of actions that you can submit, but please indicate which hazard your Mitigation Action is to address and if it crosses many hazards, indicate that as well.

We will be discussing all the Mitigation Actions at the next meeting in Feb. In order for us to get these logically organized for that meeting, we need these to be **submitted by 31 Jan 2018**.

If you have questions on an Mitigation Action idea you have or about the process in general, please contact me. Thanks.

Bob

--
Bob Povlich
Franklin County Emergency Services
Planning Coordinator
[717-264-2813](tel:717-264-2813)

3 attachments


-  **Approved_Goals-Objectives_HMP2019.pdf**
424K
-  **Proposed_Mitigation_Actions.xlsx**
27K
-  **Franklin County Municipal Action Worksheet.docx**
40K

<https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=T6mGjIKZKo0.en.&view=pt&msg=16056c26dd655aeb&q=in%3Asemt%20action&qs=tru...> 2/2

Figure C.7.2: RFI for Municipal Mitigation Action Inputs 14 Dec 2017 – Page 2 of 2

Appendix C: Correspondence/Participation/Public Outreach

1/26/2018 Franklin County PA Mail - Hazard Mitigation Plan

 Robert Povlich <rwovlich@franklincountypa.gov>

Hazard Mitigation Plan

John Thierwechter <jkthierwechter@franklincountypa.gov> Mon, Dec 18, 2017 at 4:18 PM
To: Anita Keller <akeller@franklincountypa.gov>, Loretta McClure <lmcclure@franklincountypa.gov>, Phil Tarquino <ptarquino@franklincountypa.gov>, Teresa Beckner <tbeckne@franklincountypa.gov>, John Hart <jahart@franklincountypa.gov>, Carrie Gray <cegray@franklincountypa.gov>, Steve Nevada <sanevada@franklincountypa.gov>, Glenda Helman <gshelman@franklincountypa.gov>
Cc: Jacob Crider <jmcrider@franklincountypa.gov>, Robert Povlich <rwovlich@franklincountypa.gov>, Mary Ann Alleman <maalleman@franklincountypa.gov>, Joanne Sheets <jksheets@franklincountypa.gov>

HMP Steering Group,

We had a short meeting with our FEMA and PEMA representatives about our Hazard Mitigation Plan (HMP) this morning. They are very pleased with the progress our team has made to date. Additionally, they commented on the number of members we have participating as well as the diverse composition of our planning team. To help facilitate continued progress, they offered additional assistance and training to make sure we keep the momentum we have established.

In this light, there are a few sections of the HMP document that we are getting ready to start working on that we wanted to make sure we are in sync with both PEMA and FEMA. Therefore, FEMA agreed to provide a training session for our Steering Group members to give us some insight into their requirements for our HMP in the following areas:

- Mitigation Action assessment/prioritization
- Capabilities assessment/survey
- Future Conditions/Climate Change
- Integration between the HMP and other local/county planning documents
- Historical building preservation, if applicable

The selected date for this training is **1 Feb 2018 from 1:00pm- 4:00pm** and it will be held in the Multipurpose Room at the Department of Emergency Services.

It is critical, as the HMP Steering Group, that we understand the desires of FEMA and PEMA to be able to achieve a smooth plan approval process. Please save the date on your calendars for this training. If you cannot make it, please send a representative from your organization to participate.

If you have any questions on this training or the HMP process in general, please contact Bob Povlich at 261-2813.

Thanks,

John

John K. Thierwechter
Director
Franklin County Department of Emergency Services
717-264-2813

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<https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=T6mGjKZKo0.en.&view=pt&msg=1606b7eb93244472&cat=Read%20Mail%202017&se...> 1/1

Figure C.8: HMPSC Invite for 1 Feb 2018 FEMA Training Meeting

Appendix C: Correspondence/Participation/Public Outreach

Franklin County Department of Emergency Services

Like Follow Share

Franklin County Department of Emergency Services needs your help in identifying Mitigation Actions for our Hazard Mitigation Plan update. An explanation of Hazard Mitigation Planning is included to give you some background info on what we are asking for. Also include is a preliminary copy of the Franklin County Hazard Vulnerability Analysis and definitions to give you an idea of the threats that we are trying to mitigate with your help.

Please use the included Municipal Action Worksheet to document your proposed Mitigation Action and return it to Franklin County Department of Emergency Services by emailing it to rwpvlich@franklincountypa.gov. If you have questions about the Hazard Mitigation Plan or the Mitigation Actions we are soliciting, please contact Bob Povlich at 717-264-2813. Thanks.

Franklin County, PA Municipal Hazard Mitigation Action Nominations					
Action Description	Responsible Organization	HMP Goal	HMP Objective	Threat	Hazard

A mitigation action is a specific action, project, activity, or process taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan's mission and goals. The actions to reduce vulnerability by threats and hazards from the rest of the plan and are a key outcome of the planning process. The following are some different types of mitigation actions to consider as well as areas where future development should and should not occur (i.e. Georgetown Plan, Local Use Ordinances, etc.):

- Land Use and Regulations:** Identify current development patterns and trends as well as areas where future development should and should not occur (i.e. Georgetown Plan, Local Use Ordinances, etc.)
- Structural Projects:** Modify existing structures and infrastructure to protect them from a hazard or remove them from the hazard area (i.e. Flood Hardening, Flood proofing, Structural Reinforcement, etc.)
- Natural System Protection:** Minimize damage and losses and also preserve or restore the functions of natural systems (i.e. Erosion Control, Forest Management, Wetland Restoration, etc.)
- Educational Programs:** Inform and educate citizens, elected officials, and property owners about hazards and potential mitigation options (i.e. Public Outreach Programs, Web site information, etc.)
- Preparedness and Response Actions:** Reduce or eliminate long-term risk and are different from actions taken to prepare for or respond to hazard events (i.e. Mutual Aid Agreements, Alert Notification System Procurement, etc.)

Government Organizations in Chambersburg, Pennsylvania

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Figure C.9: Public Notice of HMP and Solicitation of Mitigation Actions - Facebook (Posted 3 Jan 2018)

Appendix C: Correspondence/Participation/Public Outreach



Figure C.10: Public Notice of Next HMP Update Meeting - Facebook (Posted 23 Jan 2018)

Appendix C: Correspondence/Participation/Public Outreach

The image is a screenshot of a Twitter profile page for 'FranklinPA Emgcy Svc' (@Emrgncy_Svc28). The profile picture is a circular logo for 'EMERGENCY SERVICES FRANKLIN COUNTY PENNSYLVANIA 911'. The header shows navigation icons for Home, Moments, Notifications (6), and Messages, along with a search bar and a 'Tweet' button. The main content area features a large photo of a white emergency services truck with a 'MOBILE COMMAND CENTER' trailer parked in a lot. Below the photo, the profile statistics are displayed: 2,910 Tweets, 121 Following, 1,166 Followers, 17 Likes, and 1 List. The bio states: 'We are the Emergency Management Agency and Public Safety Answering Point (PSAP) for Franklin County, Pennsylvania. In an emergency dial 911.' The location is 'Chambersburg, Pa' and the website is 'franklincountypa.gov'. The page shows two tweets. The top tweet is from 'FranklinPA Emgcy Svc' (@Emrgncy_Svc28) posted 1 month ago, announcing a public meeting for a Hazard Mitigation Plan update on February 16th from 0900-1100 at the Franklin County Public Safety Training Center. The bottom tweet is a retweet from 'Washington Twp PD @WTPD_Franklin' (19h) regarding a boil water advisory in the Zullinger Area. The 'Who to follow' section lists 'sta4livescanner', 'Cumberland PA DPS911', and 'Herald-Mail PA'. The bottom of the screenshot shows a Windows taskbar with the system clock at 9:04 AM on 1/23/2018.

Figure C.11: Public Notice of Next HMP Update Meeting - Twitter (Posted 23 Jan 2018)

Appendix C: Correspondence/Participation/Public Outreach

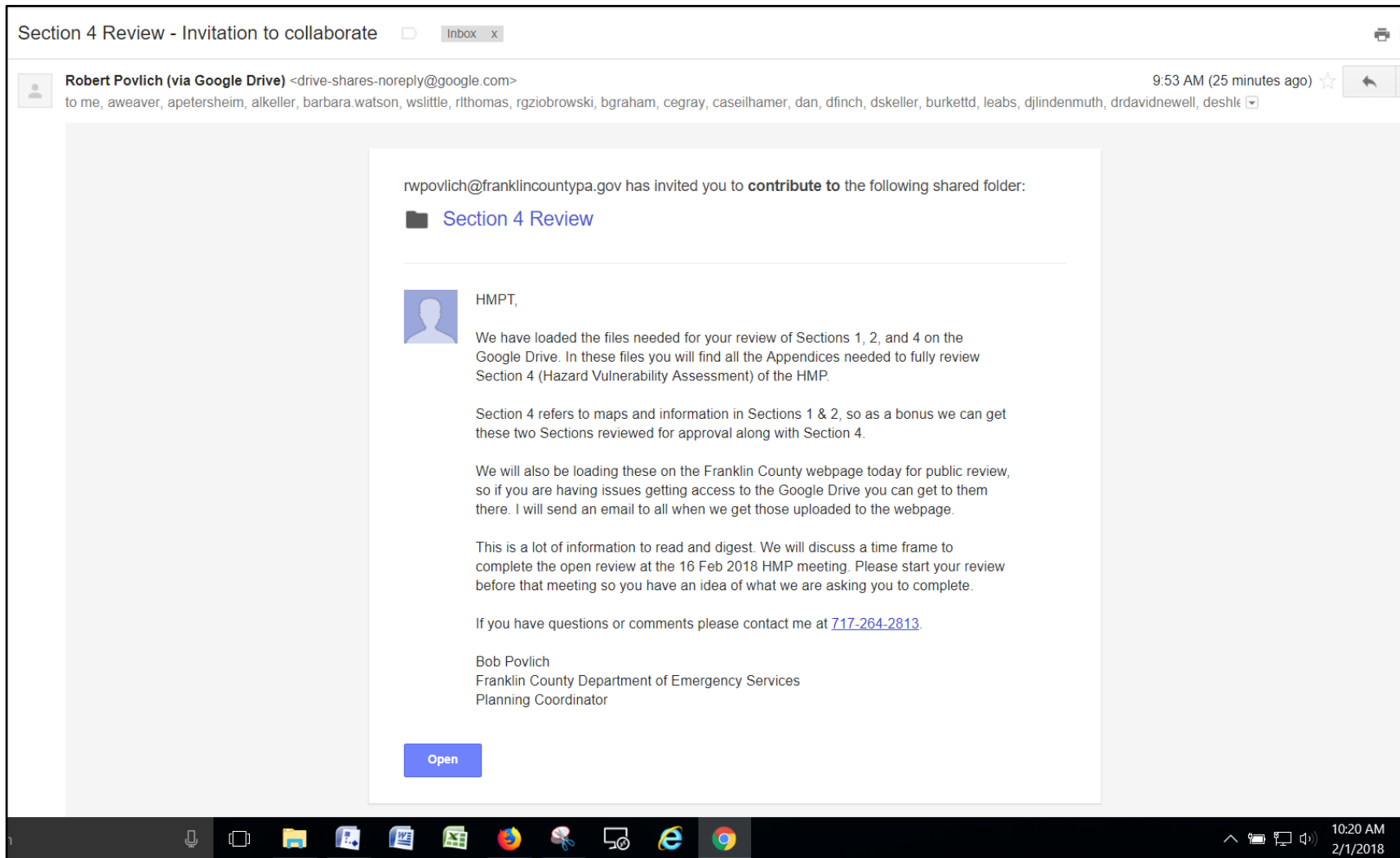


Figure C.12.1: Posting of Sections 1, 2, and 4 for HMPT Review – Page 1 of 2 (Posted 1 Feb 2018)

Appendix C: Correspondence/Participation/Public Outreach

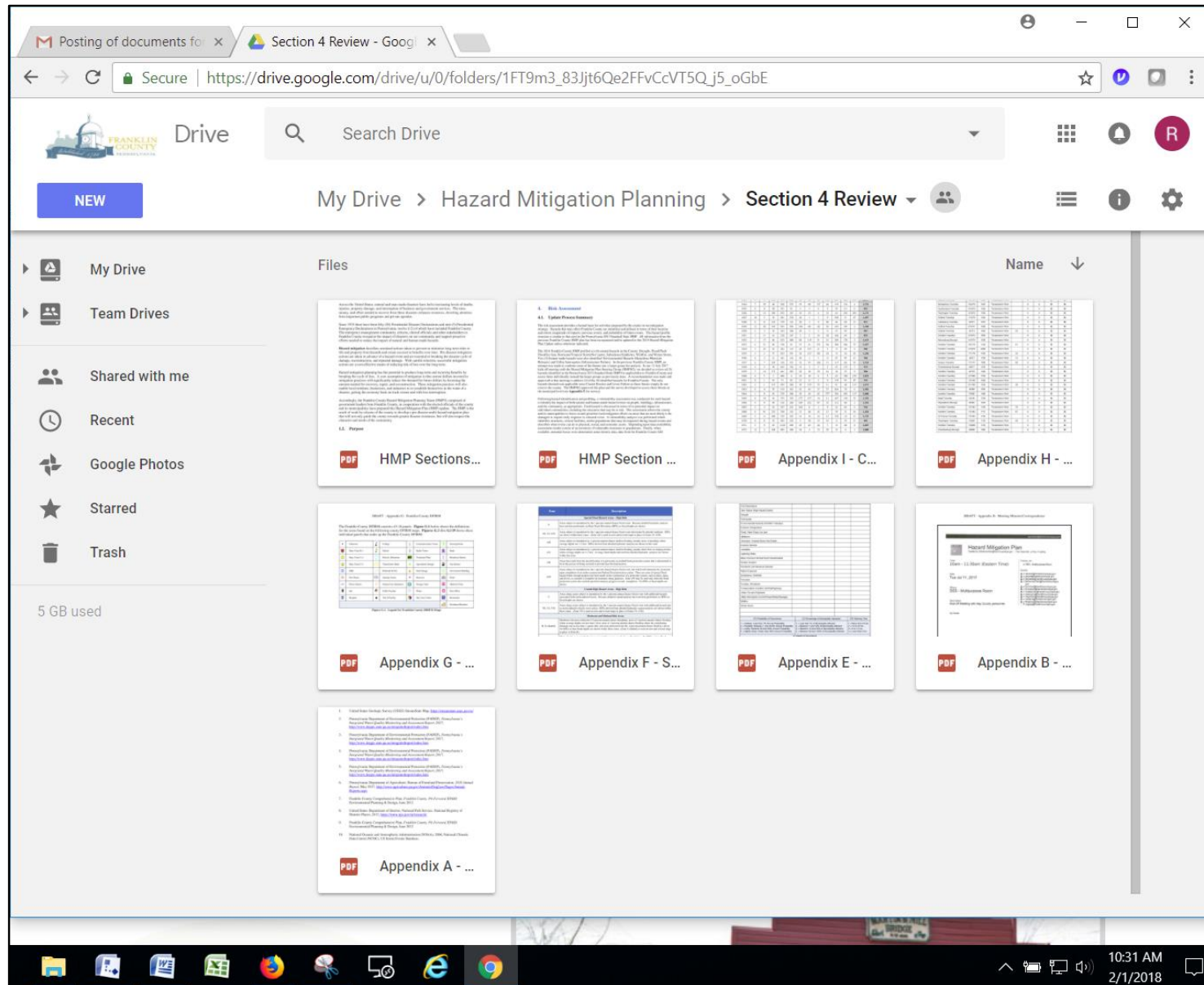


Figure C.12.2: Posting of Sections 1, 2, and 4 for HMPT Review – Page 2 of 2 (Posted 1 Feb 2018)

Appendix C: Correspondence/Participation/Public Outreach

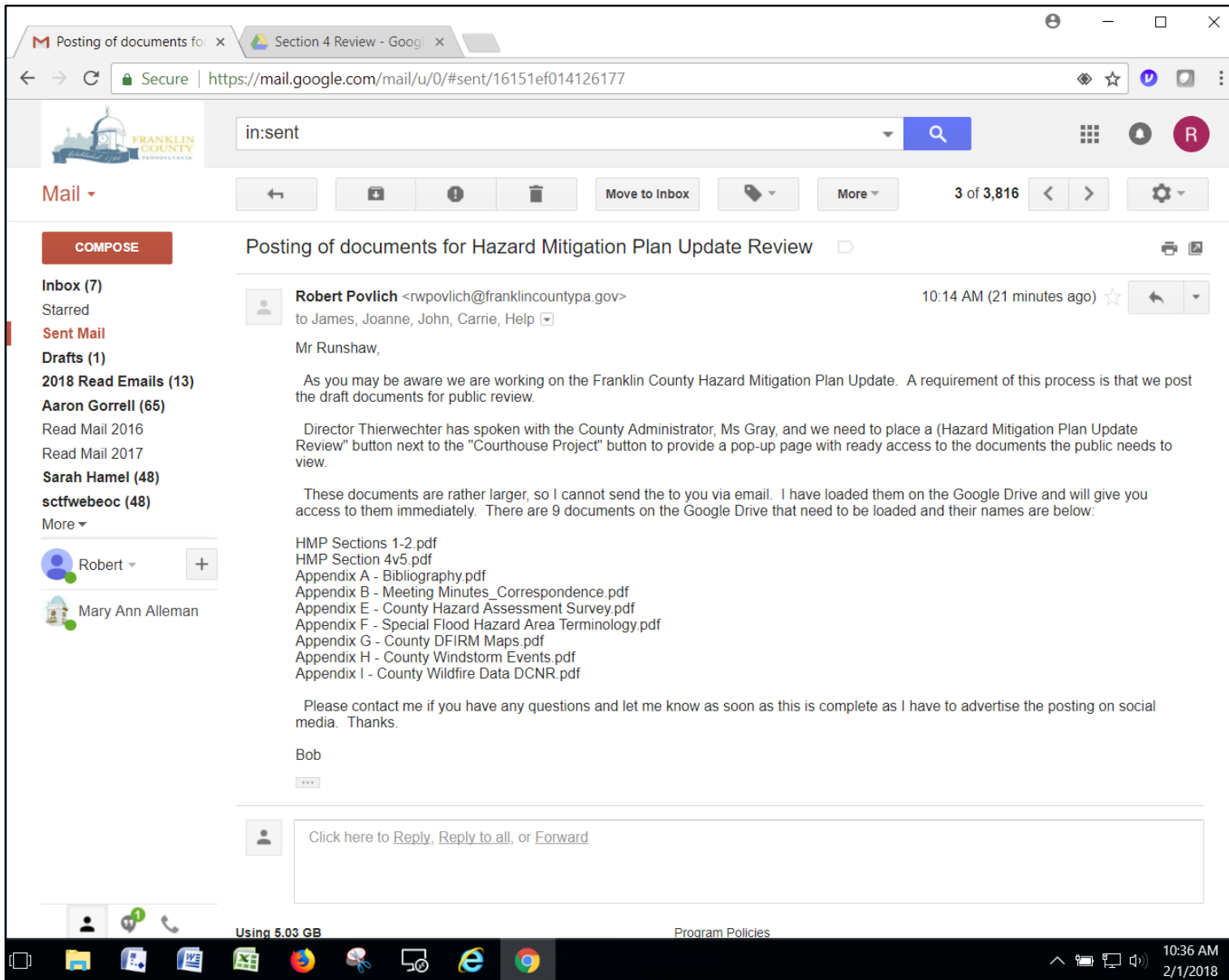


Figure C.13: Request Posting of Sections 1, 2, & 4 on Franklin County Webpage for Public Review (Posted 1 Feb 2018)

Appendix C: Correspondence/Participation/Public Outreach

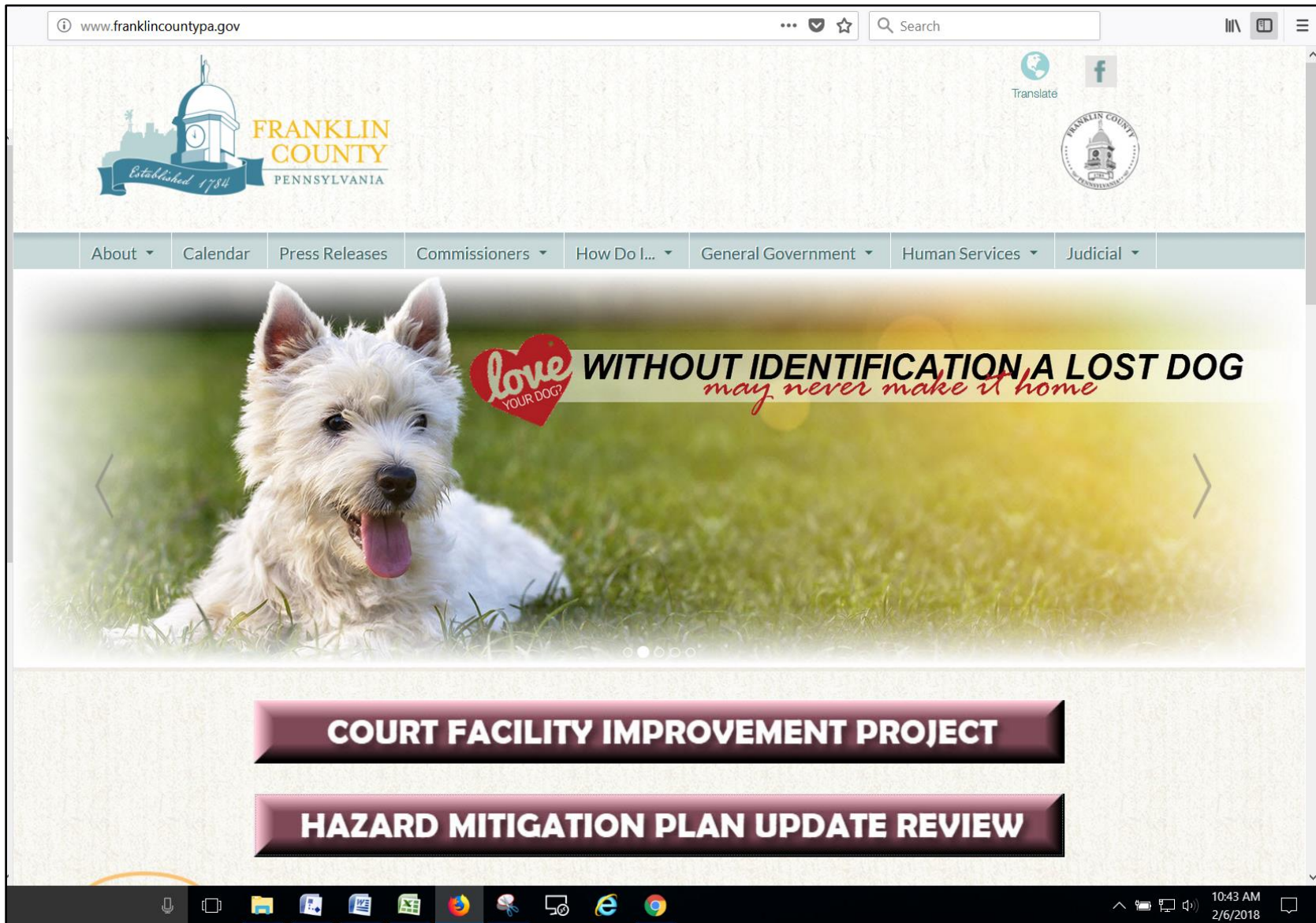


Figure C.14.1: Draft Sections of HMP to Franklin County Homepage – Page 1 of 2 (Posted 6 Feb 2018)

Appendix C: Correspondence/Participation/Public Outreach

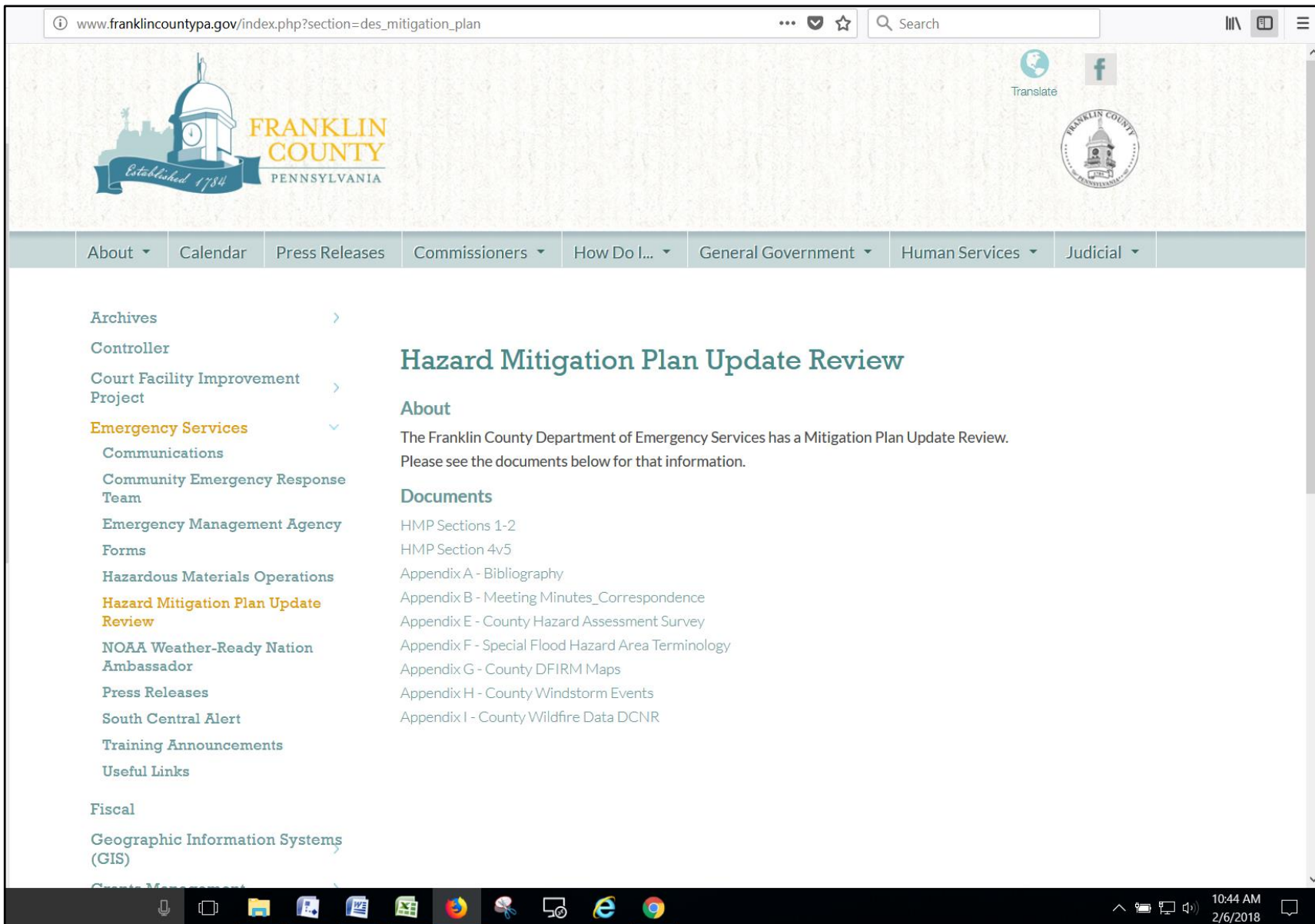


Figure C.14.2: Draft Sections of HMP to Franklin County Homepage – Page 2 of 2 (Posted 6 Feb 2018)

Appendix C: Correspondence/Participation/Public Outreach

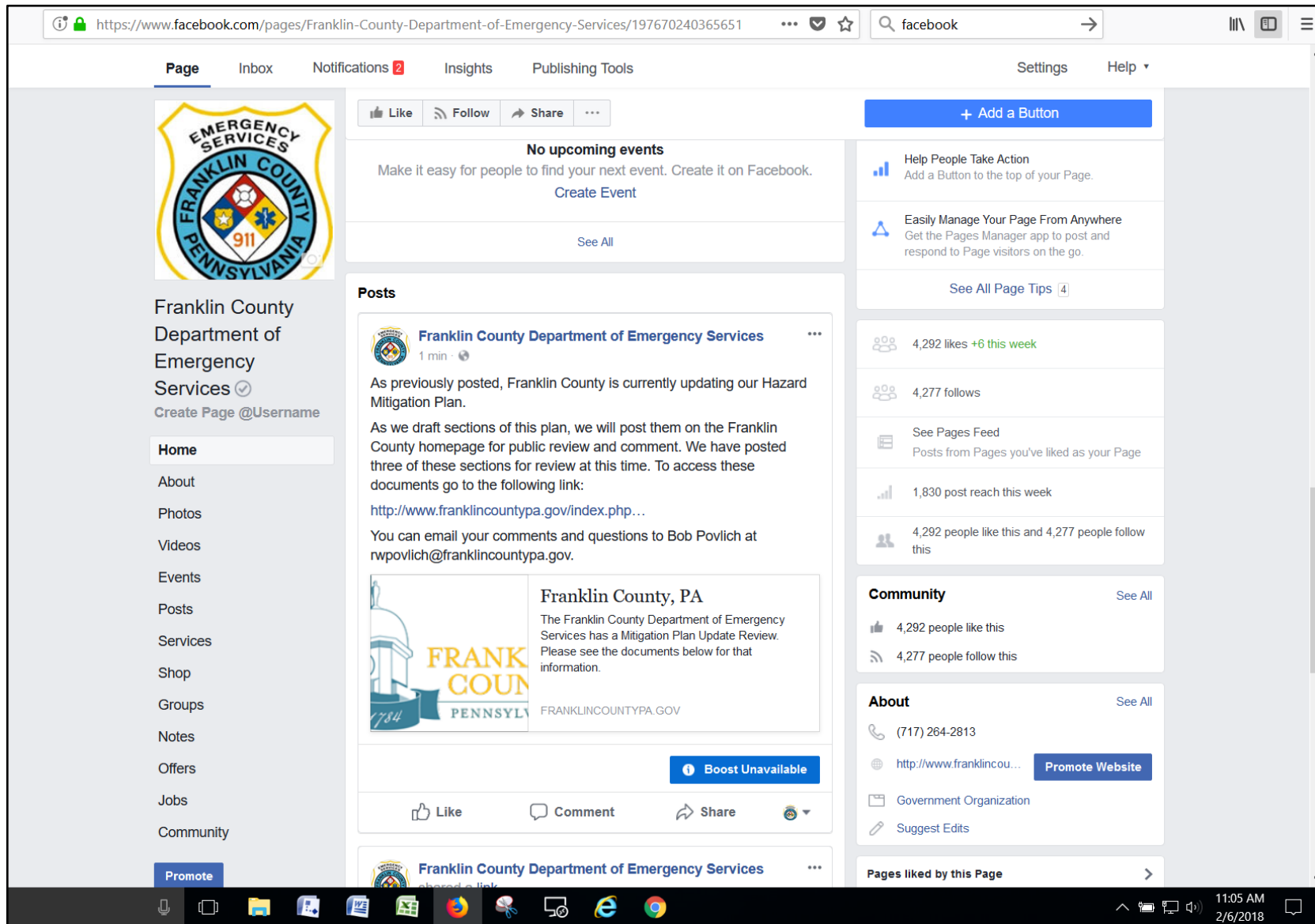


Figure C.15: Facebook to direct Public to County Homepage for HMP Section Review (Posted 6 Feb 2018)

Appendix C: Correspondence/Participation/Public Outreach

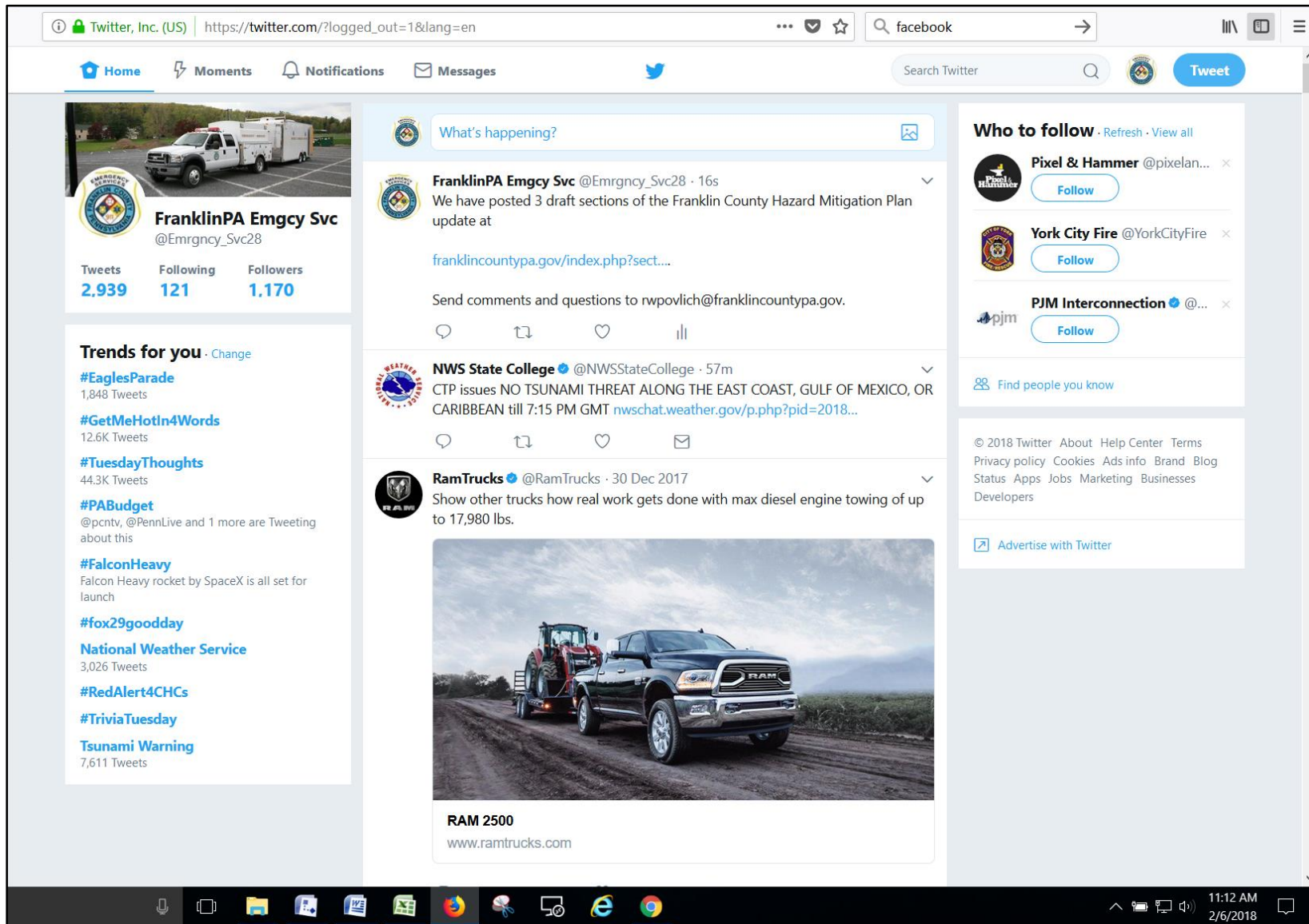



Figure C.16: Twitter to direct Public to County Homepage for HMP Section Review (Posted 6 Feb 2018)

rwpovlich@franklincountypa.gov



Next Franklin County Hazard Mitigation Plan Update Meeting (16 Feb 2018)

Created by: rwpovlich@franklincountypa.gov · Your response: ✓ Yes, I'm going

<p>Time 9am - 11am (Eastern Time)</p> <p>Date Fri Feb 16, 2018</p> <p>Where Franklin County Public Safety Training Center, 3075 Molly Pitcher Hwy, Chambersburg, PA 17202, USA</p> <p>Description HMPT Members,</p> <p>Survey results are in and we are scheduling our next Hazard Mitigation Planning Meeting for 16 February 2018 from 0900-1100 hrs. We will have the meeting at the Franklin County Public Safety Training Center (same location as the meeting in December).</p> <p>We will be discussing the Mitigation Actions received from all municipalities as well as an update/status of the review of Section 4 (Hazard Vulnerability Analysis).</p> <p>You read that correctly, Section 4 of the HMP will be posted early next week on the Franklin County Official website for your review and comment. An email will be sent out next week as well as a posting on the Franklin County Department of Emergency Services Facebook page to provide details on how to</p>	<p>Guests</p> <ul style="list-style-type: none"> ✓ alkeller@franklincountypa.gov ✓ caseilhamer@franklincountypa.gov ✓ clm275@psu.edu ✓ dfinch@chambersburgpa.gov ✓ dkline@firstenergycorp.com ✓ dshields@southamptontownship.org ✓ dskeller@franklincountypa.gov ✓ eratliff@greencastlepa.gov ✓ fnobbs@gullfordtwp.us ✓ hamiltontwp@comcast.net ✓ jahart@franklincountypa.gov ✓ jbg@washtwp-franklin.org ✓ jkshheets@franklincountypa.gov ✓ jkthierwechter@franklincountypa.gov ✓ jmcridder@franklincountypa.gov ✓ jonwilliams@summithealth.org ✓ lee_barnes@csx.com ✓ ljmcclore@franklincountypa.gov ✓ localgov100@embarqmail.com ✓ lurgantwp@embarqmail.com ✓ maallemann@franklincountypa.gov ✓ mrkendall@franklincountypa.gov ✓ ptarquino@franklincountypa.gov ✓ rthomas@franklincountypa.gov ✓ rpezon@chambersburgpa.gov ✓ rwpovlich@franklincountypa.gov ✓ silbenshoff@franklincountypa.gov ✓ tesims@franklincountypa.gov ✓ wpbladen@adamscounty.us ? burkettd@fmtigers.org ? cegray@franklincountypa.gov ? drock@pa.gov ? llaucks@pa.gov ? rgziobrowski@franklincountypa.gov ? Bob Shively ? sanevada@franklincountypa.gov ? tleiss@paturnpike.com ⊗ Steve Sites ⊗ tibeckne@franklincountypa.gov allen.white@redcross.org amc267@psu.edu anthony.m.zollo.civ@mail.mil anthony@rockbreak.com
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Figure C.17.1: Meeting Invite for 16 Feb 2018 HMP Meeting – Page 1 of 3 (Posted 19 Jan 2018)

Appendix C: Correspondence/Participation/Public Outreach

rwpovlich@franklincountypa.gov	
<p>access and provide comments back to us. This is a rather large document, currently 371 pages, so it will take some time for the review/comment period to close. I do not expect a full review by the next meeting. We will determine what is a reasonable time frame to close this review at the next meeting.</p> <p>We will also discuss the timeline to draft and finalize the Mitigation Strategy and way ahead for the Capabilities Section to include another survey to gauge the existing mitigation capabilities of the municipalities.</p> <p>Please send a representative to this meeting, if you cannot personally attend. We are getting to the point in this planing process that participation is key. All municipalities need to make sure they have enough participation in this process to be eligible to adopt the plan come next May. Don't let FEMA make the eligibility decision for you by neglecting to participate.</p> <p>Please contact me with any questions. Thanks.</p> <p>Bob Povlich Planning Coordinator Franklin County Emergency Services 717-264-2813</p> <p>My Notes</p>	<p>Allen Weaver barbara.mistick@wilson.edu barbara.watson@noaa.gov besteline@pa.gov bgraham@twp.antrim.pa.us bgreen@firstenergycorp.com cherie.p.brown.civ@mail.mil craig.myers@rescuehose.com Dan May davestoner@franklinccd.org debitner@geisinger.edu Don Eshleman dfarner@summithealth.org director@waynesboro.org David Lindenmuth dmyers@phfd.org David Newell dsciamanna@chambersburg.org dstoner@mvfc56.org dstoy. mercersburgborough@comcast.net edward.peters@casdonline.org ema@huntingdoncounty.net erszabo@pa.gov esajeski@pa.gov evarner@phfd.org FranklinPa Stormchasers fd01@pa.gov firefighter37@comcast.net ggnoll@sctfpa.org gkrotz@centurylink.net greene@greenetwp.us gregory.hoover@ship.k12.pa.us gtsups@guilfordtwp.us Greg Weller history@pa.net vicki@quincytwp.org jason@waynesboropa.org jem@washtwp-franklin.org jenniferf@herald-mail.com jepley@shippensburg.pa.us jhook@publicopinionnews.com jim.duffey@franklinctc.com John Ressler joseph.padasak@casdonline.org jshaulis@ccpa.net James Sourbier jstonehill@chambersburgpa.gov justin.atkins@pa.usda.gov kerry@quincytwp.org kjberkheimer@nisource.com kknepper@franklincountypa.gov kristin.carroll@casdonline.org ktrail@gcasd.org David Leab Leslie.Walter@use.salvationarmy.org letterkenny@embarqmail.com</p>

Figure C.17.2: Meeting Invite for 16 Feb 2018 HMP Meeting – Page 2 of 3 (Posted 19 Jan 2018)

Appendix C: Correspondence/Participation/Public Outreach

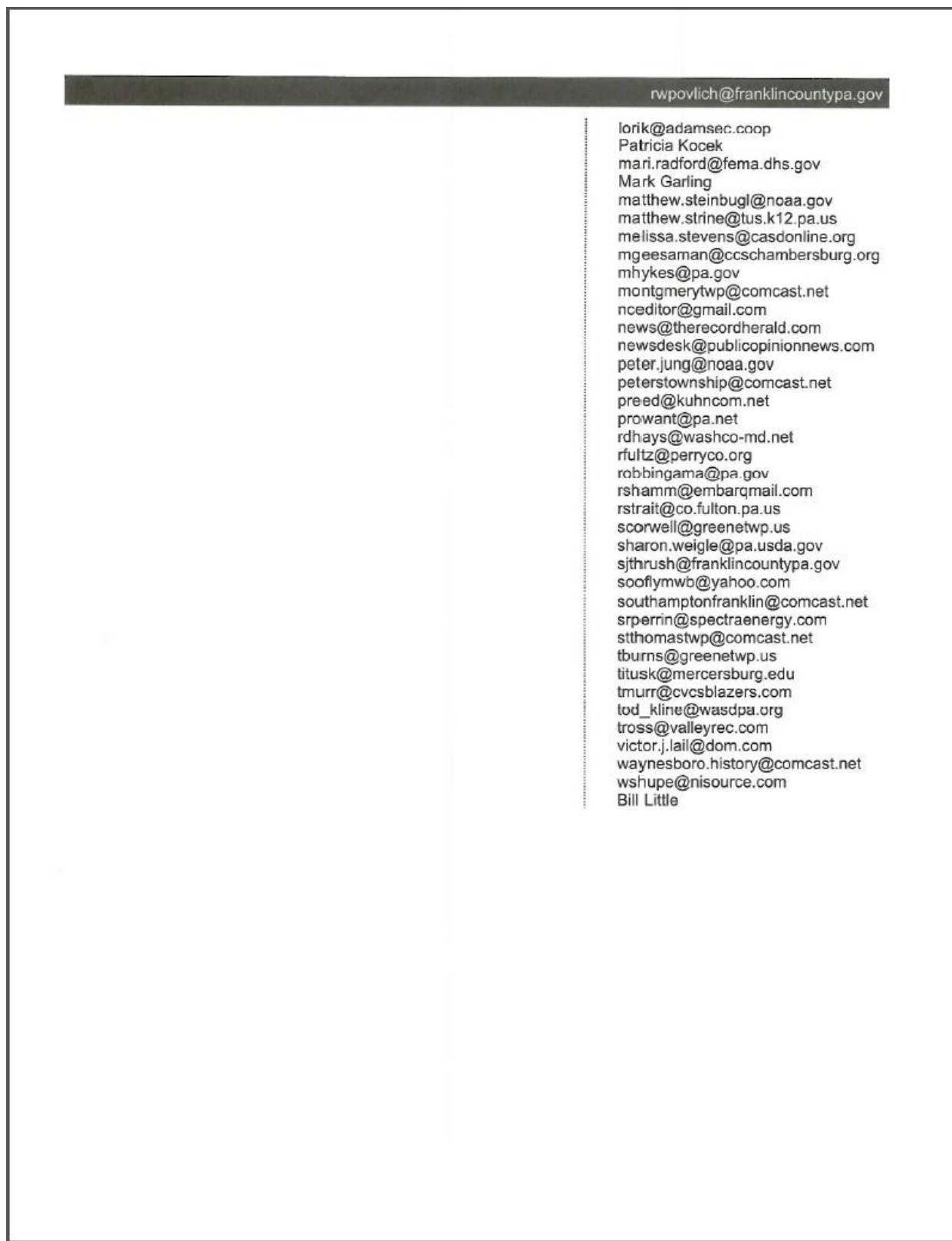



Figure C.17.3: Meeting Invite for 16 Feb 2018 HMP Meeting – Page 3 of 3 (Posted 19 Jan 2018)

Appendix C: Correspondence/Participation/Public Outreach

4/2/2018 Franklin County PA Mail - Municipal Capabilities Survey



Robert Povlich <rwovlich@franklincountypa.gov>

Municipal Capabilities Survey

John Thierwechter <jkthierwechter@franklincountypa.gov> Fri, Feb 16, 2018 at 1:20 PM
To: lee_barnes@csx.com, Matthew Kendall <mrkendall@franklincountypa.gov>, "Kline, David H" <dkline@firstenergycorp.com>, Joanne Sheets <jksheets@franklincountypa.gov>, Sarah Benschoff <slbenshoff@franklincountypa.gov>, hamiltontwp@comcast.net, rpezon@chambersburgpa.gov, Doug Shields <dshields@southamptontownship.org>, Anita Keller <alkeller@franklincountypa.gov>, Phil Tarquino <ptarquino@franklincountypa.gov>, "Jeffrey B. Geesaman" <jbg@washtwp-franklin.org>, Mary Ann Alleman <maalleman@franklincountypa.gov>, Robert Povlich <rwovlich@franklincountypa.gov>, "Warren P. Bladen" <wplbladen@adamscounty.us>, Localgov100@embarqmail.com, David Leab <leabs@innemet.net>, Jacob Crider <jmcrider@franklincountypa.gov>, Loretta McClure <ljmccclure@franklincountypa.gov>, fhobbs@guilfordtwp.us, eratliff@greencastlepa.gov, Jonathan Williams <jonwilliams@summithealth.org>, matthew_gordon@wasdpa.org, donna_trueax@wasdpa.org, eric_holtzman@wasdpa.org, Bob Thomas <rlthomas@franklincountypa.gov>, John Hart <jahart@franklincountypa.gov>, Cassie Yost <clm275@psu.edu>, Cori Seilhamer <caseilhamer@franklincountypa.gov>, Travis Sims <tesims@franklincountypa.gov>, Dan May <dan@shopchambersburgmail.com>, Justin.sholes@franklinctc.com, Anthony Ogburn <anthony@rockbreak.com>, Brad Graham <bgraham@twp.antrim.pa.us>, dulrich@chambersburgpa.gov, Samuel Thrush <sjthrush@franklincountypa.gov>, chad.kreitz@gmail.com, Steve Nevada <sanevada@franklincountypa.gov>, tleiss@paturmpike.com, burkett@famtigers.org, Bob Ziobrowski <rgziobrowski@franklincountypa.gov>, "Robert Shively Jr." <rshively@ccpa.net>, drock@pa.gov, "Laucks, Laura" <llaucks@pa.gov>, jepley@shippensburg.pa.us, Steve Sites <rescue_12@hotmail.com>, Teresa Beckner <tbeckne@franklincountypa.gov>, Matthew Steinbugl - NOAA Federal <matthew.steinbugl@noaa.gov>, "Radford, Mari" <mari.radford@fema.dhs.gov>, Peter Jung - NOAA Federal <peter.jung@noaa.gov>, "Dr. Kendra Trail" <ktrail@gcasd.org>, matthew.strine@tus.k12.pa.us, kberkheimer@nisource.com, barbara.mistick@wilson.edu, Dave Keller <dskeller@franklincountypa.gov>, Dave Finch <dfinch@chambersburgpa.gov>, Carrie Gray <cegray@franklincountypa.gov>, melissa.stevens@casdonline.org, kristin.carroll@casdonline.org, edward.peters@casdonline.org, "Green, Beverly M" <bgreen@firstenergycorp.com>, Jim Sourbier <jsourbier@waynesboropolice.com>, sooflymwb@yahoo.com, prowant@pa.net, sharon.weigle@pa.usda.gov, victor.j.lail@dominionenergy.com, Shawn Corwell <scorwell@greenetwp.us>, "Shaulis, Justin" <jshaulis@ccpa.net>, davestoner@franklinccd.org, Justin.atkins@pa.usda.gov, fd01@pa.gov, tmurr@cvcslazers.com, rdhays@washco-md.net, sthomas@comcast.net, "White, Allen" <allen.white@redcross.org>, reberly@twp.antrim.pa.us, Dale Myers III <dmyers@phfd.org>, "Szabo, Ernest" <erszabo@pa.gov>, Todd Burns <tburns@greenetwp.us>, greene@greenetwp.us, Don Eshleman <deshleman28@gmail.com>, joseph.padasak@casdonline.org, rshamm@embatdmail.com, "Kepple, Don" <dkepple@pa.gov>, Richard Fultz <rfultz@perryco.org>, robbingama@pa.gov, wshupe@nisource.com, Angie Petersheim <apetersheim@shalomca.com>, Gregory Noll <ggnoll@sctfpa.org>, Eugene Sajesi <esajesi@pa.gov>, dfamer@summithealth.org, Jeffrey Stonehill <jstonehill@chambersburgpa.gov>, amc267@psu.edu, besterline@pa.gov, kerry@quincytwp.org, "Brown, Cherie P CIV USARMY IMCOM (US)" <cherie.p.brown.civ@mail.mil>, craig.myers@rescuehose.com, dbitner@geisinger.edu, director@waynesboro.org, dstoy.mercersburgborough@comcast.net, dscliamanna@chambersburg.org, dstoner@mvfc56.org, jim.duffey@franklinctc.com, ema@huntingdoncounty.net, barbara.watson@noaa.gov, Mark Garling <mark_garling@yahoo.com>, gkrotz@centurylink.net, gregory.hoover@ship.k12.pa.us, gtsups@guilfordtwp.us, firefighter37@comcast.net, history@pa.net, info@quincytwp.org, Jennifer Fitch <jenniferf@herald-mail.com>, "Hook, James" <jhook@publicopinionnews.com>, Kelly Knepper <kknepper@franklincountypa.gov>, Patricia Kocek <mab@comcast.net>, leslie.walter@use.salvationarmy.org, letterkenny@embarqmail.com, David Lindenmuth <djlindenmuth@gmail.com>, Bill Little <wslittle@comcast.net>, lorik@adamsec.coop, lurgantwp@embarqmail.com, jem@washtwp-franklin.org, mgeesaman@ccschambersburg.org, mhykes@pa.gov, Linda Miller <lmiller@franklincountypa.gov>, nceditor@gmail.com, David Newell <drdavidnewell@gmail.com>, news@therecordherald.com, newsdesk@publicopinionnews.com, npurdy@chambersburg.org, preed@kuhncom.net, John Ressler <johnressler.2@gmail.com>, rstrait@co.fulton.pa.us, southamptonfranklin@comcast.net, srperrin@spectraenergy.com, Jason Stains <jason@waynesboropa.org>, FranklinPa Stormchasers <fcpascwi@gmail.com>, peterstownship@comcast.net, litusk@mercbersburg.edu, tod_kline@wasdpa.org, montgomerytwp@comcast.net, Todd Ross <tross@valleyrec.com>, Eric Vamer <evamer@phfd.org>, waynesboro.history@comcast.net, aweaver@juniataco.org, Greg Weller <gweller91@gmail.com>, "Zollo, Anthony M (Tony) CIV USARMY USAMC (US)" <anthony.m.zollo.civ@mail.mil>

HMPT Members,

Attached is the Municipal Capabilities Survey that we discussed and approved to disseminate to Municipal Officials at today's HMP meeting. This survey is geared more towards a municipal official's response, but we understand that some Local EMCs are also municipal officials themselves.

<https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=1MAOjiMs0A.en.&view=pt&msg=1619fd8de57342ad&search=inbox&siml=1619fd8de57342ad&ml>

Figure C.18.1: Release of Municipal Capabilities Survey – Page 1 of 2

Appendix C: Correspondence/Participation/Public Outreach

4/2/2018 Franklin County PA Mail - Municipal Capabilities Survey


This information is critical in completing the Capabilities Section (Section 5) of the Hazard Mitigation Update and we need 100% municipal participation. We would expect that the municipalities get their elected officials, leaders, and staff together to discuss and complete this survey to make sure all of your capabilities are accurately captured. As approved at today's meeting, this survey is **due by 23 Mar 2018** to make sure we stick to our proposed timeline.

We understand that everyone will have gaps in answering these survey questions, that is to be expected. The key is to develop mitigation actions from these identified gaps. You are not required to fully resolve all gaps to meet the expectations of this plan. You can simply create a mitigation action to study the feasibility of implementing a fix for each gap. The mitigation actions you create are not required to get completed or be resolved, and most never do. The fact that you identified a gap and submitted an action to study the feasibility of closing it is enough.

If you have questions on this survey or the Hazard Mitigation Plan Update process, please contact Bob Povlich at [717-264-2813](tel:717-264-2813).

John K. Thierwechter
Director
Franklin County Department of Emergency Services
[717-264-2813](tel:717-264-2813)


CONFIDENTIALITY NOTICE: This email message, including any attachments, is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended Municipal Capabilities Survey recipient, please contact the sender by reply e-mail and destroy all copies of the original message.

 **Capability Assessment Survey_Franklin County.docx**
47K

<https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=tMAOjtlMs0A.en.&view=pt&msg=1619fd8de57342ad&search=inbox&siml=1619fd8de57342ad&ml>

Figure C.18.2: Release of Municipal Capabilities Survey – Page 2 of 2

rwpovich@franklincountypa.gov



Franklin County Hazard Mitigation Plan Update Meeting

Created by: rwpovich@franklincountypa.gov · Your response: ✓ Yes, I'm going

Time
1pm - 3pm (Eastern Time)

Date
Mon Apr 30, 2018

Description
HMPT,

The survey results are in and 30 Apr 2018 from 1300-1500 hrs received the most interest. We will be holding the meeting at the Franklin County Public Safety Training Center, address below:

3075 S. Molly Pitcher Highway
Chambersburg, PA 17202

The general focus of the discussions will be submission of Mitigation Actions and the results of the Municipal Capability Survey. I will send out a reminder email on these tasks today, as response has been limited.

Attendance has been good for most municipalities and we should be in good shape to pass the FEMA adoption assessment. However, there are a few municipalities that have been very sparse in their participation. You do not want to leave it up to FEMA as to your ability to adopt this plan. Please have a representative at this meeting to make sure your municipality is covered.

Please contact me if you have questions.

Guests

- ✓ alkeller@franklincountypa.gov
- ✓ bgreen@firstenergycorp.com
- ✓ caseilhamer@franklincountypa.gov
- ✓ clm275@psu.edu
- ✓ dfinch@chambersburgpa.gov
- ✓ dkline@firstenergycorp.com
- ✓ dshields@southamptontownship.org
- ✓ eric_holtzman@wasdpa.org
- ✓ fhobbs@guilfordtwp.us
- ✓ hamiltontwp@comcast.net
- ✓ jahart@franklincountypa.gov
- ✓ jbg@washtwp-franklin.org
- ✓ jksheets@franklincountypa.gov
- ✓ jkthierwechter@franklincountypa.gov
- ✓ jmcridder@franklincountypa.gov
- ✓ jonwilliams@summitthealth.org
- ✓ jshaulis@ccpa.net
- ✓ justin.sholes@franklinctc.com
- ✓ kristin.carroll@casdonline.org
- ✓ llaucks@pa.gov
- ✓ localgov100@embarqmail.com
- ✓ lurgantwp@embarqmail.com
- ✓ maalleman@franklincountypa.gov
- ✓ mrkendall@franklincountypa.gov
- ✓ rlthomas@franklincountypa.gov
- ✓ rpezon@chambersburgpa.gov
- ✓ rwpovich@franklincountypa.gov
- ✓ schristian@chambersburg.org
- ✓ scorwell@greenetwp.us
- ✓ silbenshoff@franklincountypa.gov
- ✓ sooflymwb@yahoo.com
- ✓ tesims@franklincountypa.gov
- ✓ wpbladen@adamscounty.us
- ✓ wshupe@nisource.com
- ? burkettd@fmtigers.org
- ? Dan May
- ? debitner@geisinger.edu
- ? jepley@shippensburg.pa.us
- ? ktrail@gcasd.org
- ? rfultz@perryco.org
- ? sanevada@franklincountypa.gov
- ? tleiss@paturnpike.com
- Ⓞ anthony@rockbreak.com
- Ⓞ Angie Petersheim
- Ⓞ barbara.mistick@wilson.edu
- Ⓞ

Figure C.19.1: Meeting Invite for 30 Apr 2018 HMP Meeting – Page 1 of 3 (Posted 14 Mar 2018)

Appendix C: Correspondence/Participation/Public Outreach

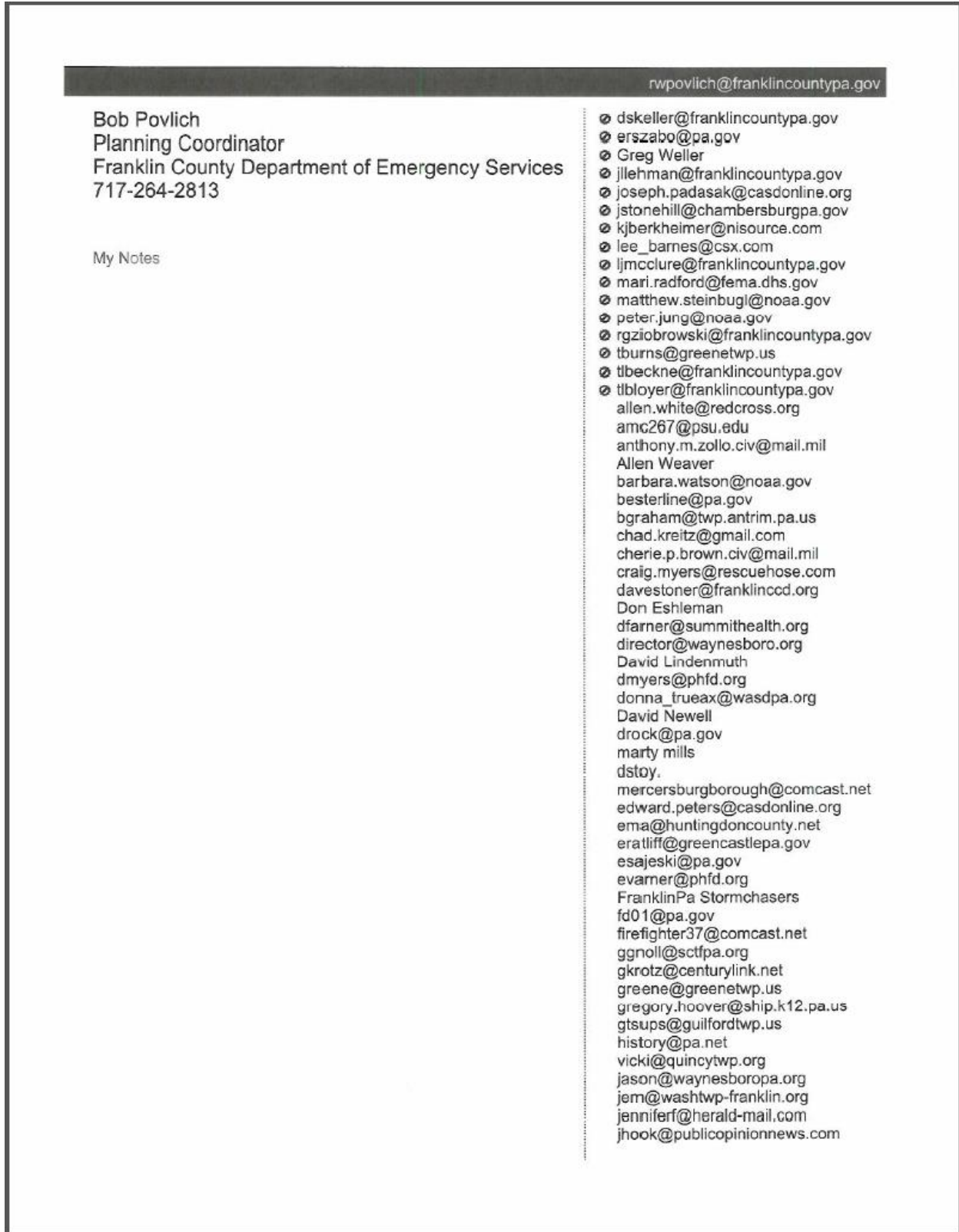


Figure C.19.2: Meeting Invite for 30 Apr 2018 HMP Meeting – Page 2 of 3 (Posted 14 Mar 2018)

Appendix C: Correspondence/Participation/Public Outreach



Figure C.19.3: Meeting Invite for 30 Apr 2018 HMP Meeting – Page 3 of 3 (Posted 14 Mar 2018)

Appendix C: Correspondence/Participation/Public Outreach

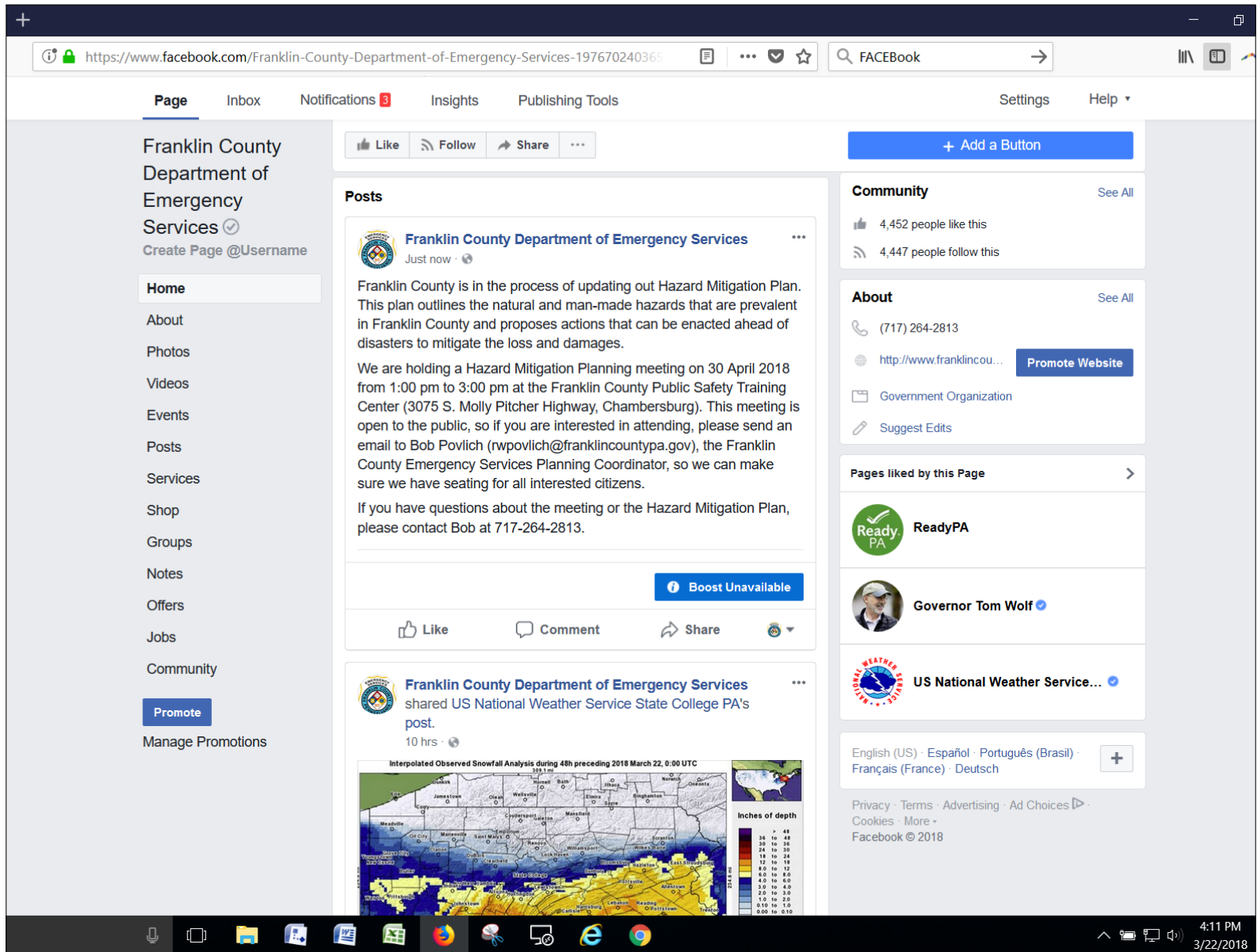


Figure C.20: Public Notice of Next HMP Update Meeting - Facebook (Posted 22 Mar 2018)


Appendix C: Correspondence/Participation/Public Outreach

The screenshot shows a Twitter interface on a desktop browser. The browser's address bar displays "https://twitter.com/?lang=en". The Twitter navigation bar includes "Home", "Moments", "Notifications", and "Messages". The main content area features a tweet from "FranklinPA Emgcy Svc @Emrgncy_Svc28" posted "now". The tweet text reads: "Franklin County is updating our Hazard Mitigation Plan. We are having a public meeting on this plan on 30 Apr from 1:00-3:00p at the Franklin County Public Safety Training Center. If interested send an email to rwpovlich@franklincountypa.gov to reserve your seat." Below the tweet are icons for replies, retweets, likes, and a share icon. To the left of the tweet is the profile card for "FranklinPA Emgcy Svc @Emrgncy_Svc28", which includes a profile picture of an emergency vehicle and statistics: 3,009 Tweets, 120 Following, and 1,198 Followers. To the right of the tweet is a "Who to follow" section with suggestions for "York City Fire @YorkCityFire", "NWS SPC @NWSSPC", and "USA.gov @USAgov". Below the main tweet is a tweet from "NBC News @NBCNews" from 18 minutes ago, with the text "Does America need another prison?" and a link to an article. This tweet includes a photograph of a town built on a hillside. At the bottom of the page, a Windows taskbar is visible with various application icons and a system tray showing the time as 4:07 PM on 3/22/2018.

Figure C.21: Public Notice of Next HMP Update Meeting - Twitter (Posted 22 Mar 2018)

Appendix C: Correspondence/Participation/Public Outreach

4/20/2018 Franklin County PA Mail - Hazard Mitigation Plan Participation Deficiencies



Robert Povlich <rwpvlich@franklincountypa.gov>

Hazard Mitigation Plan Participation Deficiencies

Jacob Crider <jmcrider@franklincountypa.gov> Mon, Apr 2, 2018 at 11:17 AM
To: bearvalleywater@comcast.net, cfjma@cfjma.com, cmercer@guilfordtp.us, dougshields@comcast.net, dpculbertson@embarqmail.com, Eric Varner <evarner@phfd.org>, godonnell@centurylink.net, gtsups@guilfordtp.us, htma@embarqmail.com, jnowell@twp.antrim.pa.us, jstonehill@chambersburgpa.gov, kbland@gcasd.org, letterkenny@embarqmail.com, lsuders@cfjma.com, lurgantwp@embarqmail.com, lwengermontalto@comcast.net, manager@wtma.us, michael.w.gossard.civ@mail.mil, peterstownshipma@embarqmail.com, prowant@pa.net, smalott@guilfordtp.us, southamptonfranklin@comcast.net, stthomastwp@comcast.net, sttma1@comcast.net, Ben Thomas <bthomas2529@comcast.net>, Brad Graham <bgraham@twp.antrim.pa.us>, Brad Kendall <bkg3@psu.edu>, Dale Carbaugh <dalecarbaugh@gmail.com>, Eden Ratliff <eratliff@greencastlepa.gov>, Eric Harbaugh <eharbaugh@guilfordtp.us>, Frank Hobbs <fhobbs@guilfordtp.us>, Frank Hobbs II <chiefnobbs@comcast.net>, Greene <greene@greentwp.us>, Hamilton Township <hamiltontwp@comcast.net>, Jason Stains <jason@waynesboropa.org>, Jeff Geesaman <Jbg@washtwp-franklin.org>, John Epley <jepley@shippensburg.pa.us>, John Ressler <johnressler.2@gmail.com>, Kendra Trail <ktrail@gcasd.org>, Metal Township <localgov100@embarqmail.com>, Mike Small <mikesmall@greentownshipma.com>, Montgomery Township <montgomerytp@comcast.net>, Patricia Kocek <mab@comcast.net>, Patti Strite <pastrite@gmail.com>, Peters Township Supervisors <peterstownship@comcast.net>, Shawn Corwell <scorwell@greentwp.us>, Tasha Hershey <ldhershey@hotmail.com>, Travis Blubaugh <tblubaugh@gcasd.org>, Vicki Nunemaker <vicki@quincytwp.org>, donda@centurylink.net, emc@greencastlepa.gov, James.powell@fivesgroup.com, jhammond13@hotmail.com, jlumberger@embarqmail.com, joyler@pa.net, jswope@southamptontp.com, sadolini@waynesboropolice.com, Anthony Zollo <anthony.m.zollo@mail.mil>, Cherie Brown <cherie.p.brown.civ@mail.mil>, Craig Myers <craig.myers@rescuehose.com>, Dale Myers III <dmyers@phfd.org>, Dave Finch <dfinch@chambersburgpa.gov>, David Leab <leabs@innernet.net>, David Lindenmuth <djlindenmuth@gmail.com>, Derek Stoy <dstoy.mercersburgborough@comcast.net>, Don Eshleman <deshleman28@gmail.com>, Doug Shields <dshields@southamptontownship.org>, "Dusty Stoner, Jr." <dsjr124@comcast.net>, Gary Himes <firefighter37@comcast.net>, Greg Weller <gweller91@gmail.com>, Jeff Rion <Haz44Mat@aol.com>, Jim Meek <jem@washtwp-franklin.org>, Kelly Knepper <kknepper@pa.net>, Kerry Bumbaugh <kerry@quincytwp.org>, Kurt Wagaman <kwagaman@comcast.net>, Larry Hinkle <lhinkle@nntwp.net>, Mark Garling <mark_garling@yahoo.com>, Matt Renee Funk <1mattfk@gmail.com>, Mike Balsley <mbalsley@greentwp.us>, Mike Balsley <ndwfire@gmail.com>, Mike Bock <sooflymwb@yahoo.com>, "Paul T. Reed" <preed@kuhncom.net>, Rodney Eberly <reberly@twp.antrim.pa.us>, Steve Sites <rescue_12@hotmail.com>, Steven R Swope <steven.r.swope@jci.com>
Cc: John Thierwechter <jkthierwechter@franklincountypa.gov>, Robert Povlich <rwpvlich@franklincountypa.gov>, Joanne Sheets <jksheets@franklincountypa.gov>, Mary Ann Alleman <maalleman@franklincountypa.gov>

Good morning Municipal Leaders and Local EMCs,

As we get closer to completion of the County's Hazard Mitigation Plan (HMP) update it is imperative that we closely watch our participation to make sure all our municipalities are eligible to adopt this plan. FEMA has stated participation is a requirement they are currently watching. If they (FEMA) deem a municipality has not contributed to this plan update, that municipality will not be eligible to adopt the county plan. That municipality would then have to complete their own HMP to be eligible for any federal hazard mitigation funding. We have reviewed participation to date and have identified some deficiencies which could put some of our communities at risk. See the attached PDF for your jurisdiction's gaps.

The good news is there is still time to close these gaps. As you are aware, we are having our next meeting on April 30, 2018 and simply attending this meeting can close two areas: the Planning Process and the Mitigation Strategy. By not participating in the Planning Process and the Mitigation Strategy it could render you ineligible to adopt this plan.

The other areas which are of concern are the information collection requests from the municipalities. We still need several municipal capabilities surveys and submission of municipal mitigation actions. Both of these were to be completed by March 23, 2018 as agreed at the last HMP update meeting. If your municipality does not complete both of these information requests, you will leave your eligibility to adopt this plan in the hands of FEMA. Based on our discussions with the FEMA representative concerning this subject, not completing these information requests would not be a good idea.

If you are having problems with your capabilities survey, generating a mitigation action or anything else concerning the HMP update, please contact Bob Povlich at 717-264-2813 or rwpvlich@franklincountypa.gov.

Thank you all for your assistance in this endeavor,

<https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=37e3CQHfPxHk.en.&view=pt&msg=16286f048afde795&q=survey&q=true&search=query&siml=1f>

Figure C.22.1: Participation Deficiencies as of Apr 2018 – Page 1 of 3

Appendix C: Correspondence/Participation/Public Outreach

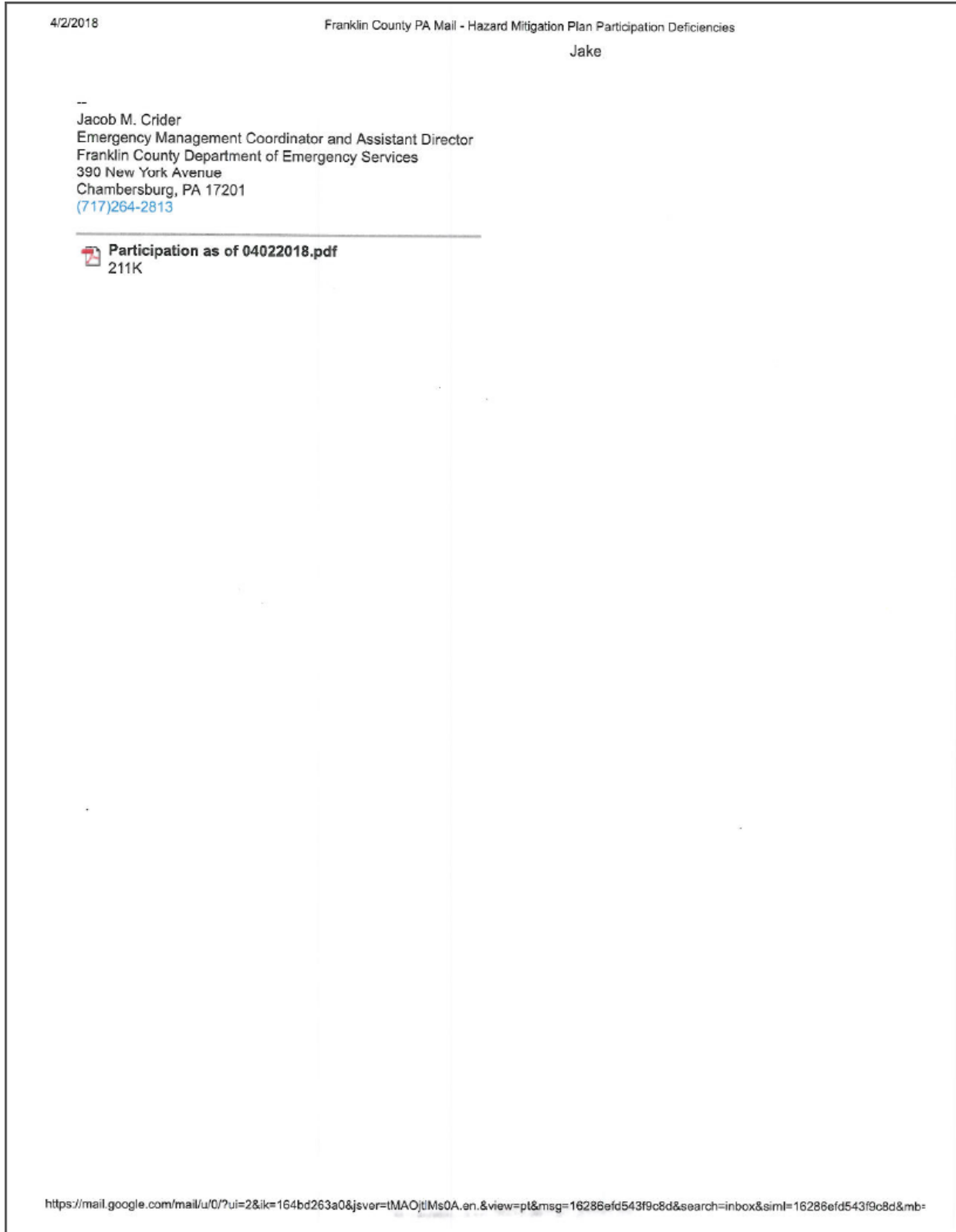


Figure C.22.2: Participation Deficiencies as of Apr 2018 – Page 2 of 3


Appendix C: Correspondence/Participation/Public Outreach

Municipality	Capability Survey	Mitigation Action Submission	Planning Process Participation	Mitigation Strategy Participation
Antrim Township			X	X
Chambersburg Borough			X	X
Fannett Township		X	X	
Greencastle Borough			X	
Greene Township	X	X	X	X
Guilford Township			X	X
Hamilton Township	X		X	X
Letterkenny Township	X	X	X	X
Lurgan Township	X	X	X	X
Metal Township	X	X	X	X
Mercersburg Borough				
Mont Alto Borough			X	
Montgomery Township				
Orrstown Borough			X	X
Peters Township				
Quincy Township				X
Shippensburg Borough				
Southampton Township	X		X	X
St Thomas Township			X	X
Warren Township			X	
Washington Township			X	X
Waynesboro Borough	X		X	X
<p>Deficiencies: (X indicates the requirement was met, blank is a deficiency)</p> <p><u>If you have a deficiency in:</u></p> <p>Capability Survey Mitigation Action Planning Process Mitigation Strategy</p> <p><u>Then you need to:</u></p> <p>– Submit completed survey. – Submit at least 1 Mitigation Action (FEMA Requirement). – Attend a meeting - the next meeting is on 4/30/18. – Submit Mitigation Action and/or attend meeting on 4/30/18.</p>				

Figure C.22.3: Participation Deficiencies as of Apr 2018 – Page 3 of 3

Appendix C: Correspondence/Participation/Public Outreach

4/18/2018 Franklin County PA Mail - Municipal Capabilities Survey



Robert Povlich <rpovlich@franklincountypa.gov>

Municipal Capabilities Survey

John Thierwechter Wed, Apr 18, 2018 at 10:36 AM

To: Brad Graham <bgraham@twp.antrim.pa.us>, gkrotz@centurylink.net, greene@greenetwp.us, mikesmall@greentownshipma.com, gtsups@guilfordtwp.us, eharbaugh@guilfordtwp.us, cmcer@guilfordtwp.us, hamiltontwp@comcast.net, letterkenny@embarqmail.com, lurgantwp@embarqmail.com, localgov100@embarqmail.com, montgomerytwp@comcast.net, peterstownship@comcast.net, peterstownshipma@embarqmail.com, info@quincytwp.org, southamptonfranklin@comcast.net, stthomastwp@comcast.net, stma1@comcast.net, John Ressler <johnressler.2@gmail.com>, "Jeffrey B. Geesaman" <jbg@washtwp-franklin.org>, manager@wtma.us, Jeffrey Stonehill <jstonehill@chambersburgpa.gov>, eratliff@greencastlepa.gov, dstoy.mercersburgborough@comcast.net, Patricia Kocek <mab@comcast.net>, chad.kreitz@gmail.com, prowant@pa.net, jepley@shippensburg.pa.us
Cc: Jacob Crider <jmcrider@franklincountypa.gov>, Robert Povlich <rpovlich@franklincountypa.gov>

Municipal Leaders,

As you are aware, we are continuing work on the update to the Franklin County Hazard Mitigation Plan. As part of this project, we sent out a Municipal Capabilities Survey (attached) on February 16th to collect the capabilities that you inherently have at your disposal to mitigate hazards. To date, the response has not been as good as we had hoped. We have only received survey responses from 9 of our 22 municipalities. We are still seeking surveys from the following:

- Antrim Township
- Chambersburg Borough
- Fannett Township
- Greencastle Borough
- Guilford Township
- Mont Alto Borough
- Montgomery Township
- Orrstown Borough
- Quincy Township
- Shippensburg Borough
- St Thomas Township
- Warren Township
- Washington Township

We understand that everyone is task saturated with your normal business operations and this may seem like extra workload that is not that important. However, FEMA will ultimately make the determination as to whether or not your municipality adequately participated in the update of this plan to allow you to adopt the county plan. If your municipality is declined an opportunity to adopt this plan, your municipality will have to draft your own Hazard Mitigation Plan to be eligible for the following federal mitigation funding programs:

- Hazard Mitigation Grant Program (HMGP)
- Pre-Disaster Mitigation (PDM) Program
- Flood Mitigation Assistance (FMA)

Based on the level of effort from everyone on the Hazard Mitigation Planning Team to get this plan this far, we do not believe anyone wants to take on this challenge by themselves. If you are having problems with the surveys or have questions, please contact Bob Povlich at [redacted]. We would like to have all surveys returned by April 28, 2018, so we can discuss the results at the April 30th Hazard Mitigation Planning Meeting.

Thank you,

John


John K. Thierwechter
Director
Franklin County Department of Emergency Services
717-264-2813

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<https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=iojFHZkTQA.en.&view=pt&msg=162d93025db7814e&search=inbox&siml=162d93025db7814e&n>

Figure C.23: Final Data Call for Municipal Capabilities Survey

rwpovlich@franklincountypa.gov



HMP Update Meeting - June 2018

Created by: rwpovlich@franklincountypa.gov · Your response: ✓ Yes, I'm going

Time
12pm - 2pm (Eastern Time)

Date
Mon Jun 18, 2018

Where
DES - EOC, DES - Multipurpose Room

Description
HMPT Members,

The survey results are in. Our next HMP meeting will be held on 18 June from 1200 to 1400 hrs.

****NOTE**** This meeting will be held at the Franklin County Department of Emergency Services and NOT at the Franklin County Public Safety Training Center. Our address is below:

390 New York Ave
Chambersburg, PA 17201

We will be discussing the draft HMP documents and the process to get the local review complete for staffing to PEMA.

Please contact me with comments or questions (717-264-2813).

Bob

Rooms, etc.
✓ DES - EOC
✓ DES - Multipurpose Room

Guests
✓ alkeller@franklincountypa.gov
✓ anthony@rockbreak.com
✓ caseilhamer@franklincountypa.gov
✓ cegray@franklincountypa.gov
✓ chad.kreitz@gmail.com
✓ dfinch@chambersburgpa.gov
✓ dkline@firstenergycorp.com
✓ dshields@southamptontownship.org
✓ dskeller@franklincountypa.gov
✓ eric_holtzman@wasdpa.org
✓ erszabo@pa.gov
✓ fhobbs@guilfordtwp.us
✓ hamiltontwp@comcast.net
✓ jbg@washtwp-franklin.org
✓ jksheets@franklincountypa.gov
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✓ justin.sholes@franklinctc.com
✓ kristin.carroll@casdonline.org
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✓ localgov100@embarqmail.com
✓ lurgantwp@embarqmail.com
✓ maalleman@franklincountypa.gov
✓ mrkendall@franklincountypa.gov
✓ ptarquino@franklincountypa.gov
✓ rthomas@franklincountypa.gov
✓ rwpovlich@franklincountypa.gov
✓ scorwell@greenetwp.us
✓ sibenshoff@franklincountypa.gov
✓ wshupe@nisource.com
? burkett@fmtigers.org
? dmyers@phfd.org
? jllehman@franklincountypa.gov
? kjberkheimer@nisource.com
? ktrail@gcasd.org
? rgziobrowski@franklincountypa.gov
? sanevada@franklincountypa.gov
? tlbeckne@franklincountypa.gov
⊙ Angie Petersheim
⊙ barbara.mistick@wilson.edu
⊙ bgreen@firstenergycorp.com
⊙ clm275@psu.edu
⊙

Figure C.24.1: Meeting Invite for 18 Jun 2018 HMP Meeting – Page 1 of 3 (Posted 22 May 2018)

Appendix C: Correspondence/Participation/Public Outreach

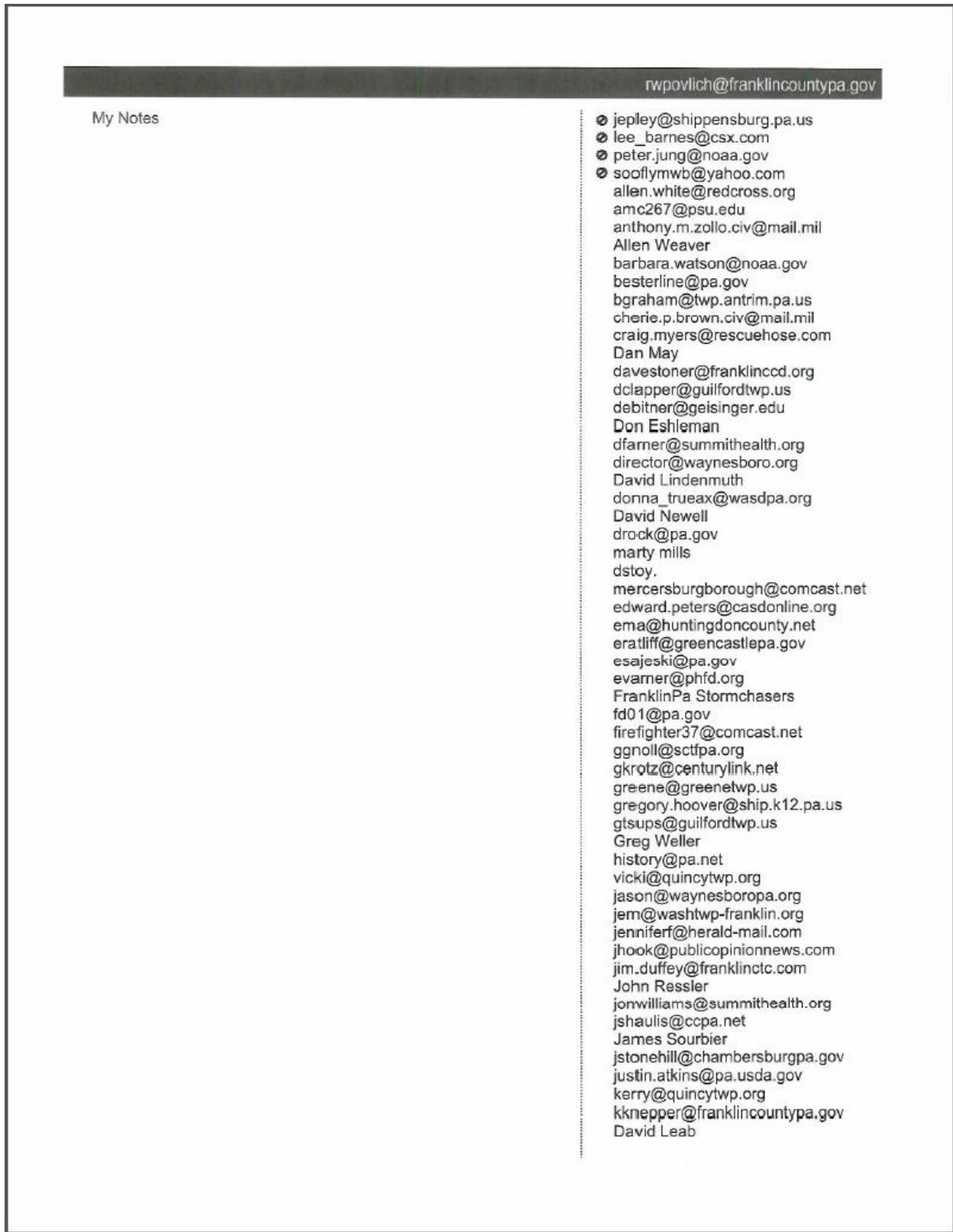


Figure C.24.2: Meeting Invite for 30 Apr 2018 HMP Meeting – Page 2 of 3 (Posted 22 May 2018)

Appendix C: Correspondence/Participation/Public Outreach



Figure C.24.3: Meeting Invite for 30 Apr 2018 HMP Meeting – Page 3 of 3 (Posted 22 May 2018)

Appendix C: Correspondence/Participation/Public Outreach

The screenshot shows a Facebook page for the Franklin County Department of Emergency Services. The page header includes the name of the page and navigation options like 'Home', 'Find Friends', and 'Send Message'. The main content area features a post from the department, dated 1 minute ago. The post text reads: "We are winding down our update efforts for the Franklin County Hazard Mitigation Plan. Before we post the draft document for final review, we are going to hold one more Planning Meeting on 18 June 2018 from 12:00-2:00 pm at the Franklin County Department of Emergency Services building. Our address is: 390 New York Ave Chambersburg, PA 17201. We will be discussing the review process and timeline required to meet the overall schedule for document approval. This meeting is open to the public, but we ask that you send an email to Bob Povlich at rwovlich@franklincountypa.gov to let us know you are attending so we can plan to have enough seats for all participants." Below the text is a map titled "Severe Weather Outlook Tuesday, May 22, 2018" showing a weather forecast for the region. The right sidebar contains sections for "Related Pages" (listing Franklin County Public Safety, West End Fire & Rescue, and Franklin Fire Company), "Pages Liked by This Page" (listing Pennsylvania Department of Transportation, Franklin County Public Safety, and PA State Police), and "Instant Games" and "Your Games". The bottom of the page shows the Windows taskbar with the time 9:13 AM on 5/22/2018.

Figure C.25: Public Notice of Next HMP Update Meeting - Facebook (Posted 22 May 2018)

Appendix C: Correspondence/Participation/Public Outreach



Figure C.26: Public Notice of Next HMP Update Meeting - Twitter (Posted 22 May 2018)

Appendix C: Correspondence/Participation/Public Outreach

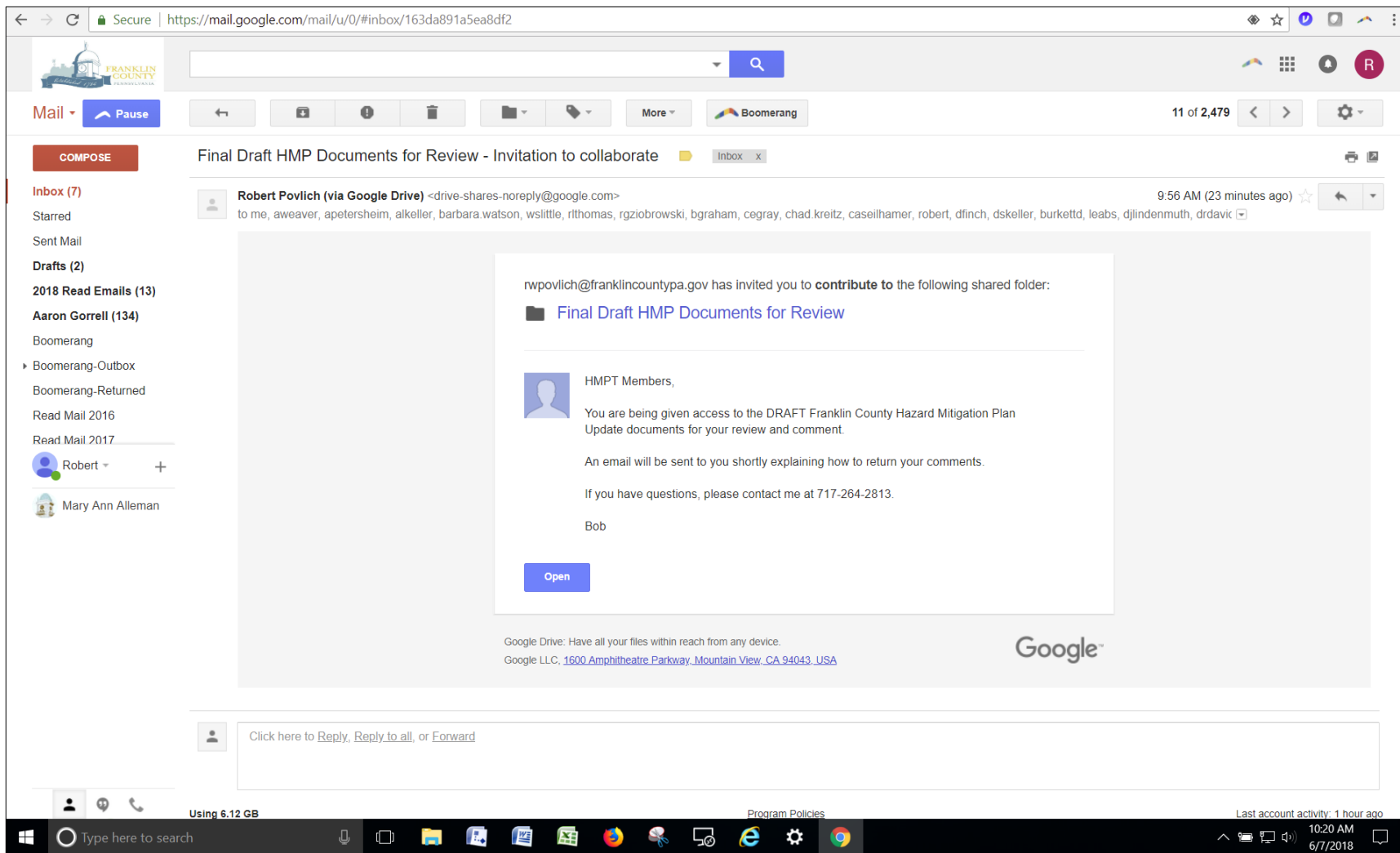


Figure C.27.1: Posting of DRAFT HMP Documents for Local Review/Comment – Page 1 of 3 (Posted 7 Jun 2018)

Appendix C: Correspondence/Participation/Public Outreach

6/7/2018 Franklin County PA Mail - Review of DRAFT Franklin County Hazard Mitigation Plan Update Documents



Robert Povlich <rpovlich@franklincountypa.gov>

Review of DRAFT Franklin County Hazard Mitigation Plan Update Documents

Robert Povlich <rpovlich@franklincountypa.gov> Thu, Jun 7, 2018 at 10:01 AM

To: amc267@psu.edu, barbara.mistick@wilson.edu, cherie.p.brown.civ@mail.mil, davestoner@franklinccd.org, debitter@geisinger.edu, dfarner@summithealth.org, director@waynesboro.org, dkline@firstenergycorp.com, drock@pa.gov, edward.peters@casdonline.org, ema@huntingdoncounty.net, FD01@pa.gov, gkrotz@centurylink.net, greene@greenetwp.us, gregory.hoover@ship.k12.pa.us, gtsups@guilfordtp.us, info@quincytp.org, jenniferf@herald-mail.com, jhook@publicopinionnews.com, jonwilliams@summithealth.org, joseph.padasak@casdonline.org, kristin.carroll@casdonline.org, ktrail@gcasd.org, lee_barnes@csx.com, Leslie.Walter@use.salvationarmy.org, lorik@adamsec.coop, matthew.strine@tus.k12.pa.us, mgeesaman@ccschambersburg.org, mhykes@pa.gov, Montgomery Township <montgomerytp@comcast.net>, nceditor@gmail.com, news@therecordherald.com, Newsdesk@publicopinionnews.com, rdhays@washco-md.net, rfulz@perryco.org, robbingama@pa.gov, rshamm@embarqmail.com, rstrait@co.fulton.pa.us, schristian@chambersburg.org, sharon.weigle@pa.usda.gov, southamptonfranklin@comcast.net, srperrin@spectraenergy.com, titusk@mercersburg.edu, tleiss@paturmpike.com, tmurr@cvcsblazers.com, tross@valleyrec.com, victor.j.lail@dom.com, waynesboro.history@comcast.net, wshupe@nisource.com, Allen Weaver <aweaver@juniataco.org>, Allen White <allen.white@redcross.org>, Angie Petersheim <apetersheim@shalomca.com>, Anita Keller <alkeller@franklincountypa.gov>, Ann Hull <history@pa.net>, "Anthony M (Tony) CIV USARMY USAMC Zollo (US)" <anthony.m.zollo.civ@mail.mil>, Anthony Ogburn <anthony@rockbreak.com>, Barbara Watson - NOAA Federal <barbara.watson@noaa.gov>, Bill Little <wslittle@comcast.net>, Bob Thomas <rlthomas@franklincountypa.gov>, Bob Ziobrowski <rgziobrowski@franklincountypa.gov>, Brad Graham <bgraham@twp.antrim.pa.us>, Carrie Gray <cegray@franklincountypa.gov>, Cassie Yo.st <clm275@psu.edu>, Chad Kreitz <chad.kreitz@gmail.com>, Cori Seilhamer <caseilhamer@franklincountypa.gov>, Craig Myers <craig.myers@rescuehose.com>, Dan May <robert@shopchambersburgmail.com>, Dave Finch <dfinch@chambersburgpa.gov>, Dave Keller <dkeller@franklincountypa.gov>, David Burkett <burkettd@fmtigers.org>, David Leab <leabs@innernet.net>, David Lindenmuth <djlindenmuth@gmail.com>, David Newell <drdavidnewell@gmail.com>, Derek Stoy <dstroy.mercersburgborough@comcast.net>, Don Clapper <dclapper@guilfordtp.us>, Don Eshleman <deshleman28@gmail.com>, Donna Trueax <donna_trueax@wasdpa.org>, Doug Prowant <prowant@pa.net>, Doug Shields <dshields@southamptontownship.org>, Dusty Stoner <dsjr124@comcast.net>, Eden Ratliff <eratliff@greencastlepa.gov>, Eric Holtzman <eric_holtzman@wasdpa.org>, Eric Varner <evartner@phfd.org>, "Esterline, Brenda" <besterline@pa.gov>, Frank Hobbs <fhobbs@guilfordtp.us>, FranklinPa Stormchasers <fcpasowi@gmail.com>, Gary Himes <firefighter37@comcast.net>, "Green, Beverly M" <bgreen@firstenergycorp.com>, Greg Weller <gweller91@gmail.com>, Gregory Noll <ggnoll@scfpa.org>, Hamilton Township <hamiltontp@comcast.net>, Jacob Crider <jmcrider@franklincountypa.gov>, James Sourbier <jsourbier@waynesboropoliice.com>, Jason Stains <jason@waynesboropa.org>, Jeffrey Geesaman <jbg@washtwp-franklin.org>, Jeffrey Stonehill <jstonehill@chambersburgpa.gov>, Jim Duffey <Jim.Duffey@franklinct.com>, Jim Meek <jem@washtwp-franklin.org>, Joanne Sheets <jksheets@franklincountypa.gov>, John Epley <jepley@shippensburg.pa.us>, John Hart <jahart@franklincountypa.gov>, John Ressler <johnressler.2@gmail.com>, John Thierwechter <jthierwechter@franklincountypa.gov>, Julia Lehman <jllehman@franklincountypa.gov>, "Justin - NRCS Chambersburg, PA Atkins" <Justin.Atkins@pa.usda.gov>, Justin Shaulis <jshaulis@ccpa.net>, Justin Sholes <justin.sholes@franklinct.com>, Kelly Knepper <kknepper@franklincountypa.gov>, Kerry Bumbaugh <kerry@quincytp.org>, Kevin Berkheimer <kjberkheimer@nisource.com>, Laura Laucks <llaucks@pa.gov>, Linda Miller <lmiller@franklincountypa.gov>, Loretta McClure <ljmccclure@franklincountypa.gov>, Lurgan Township <lurgantwp@embarqmail.com>, Mark Garling <mark_garling@yahoo.com>, Mary Ann Alleman <maalleman@franklincountypa.gov>, Matthew Gordon <matthew_gordon@wasdpa.org>, Matthew Kendall <mrkendall@franklincountypa.gov>, Matthew Steinbugl - NOAA Federal <matthew.steinbugl@noaa.gov>, Melissa Kibbe <letterkenny@embarqmail.com>, Melissa Stevens <melissa.stevens@casdonline.org>, Metal Township <localgov100@embarqmail.com>, michael bock <sooflymwb@yahoo.com>, "Myers, Dale III" <dmyers@phfd.org>, Patricia Kocek <mab@comcast.net>, "Paul T. Reed" <preed@kuhncom.net>, Peter Jung - NOAA Federal <peter.jung@noaa.gov>, Peters Township Supervisors <peterstownship@comcast.net>, Phil Tarquino <ptarquino@franklincountypa.gov>, "Radford, Mari" <mari.radford@fema.dhs.gov>, Robert Povlich <rpovlich@franklincountypa.gov>, Ron Pezon <rpezon@chambersburgpa.gov>, "Sajeski, Eugene" <esajeski@pa.gov>, Samuel Thrush <sjthrush@franklincountypa.gov>, Sarah Benschhoff <slbenshoff@franklincountypa.gov>, Shawn Corwell <scorwell@greenetwp.us>, "Shively, Robert" <rshively@ccpa.net>, St Thomas township <stthomastwp@comcast.net>, Steve Nevada <sanevada@franklincountypa.gov>, Steve Sites <rescue_12@hotmail.com>, "Szabo, Ernest" <erszabo@pa.gov>, Teresa Beckner <tbeckner@franklincountypa.gov>, Tiffany Bloyer <tlbloyer@franklincountypa.gov>, Tod Kline <tod_kline@wasdpa.org>, Todd Burns <tburns@greenetwp.us>, Travis Sims <tesims@franklincountypa.gov>, Warren Bladen <wpbladen@adamscounty.us>

HMPT Members,
https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=nxpmDThLB7I.en.&cbi=gmail_fe_180530.13_p8&view=pt&msg=163da8d5a0b0fdfa&search=senti

Figure C.27.2: Posting of DRAFT HMP Documents for Local Review/Comment – Page 2 of 3

Appendix C: Correspondence/Participation/Public Outreach



Figure C.27.3: Posting of DRAFT HMP Documents for Local Review/Comment – Page 3 of 3

Appendix C: Correspondence/Participation/Public Outreach

6/8/2018 Franklin County PA Mail - Public Posting of the DRAFT HMP Documents



Robert Povlich <rwpvlich@franklincountypa.gov>

Public Posting of the DRAFT HMP Documents

Robert Povlich <rwpvlich@franklincountypa.gov> Fri, Jun 8, 2018 at 8:25 AM

To: amc267@psu.edu, barbara.mistick@wilson.edu, cherie.p.brown.civ@mail.mil, davestoner@franklinccd.org, debitner@geisinger.edu, dfarmer@summithealth.org, director@waynesboro.org, dkline@firstenergycorp.com, drock@pa.gov, edward.peters@casdonline.org, ema@huntingdoncounty.net, FD01@pa.gov, gkrotz@centurylink.net, greene@greenetwp.us, gregory.hoover@ship.k12.pa.us, gtsups@guilfordtpw.us, info@quincytwp.org, jenniferf@herald-mail.com, jhook@publicopinionnews.com, jonwilliams@summithealth.org, joseph.padasak@casdonline.org, kristin.carroll@casdonline.org, ktrail@gcasd.org, lee_barnes@csx.com, Leslie.Walter@use.salvationarmy.org, lorik@adamsec.coop, matthew.strine@tus.k12.pa.us, mgeesaman@ccschambersburg.org, mhykes@pa.gov, Montgomery Township <montgomerytpw@comcast.net>, nceditor@gmail.com, news@therecordherald.com, Newsdesk@publicopinionnews.com, rdhays@washco-md.net, rfultz@perryco.org, robbingama@pa.gov, rshamm@embarqmail.com, rstrait@co.fulton.pa.us, schristian@chambersburg.org, sharon.weigle@pa.usda.gov, southamptonfranklin@comcast.net, srperrin@spectraenergy.com, titusk@mercersburg.edu, tleiss@paturndpike.com, tmurr@cvcslazers.com, tross@valleyrec.com, victor.j.lail@dom.com, waynesboro.history@comcast.net, wshupe@nisource.com, Allen Weaver <aweaver@juniataco.org>, Allen White <allen.white@redcross.org>, Angie Petersheim <apetersheim@shalomca.com>, Anita Keller <alkeller@franklincountypa.gov>, Ann Hull <history@pa.net>, "Anthony M (Tony) CIV USARMY USAMC Zollo (US)" <anthony.m.zollo.civ@mail.mil>, Anthony Ogburn <anthony@rockbreak.com>, Barbara Watson - NOAA Federal <barbara.watson@noaa.gov>, Bill Little <wslittle@comcast.net>, Bob Thomas <rlthomas@franklincountypa.gov>, Bob Ziobrowski <rziobrowski@franklincountypa.gov>, Brad Graham <bgraham@twp.antrim.pa.us>, Carrie Gray <cegray@franklincountypa.gov>, Cassie Yost <clm275@psu.edu>, Chad Kreitz <chad.kreitz@gmail.com>, Cori Seilhamer <caseilhamer@franklincountypa.gov>, Craig Myers <craig.myers@rescuehose.com>, Dan May <robert@shopchambersburgmail.com>, Dave Finch <dfinch@chambersburgpa.gov>, Dave Keller <dkeller@franklincountypa.gov>, David Burkett <burkettd@fmtigers.org>, David Leab <leabs@innernet.net>, David Lindenmuth <djlindenmuth@gmail.com>, David Newell <davidnewell@gmail.com>, Derek Stoy <dstoy.mercersburgborough@comcast.net>, Don Clapper <dclapper@guilfordtpw.us>, Don Eshleman <deshleman28@gmail.com>, Donna Trueax <donna_trueax@wasdpa.org>, Doug Prowant <prowant@pa.net>, Doug Shields <dshields@southamptontownship.org>, Dusty Stoner <dsjr124@comcast.net>, Eden Ratliff <eratliff@greencastlepa.gov>, Eric Holtzman <eric_holtzman@wasdpa.org>, Eric Varner <evarner@phfd.org>, "Esterline, Brenda" <besterline@pa.gov>, Frank Hobbs <fhobbs@guilfordtpw.us>, FranklinPa Stormchasers <fcpascwi@gmail.com>, Gary Himes <firefighter37@comcast.net>, "Green, Beverly M" <bgreen@firstenergycorp.com>, Greg Weller <gweller91@gmail.com>, Gregory Noll <ggnoll@sctpa.org>, Hamilton Township <hamiltontpw@comcast.net>, Jacob Crider <jmcrider@franklincountypa.gov>, James Sourbier <jsourbier@waynesboropolice.com>, Jason Stains <jason@waynesboropa.org>, Jeffrey Geesaman <jbg@washtwp-franklin.org>, Jeffrey Stonehill <jstonehill@chambersburgpa.gov>, Jim Duffey <Jim.Duffey@franklinctc.com>, Jim Meek <jem@washtwp-franklin.org>, Joanne Sheets <jksheets@franklincountypa.gov>, John Epley <jepley@shippensburg.pa.us>, John Hart <jahart@franklincountypa.gov>, John Ressler <johnressler.2@gmail.com>, John Thierwechter <jkthierwechter@franklincountypa.gov>, Julia Lehman <jllehman@franklincountypa.gov>, "Justin - NRCS Chambersburg, PA Atkins" <Justin.Atkins@pa.usda.gov>, Justin Shaulis <jshaulis@ccpa.net>, Justin Sholes <justin.sholes@franklinctc.com>, Kelly Knepper <kknepper@franklincountypa.gov>, Kerry Bumbaugh <kerry@quincytwp.org>, Kevin Berkeheimer <kjberkeheimer@nisource.com>, Laura Laucks <llaucks@pa.gov>, Linda Miller <lmiller@franklincountypa.gov>, Loretta McClure <ljmccclure@franklincountypa.gov>, Lurgan Township <lurgantwp@embarqmail.com>, Mark Garling <mark_garling@yahoo.com>, Mary Ann Alleman <maalleman@franklincountypa.gov>, Matthew Gordon <matthew_gordon@wasdpa.org>, Matthew Kendall <mrkendall@franklincountypa.gov>, Matthew Steinbugl - NOAA Federal <matthew.steinbugl@noaa.gov>, Melissa Kibbe <letterkenny@embarqmail.com>, Melissa Stevens <melissa.stevens@casdonline.org>, Metal Township <localgov100@embarqmail.com>, michael bock <sooflymwb@yahoo.com>, "Myers, Dale III" <dmyers@phfd.org>, Patricia Kocek <mab@comcast.net>, "Paul T. Reed" <preed@kuhncom.net>, Peter Jung - NOAA Federal <peter.jung@noaa.gov>, Peters Township Supervisors <peterstownship@comcast.net>, Phil Tarquino <ptarquino@franklincountypa.gov>, "Radford, Mari" <mari.radford@fema.dhs.gov>, Robert Povlich <rwpvlich@franklincountypa.gov>, Ron Pezon <rpezon@chambersburgpa.gov>, "Sajeski, Eugene" <esajeski@pa.gov>, Samuel Thrush <sjthrush@franklincountypa.gov>, Sarah Benschhoff <slbenshoff@franklincountypa.gov>, Shawn Corwell <scorwell@greenetwp.us>, "Shively, Robert" <rshively@ccpa.net>, St Thomas township <stthomastwp@comcast.net>, Steve Nevada <sanevada@franklincountypa.gov>, Steve Sites <rescue_12@hotmail.com>, "Szabo, Ernest" <erszabo@pa.gov>, Teresa Beckner <tbeckner@franklincountypa.gov>, Tiffany Bloyer <tbloyer@franklincountypa.gov>, Tod Kline <tod_kline@wasdpa.org>, Todd Burns <tburns@greenetwp.us>, Travis Sims <tesims@franklincountypa.gov>, Warren Bladen <wpladen@adamscounty.us>

HMP Members,

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=r341FvO6nEs.en.&cbi=gmail_fe_180606.07_p1&view=pt&msg=163df5b6a53a57bc&search=senti

Figure C.28.1: Posting of the DRAFT HMP Documents for Public Review – Page 1 of 2

Appendix C: Correspondence/Participation/Public Outreach

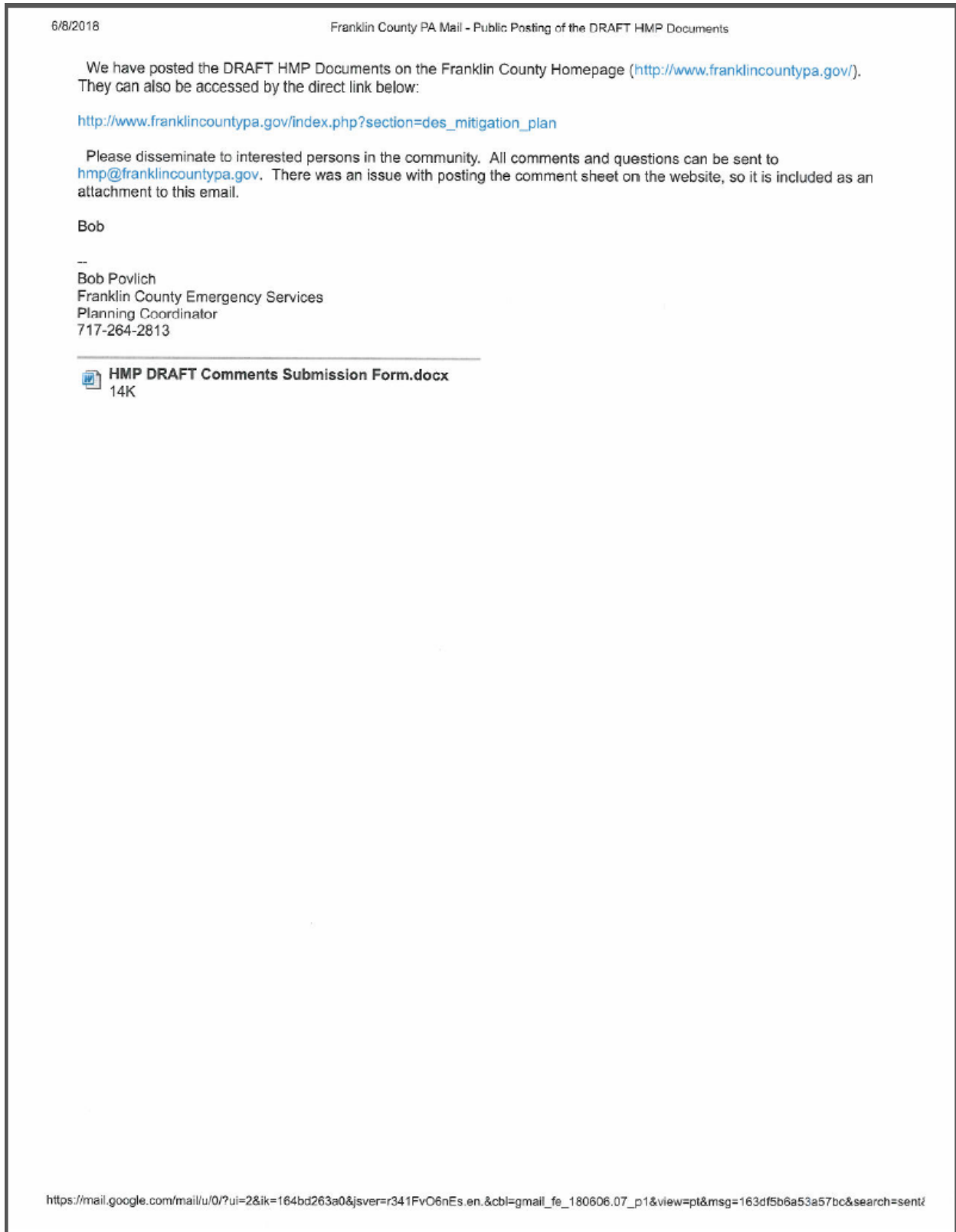


Figure C.28.2: Posting of the DRAFT HMP Documents for Public Review – Page 2 of 2

Appendix C: Correspondence/Participation/Public Outreach

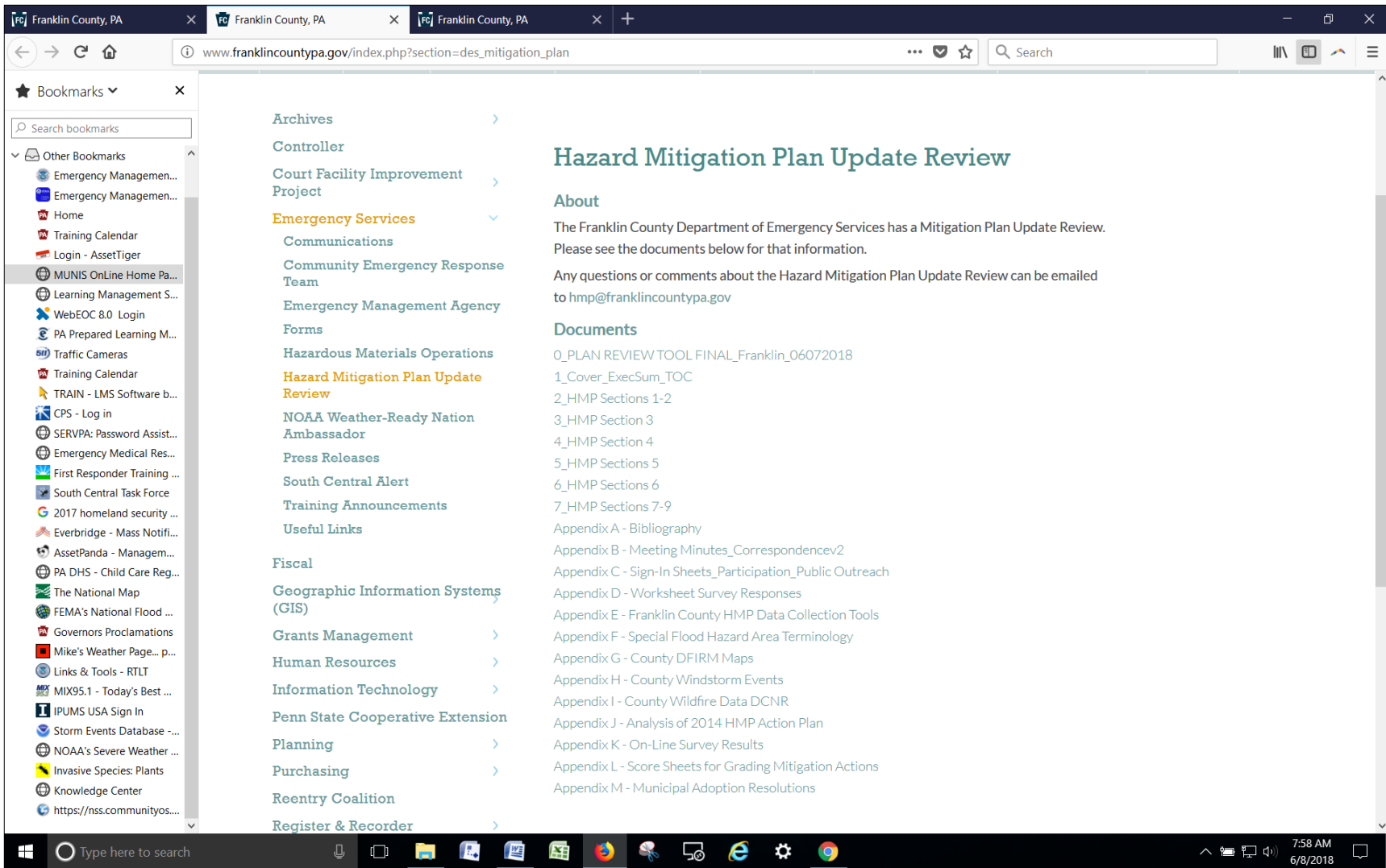


Figure C.29: Posting of DRAFT HMP Documents for Local Review/Comment (Posted 7 Jun 2018)

Appendix C: Correspondence/Participation/Public Outreach

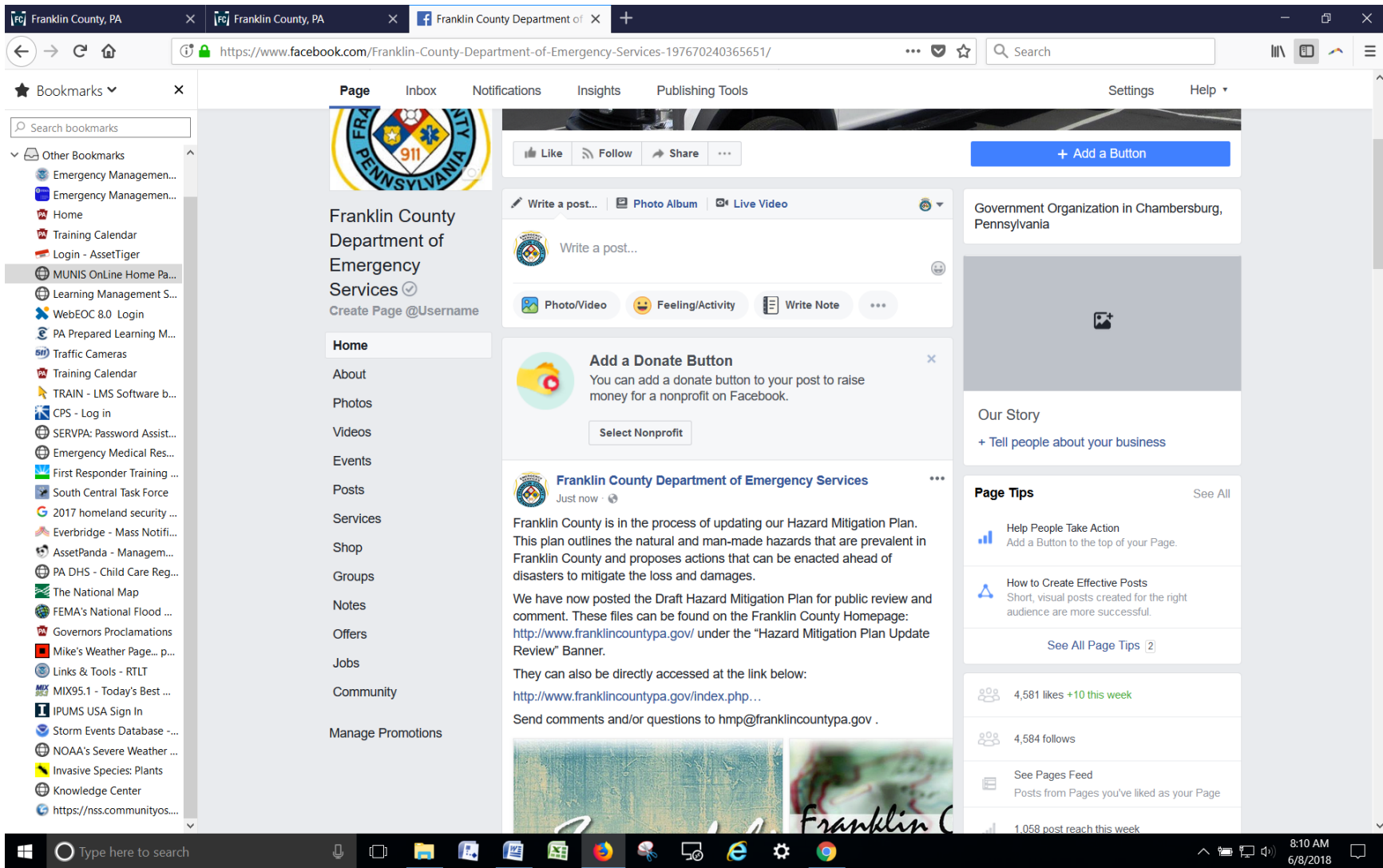


Figure C.30: Public Notice of DRAFT HMP Document Review - Facebook (Posted 8 Jun 2018)

Appendix C: Correspondence/Participation/Public Outreach

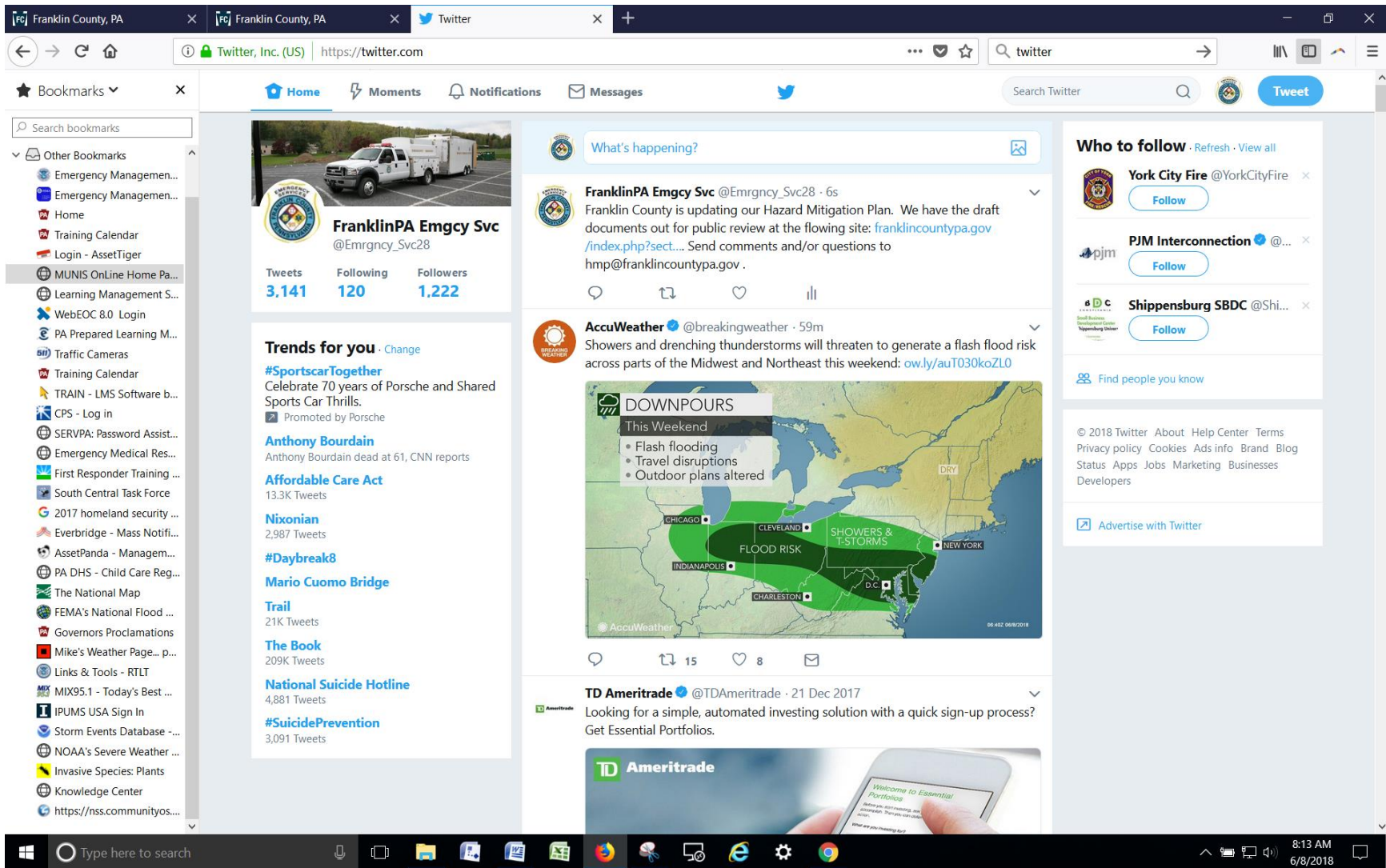


Figure C.31: Public Notice of DRAFT HMP Document Review - Twitter (Posted 8 Jun 2018)

Appendix C: Correspondence/Participation/Public Outreach

The screenshot shows a Facebook page for the Franklin County Department of Emergency Services. The main content is a post from 1 hour ago with the following text:

Franklin County Hazard Mitigation Plan is Underway. Check out our press release!

FOR IMMEDIATE RELEASE

FOR ADDITIONAL INFORMATION:
 David S. Keller, Commissioner
 Commissioners' Office
 14 North Main Street
 Chambersburg, PA 17201
 717-261-3812
 dsikeller@franklincountypa.gov

Franklin County Hazard Mitigation Plan Update is Underway
Plan Supports Safer Communities and Allows for Future Funding

June 18, 2018 – Chambersburg – The Franklin County Department of Emergency Services is leading an update of the County's Hazard Mitigation Plan (HMP). This plan identifies natural and man-made hazards and risks prevalent in Franklin County and proposes actions or projects that can be implemented ahead of disasters to reduce loss and damages, keeping our communities safer places to live.

The HMP is a foundational document that helps define the threat environment for all emergency preparedness and planning efforts in the county and supports the goals and objectives identified in the Pennsylvania State Hazard Mitigation Plan. The Federal Emergency Management Agency (FEMA) requires that counties formally update their HMP every 5 years.

The HMP is now more important than ever as it enables the municipalities in our county which adopt this plan to compete for federal disaster mitigation funding. Every mitigation grant program sponsored by FEMA requires applicants to have a federally-approved hazard mitigation plan (HMP).

The latest HMP update began in July 2017 and must be completed prior to May 2019. A team consisting of county, municipal, school district, and local industry leaders as well as members of the Franklin County general public have been involved in the updating process. The final plan will need to be approved by the Pennsylvania Emergency Management Agency (PEMA) as well as FEMA before it can be adopted at the local level.

The next HMP Update Meeting will be held on Monday, June 18th at the Franklin County Department of Emergency Services located at 390 New York Ave, Chambersburg, PA 17201 from 12pm – 2pm. This meeting is open to the public.

To review the draft of the updated Franklin County HMP, please visit: www.franklincountypa.gov. Comments on the plan may be sent to hsa@franklincountypa.gov and specific questions may be directed to Emergency Management Coordinator Jacob Corder or HMP Planning Coordinator Bob Povlich at the Franklin County Department of Emergency Services, (717) 264-2813.

###

For additional information on Franklin County visit www.franklincountypa.gov

Engagement statistics: 4,585 people like this and 4,589 people follow this.

Pages Liked by This Page: Chambersburg Borough Police, PA State Police, Waynesboro, PA Weather.

Figure C.32: Press Release of DRAFT HMP Document Review - Facebook (Posted 13 Jun 2018)

Appendix C: Correspondence/Participation/Public Outreach




Figure C.33: Press Release of DRAFT HMP Document Review - Twitter (Posted 13 Jun 2018)

Appendix C: Correspondence/Participation/Public Outreach

The screenshot shows a web browser displaying a news article on the Herald Mail website. The browser's address bar shows the URL: https://www.heraldmallmedia.com/news/tri_state/pennsylvania/meeting-set-for-monday-on-franklin-co-hazard-mitigation-plan/article_56222c04-7039-11e8-91f6-d775a08cf7d5.html. The website header includes the Herald Mail logo, the text 'HERALD-MAIL MEDIA PUBLISHING • DIGITAL • TELEVISION', and the URL 'HERALDMALLMEDIA.COM'. A weather widget in the top right corner shows '68° Fair'. A navigation bar below the header lists categories: NEWS, ELECTION 2018, OBITUARIES, SPORTS, WHAT'S NEXT, CLASSIFIEDS, JOBS, HOMES, EDITION, TRAFFIC, and MORE. A 'Hot Topics' banner mentions 'All-Washington County sports teams', 'Graduation 2018', and 'At Home Places: Spring 2018'. A red breaking news banner at the top reads 'BREAKING TRAFFIC ACCIDENT FRIDAY MORNING BUS, TRUCK CRASH SENDS 30 TO MERITUS; I-70 REOPENED' with a sub-headline 'Updated 6 min ago (0)'. Below this is a sponsored advertisement for 'WASHER AND DRYERS' with the text 'LOADS AND LOADS AND LOADS OF QUALITY' and a 'CLICK HERE' button. The main article title is 'Meeting set for Monday on Franklin Co. hazard mitigation plan', posted '11 hrs ago (0)'. The article text states: 'CHAMBERSBURG, Pa. — The Franklin County Department of Emergency Services is updating the county's hazard mitigation plan that will identify natural and man-made hazards and risks prevalent in Franklin County. The plan will propose actions or projects that can be implemented ahead of disasters to reduce loss and damages, according to a news release. The Federal Emergency Management Agency requires that counties formally update their hazard mitigation plan every 5 years. Franklin County's update began in July and must be completed before May, 2019. The team includes county, municipal, school district and local industry leaders. The next plan update meeting will be held Monday at 390 New York Ave., Chambersburg, from noon to 2 p.m. The meeting is open to the public. To review a draft of the plan, visit www.franklincountypa.gov and email comments to hmp@franklincountypa.gov.' To the right of the article is a 'CUSTOMER APPRECIATION' advertisement for Valvoline Instant Oil Change, offering '1/2 OFF- Oil Changes' on 'Friday, June 15th' from 7:30 am to 7:00 pm in Hagerstown. Below the advertisement is a 'FARM NEWS' section with three items: 'Applicants sought from young farmers' (Jun 12, 2018), 'Pa. Extension celebrates changes in 100th year' (Updated Jun 12, 2018), and 'It's time for dairy products to take their place at the table again' (Updated Jun 12, 2018). There is also a 'Md. ag department announces cover crop sign-up' (Jun 10, 2018) and a 'Bucket build' grows' (Jun 5, 2018). At the bottom of the article is an 'EDUCATION' section. The browser's taskbar at the bottom shows the Windows logo, a search bar, and various application icons. The system tray in the bottom right corner shows the time as 8:44 AM on 6/15/2018.

Figure C.34: Public Notification of HMP DRAFT and Meeting – Herald Mail (Posted 14 Jun 2018)

8/30/2019 Franklin County PA Mail - Municipal Preparations for the 2019 Franklin County HMP Update



Robert Povlich <rwповlich@franklincountypa.gov>

Municipal Preparations for the 2019 Franklin County HMP Update

1 message

Robert Povlich <rwповlich@franklincountypa.gov> Fri, Aug 16, 2019 at 2:55 PM
To: gtsups@guilfordtp.us, info@quincytwp.org, Anna Swailes <localgov100@embarqmail.com>, Bob Boyd <lurgantwp@embarqmail.com>, Brad Graham <bgraham@twp.antrim.pa.us>, Dale Myers III <dmyers@phfd.org>, Dave Finch <dfinch@chambersburgpa.gov>, David Leab <leabs@innernet.net>, David Lindenmuth <djlindenmuth@gmail.com>, Derek Stoy <dstoy.mercersburgborough@comcast.net>, Don Eshleman <deshleman28@gmail.com>, Doug Prowant <prowant@pa.net>, Doug Shields <dshields@southamptontownship.org>, Dusty Stoner <dsjr124@comcast.net>, Earl McCleaf <mab@montalborough.com>, Eden Ratliff <eratliff@greencastlepa.gov>, Eric Varner <evarner@phfd.org>, Frank Hobbs <fhobbs@guilfordtp.us>, Gary Himes <firefighter37@comcast.net>, George Rotz <rotz.fannetttownship@gmail.com>, Greg Weller <gweller91@gmail.com>, Jason Stains <jason@waynesboropa.org>, Jeffrey Geesaman <jbg@washtwp-franklin.org>, Jeffrey Stonehill <jstonehill@chambersburgpa.gov>, Jim Meek <jem@washtwp-franklin.org>, Kerry Bumbaugh <kerry@quincytwp.org>, Kevin Plasterer <kplasterer@shippensburg.pa.us>, Mark Garling <mark_garling@yahoo.com>, Melissa Kibbe <letterkenny@embarqmail.com>, michael bock <sooflymwb@yahoo.com>, Michael Kessinger <hamiltontwp@comcast.net>, "Paul T. Reed" <preed@kuhncom.net>, Paul Witter <southamptonfranklin@comcast.net>, Peters Township Supervisors <peterstownship@comcast.net>, Rachael McCarty <twp.warren.pa.us@outlook.com>, Shawn Corwell <scorwell@greenetwp.us>, Steve Sites <rescue_12@hotmail.com>, Tim Sollenberger <stthomastwp@comcast.net>
Cc: Jacob Crider <jmcrider@franklincountypa.gov>, John Thierwechter <jkthierwechter@franklincountypa.gov>, "Szabo, Ernest" <erszabo@pa.gov>, "Radford, Mari" <mari.radford@fema.dhs.gov>

Municipal Leaders/Local EMCs,

As part of the upcoming Franklin County HMP Annual update we are opening up the threat assessment rankings for your jurisdictions. What this means is that you have the opportunity to re-assess the risks to your municipality for each of the identified threats in the 2018 HMP. This gives you an opportunity to capture any changes due to current events or developing trends. Attached is an Excel spreadsheet with the threat survey and definitions on it for you to use if you choose to re-run your risk assessment. As a reminder, this threat assessment represents all opinions on risk in your municipality and we encourage you to involve as many people as possible, including the public, in making these assessments. The spreadsheet is developed to allow you to see in real-time your Risk Factor (RF) for each threat...allowing you to see what is ranked as your top priority. This way you will know right away if the rankings seem skewed or are a

<https://mail.google.com/mail/u/0?ik=164bd263a0&view=pt&search=all&permthid=thread-a%3Ar-43731262687464849%7Cmsg-a%3Ar6657358338003...> 1/2

Figure C.35.1: Request Survey Inputs for 2019 Annual HMP Update (Posted 16 Aug 2019) – Page 1 of 3

Appendix C: Correspondence/Participation/Public Outreach

8/30/2019 Franklin County PA Mail - Municipal Preparations for the 2019 Franklin County HMP Update

misrepresentation of the views of your population. When complete simply return the completed spreadsheet to me and I will integrate these new assessments into the overall county roll-up.

You do not have to change your threat assessment numbers. If they are still valid for your municipality, please let me know that you do not need to change and I will mark this portion as complete. It should be understood that as municipal rankings change, that will change the overall county roll-up of ranked threats and that is a good thing. We need to capture trends as they occur and not wait for 5 years to start planning for an evolving environment.


Additionally, you should start gathering updates (if any) to your mitigation actions or ideas for new mitigation actions you want added to the HMP as part of this update. We have already had some interest in expanding the "Dam Failure" hazard and adding new mitigation actions for it to assist a municipality in competing for federal funding. We will address any requested mitigation action additions to help you compete for federal mitigation funding. This is the time to get those changes into the plan so you can compete for this funding in 2020.

Finally, we will need any changes to municipal capabilities that you have implemented since the plan was finalized in Nov 2018. These changes would be on the order of new ordinances, zoning, building code, flood-plane management, storm water management, etc. Again, you may not have changes to either mitigation actions or municipal capabilities. If so, please respond that you have no changes and I will mark you complete.

We would like to get these updates back before 1 Oct so we can process them for the general discussion at the HMP update meeting. If you have any questions, please contact me and I will help you through the details of what we are asking. This should be a fairly simple update process, it will not be the science project we just finished for the 5-yr update.

Bob

--
Bob Povlich
Franklin County Emergency Services
Planning Coordinator
717-264-2813

 Municipal_Threat_Assessment_Survey_2019_HMP_Update.xlsx
27K

<https://mail.google.com/mail/u/07?ik=164bd263a0&view=pt&search=all&permthid=thread-a%3A43731262687464840%7Cmsg-a%3A6657358338093...> 2/2

Figure C.35.2: Request Survey Inputs for 2019 Annual HMP Update (Posted 16 Aug 2019) – Page 2 of 3

Appendix C: Correspondence/Participation/Public Outreach

Hazard	Probability (1-4)	Wt	Impact (1-4)	Wt	Spatial (1-4)	Wt	Warning Time (1-4)	Wt	Duration (1-4)	Wt	Risk Factor (RF)
Civil Disturbance		30%		30%		10%		20%	2	10%	0.2
Dam Failure		30%		30%		30%		20%	4	10%	0.4
Drought		30%		30%		30%		20%	4	10%	0.4
Earthquake		30%		30%		30%		20%	1	10%	0.1
Environmental Hazards (HAZMAT Release)		30%		30%		30%		20%	2	10%	0.2
Extreme Temperatures		30%		30%		30%		20%	3	10%	0.3
Flood, Flash Flood, Ice Jam		30%		30%		30%		20%	3	10%	0.3
Hailstorm		30%		30%		30%		20%	1	10%	0.1
Hurricane, Tropical Storm, Nor'easter		30%		30%		30%		20%	4	10%	0.4
Invasive species		30%		30%		30%		20%	4	10%	0.4
Landslide		30%		30%		30%		20%	1	10%	0.1
Lightning Strike		30%		30%		30%		20%	1	10%	0.1
Mass Food and Animal Feed Contamination		30%		30%		30%		20%	2	10%	0.2
Nuclear Incident		30%		30%		30%		20%	2	10%	0.2
Pandemic and Infectious Disease		30%		30%		30%		20%	4	10%	0.4
Radon Exposure		30%		30%		30%		20%	4	10%	0.4
Subsidence, Sinkhole		30%		30%		30%		20%	1	10%	0.1
Terrorism		30%		30%		30%		20%	1	10%	0.1
Tornado, Windstorm		30%		30%		30%		20%	2	10%	0.2
Transportation Accident		30%		30%		30%		20%	1	10%	0.1
Urban Fire and Explosion		30%		30%		30%		20%	1	10%	0.1
Utility Interruption		30%		30%		30%		20%	1	10%	0.1
Wildfire		30%		30%		30%		20%	2	10%	0.2
Winter Storm		30%		30%		30%		20%	3	10%	0.3

RF Scoring Range	Risk Factor
3.0 - 4.0	Catastrophic
2.5 - 2.9	Major
2.0 - 2.4	Moderate
1.5 - 1.9	Minor
1.0 - 1.4	Insignificant

White Cells	Gray Cells	Color Cells
Your data entry fields - enter a number (1, 2, 3, or 4 only)		
Static field - not to be changed		
Calculation Area - not to be changed		

Probability:

- 1 - Unlikely: Less than 1% annual probability
- 2 - Possible: Between 1 and 50% annual probability
- 3 - Likely: Between 50 and 90% annual probability
- 4 - Highly Likely: Greater than 90% annual probability

Impact:

- 1 - Very few injuries; Minor property damage; Minimal impact to critical facilities
- 2 - Minor injuries; Greater than 10% property damage in zone; Critical facilities impacted greater than 1 day
- 3 - Multiple deaths/injuries; Greater than 25% property damage in zone; Critical facilities impacted for greater than 1 week
- 4 - High number of deaths/injuries; Greater than 50% property damage in zone; Critical facilities impacted for greater than 30 days

Spatial:

- 1 - Less than 1% of municipality affected
- 2 - Between 1 and 10% of municipality affected
- 3 - Between 10 and 50% of municipality affected
- 4 - Between 50 and 100% of municipality affected

Warning Time:


- 1 - More than 24 hrs
- 2 - 12 to 24 hrs
- 3 - 6 to 12 hrs
- 4 - less than 6 hrs

Duration:

For consistency across the state and county, these numbers are tied to the assessments in the PA HMP dated 2018.

Figure C.35.3: Request Survey Inputs for 2019 Annual HMP Update (Posted 16 Aug 2019) – Page 3 of 3

rwpovlich@franklincountypa.gov



Annual Franklin County HMP Update Meeting

Created by: rwpovlich@franklincountypa.gov · Your response: ✓ Yes, I'm going

Time
10am - 11:30am (Eastern Time - New York)

Date
Fri Oct 18, 2019

Where
Franklin County Public Safety Training Center, 3075 Molly Pitcher Hwy, Chambersburg, PA 17202, USA

Description
HMP Partners,

Due to the very positive response to the update meeting, we are going to have to change the venue of the HMP Update meeting. We have over 40 partners attending with about 10 others that are possible.

We are moving the meeting to the Franklin County Public Safety Training Center at 3075 S. Molly Pitcher Hwy. This venue can hold up to 60 persons comfortably, so we will have ample space to hold the meeting and discussions. We understand this may change some partner's ability to attend and we do apologize for that. We simply need to make sure we have enough space to everyone to participate in the meeting.

Please let me know if have questions or concerns

Guests

- ✓ anthony.m.zollo.civ@mail.mil
- ✓ bgraham@twp.antrim.pa.us
- ✓ Bryan Stevenson
- ✓ Cori Seilhamer
- ✓ Carrie Gray
- ✓ clm275@psu.edu
- ✓ dfinch@chambersburgpa.gov
- ✓ dshields@southamptontownship.org
- ✓ Dave Keller
- ✓ eratliff@greencastlepa.gov
- ✓ fhobbs@guilfordtwp.us
- ✓ gary.carter@casdonline.org
- ✓ hamiltontwp@comcast.net
- +2 guests
- Randy Negley, Deb Hollenshead - Secretary, possibly Rich Troup - Twp Supv
- ✓ jbg@washtwp-franklin.org
- ✓ jcrowde@firstenergycorp.com
- ✓ jim.duffey@franklinctc.com
- ✓ Joanne Sheets
- ✓ John Thierwechter
- ✓ Jacob Crider
- ✓ Jason Miller
- ✓ jshaulis@ccpa.net
- ✓ jwilliams43@wellspan.org
- ✓ leiter@waynesboropa.org
- ✓ localgov100@embarqmail.com
- We reviewed current HMP last evening & have no changes. Will still attend.
- ✓ lurgantwp@embarqmail.com
- ✓ lwithkowski@ccschambersburg.org
- ✓ Matthew Kendall
- ✓ preed@kuhncom.net
- ✓ Bob Thomas
- ✓ Robert Povlich
- ✓ Steve Nevada
- ✓ schristian@chambersburg.org
- ✓ scorwell@greenetwp.us
- ✓ Sarah Benschhoff
- ✓ Travis Sims
- ✓ William Smith
- ✓ wshupe@nisource.com
- ? amc267@psu.edu
- ? burkettd@fmtigers.org
- ? dalemyers@embarqmail.com
- ?

Figure C.36.1: Meeting Invite for 18 Oct 2019 Annual HMP Update Meeting (29 Aug 2019) – Page 1 of 3

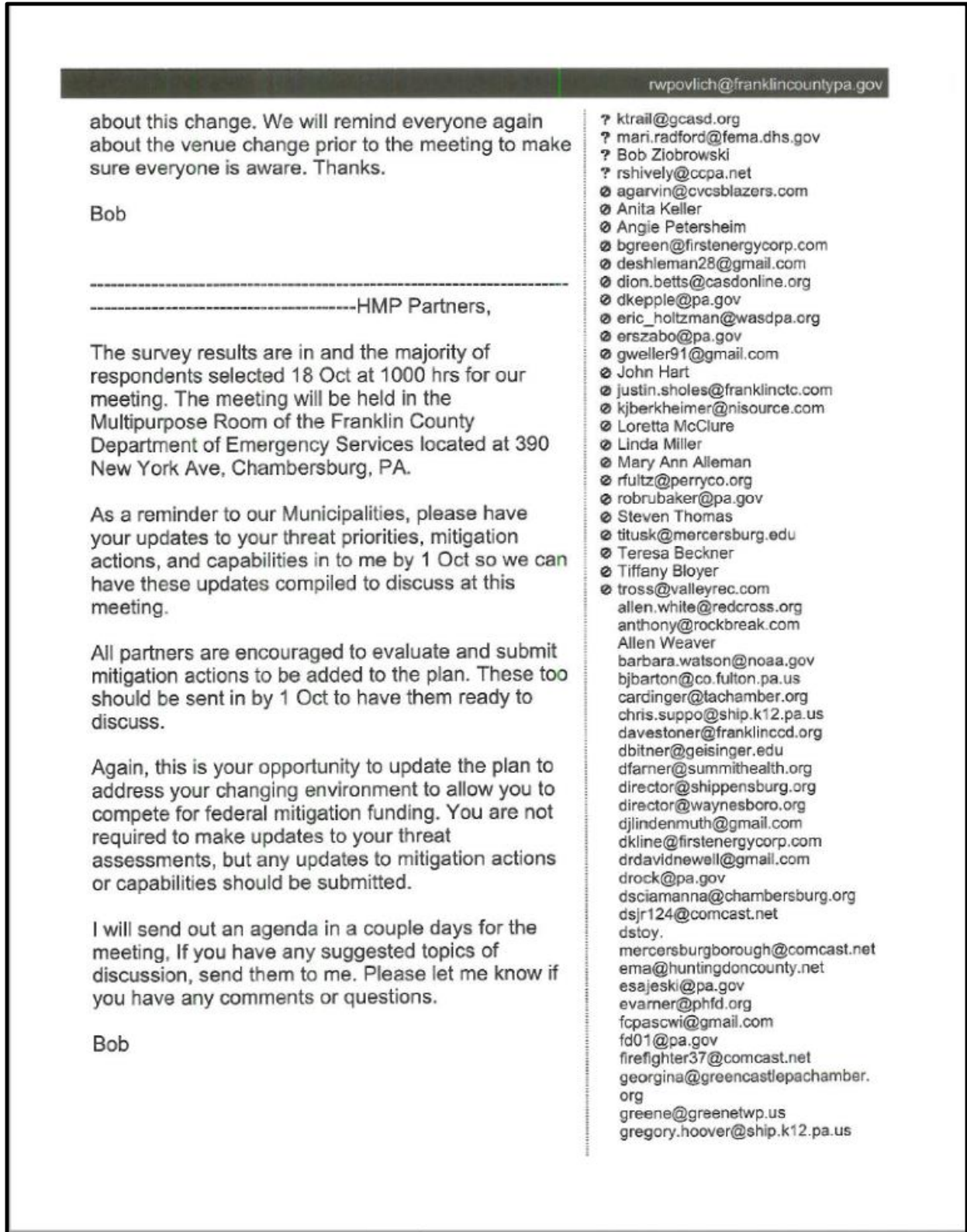



Figure C.36.2: Meeting Invite for 18 Oct 2019 Annual HMP Update Meeting (29 Aug 2019) – Page 2 of 3

Appendix C: Correspondence/Participation/Public Outreach



Figure C.36.3: Meeting Invite for 18 Oct 2019 Annual HMP Update Meeting (29 Aug 2019) – Page 3 of 3

11/26/2019 Franklin County PA Mail - Fwd: FW: Amendment Letter for Franklin County, Pennsylvania



Robert Povlich <rwповlich@franklincountypa.gov>

Fwd: FW: Amendment Letter for Franklin County, Pennsylvania
1 message

Robert Povlich <rwповlich@franklincountypa.gov> Thu, Nov 14, 2019 at 12:00 PM
To: Leiter <Leiter@waynesboropa.org>
Cc: Jacob Crider <jmcrider@franklincountypa.gov>

Mr Pryor,

Attached you will find the PEMA endorsement and the FEMA approval letter for the addition of your mitigation action to the 2018 Franklin County Hazard Mitigation Plan.

As far as FEMA is concerned the project is now "in the plan". We are currently updating our Hazard Mitigation Plan (annual update), so this new mitigation action will show up as part of the updated plan posted on our website once the annual update is done. However, if you have need to submit paperwork for potential federal funding, this mitigation action is considered by FEMA and PEMA as part of our HMP plan as of the date of this letter, so that will not delay your submission.

Let me know if you have questions.

Bob

----- Forwarded message -----
From: Szabo, Ernest <erszabo@pa.gov>
Date: Thu, Nov 14, 2019 at 11:10 AM
Subject: FW: Amendment Letter for Franklin County, Pennsylvania
To: John Thierwechter <jkthierwechter@franklincountypa.gov>, rwповlich@franklincountypa.gov <rwповlich@franklincountypa.gov>, Franklin 2 <jmcrider@franklincountypa.gov>
Cc: Kerstetter, James <jamkerstet@pa.gov>, Laucks, Laura <llaucks@pa.gov>, Boylstein, Fred <fboylstein@pa.gov>, Hughes, Thomas (PEMA) <thughes@pa.gov>

<https://mail.google.com/mail/u/0/?ik=164bd263a0&view=pt&search=all&permthid=thread-f%3A1650194212144961132%7Cmsg-a%3A247898270820...> 1/3

Figure C.37.1: Request/Approval to add Mitigation Action (Waynesboro Municipal Authority) – Page 1 of 8

Appendix C: Correspondence/Participation/Public Outreach

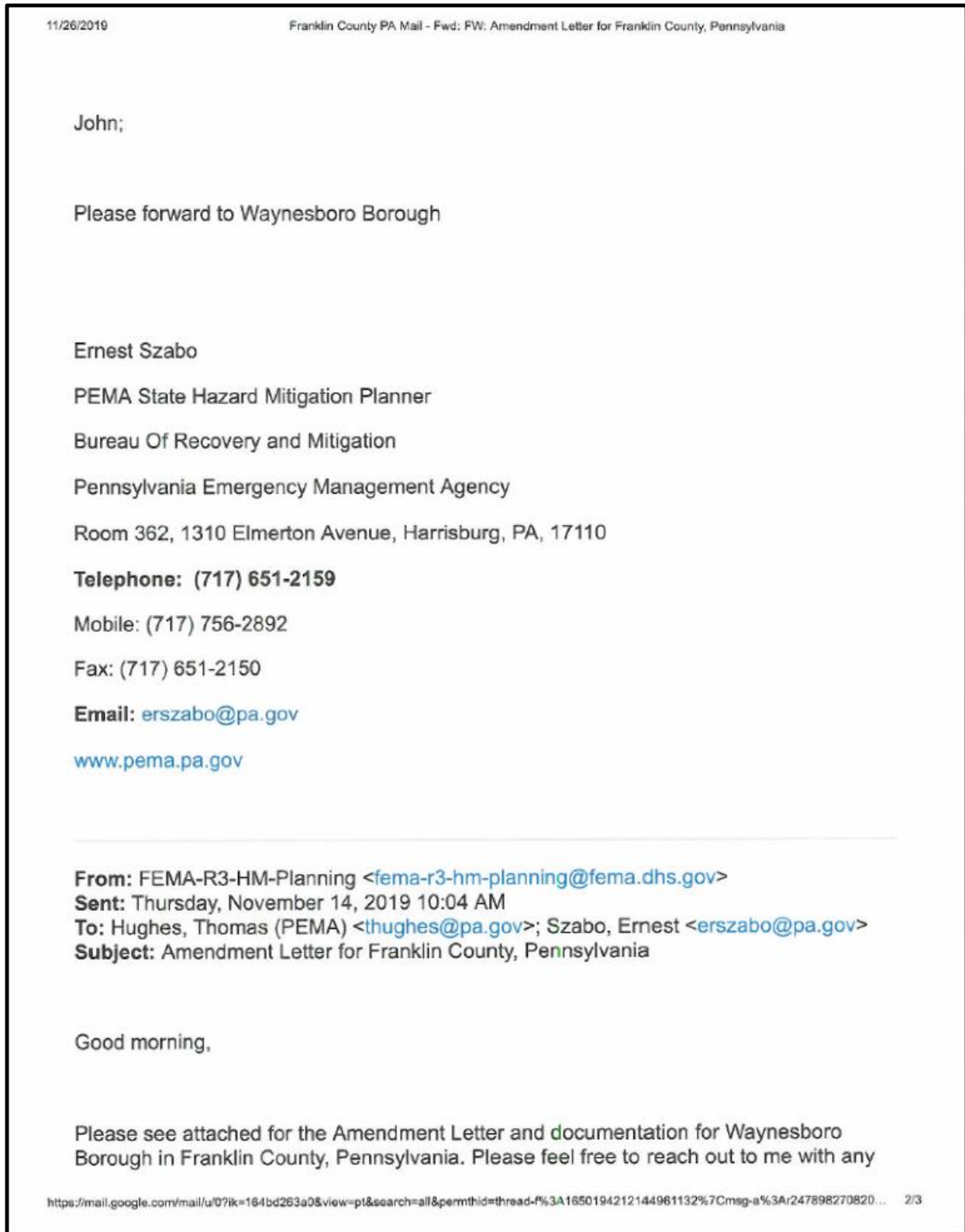


Figure C.37.2: Request/Approval to add Mitigation Action (Waynesboro Municipal Authority) – Page 2 of 8

Appendix C: Correspondence/Participation/Public Outreach

11/26/2019 Franklin County PA Mail - Fwd: FW: Amendment Letter for Franklin County, Pennsylvania


questions or concerns.


Alyssa

Alyssa Geohan
322 Correspondence Coordinator
Region III
615 Chestnut Street
Philadelphia, Pennsylvania 19106

--
Bob Povlich
Franklin County Emergency Services
Planning Coordinator
717-264-2813

2 attachments

 420473 Franklin County Waynesboro Borough Amendment Letter 11062019.pdf
125K

 420473 Franklin County Waynesboro Borough Amendment Documentation 11062019.pdf
293K

<https://mail.google.com/mail/u/0?ik=164bd263a0&view=pt&search=all&permthid=thread-f%3A1650194212144961132%7Cmsg-a%3Ar247898270820...> 3/3

Figure C.37.3: Request/Approval to add Mitigation Action (Waynesboro Municipal Authority) – Page 3 of 8

Appendix C: Correspondence/Participation/Public Outreach

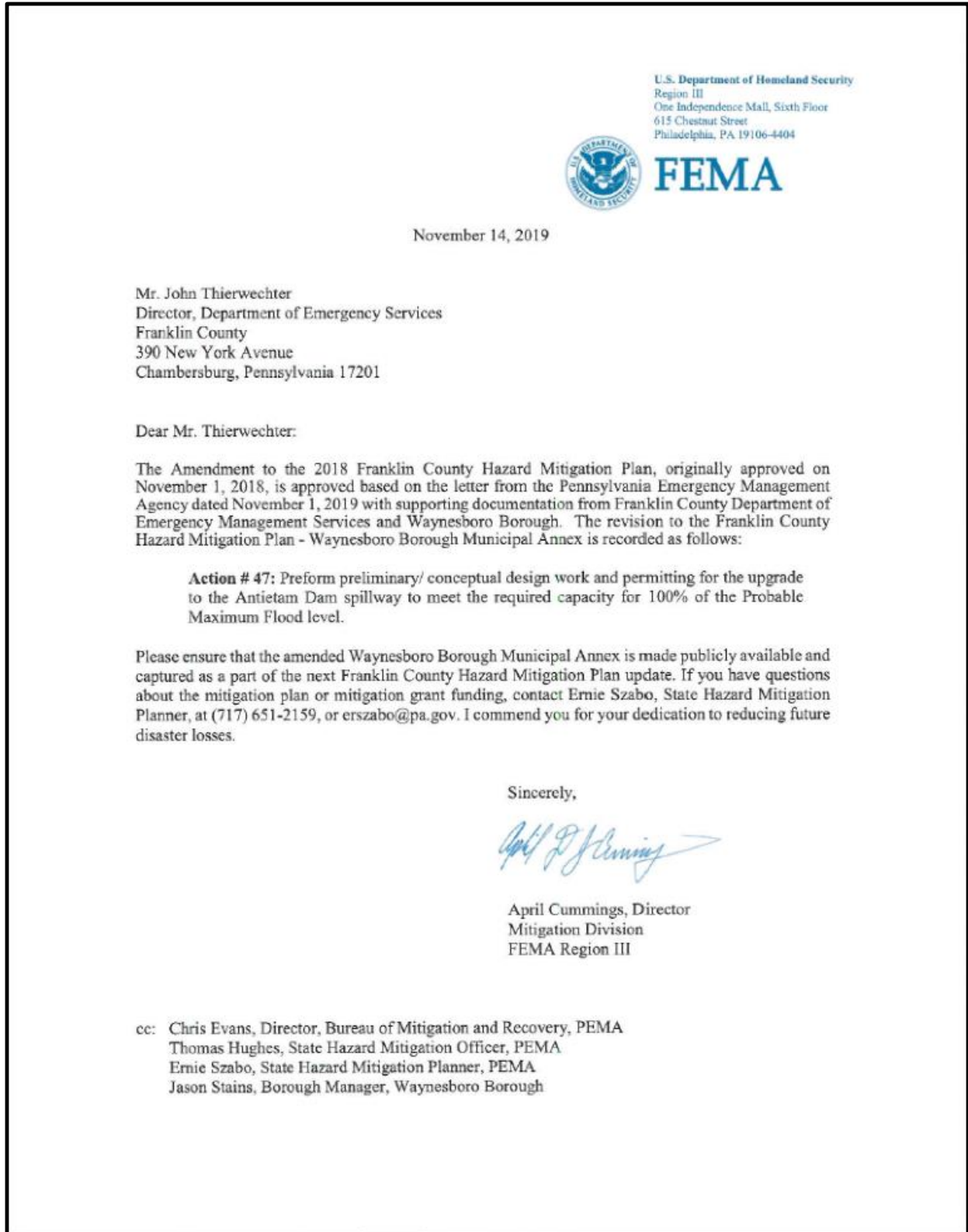


Figure C.37.4: Request/Approval to add Mitigation Action (Waynesboro Municipal Authority) – Page 4 of 8

Appendix C: Correspondence/Participation/Public Outreach



November 1, 2019

Ms. April Cummings
Director, Mitigation Division
Federal Emergency Management Agency, Region III
615 Chestnut Street, Sixth Floor
Philadelphia, Pennsylvania 19106-4404

RE: Waynesboro Amendment to the Franklin County Hazard Mitigation Plan

Dear Ms. Cummings:

Enclosed for your review and approval is an amendment to the Franklin County Hazard Mitigation Plan for Waynesboro Borough.

This amendment will support Hazard Mitigation projects to prevent catastrophic flooding within the borough. This project was not in the original FEMA approved County Hazard Mitigation plan which was approved October 31, 2018.

Should you have any questions or concerns, please contact Mr. Thomas Hughes, Bureau of Recovery and Mitigation, at 717-651-2726 or via email at thughes@pa.gov.

Sincerely,

Chris D. Evans
Acting Director, Bureau of Recovery and Mitigation

Enclosures

cc: Ms. April Cummings, Federal Emergency Management Agency, Region III
Ms. Mari Radford, Federal Emergency Management Agency, Region III
Mr. John Thierwechter, Director, Franklin County Emergency Services
Mr. Jason Stains, Waynesboro Borough Manager

Pennsylvania Emergency Management Agency
1310 Elmerton Drive | Harrisburg, PA 17110 | 800-Hbg-PEMA | www.pema.state.pa.us

Figure C.37.5: Request/Approval to add Mitigation Action (Waynesboro Municipal Authority) – Page 5 of 8

Appendix C: Correspondence/Participation/Public Outreach

Ms. April Cummings
Nov 1, 2019
Page 2

EAS/sr

bcc: Ms. Paula Wilcox, Deputy Director for Administration
Mr. Fred Boylstein, Director, PEMA Central Area Office
Mr. James Kerstetter, PEMA Central Area Office
Ms. Laura Laucks, PEMA Central Area Office

Figure C.37.6: Request/Approval to add Mitigation Action (Waynesboro Municipal Authority) – Page 6 of 8

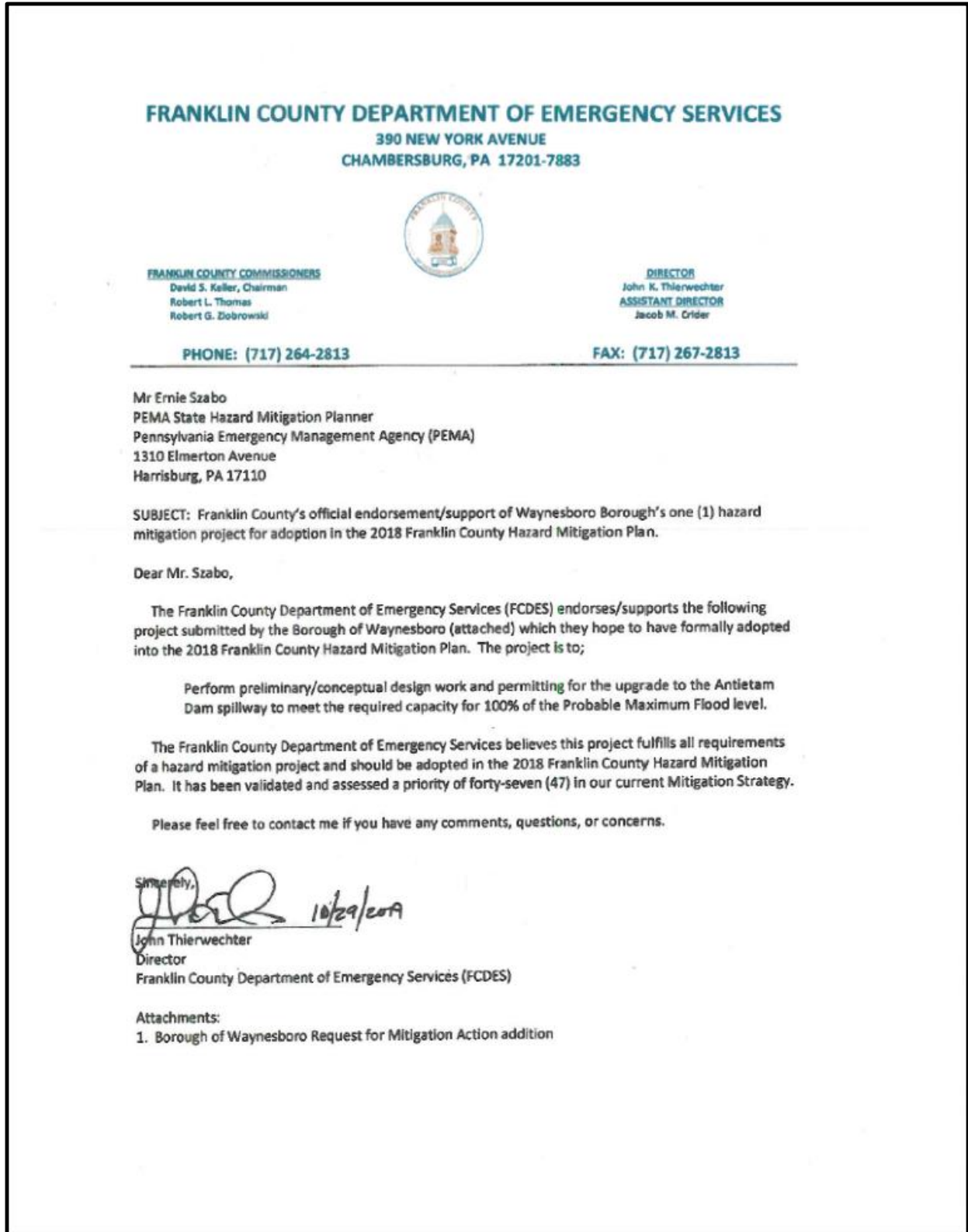


Figure C.37.7: Request/Approval to add Mitigation Action (Waynesboro Municipal Authority) – Page 7 of 8



The Borough of Waynesboro

OFFICE OF BOROUGH MANAGER
 55 EAST MAIN STREET, P.O. BOX 310
 WAYNESBORO, PENNSYLVANIA 17268
 (717) 762-2101 TELEPHONE
 (717) 762-4707 FAX
 www.WAYNESBOROPA.ORG

29 October 2019

From: Jason Stains
 Borough Manager
 Borough of Waynesboro
 55 East Main Street
 Waynesboro, PA 17268

To: Mr. Thomas S. Hughes
 State Hazard Mitigation Officer
 Pennsylvania Emergency Management Agency (PEMA)
 1310 Elmerton Avenue
 Harrisburg, PA 17110

Dear Mr. Hughes,

We are requesting the following addition to the current 2018 Franklin County Hazard Mitigation Plan. We are requesting to add the following Mitigation Action to the current Mitigation Strategy. This new Mitigation Action would be number forty-seven (47) under the 2018 Mitigation Strategy.


COMMUNITY: Washington Township	ACTION 4B6: Perform preliminary/conceptual design work and permitting for the upgrade to the Antietam Dam spillway to meet the required capacity for 100% of the Probable Maximum Flood level.
ACTION: 47	
MITIGATION TECHNIQUE(S):	Structural and Infrastructure Projects
HAZARD(S) ADDRESSED:	Dam Failure; Flood, Flash Flood & Ice Jam
LEAD AGENCY/ DEPARTMENT:	Waynesboro Borough Authority
IMPLEMENTATION SCHEDULE:	Within 5 years
FUNDING SOURCE:	Staff Time; Municipal General Account; FEMA Hazard Mitigation Assistance Programs

Sincerely,

Jason Stains
 Waynesboro Borough Manager

Figure C.37.8: Request/Approval to add Mitigation Action (Waynesboro Municipal Authority) – Page 8 of 8

Appendix C: Correspondence/Participation/Public Outreach

Mary Seville <mkseville@franklincountypa.gov>

Annual Hazard Mitigation Plan Update

1 message

Mary Seville <mkseville@franklincountypa.gov> Wed, Oct 7, 2020 at 2:46 PM

To: gtsups@guilfordtwp.us, info@quincytwp.org, lurgantwp@embarqmail.com, bgraham@twp.antrim.pa.us, dfinch@chambersburgpa.gov, leabs@innet.net, djilindenmuth@gmail.com, dstoy.mercersburgborough@comcast.net, deshleman28@gmail.com, prowant@pa.net, dshields@southamptontownship.org, dsjr124@comcast.net, mab@montaltoborough.com, evarner@phfd.org, fhobbs@guilfordtwp.us, firefighter37@comcast.net, rotz.fannettownship@gmail.com, gweller91@gmail.com, jason@waynesboropa.org, jbg@washtwp-franklin.org, jstonehill@chambersburgpa.gov, jem@washtwp-franklin.org, kerry@quincytwp.org, kplasterer@shippensburg.pa.us, mark_garling@yahoo.com, letterkenny@embarqmail.com, sooffymwb@yahoo.com, hamiltontwp@comcast.net, preed@kuhncom.net, southamptonfranklin@comcast.net, peterstownship@comcast.net, twp.warren.pa.us@outlook.com, Shawn Corwell <scorwell@greenetwp.us>, rescue_12@hotmail.com, stthomastwp@comcast.net, dalemyers@embarqmail.com, eratliff@greencastlepa.gov, localgov100@embarqmail.com, greene@greenetwp.us, montgmerytwp@comcast.net, office@greencastlepa.gov

Cc: Jacob Crider <jmcrider@franklincountypa.gov>, Robert Povlich <rwovlich@franklincountypa.gov>, "Szabo, Ernest" <erszabo@pa.gov>, mari.radford@fema.dhs.gov

Municipal Leaders/Local EMCs,

Good afternoon! My name is Mary K. Seville and I am the new planning coordinator with the Department of Emergency Services. I will be working with you on the Hazard Mitigation Plan (HMP) update.

As part of the upcoming Franklin County HMP Annual update, we are opening up the threat assessment rankings for your jurisdictions. What this means is that you have the opportunity to re-assess the risks to your municipality for each of the identified threats in the 2019 HMP. This gives you an opportunity to capture any changes due to current events or developing trends, and this year has certainly been challenging! Attached is an Excel spreadsheet with the threat survey and definitions on it for you to use if you choose to re-run your risk assessment. As a reminder, this threat assessment represents all opinions on risk in your municipality and we encourage you to involve as many people as possible, including the public, in making these assessments. The spreadsheet is developed to allow you to see in real-time your Risk Factor (RF) for each threat, allowing you to see what is ranked as your top priority. This way you will know right away if the rankings seem right. When complete, simply return the completed spreadsheet to me and I will integrate these new assessments into the overall county assessment.

You do not have to change your threat assessment numbers. If they are still valid for your municipality, please let me know that there are no changes and I will mark this portion as complete. It should be understood that as municipal rankings change, that will change the overall county assessment of ranked threats and that is a good thing. We need to capture trends as they occur and not wait for the next full update in 3 years to start planning.

You should also start gathering updates (if any) to your mitigation actions or ideas for new mitigation actions you want added to the HMP as part of this update. We will address any requested mitigation action additions to help you compete for federal mitigation funding. This is the time to get those changes into the plan so you can compete for this funding next year.

Finally, we will need any changes to municipal capabilities that you have implemented since the plan was updated last December. These changes would be any new ordinances, zoning, building code, floodplain management, stormwater management, etc. Again, you may not have changes to either mitigation actions or municipal capabilities. If so, please respond that you have no changes and I will mark you complete.

We would like to get any updates back by November 25 so we can process them for the general discussion at the HMP update meeting in December. I will be sending out a survey in a couple weeks with possible dates for that meeting. If you have any questions, please feel free to contact me. I look forward to working with you all through this process!

Thanks,
Mary K.

—
Mary K. Seville

Figure C.38.1: Request Survey Inputs for 2020 Annual HMP Update (Posted 7 Oct 2020) – Page 1 of 3

Appendix C: Correspondence/Participation/Public Outreach

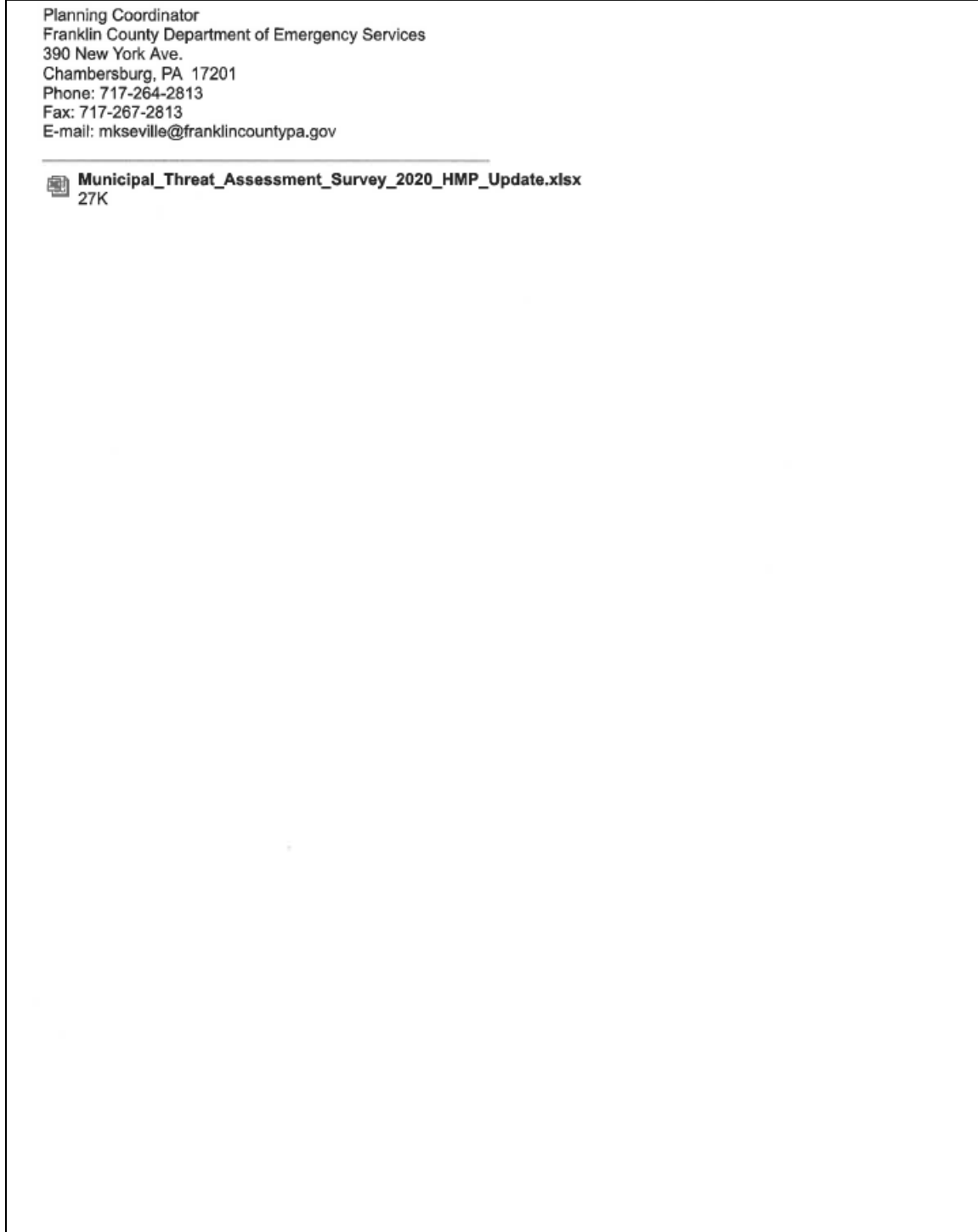



Figure C.38.2: Request Survey Inputs for 2020 Annual HMP Update (Posted 7 Oct 2020) – Page 2 of 3

Appendix C: Correspondence/Participation/Public Outreach

Hazard	Probability (1-4)	Wt	Impact (1-4)	Wt	Spatial (1-4)	Wt	Warning Time (1-4)	Wt	Duration (1-4)	Wt	Risk Factor (RF)	RF Scoring Range	
Civil Disturbance		30%		30%		20%		10%	2	10%	0.2	Catastrophic	3.0 - 4.0
Dam Failure		30%		30%		20%		10%	4	10%	0.4	Major	2.5 - 2.9
Drought		30%		30%		20%		10%	4	10%	0.4	Moderate	2.0 - 2.4
Earthquake		30%		30%		20%		10%	1	10%	0.1	Minor	1.5 - 1.9
Environmental Hazards (HAZMAT Release)		30%		30%		20%		10%	2	10%	0.2	Insignificant	1.0 - 1.4
Extreme Temperatures		30%		30%		20%		10%	3	10%	0.3		
Flood, Flash Flood, Ice Jam		30%		30%		20%		10%	3	10%	0.3		
Hailstorm		30%		30%		20%		10%	1	10%	0.1		
Hurricane, Tropical Storm, Nor'easter		30%		30%		20%		10%	4	10%	0.4		
Invasive species		30%		30%		20%		10%	4	10%	0.4		
Landslide		30%		30%		20%		10%	1	10%	0.1		
Lightning Strike		30%		30%		20%		10%	1	10%	0.1		
Mass Food and Animal Feed Contamination		30%		30%		20%		10%	2	10%	0.2		
Nuclear Incident		30%		30%		20%		10%	4	10%	0.4		
Pandemic and Infectious Disease		30%		30%		20%		10%	4	10%	0.4		
Radon Exposure		30%		30%		20%		10%	4	10%	0.4		
Subsidence, Sinkhole		30%		30%		20%		10%	1	10%	0.1		
Terrorism		30%		30%		20%		10%	2	10%	0.2		
Tornado, Windstorm		30%		30%		20%		10%	1	10%	0.1		
Transportation Accident		30%		30%		20%		10%	1	10%	0.1		
Urban Fire and Explosion		30%		30%		20%		10%	1	10%	0.1		
Utility Interruption		30%		30%		20%		10%	2	10%	0.2		
Wildfire		30%		30%		20%		10%	2	10%	0.2		
Winter Storm		30%		30%		20%		10%	3	10%	0.3		
White Cells	Your data entry fields - enter a number (1, 2, 3, or 4 only)												
Gray Cells	Static field - not to be changed												
Color Cells	Calculation Area - not to be changed												
Probability:													
1 - Unlikely: Less than 1% annual probability													
2 - Possible: Between 1 and 50% annual probability													
3 - Likely: Between 50 and 90% annual probability													
4 - Highly Likely: Greater than 90% annual probability													
Impact:													
1 - Very few injuries; Minor property damage; Minimal impact to critical facilities													
2 - Minor injuries; Greater than 10% property damage in zone; Critical facilities impacted greater than 1 day													
3 - Multiple deaths/injuries; Greater than 25% property damage in zone; Critical facilities impacted for greater than 1 week													
4 - High number of deaths/injuries; Greater than 50% property damage in zone; Critical facilities impacted for greater than 30 days													
Spatial:													
1 - Less than 1% of municipality affected													
2 - Between 1 and 10% of municipality affected													
3 - Between 10 and 50% of municipality affected													
4 - Between 50 and 100% of municipality affected													
Warning Time:													
1 - More than 24 hrs													
2 - 12 to 24 hrs													
3 - 6 to 12 hrs													
4 - less than 6 hrs													
Duration:													
For consistency across the state and county, these numbers are tied to the assessments in the PA HMP dated 2018.													

Figure C.38.3: Request Survey Inputs for 2020 Annual HMP Update (Posted 7 Oct 2020) – Page 3 of 3

mkseville@franklincountypa.gov



Virtual - Franklin County HMP Annual Update Meeting

Created by: mkseville@franklincountypa.gov your response Yes, I'm going

Time
1pm - 2:30pm (Eastern Time - New York)

Date
Wed Dec 9, 2020

Description
All,

The Hazard Mitigation Plan (HMP) Annual Update Meeting will be held on Wednesday, December 9 at 1:00 p.m. This will be a virtual meeting with Google Meet, due to the increase in COVID-19 cases.

Sorry if you are receiving this invitation again. I'm merging e-mail groups/contacts, and also updating this meeting to a virtual one.

Let me know if you have any questions.

Thanks,
Mary K.

Guests

- ✓ Angie Petersheim
- ✓ Bryan Stevenson
- ✓ Cori Seilhamer
- ✓ Carrie Gray
- ✓ dfinch@chambersburgpa.gov
- ✓ eric_holtzman@wasdpa.org
- ✓ Jim Duffey
- ✓ Joanne Sheets
- ✓ Jacob Crider
- ✓ Kimberly Mills
- ✓ kplasterer@shippensburg.pa.us
- ✓ Mary Seville
- ✓ Shawn Corwell
- ✓ Steven Thomas
- ✓ Sarah Benschoff
- ✓ wshupe@nisource.com
- ? Allen White
- ? amc267@psu.edu
- ? Brian Barton
- ? John Thierwechter
I will attend if the Commissioner's Meeting doesn't interfere.
- ? tleiss@paturndike.com
- ? tod_kline@wasdpa.org
- ✉ lorik@adamsec.coop
- ✉ Bob Zlobrowski
agarvin@cvcsblazers.com
- Anita Keller
- Anthony M (Tony) CIV USARMY
- USAMC Zollo (US)
- Anthony Ogburn
- Allen Weaver
- barbara.watson@noaa.gov
- Brad Graham
- Beverly Green
- Bob Manahan
- David Burkett
- cardinger@tachamber.org
- chris.suppo@ship.k12.pa.us
- Dale Myers III
- davestoner@franklinccd.org
- Bitner, Douglas E.
- deshleman28@gmail.com
- dfarner@summithealth.org
- dion.betts@casdonline.org
- director@shippensburg.org

Figure C.39.1: Meeting Invite for 9 Dec 2020 Annual HMP Update Meeting (10 Nov 2020) – Page 1 of 3

Appendix C: Correspondence/Participation/Public Outreach

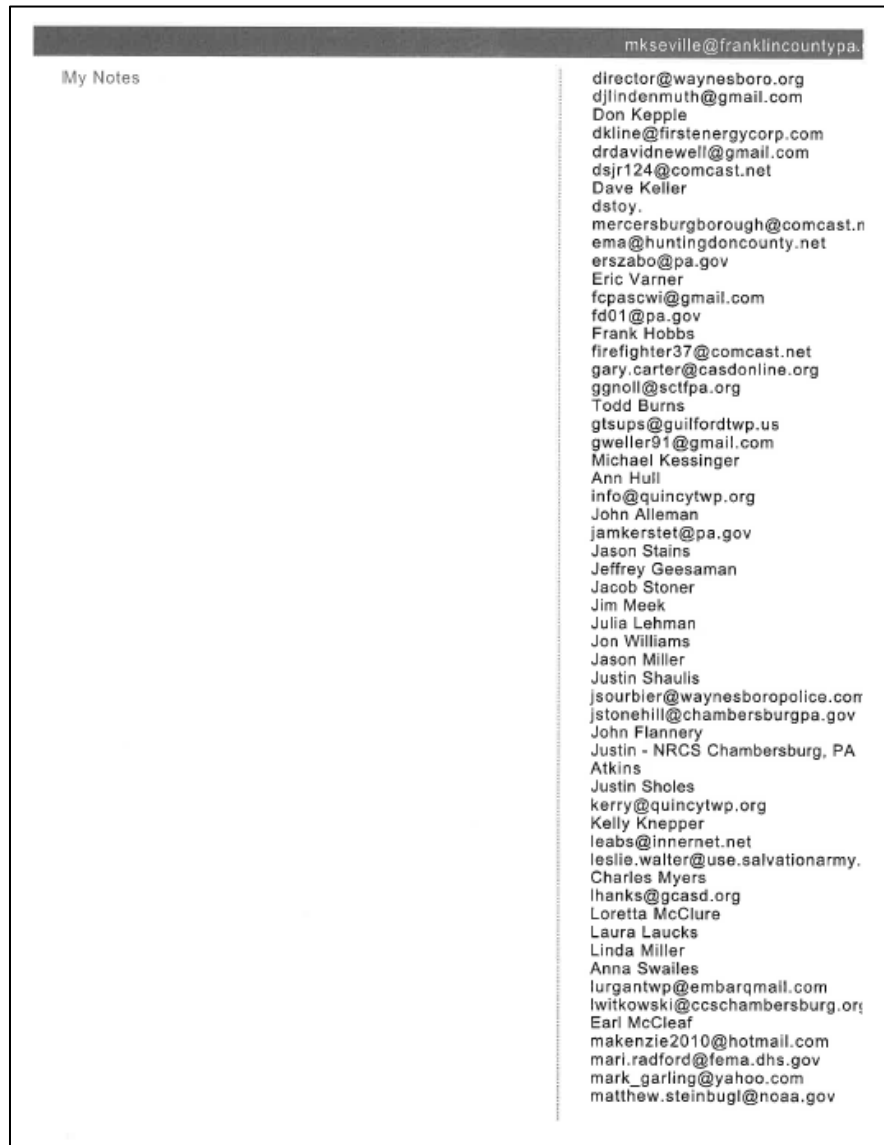


Figure C.39.2: Meeting Invite for 9 Dec 2020 Annual HMP Update Meeting (10 Nov 2020) – Page 2 of 3

Appendix C: Correspondence/Participation/Public Outreach

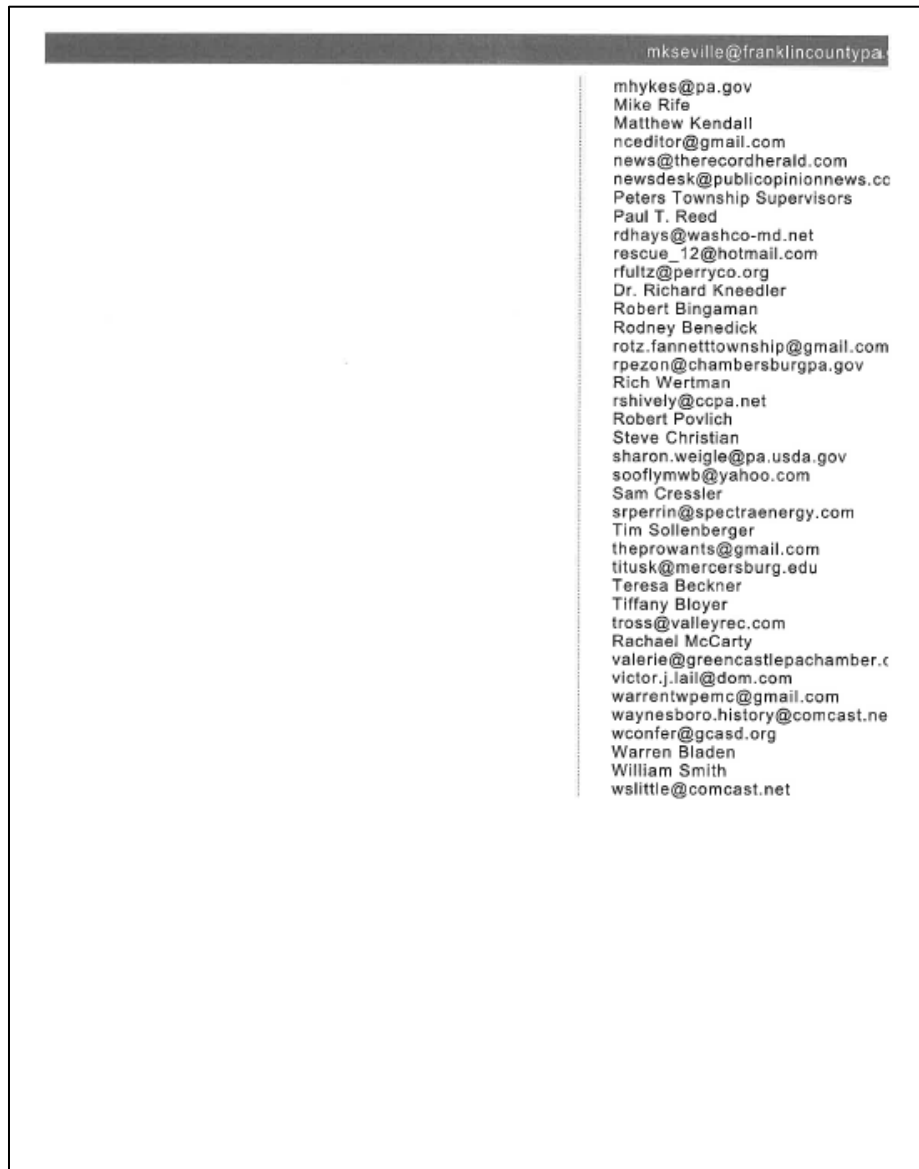


Figure C.39.3: Meeting Invite for 9 Dec 2020 Annual HMP Update Meeting (10 Nov 2020) – Page 3 of 3

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: <i>BRAD GRAHAM</i>		Organization: <i>ANTRIM TOWNSHIP</i>		Date: <i>9/13/17</i>
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	2	1	1
Dam Failure (High Hazard Dams)	1	2	2	1
Drought	2	3	1	3
Earthquake	1	3	4	2
Environmental Hazards (HAZMAT Release)	2	3	4	2
Extreme Temperature	2	4	1	2
Flood, Flash Flood, Ice Jam	2	2	1	2
Hailstorm	2	3	2	2
Hurricane, Tropical Storm, Nor'Easter	3	4	1	2
Invasive Species	2	3	1	2
Landslide	1	1	4	2
Lightning Strike	3	2	4	2
Mass Food and Animal Feed Contamination	1	2	1	2
Nuclear Incident	2	2	4	2
Pandemic and Infectious Disease	2	2	1	2
Radon Exposure	2	3	1	1
Subsidence, Sinkhole	3	1	4	2
Terrorism	2	2	4	1
Tornado, Windstorm	4	3	2	2
Transportation Accident (Air/Rail/Highway)	4	3	4	3
Urban Fire and Explosion	2	2	4	2
Utility Interruption (Comm/Power/Water/Sewage)	2	3	4	2
Wildfire	2	2	4	2
Winter Storm	4	4	1	2
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.1: Antrim Township Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: DAVID C. FINCH		Organization: BOROUGH OF CHAMBERSBURG		Date: 7/21/17
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	2	1	4	1
Dam Failure (High Hazard Dams)	1	3	1	4
Drought	2	4	1	1
Earthquake	1	4	4	4
Environmental Hazards (HAZMAT Release)	2	2	4	1
Extreme Temperature	4	4	1	1
Flood, Flash Flood, Ice Jam	2	1	3	1
Hailstorm	4	4	4	1
Hurricane, Tropical Storm, Nor'Easter	2	4	1	2
Invasive Species	4	4	1	1
Landslide	1	1	4	1
Lightning Strike	4	1	4	1
Mass Food and Animal Feed Contamination	2	1	4	1
Nuclear Incident	1	1	3	1
Pandemic and Infectious Disease	1	4	1	1
Radon Exposure	4	3	1	1
Subsidence, Sinkhole	4	1	4	1
Terrorism	1	1	4	1
Tornado, Windstorm	2	2	4	3
Transportation Accident (Air/Rail/Highway)	4	1	4	1
Urban Fire and Explosion	4	2	4	2
Utility Interruption (Comm/Power/Water/Sewage)	4	4	4	1
Wildfire	1	2	4	1
Winter Storm	4	4	2	1
(P) Probability of Occurrence 1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		(Z) Percentage of Municipality Impacted 1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		(W) Warning Time 1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence 1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.2: Chambersburg Borough Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: Steven Sites		Organization: Fannett Township		Date: 8/25/17
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	1	1	1
Dam Failure (High Hazard Dams)	1	1	1	1
Drought	2	4	1	1
Earthquake	1	1	1	1
Environmental Hazards (HAZMAT Release)	1	1	1	1
Extreme Temperature	2	3	1	2
Flood, Flash Flood, Ice Jam	2	3	4	2
Hailstorm	1	1	1	1
Hurricane, Tropical Storm, Nor'Easter	1	1	1	1
Invasive Species	1	1	1	1
Landslide	1	1	1	1
Lightning Strike	2	4	4	2
Mass Food and Animal Feed Contamination	1	1	1	1
Nuclear Incident	1	1	1	1
Pandemic and Infectious Disease	1	1	1	1
Radon Exposure	1	1	1	1
Subsidence, Sinkhole	1	1	1	1
Terrorism	1	1	1	1
Tornado, Windstorm	2	4	4	2
Transportation Accident (Air/Rail/Highway)	2	2	4	2
Urban Fire and Explosion	1	1	1	1
Utility Interruption (Comm/Power/Water/Sewage)	1	1	1	1
Wildfire	1	1	1	1
Winter Storm	2	4	1	2
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.3: Fannett Township Hazard Assessment Survey

Appendix D: Worksheet Survey Responses

Franklin County, PA Municipal Hazard Mitigation Assessment Survey

Name	Organization			Date
Craig Myers EMC	Greencastle Borough			11/17/2017
Hazard	(P) Probability of Occurrence	(Z) Percentage of the Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	1	4	1
Dam Failure (High Hazard Dams)	1	1	1	3
Drought	2	4	1	2
Earthquake	1	3	4	3
Environmental Hazards (HAZMAT Release)	2	4	4	2
Extreme Temperatures	3	4	1	1
Flood, Flash Flood, Ice Jam	2	3	4	2
Hailstorm	2	4	3	2
Hurricane, Tropical Storm, Nor'easter	1	4	4	3
Invasive Species	1	4	4	2
Landslide	1	2	4	2
Lightning Strike	3	1	4	2
Mass Food and Animal Feed Contamination	1	1	1	3
Nuclear Incident	1	4	4	2
Pandemic and Infectious Disease	1	4	1	2
Radon Exposure	1	1	4	1
Subsidence, Sinkhole	2	1	4	1
Terrorism	2	3	4	4
Tornado, Windstorm	2	4	4	4
Transportation Accident (Air/Rail/Highway)	3	1	4	2
Urban Fire and Explosion	1	2	3	1
Utility Interruption (Comm/Power/Water/Sewage)	2	4	4	2
Wildfire	1	1	3	1
Winter Storm	2	4	1	2

Figure D.4: Greencastle Borough Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: Shawn Corwell		Organization: Greene Township		Date: 7/18/17
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	1	2	1
Dam Failure (High Hazard Dams)	2	3	4	2
Drought	2	4	1	2
Earthquake	1	2	4	1
Environmental Hazards (HAZMAT Release)	3	1	4	1
Extreme Temperature	2	4	1	2
Flood, Flash Flood, Ice Jam	2	2	2	2
Hailstorm	2	3	4	2
Hurricane, Tropical Storm, Nor'Easter	2	4	3	2
Invasive Species	1	2	4	1
Landslide	1	1	4	1
Lightning Strike	4	3	4	1
Mass Food and Animal Feed Contamination	1	1	4	1
Nuclear Incident	1	1	3	1
Pandemic and Infectious Disease	1	1	1	2
Radon Exposure	2	2	1	2
Subsidence, Sinkhole	2	2	4	1
Terrorism	1	1	4	1
Tornado, Windstorm	2	3	4	2
Transportation Accident (Air/Rail/Highway)	4	2	4	2
Urban Fire and Explosion	1	2	4	1
Utility Interruption (Comm/Power/Water/Sewage)	1	2	4	2
Wildfire	1	2	4	1
Winter Storm	2	4	2	2
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.5: Greene Township Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: FRANK M. HOBBS		Organization: GUILFORD TOWNSHIP		Date: 7/18/2017
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	1	4	2
Dam Failure (High Hazard Dams)	1	2	4	1
Drought	2	4	1	1
Earthquake	1	3	4	2
Environmental Hazards (HAZMAT Release)	4	2	4	2
Extreme Temperature	3	4	1	1
Flood, Flash Flood, Ice Jam	3	3	3	1
Hailstorm	4	3	4	1
Hurricane, Tropical Storm, Nor'Easter	2	4	1	2
Invasive Species	1	1	1	1
Landslide	1	1	4	2
Lightning Strike	2	2	3	1
Mass Food and Animal Feed Contamination	1	2	1	3
Nuclear Incident	1	1	4	2
Pandemic and Infectious Disease	1	3	1	3
Radon Exposure	1	1	2	1
Subsidence, Sinkhole	4	2	4	2
Terrorism	1	2	4	3
Tornado, Windstorm	3	4	4	2
Transportation Accident (Air/Rail/Highway)	4	4	4	2
Urban Fire and Explosion	1	1	4	2
Utility Interruption (Comm/Power/Water/Sewage)	4	4	4	1
Wildfire	1	2	4	1
Winter Storm	4	4	1	1
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.6: Guilford Township Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: Michael K. Kessinger		Organization: Hamilton Township		Date: July 19, 2017
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	2	4	1
Dam Failure (High Hazard Dams)	1	3	4	1
Drought	1	4	1	1
Earthquake	1	4	4	1
Environmental Hazards (HAZMAT Release)	1	3	4	1
Extreme Temperature	1	4	2	1
Flood, Flash Flood, Ice Jam	1	3	4	1
Hailstorm	2	4	4	1
Hurricane, Tropical Storm, Nor'Easter	1	4	1	1
Invasive Species	2	4	1	1
Landslide	1	2	4	1
Lightning Strike	2	4	4	1
Mass Food and Animal Feed Contamination	1	2	4	1
Nuclear Incident	1	1	4	1
Pandemic and Infectious Disease	1	3	2	1
Radon Exposure	1	2	4	1
Subsidence, Sinkhole	1	1	4	1
Terrorism	1	3	4	1
Tornado, Windstorm	2	4	4	2
Transportation Accident (Air/Rail/Highway)	2	2	4	1
Urban Fire and Explosion	1	3	4	1
Utility Interruption (Comm/Power/Water/Sewage)	2	3	4	1
Wildfire	1	3	4	1
Winter Storm	2	4	2	2
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.7: Hamilton Township Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: <i>Erie Varner</i>		Organization: <i>Letterkenny Township</i>		Date: <i>8-21-17</i>
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	1	4	1
Dam Failure (High Hazard Dams)	1	1	4	1
Drought	3	4	1	3
Earthquake	2	2	2	2
Environmental Hazards (HAZMAT Release)	3	3	4	2
Extreme Temperature	3	4	1	1
Flood, Flash Flood, Ice Jam	3	3	2	1
Hailstorm	2	4	2	1
Hurricane, Tropical Storm, Nor'Easter	2	3	4	2
Invasive Species	1	1	1	1
Landslide	1	1	4	1
Lightning Strike	3	3	4	1
Mass Food and Animal Feed Contamination	1	2	1	1
Nuclear Incident	1	1	1	1
Pandemic and Infectious Disease	1	1	1	1
Radon Exposure	3	4	1	1
Subsidence, Sinkhole	2	2	4	1
Terrorism	3	4	4	4
Tornado, Windstorm	3	3	4	1
Transportation Accident (Air/Rail/Highway)	4	2	4	1
Urban Fire and Explosion	2	2	4	2
Utility Interruption (Comm/Power/Water/Sewage)	3	3	4	1
Wildfire	4	2	4	2
Winter Storm	4	4	2	2
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.8: Letterkenny Township Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: <i>Chip Kolb</i>		Organization: <i>Lurgan Township</i>		Date: <i>7/19/2017</i>
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	1	4	1
Dam Failure (High Hazard Dams)	2	4	3	4
Drought	1	3	1	1
Earthquake	1		4	2
Environmental Hazards (HAZMAT Release)	1	2	4	2
Extreme Temperature	1	4	3	2
Flood, Flash Flood, Ice Jam	2	2	4	2
Hailstorm	2	4	4	2
Hurricane, Tropical Storm, Nor'Easter	2	4	3	2
Invasive Species	1	4	1	1
Landslide	1	1	4	1
Lightning Strike	2	1	4	1
Mass Food and Animal Feed Contamination	1	3	4	1
Nuclear Incident	1	1	1	1
Pandemic and Infectious Disease	1	1	1	1
Radon Exposure	2	1	1	1
Subsidence, Sinkhole	1	1	4	1
Terrorism	1	1	1	1
Tomado, Windstorm	2	3	4	2
Transportation Accident (Air/Rail/Highway)	3	2	4	1
Urban Fire and Explosion	2	1	4	1
Utility Interruption (Comm/Power/Water/Sewage)	2	3	4	1
Wildfire	2	3	2	1
Winter Storm	3	4	3	2
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.9: Lurgan Township Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: DEREK STÖY		Organization: BOROUGH OF MERCERSBURG		Date: 8/7/17
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	2	4	1
Dam Failure (High Hazard Dams)	1	4	4	1
Drought	2	4	1	1
Earthquake	1	4	4	4
Environmental Hazards (HAZMAT Release)	1	4	1	1
Extreme Temperature	3	4	1	1
Flood, Flash Flood, Ice Jam	1	1	1	1
Hailstorm	2	4	4	1
Hurricane, Tropical Storm, Nor'Easter	2	4	1	1
Invasive Species	2	4	1	1
Landslide	1	1	1	1
Lightning Strike	3	4	4	1
Mass Food and Animal Feed Contamination	1	1	1	1
Nuclear Incident	1	1	4	4
Pandemic and Infectious Disease	1	1	1	1
Radon Exposure	1	1	1	1
Subsidence, Sinkhole	1	1	4	1
Terrorism	1	4	4	4
Tornado, Windstorm	2	4	4	3
Transportation Accident (Air/Rail/Highway)	1	1	4	1
Urban Fire and Explosion	1	1	4	1
Utility Interruption (Comm/Power/Water/Sewage)	2	4	4	1
Wildfire	1	1	4	1
Winter Storm	3	4	1	1
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.10: Mercersburg Borough Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: <i>Anna H. Swales</i>		Organization: <i>Metal Twp</i>		Date: <i>8/7/2017</i>
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	1	1	1
Dam Failure (High Hazard Dams)	2	2	1	2
Drought	1	3	1	2
Earthquake	1	3	4	2
Environmental Hazards (HAZMAT Release)	2	2	4	2
Extreme Temperature	1	2	1	2
Flood, Flash Flood, Ice Jam	2	2	2	2
Hailstorm	1	1	3	1
Hurricane, Tropical Storm, Nor'Easter	2	2	1	1
Invasive Species	1	1	1	1
Landslide	1	2	4	2
Lightning Strike	2	1	4	2
Mass Food and Animal Feed Contamination	1	1	1	1
Nuclear Incident	1	1	4	1
Pandemic and Infectious Disease	2	2	1	3
Radon Exposure	1	1	1	1
Subsidence, Sinkhole	1	1	4	2
Terrorism	2	2	4	1
Tornado, Windstorm	1	2	4	1
Transportation Accident (Air/Rail/Highway)	3	2	4	3
Urban Fire and Explosion	1	1	4	3
Utility Interruption (Comm/Power/Water/Sewage)	3	3	4	1
Wildfire	2	2	4	3
Winter Storm	2	3	1	1
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.11: Metal Township Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: <i>Mark Guelio f</i>		Organization: <i>Boro's AA Mont Alto</i>		Date: <i>8-13-17</i>
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	1	1	1
Dam Failure (High Hazard Dams)	1	1	1	1
Drought	3	3	2	3
Earthquake	1	1	1	1
Environmental Hazards (HAZMAT Release)	2	2	2	2
Extreme Temperature	3	3	3	3
Flood, Flash Flood, Ice Jam	3	3	3	3
Hailstorm	2	2	2	2
Hurricane, Tropical Storm, Nor'Easter	2	2	2	2
Invasive Species	1	1	1	1
Landslide	1	1	1	1
Lightning Strike	4	4	4	4
Mass Food and Animal Feed Contamination	2	2	2	2
Nuclear Incident	1	1	1	1
Pandemic and Infectious Disease	2	2	2	2
Radon Exposure	1	1	1	1
Subsidence, Sinkhole	1	1	1	1
Terrorism	2	2	2	2
Tornado, Windstorm	2	2	2	2
Transportation Accident (Air/Rail/Highway)	2	2	2	2
Urban Fire and Explosion	1	1	1	1
Utility Interruption (Comm/Power/Water/Sewage)	4	4	4	4
Wildfire	3	3	3	3
Winter Storm	3	3	3	3
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.12: Mont Alto Borough Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: <i>Greg Weller</i>		Organization: <i>MONTGOMERY TWP</i>		Date: <i>7-24-17</i>
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	3	2	3	3
Dam Failure (High Hazard Dams)	1	2	4	2
Drought	3	4	1	1
Earthquake	1	4	4	2
Environmental Hazards (HAZMAT Release)	2	2	4	2
Extreme Temperature	3	4	1	2
Flood, Flash Flood, Ice Jam	3	3	2	1
Hailstorm	3	4	1	1
Hurricane, Tropical Storm, Nor'Easter	3	4	1	2
Invasive Species	3	4	1	1
Landslide	2	2	4	1
Lightning Strike	4	4	4	2
Mass Food and Animal Feed Contamination	3	4	2	3
Nuclear Incident	1	1	1	1
Pandemic and Infectious Disease	2	3	4	4
Radon Exposure	2	3	4	1
Subsidence, Sinkhole	3	4	4	2
Terrorism	3	3	4	3
Tornado, Windstorm	3	4	4	3
Transportation Accident (Air/Rail/Highway)	2	2	4	2
Urban Fire and Explosion	3	2	4	2
Utility Interruption (Comm/Power/Water/Sewage)	4	3	4	2
Wildfire	2	2	4	2
Winter Storm	3	4	1	3
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.13: Montgomery Township Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: PAUL T. REED		Organization: ORRSTOWN BOROUGH		Date: 9/1/2017
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	1	3	1
Dam Failure (High Hazard Dams)	1	1	3	1
Drought	1	1	3	1
Earthquake	1	1	3	1
Environmental Hazards (HAZMAT Release)	1	1	3	1
Extreme Temperature	1	1	3	1
Flood, Flash Flood, Ice Jam	1	1	3	1
Hailstorm	2	1	3	1
Hurricane, Tropical Storm, Nor'Easter	2	1	3	1
Invasive Species	1	1	3	1
Landslide	1	1	3	1
Lightning Strike	2	1	3	1
Mass Food and Animal Feed Contamination	1	1	3	1
Nuclear Incident	1	1	3	1
Pandemic and Infectious Disease	1	1	3	1
Radon Exposure	1	1	3	1
Subsidence, Sinkhole	1	1	3	1
Terrorism	1	1	3	1
Tornado, Windstorm	1	1	3	1
Transportation Accident (Air/Rail/Highway)	1	1	3	1
Urban Fire and Explosion	1	1	3	1
Utility Interruption (Comm/Power/Water/Sewage)	1	1	3	1
Wildfire	1	1	3	1
Winter Storm	2	2	3	1
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability		1 = Less than 1% of Municipality affected		1 = More than 24 hrs
2 = Possible: Between 1 and 49.9% Annual Probability		2 = Between 1 and 10% of Municipality affected		2 = 12 to 24 hrs
3 = Likely: Between 50 and 90% Annual Probability		3 = Between 10 and 50% of Municipality affected		3 = 6 to 12 hrs
4 = Highly Likely: Greater than 90% Annual Probability		4 = Between 50 and 100% of Municipality affected		4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities				
2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day				
3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week				
4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.14: Orrstown Borough Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: <i>Peters Township</i>		Organization: <i>Peters Twp. Supervisors</i>		Date: <i>8/23/17</i>
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	1	4	1
Dam Failure (High Hazard Dams)	1	1	4	1
Drought	1	4	1	1
Earthquake	1	1	4	1
Environmental Hazards (HAZMAT Release)	1	1	4	1
Extreme Temperature	2	4	2	1
Flood, Flash Flood, Ice Jam	2	3	4	1
Hailstorm	1	1	3	1
Hurricane, Tropical Storm, Nor'Easter	2	4	1	1
Invasive Species	1	1	4	1
Landslide	1	1	4	1
Lightning Strike	2	1	2	1
Mass Food and Animal Feed Contamination	1	1	2	1
Nuclear Incident	1	4	1	1
Pandemic and Infectious Disease	1	1	2	1
Radon Exposure	1	1	4	1
Subsidence, Sinkhole	1	1	4	1
Terrorism	1	1	4	1
Tornado, Windstorm	1	1	4	1
Transportation Accident (Air/Rail/Highway)	2	1	4	1
Urban Fire and Explosion	1	1	4	1
Utility Interruption (Comm/Power/Water/Sewage)	2	2	4	1
Wildfire	1	1	4	1
Winter Storm	2	4	2	1
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.15: Peters Township Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: <u>Quincy twp</u>		Organization: <u>Township</u>		Date: <u>8-14-17</u>
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	2	4	1
Dam Failure (High Hazard Dams)	2	3	1	1
Drought	2	4	1	1
Earthquake	1	4	1	1
Environmental Hazards (HAZMAT Release)	2	3	4	2
Extreme Temperature	3	4	1	2
Flood, Flash Flood, Ice Jam	3	4	1	2
Hailstorm	2	4	2	1
Hurricane, Tropical Storm, Nor'Easter	3	4	1	2
Invasive Species	2	3	4	1
Landslide	1	1	4	1
Lightning Strike	3	1	4	2
Mass Food and Animal Feed Contamination	2	2	4	2
Nuclear Incident	1	4	1	2
Pandemic and Infectious Disease	2	4	1	3
Radon Exposure	2	2	4	2
Subsidence, Sinkhole	3	1	4	1
Terrorism	2	4	1	?
Tornado, Windstorm	3	4	1	2
Transportation Accident (Air/Rail/Highway)	2	2	4	3
Urban Fire and Explosion	1	1	4	2
Utility Interruption (Comm/Power/Water/Sewage)	3	4	4	2
Wildfire	2	2	4	2
Winter Storm	4	4	1	2
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.16: Quincy Township Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: <i>David Linderemuth</i>		Organization: <i>Shippensburg Borough EMA</i>		Date: <i>7/26/17</i>
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	2	2	4	1
Dam Failure (High Hazard Dams)	1	1	3	1
Drought	2	4	1	1
Earthquake	1	4	4	1
Environmental Hazards (HAZMAT Release)	2	3	4	2
Extreme Temperature	2	4	1	1
Flood, Flash Flood, Ice Jam	2	2	3	1
Hailstorm	2	4	2	1
Hurricane, Tropical Storm, Nor'Easter	2	4	1	2
Invasive Species	1	1	1	1
Landslide	1	1	2	1
Lightning Strike	2	1	2	1
Mass Food and Animal Feed Contamination	1	4	4	1
Nuclear Incident	1	4	4	2
Pandemic and Infectious Disease	1	4	1	2
Radon Exposure	1	1	1	1
Subsidence, Sinkhole	1	1	4	1
Terrorism	1	2	4	1
Tornado, Windstorm	2	2	2	3
Transportation Accident (Air/Rail/Highway)	2	2	4	3
Urban Fire and Explosion	2	1	4	3
Utility Interruption (Comm/Power/Water/Sewage)	2	4	4	2
Wildfire	1	1	4	1
Winter Storm	2	4	1	2
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.17: Shippensburg Borough Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: Douglas A. Shields		Organization: Southampton Twp		Date: 8/8/17
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	2	2	4	2
Dam Failure (High Hazard Dams)	2	2	4	2
Drought	3	3	2	1
Earthquake	2	2	4	4
Environmental Hazards (HAZMAT Release)	3	3	4	2
Extreme Temperature	2	2	3	1
Flood, Flash Flood, Ice Jam	3	2	4	1
Hailstorm	3	2	4	1
Hurricane, Tropical Storm, Nor'Easter	3	2	4	1
Invasive Species	1	1	3	1
Landslide	1	1	3	1
Lightning Strike	3	3	4	2
Mass Food and Animal Feed Contamination	1	1	3	2
Nuclear Incident	1	1	4	2
Pandemic and Infectious Disease	2	2	4	2
Radon Exposure	1	1	3	1
Subsidence, Sinkhole	3	3	4	2
Terrorism	2	2	4	2
Tornado, Windstorm	2	2	4	2
Transportation Accident (Air/Rail/Highway)	3	3	4	3
Urban Fire and Explosion	2	2	4	2
Utility Interruption (Comm/Power/Water/Sewage)	3	3	4	1
Wildfire	2	2	4	2
Winter Storm	3	3	4	2
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability		1 = Less than 1% of Municipality affected		1 = More than 24 hrs
2 = Possible: Between 1 and 49.9% Annual Probability		2 = Between 1 and 10% of Municipality affected		2 = 12 to 24 hrs
3 = Likely: Between 50 and 90% Annual Probability		3 = Between 10 and 50% of Municipality affected		3 = 6 to 12 hrs
4 = Highly Likely: Greater than 90% Annual Probability		4 = Between 50 and 100% of Municipality affected		4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities				
2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day				
3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week				
4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.18: Southampton Township Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: DONALD ESTLEMAN		Organization: ST. THOMAS TWP.		Date: 7/18/2017
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	2	1	4	1
Dam Failure (High Hazard Dams)	1	1	2	1
Drought	2	3	1	2
Earthquake	1	1	4	1
Environmental Hazards (HAZMAT Release)	2	2	4	2
Extreme Temperature	3	2	1	1
Flood, Flash Flood, Ice Jam	1	1	3	2
Hailstorm	2	3	4	2
Hurricane, Tropical Storm, Nor'Easter	1	3	1	2
Invasive Species	2	2	2	2
Landslide	1	1	4	1
Lightning Strike	4	1	4	1
Mass Food and Animal Feed Contamination	2	3	3	2
Nuclear Incident	1	1	1	1
Pandemic and Infectious Disease	2	3	3	2
Radon Exposure	2	3	1	1
Subsidence, Sinkholes	2	1	4	1
Terrorism	2	2	4	2
Tornado, Windstorm	4	1	4	1
Transportation Accident (Air/Rail/Highway)	3	1	4	2
Urban Fire and Explosion	1	1	4	2
Utility Interruption (Comm/Power/Water/Sewage)	2	3	4	2
Wildfire	2	2	4	2
Winter Storm	3	3	1	2
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.19: St Thomas Township Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: john w resseller		Organization: warren township, franklin county, pa		Date: 20 august 2017
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	2	3	2
Dam Failure (High Hazard Dams)	2	2	3	2
Drought	2	4	2	2
Earthquake	1	2	4	4
Environmental Hazards (HAZMAT Release)	1	3	3	2
Extreme Temperature	2	4	2	2
Flood, Flash Flood, Ice Jam	2	3	2	2
Hailstorm	2	3	4	2
Hurricane, Tropical Storm, Nor'Easter	3	4	1	1
Invasive Species	2	3	3	1
Landslide	2	3	3	2
Lightning Strike	2	3	4	2
Mass Food and Animal Feed Contamination	2	3	3	3
Nuclear Incident	2	4	4	3
Pandemic and Infectious Disease	3	3	3	1
Radon Exposure	1	1	1	1
Subsidence, Sinkhole	1	1	4	1
Terrorism	1	1	4	2
Tornado, Windstorm	2	3	4	2
Transportation Accident (Air/Rail/Highway)	1	2	3	1
Urban Fire and Explosion	1	2	4	2
Utility Interruption (Comm/Power/Water/Sewage)	3	3	4	2
Wildfire	2	2	4	3
Winter Storm	4	4	1	2
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.20: Warren Township Hazard Assessment Survey

Appendix D: Worksheet Survey Responses


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: Washington Township		Organization: Emergency Management		Date: Sept. 12, 2017
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	1	1	1
Dam Failure (High Hazard Dams)	2	3	4	2
Drought	2	2	1	1
Earthquake	1	1	1	1
Environmental Hazards (HAZMAT Release)	2	2	4	2
Extreme Temperature	2	2	1	1
Flood, Flash Flood, Ice Jam	2	3	4	2
Hailstorm	1	1	1	1
Hurricane, Tropical Storm, Nor'Easter	2	3	3	2
Invasive Species	1	1	1	1
Landslide	1	1	1	1
Lightning Strike	2	2	4	1
Mass Food and Animal Feed Contamination	1	1	1	1
Nuclear Incident	1	1	1	1
Pandemic and Infectious Disease	1	1	1	1
Radon Exposure	1	1	1	1
Subsidence, Sinkhole	1	1	1	1
Terrorism	1	1	1	1
Tomado, Windstorm	2	2	4	1
Transportation Accident (Air/Rail/Highway)	1	1	1	1
Urban Fire and Explosion	1	1	1	1
Utility Interruption (Comm/Power/Water/Sewage)	2	2	4	1
Wildfire	2	2	4	1
Winter Storm	2	3	3	1
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.21: Washington Township Hazard Assessment Survey

Appendix D: Worksheet Survey Responses



 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name: Jason Stains		Organization: Borough of Waynesboro		Date: 07/19/2017
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance	1	1	1	1
Dam Failure (High Hazard Dams)	1	1	4	4
Drought	2	4	1	2
Earthquake	2	4	4	2
Environmental Hazards (HAZMAT Release)	2	1	4	1
Extreme Temperature	3	4	1	1
Flood, Flash Flood, Ice Jam	2	1	4	1
Hailstorm	3	4	4	1
Hurricane, Tropical Storm, Nor'Easter	3	4	1	2
Invasive Species	2	4	1	1
Landslide	1	1	4	1
Lightning Strike	3	4	4	2
Mass Food and Animal Feed Contamination	1	1	1	1
Nuclear Incident	1	1	1	1
Pandemic and Infectious Disease	1	3	1	3
Radon Exposure	1	1	1	1
Subsidence, Sinkhole	2	1	4	1
Terrorism	2	1	4	2
Tornado, Windstorm	3	4	4	2
Transportation Accident (Air/Rail/Highway)	2	1	4	3
Urban Fire and Explosion	2	1	4	3
Utility Interruption (Comm/Power/Water/Sewage)	3	2	4	1
Wildfire	1	1	1	1
Winter Storm	3	4	1	2
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure D.22: Waynesboro Borough Hazard Assessment Survey

Appendix D: Worksheet Survey Responses

	Franklin County, PA Municipal Hazard Mitigation Action Nominations			
Name:	Organization:	Date:		
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
FROM: BOROUGH OF CHAMBERSBURG TO: USII ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.				
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
FROM: USII TO: Cornertown Rd. ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.				
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
FROM: Cornertown Rd. TO: Sycamore Grove Rd. ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.				

A mitigation action is a specific action, project, activity, or process taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan's mission and goals. The actions to reduce vulnerability to threats and hazards form the core of the plan and are a key outcome of the planning process. The following are some different types of mitigation actions to consider:

Local Plans and Regulations: Identify current development patterns and trends as well as areas where future development should and should not occur. (Ex. Comprehensive Plans, Land Use Ordinances, etc.)

Structural Projects: Modify existing structures and infrastructure to protect them from a hazard or remove them from the hazard area. (Ex. Utility Undergrounding, Flood-proofing, Structure Elevation, etc.)


Natural Systems Protection: Minimize damage and losses and also preserve or restore the functions of natural systems. (Ex. Erosion Control, Forest Management, Wetland Restoration, etc.)

Educational Programs: Inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. (Ex. Public Outreach Programs, Web-site Information Postings, etc.)

Preparedness and Response Actions: Reduce or eliminate long-term risk and are different from actions taken to prepare for or respond to hazard events. (Ex. Mutual Aid Agreements, Alert Notification System Procurement, etc.)

Figure D.23.1: Greene Township Mitigation Submission – Page 1 of 14

Appendix D: Worksheet Survey Responses

		Franklin County, PA Municipal Hazard Mitigation Action Nominations			
Name:		Organization:		Date:	
Action Description:		Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
FROM: Sycamore Grove Rd. TO: Scotland Main St. (at rail road overpass) ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.					
Action Description:		Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
FROM: Scotland Main St. (at rail road overpass) TO: Scotland Rd. ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.					
Action Description:		Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
FROM: Scotland Rd. TO: Interstate I-81 (4 places) ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.					

+ A mitigation action is a specific action, project, activity, or process taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan's mission and goals. The actions to reduce vulnerability to threats and hazards form the core of the plan and are a key outcome of the planning process. The following are some different types of mitigation actions to consider:

Local Plans and Regulations: Identify current development patterns and trends as well as areas where future development should and should not occur. (Ex. Comprehensive Plans, Land Use Ordinances, etc.)

Structural Projects: Modify existing structures and infrastructure to protect them from a hazard or remove them from the hazard area. (Ex. Utility Undergrounding, Flood-proofing, Structure Elevation, etc.)


Natural Systems Protection: Minimize damage and losses and also preserve or restore the functions of natural systems. (Ex. Erosion Control, Forest Management, Wetland Restoration, etc.)

Educational Programs: Inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. (Ex. Public Outreach Programs, Web-site Information Postings, etc.)

Preparedness and Response Actions: Reduce or eliminate long-term risk and are different from actions taken to prepare for or respond to hazard events. (Ex. Mutual Aid Agreements, Alert Notification System Procurement, etc.)

Figure D.23.2: Greene Township Mitigation Submission – Page 2 of 14

Appendix D: Worksheet Survey Responses

		Franklin County, PA Municipal Hazard Mitigation Action Nominations			
Name:	Organization:	Date:			
Action Description: FROM: Interstate I-81 (4 places) TO: Brindle Rd. (4 places) ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.		Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
Action Description: FROM: Brindle Rd. (4 places) TO: Woodstock Rd. (2 places) ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.		Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
Action Description: FROM: Brindle Rd. (4 places) TO: Main St. Fayetteville ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.		Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:

A mitigation action is a specific action, project, activity, or process taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan's mission and goals. The actions to reduce vulnerability to threats and hazards form the core of the plan and are a key outcome of the planning process. The following are some different types of mitigation actions to consider:

Local Plans and Regulations: Identify current development patterns and trends as well as areas where future development should and should not occur. (Ex. Comprehensive Plans, Land Use Ordinances, etc.)

Structural Projects: Modify existing structures and infrastructure to protect them from a hazard or remove them from the hazard area. (Ex. Utility Undergrounding, Flood-proofing, Structure Elevation, etc.)


Natural Systems Protection: Minimize damage and losses and also preserve or restore the functions of natural systems. (Ex. Erosion Control, Forest Management, Wetland Restoration, etc.)

Educational Programs: Inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. (Ex. Public Outreach Programs, Web-site Information Postings, etc.)

Preparedness and Response Actions: Reduce or eliminate long-term risk and are different from actions taken to prepare for or respond to hazard events. (Ex. Mutual Aid Agreements, Alert Notification System Procurement, etc.)

Figure D.23.3: Greene Township Mitigation Submission – Page 3 of 14

Appendix D: Worksheet Survey Responses

		Franklin County, PA Municipal Hazard Mitigation Action Nominations			
Name:	Organization:	Date:			
Action Description:		Responsible Organization:	HMP Goal:	HMP Objective	Threat Hazard
FROM: Woodstock Rd. (2 places) TO: Mt. Pleasant Rd. (3 places) ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.					
Action Description:		Responsible Organization:	HMP Goal:	HMP Objective	Threat Hazard
FROM: Mt. Pleasant Rd. TO: Area East of Mt. Shadow <u>Subdivision</u> ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.					
Action Description:		Responsible Organization:	HMP Goal:	HMP Objective	Threat Hazard
FROM: Mt. Pleasant Rd. TO: Brookens Rd. ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.					

A mitigation action is a specific action, project, activity, or process taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan's mission and goals. The actions to reduce vulnerability to threats and hazards form the core of the plan and are a key outcome of the planning process. The following are some different types of mitigation actions to consider:

Local Plans and Regulations: Identify current development patterns and trends as well as areas where future development should and should not occur. (Ex. Comprehensive Plans, Land Use Ordinances, etc.)

Structural Projects: Modify existing structures and infrastructure to protect them from a hazard or remove them from the hazard area. (Ex. Utility Undergrounding, Flood-proofing, Structure Elevation, etc.)


Natural Systems Protection: Minimize damage and losses and also preserve or restore the functions of natural systems. (Ex. Erosion Control, Forest Management, Wetland Restoration, etc.)

Educational Programs: Inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. (Ex. Public Outreach Programs, Web-site Information Postings, etc.)

Preparedness and Response Actions: Reduce or eliminate long-term risk and are different from actions taken to prepare for or respond to hazard events. (Ex. Mutual Aid Agreements, Alert Notification System Procurement, etc.)

Figure D.23.4: Greene Township Mitigation Submission – Page 4 of 14

Appendix D: Worksheet Survey Responses

		Franklin County, PA Municipal Hazard Mitigation Action Nominations			
Name:	Organization:	Date:			
Action Description: FROM: Brookens Rd. TO: Ridge Rd. ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.		Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
Action Description: FROM: Mt. Pleasant Rd. To: Coldspring Rd. Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.		Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
Action Description: FROM: Coldspring Rd. (2 places) TO: 997 (BGR) (2 places) ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.		Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:

A mitigation action is a specific action, project, activity, or process taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan's mission and goals. The actions to reduce vulnerability to threats and hazards form the core of the plan and are a key outcome of the planning process. The following are some different types of mitigation actions to consider:

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Structural Projects: Modify existing structures and infrastructure to protect them from a hazard or remove them from the hazard area. (Ex. Utility Undergrounding, Flood-proofing, Structure Elevation, etc.)

Natural Systems Protection: Minimize damage and losses and also preserve or restore the functions of natural systems. (Ex. Erosion Control, Forest Management, Wetland Restoration, etc.)

Educational Programs: Inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. (Ex. Public Outreach Programs, Web-site Information Postings, etc.)

Preparedness and Response Actions: Reduce or eliminate long-term risk and are different from actions taken to prepare for or respond to hazard events. (Ex. Mutual Aid Agreements, Alert Notification System Procurement, etc.)

Figure D.23.5: Greene Township Mitigation Submission – Page 5 of 14

Appendix D: Worksheet Survey Responses

	Franklin County, PA Municipal Hazard Mitigation Action Nominations			
Name:	Organization:	Date:		
Action Description: FROM: Coldspring Rd. TO: Rt. 30 LWE ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
Action Description: FROM: 997 (BGR) TO: HOUSER Rd. ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
Action Description: FROM: 997 (BGR) TO: Rt. 30 LWE (4 places) ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:

+ A mitigation action is a specific action, project, activity, or process taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan's mission and goals. The actions to reduce vulnerability to threats and hazards form the core of the plan and are a key outcome of the planning process. The following are some different types of mitigation actions to consider:

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Preparedness and Response Actions: Reduce or eliminate long-term risk and are different from actions taken to prepare for or respond to hazard events. (Ex. Mutual Aid Agreements, Alert Notification System Procurement, etc.)

Figure D.23.6: Greene Township Mitigation Submission – Page 6 of 14

Appendix D: Worksheet Survey Responses

		Franklin County, PA Municipal Hazard Mitigation Action Nominations			
Name:	Organization:	Date:			
Action Description: FROM: Rt. 30 LWE (5 places) TO: South of Rt. 30 LWE (5 places) ISSUE: FLOODING Clean all Stream Beds, of Debris, such as Trees, Tires, Brush, etc. Elevate all stream banks if needed to keep flow in stream bed.		Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
Action Description:		Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
Action Description:		Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:


 A mitigation action is a specific action, project, activity, or process taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan's mission and goals. The actions to reduce vulnerability to threats and hazards form the core of the plan and are a key outcome of the planning process. The following are some different types of mitigation actions to consider:

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Educational Programs: Inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. (Ex. Public Outreach Programs, Web-site Information Postings, etc.)

Preparedness and Response Actions: Reduce or eliminate long-term risk and are different from actions taken to prepare for or respond to hazard events. (Ex. Mutual Aid Agreements, Alert Notification System Procurement, etc.)

Figure D.23.7: Greene Township Mitigation Submission – Page 7 of 14

Appendix D: Worksheet Survey Responses

 Franklin County, PA Municipal Hazard Mitigation Action Nominations				
Name:	Organization:	Date:		
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
GRANDPOINT ROAD AND NORTH PARKWOOD DRIVE Install Traffic Signal Mitigate Accidents at Intersection				
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
KOHLER ROAD AT WALKER ROAD Traffic Study Reduce Congestion and Accidents				
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
I-81 NORTHBOUND AND SOUTHBOUND Widen to Six Lanes Between Exit 17 and 20 to Assist in Traffic Congestion				

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Preparedness and Response Actions: Reduce or eliminate long-term risk and are different from actions taken to prepare for or respond to hazard events. (Ex. Mutual Aid Agreements, Alert Notification System Procurement, etc.)

Figure D.23.8: Greene Township Mitigation Submission – Page 8 of 14

Appendix D: Worksheet Survey Responses

 Franklin County, PA Municipal Hazard Mitigation Action Nominations				
Name:	Organization:	Date:		
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard
BLACK GAP ROAD TO SCOTLAND Reduce Speed Traffic Study Multiple Accidents – 1 Fatal				
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard
EXIT 20 NORTHBOUND OFF RAMP Insufficient Decelerate Lane and Conflict with PA 696 Engineering Study Reduce Accidents				
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard
SMITH ROAD AND CUMBERLAND HIGHWAY Sight Distance Traffic Study				



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Preparedness and Response Actions: Reduce or eliminate long-term risk and are different from actions taken to prepare for or respond to hazard events. (Ex. Mutual Aid Agreements, Alert Notification System Procurement, etc.)

Figure D.23.9: Greene Township Mitigation Submission – Page 9 of 14

Appendix D: Worksheet Survey Responses

 Franklin County, PA Municipal Hazard Mitigation Action Nominations				
Name:	Organization:	Date:		
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
COFFEY AVENUE AT 533 AND 997 Traffic Study, Construct Turning Lanes and New Traffic Signals Reduce Congestion				
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
EDUCATE RESIDENTS ON EMERGENCY MANAGEMENT				
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
SILOAM ROAD AND PHILADELPHIA AVENUE – ALSO INTERSECTS WITH CHANCELLOR DRIVE Traffic Study and Traffic Signal 2 Fatal Accidents at Intersection				



A mitigation action is a specific action, project, activity, or process taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan's mission and goals. The actions to reduce vulnerability to threats and hazards form the core of the plan and are a key outcome of the planning process. The following are some different types of mitigation actions to consider:

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Educational Programs: Inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. (Ex. Public Outreach Programs, Web-site Information Postings, etc.)

Preparedness and Response Actions: Reduce or eliminate long-term risk and are different from actions taken to prepare for or respond to hazard events. (Ex. Mutual Aid Agreements, Alert Notification System Procurement, etc.)

Figure D.23.10: Greene Township Mitigation Submission – Page 10 of 14

Appendix D: Worksheet Survey Responses

 Franklin County, PA Municipal Hazard Mitigation Action Nominations				
Name:	Organization:	Date:		
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
DECLINE IN VOLUNTEERS Study Fire and EMS Services Throughout the Township				
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
MOWER AND WALKER ROAD Offset Stop Condition Traffic Study for Sight Distance				
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
BYERS ROAD AT 997 Speed Reduction or Traffic Signal Traffic Study Needed				

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Preparedness and Response Actions: Reduce or eliminate long-term risk and are different from actions taken to prepare for or respond to hazard events. (Ex. Mutual Aid Agreements, Alert Notification System Procurement, etc.)

Figure D.23.11: Greene Township Mitigation Submission – Page 11 of 14

Appendix D: Worksheet Survey Responses

 Franklin County, PA Municipal Hazard Mitigation Action Nominations				
Name:	Organization:			Date:
Action Description: Responsible Organization: HMP Goal: HMP Objective: Threat Hazard				
COLDSMITH ROAD AT WHITE CHURCH ROAD One Lane Bridge – Mountain Run Culvert Reduce Accidents Study New Bridge				
Action Description: Responsible Organization: HMP Goal: HMP Objective: Threat Hazard				
ROAILROAD OVERPASSES Pine Stump and Kohler Road Study Bridge Structure Height and Width Limited				
Action Description: Responsible Organization: HMP Goal: HMP Objective: Threat Hazard				
(Empty row)				

A mitigation action is a specific action, project, activity, or process taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan’s mission and goals. The actions to reduce vulnerability to threats and hazards form the core of the plan and are a key outcome of the planning process. The following are some different types of mitigation actions to consider:

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Preparedness and Response Actions: Reduce or eliminate long-term risk and are different from actions taken to prepare for or respond to hazard events. (Ex. Mutual Aid Agreements, Alert Notification System Procurement, etc.)

Figure D.23.12: Greene Township Mitigation Submission – Page 12 of 14

Appendix D: Worksheet Survey Responses

		Franklin County, PA Municipal Hazard Mitigation Action Nominations			
Name:	Organization:	Date:			
Action Description:	Responsible Organization :	HMP Goal :	HMP Objective	Threat Hazard	
Emergency notification system Township emergency notification system would contact residents within a geographical area of emergencies such as flooding, hazardous material incidents, evacuations, police incidents and fire related incidents					
Action Description:	Responsible Organization :	HMP Goal :	HMP Objective	Threat Hazard	
Action Description:	Responsible Organization :	HMP Goal :	HMP Objective	Threat Hazard	

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Figure D.23.13: Greene Township Mitigation Submission – Page 13 of 14

Appendix D: Worksheet Survey Responses

 Franklin County, PA Municipal Hazard Mitigation Action Nominations				
Name:	Organization:	Date:		
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard:
Battery backup for all traffic signals in Greene Township Battery backup would assist in traffic flow during a power outage. This would reduce the need for emergency personnel at an intersection to direct traffic.				
Need a Generator for the Greene Township, Emergency Managing Agency, Office. This Generator will need to be 30,000 KW, Fuel source will be Natural Gas.				
Township Hazardous Materials Team Establish Township or County Hazardous Materials Team Study number of trained volunteers or career persons in the county to form a hazardous materials team within the township or county.				

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Figure D.23.14: Greene Township Mitigation Submission – Page 14 of 14

Appendix D: Worksheet Survey Responses

 Franklin County, PA Municipal Hazard Mitigation Action Nominations					
Name:		Organization:		Date:	
Lawrence Kolb, Jr		Lurgan Township		3-15-2018	
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard	
up date comprehensive plan C last completed in 2007 (Joint)	Lurgan Township Letterkenny Fannett	1	20		
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard	
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective:	Threat Hazard	

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Figure D.24: Lurgan/Letterkenny/Fannett Townships Mitigation Submission

Appendix D: Worksheet Survey Responses

Recommended Mitigation Actions for Southampton Township, Franklin County

The following recommended action is selected for the goal and objectives.

Location: MaClays Mill Road, along Conodoguinet Creek

Description of the problem: The floodway is the most dangerous portion of the flood area. It is the area intended to carry the majority of the fast-moving floodwaters. The floodway is intended to carry the entire 100- year flood. The floodway shall be assumed as the area measured fifty (50') feet landward from the top-of-bank on both sides of the watercourse. The floodway has the most stringent development and building regulations within the floodplain. Because it is a dangerous location for a building, and because codes make it difficult to repair, expand, or replace existing structures, all efforts should be made to clear the floodway of obstructions and maintain it in an "open" state. This will also clear the property adjacent to the stream so that it can be reused as a continuous stream front recreation area.

Description of the Action: Establish a voluntary acquisition program of floodway properties based on Fair Market Value. Retain in public ownership and rezone as a conservation area.

Lead Manager Assigned: Township Board of Supervisors, or hire an experienced Mitigation Program Manager to manage the entire plan implementation effort. Include that cost in the various grant proposals.

Schedule to Initiate Action: Initiate grant applications by deadlines, and resubmit following every Presidential Disaster Declaration within the state of Pennsylvania.


Potential Sources of Technical Assistance: State Hazard Mitigation Program, State NFIP Program, Pennsylvania Stormwater-Floodplain Association.

Potential Sources of Financial Assistance: PEMA, FEMA

Figure D.25: Southampton Township Mitigation Submission

Appendix D: Worksheet Survey Responses

7/23/2018 Franklin County PA Mail - Fwd: HMP

 **Robert Povlich** <rpovlich@franklincountypa.gov>

Fwd: HMP

Jacob Crider <jmcrider@franklincountypa.gov> Mon, Jul 23, 2018 at 1:06 PM
To: Robert Povlich <rpovlich@franklincountypa.gov>
Cc: John Thierwechter <jkthierwechter@franklincountypa.gov>

All completed!!!

----- Forwarded message -----
From: **Craig Myers** <craig.myersgbc@gmail.com>
Date: Mon, Jul 23, 2018 at 12:49 PM
Subject: HMP
To: jmcrider@franklincountypa.gov

Mr. Crider,

On behalf of the Borough of Greencastle and the Township of Antrim I would like to inform you that we are in agreement with the Hazard Mitigation Plan as proposed. We also look forward to assisting the County as the process continues.

Respectfully,
Craig Myers
EMC Antrim Twp.
EMC Greencastle Borough

Craig


--
Jacob M. Crider
Emergency Management Coordinator and Assistant Director
Franklin County Department of Emergency Services
390 New York Avenue
Chambersburg, PA 17201
[\(717\)264-2813](tel:(717)264-2813)

https://mail.google.com/mail/u/0/?ui=2&ik=16-4bd263a0&jsver=_Lt_PExeXg.en.&cbl=gmail_fe_180715.15_p2&view=pt&msg=164c81c0121c7b59&se... 1/1

Figure D.26: Antrim Township DRAFT HMP Review/Comments

Appendix D: Worksheet Survey Responses

7/16/2018 Franklin County PA Mail - Fwd: Requests for Response to Municipal Review of the DRAFT Hazard Mitigation Plan



Robert Povlich <rwovlich@franklincountypa.gov>

Fwd: Requests for Response to Municipal Review of the DRAFT Hazard Mitigation Plan

Jacob Crider <jmcrider@franklincountypa.gov> Mon, Jul 16, 2018 at 1:51 PM
To: Robert Povlich <rwovlich@franklincountypa.gov>
Cc: John Thierwechter <jkthierwechter@franklincountypa.gov>

FYI
----- Forwarded message -----
From: Dave Finch <dfinch@chambersburgpa.gov>
Date: Mon, Jul 16, 2018 at 1:45 PM
Subject: Re: Requests for Response to Municipal Review of the DRAFT Hazard Mitigation Plan
To: Jacob Crider <jmcrider@franklincountypa.gov>

Sorry, Jacob, I thought I had responded to this.

"As EMC for the Borough of Chambersburg, I accept the Franklin County Hazard Mitigation Plan as written."

Hopefully that works for you.

Thanks,

Dave Finch
Chambersburg

On Mon, Jul 16, 2018 at 1:36 PM, Jacob Crider <jmcrider@franklincountypa.gov> wrote:
Dear Municipal Leaders and Local EMCs,

The deadline for review and comment on the DRAFT Hazard Mitigation Plan has come to a close (July 15, 2018). We still need to get comments and/or concurrence from seven of our municipalities listed below:

Antrim Township
Chambersburg Borough
Greencastle Borough
Guilford Township
Mercersburg Borough
Orrstown Borough
Waynesboro Borough

We need to have 100% completion of this review by all municipalities prior to sending it to PEMA for review. Please review the documents on the Franklin County web page below and send any comments you have or if you are OK with the document as written send us an email with your concurrence of the document.

http://www.franklincountypa.gov/index.php?section=des_mitigation_plan

We need to get this document to PEMA as soon as we can so that it gets into FEMA's hands before the end of the quarter. This will allow for any extra time needed by FEMA due to the hurricane season. With all the hard work we have put into this plan, we all want to get this plan adopted and in place as fast as we can.

If you have questions or comments about this plan, please direct them to Bob Povlich at 717-264-2813. Thank you.

Jake

--
Jacob M. Crider
Emergency Management Coordinator and Assistant Director

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=0-2PE6VxFko.en.&cb=gmail_fe_180709.15_p2&view=pt&msg=164a4383f07d0a15&se... 1/2

Figure D.27.1: Chambersburg Borough DRAFT HMP Review/Comments – Page 1 of 2

Appendix D: Worksheet Survey Responses

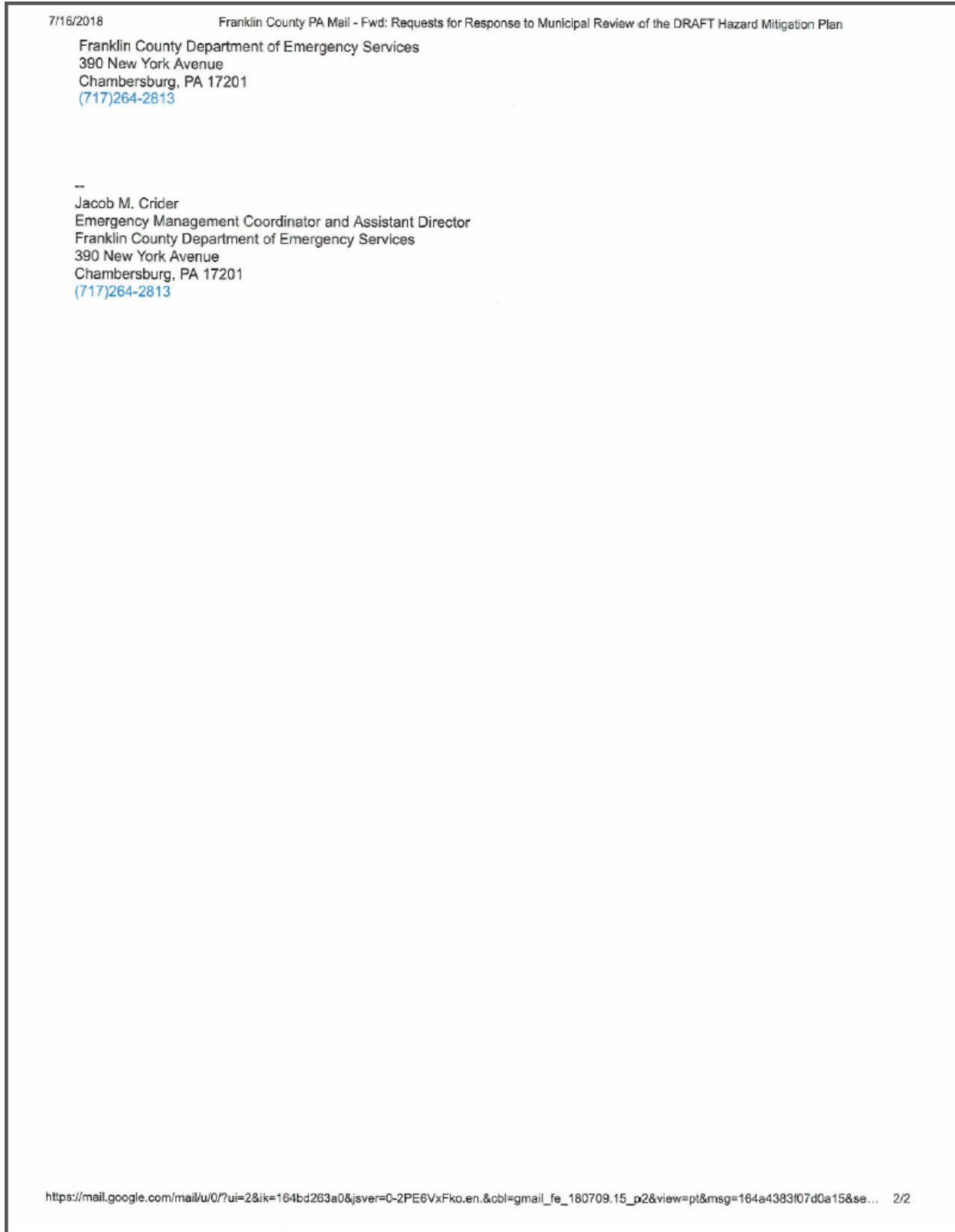



Figure D.27.2: Chambersburg Borough DRAFT HMP Review/Comments – Page 2 of 2

Appendix D: Worksheet Survey Responses

7/2/2018 Franklin County PA Mail - Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018



Robert Povlich <rwovlich@franklincountypa.gov>

Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

Steve Sites <rescue_12@hotmail.com> Mon, Jul 2, 2018 at 9:43 AM
To: Robert Povlich <rwovlich@franklincountypa.gov>

Bob, Fannett Township is excepting the document as written without any comments.

Thanks

Steve Sites
Fannett Township EMC

On Jul 2, 2018, at 8:10 AM, Robert Povlich <rwovlich@franklincountypa.gov> wrote:

HMPT Members,

We are a little less than two weeks out from the closeout of the HMP DRAFT Review and Comment Period (15 Jul 2018). We have only received 4 confirmation emails from municipalities. The following municipalities still owe us a response to close out their participation in the review process of the HMP:

- Antrim Township
- Chambersburg Borough
- Fannett Township
- Greencastle Borough
- Guilford Township
- Letterkenny Township
- Lurgan Township
- Mercersburg Borough
- Mont Alto Borough
- Orrstown Borough
- Peters Township
- Quincy Township
- Shippensburg Borough
- Southampton Township
- St Thomas Township
- Warren Township
- Washington Township
- Waynesboro Borough

You can access the HMP DRAFT documents a the link below:

http://www.franklincountypa.gov/index.php?section=des_mitigation_plan

All we need to close out your review/comments participation is an email from the Local EMC or Municipal Leadership with your comments and/or a statement about acceptance without comment. As a note, any changes you want to have happen in the HMP document has to occur in this review period. As soon as we send this DRAFT to PEMA the comments period for this document will be locked until after we get the FEMA Approval Pending Adoption. What this really means is if you have comments that you did not submit in this review, they will have to be addressed in one of the subsequent annual reviews.

Please contact me if you have any questions. Thanks.


Bob
--
Bob Povlich
Franklin County Emergency Services
Planning Coordinator
717-264-2813

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=B1w0sCQX_4s.en.&cbl=gmail_fe_180627.11_p0&view=pt&msg=1645b3c4e4aea806&... 1/2

Figure D.28: Fannett Township DRAFT HMP Review/Comments

Appendix D: Worksheet Survey Responses

7/23/2018 Franklin County PA Mail - Fwd: HMP

 **Robert Povlich** <rpovlich@franklincountypa.gov>

Fwd: HMP

Jacob Crider <jmcrider@franklincountypa.gov> Mon, Jul 23, 2018 at 1:06 PM
To: Robert Povlich <rpovlich@franklincountypa.gov>
Cc: John Thierwechter <jkthierwechter@franklincountypa.gov>

All completed!!!

----- Forwarded message -----
From: **Craig Myers** <craig.myersgbc@gmail.com>
Date: Mon, Jul 23, 2018 at 12:49 PM
Subject: HMP
To: jmcrider@franklincountypa.gov

Mr. Crider,

On behalf of the Borough of Greencastle and the Township of Antrim I would like to inform you that we are in agreement with the Hazard Mitigation Plan as proposed. We also look forward to assisting the County as the process continues.

Respectfully,
Craig Myers
EMC Antrim Twp.
EMC Greencastle Borough

Craig


--
Jacob M. Crider
Emergency Management Coordinator and Assistant Director
Franklin County Department of Emergency Services
390 New York Avenue
Chambersburg, PA 17201
(717)264-2813

https://mail.google.com/mail/u/0/?ui=2&ik=16-4bd263a0&jsver=_Lt_PExeXg.en.&cbl=gmail_fe_180715.15_p2&view=pt&msg=164c81c0121c7b59&se... 1/1

Figure D.29: Greencastle Borough DRAFT HMP Review/Comments

Appendix D: Worksheet Survey Responses

6/15/2018 Franklin County PA Mail - HMP Review

 **Robert Povlich** <rpovlich@franklincountypa.gov>

HMP Review

Shawn Corwell <SCorwell@greenetwp.us> Fri, Jun 15, 2018 at 9:04 AM
To: Robert Povlich <rpovlich@franklincountypa.gov>
Cc: Todd Burns <tburns@greenetwp.us>, Travis Brookens <tbrookens@greenetwp.us>

Bob,

I want to thank you and the DES staff for all of the work you have done updating the County Hazard Mitigation Plan. Greene Township Emergency Management staff reviewed the plan and feel that the document contains great information and will help plan for future events that may occur in the county. We do have a couple comments about the plan.

1. Each year send municipalities a list of mitigation actions that were identified to verify they have or have not been completed.
2. Ask municipalities to track incidents that local EMA responds to that may not require a county response (County wide reporting system).

Thanks,


Shawn Corwell
Greene Township Supervisor/Emergency Management
1145 Garver Lane P.O. Box 215
Scotland, Pennsylvania 17254-0215
717-263-9160
scorwell@greenetwp.us

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=AJIQMD5XzY.en.&cbl=gmail_fe_180610.15_p4&view=pt&msg=164038c8fc1cc270&se... 1/1

Figure D.30: Greene Township DRAFT HMP Review/Comments

Appendix D: Worksheet Survey Responses

7/18/2018 Franklin County PA Mail - Re: Requests for Response to Municipal Review of the DRAFT Hazard Mitigation Plan



Robert Povlich <rwovlich@franklincountypa.gov>

Re: Requests for Response to Municipal Review of the DRAFT Hazard Mitigation Plan

John Thierwechter <jkthierwechter@franklincountypa.gov> Tue, Jul 17, 2018 at 5:24 PM
To: Jacob Crider <jmcrider@franklincountypa.gov>
Cc: Robert Povlich <rwovlich@franklincountypa.gov>

Excellent.

On Tue, Jul 17, 2018, 17:21 Jacob Crider <jmcrider@franklincountypa.gov> wrote:
FYI

----- Forwarded message -----
From: Frank Hobbs <fhobbs@guilfordtwp.us>
Date: Tue, Jul 17, 2018, 4:48 PM
Subject: Re: Requests for Response to Municipal Review of the DRAFT Hazard Mitigation Plan
To: Jacob Crider <jmcrider@franklincountypa.gov>

Jake,

Guilford EMA reviewed with no concerns or reservations.

Thanks,

Frank

On Jul 16, 2018, at 1:36 PM, Jacob Crider <jmcrider@franklincountypa.gov> wrote:

Dear Municipal Leaders and Local EMCs,

The deadline for review and comment on the DRAFT Hazard Mitigation Plan has come to a close (July 15, 2018). We still need to get comments and/or concurrence from seven of our municipalities listed below:

Antrim Township
Chambersburg Borough
Greencastle Borough
Guilford Township
Mercersburg Borough
Orrstown Borough
Waynesboro Borough

We need to have 100% completion of this review by all municipalities prior to sending it to PEMA for review. Please review the documents on the Franklin County web page below and send any comments you have or if you are OK with the document as written send us an email with your concurrence of the document.

http://www.franklincountypa.gov/index.php?section=des_mitigation_plan

We need to get this document to PEMA as soon as we can so that it gets into FEMA's hands before the end of the quarter. This will allow for any extra time needed by FEMA due to the hurricane season. With all the hard work we have put into this plan, we all want to get this plan adopted and in place as fast as we can.

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=Lt_PElxeXg.en.&cbl=gmail_fe_180715.15_p2&view=pt&msg=164aa211b4f3a083&sea... 1/2

Figure D.31.1: Guilford Township DRAFT HMP Review/Comments – Page 1 of 2

Appendix D: Worksheet Survey Responses

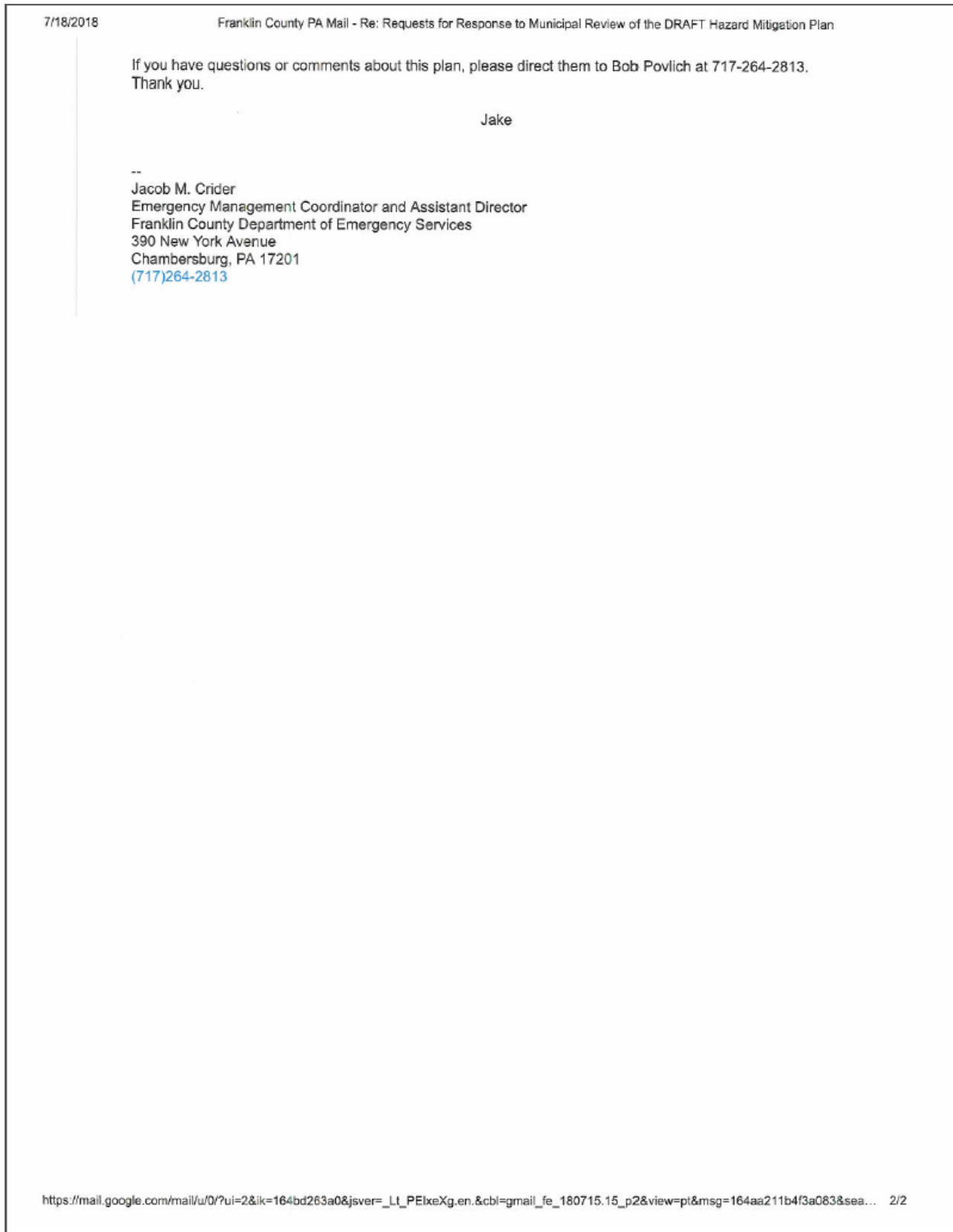



Figure D.31.2: Guilford Township DRAFT HMP Review/Comments – Page 2 of 2

Appendix D: Worksheet Survey Responses

6/13/2018 Franklin County PA Mail - HMP Draft Comments

 **Robert Povlich** <rwповlich@franklincountypa.gov>

HMP Draft Comments

Hamilton Township <hamiltontwp@comcast.net> Wed, Jun 13, 2018 at 11:26 AM
Reply-To: Hamilton Township <hamiltontwp@comcast.net>
To: Robert Povlich <rwповlich@franklincountypa.gov>

Mr. Povlich --

Both Randy Negley and Rich Troup, Hamilton Township Supervisors, have reviewed the Draft HMP document. Neither of them have any comments on any section, they both concur as written.

Thank you,

Deb

Deborah J. Hollenshead
Secretary/Treasurer
Hamilton Township, Franklin County
1270 Crottestown Road
Chambersburg, PA 17202
Telephone: (717) 264-2946
Fax: (717) 264-2134


NOTICE: Hamilton Township welcomes the opportunity to engage in discussions on matters involving public Township business. However, the Code for Townships of the Second Class requires an affirmative vote of a majority of the Board of Supervisors at a public meeting in order to transact any business. Accordingly, while Supervisors and staff may engage in discussions with those seeking comment, guidance, advice or direction, no such discussion shall constitute action by the Township unless there is an affirmative vote of the majority of the Board of Supervisors at a duly advertised public meeting.

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=4v-OUP2y87c.en.&cbl=gmail_fe_180610.15_p0&view=pt&msg=163f9c0f3ef56e27&search=inbox

Figure D.32: Hamilton Township DRAFT HMP Review/Comments

Appendix D: Worksheet Survey Responses

7/3/2018 Franklin County PA Mail - Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

 Robert Povlich <rwovlich@franklincountypa.gov>

Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

Melissa Kibbe <letterkenny@embarqmail.com> Tue, Jul 3, 2018 at 12:02 PM
Reply-To: Melissa Kibbe <letterkenny@embarqmail.com>
To: Robert Povlich <rwovlich@franklincountypa.gov>

The Board of Supervisors and EMC for Letterkenny Township approve the draft copy of the Fr. Co. Hazzard Mitigation Plan without comment.

Melissa W Kibbe, Manager

Letterkenny Township
4924 Orrstown Road
Orrstown, PA 17244
Phone: 717-532-8716
Fax: 717-532-7134
www.letterkennytownship.org

From: "Robert Povlich" <rwovlich@franklincountypa.gov>
To: adamsmail@centurylink.net, amc267@psu.edu, "barbara mistick" <barbara.mistick@wilson.edu>, "cherie p brown civ" <cherie.p.brown.civ@mail.mil>, davestoner@franklinccd.org, debitner@geisinger.edu, dfarmer@summithealth.org, director@waynesboro.org, dkline@firstenergycorp.com, drock@pa.gov, "edward peters" <edward.peters@casdonline.org>, ema@huntingdoncounty.net, FD01@pa.gov, gkrotz@centurylink.net, greene@greenetwp.us, "gregory hoover" <gregory.hoover@ship.k12.pa.us>, gtsups@guilfordtwp.us, info@quincytp.org, jenniferf@herald-mail.com, jhook@publicopinionnews.com, jonwilliams@summithealth.org, "joseph padasak" <joseph.padasak@casdonline.org>, "kristin carroll" <kristin.carroll@casdonline.org>, ktrail@gcasd.org, "lee barnes" <lee_barnes@csx.com>, "Leslie Walter" <Leslie.Walter@use.salvationarmy.org>, lorik@adamsec.coop, "matthew strine" <matthew.strine@tus.k12.pa.us>, mgeesaman@ccschambersburg.org, mhykes@pa.gov, "Mongtomery" <montgmerytwp@comcast.net>, "Shippensburg News-Chronicle" <nceditor@gmail.com>, news@therecordherald.com, Newsdesk@publicopinionnews.com, rdhays@washco-md.net, rfultz@perryco.org, robbingama@pa.gov, rshamm@embarqmail.com, rstrait@co.fulton.pa.us, schristian@chambersburg.org, "sharon weigle" <sharon.weigle@pa.usda.gov>, southamptonfranklin@comcast.net, srperrin@spectraenergy.com, titusk@mercersburg.edu, tleiss@patumpike.com, tmurr@cvcslazers.com, tross@valleyrec.com, "victor j lail" <victor.j.lail@dom.com>, "waynesboro history" <waynesboro.history@comcast.net>, wshupe@nisource.com, "Allen Weaver" <aweaver@juniataco.org>, "Allen White" <allen.white@redcross.org>, "Angie Petersheim" <apetersheim@shalomca.com>, "alkeller" <alkeller@franklincountypa.gov>, "Ann Hull" <history@pa.net>, "Anthony M (Tony) CIV USARMY USAMC Zollo (US)" <anthony.m.zollo.civ@mail.mil>, "Anthony Ogburn"

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=y/UhS3BiU1w.en.&cbl=gmail_fe_180701.15_p2&view=pt&msg=16460e13cd30581f&se... 1/3

Figure D.33.1: Letterkenny Township DRAFT HMP Review/Comments – Page 1 of 3

Appendix D: Worksheet Survey Responses

7/3/2018

Franklin County PA Mail - Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

<anthony@rockbreak.com>, "Barbara Watson - NOAA Federal" <barbara.watson@noaa.gov>, "Bill Little" <wslittle@comcast.net>, "Bob Thomas" <rthomas@franklincountypa.gov>, "Bob Ziobrowski" <rgziobrowski@franklincountypa.gov>, "Brad Graham" <bgraham@twp.antrim.pa.us>, "Carrie Gray" <cegray@franklincountypa.gov>, "Cassie Yost" <clm275@psu.edu>, "Chad Kreitz" <chad.kreitz@gmail.com>, "Cori Seilhamer" <caseilhamer@franklincountypa.gov>, "Craig Myers" <craig.myers@rescuehose.com>, "Dan May" <robert@shopchambersburgmail.com>, "Dave Finch" <dfinch@chambersburgpa.gov>, "Dave Keller" <dkeller@franklincountypa.gov>, "David Burkett" <burkettd@famtigers.org>, "David Leab" <leabs@innernet.net>, "David Lindenmuth" <djlindenmuth@gmail.com>, "David Newell" <drdavidnewell@gmail.com>, "Derek Stoy" <dstoy.mercersburgborough@comcast.net>, "Don Clapper" <dclapper@guilfordtwp.us>, "Don Eshleman" <deshleman28@gmail.com>, "Donna Trueax" <donna_trueax@wasdpa.org>, "Doug Prowant" <prowant@pa.net>, "Doug Shields" <dshields@southamptontownship.org>, "Dusty Stoner" <dsjr124@comcast.net>, "Eden Ratliff" <eratiff@greencastlepa.gov>, "Eric Holtzman" <eric_holtzman@wasdpa.org>, "Eric Varner" <evartner@phfd.org>, "Esterline, Brenda" <besterline@pa.gov>, "Frank Hobbs" <fhobbs@guilfordtwp.us>, "FranklinPa Stormchasers" <fcpascwi@gmail.com>, "Gary Himes" <firefighter37@comcast.net>, "bgreen" <bgreen@firstenergycorp.com>, "Greg Weller" <gweller91@gmail.com>, "Gregory Noll" <ggnoll@sctfpa.org>, "Deb Hollenshead" <hamiltontwp@comcast.net>, "Jacob Crider" <jmcrider@franklincountypa.gov>, "James Sourbier" <jsourbier@waynesboropolice.com>, "Jason Stains" <jason@waynesboropa.org>, "Jeffrey Geesaman" <jbg@washtwp-franklin.org>, "Jeffrey Stonehill" <jstonehill@chambersburgpa.gov>, "Jim Duffey" <Jim.Duffey@franklinctc.com>, "Jim Meek" <jem@washtwp-franklin.org>, "Joanne Sheets" <jksheets@franklincountypa.gov>, "John Epley" <jepley@shippensburg.pa.us>, "John Hart" <jahart@franklincountypa.gov>, "John Ressler" <johnressler.2@gmail.com>, "John Thierwechter" <jkthierwechter@franklincountypa.gov>, "Julia Lehman" <jllehman@franklincountypa.gov>, "Justin - NRCS Chambersburg, PA Atkins" <Justin.Atkins@pa.usda.gov>, "Justin Shaulis" <jshaulis@ccpa.net>, "Justin Sholes" <justin.sholes@franklinctc.com>, "kknepper" <kknepper@franklincountypa.gov>, "Kerry Bumbaugh" <kerry@quincytpa.org>, "Kevin Berkheimer" <kjberkheimer@nisource.com>, "Laura Laucks" <llaucks@pa.gov>, "Linda Miller" <lmliller@franklincountypa.gov>, "Loretta McClure" <lmcclure@franklincountypa.gov>, "Lurgan Township" <lurgantwp@embarqmail.com>, "Mark Garling" <mark_garling@yahoo.com>, "Mary Ann Alleman" <maalleman@franklincountypa.gov>, "Matthew Gordon" <matthew_gordon@wasdpa.org>, "Matthew Kendall" <mrkendall@franklincountypa.gov>, "Matthew Steinbugl - NOAA Federal" <matthew.steinbugl@noaa.gov>, "Melissa Kibbe" <letterkenny@embarqmail.com>, "Melissa Stevens" <melissa.stevens@casdonline.org>, "Anna Swailes" <localgov100@embarqmail.com>, "michael bock" <sooflymwb@yahoo.com>, "Dale Myers" <dmyers@phfd.org>, "mab" <mab@comcast.net>, "Paul T. Reed" <preed@kuhncom.net>, "Peter Jung - NOAA Federal" <peter.jung@noaa.gov>, "Peters Township Supervisors" <peterstownship@comcast.net>, "Phil Tarquino" <ptarquino@franklincountypa.gov>, "Radford, Mari" <mari.radford@fema.dhs.gov>, "Robert Povlich" <rpovlich@franklincountypa.gov>, "Ron Pezon" <rpezon@chambersburgpa.gov>, "Sajeski, Eugene" <esajeski@pa.gov>, "Samuel Thrush" <sjthrush@franklincountypa.gov>, "Sarah Benschhoff" <slbenschhoff@franklincountypa.gov>, "Shawn Corwell" <scorwell@greenetwp.us>, "Shively, Robert" <rshively@ccpa.net>, "St Thomas township" <stthomastwp@comcast.net>, "Steve Nevada" <sanevada@franklincountypa.gov>, "Steve Sites" <rescue_12@hotmail.com>, "Szabo, Ernest" <erszabo@pa.gov>, "Teresa Beckner" <tbeckner@franklincountypa.gov>, "Tiffany Bloyer" <tibloyer@franklincountypa.gov>, "Tod Kline" <tod_kline@wasdpa.org>, "Todd Burns" <tburns@greenetwp.us>, "Travis Sims" <tesims@franklincountypa.gov>, "Warren Bladen" <wpbladen@adamscounty.us>

Sent: Monday, July 2, 2018 8:10:08 AM

Subject: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

HMPT Members,

We are a little less than two weeks out from the closeout of the HMP DRAFT Review and Comment Period (15 Jul 2018). We have only received 4 confirmation emails from municipalities.

https://mail.google.com/mail/u/0/?ui=2&k=164bd263a0&jsver=yIUhS3BiU1w.en.&cbi=gmail_fe_180701.15_p2&view=pt&msg=16460e13cd30581f&se... 2/3

Figure D.33.2: Letterkenny Township DRAFT HMP Review/Comments – Page 2 of 3

Appendix D: Worksheet Survey Responses

7/3/2018

Franklin County PA Mail - Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

The following municipalities still owe us a response to close out their participation in the review process of the HMP:

Antrim Township
Chambersburg Borough
Fannett Township
Greencastle Borough
Guilford Township
Letterkenny Township
Lurgan Township
Mercersburg Borough
Mont Alto Borough
Orrstown Borough
Peters Township
Quincy Township
Shippensburg Borough
Southampton Township
St Thomas Township
Warren Township
Washington Township
Waynesboro Borough

You can access the HMP DRAFT documents at the link below:

http://www.franklincountypa.gov/index.php?section=des_mitigation_plan

All we need to close out your review/comments participation is an email from the Local EMC or Municipal Leadership with your comments and/or a statement about acceptance without comment. As a note, any changes you want to have happen in the HMP document has to occur in this review period. As soon as we send this DRAFT to PEMA the comments period for this document will be locked until after we get the FEMA Approval Pending Adoption. What this really means is if you have comments that you did not submit in this review, they will have to be addressed in one of the subsequent annual reviews.

Please contact me if you have any questions. Thanks.

Bob

--


Bob Povlich
Franklin County Emergency Services
Planning Coordinator
717-264-2813

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=yIUhS3BiU1w.en.&cbl=gmail_fe_180701.15_p2&view=pt&msg=16460e13cd30581f&se... 3/3

Figure D.33.3: Letterkenny Township DRAFT HMP Review/Comments – Page 3 of 3

Appendix D: Worksheet Survey Responses

7/9/2018 Franklin County PA Mail - Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018



Robert Povlich <rwovlich@franklincountypa.gov>

Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

Lurgan Township <lurgantwp@embarqmail.com> Fri, Jul 6, 2018 at 6:54 AM
To: Robert Povlich <rwovlich@franklincountypa.gov>

Lurgan Township Board of Supervisors are in acceptance of the draft review of HMP documents without comments.

From: "Robert Povlich" <rwovlich@franklincountypa.gov>
To: adamsmail@centurylink.net, amc267@psu.edu, "barbara mistick" <barbara.mistick@wilson.edu>, "cherie p brown civ" <cherie.p.brown.civ@mail.mil>, davestoner@franklinccd.org, debitter@geisinger.edu, dfamer@summithealth.org, director@waynesboro.org, dkline@firstenergycorp.com, drock@pa.gov, "edward peters" <edward.peters@casdonline.org>, ema@huntingdoncounty.net, FD01@pa.gov, gkrotz@centurylink.net, greene@greenetwp.us, "gregory hoover" <gregory.hoover@ship.k12.pa.us>, gtsups@guilfordtp.us, info@quincytwp.org, jenniferf@herald-mail.com, jhook@publicopinionnews.com, jonwilliams@summithealth.org, "joseph padasak" <joseph.padasak@casdonline.org>, "kristin carroll" <kristin.carroll@casdonline.org>, ktrail@gcasd.org, "lee barnes" <lee_barnes@csx.com>, "Leslie Walter" <Leslie.Walter@use.salvationarmy.org>, lorik@adamsec.coop, "matthew strine" <matthew.strine@tus.k12.pa.us>, mgeesaman@ccschambersburg.org, mhykes@pa.gov, "Montgomery Township" <montgomerytwp@comcast.net>, nceditor@gmail.com, news@therecordherald.com, Newsdesk@publicopinionnews.com, rdhays@washco-md.net, rfultz@perryco.org, robbingama@pa.gov, rshamm@embarqmail.com, rstrait@co.fulton.pa.us, schristian@chambersburg.org, "sharon weigle" <sharon.weigle@pa.usda.gov>, southamptonfranklin@comcast.net, srperrin@spectraenergy.com, titusk@mercersburg.edu, tleiss@paturnpike.com, tmurr@cvcsblazers.com, tross@valleyrec.com, "victor j lail" <victor.j.lail@dom.com>, "waynesboro history" <waynesboro.history@comcast.net>, wshupe@nisource.com, "Allen Weaver" <aweaver@juniataco.org>, "Allen White" <allen.white@redcross.org>, "Angie Petersheim" <apetersheim@shalomca.com>, "Anita Keller" <akeller@franklincountypa.gov>, "Ann Hull" <history@pa.net>, "Anthony M (Tony) CIV USARMY USAMC Zollo (US)" <anthony.m.zollo.civ@mail.mil>, "Anthony Ogburn" <anthony@rockbreak.com>, "Barbara Watson - NOAA Federal" <barbara.watson@noaa.gov>, "Bill Little" <wslittle@comcast.net>, "Bob Thomas" <rthomas@franklincountypa.gov>, "Bob Ziobrowski" <rgziobrowski@franklincountypa.gov>, "Brad Graham" <bgraham@twp.antrim.pa.us>, "Carrie Gray" <cegray@franklincountypa.gov>, "Cassie Yost" <clm275@psu.edu>, "Chad Kreitz" <chad.kreitz@gmail.com>, "Cori Seilhamer" <caseilhamer@franklincountypa.gov>, "Craig Myers" <craig.myers@rescuehose.com>, "Dan May" <robert@shopchambersburgmail.com>, "Dave Finch" <dfinch@chambersburgpa.gov>, "Dave Keller" <dskeller@franklincountypa.gov>, "David Burkett" <burkett@fmtigers.org>, "David Leab" <leabs@innernet.net>, "David Lindenmuth" <djlindenmuth@gmail.com>, "David Newell" <drdavidnewell@gmail.com>, "Derek Stoy" <dstoy.mercersburgborough@comcast.net>, "Don Clapper" <dclapper@guilfordtp.us>, "deshleman28" <deshleman28@gmail.com>, "Donna Trueax" <donna_trueax@wasdpa.org>, "Doug Prowant" <prowant@pa.net>, "Doug Shields" <dshields@southamptontownship.org>, "Dusty Stoner" <dsjr124@comcast.net>, "Eden Ratliff" <eratliff@greencastlepa.gov>, "Eric Holtzman" <eric_holtzman@wasdpa.org>, "Eric Varner" <evartner@phfd.org>, "Esterline, Brenda" <besterline@pa.gov>, "Frank Hobbs" <fhobbs@guilfordtp.us>, "FranklinPa Stormchasers" <fcpscwi@gmail.com>, "Gary Himes" <firefighter37@comcast.net>, "Green, Beverly M" <bgreen@firstenergycorp.com>, "Greg Weller" <gweller91@gmail.com>, "Gregory Noll" <ggnoll@sctfpa.org>, "Deb J. Hollenshead," <hamiltontwp@comcast.net>, "Jacob Crider" <jmcrider@franklincountypa.gov>, "James Sourbier" <jsourbier@waynesboropolice.com>, "Jason Cohen" <jason@waynesboropa.org>, "Jeffrey Geesaman" <jbg@washtwp-franklin.org>, "Jeffrey Stonehill" <jstonehill@chambersburgpa.gov>, "Jim Duffey" <Jim.Duffey@franklinctc.com>, "Jim Meek" <jem@washtwp-franklin.org>, "jk sheets" <jksheets@franklincountypa.gov>, "John Epley" <jepley@shippensburg.pa.us>, "John Hart" <jahart@franklincountypa.gov>, "John Ressler" <johnressler.2@gmail.com>, "John Thierwechter" <jkthierwechter@franklincountypa.gov>, "Julia Lehman" <jllehman@franklincountypa.gov>, "Justin - NRCS Chambersburg, PA Atkins" <Justin.Atkins@pa.usda.gov>, "Justin Shaulis" <jshaulis@ccpa.net>, "Justin Sholes" <justin.sholes@franklinctc.com>, "Kelly Knepper" <kknepper@franklincountypa.gov>, "Kerry Bumbaugh" <kerry@quincytwp.org>, "Kevin Berkheimer" <kjberkheimer@nisource.com>, "Laura Laucks" <llaucks@pa.gov>, "Linda Miller" <lmiller@franklincountypa.gov>, "Loretta McClure" <ljmccclure@franklincountypa.gov>, "Lurgan Township" <lurgantwp@embarqmail.com>, "Mark Garling" <mark_garling@yahoo.com>, "Mary Ann Alleman" <maalleman@franklincountypa.gov>, "Matthew Gordon" <matthew_gordon@wasdpa.org>, "Matthew Kendall" <mrkendall@franklincountypa.gov>, "Matthew Steinbugl - NOAA Federal" <matthew.steinbugl@noaa.gov>, "Letterkenny Township" <letterkenny@embarqmail.com>, "Melissa Stevens" <melissa.stevens@casdonline.org>, "Metal Township" <localgov100@embarqmail.com>, "michael bock" <sooflymwb@yahoo.com>, "Dale Myers" <dmyers@phfd.org>, "Patricia Kocek" <mab@comcast.net>, "Paul T. Reed" <preed@kuhncom.net>, "Peter Jung - NOAA Federal" <peter.jung@noaa.gov>, "Peters Township Supervisors"

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Figure D.34.1: Lurgan Township DRAFT HMP Review/Comments – Page 1 of 2

Appendix D: Worksheet Survey Responses

7/9/2018 Franklin County PA Mail - Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

<peterstownship@comcast.net>, "Phil Tarquino" <ptarquino@franklincountypa.gov>, "Radford, Mari" <mari.radford@fema.dhs.gov>, "Robert Povlich" <rwovlich@franklincountypa.gov>, "Ron Pezon" <rpezon@chambersburgpa.gov>, "Sajeski, Eugene" <esajeski@pa.gov>, "Samuel Thrush" <sjthrush@franklincountypa.gov>, "Sarah Benschhoff" <slbenschhoff@franklincountypa.gov>, "Shawn Corwell" <scorwell@greenetwp.us>, "Shively, Robert" <rshively@ccpa.net>, "St Thomas township" <stthomastwp@comcast.net>, "Steve Nevada" <sanevada@franklincountypa.gov>, "Steve Sites" <rescue_12@hotmail.com>, "Szabo, Ernest" <erszabo@pa.gov>, "Teresa Beckner" <tbeckner@franklincountypa.gov>, "Tiffany Bloyer" <tibloyer@franklincountypa.gov>, "Tod Kline" <tod_kline@wasdpa.org>, "Todd Burns" <tburns@greenetwp.us>, "Travis Sims" <tesims@franklincountypa.gov>, "Warren Bladen" <wpbladen@adamscounty.us>

Sent: Monday, July 2, 2018 7:10:08 AM
Subject: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

HMPT Members,
We are a little less than two weeks out from the closeout of the HMP DRAFT Review and Comment Period (15 Jul 2018). We have only received 4 confirmation emails from municipalities. The following municipalities still owe us a response to close out their participation in the review process of the HMP:

Antrim Township
Chambersburg Borough
Fannett Township
Greencastle Borough
Guilford Township
Letterkenny Township
Lurgan Township
Mercersburg Borough
Mont Alto Borough
Orrstown Borough
Peters Township
Quincy Township
Shippensburg Borough
Southampton Township
St Thomas Township
Warren Township
Washington Township
Waynesboro Borough

You can access the HMP DRAFT documents a the link below:
http://www.franklincountypa.gov/index.php?section=des_mitigation_plan

All we need to close out your review/comments participation is an email from the Local EMC or Municipal Leadership with your comments and/or a statement about acceptance without comment. As a note, any changes you want to have happen in the HMP document has to occur in this review period. As soon as we send this DRAFT to PEMA the comments period for this document will be locked until after we get the FEMA Approval Pending Adoption. What this really means is if you have comments that you did not submit in this review, they will have to be addressed in one of the subsequent annual reviews.

Please contact me if you have any questions. Thanks.


Bob
—
Bob Povlich
Franklin County Emergency Services
Planning Coordinator
717-264-2813

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=CNuvaEByDik.en.&cbi=gmail_fe_180704.17_p2&view=pt&msg=1646f3a92d1d769a&se... 2/2

Figure D.34.2: Lurgan Township DRAFT HMP Review/Comments – Page 2 of 2

Appendix D: Worksheet Survey Responses

7/16/2018 Franklin County PA Mail - Fwd: Requests for Response to Municipal Review of the DRAFT Hazard Mitigation Plan



Robert Povlich <rpovlich@franklincountypa.gov>

Fwd: Requests for Response to Municipal Review of the DRAFT Hazard Mitigation Plan

Jacob Crider <jmcrider@franklincountypa.gov> Mon, Jul 16, 2018 at 1:49 PM
To: Robert Povlich <rpovlich@franklincountypa.gov>
Cc: John Thierwechter <jkthierwechter@franklincountypa.gov>

FYI

----- Forwarded message -----
From: **Derek J Stoy** <dstoy.mercersburgborough@comcast.net>
Date: Mon, Jul 16, 2018 at 1:43 PM
Subject: RE: Requests for Response to Municipal Review of the DRAFT Hazard Mitigation Plan
To: Jacob Crider <jmcrider@franklincountypa.gov>

Jake,

This email is to inform you that the Borough of Mercersburg is in acceptance of the HMP. If you need anything further please don't hesitate to ask!

Regards,

Derek J Stoy
Borough Manager
Zoning Officer
Borough of Mercersburg
113 South Main St.
Mercersburg Pa 17236
Phone: 717-328-3116 ext. 101
Fax: 717-328-3117
www.mercersburg.org/borough

From: Jacob Crider <jmcrider@franklincountypa.gov>
Sent: Monday, July 16, 2018 1:37 PM
To: jstonehill@chambersburgpa.gov; Craig Myers <craig.myers@rescuehose.com>; Brad Graham

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=0-2PE6VxFko.en.&cbl=gmail_fe_180709.15_p2&view=pt&msg=164a436aa4f01f20&se... 1/3

Figure D.35.1: Mercersburg Borough DRAFT HMP Review/Comments – Page 1 of 3

Appendix D: Worksheet Survey Responses

7/16/2018 Franklin County PA Mail - Fwd: Requests for Response to Municipal Review of the DRAFT Hazard Mitigation Plan

<bgraham@twp.antrim.pa.us>; Dave Finch <dfinch@chambersburgpa.gov>; Craig Myers <craig.myersgbc@gmail.com>; Frank Hobbs <fhobbs@guilfordtwp.us>; Dusty Stoner, Jr. <dsjr124@comcast.net>; Derek Stoy <dstoy.mercersburgborough@comcast.net>; Ted Reed (TReed@phfd.org) <TReed@phfd.org>; Mike Bock <soofflymwb@yahoo.com>; Kurt Wagaman <kwagaman@comcast.net>; Eden Ratliff <eratliff@greencastlepa.gov>; gtsups@guilfordtwp.us; prowant@pa.net; Jason Stains <jason@waynesboropa.org>

Cc: John Thierwechter <jkthierwechter@franklincountypa.gov>; Robert Povlich <rwповlich@franklincountypa.gov>; Joanne Sheets <jksheets@franklincountypa.gov>

Subject: Requests for Response to Municipal Review of the DRAFT Hazard Mitigation Plan

Dear Municipal Leaders and Local EMCs,

The deadline for review and comment on the DRAFT Hazard Mitigation Plan has come to a close (July 15, 2018). We still need to get comments and/or concurrence from seven of our municipalities listed below:

Antrim Township
Chambersburg Borough
Greencastle Borough
Guilford Township
Mercersburg Borough
Orrstown Borough
Waynesboro Borough

We need to have 100% completion of this review by all municipalities prior to sending it to PEMA for review. Please review the documents on the Franklin County web page below and send any comments you have or if you are OK with the document as written send us an email with your concurrence of the document.

http://www.franklincountypa.gov/index.php?section=des_mitigation_plan

We need to get this document to PEMA as soon as we can so that it gets into FEMA's hands before the end of the quarter. This will allow for any extra time needed by FEMA due to the hurricane season. With all the hard work we have put into this plan, we all want to get this plan adopted and in place as fast as we can.

If you have questions or comments about this plan, please direct them to Bob Povlich at 717-264-2813. Thank you.

Jake

--

Jacob M. Crider
Emergency Management Coordinator and Assistant Director
Franklin County Department of Emergency Services

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=0-2PE6VxFko.en.&cbl=gmail_fe_180709.15_p2&view=pt&msg=164a436aa4f01f20&se... 2/3

Figure D.35.2: Mercersburg Borough DRAFT HMP Review/Comments – Page 2 of 3

Appendix D: Worksheet Survey Responses

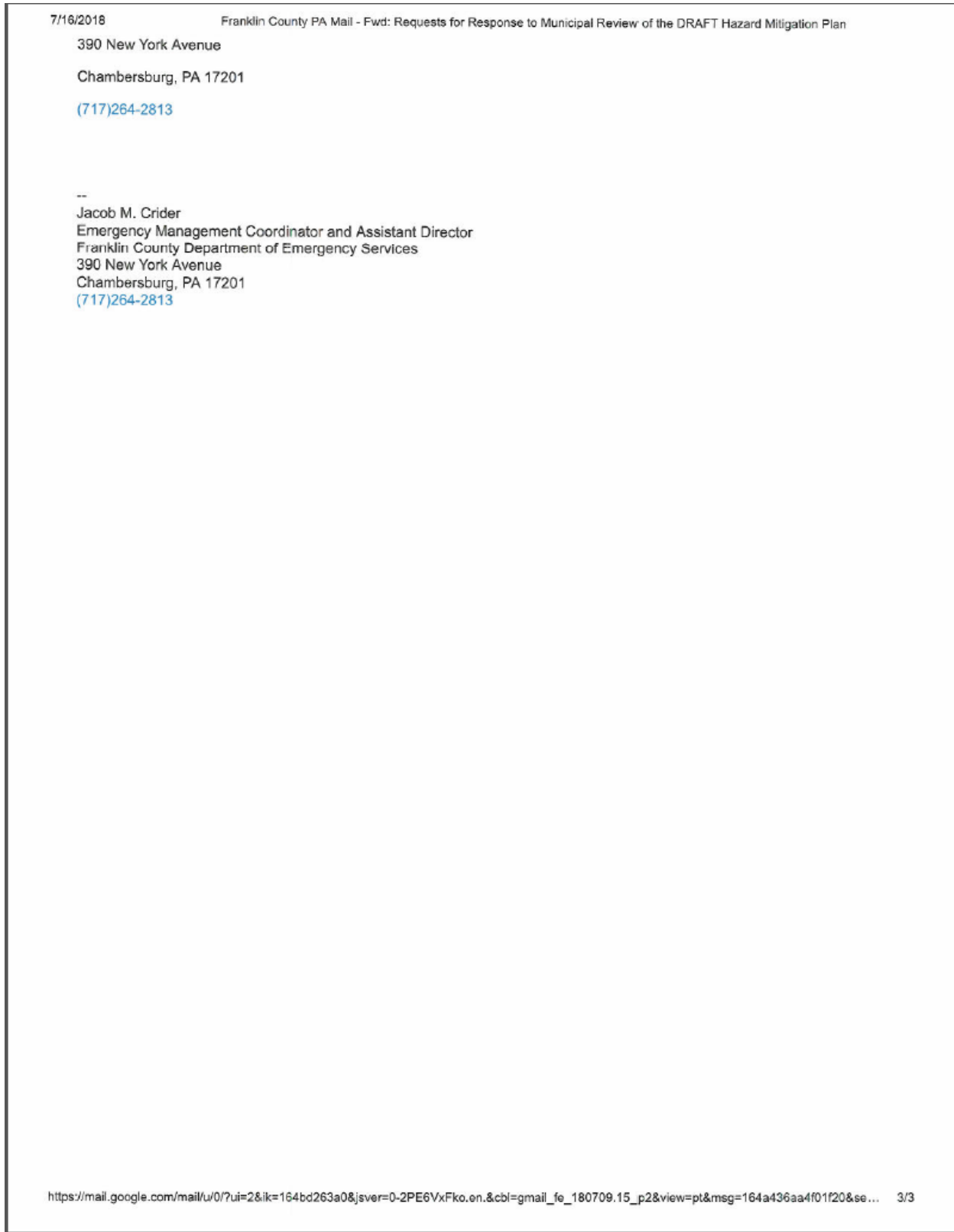



Figure D.35.3: Mercersburg Borough DRAFT HMP Review/Comments – Page 3 of 3

Appendix D: Worksheet Survey Responses

6/22/2018 Franklin County PA Mail - Re: Meeting Minutes for the 18 Jun Hazard Mitigation Plan Meeting



Robert Povlich <rwovlich@franklincountypa.gov>

Re: Meeting Minutes for the 18 Jun Hazard Mitigation Plan Meeting

Metal Township <localgov100@embarqmail.com> Fri, Jun 22, 2018 at 3:26 PM
To: Robert Povlich <rwovlich@franklincountypa.gov>

Hi Bob,

I have reviewed the documents, as they are posted. I concur with the information. Thank you for your hard work!

Anna Swailes, Supervisor
Metal Township

----- Original Message -----
From: Robert Povlich <rwovlich@franklincountypa.gov>
To: adamsmail@centurylink.net, amc267@psu.edu, barbara mistick <barbara.mistick@wilson.edu>, cherie p brown civ <cherie.p.brown.civ@mail.mil>, davestoner@franklinccod.org, debither@geisinger.edu, dfarmer@summithealth.org, director@waynesboro.org, dkline@firstenergycorp.com, drock@pa.gov, edward peters <edward.peters@casdonline.org>, ema@huntingdoncounty.net, FD01@pa.gov, gkrotz@centurylink.net, greene@greenetwp.us, gregory hoover <gregory.hoover@ship.k12.pa.us>, gtsups@guilfordtwp.us, info@quincytwp.org, jenniferf@herald-mail.com, jhook@publicopinionnews.com, jonwilliams@summithealth.org, joseph padasak <joseph.padasak@casdonline.org>, kristin carroll <kristin.carroll@casdonline.org>, ktrail@gcasd.org, lee barnes <lee_barnes@csx.com>, Leslie Walter <Leslie.Walter@use.salvationarmy.org>, lorik@adamsec.coop, matthew strine <matthew.strine@tus.k12.pa.us>, mgeesaman@ccschambersburg.org, mhykes@pa.gov, Montgomery Township <montgmerytwp@comcast.net>, nceditor@gmail.com, news@therecordherald.com, Newsdesk@publicopinionnews.com, rdhays@washco-md.net, rfultz@perryco.org, robbingama@pa.gov, rshamm@embarqmail.com, rstrait@co.fulton.pa.us, schristian@chambersburg.org, sharon weigle <sharon.weigle@pa.usda.gov>, southamptonfranklin@comcast.net, srperrin@spectraenergy.com, titusk@mercersburg.edu, tleiss@paturmpike.com, tmurr@cvcsblazers.com, tross@valleyrec.com, victor j lail <victor.j.lail@dom.com>, waynesboro history <waynesboro.history@comcast.net>, wshupe@nisource.com, Allen Weaver <aweaver@juniataco.org>, Allen White <allen.white@redcross.org>, Angie Petersheim <apetersheim@shalomca.com>, Anita Keller <alkeller@franklincountypa.gov>, Ann Hull <history@pa.net>, Anthony M (Tony) CIV USARMY USAMC Zollo (US) <anthony.m.zollo.civ@mail.mil>, Anthony Ogburn <anthony@rockbreak.com>, Barbara Watson - NOAA Federal <barbara.watson@noaa.gov>, Bill Little <wslittle@comcast.net>, Bob Thomas <rbthomas@franklincountypa.gov>, Bob Ziobrowski <rgziobrowski@franklincountypa.gov>, Brad Graham <bgraham@twp.antrim.pa.us>, Carrie Gray <cegray@franklincountypa.gov>, Cassie Yost <clm275@psu.edu>, Chad Kreitz <chad.kreitz@gmail.com>, Cori Seilhamer <caseilhamer@franklincountypa.gov>, Craig Myers <craig.myers@rescuehose.com>, Dan May <robert@shopchambersburgmail.com>, Dave Finch <dfinch@chambersburgpa.gov>, Dave Keller <ds Keller@franklincountypa.gov>, David Burkett <burkett@fmtigers.org>, David Leab <leabs@innernet.net>, David Lindenmuth <djlindenmuth@gmail.com>, David Newell <drdavidnewell@gmail.com>, Derek Stoy <dstoy.mercersburgborough@comcast.net>, Don Clapper <dclapper@guilfordtwp.us>, Don Eshleman <deshleman28@gmail.com>, Donna Trueax <donna_trueax@wasdpa.org>, Doug Prowant <prowant@pa.net>, Doug Shields <dshields@southamptontownship.org>, Dusty Stoner <dsjr124@comcast.net>, Eden Ratliff <eratliff@greencastlepa.gov>, Eric Holtzman <eric_holtzman@wasdpa.org>, Eric Varner <evvarner@phfd.org>, Esterline, Brenda <besterline@pa.gov>, Frank Hobbs <fhobbs@guilfordtwp.us>, FranklinPa Stormchasers <fcpascwi@gmail.com>, Gary Himes <firefighter37@comcast.net>, Green, Beverly M <bgreen@firstenergycorp.com>, Greg Weller <gweller91@gmail.com>, Gregory Noll <ggnoll@sctpa.org>, Hamilton Township <hamiltontwp@comcast.net>, Jacob Crider <jmcrider@franklincountypa.gov>, James Sourbier <jsourbier@waynesboropolice.com>, Jason Stains <jason@waynesboropa.org>, Jeffrey Geesaman <jbg@washtwp-franklin.org>, Jeffrey Stonehill <jstonehill@chambersburgpa.gov>, Jim Duffey <Jim.Duffey@franklinctc.com>, Jim Meek <jem@washtwp-franklin.org>, Joanne Sheets <jksheets@franklincountypa.gov>, John Epley <jepley@shippensburg.pa.us>, John Hart <jahart@franklincountypa.gov>, John Ressler <johnressler.2@gmail.com>, John Thierwechter <jkthierwechter@franklincountypa.gov>, Julia Lehman <jllehman@franklincountypa.gov>, Justin - NRCS Chambersburg, PA Atkins <Justin.Atkins@pa.usda.gov>, Justin Shaulis <jshaulis@ccpa.net>, Justin Sholes <justin.sholes@franklinctc.com>, Kelly Knepper <kknepper@franklincountypa.gov>, Kerry Bumbaugh <kerry@quincytwp.org>, Kevin Berkheimer <kjberkheimer@nisource.com>, Laura Laucks <llaucks@pa.gov>, Linda Miller <lmiller@franklincountypa.gov>, Loretta McClure <ljmccclure@franklincountypa.gov>, Lurgan Township <lurgantwp@embarqmail.com>, Mark Garling <mark_garling@yahoo.com>, Mary Ann Alleman <maalleman@franklincountypa.gov>, Matthew Gordon <matthew_gordon@wasdpa.org>, Matthew Kendall

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Figure D.36.1: Metal Township DRAFT HMP Review/Comments – Page 1 of 2

Appendix D: Worksheet Survey Responses

6/22/2018 Franklin County PA Mail - Re: Meeting Minutes for the 18 Jun Hazard Mitigation Plan Meeting

<mrkendall@franklincountypa.gov>, Matthew Steinbugl - NOAA Federal <matthew.steinbugl@noaa.gov>, Melissa Kibbe <letterkenny@embarqmail.com>, Melissa Stevens <melissa.stevens@casdonline.org>, Metal Township <localgov100@embarqmail.com>, michael bock <sooflymwb@yahoo.com>, Myers, Dale III <dmyers@phfd.org>, Patricia Kocek <mab@comcast.net>, Paul T. Reed <preed@kuhncom.net>, Peter Jung - NOAA Federal <peter.jung@noaa.gov>, Peters Township Supervisors <peterstownship@comcast.net>, Phil Tarquino <ptarquino@franklincountypa.gov>, Radford, Mari <mari.radford@fema.dhs.gov>, Robert Povlich <rpovlich@franklincountypa.gov>, Ron Pezon <rpezon@chambersburgpa.gov>, Sajeski, Eugene <esajeski@pa.gov>, Samuel Thrush <sjthrush@franklincountypa.gov>, Sarah Benshoff <sbenshoff@franklincountypa.gov>, Shawn Corwell <scorwell@greenetwp.us>, Shively, Robert <rshively@ccpa.net>, St Thomas township <stthomastwp@comcast.net>, Steve Nevada <sanevada@franklincountypa.gov>, Steve Sites <rescue_12@hotmail.com>, Szabo, Ernest <erszabo@pa.gov>, Teresa Beckner <tbeckner@franklincountypa.gov>, Tiffany Bloyer <tbloyer@franklincountypa.gov>, Tod Kline <tod_kline@wasdpa.org>, Todd Burns <tburns@greenetwp.us>, Travis Sims <tesims@franklincountypa.gov>, Warren Bladen <wpbladen@adamscounty.us>

Sent: Mon, 18 Jun 2018 15:24:20 -0400 (EDT)
Subject: Meeting Minutes for the 18 Jun Hazard Mitigation Plan Meeting

HMPT Members,

Attached are the Meeting Minutes for today's HMP. I will also load these on the Google Drive if you would rather access them that way.

Again, Thank you for the hard work and dedication required to make this plan happen.

Bob

--
Bob Povlich
Franklin County Emergency Services
Planning Coordinator
717-264-2813


--
Metal Township

https://mail.google.com/mail/u/0/?ui=2&ik=164bc263a0&jsver=iRR44MF8UzY.en.&cbl=gmail_fe_180620.14_p0&view=pt&msg=16428f61690bf8b9&se... 2/2

Figure D.36.2: Metal Township DRAFT HMP Review/Comments – Page 2 of 2

Appendix D: Worksheet Survey Responses

7/9/2018 Franklin County PA Mail - Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

 **Robert Povlich** <rwpvlich@franklincountypa.gov>

Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

Chad Kreitz <chad.kreitz@gmail.com> Mon, Jul 9, 2018 at 10:55 AM
To: Robert Povlich <rwpvlich@franklincountypa.gov>

Bob, this looks good for the Borough of Mont Alto.

On Mon, Jul 2, 2018 at 8:10 AM, Robert Povlich <rwpvlich@franklincountypa.gov> wrote:
HMPT Members,

We are a little less than two weeks out from the closeout of the HMP DRAFT Review and Comment Period (15 Jul 2018). We have only received 4 confirmation emails from municipalities. The following municipalities still owe us a response to close out their participation in the review process of the HMP:

- Antrim Township
- Chambersburg Borough
- Fannett Township
- Greencastle Borough
- Guilford Township
- Letterkenny Township
- Lurgan Township
- Mercersburg Borough
- Mont Alto Borough
- Orrstown Borough
- Peters Township
- Quincy Township
- Shippensburg Borough
- Southampton Township
- St Thomas Township
- Warren Township
- Washington Township
- Waynesboro Borough

You can access the HMP DRAFT documents a the link below:
http://www.franklincountypa.gov/index.php?section=des_mitigation_plan

All we need to close out your review/comments participation is an email from the Local EMC or Municipal Leadership with your comments and/or a statement about acceptance without comment. As a note, any changes you want to have happen in the HMP document has to occur in this review period. As soon as we send this DRAFT to PEMA the comments period for this document will be locked until after we get the FEMA Approval Pending Adoption. What this really means is if you have comments that you did not submit in this review, they will have to be addressed in one of the subsequent annual reviews.

Please contact me if you have any questions. Thanks.


Bob
--
Bob Povlich
Franklin County Emergency Services
Planning Coordinator
717-264-2813

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=CNuvaEByDik.en.&cbl=gmail_fe_180704.17_p2&view=pt&msg=1647f8aa9df8393c&se... 1/1

Figure D.37: Mont Alto Borough DRAFT HMP Review/Comments

Appendix D: Worksheet Survey Responses

6/19/2018 Franklin County PA Mail - HMP APPROVAL


 Robert Povlich <rwovlich@franklincountypa.gov>

HMP APPROVAL

Gregory Weller <gweller91@gmail.com> Tue, Jun 19, 2018 at 6:10 AM
To: Robert Povlich <rwovlich@franklincountypa.gov>

Please find attached the HMP approval form.

Gregory A. Weller
Montgomery Township Supervisor
Emergency management coordinator
MMP&W Vol. Fire & Ambulance Co. Treasurer


 **HMP APPROVAL.docx**
8K

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263e0&jsver=1M_x2UWQ1f0.en.&cbl=gmail_fe_180617.14_p0&view=pt&msg=16417866707af46d&s... 1/1

Figure D.38.1: Montgomery Township DRAFT HMP Review/Comments – Page 1 of 2

Appendix D: Worksheet Survey Responses

7/18/2018 Franklin County PA Mail - Fwd: Response to Hazard Mitigation Plan

 Robert Povlich <rwповlich@franklincountypa.gov>

Fwd: Response to Hazard Mitigation Plan

Jacob Crider <jmcrider@franklincountypa.gov> Wed, Jul 18, 2018 at 9:36 AM
To: Robert Povlich <rwповlich@franklincountypa.gov>
Cc: John Thierwechter <jkthierwechter@franklincountypa.gov>

FYI

----- Forwarded message -----
From: prowant@pa.net <prowant@pa.net>
Date: Wed, Jul 18, 2018 at 9:06 AM
Subject: Response to Hazard Mitigation Plan
To: jmcrider@franklincountypa.gov

Jake,

Orrstown Borough has no further comments, and is in concurrence with the current Draft Hazard Mitigation Plan.

I apologize for the delay in our response.

Thanks,
Doug Prowant
Orrstown Borough Council President
Orrstown Acting Mayor


--
Jacob M. Crider
Emergency Management Coordinator and Assistant Director
Franklin County Department of Emergency Services
390 New York Avenue
Chambersburg, PA 17201
(717)264-2813

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=_Lt_PElxeXg.en.&cbl=gmail_fe_180715.15_p2&view=pt&msg=164ad9c23ce96134&se... 1/1

Figure D.39: Orrstown Borough DRAFT HMP Review/Comments

Appendix D: Worksheet Survey Responses

7/10/2018 Franklin County PA Mail - HMP

 **Robert Povlich** <rwповlich@franklincountypa.gov>

HMP

Peters Township Supervisors <peterstownship@comcast.net> Tue, Jul 10, 2018 at 11:37 AM
To: Robert Povlich <rwповlich@franklincountypa.gov>

This is to confirm that Peters Township accepts the draft HMP as presented without comment.

Vicki Heckman
Administrative Assistant
Peters Township Supervisors, Franklin County
717-328-3352

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=X-UXVHd__P0.en.&cbl=gmail_fe_180708.15_p2&view=pt&msg=16484d6acb8ff289&se... 1/1

Figure D.40: Peters Township DRAFT HMP Review/Comments

Appendix D: Worksheet Survey Responses

7/2/2018

Franklin County PA Mail - RE: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018



Robert Povlich <rwovlich@franklincountypa.gov>

RE: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

Kerry Bumbaugh <kerry@quincytwp.org>
To: Robert Povlich <rwovlich@franklincountypa.gov>

Mon, Jul 2, 2018 at 8:29 AM

Hello I thought I did respond to you sorry but I think it looked good and covered a lot of area you did a good job when will this plan be ready for adoption do you need something from me other than this email?

From: Robert Povlich <rwovlich@franklincountypa.gov>

Sent: Monday, July 02, 2018 8:10 AM

To: adamsmail@centurylink.net; amc267@psu.edu; barbara.mistick@wilson.edu; cherie.p.brown.civ@mail.mil; davestoner@franklinccd.org; debitner@geisinger.edu; dfarner@summithealth.org; director@waynesboro.org; dkline@firstenergycorp.com; drock@pa.gov; edward.peters@casdonline.org; ema@huntingdoncountypa.net; FD01@pa.gov; gkrotz@centurylink.net; greene@greenetwp.us; gregory.hoover@ship.k12.pa.us; gtsups@guilfordtwp.us; Vicki Nunemaker <vicki@quincytwp.org>; jenniferf@herald-mail.com; jhook@publicopinionnews.com; jonwilliams@summithealth.org; joseph.padasak@casdonline.org; kristin.carroll@casdonline.org; ktrail@gcasd.org; lee_barnes@csx.com; Leslie.Walter@use.salvationarmy.org; lorik@adamsec.coop; matthew.strine@tus.k12.pa.us; mgeesaman@ccschambersburg.org; mhykes@pa.gov; Montgomery Township <montgomerytwp@comcast.net>; nceditor@gmail.com; news@therecordherald.com; Newsdesk@publicopinionnews.com; rdhays@washco-md.net; rfultz@perryco.org; robbingama@pa.gov; rshamm@embarqmail.com; rstrait@co.fulton.pa.us; schristian@chambersburg.org; sharon.weigle@pa.usda.gov; southamptonfranklin@comcast.net; srperrin@spectraenergy.com; titusk@mercersburg.edu; tleiss@patumpike.com; tmurr@cvcslazers.com; tross@valleyrec.com; victor.j.lail@dom.com; waynesboro.history@comcast.net; wshupe@nisource.com; Allen Weaver <aweaver@juniataco.org>; Allen White <allen.white@redcross.org>; Angie Petersheim <apetersheim@shalomca.com>; Anita Keller <akeller@franklincountypa.gov>; Ann Hull <history@pa.net>; Anthony M (Tony) CIV USARMY USAMC Zollo (US) <anthony.m.zollo.civ@mail.mil>; Anthony Ogburn <anthony@rockbreak.com>; Barbara Watson - NOAA Federal <barbara.watson@noaa.gov>; Bill Little <wslittle@comcast.net>; Bob Thomas <rlthomas@franklincountypa.gov>; Bob Ziobrowski <rgziobrowski@franklincountypa.gov>; Brad Graham <bgraham@twp.antrim.pa.us>; Carrie Gray <cegray@franklincountypa.gov>; Cassie Yost <clm275@psu.edu>; Chad Kreitz <chad.kreitz@gmail.com>; Cori Seilhamer <caseilhamer@franklincountypa.gov>; Craig Myers <craig.myers@rescuehose.com>; Dan May <robert@shopchambersburgmail.com>; Dave Finch <dfinch@chambersburgpa.gov>; Dave Keller <dkeller@franklincountypa.gov>; David Burkett <burkettd@fmtigers.org>; David Leab <leabs@innernet.net>; David Lindenmuth <djlindenmuth@gmail.com>; David Newell <drdavidnewell@gmail.com>; Derek Stoy <dstoy@mercersburgrough@comcast.net>; Don Clapper <dclapper@guilfordtwp.us>; Don Eshleman <deshleman28@gmail.com>; Donna Trueax <donna_trueax@wasdpa.org>; Doug Prowant <prowant@pa.net>; Doug Shields <dshields@southamptontownship.org>; Dusty Stoner <dsjr124@comcast.net>; Eden Ratliff <eratliff@greencastlepa.gov>; Eric Holtzman <eric_holtzman@wasdpa.org>; Eric Varner <evernar@phfd.org>; Esterline, Brenda <besterline@pa.gov>; Frank Hobbs <fhobbs@guilfordtwp.us>; FranklinPa Stormchasers <fcpascwi@gmail.com>; Gary Himes <firefighter37@comcast.net>; Green, Beverly M <bgreen@firstenergycorp.com>; Greg Weller <gweller91@gmail.com>; Gregory Noll <ggnoll@sctfpa.org>; Hamilton Township <hamiltontwp@comcast.net>; Jacob Crider <jmcrider@franklincountypa.gov>; James Sourbier <jsourbier@waynesboropolice.com>; Jason Stains <jason@waynesboropa.org>; Jeffrey Geesaman <jbg@washtwp-franklin.org>; Jeffrey Stonehill <jstonehill@chambersburgpa.gov>; Jim Duffey <jim.Duffey@franklinct.com>; Jim Meek <jem@washtwp-franklin.org>; Joanne Sheets <jksheets@franklincountypa.gov>; John Epley <jepley@shippensburg.pa.us>; John Hart <jahart@franklincountypa.gov>; John Ressler <johnressler.2@gmail.com>; John Thierwechter <jkthierwechter@franklincountypa.gov>; Julia Lehman <jllehman@franklincountypa.gov>; Justin - NRCS Chambersburg, PA Atkins <Justin.Atkins@pa.usda.gov>; Justin Shaulis <jshaulis@ccpa.net>; Justin Sholes <justin.sholes@franklinct.com>; Kelly Knepper <kknepper@franklincountypa.gov>; Kerry Bumbaugh <kerry@quincytwp.org>; Kevin Berkheimer <kjberkheimer@nisource.com>; Laura Laucks <llaucks@pa.gov>; Linda Miller <lmiller@franklincountypa.gov>; Loretta McClure <lmcclure@franklincountypa.gov>; Lurgan Township <lurgantwp@embarqmail.com>; Mark Garling <mark_garling@yahoo.com>; Mary Ann Alleman <maalleman@franklincountypa.gov>; Matthew Gordon <matthew_gordon@wasdpa.org>; Matthew Kendall <mrkendall@franklincountypa.gov>; Matthew Steinbugl - NOAA Federal <matthew.steinbugl@noaa.gov>; Melissa Kibbe <letterkenny@embarqmail.com>; Melissa Stevens <melissa.stevens@casdonline.org>; Metal Township <localgov100@embarqmail.com>; michael bock <sooflymwb@yahoo.com>; Myers, Dale III <dmyers@phfd.org>; Patricia Koczek <mab@comcast.net>; Paul T. Reed <preed@kuhncom.net>; Peter Jung - NOAA Federal <peter.jung@noaa.gov>;

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=B1wOsCQX_4s.en.&cbl=gmail_fe_180627.11_p0&view=pt&msg=1645af3626d769c4&s... 1/3

Figure D.41.1: Quincy Township DRAFT HMP Review/Comments – Page 1 of 4

Appendix D: Worksheet Survey Responses

7/2/2018 Franklin County PA Mail - RE: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

Peters Township Supervisors <peterstownship@comcast.net>; Phil Tarquino <ptarquino@franklincountypa.gov>; Radford, Mari <mari.radford@fema.dhs.gov>; Robert Povlich <rwovlich@franklincountypa.gov>; Ron Pezon <rpezon@chambersburgpa.gov>; Sajeski, Eugene <esajeski@pa.gov>; Samuel Thrush <sjthrush@franklincountypa.gov>; Sarah Benschhoff <slbenshoff@franklincountypa.gov>; Shawn Corwell <scorwell@greenetwp.us>; Shively, Robert <rshively@ccpa.net>; St Thomas township <stthomastwp@comcast.net>; Steve Nevada <sanevada@franklincountypa.gov>; Steve Sites <rescue_12@hotmail.com>; Szabo, Ernest <erszabo@pa.gov>; Teresa Beckner <tbeckner@franklincountypa.gov>; Tiffany Bloyer <tibloyer@franklincountypa.gov>; Tod Kline <tod_kline@wasdpa.org>; Todd Burns <tburns@greenetwp.us>; Travis Sims <tesims@franklincountypa.gov>; Warren Bladen <wpbladen@adamscounty.us>

Subject: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

HMPT Members,

We are a little less than two weeks out from the closeout of the HMP DRAFT Review and Comment Period (15 Jul 2018). We have only received 4 confirmation emails from municipalities. The following municipalities still owe us a response to close out their participation in the review process of the HMP:

Antrim Township
Chambersburg Borough
Fannett Township
Greencastle Borough
Guilford Township
Letterkenny Township
Lurgan Township
Mercersburg Borough
Mont Alto Borough
Orrstown Borough
Peters Township
Quincy Township
Shippensburg Borough
Southampton Township
St Thomas Township
Warren Township
Washington Township
Waynesboro Borough

You can access the HMP DRAFT documents a the link below:

http://www.franklincountypa.gov/index.php?section=des_mitigation_plan

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=B1wOsCQX_4s.en.&cbl=gmail_fe_180627.11_p0&view=pt&msg=1645af8626d769c4&s... 2/3

Figure D.41.2: Quincy Township DRAFT HMP Review/Comments – Page 2 of 4

Appendix D: Worksheet Survey Responses

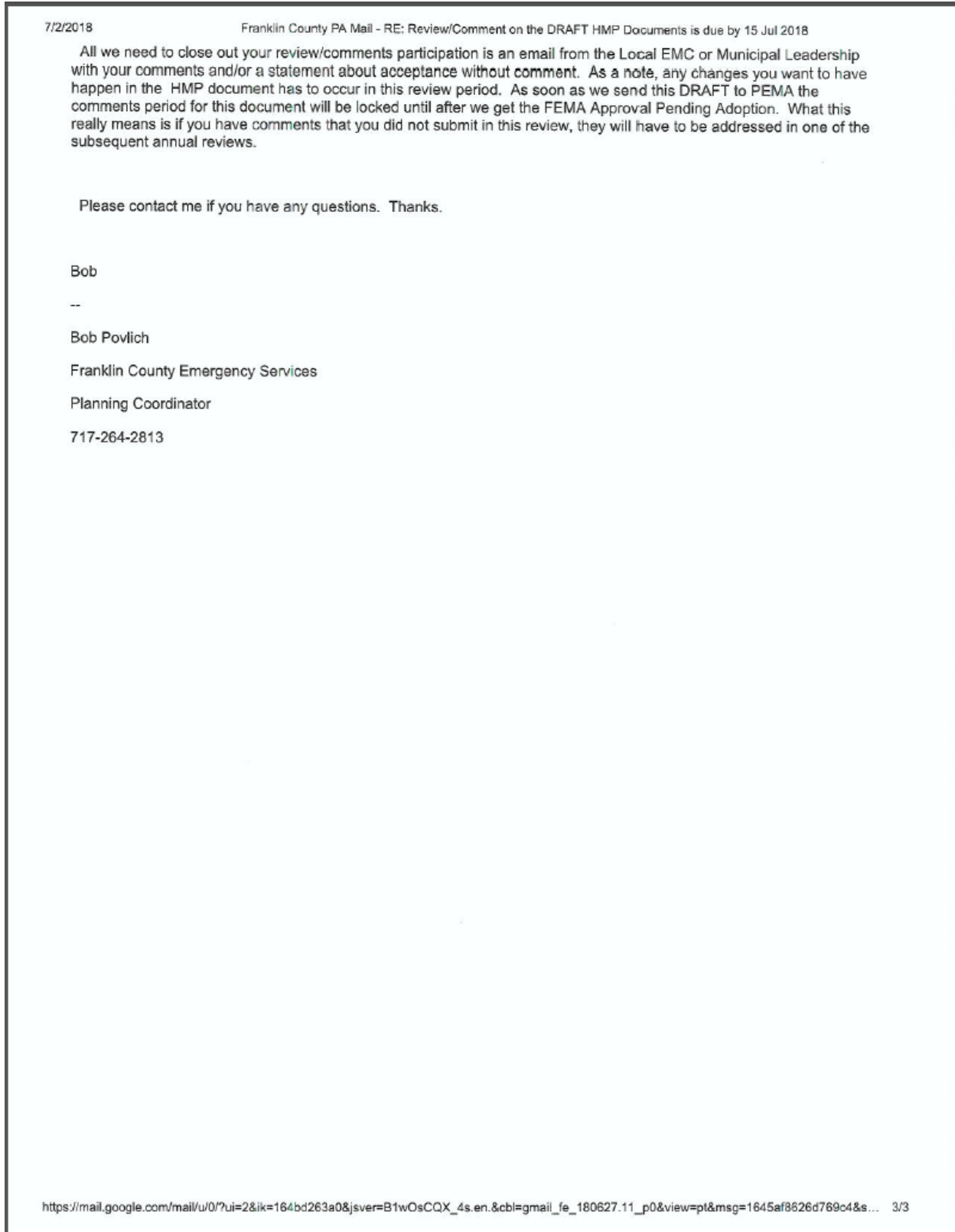



Figure D.41.3: Quincy Township DRAFT HMP Review/Comments – Page 3 of 4

Appendix D: Worksheet Survey Responses

7/3/2018 Franklin County PA Mail - Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

 Robert Povlich <rwovlich@franklincountypa.gov>

Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

David Lindenmuth <djlindenmuth@gmail.com> Tue, Jul 3, 2018 at 10:56 AM
To: Robert Povlich <rwovlich@franklincountypa.gov>

Bob,

I would like to accept the Draft HMP document without any comments.

David Lindenmuth
LEMC Shippensburg Borough

On Mon, Jul 2, 2018 at 8:10 AM, Robert Povlich <rwovlich@franklincountypa.gov> wrote:
HMPT Members,

We are a little less than two weeks out from the closeout of the HMP DRAFT Review and Comment Period (15 Jul 2018). We have only received 4 confirmation emails from municipalities. The following municipalities still owe us a response to close out their participation in the review process of the HMP:

Antrim Township
Chambersburg Borough
Fannett Township
Greencastle Borough
Guilford Township
Letterkenny Township
Lurgan Township
Mercersburg Borough
Mont Alto Borough
Orrstown Borough
Peters Township
Quincy Township
Shippensburg Borough
Southampton Township
St Thomas Township
Warren Township
Washington Township
Waynesboro Borough

You can access the HMP DRAFT documents a the link below:

http://www.franklincountypa.gov/index.php?section=des_mitigation_plan

All we need to close out your review/comments participation is an email from the Local EMC or Municipal Leadership with your comments and/or a statement about acceptance without comment. As a note, any changes you want to have happen in the HMP document has to occur in this review period. As soon as we send this DRAFT to PEMA the comments period for this document will be locked until after we get the FEMA Approval Pending Adoption. What this really means is if you have comments that you did not submit in this review, they will have to be addressed in one of the subsequent annual reviews.

Please contact me if you have any questions. Thanks.


Bob
--
Bob Povlich
Franklin County Emergency Services
Planning Coordinator
717-264-2813

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=yIUhS3BiU1w.en.&cbl=gmail_fe_180701.15_p2&view=pt&msg=16460a539268c741&se... 1/2

Figure D.42: Shippensburg Borough DRAFT HMP Review/Comments

Appendix D: Worksheet Survey Responses

7/3/2018 Franklin County PA Mail - Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

 Robert Povlich <rwovlich@franklincountypa.gov>

Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

Doug Shields <dshields@southamptontownship.org> Tue, Jul 3, 2018 at 11:53 AM
To: Robert Povlich <rwovlich@franklincountypa.gov>

Southampton Township is ok with the HMP. Reviewed with no comments.

Thanks Doug

On Jul 2, 2018 8:10 AM, Robert Povlich <rwovlich@franklincountypa.gov> wrote:
HMPT Members,

We are a little less than two weeks out from the closeout of the HMP DRAFT Review and Comment Period (15 Jul 2018). We have only received 4 confirmation emails from municipalities. The following municipalities still owe us a response to close out their participation in the review process of the HMP:

- Antrim Township
- Chambersburg Borough
- Fannett Township
- Greencastle Borough
- Guilford Township
- Letterkenny Township
- Lurgan Township
- Mercersburg Borough
- Mont Alto Borough
- Orrstown Borough
- Peters Township
- Quincy Township
- Shippensburg Borough
- Southampton Township
- St Thomas Township
- Warren Township
- Washington Township
- Waynesboro Borough

You can access the HMP DRAFT documents a the link below:

http://www.franklincountypa.gov/index.php?section=des_mitigation_plan

All we need to close out your review/comments participation is an email from the Local EMC or Municipal Leadership with your comments and/or a statement about acceptance without comment. As a note, any changes you want to have happen in the HMP document has to occur in this review period. As soon as we send this DRAFT to PEMA the comments period for this document will be locked until after we get the FEMA Approval Pending Adoption. What this really means is if you have comments that you did not submit in this review, they will have to be addressed in one of the subsequent annual reviews.

Please contact me if you have any questions. Thanks.


Bob
--
Bob Povlich
Franklin County Emergency Services
Planning Coordinator
717-264-2813

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=yIUhS3BIU1w.en.&cbl=gmail_fe_180701.15_p2&view=pt&msg=16460d9792ee59e6&se... 1/1

Figure D.43: Southampton Township DRAFT HMP Review/Comments

Appendix D: Worksheet Survey Responses

7/13/2018 Franklin County PA Mail - Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

 Robert Povlich <rwovlich@franklincountypa.gov>

Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

St Thomas township <stthomastwp@comcast.net> Fri, Jul 13, 2018 at 9:12 AM
Reply-To: St Thomas township <stthomastwp@comcast.net>
To: Robert Povlich <rwovlich@franklincountypa.gov>

Bob,

Saint Thomas Township accepts the draft HMP without comment.

Sue

Susan K. Zimmerman
Secretary/Treasurer
St. Thomas Township
Board of Supervisors
965 Hade Road
Chambersburg, PA 17202
Phone: 717-369-2144
Fax: 717-369-5368

Office Hours: Monday, Wednesday, Thursday, Friday 8:00 a.m. to 4:00 p.m. Closed Tuesday

On July 2, 2018 at 8:10 AM Robert Povlich <rwovlich@franklincountypa.gov> wrote:

HMPT Members,

We are a little less than two weeks out from the closeout of the HMP DRAFT Review and Comment Period (15 Jul 2018). We have only received 4 confirmation emails from municipalities. The following municipalities still owe us a response to close out their participation in the review process of the HMP:

- Antrim Township
- Chambersburg Borough
- Fannett Township
- Greencastle Borough
- Guilford Township
- Letterkenny Township
- Lurgan Township
- Mercersburg Borough
- Mont Alto Borough
- Orrstown Borough
- Peters Township
- Quincy Township
- Shippensburg Borough
- Southampton Township
- St Thomas Township
- Warren Township
- Washington Township
- Waynesboro Borough

You can access the HMP DRAFT documents a the link below:

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=0-2PE6VxFko.en.&cbl=gmail_fe_180709.15_p2&view=pt&msg=16493c519efefd0f&sea... 1/2

Figure D.44.1: St Thomas Township DRAFT HMP Review/Comments – Page 1 of 2

Appendix D: Worksheet Survey Responses

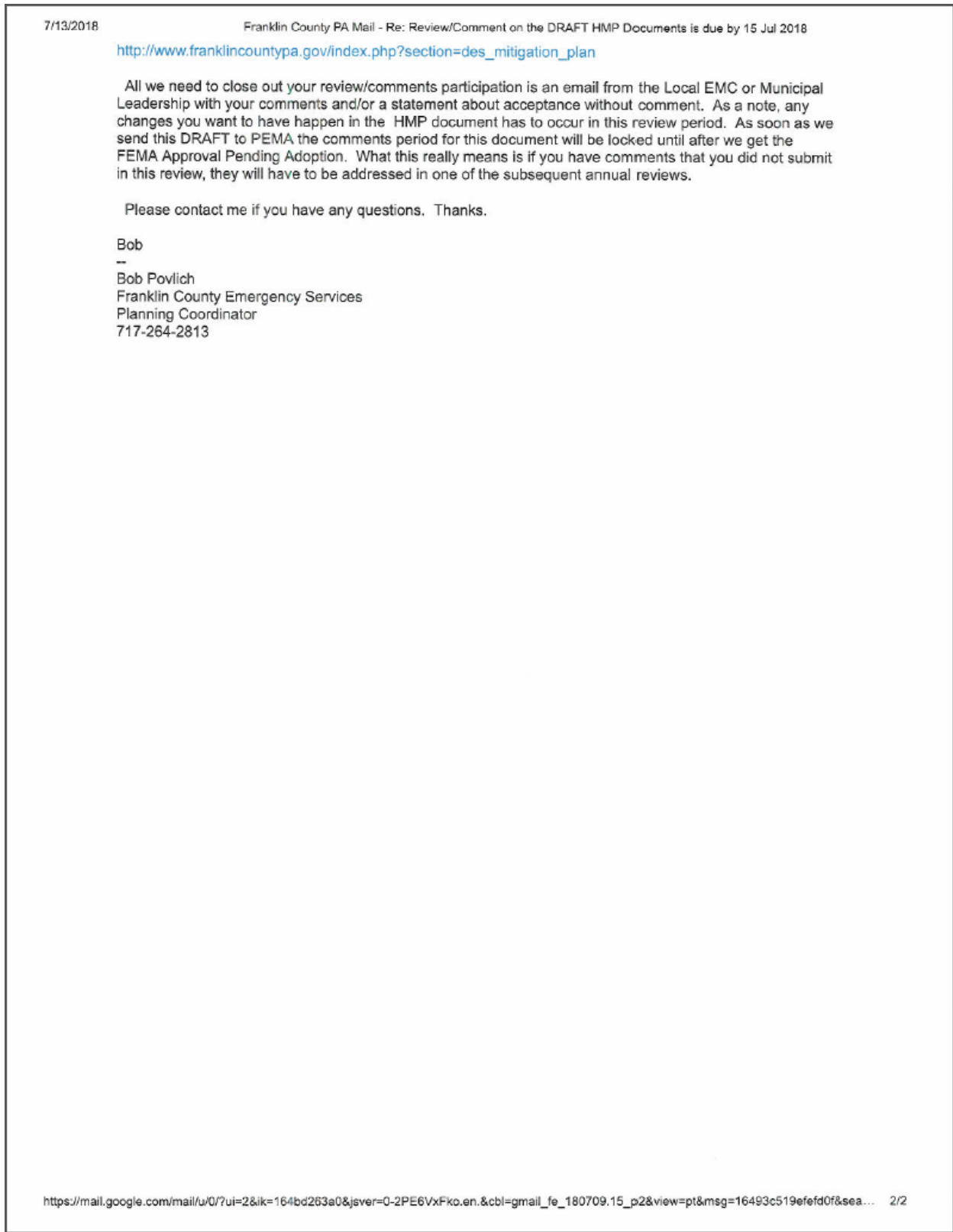



Figure D.44.2: St Thomas Township DRAFT HMP Review/Comments – Page 2 of 2

Appendix D: Worksheet Survey Responses

7/16/2018 Franklin County PA Mail - Franklin County Hazard Mitigation Plan

 Robert Povlich <rwovlich@franklincountypa.gov>

Franklin County Hazard Mitigation Plan

twp.warren.pa.us@outlook.com <twp.warren.pa.us@outlook.com> Mon, Jul 16, 2018 at 9:37 AM
To: "rwovlich@franklincountypa.gov" <rwovlich@franklincountypa.gov>

Good Morning Bob,

I am the newly appointed Secretary/Treasurer of Warren Township in Mercersburg, replacing John Ressler who has recently resigned. For Warren Township's involvement/acknowledgement of the Hazard Mitigation Plan Update, the Warren Township Supervisors have concurred that they have no comments or additions to the document. The three Supervisors are Michael Cook, Donald Keefer, and Harry Keefer. Does this email serve as a satisfactory response to the request for review of the HMP?

Thank you!


*Rachael McCarty
Secretary/Treasurer
Township of Warren
Warren Township Municipal Building
11367 Little Cove Road
Mercersburg, PA 17236
Office: 717-328-5955
Cell: 301-800-6736*

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=0-2PE6VxFko.en.&cbl=gmail_fe_180709.15_p2&view=pt&msg=164a34f4db01f95c&se... 1/1

Figure D.45: Warren Township DRAFT HMP Review/Comments

Appendix D: Worksheet Survey Responses

7/2/2018 Franklin County PA Mail - Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

 Robert Povlich <rwповlich@franklincountypa.gov>

Re: Review/Comment on the DRAFT HMP Documents is due by 15 Jul 2018

Jeffrey Geesaman <jbg@washtwp-franklin.org> Mon, Jul 2, 2018 at 9:16 AM
To: Robert Povlich <rwповlich@franklincountypa.gov>

Bob,

I have looked at documents and Washington Township agrees with the plan.

Jeffrey B. Geesaman, Manager
Washington Township
(O) (717) 762-3128
(C) (717) 414-8383
Sent from my iPhone

On Jul 2, 2018, at 8:10 AM, Robert Povlich <rwповlich@franklincountypa.gov> wrote:

HMPT Members,

We are a little less than two weeks out from the closeout of the HMP DRAFT Review and Comment Period (15 Jul 2018). We have only received 4 confirmation emails from municipalities. The following municipalities still owe us a response to close out their participation in the review process of the HMP:

Antrim Township
Chambersburg Borough
Fannett Township
Greencastle Borough
Guilford Township
Letterkenny Township
Lurgan Township
Mercersburg Borough
Mont Alto Borough
Orrstown Borough
Peters Township
Quincy Township
Shippensburg Borough
Southampton Township
St Thomas Township
Warren Township
Washington Township
Waynesboro Borough

You can access the HMP DRAFT documents a the link below:

http://www.franklincountypa.gov/index.php?section=des_mitigation_plan

All we need to close out your review/comments participation is an email from the Local EMC or Municipal Leadership with your comments and/or a statement about acceptance without comment. As a note, any changes you want to have happen in the HMP document has to occur in this review period. As soon as we send this DRAFT to PEMA the comments period for this document will be locked until after we get the FEMA Approval Pending Adoption. What this really means is if you have comments that you did not submit in this review, they will have to be addressed in one of the subsequent annual reviews.

Please contact me if you have any questions. Thanks.

Bob
--
Bob Povlich

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=B1wOsCQX_4s.en.&cbl=gmail_fe_180627.11_p0&view=pt&msg=1645b238264f38fe&s... 1/2

Figure D.46.1: Washington Township DRAFT HMP Review/Comments – Page 1 of 2

Appendix D: Worksheet Survey Responses

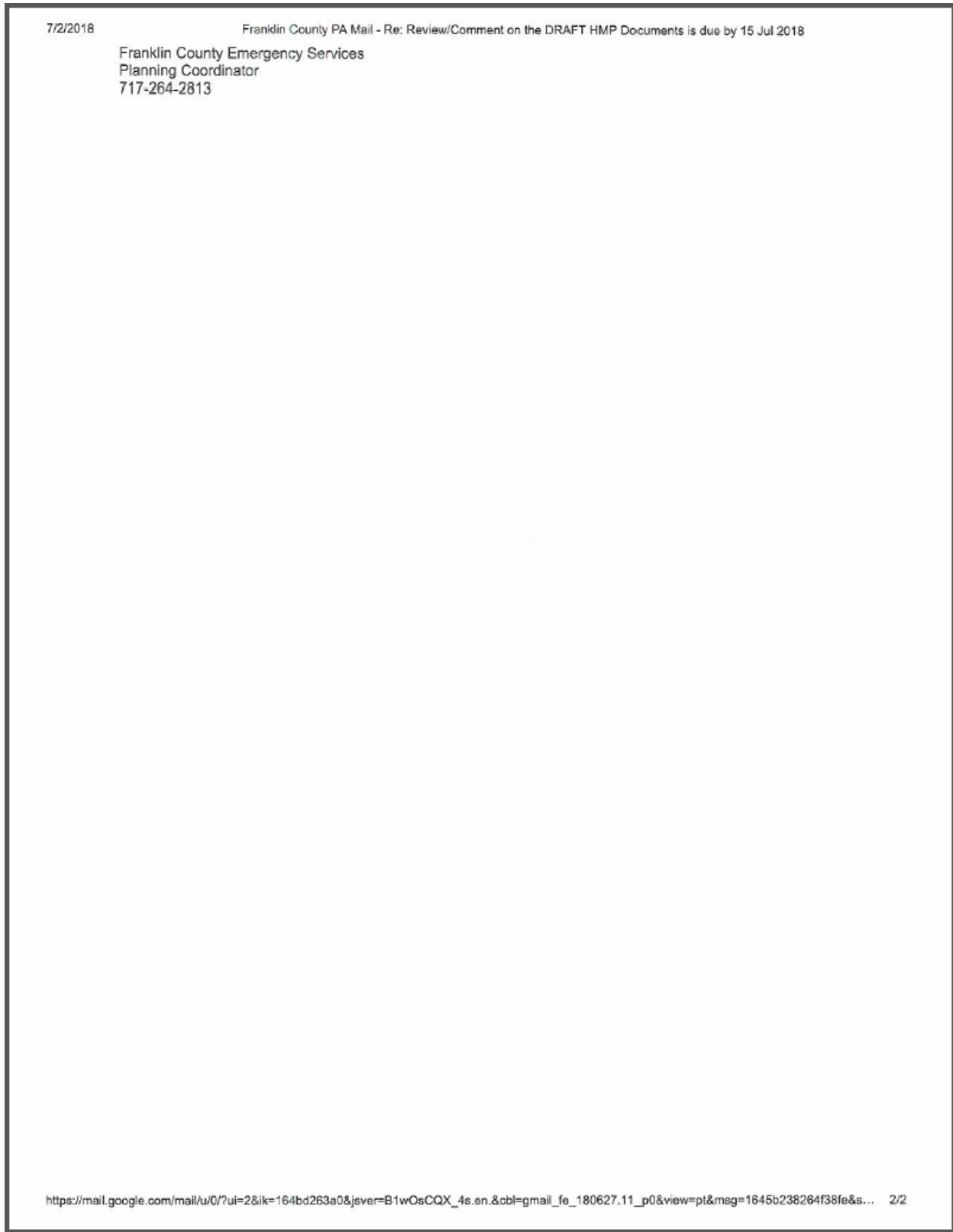



Figure D.46.2: Washington Township DRAFT HMP Review/Comments – Page 2 of 2

Appendix D: Worksheet Survey Responses

7/20/2018 Franklin County PA Mail - Fwd: Response to Municipal Review of the DRAFT Hazard Mitigation Plan



Robert Povlich <rwповlich@franklincountypa.gov>

Fwd: Response to Municipal Review of the DRAFT Hazard Mitigation Plan

Jacob Crider <jmcrider@franklincountypa.gov> Fri, Jul 20, 2018 at 11:02 AM
To: Robert Povlich <rwповlich@franklincountypa.gov>
Cc: John Thierwechter <jkthierwechter@franklincountypa.gov>

FYI from Waynesboro. Two to go!

----- Forwarded message -----
From: **Jason Stains** <jason@waynesboropa.org>
Date: Fri, Jul 20, 2018 at 10:44 AM
Subject: Response to Municipal Review of the DRAFT Hazard Mitigation Plan
To: Jacob Crider <jmcrider@franklincountypa.gov>

Jake,

The Borough of Waynesboro is in concurrence with the Draft Hazard Mitigation Plan and we wish you the best in this process.

Jason

Jason B. Stains, Borough Manager
Borough of Waynesboro Pennsylvania
Incorporated 1818

55 East Main Street | P.O. Box 310 | Waynesboro, PA 17268
Phone (717) 762-2101 | Fax (717) 762-4707 | Email jason@waynesboropa.org

—
Jacob M. Crider
Emergency Management Coordinator and Assistant Director
Franklin County Department of Emergency Services
390 New York Avenue
Chambersburg, PA 17201
[\(717\)264-2813](tel:(717)264-2813)

https://mail.google.com/mail/u/0/?ui=2&ik=164bd263a0&jsver=_Lt_PElxeXg.en.&cb=gmil_fe_180715.15_p2&view=pt&msg=164b836e22728dd1&se... 1/1

Figure D.47: Waynesboro Borough DRAFT HMP Review/Comments

Appendix D: Worksheet Survey Responses

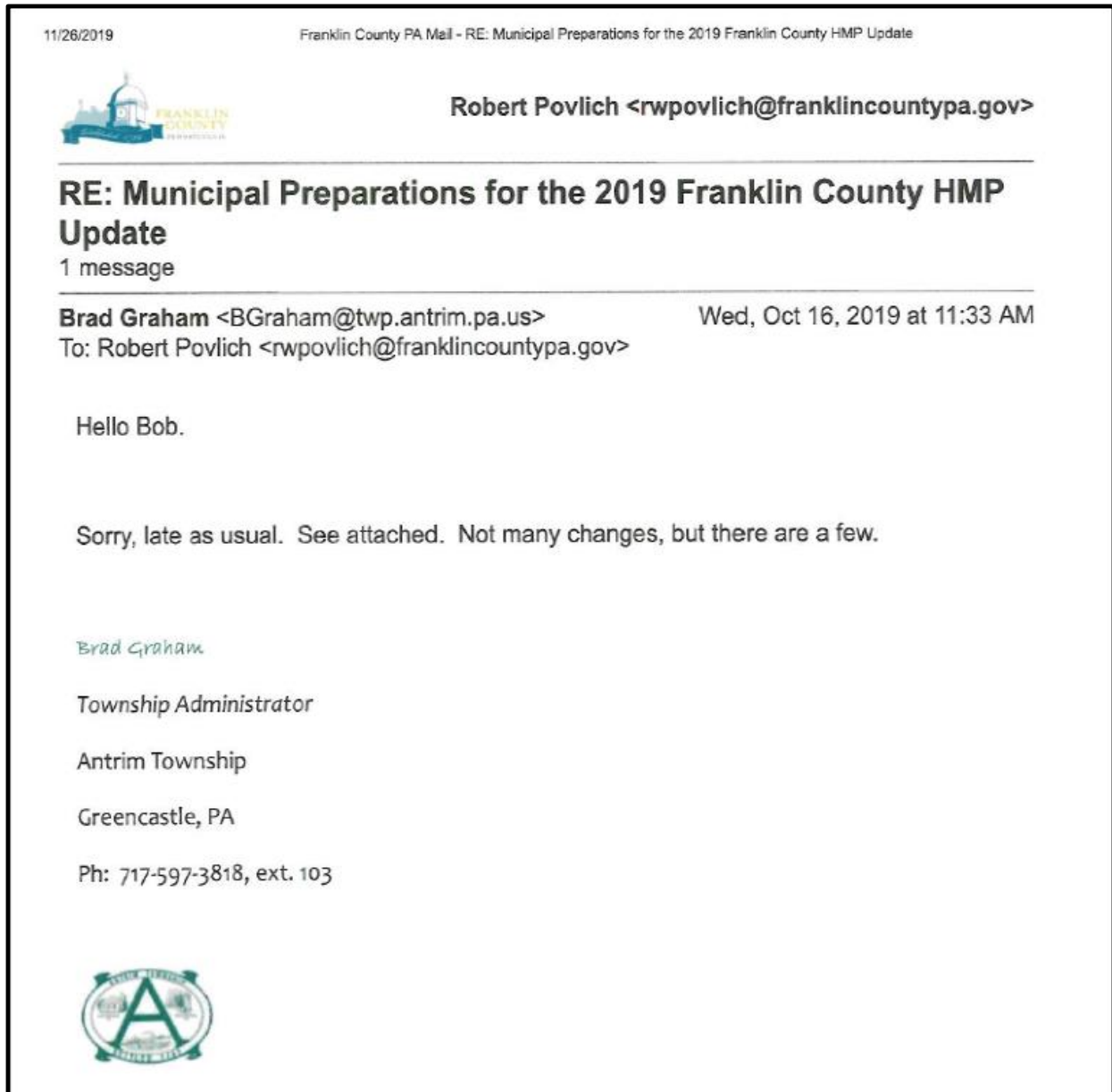


Figure D.48.1: Antrim Township 2019 Annual HMP Update Survey Response – Page 1 of 2

Appendix D: Worksheet Survey Responses

Hazard	Probability (1-4)	Wt	Impact (1-4)	Wt	Spatial (1-4)	Wt	Warming Time (1-4)	Wt	Duration (1-4)	Wt	Risk Factor (RF)
Civil Disturbance	1	30%	1	30%	2	20%	1	10%	2	10%	1.3
Dam Failure	1	30%	2	30%	2	20%	2	10%	4	10%	1.9
Drought	2	30%	3	30%	3	20%	1	10%	4	10%	2.6
Earthquake	1	30%	2	30%	3	20%	4	10%	1	10%	2.0
Environmental Hazards (HAZMAT Release)	2	30%	2	30%	3	20%	4	10%	2	10%	2.4
Extreme Temperatures	2	30%	2	30%	4	20%	1	10%	3	10%	2.4
Flood, Flash Flood, Ice Jam	2	30%	2	30%	2	20%	1	10%	3	10%	2.0
Hailstorm	2	30%	2	30%	3	20%	2	10%	1	10%	2.1
Hurricane, Tropical Storm, Nor'easter	3	30%	2	30%	4	20%	1	10%	4	10%	2.8
Invasive species	2	30%	2	30%	3	20%	1	10%	4	10%	2.3
Landslide	1	30%	2	30%	1	20%	4	10%	1	10%	1.6
Lightning Strike	3	30%	2	30%	2	20%	4	10%	1	10%	2.4
Mass Food and Animal Feed Contamination	1	30%	2	30%	2	20%	1	10%	2	10%	1.6
Nuclear Incident	2	30%	3	30%	3	20%	4	10%	4	10%	2.9
Pandemic and Infectious Disease	2	30%	2	30%	2	20%	1	10%	4	10%	2.1
Radon Exposure	2	30%	1	30%	3	20%	1	10%	4	10%	2.0
Subsidence, Sinkhole	3	30%	2	30%	1	20%	4	10%	1	10%	2.2
Terrorism	2	30%	1	30%	2	20%	4	10%	2	10%	1.9
Tornado, Windstorm	4	30%	3	30%	3	20%	2	10%	1	10%	3.0
Transportation Accident	4	30%	3	30%	3	20%	4	10%	1	10%	3.2
Urban Fire and Explosion	2	30%	2	30%	2	20%	4	10%	1	10%	2.1
Utility Interruption	2	30%	2	30%	3	20%	4	10%	2	10%	2.4
Wildfire	2	30%	2	30%	2	20%	4	10%	2	10%	2.2
Winter Storm	4	30%	2	30%	4	20%	1	10%	3	10%	3.0

Figure D.48.2: Antrim Township 2019 Annual HMP Update Survey Response – Page 2 of 2

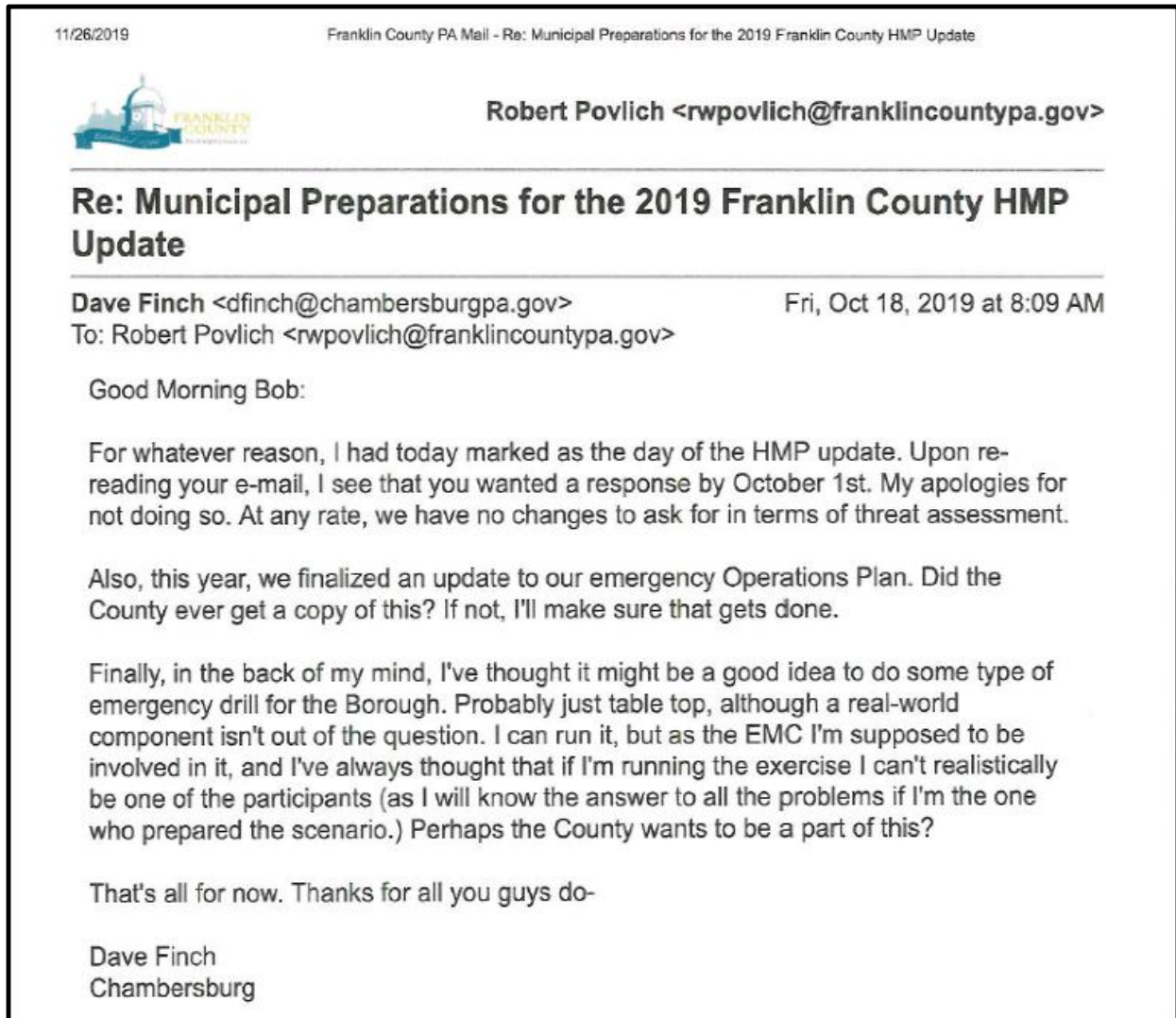


Figure D.49: Chambersburg Borough 2019 Annual HMP Update Survey Response

Appendix D: Worksheet Survey Responses

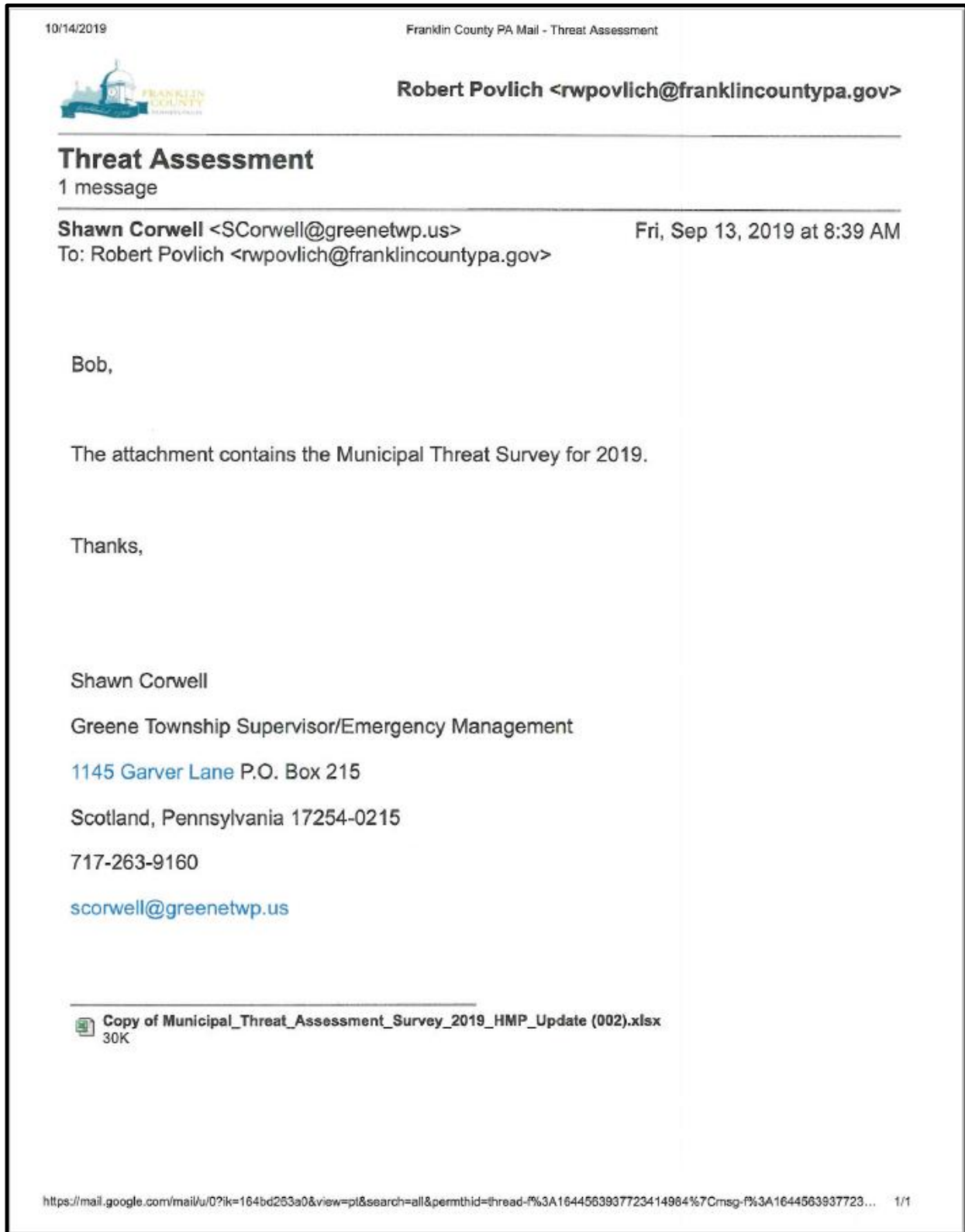


Figure D.50.1: Greene Township 2019 Annual HMP Update Survey Response – Page 1 of 2


Appendix D: Worksheet Survey Responses

Hazard	Probability (1-4)	Wt	Impact (1-4)	Wt	Spatial (1-4)	Wt	Warning Time (1-4)	Wt	Duration (1-4)	Wt	Risk Factor (RF)
Civil Disturbance	1	30%	1	30%	1	20%	4	10%	2	10%	1.4
Dam Failure	2	30%	2	30%	3	20%	4	10%	4	10%	2.6
Drought	2	30%	1	30%	4	20%	1	10%	4	10%	2.2
Earthquake	3	30%	2	30%	3	20%	4	10%	1	10%	2.6
Environmental Hazards (HAZMAT Release)	3	30%	2	30%	1	20%	4	10%	2	10%	2.3
Extreme Temperatures	3	30%	1	30%	4	20%	1	10%	3	10%	2.4
Flood, Flash Flood, Ice Jam	3	30%	2	30%	2	20%	3	10%	3	10%	2.5
Hallstorm	2	30%	1	30%	2	20%	4	10%	1	10%	1.8
Hurricane, Tropical Storm, Nor'easter	2	30%	3	30%	3	20%	1	10%	4	10%	2.6
Invasive species	2	30%	1	30%	1	20%	1	10%	4	10%	1.6
Landslide	1	30%	1	30%	1	20%	3	10%	1	10%	1.2
Lightning Strike	4	30%	2	30%	1	20%	4	10%	1	10%	2.5
Mass Food and Animal Feed Contamination	1	30%	1	30%	1	20%	1	10%	2	10%	1.1
Nuclear Incident	1	30%	1	30%	3	20%	3	10%	4	10%	1.9
Pandemic and Infectious Disease	1	30%	1	30%	1	20%	1	10%	4	10%	1.3
Radon Exposure	1	30%	1	30%	1	20%	1	10%	4	10%	1.3
Subsidence, Sinkhole	3	30%	2	30%	1	20%	4	10%	1	10%	2.2
Terrorism	1	30%	2	30%	2	20%	4	10%	2	10%	1.9
Tornado, Windstorm	3	30%	3	30%	3	20%	4	10%	1	10%	2.9
Transportation Accident	2	30%	2	30%	1	20%	4	10%	1	10%	1.9
Urban Fire and Explosion	1	30%	2	30%	1	20%	4	10%	1	10%	1.6
Utility Interruption	4	30%	2	30%	3	20%	3	10%	2	10%	2.9
Wildfire	2	30%	1	30%	1	20%	3	10%	2	10%	1.6
Winter Storm	3	30%	3	30%	4	20%	2	10%	3	10%	3.1

Figure D.50.2: Greene Township 2019 Annual HMP Update Survey Response – Page 2 of 2

Appendix D: Worksheet Survey Responses

8/30/2019 Franklin County PA Mail - Threat Assessment Rankings for Hamilton Twp.

 Robert Povlich <rwpvlich@franklincountypa.gov>

Threat Assessment Rankings for Hamilton Twp.

1 message

HAMILTON TOWNSHIP <hamiltontwp@comcast.net> Tue, Aug 20, 2019 at 11:13 AM
Reply-To: HAMILTON TOWNSHIP <hamiltontwp@comcast.net>
To: Robert Povlich <rwpvlich@franklincountypa.gov>

Mr. Povlich:

Please keep the threat assessment rankings for Hamilton Township unchanged. We will not be changing our mitigation actions at this time, nor do we have a need to add new mitigation actions. Should you have any questions, or need anything else regarding this matter, please don't hesitate to contact us.

Thanks so much,

Deb

Deborah J. Hollenshead
Secretary/Treasurer
[Hamilton Township, Franklin County](#)
1270 Crottlestown Road
Chambersburg, PA 17202
Telephone: (717) 264-2946
Fax: (717) 264-2134

NOTICE: Hamilton Township welcomes the opportunity to engage in discussions on matters involving public Township business. However, the Code for Townships of the Second Class requires an affirmative vote of a majority of the Board of Supervisors at a public meeting in order to transact any business. Accordingly, while Supervisors and staff may engage in discussions with those seeking comment, guidance, advice or direction, no such discussion shall constitute action by the Township unless there is an affirmative vote of the majority of the Board of Supervisors at a duly advertised public meeting.

Figure D.51: Hamilton Township 2019 Annual HMP Update Survey Response

Appendix D: Worksheet Survey Responses

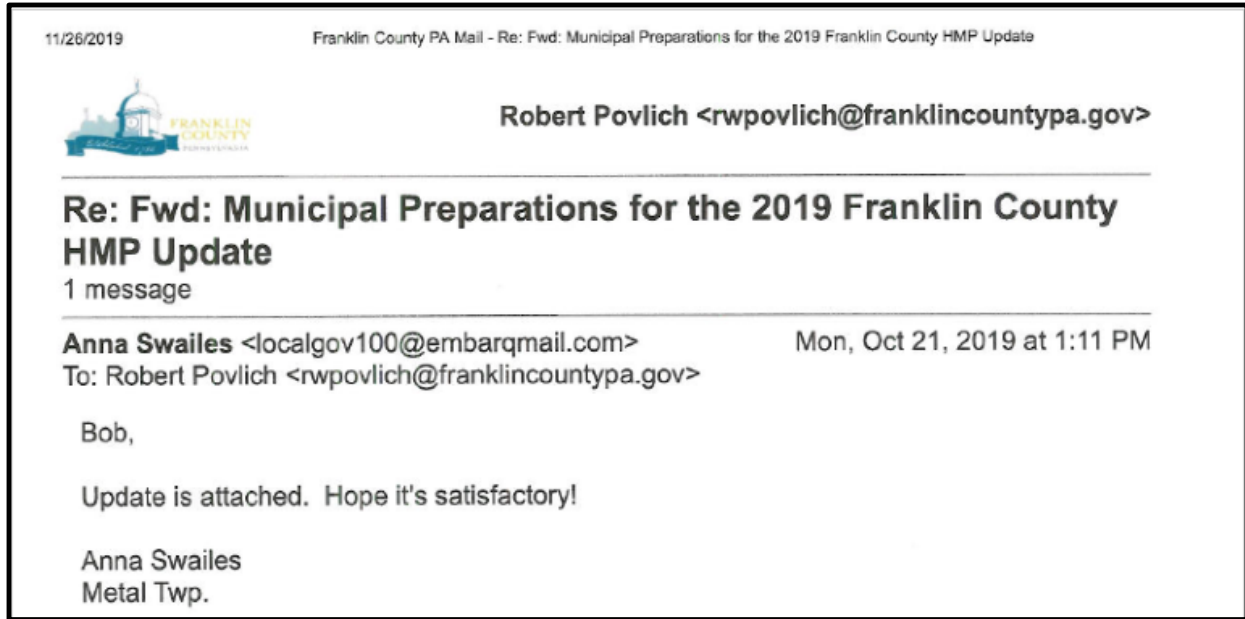


Figure D.52.1: Metal Township 2019 Annual HMP Update Survey Response – Page 1 of 2

Appendix D: Worksheet Survey Responses

Hazard	Probability (1-4)	Wt	Impact (1-4)	Wt	Spacer (1-4)	Wt	Warning Time (1-4)	Wt	Duration (1-4)	Wt	Risk Factor (RF)
Civil Disturbance	1	30%	1	30%	1	20%	4	10%	2	10%	1.4
Dam Failure	2	30%	2	30%	2	20%	2	10%	4	10%	2.2
Drought	2	30%	1	30%	1	20%	1	10%	4	10%	1.6
Earthquake	2	30%	1	30%	1	20%	4	10%	1	10%	1.6
Environmental Hazards (HAZMAT Release)	2	30%	2	30%	1	20%	4	10%	2	10%	2.0
Extreme Temperatures	1	30%	1	30%	1	20%	1	10%	3	10%	1.2
Flood, Flash Flood, Ice Jam	1	30%	1	30%	1	20%	1	10%	3	10%	1.2
Hailstorm	1	30%	1	30%	1	20%	2	10%	1	10%	1.1
Hurricane, Tropical Storm, Nor'easter	2	30%	2	30%	1	20%	1	10%	4	10%	1.9
Invasive species	1	30%	1	30%	1	20%	1	10%	4	10%	1.3
Landslide	1	30%	1	30%	1	20%	4	10%	1	10%	1.3
Lightning Strike	2	30%	1	30%	1	20%	4	10%	1	10%	1.6
Mass Food and Animal Feed Contamination	1	30%	1	30%	1	20%	1	10%	2	10%	1.1
Nuclear Incident	1	30%	1	30%	1	20%	4	10%	4	10%	1.6
Pandemic and Infectious Disease	2	30%	1	30%	1	20%	1	10%	4	10%	1.6
Radon Exposure	1	30%	1	30%	1	20%	1	10%	4	10%	1.3
Subsidence, Sinkhole	1	30%	1	30%	1	20%	4	10%	1	10%	1.3
Terrorism	2	30%	2	30%	1	20%	4	10%	2	10%	2.0
Tornado, Windstorm	1	30%	1	30%	1	20%	3	10%	1	10%	1.2
Transportation Accident	3	30%	2	30%	1	20%	4	10%	1	10%	2.2
Urban Fire and Explosion	1	30%	1	30%	1	20%	4	10%	1	10%	1.3
Utility Interruption	3	30%	2	30%	1	20%	4	10%	2	10%	2.3
Wildfire	2	30%	2	30%	1	20%	4	10%	2	10%	2.0
Winter Storm	2	30%	2	30%	1	20%	1	10%	3	10%	1.8

Figure D.52.2: Metal Township 2019 Annual HMP Update Survey Response – Page 2 of 2

Appendix D: Worksheet Survey Responses

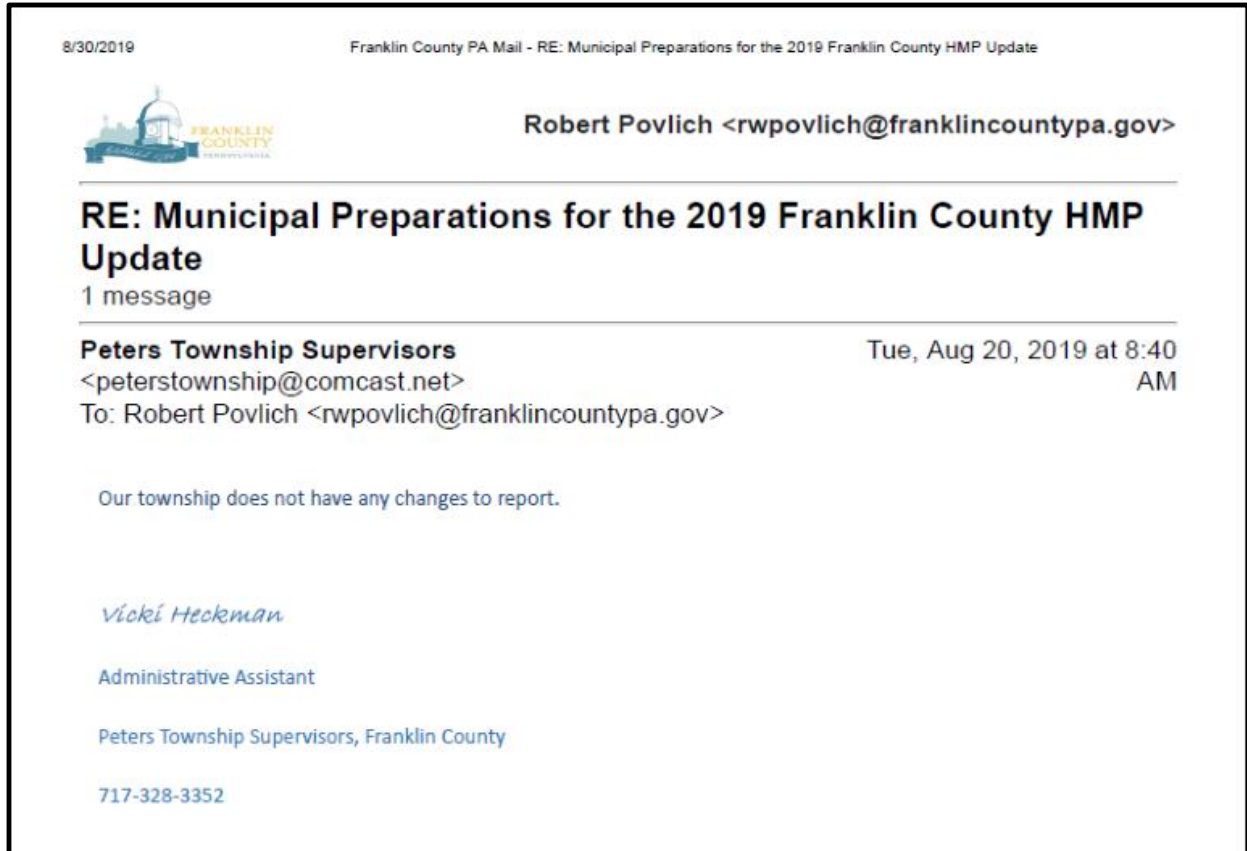


Figure D.53: Peters Township 2019 Annual HMP Update Survey Response

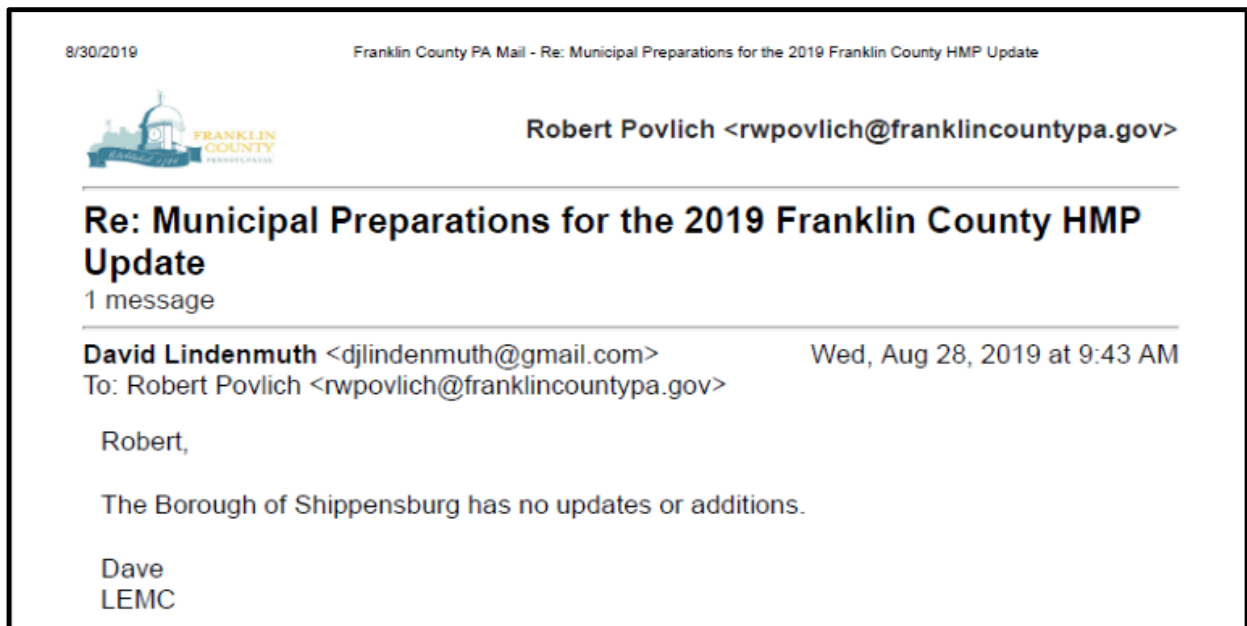


Figure D.54: Shippensburg Borough 2019 Annual HMP Update Survey Response

Appendix D: Worksheet Survey Responses

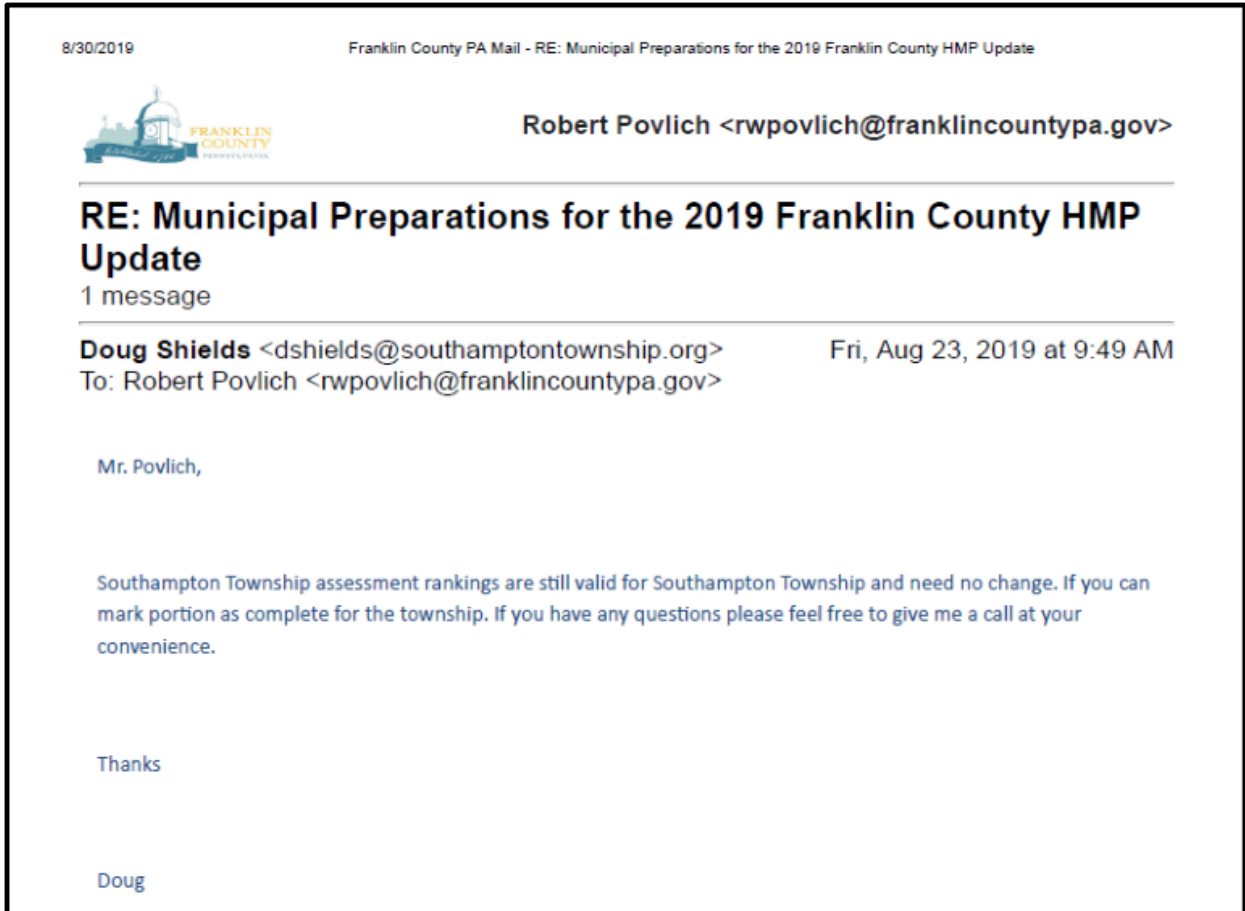


Figure D.55: Southampton Township 2019 Annual HMP Update Survey Response

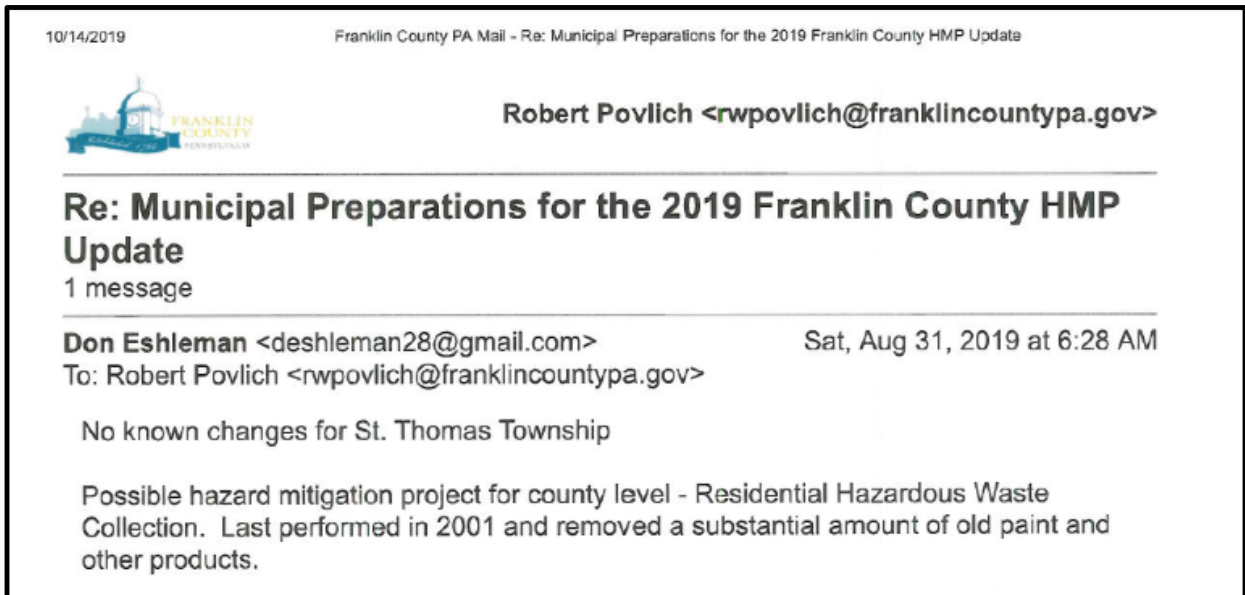



Figure D.56: St Thomas Township 2019 Annual HMP Update Survey Response

Appendix D: Worksheet Survey Responses

10/16/2020 Franklin County PA Mail - Hazard Mitigation Plan Update

 **Mary Seville <mkseville@franklincountypa.gov>**

Hazard Mitigation Plan Update


Shawn Corwell <SCorwell@greenetwp.us> Sat, Oct 10, 2020 at 10:30 AM
To: Mary Seville <mkseville@franklincountypa.gov>

Mary,

I have attached the plan update for Greene Township. It is amazing how things change in two years. Sorry about getting back to you so late.

Thanks,

Shawn Corwell
Greene Township
1145 Garver Lane
Chambersburg, Pennsylvania 17202
717-263-9160
scorwell@greenetwp.us

 **Copy of Municipal_Threat_Assessment_Survey_2020_HMP_Update.xlsx**
27K

<https://mail.google.com/mail/u/0?ik=87ab0311a0&view=pt&search=all&permmsgid=msg-f%3A1680175515033960678&simpl=msg-f%3A16801755150...> 1/1

Figure D.57.1: Greene Township 2020 Annual HMP Update Survey Response – Page 1 of 2

Appendix D: Worksheet Survey Responses

Greene Twp.

Hazard	Probability (1-4)	WT	Impact (1-4)	WT	Spatial (1-4)	WT	Warning Time (1-4)	WT	Duration (1-4)	WT	Risk Factor (RF)
Civil Disturbance	1	30%	1	30%	1	20%	4	10%	2	10%	1.4
Dam Failure	2	30%	2	30%	2	20%	2	10%	4	10%	2.2
Drought	2	30%	1	30%	4	20%	1	10%	4	10%	2.2
Earthquake	3	30%	1	30%	3	20%	4	10%	1	10%	2.3
Environmental Hazards (HAZMAT Release)	3	30%	1	30%	1	20%	2	10%	2	10%	2.0
Extrema Temperatures	3	30%	1	30%	4	20%	1	10%	3	10%	2.4
Food, Blush Food, Ice Jam	2	30%	1	30%	2	20%	3	10%	3	10%	1.9
Hailstorm	2	30%	1	30%	2	20%	4	10%	1	10%	1.4
Hurricane, Tropical Storm, Hiv'ester	3	30%	2	30%	4	20%	1	10%	4	10%	2.1
Invasive species	1	30%	1	30%	1	20%	1	10%	4	10%	1.3
Landslide	1	30%	1	30%	1	20%	2	10%	1	10%	1.1
Lightning Strike	4	30%	1	30%	1	20%	4	10%	1	10%	2.2
Mass Food and Animal Feed Contamination	1	30%	1	30%	1	20%	4	10%	2	10%	1.4
Nuclear Incident	1	30%	1	30%	1	20%	1	10%	4	10%	1.3
Pandemic and Infectious Disease	4	30%	4	30%	4	20%	1	10%	4	10%	3.7
Radon Exposure	1	30%	1	30%	1	20%	4	10%	4	10%	1.6
Severe Weather	1	30%	1	30%	1	20%	4	10%	1	10%	1.6
Skateboard, Sinkhole	2	30%	1	30%	2	20%	4	10%	2	10%	1.9
Terrorism	2	30%	2	30%	2	20%	4	10%	1	10%	2.1
Tornado, Windstorm	2	30%	1	30%	1	20%	4	10%	1	10%	1.6
Transportation Accident	2	30%	1	30%	1	20%	4	10%	1	10%	1.6
Urban Fire and Explosion	1	30%	1	30%	1	20%	4	10%	1	10%	1.3
Utility Interruption	2	30%	1	30%	2	20%	4	10%	2	10%	1.9
Wildfire	2	30%	1	30%	1	20%	4	10%	2	10%	1.7
Winter Storm	3	30%	2	30%	4	20%	1	10%	3	10%	2.2

RF Scoring Range
Catastrophic 3.0 - 4.0
Major 2.5 - 2.9
Moderate 2.0 - 2.4
Minor 1.5 - 1.9
Insignificant 1.0 - 1.4

White Cells
 Gray Cells
 Yellow Cells
 Static field - not to be changed
 Calculation Area - not to be changed

Probability:
 1 - Unlikely: Less than 1% annual probability
 2 - Possible: Between 1 and 50% annual probability
 3 - Likely: Between 50 and 90% annual probability
 4 - Highly Likely: Greater than 90% annual probability

Impact:
 1 - Very few injuries; Minor property damage; Minimal impact to critical facilities
 2 - Minor injuries; Greater than 10% property damage in zone; Critical facilities impacted greater than 1 day
 3 - Multiple deaths/injuries; Greater than 25% property damage in zone; Critical facilities impacted for greater than 1 week
 4 - High number of deaths/injuries; Greater than 50% property damage in zone; Critical facilities impacted for greater than 30 days

Spatial:
 1 - Less than 1% of municipality affected
 2 - Between 1 and 10% of municipality affected
 3 - Between 10 and 50% of municipality affected
 4 - Between 50 and 100% of municipality affected

Warning Time:
 1 - More than 24 hrs
 2 - 12 to 24 hrs
 3 - 6 to 12 hrs
 4 - less than 6 hrs

Durations:
 For consistency across the state and county, these numbers are tied to the assessments in the PA HMP dated 2018.

Figure D.57.2: Greene Township 2020 Annual HMP Update Survey Response – Page 2 of 2

Appendix D: Worksheet Survey Responses

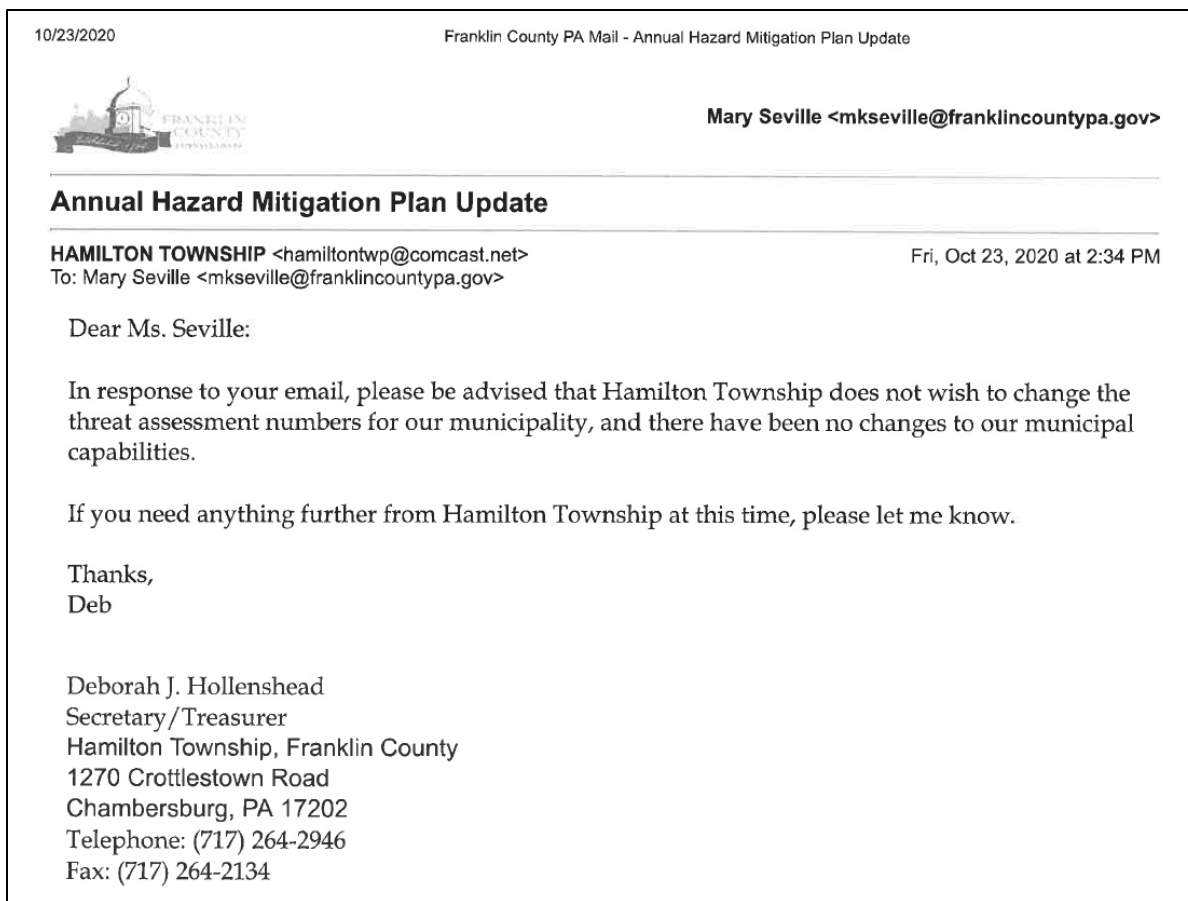



Figure D.58: Hamilton Township 2020 Annual HMP Update Survey Response



Figure D.59: Lurgan Township 2020 Annual HMP Update Survey Response

Appendix D: Worksheet Survey Responses

12/21/2020 Franklin County PA Mail - Municipal Assessment Report

 **Mary Seville** <mkseville@franklincountypa.gov>

Municipal Assessment Report
2 messages

Anna Swailes <localgov100@yahoo.com> Wed, Dec 9, 2020 at 4:39 PM
To: "mkseville@franklincountypa.gov" <mkseville@franklincountypa.gov>

Our assessment is attached. Please verify that you received it - thanks!

Anna Swailes, Secretary
Metal Township Supervisors


 **Metal Municipal Threat Assessment Survey 2020 HMP Update 12.9.2020.xlsx**
29K

Figure D.60.1: Metal Township 2020 Annual HMP Update Survey Response – Page 1 of 2

Appendix D: Worksheet Survey Responses

Metal Twp.

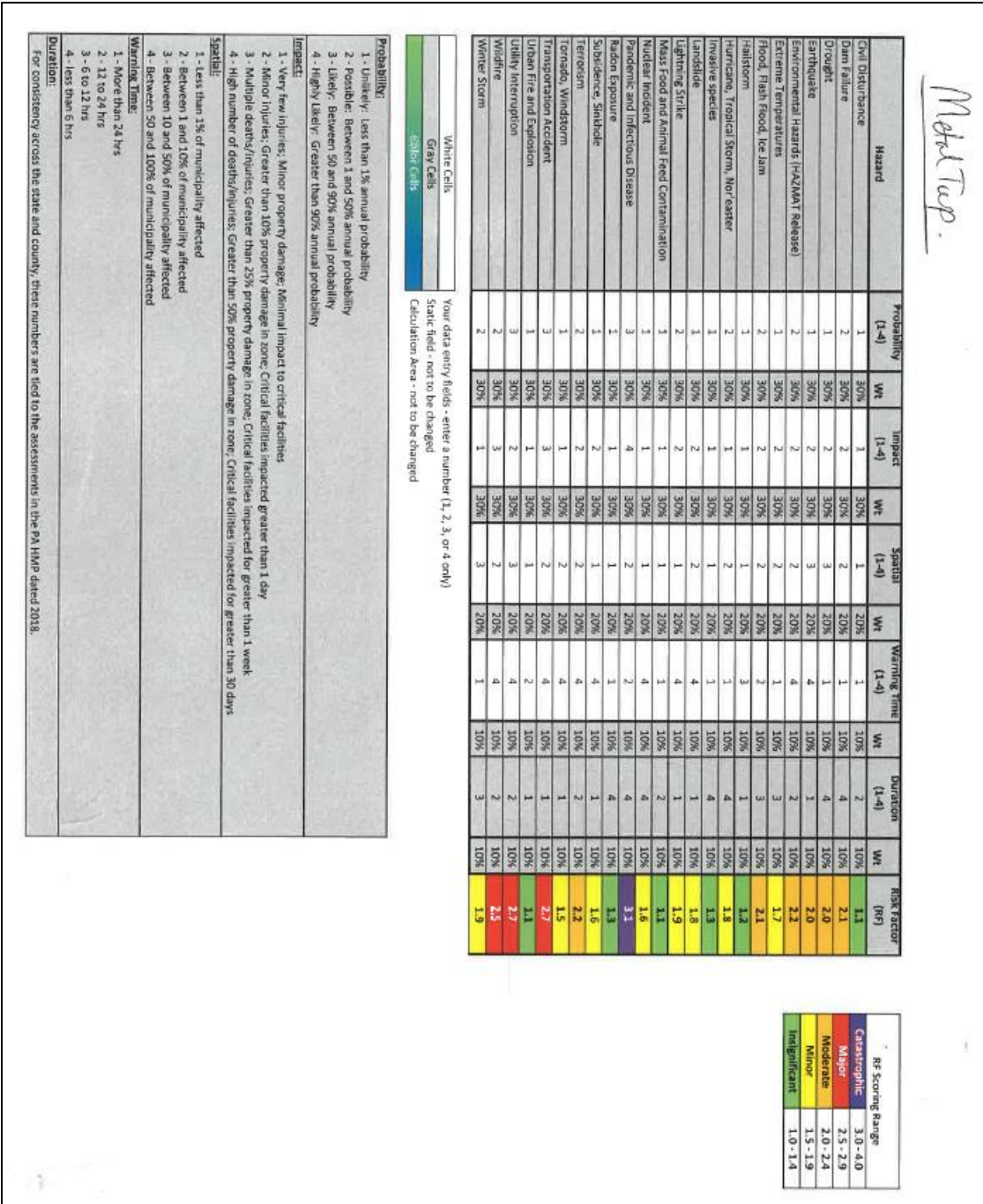



Figure D.60.2: Metal Township 2020 Annual HMP Update Survey Response – Page 2 of 2

Appendix D: Worksheet Survey Responses

10/16/2020 Franklin County PA Mail - HMP update

 **Mary Seville <mkseville@franklincountypa.gov>**

HMP update

Jeremy Fogelsonger <jeremy.fogelsonger@montaltoborough.com> Fri, Oct 9, 2020 at 9:55 AM
To: "mkseville@franklincountypa.gov" <mkseville@franklincountypa.gov>
Cc: Patti Stitely <patti.stitely@montaltoborough.com>

We have no new capabilities to add this year.

Thanks


 **Copy of Municipal_Threat_Assessment_Survey_2020_HMP_Update.xlsx**
28K

Figure D.61.1: Mont Alto Borough 2020 Annual HMP Update Survey Response – Page 1 of 2

Appendix D: Worksheet Survey Responses

Mont Alto Borough

Hazard	Probability (1-4)	Wt	Impact (1-4)	Wt	Spatial (1-4)	Wt	Warning Time (1-4)	Wt	Duration (1-4)	Wt	Risk Factor (RF)
Civil Disturbance	1	30%	2	30%	2	20%	2	10%	2	10%	1.7
Dam Failure	1	30%	1	30%	1	20%	4	10%	4	10%	1.6
Drought	1	30%	2	30%	3	20%	1	10%	4	10%	2.0
Earthquake	1	30%	1	30%	1	20%	2	10%	1	10%	1.1
Environmental Hazards (HAZMAT Release)	2	30%	2	30%	2	20%	4	10%	2	10%	2.2
Extreme Temperatures	1	30%	1	30%	2	20%	1	10%	3	10%	1.9
Flood, Fresh Flood, Ice Jam	2	30%	2	30%	3	20%	1	10%	3	10%	1.5
Hailstorm	1	30%	1	30%	3	20%	3	10%	1	10%	1.9
Hurricane, Tropical Storm, Nor'easter	1	30%	2	30%	2	20%	1	10%	4	10%	1.8
Invasive species	1	30%	1	30%	1	20%	4	10%	4	10%	1.3
Landslide	1	30%	1	30%	1	20%	4	10%	1	10%	1.3
Lightning Strike	2	30%	1	30%	1	20%	4	10%	1	10%	1.6
Mass Food and Animal Feed Contamination	1	30%	1	30%	2	20%	4	10%	2	10%	1.6
Nuclear Incident	1	30%	1	30%	1	20%	2	10%	4	10%	1.4
Pandemic and Infectious Disease	2	30%	1	30%	2	20%	4	10%	4	10%	2.1
Radon Exposure	1	30%	1	30%	1	20%	4	10%	4	10%	1.6
Subsidence, Sinkhole	1	30%	1	30%	1	20%	1	10%	1	10%	1.0
Terrorism	1	30%	1	30%	1	20%	4	10%	2	10%	1.4
Tornado, Windstorm	2	30%	1	30%	3	20%	3	10%	1	10%	1.9
Transportation Accident	2	30%	1	30%	2	20%	4	10%	1	10%	1.8
Urban Fire and Explosion	2	30%	1	30%	2	20%	4	10%	1	10%	1.8
Utility Interruption	3	30%	1	30%	4	20%	4	10%	2	10%	2.6
Mudfire	1	30%	1	30%	1	20%	4	10%	2	10%	1.4
Winter Storm	2	30%	2	30%	4	20%	1	10%	3	10%	2.4

RF Scoring Range	
Catastrophic	3.0 - 4.0
Major	2.5 - 2.9
Moderate	2.0 - 2.4
Minor	1.5 - 1.9
Insignificant	1.0 - 1.4

White Cells
Gray Cells
Color Cells
Your data entry fields - enter a number (1, 2, 3, or 4 only)
Static field - not to be changed
Calculation Area - not to be changed

- Probability:**
- 1 - Unlikely: Less than 1% annual probability
 - 2 - Possible: Between 1 and 50% annual probability
 - 3 - Likely: Between 50 and 90% annual probability
 - 4 - Highly Likely: Greater than 90% annual probability
- Impact:**
- 1 - Very few injuries; Minor property damage; Minimal impact to critical facilities
 - 2 - Minor injuries; Greater than 10% property damage in zone; Critical facilities impacted greater than 1 day
 - 3 - Multiple deaths/injuries; Greater than 25% property damage in zone; Critical facilities impacted for greater than 1 week
 - 4 - High number of deaths/injuries; Greater than 50% property damage in zone; Critical facilities impacted for greater than 30 days
- Spatial:**
- 1 - Less than 1% of municipality affected
 - 2 - Between 1 and 10% of municipality affected
 - 3 - Between 10 and 50% of municipality affected
 - 4 - Between 50 and 100% of municipality affected
- Warning Time:**
- 1 - More than 24 hrs
 - 2 - 12 to 24 hrs
 - 3 - 6 to 12 hrs
 - 4 - less than 6 hrs
- Duration:**
- For consistency across the state and country, these numbers are tied to the assessments in the PA HMP dated 2018.

Figure D.61.2: Mont Alto Borough 2020 Annual HMP Update Survey Response – Page 2 of 2

Appendix D: Worksheet Survey Responses

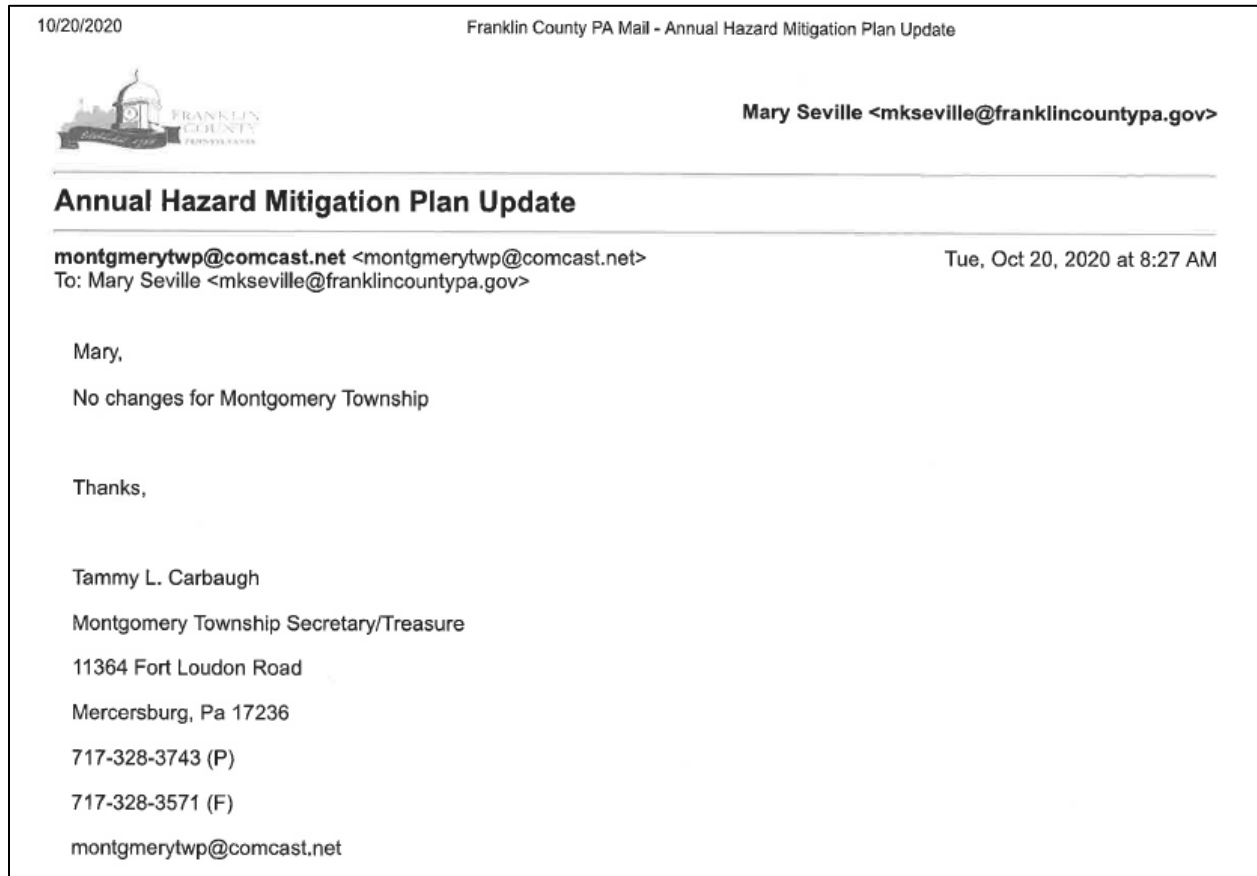


Figure D.62: Montgomery Township 2020 Annual HMP Update Survey Response

Appendix D: Worksheet Survey Responses

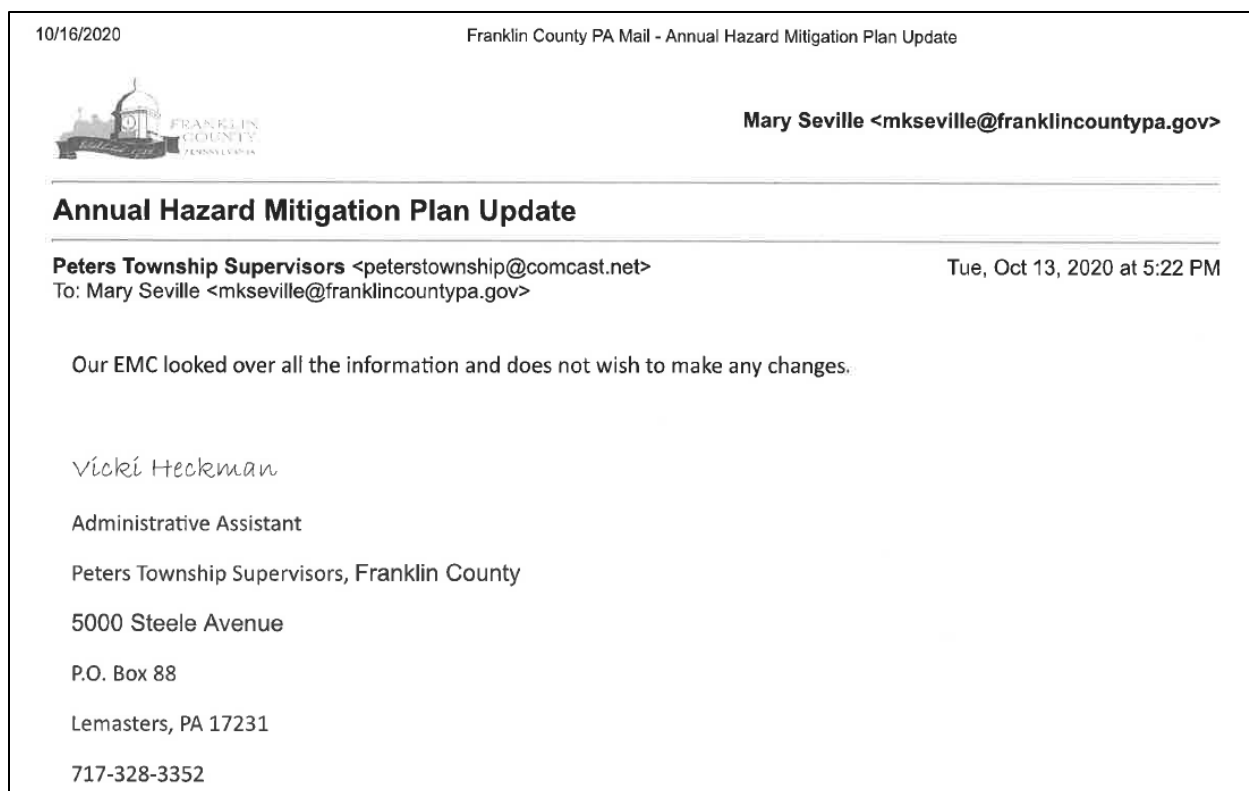


Figure D.63: Peters Township 2020 Annual HMP Update Survey Response

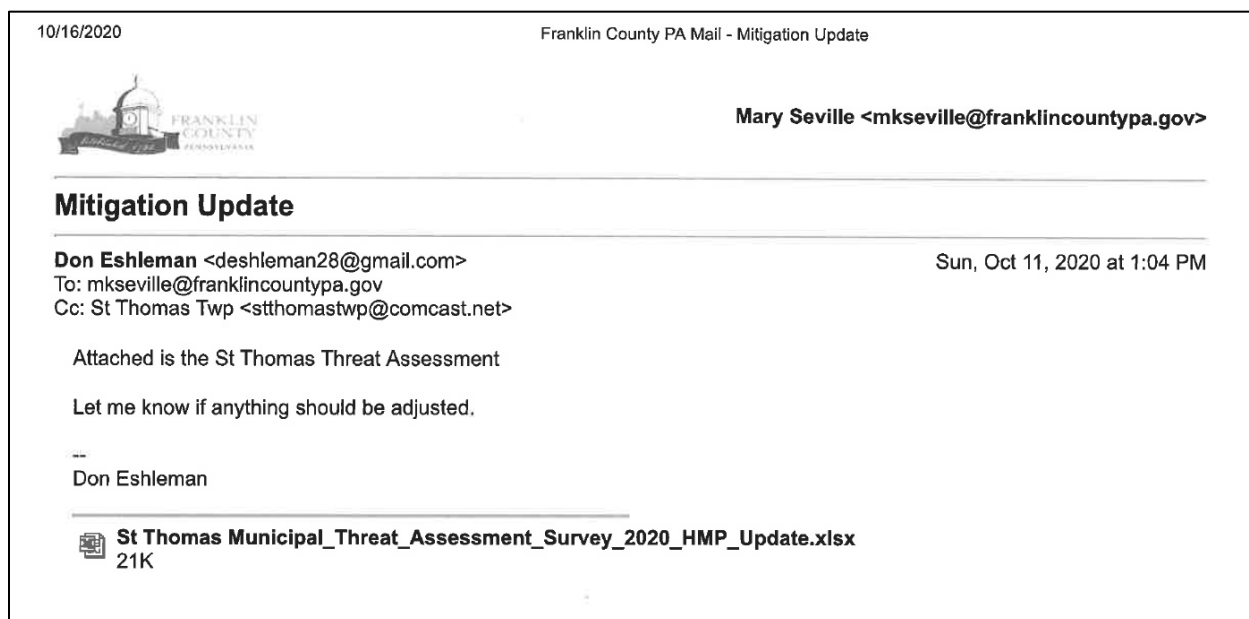


Figure D.64.1: St. Thomas Township 2020 Annual HMP Update Survey Response – Page 1 of 2

Appendix D: Worksheet Survey Responses

St. Thomas Twp

Hazard	Probability (1-4)	WT (30%)	Impact (1-4)	WT (30%)	Spatial (1-4)	WT (20%)	Warning Time (1-4)	WT (10%)	Duration (1-4)	WT (10%)	Risk Factor (RF)
Civil Disturbance	2	30%	2	30%	1	20%	4	10%	2	10%	2.0
Dam Failure	2	30%	2	30%	1	20%	3	10%	4	10%	2.1
Drought	3	30%	3	30%	3	20%	1	10%	4	10%	3.9
Earthquake	1	30%	1	30%	1	20%	4	10%	1	10%	1.3
Environmental Hazards (HAZMAT Release)	3	30%	1	30%	1	20%	4	10%	2	10%	2.0
Extreme Temperatures	2	30%	2	30%	3	20%	4	10%	3	10%	2.5
Flood, Flash Flood, Ice Jam	3	30%	2	30%	2	20%	4	10%	3	10%	2.5
Hailstorm	3	30%	2	30%	2	20%	4	10%	1	10%	2.4
Hurricane, Tropical Storm, Nor'easter	2	30%	2	30%	2	20%	4	10%	4	10%	2.4
Invasive Species	2	30%	2	30%	2	20%	3	10%	4	10%	2.1
Landslide	2	30%	1	30%	1	20%	4	10%	1	10%	1.6
Lightning Strike	3	30%	2	30%	2	20%	4	10%	1	10%	2.4
Mass Food and Animal Feed Contamination	3	30%	2	30%	3	20%	4	10%	2	10%	2.7
Nuclear Incident	1	30%	1	30%	1	20%	4	10%	4	10%	1.6
Pandemic and Infectious Disease	4	30%	3	30%	2	20%	2	10%	4	10%	3.1
Radon Exposure	2	30%	1	30%	1	20%	1	10%	4	10%	1.6
Subsidence, Sinkhole	2	30%	1	30%	1	20%	4	10%	2	10%	2.0
Terrorism	2	30%	2	30%	1	20%	4	10%	1	10%	2.4
Tornado, Windstorm	3	30%	2	30%	2	20%	4	10%	1	10%	2.1
Transportation Accident	3	30%	1	30%	2	20%	4	10%	1	10%	1.3
Urban Fire and Explosion	1	30%	1	30%	1	20%	4	10%	1	10%	1.3
Utility Interruption	4	30%	2	30%	2	20%	4	10%	2	10%	2.8
Wildfire	2	30%	2	30%	2	20%	4	10%	2	10%	2.2
Winter Storm	3	30%	2	30%	2	20%	3	10%	3	10%	2.5

White Cells	Year data entry fields - enter a number (1, 2, 3, or 4 only)
Gray Cells	Static field - not to be changed
Color Cells	Calculation Area - not to be changed

RF Scoring Range
Catastrophic 3.0 - 4.0
Major 2.5 - 2.9
Moderate 2.0 - 2.4
Minor 1.5 - 1.9
Insignificant 1.0 - 1.4

Probable:	1 - Unlikely: Less than 1% annual probability
	2 - Possible: Between 1 and 50% annual probability
	3 - Likely: Between 50 and 90% annual probability
	4 - Highly Likely: Greater than 90% annual probability
Impact:	1 - Very few injuries; Minor property damage; Minimal impact to critical facilities
	2 - Minor injuries; Greater than 10% property damage in zone; Critical facilities impacted greater than 1 day
	3 - Multiple deaths/injuries; Greater than 25% property damage in zone; Critical facilities impacted for greater than 1 week
	4 - High number of deaths/injuries; Greater than 50% property damage in zone; Critical facilities impacted for greater than 30 days
Spatial:	1 - Less than 1% of municipality affected
	2 - Between 1 and 10% of municipality affected
	3 - Between 10 and 50% of municipality affected
	4 - Between 50 and 100% of municipality affected
Warning Time:	1 - More than 24 hrs
	2 - 12 to 24 hrs
	3 - 6 to 12 hrs
	4 - less than 6 hrs
Duration:	For consistency across the state and county, these numbers are tied to the assessments in the PA HMP dated 2018.

Figure D.64.2: St. Thomas Township 2020 Annual HMP Update Survey Response – Page 2 of 2

Appendix E: Franklin County HMP Data Collection Tools


 Franklin County, PA Municipal Hazard Mitigation Assessment Survey				
Name:		Organization:		Date:
Hazard	(P) Probability of Occurrence	(Z) Percentage of Municipality Impacted	(W) Warning Time	(I) Impact of Occurrence
Civil Disturbance				
Dam Failure (High Hazard Dams)				
Drought				
Earthquake				
Environmental Hazards (HAZMAT Release)				
Extreme Temperature				
Flood, Flash Flood, Ice Jam				
Hailstorm				
Hurricane, Tropical Storm, Nor'Easter				
Invasive Species				
Landslide				
Lightning Strike				
Mass Food and Animal Feed Contamination				
Nuclear Incident				
Pandemic and Infectious Disease				
Radon Exposure				
Subsidence, Sinkhole				
Terrorism				
Tornado, Windstorm				
Transportation Accident (Air/Rail/Highway)				
Urban Fire and Explosion				
Utility Interruption (Comm/Power/Water/Sewage)				
Wildfire				
Winter Storm				
(P) Probability of Occurrence		(Z) Percentage of Municipality Impacted		(W) Warning Time
1 = Unlikely: Less than 1% Annual Probability 2 = Possible: Between 1 and 49.9% Annual Probability 3 = Likely: Between 50 and 90% Annual Probability 4 = Highly Likely: Greater than 90% Annual Probability		1 = Less than 1% of Municipality affected 2 = Between 1 and 10% of Municipality affected 3 = Between 10 and 50% of Municipality affected 4 = Between 50 and 100% of Municipality affected		1 = More than 24 hrs 2 = 12 to 24 hrs 3 = 6 to 12 hrs 4 = Less than 6 hrs
(I) Impact of Occurrence				
1 = Very few injuries; minor property damage; minimal impact to critical facilities 2 = Minor injuries; Greater than 10% property damage in Zone; critical facilities impacted for greater than 1 day 3 = Multiple deaths/injuries; Greater than 25% property damage in Zone; critical facilities impacted for greater than 1 week 4 = High number deaths/injuries; Greater than 50% property damage in Zone; critical facilities impacted for greater than 30 days				

Figure E.1.1: Hazard Assessment Survey – Page 1 of 6

Appendix E: Franklin County HMP Data Collection Tools


 Franklin County, PA Hazard Mitigation Assessment Definitions	
Civil Disturbance	<p>Civil disturbance hazards encompass a set of hazards emanating from a wide range of possible events that cause civil disorder, confusion, strife, and economic hardship. Civil disturbance hazards include the following:</p> <ul style="list-style-type: none"> • Famine – a widespread scarcity of food leading to malnutrition and increased mortality • Economic Collapse, Recession – Very slow or negative growth • Misinformation – erroneous information spread unintentionally • Civil Disturbance, Public Unrest, Mass Hysteria, Riot – group acts of violence against property and individuals • Strike, Labor Dispute – controversies related to the terms and conditions of contract negotiations
Dam Failure	<p>A dam is a barrier across flowing water that obstructs, directs, or slows down water flow. Dams provide benefits such as flood protection, power generation, drinking water, irrigation, and recreation. Failure of these structures results in an uncontrolled release of impounded water. Failures are relatively rare, but immense damage and loss of life is possible in downstream communities when such events occur. There are four dams in Franklin county that are considered “high-hazard” dams by the Pennsylvania Department of Environmental Protection. This does not indicate an increased likelihood of failure of these dams, simply that if they were to fail, the impact would be extensive. These dams are:</p> <ul style="list-style-type: none"> • Roxbury Dam • Long Pine Run Dam • Carbaugh Run Dam • Antietam Dam
Drought	<p>Drought is a natural climatic condition which occurs in virtually all climates, the consequences of a natural reduction in the amount of precipitation experienced over a long period of time, usually a season or more in length. High temperatures, prolonged winds, and low relative humidity can exacerbate the severity of drought. The hazard is of particular concern in Pennsylvania due to the presence of farms as well as water-dependent industries and recreation areas across the Commonwealth. A prolonged drought could severely impact these sectors of the local economy, as well as residents who depend on wells for drinking water and other personal uses.</p>
Earthquake	<p>An earthquake is the motion or trembling of the ground produced by sudden displacement of rock usually within the upper 1-20 miles of the Earth’s crust. Earthquakes result from crustal strain, volcanism, landslides or the collapse of underground caverns. Earthquakes can affect hundreds of thousands of square miles, cause damage to property measured in the tens of billions of dollars, result in the loss of life and injury to hundreds of thousands of persons, and disrupt the social and economic functioning of the affected area. Most property damage and earthquake-related deaths are caused by the failure and collapse of structures due to ground shaking which is dependent upon amplitude and duration of the earthquake.</p>
Environmental Hazards	<p>Environmental hazards are hazards that pose threats to the natural environment, the built environment, and public safety through the diffusion of harmful substances, materials, or products. For the purposes of the Franklin County Hazard Mitigation Plan, environmental hazards include the following:</p> <ul style="list-style-type: none"> • Hazardous materials releases – at fixed facilities or in transit, including toxic chemicals, infectious substances, biohazardous waste, and any materials that are explosive, corrosive, flammable, or radioactive. • Coal Mining incidents – including the release of harmful chemicals and waste materials into water bodies or the atmosphere, explosions, fires, and other hazards and threats to life safety stemming from mining. • Oil and gas well incidents – including the release of harmful chemical and waste materials into water bodies or the atmosphere, explosions, fires, and other hazards and threats to life safety stemming from oil and gas extraction

Figure E.1.2: Hazard Assessment Survey – Page 2 of 6

Appendix E: Franklin County HMP Data Collection Tools


 Franklin County, PA Hazard Mitigation Assessment Definitions	
Extreme Temperature	<p>Extreme cold temperatures drop well below what is considered normal for an area during the winter months and often accompany winter storm events. Combined with increases in wind speed, such temperatures in Pennsylvania can be life threatening to those exposed for extended periods of time. Extreme heat can be described as temperatures that hover 10 degrees F or more above the average high temperature for a region during the summer months. Extreme heat is responsible for more deaths in Pennsylvania than all other natural disasters combined.</p>
Flood, Flash Flood, Ice Jam	<p>Flooding is the temporary condition of partial or complete inundation on normally dry land and it is the most frequent and costly of all hazards in Pennsylvania. Flooding events are generally the result of excessive precipitation. General flooding is typically experienced when precipitation occurs over a given river basin for an extended period of time. Flash flooding is usually a result of heavy localized precipitation falling in a short time period over a given location, often along mountain streams and in urban areas where much of the ground is covered by impervious surfaces. The severity of a flood event is dependent upon a combination of stream and river basin topography and physiography, hydrology, precipitation and weather patterns, present soil moisture conditions, the degree of vegetative clearing as well as the presence of impervious surfaces in and around flood-prone areas. Winter flooding can include ice jams which occur when warm temperatures and heavy rain cause snow to melt rapidly. Snow melt combined with heavy rains can cause frozen rivers to swell, which breaks the ice layer on top of the river. The ice layer often breaks into large chunks, which float downstream, piling up in narrow passages and near other obstructions such as bridges and dams. All forms of flooding can damage infrastructure.</p>
Hailstorm	<p>In addition to flooding and severe winds, hail is another potential damaging product of severe thunderstorms. Hailstorms occur when ice crystals form within a low pressure front due to the rapid rise of warm air into the upper atmosphere and the subsequent cooling of the air mass. Frozen droplets gradually accumulate on the ice crystals until, having developed sufficient weight, they fall as precipitation in the form of balls or irregularly shaped masses of ice greater than 0.75 inches in diameter. The size of hailstones is a direct function of the size and severity of the storm. High velocity updraft winds are required to keep hail in suspension in thunderclouds. The strength of the updraft is a function of the intensity of the heating at the Earth's surface. Damage to crops and vehicles are typically the most significant impacts of hailstones. Areas in eastern and central Pennsylvania typically experience less than 2 hailstorms per year while areas in western Pennsylvania experience 2-3 annually.</p>
Hurricane, Tropical Storm, Nor'easter	<p>Hurricanes, tropical storms, and nor'easters are classified as cyclones and are any closed circulation developing around a low-pressure center in which the winds rotate counter-clockwise and whose diameter averages 10-30 miles across. While most of Pennsylvania is not directly affected by the devastating impacts cyclonic systems can have on coastal regions, many areas in the state are subject to the primary damaging forces associated with these storms including high-level sustained winds, heavy precipitation, and tornadoes. Areas in southeastern Pennsylvania could be susceptible to storm surge and tidal flooding. The majority of hurricanes and tropical storms form in the Atlantic Ocean, Caribbean Sea, and Gulf of Mexico during the official Atlantic hurricane season (June through November).</p>
Invasive Species	<p>An invasive species is a species that is not indigenous to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health. These species can be any type of organism: plant, fish, invertebrate, mammal, bird, disease, or pathogen. Infestations may not necessarily impact human health, but can create a nuisance or agricultural hardships by destroying crops, defoliating populations of native plant and tree species, or interfering with ecological systems.</p>

Figure E.1.3: Hazard Assessment Survey – Page 3 of 6

Appendix E: Franklin County HMP Data Collection Tools


 Franklin County, PA Hazard Mitigation Assessment Definitions	
Landslide	A landslide is the downward and outward movement of slope-forming soil, rock, and vegetation reacting to the force of gravity. Landslides may be triggered by both natural and human-caused changes in the environment, including heavy rain, rapid snow melt, steepening of slopes due to construction or erosion, earthquakes, and changes in groundwater levels. Mudflows, mudslides, rock falls, rockslides, and rock topples are all forms of a landslide. Areas that are generally prone to landslide hazards include previous landslide areas, the bases of steep slopes, the bases of drainage channels, developed hillsides, and areas recently burned by forest and brush fires.
Lightning Strike	Lightning is a discharge of electrical energy resulting from the build-up of positive and negative charges within a thunderstorm. The flash or “bolt” of light usually occurs within clouds or between clouds and the ground. A bolt of lightning can reach temperatures approaching 50,000 degrees F. On average, 89 people are killed each year by lightning strikes in the United States. Within Pennsylvania, the annual average number of thunder and lightning events a given area can expect ranges between 40-70 events per year.
Mass Food and Animal Feed Contamination	Mass food or animal feed contamination hazards occur when food or food sources are contaminated with pathogenic bacteria, viruses, or parasites, as well as chemical or natural toxins. They may lead to food borne illnesses and/or interruptions in the food supply. Contamination may occur due to natural food borne illnesses and chemical, biological, radiological, or nuclear exposure. Most food borne illnesses are caused by: Campylobacter in poultry; E. Coli in beef, leafy greens, and raw milk; Listeria in deli meats, unpasteurized soft cheeses, and produce; Salmonella in eggs and poultry; and Toxoplasma in meats. Contamination usually occurs accidentally during the production/preparation process but can also be the result of intentional acts.
Nuclear Incident	Nuclear incidents generally refer to events involving the release of significant levels of radioactivity or exposure of workers or the general public to radiation. Nuclear accidents/incidents can be placed into three categories: <ul style="list-style-type: none"> • Criticality incidents – which involve loss of control of nuclear assemblies or power reactors • Loss of coolant accidents – which result whenever a reactor coolant system experiences a break or opening large enough so that the coolant inventory in the system cannot be maintained by the normally operating make-up system • Loss of containment accidents – which involve the release of radioactivity. The primary concern following such an incident or accident is the extent of radiation, inhalation, and ingestion of radioactive isotopes which can cause acute health effects, chronic health effects, and psychological effects. Franklin County is a support county for incidents at Three Mile Island. We would not be in the evacuation zones of any accident there, but we could be expected to house up to 1361 evacuees from municipalities in the evacuation zones. Portions of Franklin County do fall into the 50-mile contamination zone for food and animal feed if such an incident were to occur.
Pandemic and Infectious Disease	A pandemic occurs when infection from a new strain of a certain disease, to which most humans have no immunity, substantially exceeds the number of expected cases over a given period of time. Such a disease may or may not be transferable between humans and animals.
Radon Exposure	Radon is a cancer-causing natural radioactive gas that you can’t see, smell, or taste. It is a large component of the natural radiation that humans are exposed to and can pose a serious threat to public health when it accumulates in poorly ventilated residential and occupational settings. According to the EPA, Radon is estimated to cause about 21,000 lung cancer deaths per year, second only to smoking as the leading cause of lung cancer. An estimated 40% of the homes in Pennsylvania are believed to have elevated Radon levels.

Figure E.1.4: Hazard Assessment Survey – Page 4 of 6

Appendix E: Franklin County HMP Data Collection Tools


 Franklin County, PA Hazard Mitigation Assessment Definitions	
<p>Subsidence, Sinkholes</p>	<p>Subsidence is a natural geologic process that commonly occurs in areas with underlying limestone bedrock and other rock types that are soluble in water. Water passing through naturally occurring fractures dissolves these materials leaving underground voids. Eventually, overburden on top of the voids causes a collapse which can damage structures with low strain tolerances. The collapse can take place slowly over time or quickly in a single event. In addition to natural processes, human activity such as water, natural gas, and oil extraction can cause subsidence and sinkhole formation. Franklin County has considerable deposits of limestone that is utilized in several quarry operations. It is estimated that 32 percent of the land is considered limestone. Therefore we should be aware of the potential hazard of sinkholes.</p>
<p>Terrorism</p>	<p>Terrorism is use of force or violence against persons or property with the intent to intimidate or coerce. Acts of terrorism include threats of terrorism; assassinations; kidnappings; hijackings; bomb scares and bombings; cyber-attacks; and the use of chemical, biological, nuclear, and radiological weapons. Increasingly, cyber-attacks have become a more pressing concern for governments across America.</p>
<p>Tornado, Wind Storm</p>	<p>A wind storm can occur during severe thunderstorms, winter storms, coastal storms, or tornadoes. Straight-line winds such as downburst have the potential to cause wind gusts that exceed 100 miles per hour. Based on 40 years of tornado history and over 100 years of hurricane history, FEMA identifies western and central Pennsylvania as being more susceptible to higher winds than eastern Pennsylvania. The damage caused by a tornado is the result of high wind velocities and wind-blown debris. According to the National Weather Service, tornado wind speeds can range between 30 to more than 300 miles per hour.</p>
<p>Transportation Accident</p>	<p>Transportation accidents can result from any for of air, rail, water, or road travel. It is unlikely that small accidents would significantly impact the larger community. However, certain accidents could have secondary regional impacts such as a hazardous materials release or disruption in critical supply/access routes, especially if vital transportation corridors or junctions are present (e.g. I-81, SR-30, I-76, SR 997, SR, 11, and SR 16). Traffic congestion in certain circumstances can also be hazardous. Traffic congestion is a condition that occurs when traffic demand approaches or exceeds the available capacity of the road network. This hazard should be carefully evaluated during emergency planning since it is a key factor in timely disaster or hazard response, especially in areas with high population density.</p>
<p>Urban Fire and Explosion</p>	<p>An urban fire involves a structure or property within an urban or developed area. For hazard mitigation purposes, major urban fires involving large buildings and/or multiple properties are of primary concern. The effects of a major urban fire include minor to significant property damage, loss of life, and residential or business displacement. Explosions are extremely rapid releases of energy that usually generate high temperatures and often lead to fires. The risk of severe explosions can be reduced through careful management of flammable and explosive hazardous materials.</p>

Figure E.1.5: Hazard Assessment Survey – Page 5 of 6


 Franklin County, PA Hazard Mitigation Assessment Definitions	
Utility Interruption	<p>Utility interruption hazards are hazards that impair the functioning of important utilities in the energy, telecommunications, public works, and information network sectors. Utility interruption hazards include the following:</p> <ul style="list-style-type: none"> • Geomagnetic Storms – including temporary disturbances of the Earth’s magnetic field resulting in disruptions of communication, navigation, and satellite systems. • Fuel or Resource Shortage – resulting from supply chain breaks or secondary to other hazard events • Electromagnetic Pulse – originating from an explosion or fluctuating magnetic field and causing damaging current surges in electrical and electronics systems • Information Technology Failure – due to software bugs, viruses, or improper use • Ancillary Support Equipment – electrical generating, transmission, system-control, and distribution-system equipment for the energy industry • Public Works failure – damage to or failure of highways, flood control systems, deepwater ports and harbors, public buildings, bridges, or dams • Telecommunications System Failure – damage to data transfer, communications, and processing equipment • Transmission Facility or Linear Utility Accident – liquefied natural gas leakages, explosions, or facility problems
Wildfire	<p>A wildfire is a raging, uncontrolled fire that spreads rapidly through vegetative fuels, exposing and possibly consuming structures. Wildfires often begin unnoticed and can spread quickly, creating dense smoke that can be seen for miles. Wildfires can occur at any time of the year, but mostly occur during long, dry hot spells. Any small fire in a wooded area, if not quickly detected and suppressed, can get out of control. Most wildfires are caused by human carelessness, negligence, and ignorance. However, some are precipitated by lightning strikes and in rare instances, spontaneous combustion. Wildfires in Pennsylvania can occur in fields, grass, brush, and forests. 98% of wildfires in Pennsylvania are a direct result of people, often caused by debris burns.</p>
Winter Storm	<p>Winter storms may include snow, sleet, freezing rain, or a mix of these wintry forms of precipitation. A winter storm can range from a moderate snowfall or ice event over a period of a few hours to blizzard conditions with wind-driven snow that lasts for several days. Many winter storms are accompanied by low temperatures and heavy and/or blowing snow, which can severely impair visibility and disrupt transportation. The Commonwealth of Pennsylvania has a long history of severe winter weather.</p>

Figure E.1.6: Hazard Assessment Survey – Page 6 of 6

Appendix E: Franklin County HMP Data Collection Tools

Franklin County HMP Capability Assessment Survey

Performing the capability assessment is important to formulate a viable mitigation strategy later in the planning process. A capability assessment has two components: an inventory of a jurisdiction's existing planning and regulatory tools and an analysis of its capacity to use them effectively. The assessment process helps identify existing gaps, conflicts and/or weaknesses that may need to be addressed through future mitigation planning goals, objectives, and actions. It also highlights the measures in place or already undertaken that merit continued support and enhancement through future mitigation efforts. The capability assessment also helps to ensure that proposed mitigation actions are practical considering the local ability to implement them. The community should highlight and describe any successful mitigation projects.

For this exercise, please complete the attached Capability Assessment Survey for your jurisdiction. Only one form needs to be filled out per municipality. There are 6 parts of the capability assessment. For the Planning and Regulatory Capability (Section 1), review each line of the capability assessment table; if you have a capability, fill out that line. If you do not have a capability, leave the line blank. For the rest of the survey, please fill out each line. Please email your response to Bob Povlich at rwповlich@franklincountypa.gov or mail the completed form to: Franklin County Department of Emergency Services, Attn: Bob Povlich, 390 New York Ave, Chambersburg, PA 17201.

1

Figure E.2.1: Municipal Capabilities Survey – Page 1 of 11

Appendix E: Franklin County HMP Data Collection Tools

Franklin County HMP Capability Assessment Survey

Municipality: _____ *Name/Title:* _____

1. Planning and Regulatory Capability: Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation and indicate its estimated or anticipated effect on hazard loss reduction [Supports (+), Neutral (N), or Hinders (-)] with the appropriate symbol and also indicate if there has been a change in the ability of the tool/program to result in loss reduction. Finally, please provide additional comments or explanations in the space provided.

Tools/Program	Status			Dept./ Agency Responsible	Anticipated Effect (Supports, Neutral, or Hinders)	Comments
	In Place	Date Adopted or Updated	Under Development			
EXAMPLE: Hazard Mitigation Plan	X	12/20/2017		Hazard County EMA	+	Interim update in 2014 revised mitigation strategy; completed one action.
Hazard Mitigation Plan						
Emergency Operations Plan						
Disaster Recovery Plan						
Evacuation Plan						
Continuity of Operations Plan						
NFIP						
NFIP-CRS						
Floodplain Regulations						
Floodplain Management Plan						

2

Figure E.2.2: Municipal Capabilities Survey – Page 2 of 11

Appendix E: Franklin County HMP Data Collection Tools

Franklin County HMP Capability Assessment Survey

Tools/Program	Status			Dept./ Agency Responsible	Anticipated Effect (Supports, Neutral, or Hinders)	Comments
	In Place	Date Adopted or Updated	Under Development			
Zoning Regulations						
Subdivision Regulations						
Comprehensive Land Use Plan (or General, Master, or Growth Mgmt. Plan)						
Open Space Management Plan (or Parks/Rec or Greenways Plan)						
Storm Water Management Plan/Ordinance						
Natural Resource Protection Plan						
Capital Improvement Plan						
Economic Development Plan						
Historic Preservation Plan						

Figure E.2.3: Municipal Capabilities Survey – Page 3 of 11

Appendix E: Franklin County HMP Data Collection Tools

Franklin County HMP Capability Assessment Survey

Tools/Program	Status			Dept./ Agency Responsible	Anticipated Effect (Supports, Neutral, or Hinders)	Comments
	In Place	Date Adopted or Updated	Under Development			
Famland Preservation						
Building Code						
Fire Code						
Firewise Program						
Storm Ready Community						
Other						

4

Figure E.2.4: Municipal Capabilities Survey – Page 4 of 11

Appendix E: Franklin County HMP Data Collection Tools

Franklin County HMP Capability Assessment Survey

2. National Flood Insurance Program (NFIP) Survey: Please answer the questions in the following three tables (Floodplain Identification and Mapping, Floodplain Management, and Floodplain Insurance) as they relate to your municipalities capabilities and posture on NFIP implementation.

NFIP - FLOODPLAIN IDENTIFICATION AND MAPPING			
<i>Requirement</i>	<i>Recommended Action</i>	<i>Yes/No</i>	<i>Comments</i>
Does the municipality maintain accessible copies of an effective Flood Insurance Rate Map (FIRM)/Digital Flood Insurance Rate Map (DFIRM)? Does the municipality maintain accessible copies of the most recent Flood Insurance Study (FIS)?	Place these documents in the local libraries or make available publicly.		
Has the municipality adopted the most current DFIRM/FIRM and FIS?	State the date of adoption, if approved.		
Does the municipality support request for map updates?	If yes, state how.		
Does the municipality share with Federal Emergency Management Agency (FEMA) any new technical or scientific data that could result in map revisions within 6 months of creation or identification of new data?	If yes, specify how.		
Does the municipality provide assistance with local floodplain determinations?	If yes, specify how.		
Does the municipality maintain a record of approved Letters of Map Change?	If yes, specify the responsible office.		

5

Figure E.2.5: Municipal Capabilities Survey – Page 5 of 11

Appendix E: Franklin County HMP Data Collection Tools

Franklin County HMP Capability Assessment Survey			
NFIP - FLOODPLAIN MANAGEMENT			
<i>Requirement</i>	<i>Recommended Action</i>	<i>Yes/No</i>	<i>Comments</i>
Has the municipality adopted a compliant floodplain management ordinance that, at a minimum, regulates the following:	If yes, answer questions (1) through (4) below.		
a. Does the municipality issue permits for all proposed development in the Special Flood Hazard Areas (SFHAs)?	If yes, specify the office responsible.		
b. Does the municipality obtain, review, and utilize any Base Flood Elevation (BFE) and floodway data, and/or require BFE data for subdivision proposals and other development proposals larger than 50 lots or 5 acres?	If yes, specify the office responsible.		
c. Does the municipality identify measures to keep all new and substantially improved construction reasonably safe from flooding to or above the BFE, including anchoring, using flood-resistant materials, and designing or locating utilities and service facilities to prevent water damage?	If yes, specify the office responsible.		
d. Does the municipality document and maintain records of elevation data that document lowest floor elevation for new or substantially improved structures?	If yes, specify the office responsible.		
If a compliant floodplain ordinance was adopted, does the municipality enforce the ordinance by monitoring compliance and taking remedial action to correct violations?	If yes, specify how.		
Has the municipality considered adopting activities that extend beyond the minimum	If yes, specify activities.		

6

Figure E.2.6: Municipal Capabilities Survey – Page 6 of 11

Appendix E: Franklin County HMP Data Collection Tools

Franklin County HMP Capability Assessment Survey

requirements? Examples include: <ul style="list-style-type: none"> Participation in the Community Rating System Prohibition of production or storage of chemicals in SFHA Prohibition of certain types of structures, such as hospitals, nursing homes, and jails in SFHA Prohibition of certain types of residential housing (manufactured homes) in SFHA Floodplain ordinances that prohibit any new residential or nonresidential structures in SFHA 			
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NFIP - FLOOD INSURANCE			
<i>Requirement</i>	<i>Recommended Action</i>	<i>Yes/No</i>	<i>Comments</i>
Does the municipality educate community members about the availability and value of flood insurance?	If yes, specify how.		
Does the municipality inform community property owners about changes to the DFIRM/FIRM that would impact their insurance rates?	If yes, specify how.		
Does the municipality provide general assistance to community members regarding insurance issues?	If yes, specify how.		

7

Figure E.2.7: Municipal Capabilities Survey – Page 7 of 11

Appendix E: Franklin County HMP Data Collection Tools

Franklin County HMP Capability Assessment Survey

3. Administrative and Technical Capability: Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Staff/Personnel Resources	Yes	No	Department/Agency	Comments
Planners (with land use / land development knowledge)				
Planners or engineers (with natural and/or human caused hazards knowledge)				
Engineers or professionals trained in building and/or infrastructure construction practices (includes building inspectors)				
Emergency manager				
Floodplain manager				
Land surveyors				
Scientists or staff familiar with the hazards of the Community				
Personnel skilled in Geographic Information Systems (GIS) and/or FEMA's HAZUS program				
Grant writers or fiscal staff to handle large/complex Grants				
Other				

8

Figure E.2.8: Municipal Capabilities Survey – Page 8 of 11

Appendix E: Franklin County HMP Data Collection Tools

Franklin County HMP Capability Assessment Survey

4. Fiscal Capability: Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources *for hazard mitigation purposes* (including as match funds for State of Federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any other comments you may have in the space provided or with attachments.


Financial Resources	Yes	No	Department/Agency	Comments
Capital Improvement Programming				
Community Development Block Grants (CDBG)				
Special Purpose Taxes				
Gas / Electric Utility Fees				
Water / Sewer Fees				
Storm Water Utility Fees				
Development Impact Fees				
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements				
Other				

Figure E.2.9: Municipal Capabilities Survey – Page 9 of 11

Appendix E: Franklin County HMP Data Collection Tools

Franklin County HMP Capability Assessment Survey

5. Community Political Capability: Political capability in this instance is being measured by the degree to which local political leadership (including appointed boards) is willing to enact policies and programs that reduce hazard vulnerabilities in your community, even if met with some opposition. Examples may include guiding development away from identified hazard areas, restricting public investments or capital improvements within hazard areas, or enforcing local development standards that go beyond minimum State or Federal requirements (e.g., building codes, floodplain management, etc.). Rate the jurisdiction's political capability to enact policies and programs that reduce hazard vulnerabilities on a scale from 0 to 5. Generally, a higher the score corresponds to a higher degree of community political capability.



5-Very Willing *3-Moderately Willing* *0-Unwilling to Adopt Policies/Programs* Score: _____

10

Figure E.2.10: Municipal Capabilities Survey – Page 10 of 11

Appendix E: Franklin County HMP Data Collection Tools


Franklin County HMP Capability Assessment Survey

5. Self-Assessment of Capability: Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "X" in the box marking the most appropriate degree of capability (Limited, Moderate or High) based upon best available information and the responses provided in Sections 1-5 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			
Administrative and Technical Capability			
Fiscal Capability			
Community Political Capability			
Community Resiliency Capability			

Figure E.2.11: Municipal Capabilities Survey – Page 11 of 11

Appendix E: Franklin County HMP Data Collection Tools

 Franklin County, PA Municipal Hazard Mitigation Action Nominations				
Name:	Organization:	Date:		
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective	Threat Hazard
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective	Threat Hazard
Action Description:	Responsible Organization:	HMP Goal:	HMP Objective	Threat Hazard

A mitigation action is a specific action, project, activity, or process taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan's mission and goals. The actions to reduce vulnerability to threats and hazards form the core of the plan and are a key outcome of the planning process. The following are some different types of mitigation actions to consider:

Local Plans and Regulations: Identify current development patterns and trends as well as areas where future development should and should not occur. (Ex. Comprehensive Plans, Land Use Ordinances, etc.)

Structural Projects: Modify existing structures and infrastructure to protect them from a hazard or remove them from the hazard area. (Ex. Utility Undergrounding, Flood-proofing, Structure Elevation, etc.)

Natural Systems Protection: Minimize damage and losses and also preserve or restore the functions of natural systems. (Ex. Erosion Control, Forest Management, Wetland Restoration, etc.)

Educational Programs: Inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. (Ex. Public Outreach Programs, Web-site Information Postings, etc.)

Preparedness and Response Actions: Reduce or eliminate long-term risk and are different from actions taken to prepare for or respond to hazard events. (Ex. Mutual Aid Agreements, Alert Notification System Procurement, etc.)

Figure E.3: Mitigation Action Worksheet

Appendix F: Special Flood Hazard Zone Definitions

Zone	Description
Special Flood Hazard Areas – High Risk	
A	Areas subject to inundation by the 1-percent-annual-chance flood event. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown.
AE, A1-A30	Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. BFEs are shown within these zones. (Zone AE is used on new and revised maps in place of Zones A1-A30)
AH	Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are 1-3 feet. BFEs derived from detailed hydraulic analyses are shown in this zone.
AO	Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are 1-3 feet. Average flood depths derived from detailed hydraulic analyses are shown within this zone.
AR	Areas that result from the decertification of a previously accredited flood protection system that is determined to be in the process of being restored to provide base flood protection.
A99	Areas subject to inundation by the 1-percent-annual-chance flood event, but which will ultimately be protected upon completion of an under-construction Federal flood protection system. These are areas of special flood hazard where enough progress has been made on the construction of a protection system, such as dikes, dams, and levees, to consider it complete for insurance rating purposes. Zone A99 may be used only when the flood protection system has reached specified statutory progress toward completion. No BFEs or flood depths are shown.
Coastal High Hazard Areas – High Risk	
V	Areas along coasts subject to inundation by the 1-percent-annual-chance flood event with additional hazards associated with storm-induced waves. Because detailed coastal analyses have not been performed, no BFEs or flood depths are shown.
VE, V1-V30	Areas along coasts subject to inundation by the 1-percent-annual-chance flood event with additional hazards due to storm-induced velocity wave action. BFEs derived from detailed hydraulic coastal analyses are shown within these zones. (Zone VE is used on new and revised maps in place of Zones V1–V30)
Moderate and Minimal Risk Areas	
B, X (shaded)	Moderate risk areas within the 0.2-percent-annual-chance floodplain, areas of 1-percent-annual-chance flooding where average depths are less than 1 foot, areas of 1-percent-annual-chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 1-percent-annual-chance flood by a levee. No BFEs or base flood depths are shown within these zones. (Zone X (shaded) is used on new and revised maps in place of Zone B.)
C, X (unshaded)	Minimal risk areas outside the 1-percent and .2-percent-annual-chance floodplains. No BFEs or base flood depths are shown within these zones. (Zone X (unshaded) is used on new and revised maps in place of Zone C.)
Undetermined Risk Areas	
D	Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

Figure F.1: Special Flood Hazard Zone Terminology

Appendix G: Franklin County DFIRM

The Franklin County DFIRM consists of 118 panels. **Figure G.1** below shows the definitions for the icons found on the following county DFIRM maps. **Figures G.2** thru **G.119** shows these individual panels that make up the Franklin County DFIRM.






































	Unknown		College		Communications Tower		Nursing Home
	Dam, Class B-1		School		Radio Tower		Bank
	Dam, Class C-3		Electric Substation		Treatment Plant		Broadcast Station
	Dam, Class C-4		Transformer Bank		Agriculture Storage		Gas Station
	EMS		Railroad Switch		Fuel Storage		Government Building
	Fire House		Sanitary Sewer		Reservoir		Hotel
	Police Station		Natural Gas Substation		Storage Tank		Medical Clinic
	Jail		SARA Facility		Water		Post Office
	Hospital		Tier II Facility		Day Care Center		Restaurant
							Residence/Business

Figure G.1: Legend for Franklin County DRIFM Maps

Appendix G: Franklin County DFIRM

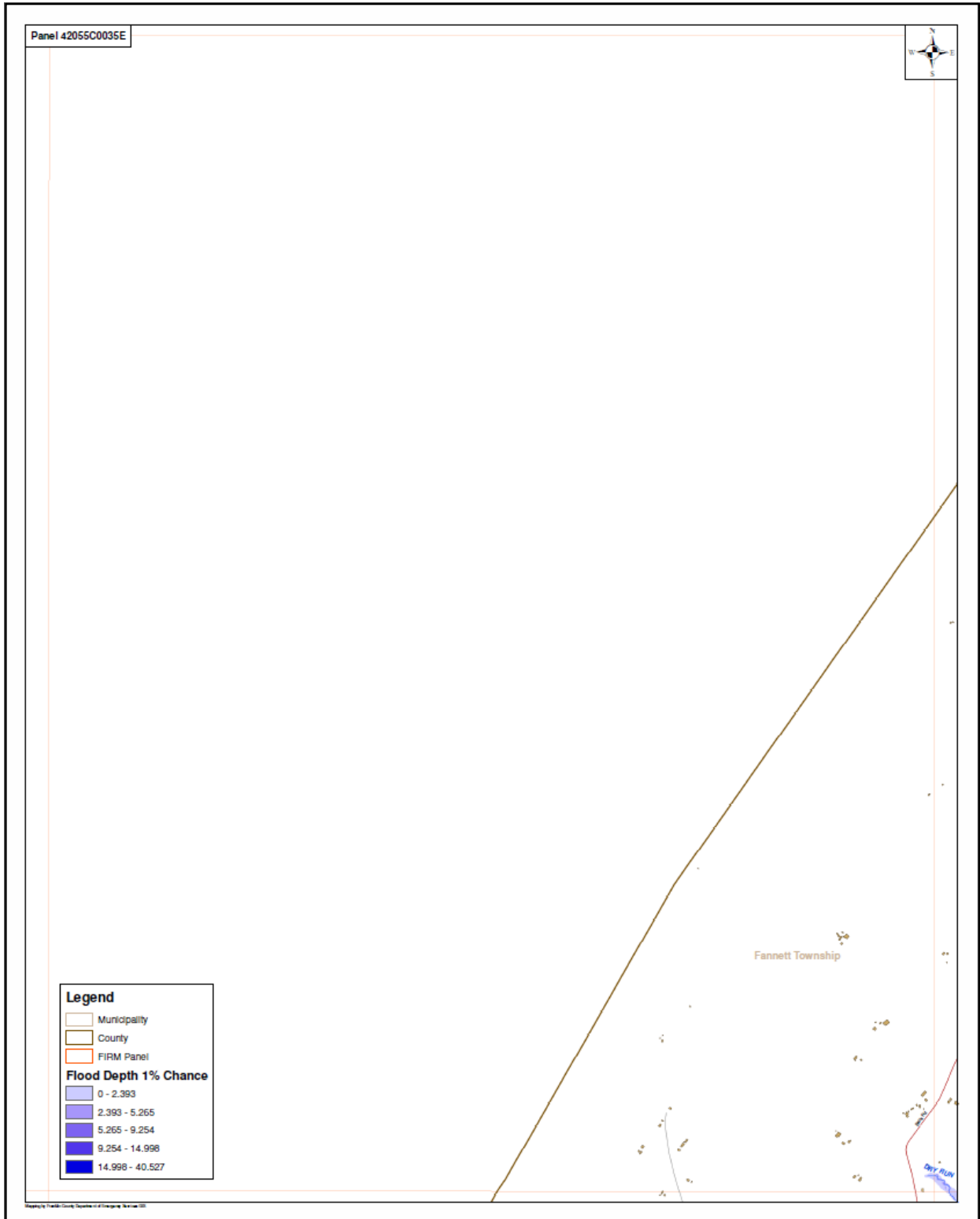


Figure G.2: Quadrant 1, Panel Number 42055C0035E

Appendix G: Franklin County DFIRM

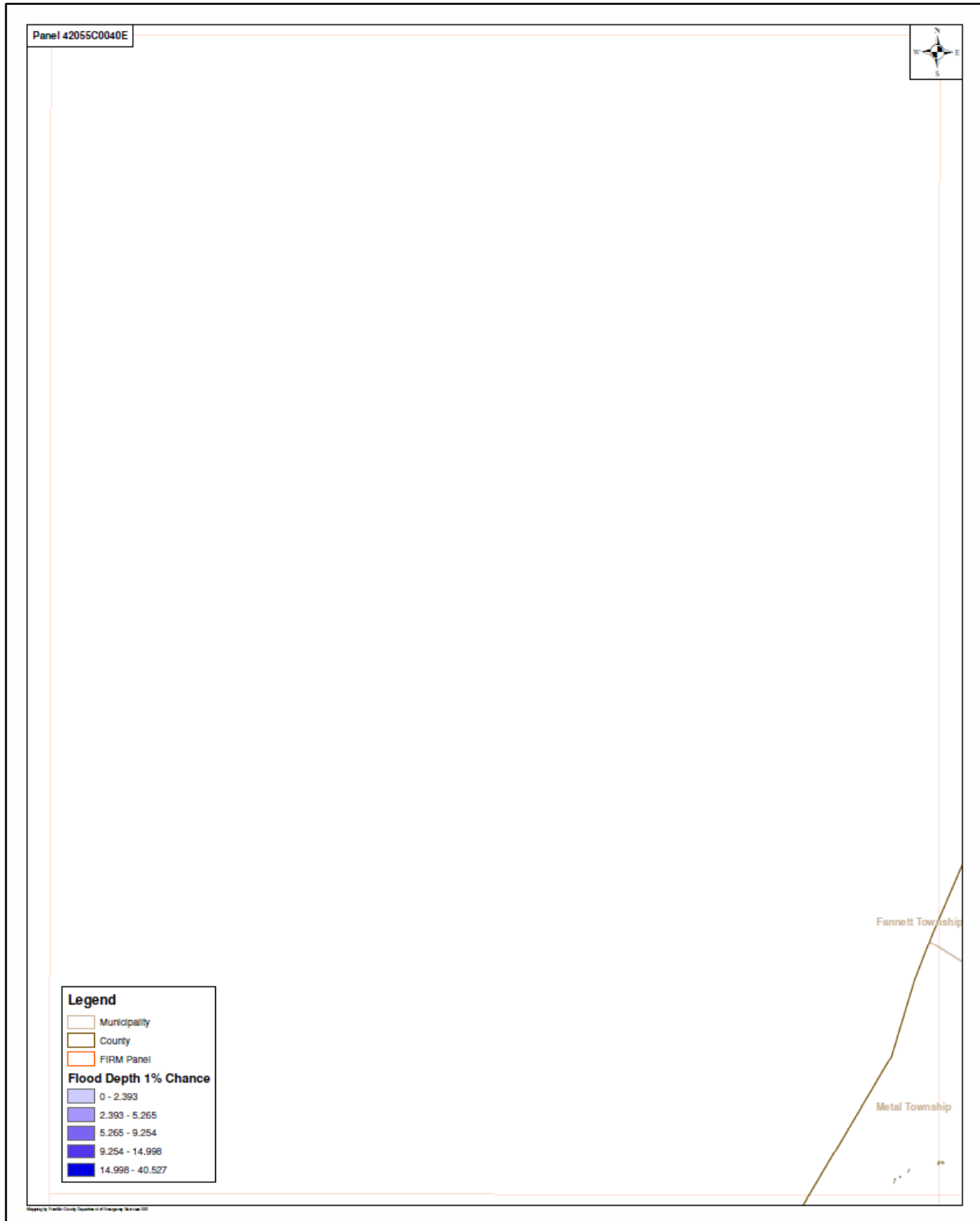


Figure G.3: Quadrant 1, Panel Number 42055C0040E

Appendix G: Franklin County DFIRM

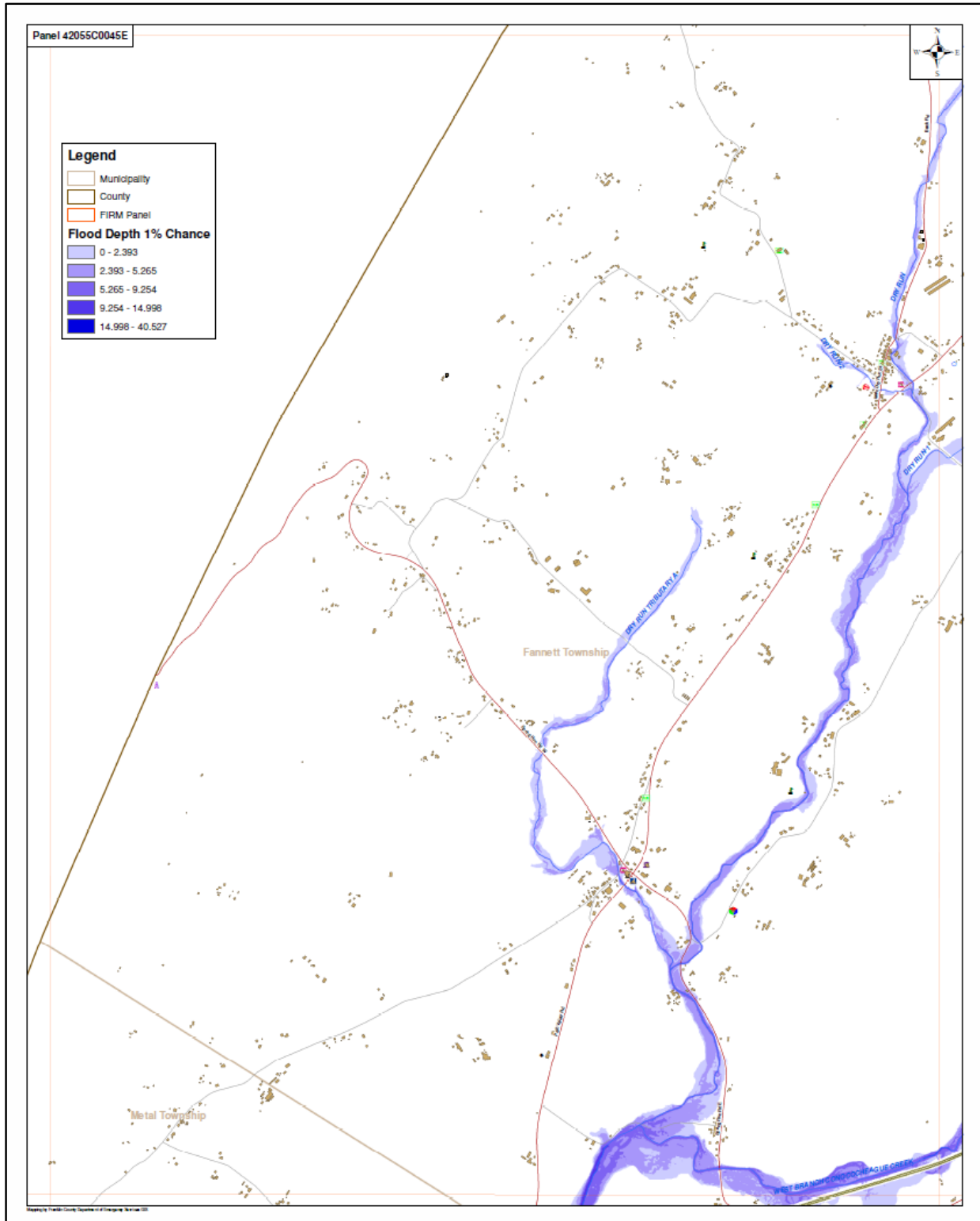


Figure G.4: Quadrant 1, Panel Number 42055C0045E

Appendix G: Franklin County DFIRM

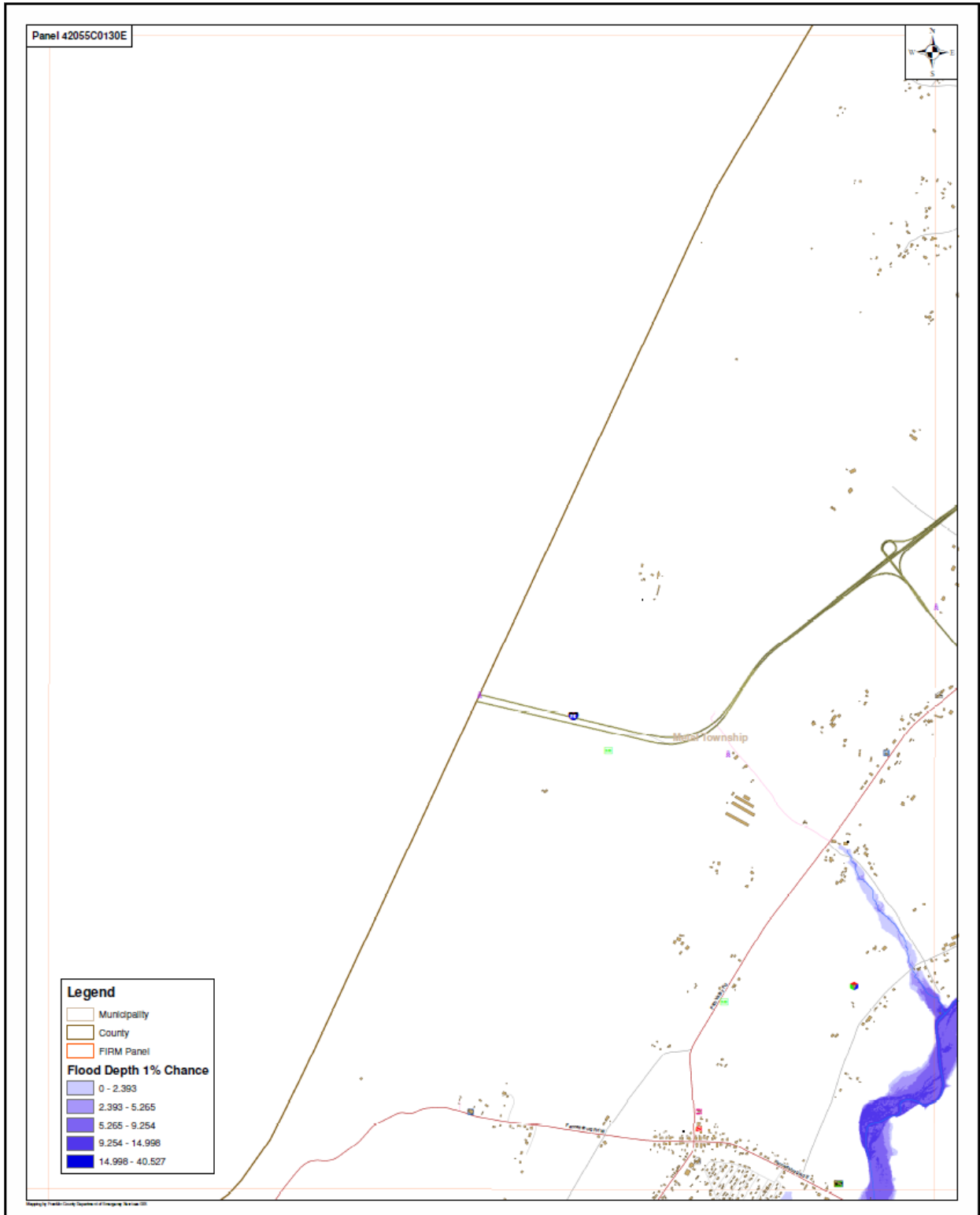


Figure G.5: Quadrant 1, Panel Number 42055C0130E

Appendix G: Franklin County DFIRM

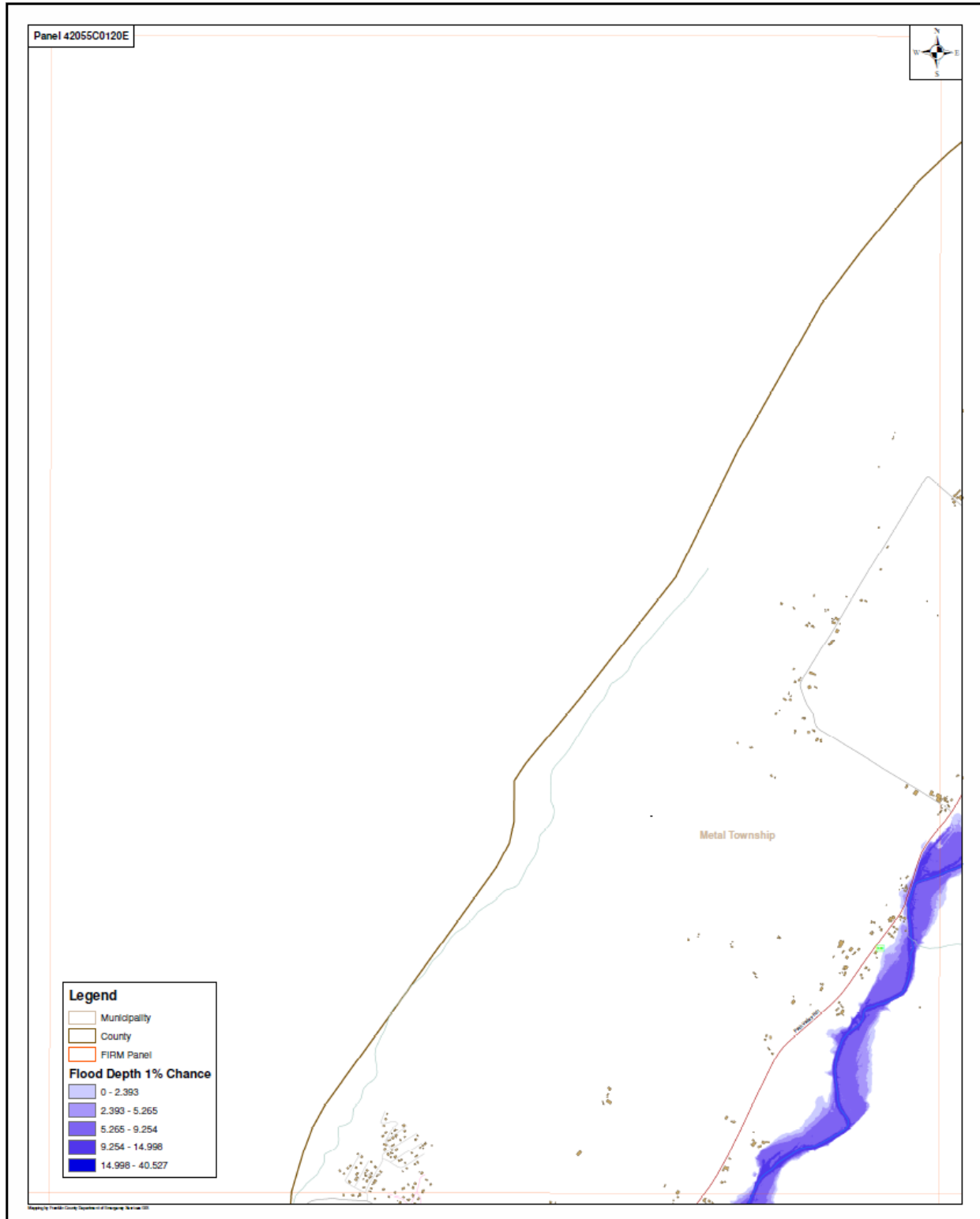


Figure G.7: Quadrant 1, Panel Number 42055C0120E

Appendix G: Franklin County DFIRM

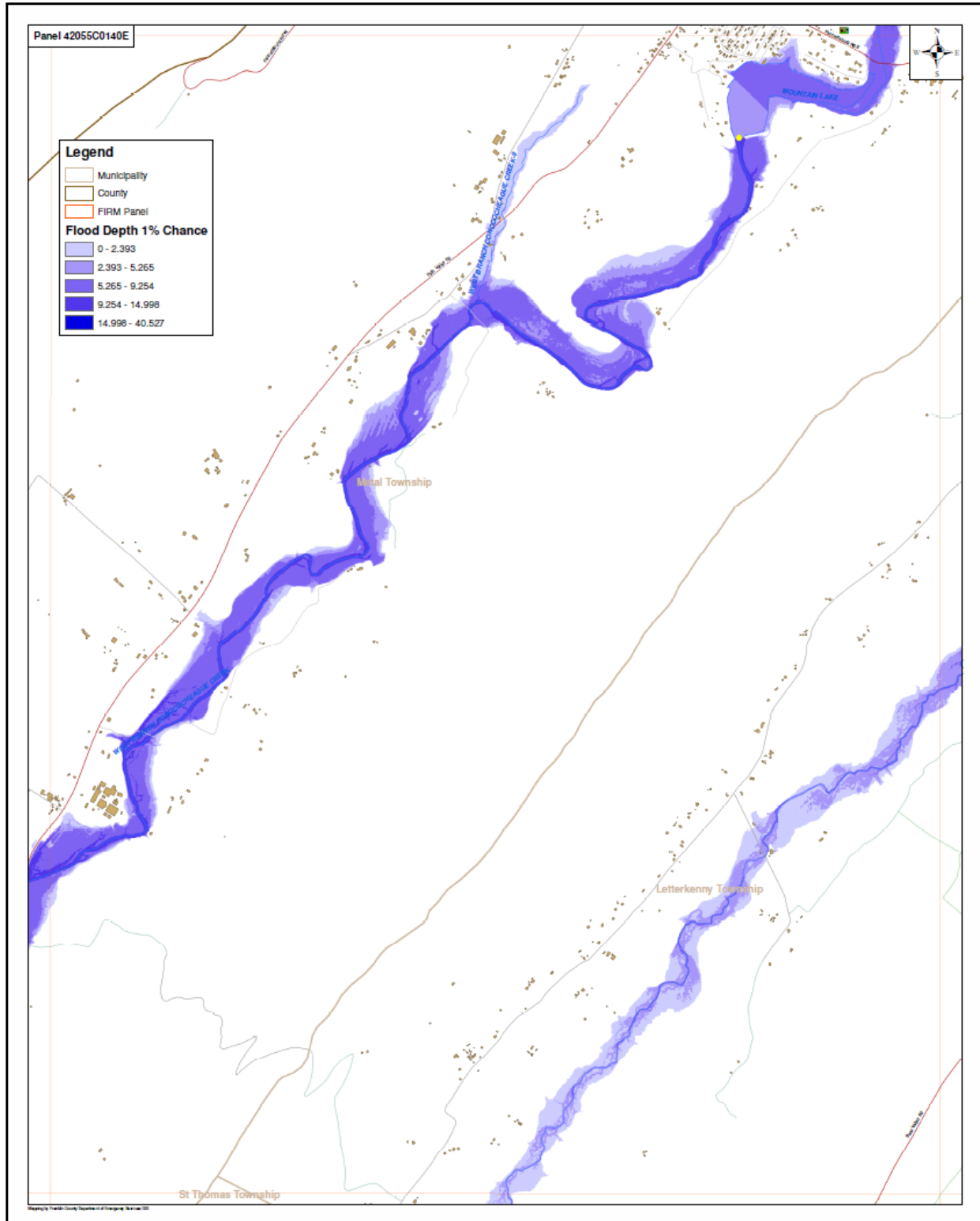


Figure G.8: Quadrant 1, Panel Number 42055C0140E

Appendix G: Franklin County DFIRM

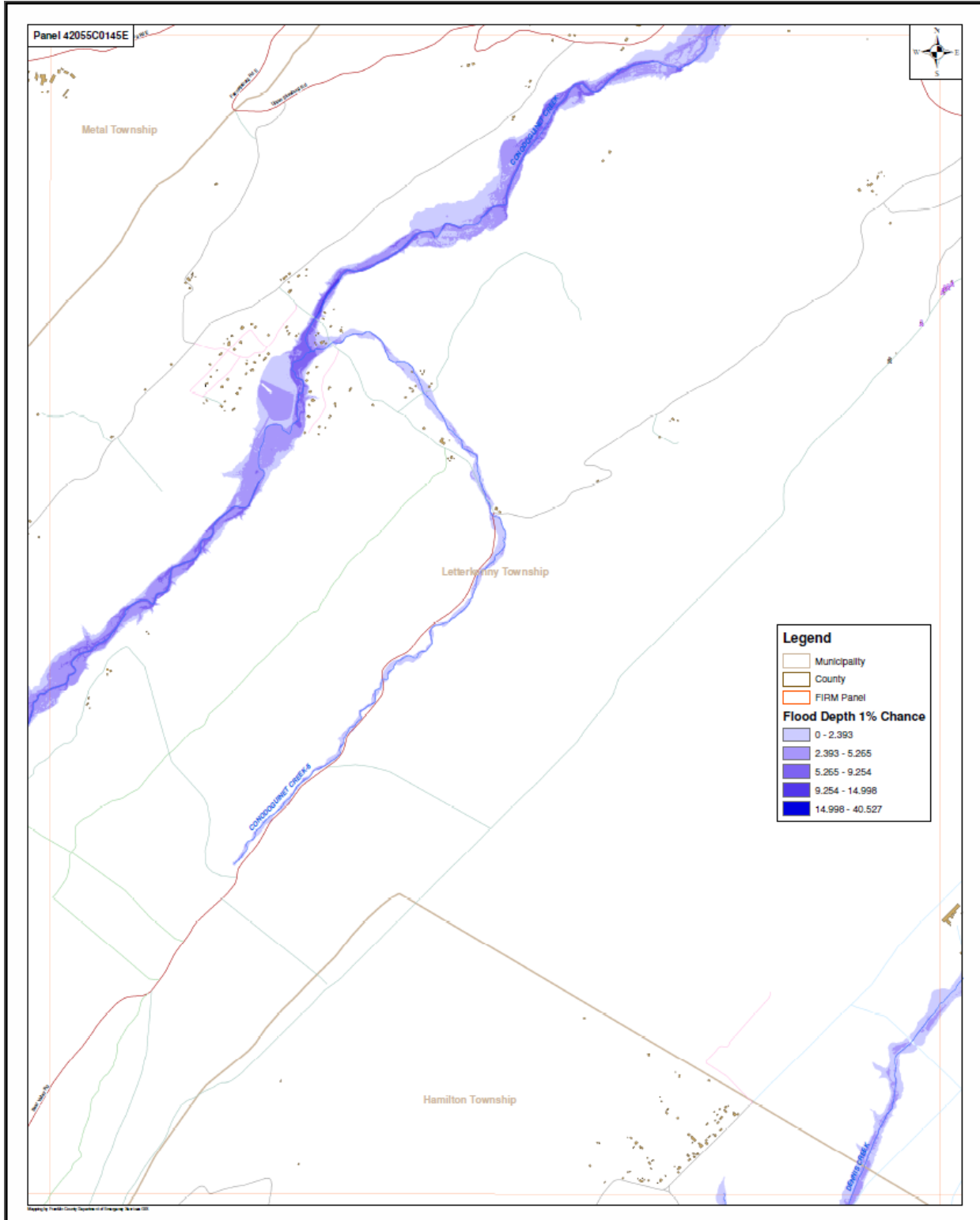


Figure G.9: Quadrant 1, Panel Number 42055C0145E

Appendix G: Franklin County DFIRM

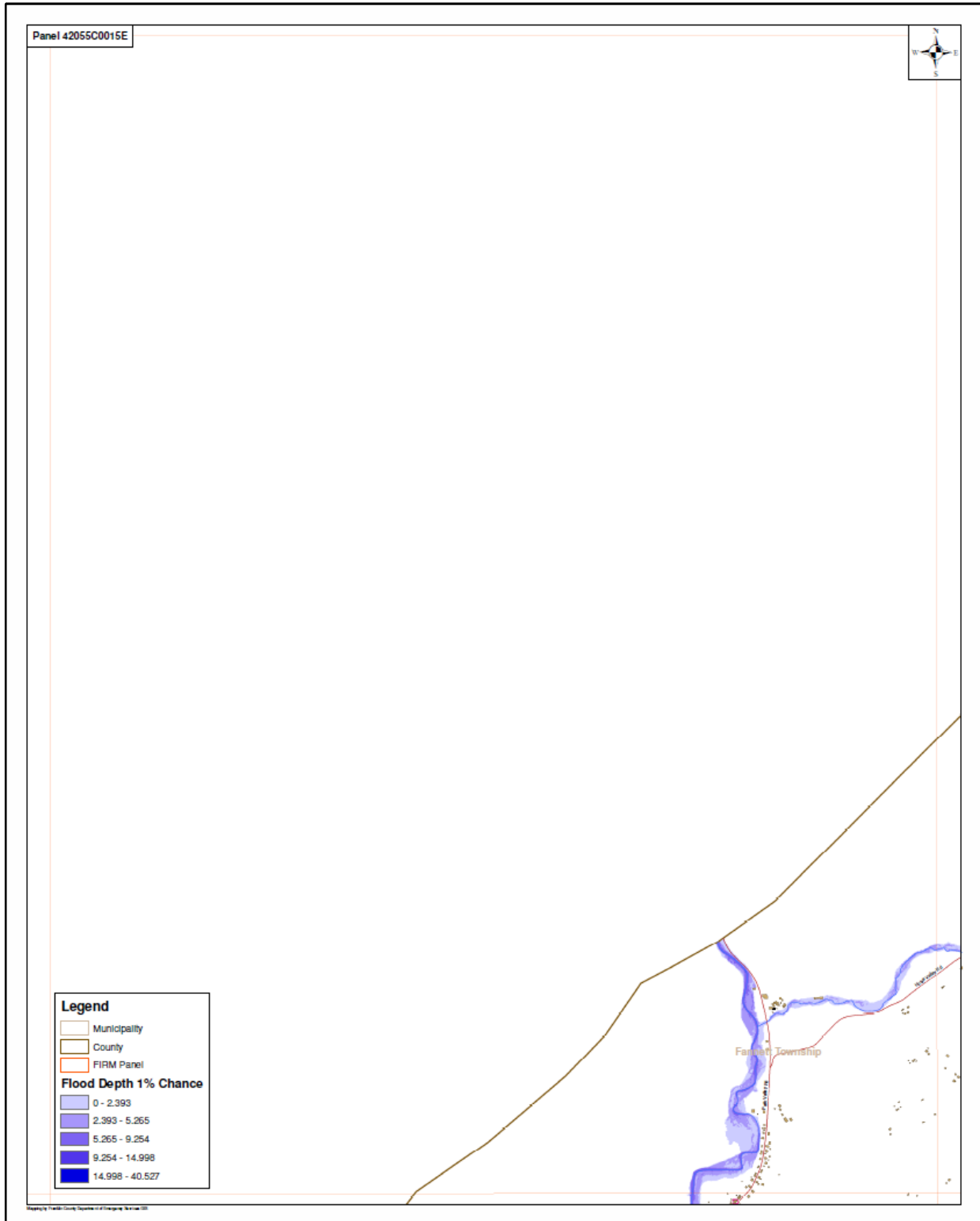


Figure G.10: Quadrant 2, Panel Number 42055C0015E

Appendix G: Franklin County DFIRM

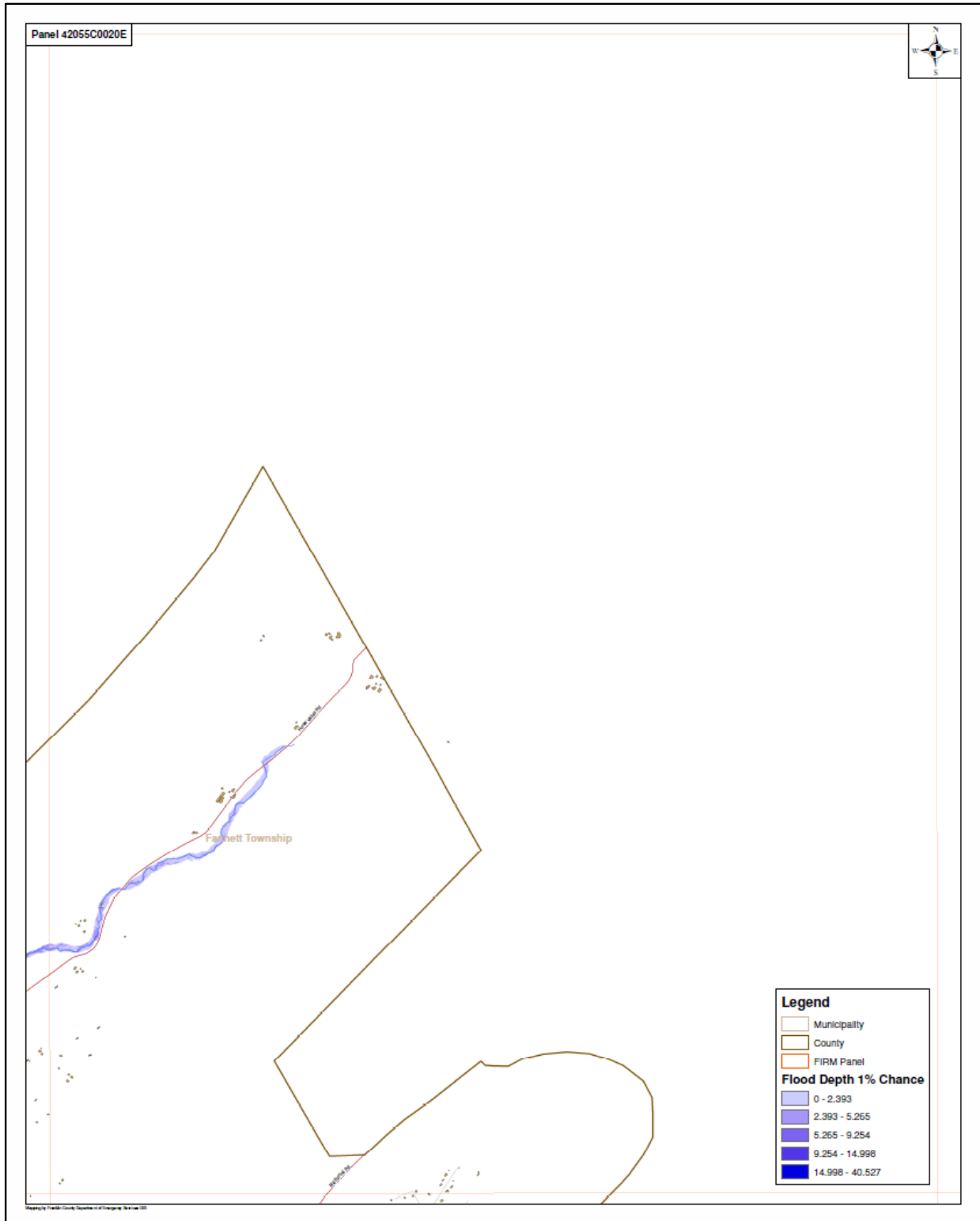


Figure G.11: Quadrant 2, Panel Number 42055C0020E

Appendix G: Franklin County DFIRM

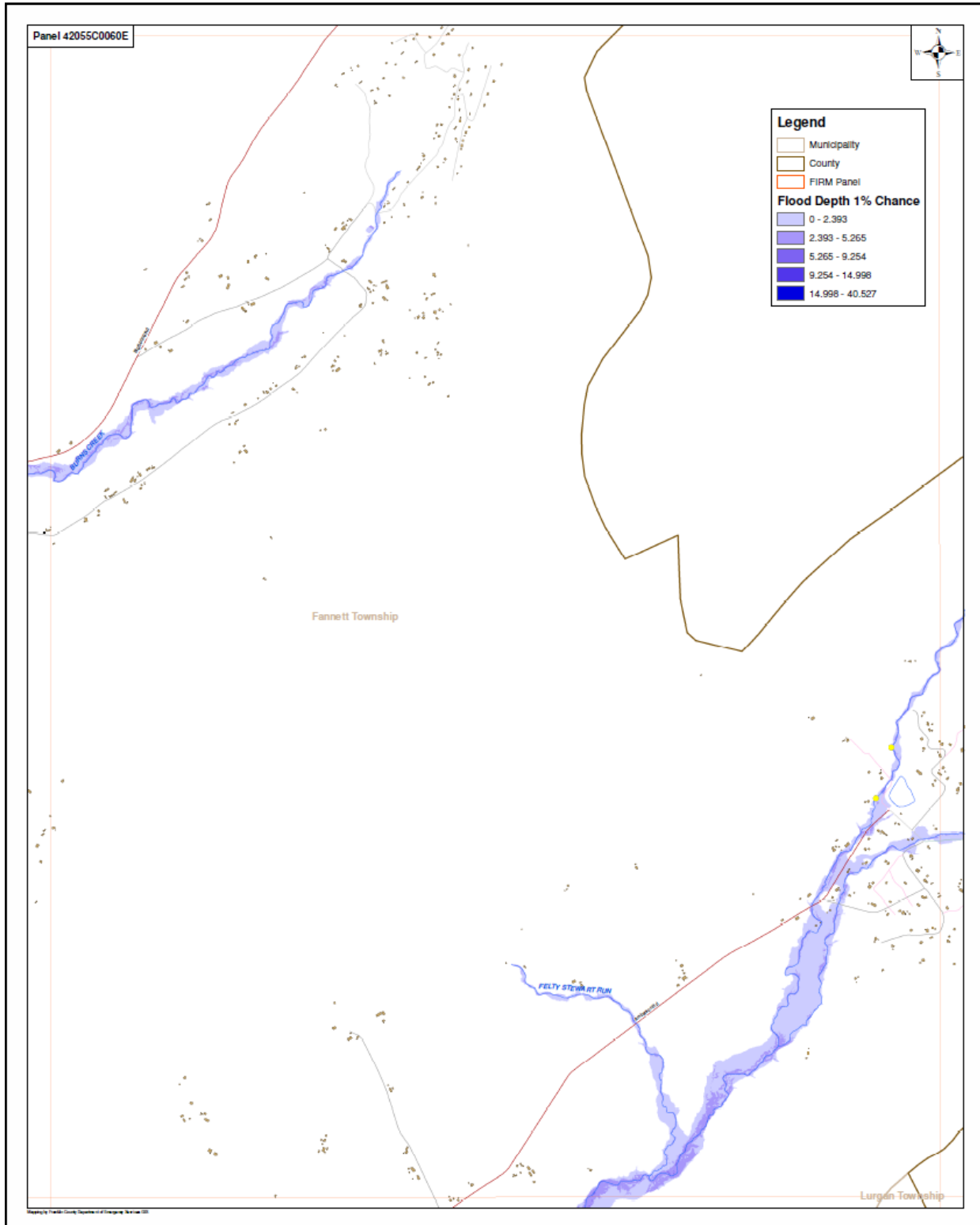


Figure G.13: Quadrant 2, Panel Number 42055C0060E

Appendix G: Franklin County DFIRM

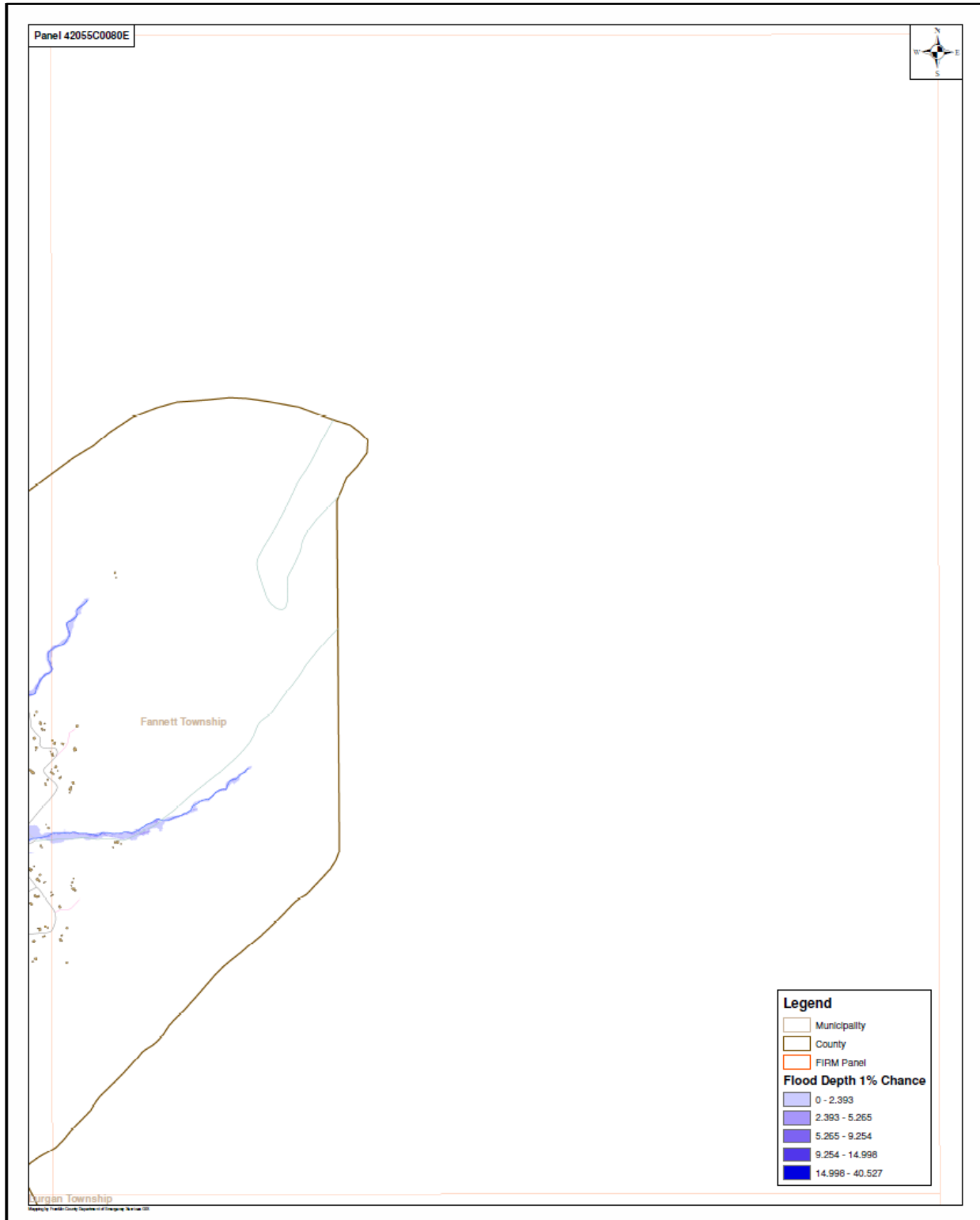


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Appendix G: Franklin County DFIRM

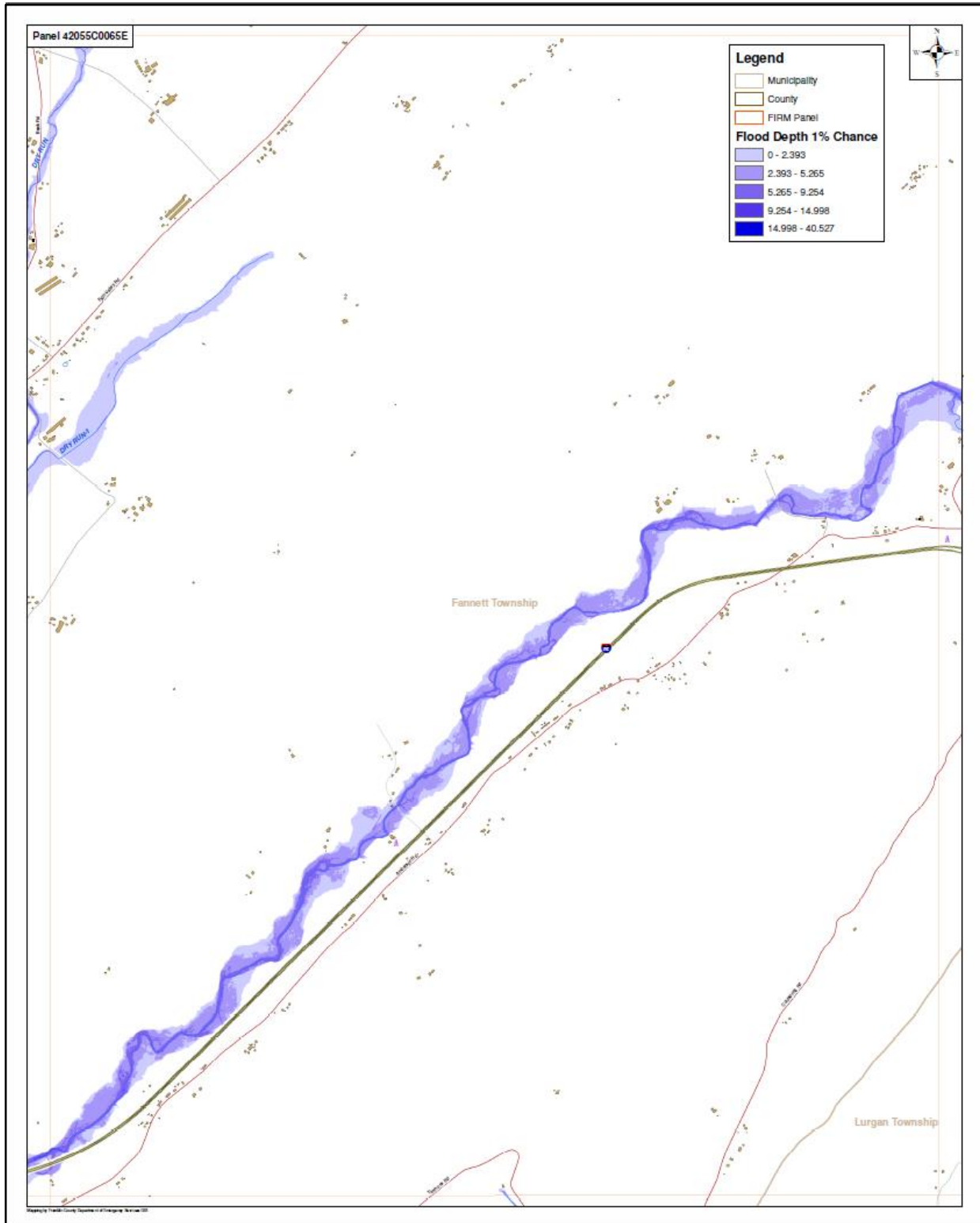


Figure G.15: Quadrant 2, Panel Number 42055C0065E

Appendix G: Franklin County DFIRM

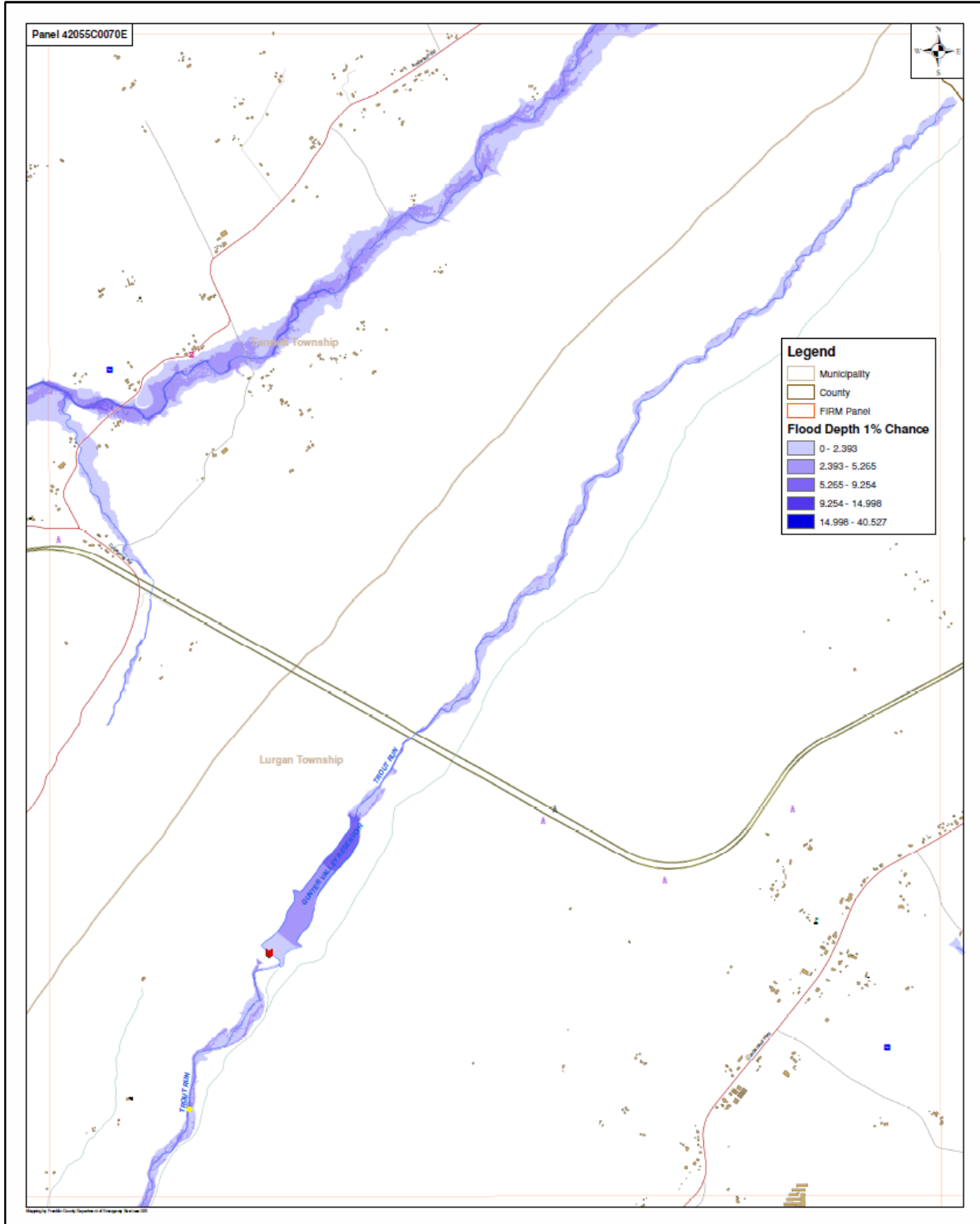


Figure G.16: Quadrant 2, Panel Number 42055C0070E

Appendix G: Franklin County DFIRM

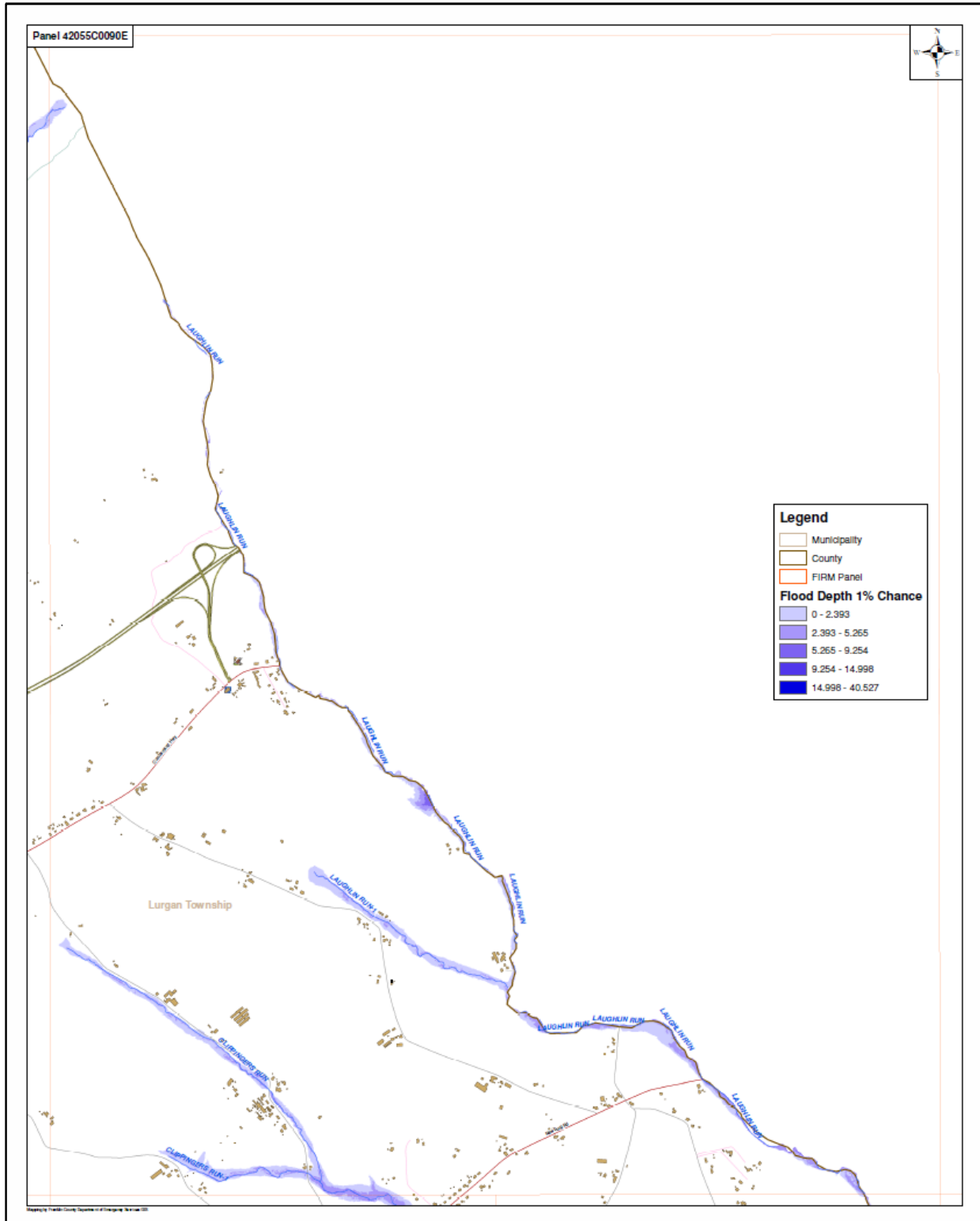


Figure G.17: Quadrant 2, Panel Number 42055C0090E

Appendix G: Franklin County DFIRM

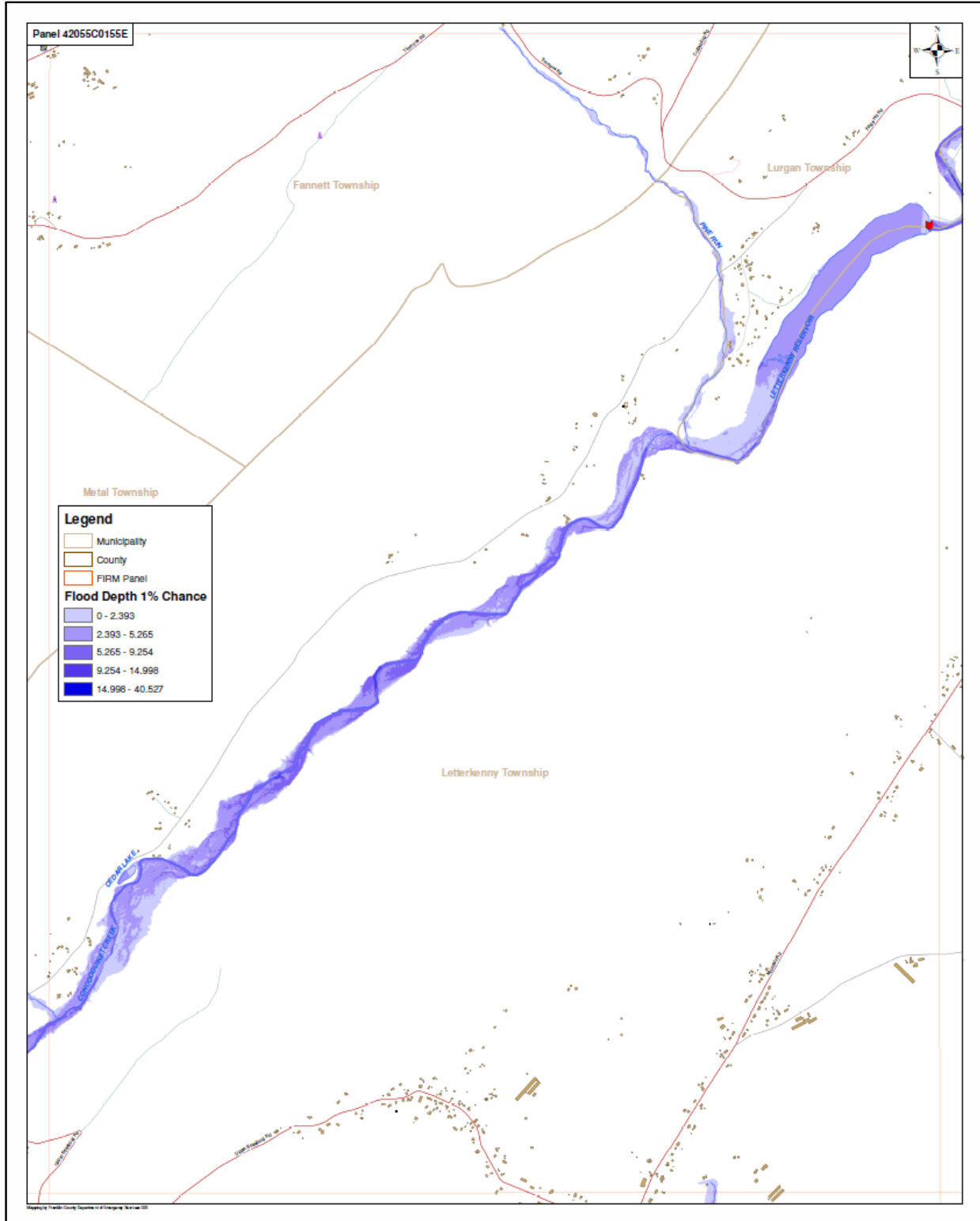


Figure G.18: Quadrant 2, Panel Number 42055C0155E

Appendix G: Franklin County DFIRM

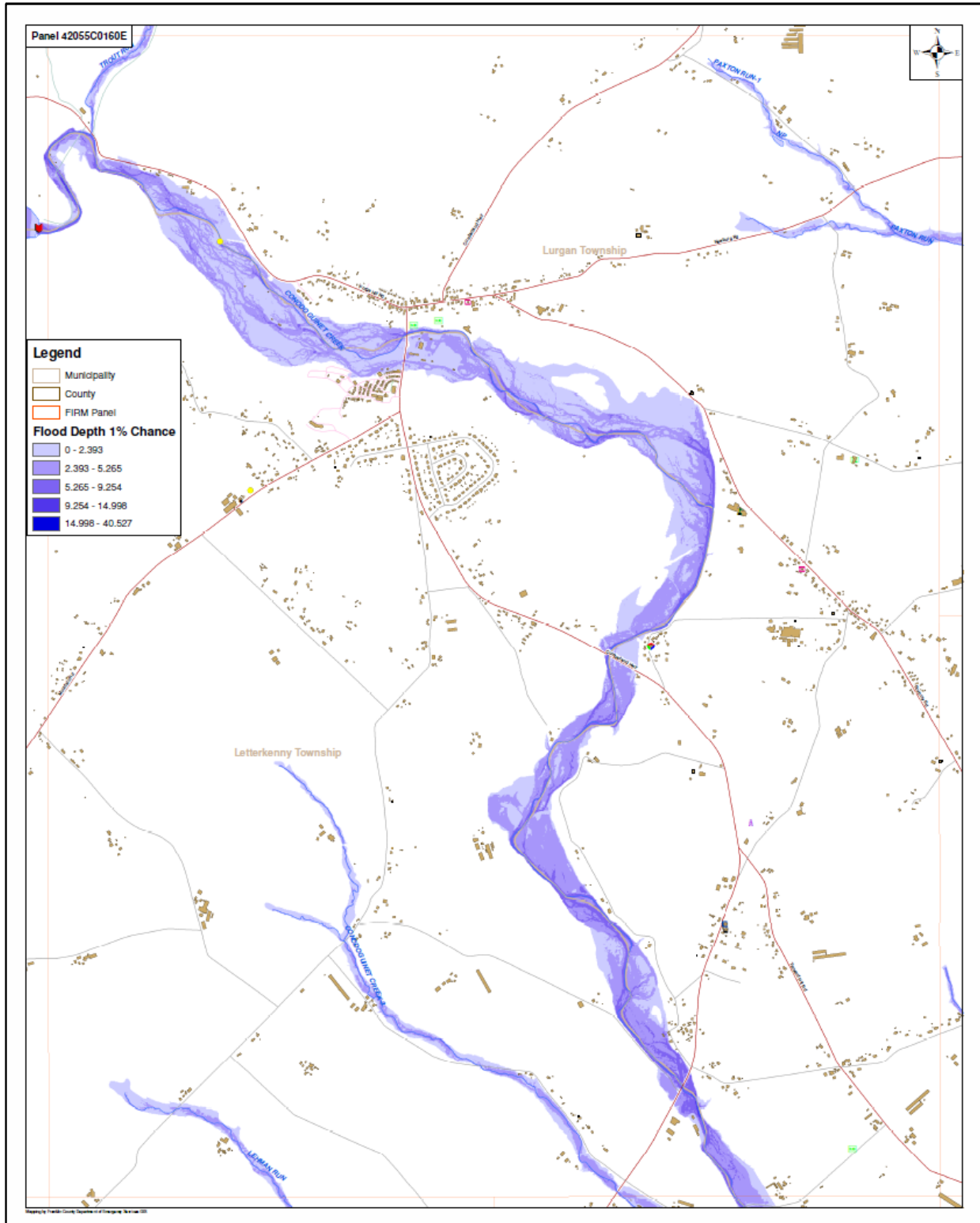


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Appendix G: Franklin County DFIRM

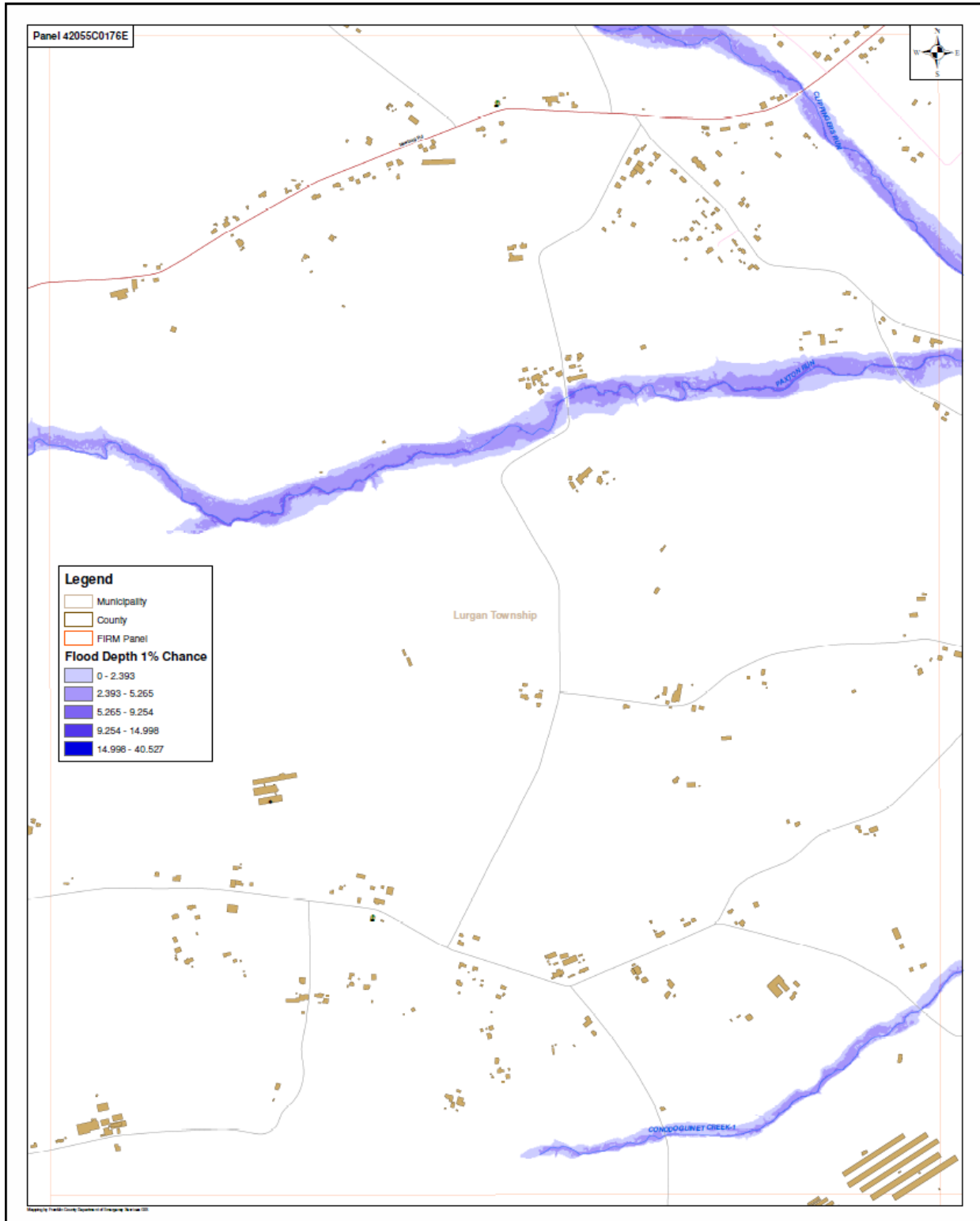


Figure G.20: Quadrant 2, Panel Number 42055C0176E

Appendix G: Franklin County DFIRM

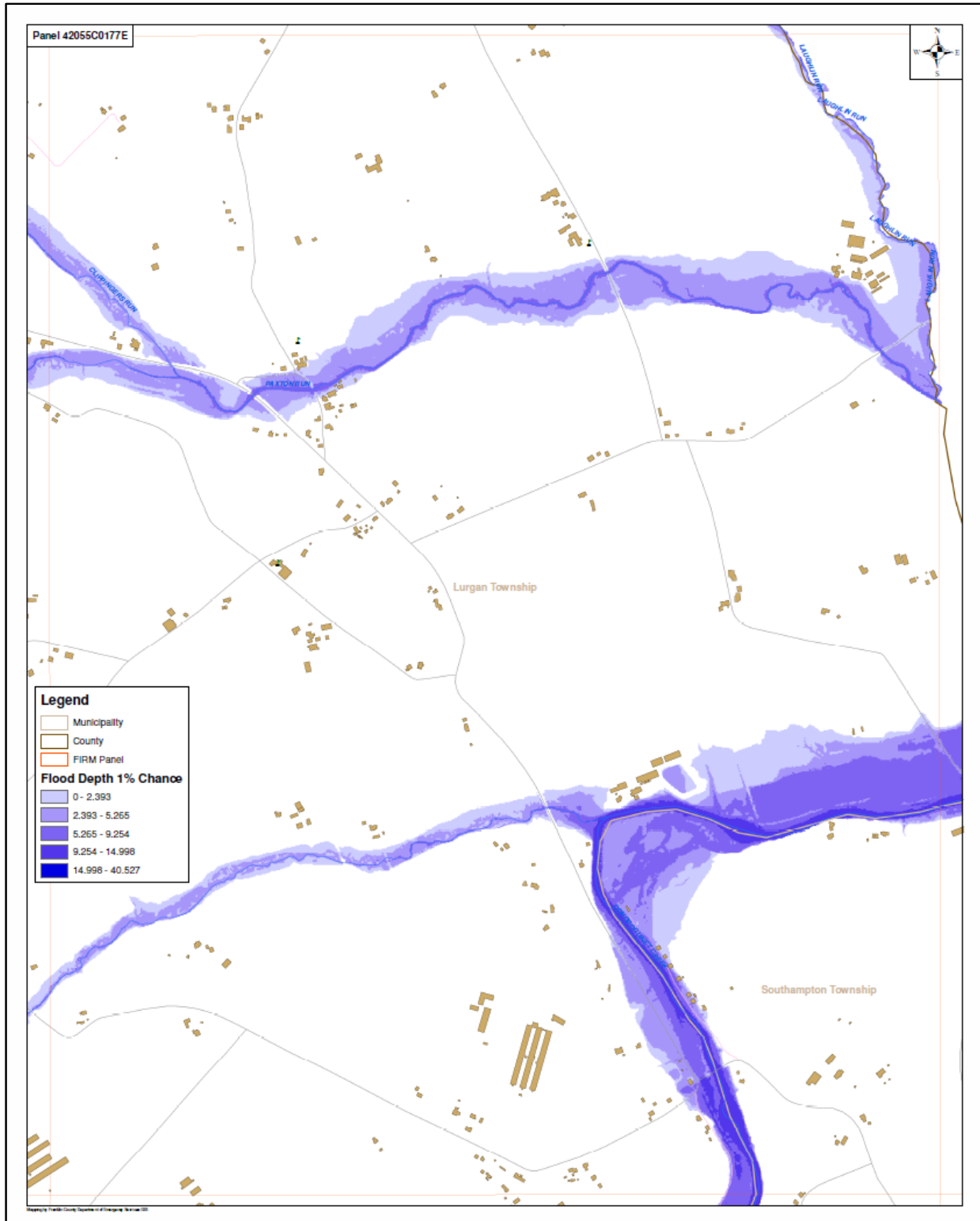


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Appendix G: Franklin County DFIRM

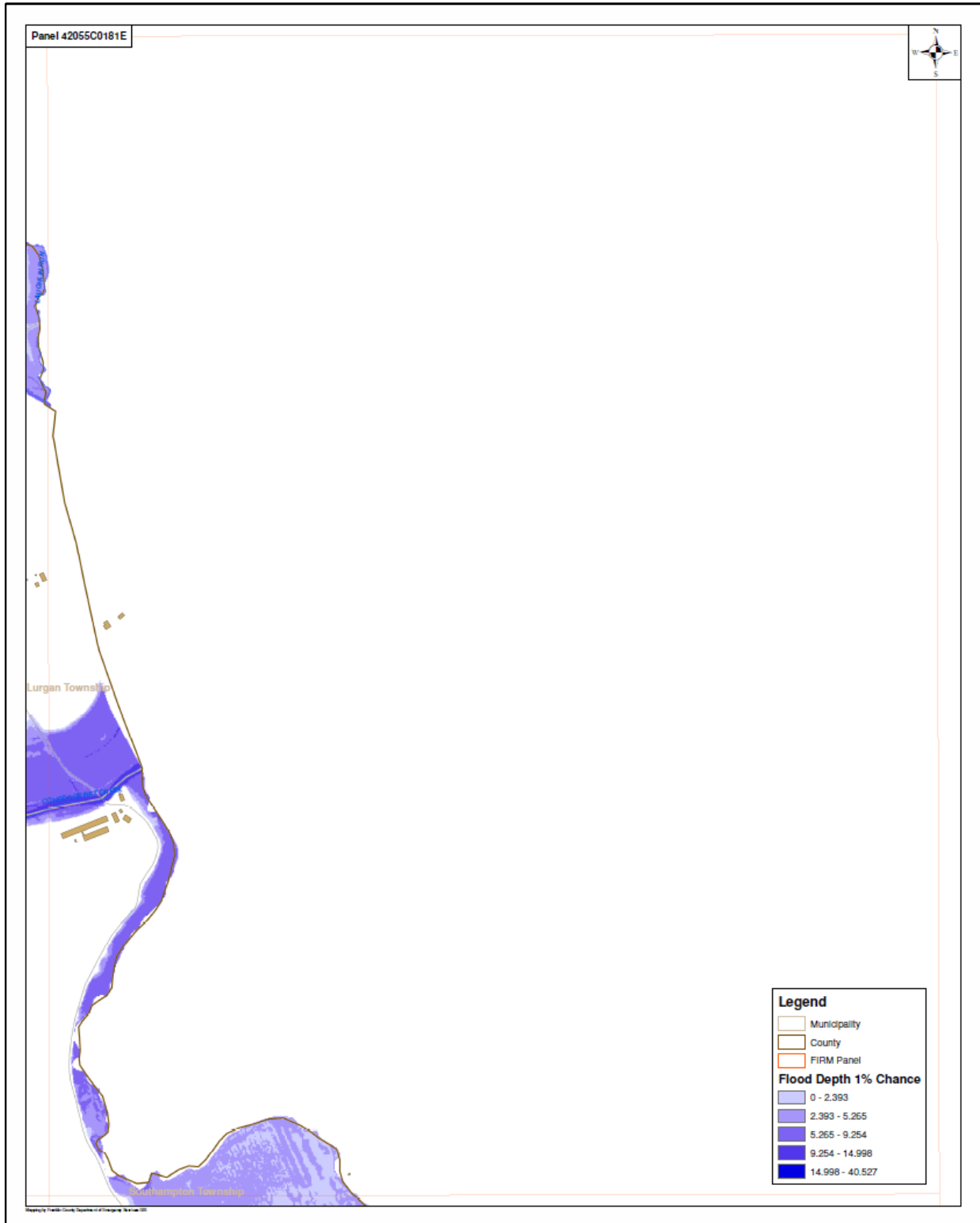


Figure G.22: Quadrant 2, Panel Number 42055C0181E

Appendix G: Franklin County DFIRM

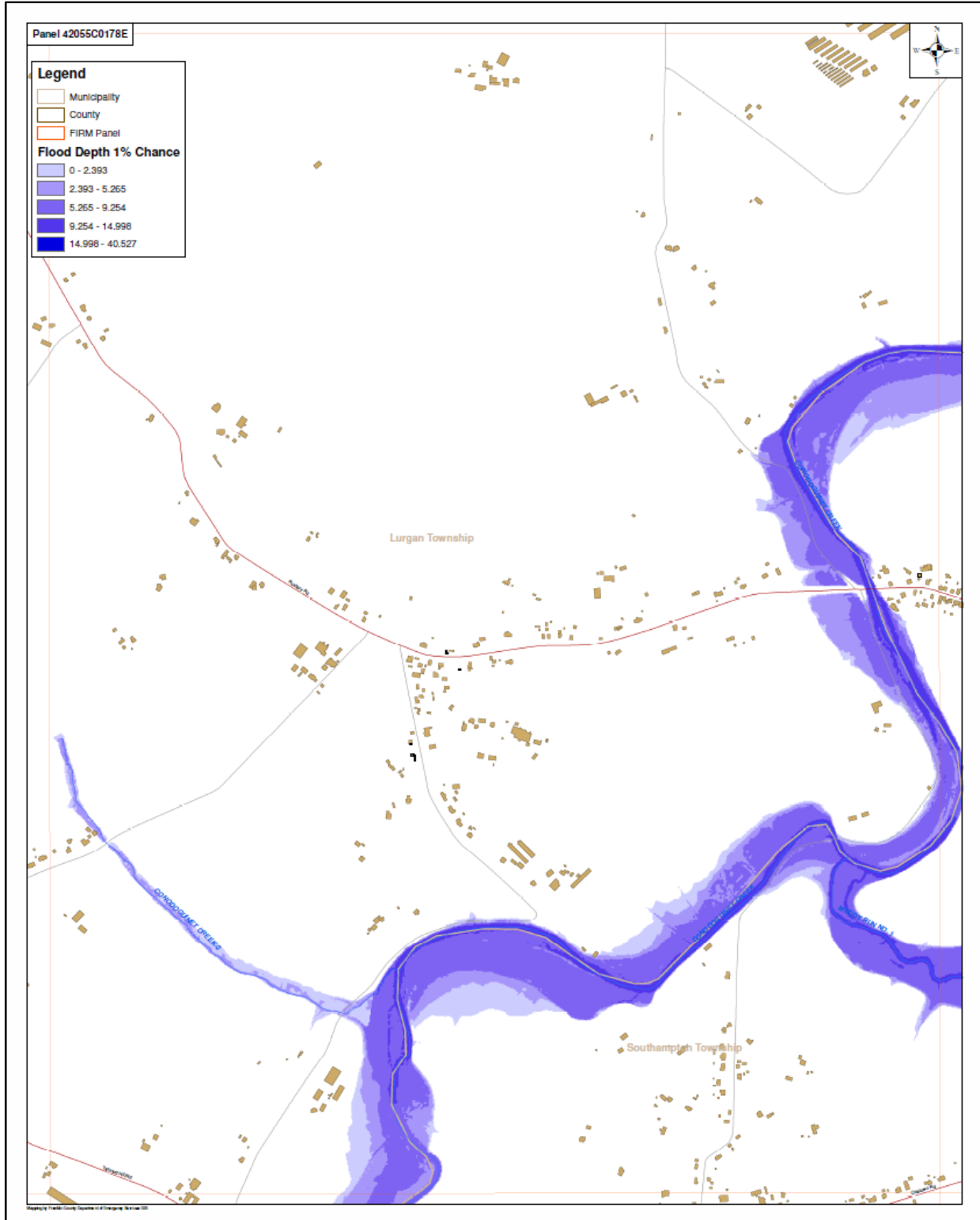


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Appendix G: Franklin County DFIRM

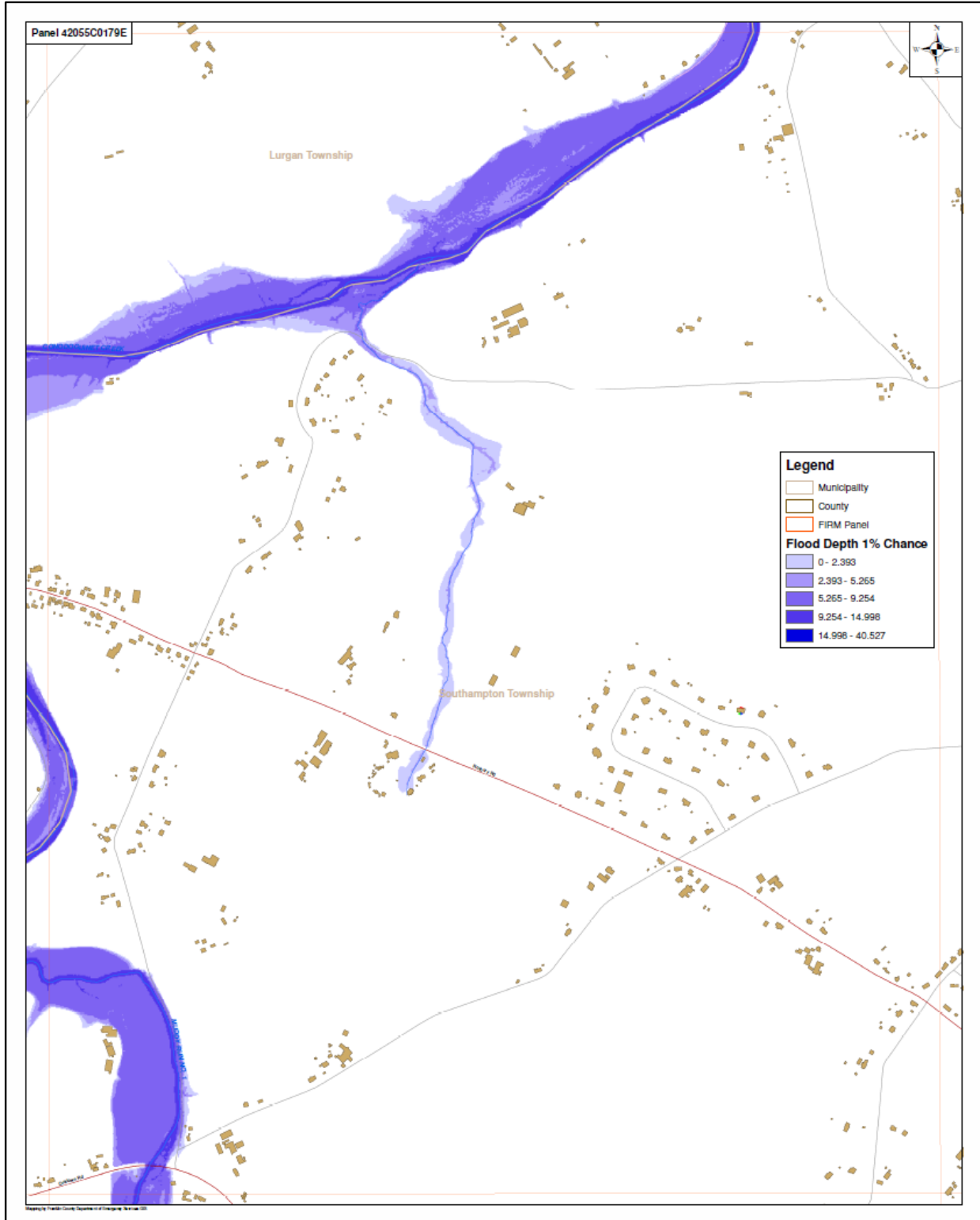


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Appendix G: Franklin County DFIRM

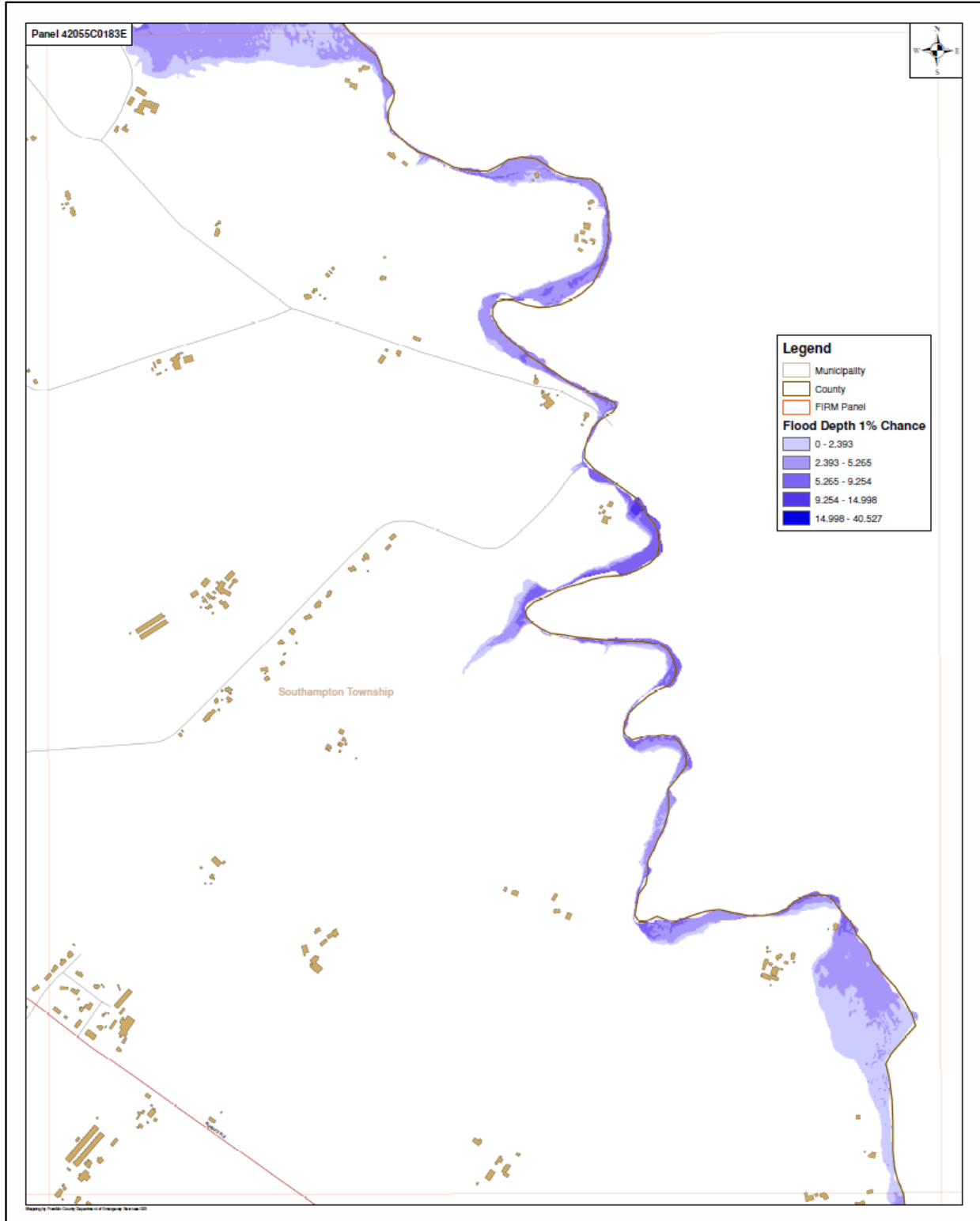


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Appendix G: Franklin County DFIRM

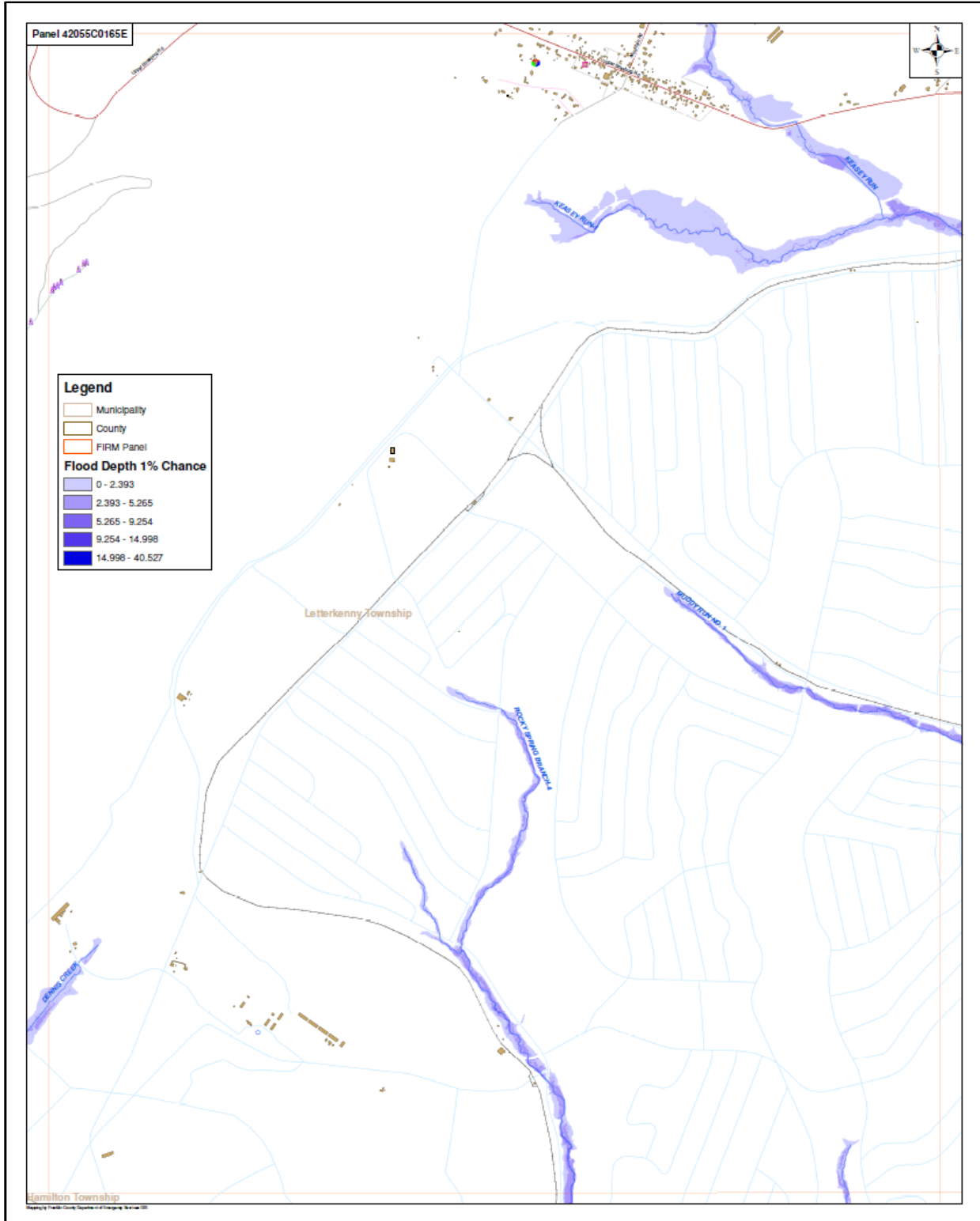


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Appendix G: Franklin County DFIRM

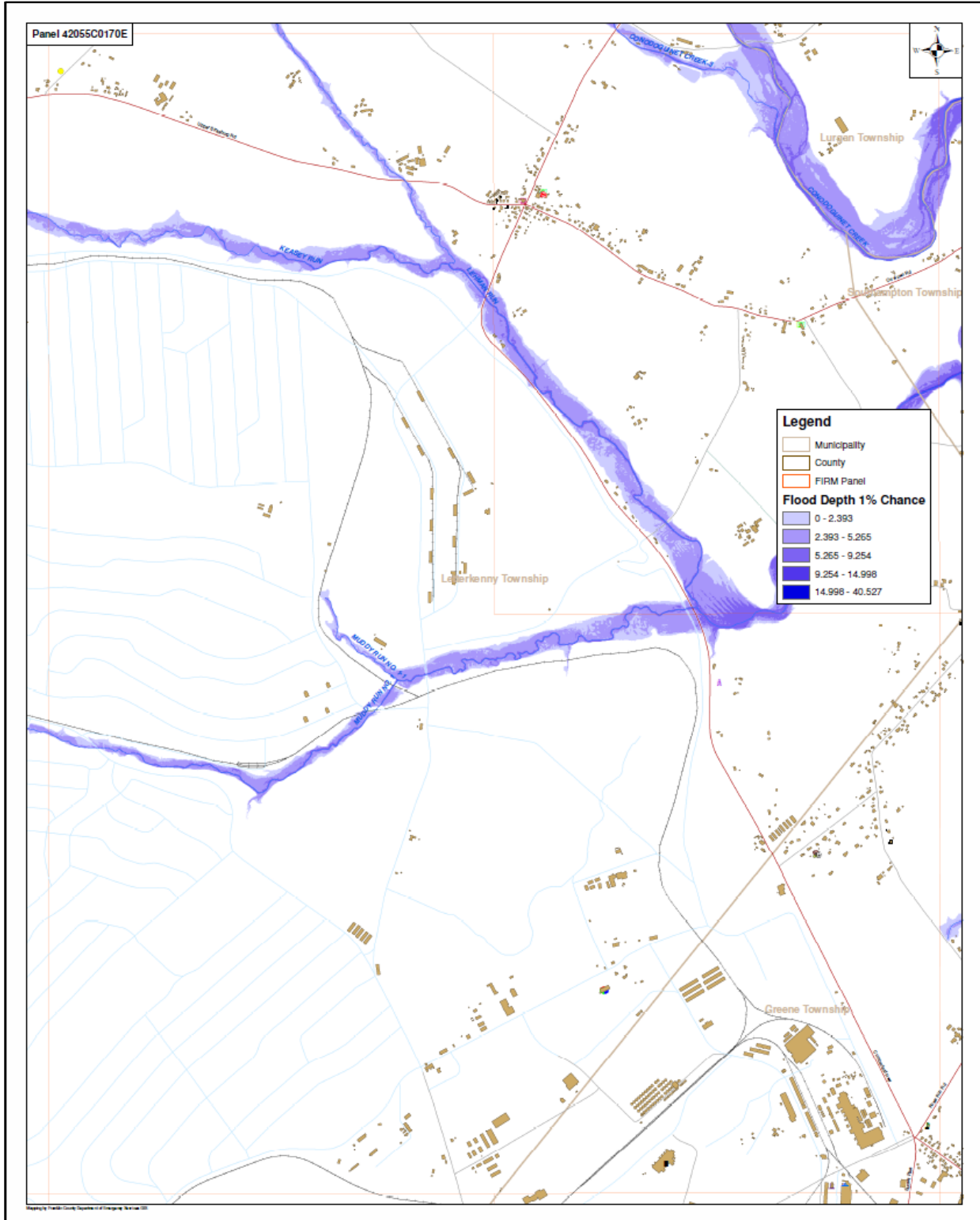


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Appendix G: Franklin County DFIRM

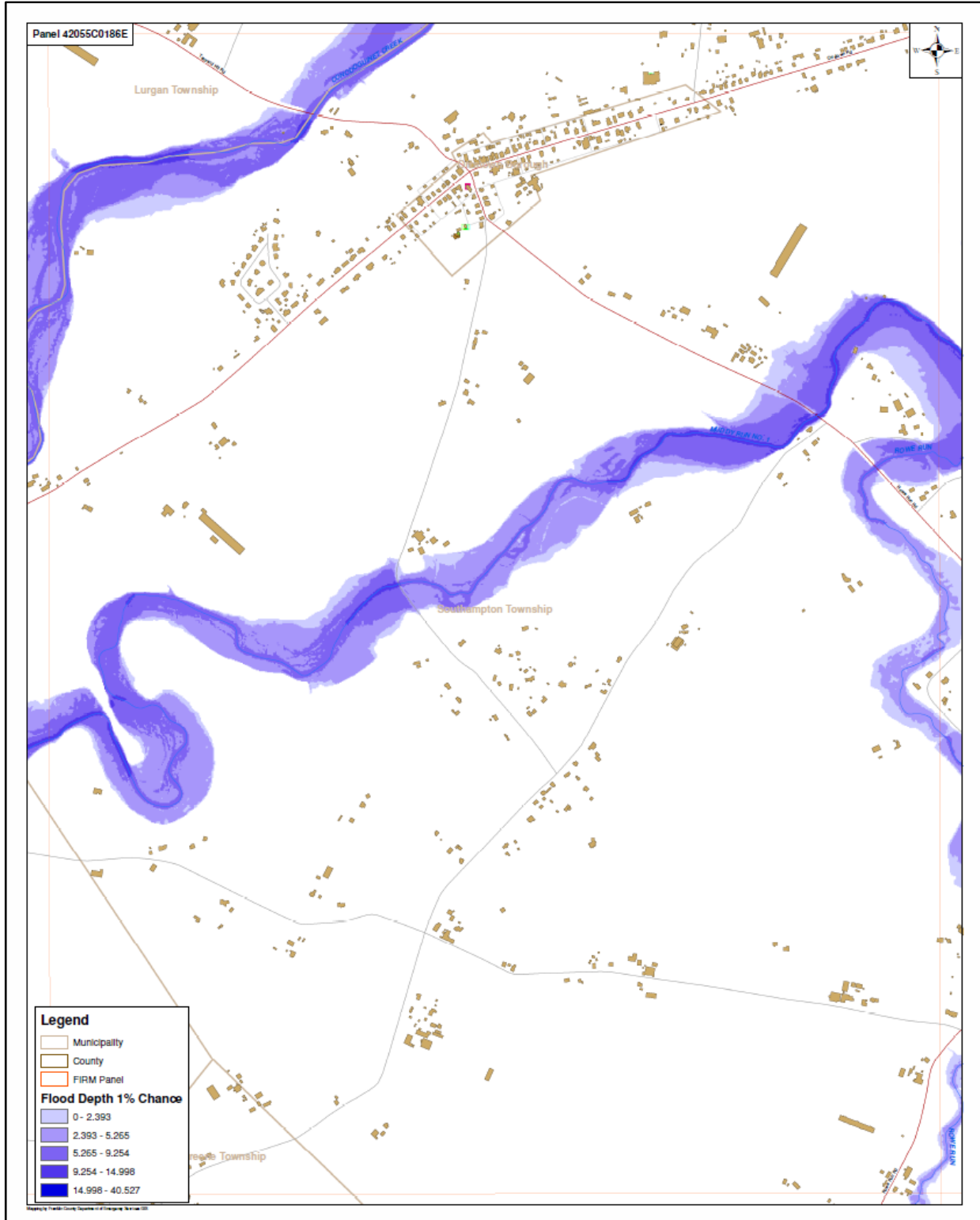


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Appendix G: Franklin County DFIRM

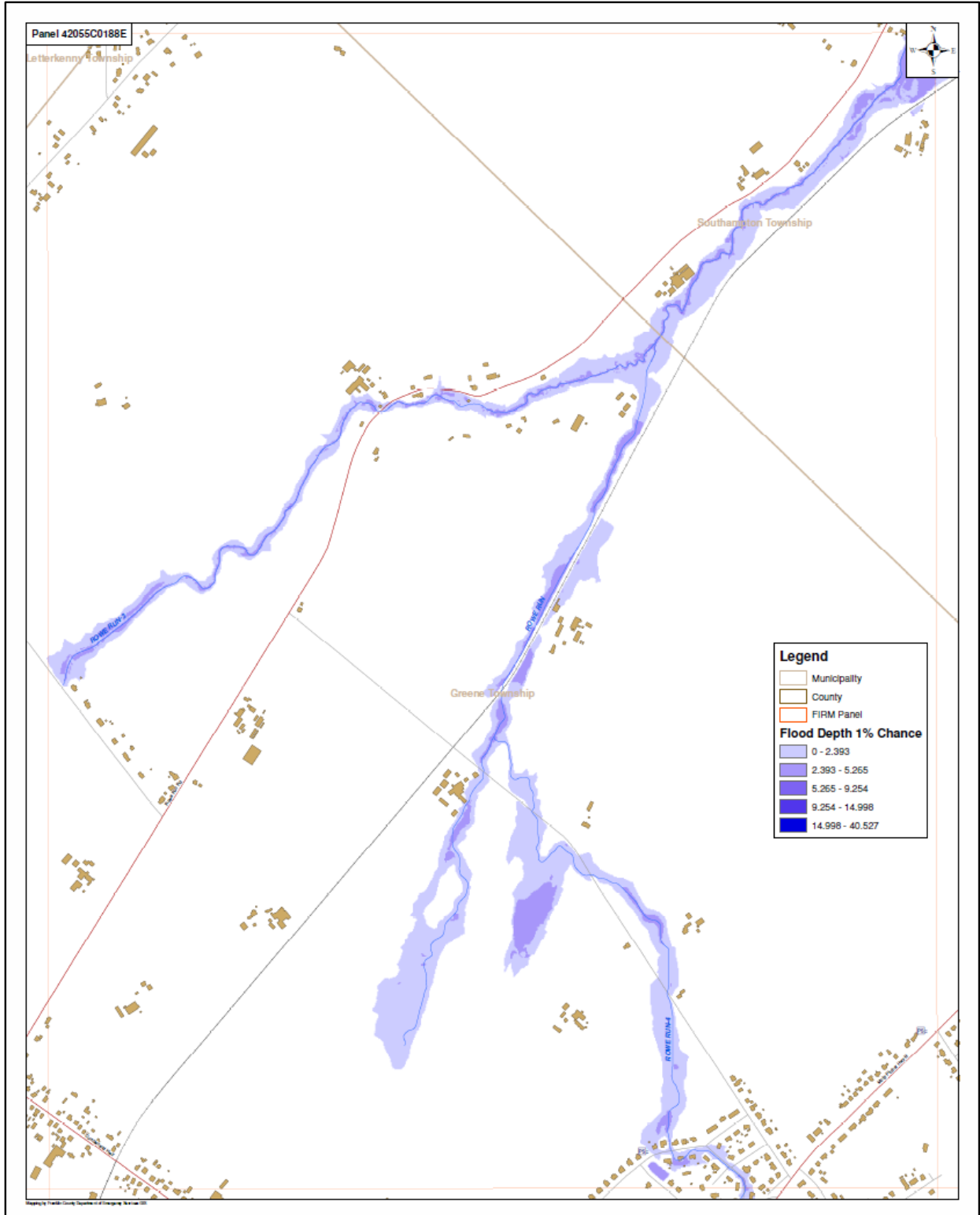


Figure G.31: Quadrant 2, Panel Number 42055C0188E

Appendix G: Franklin County DFIRM

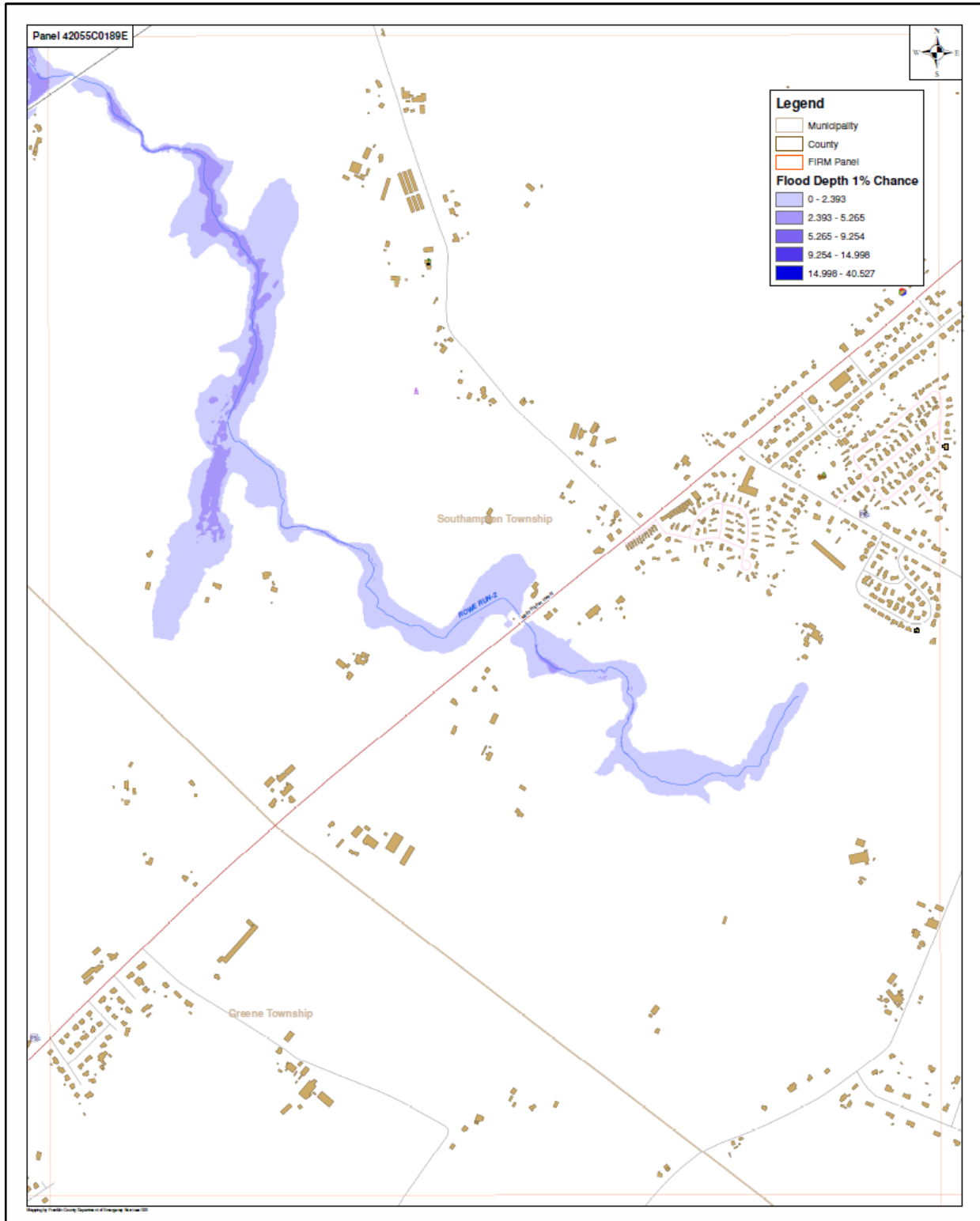


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Appendix G: Franklin County DFIRM

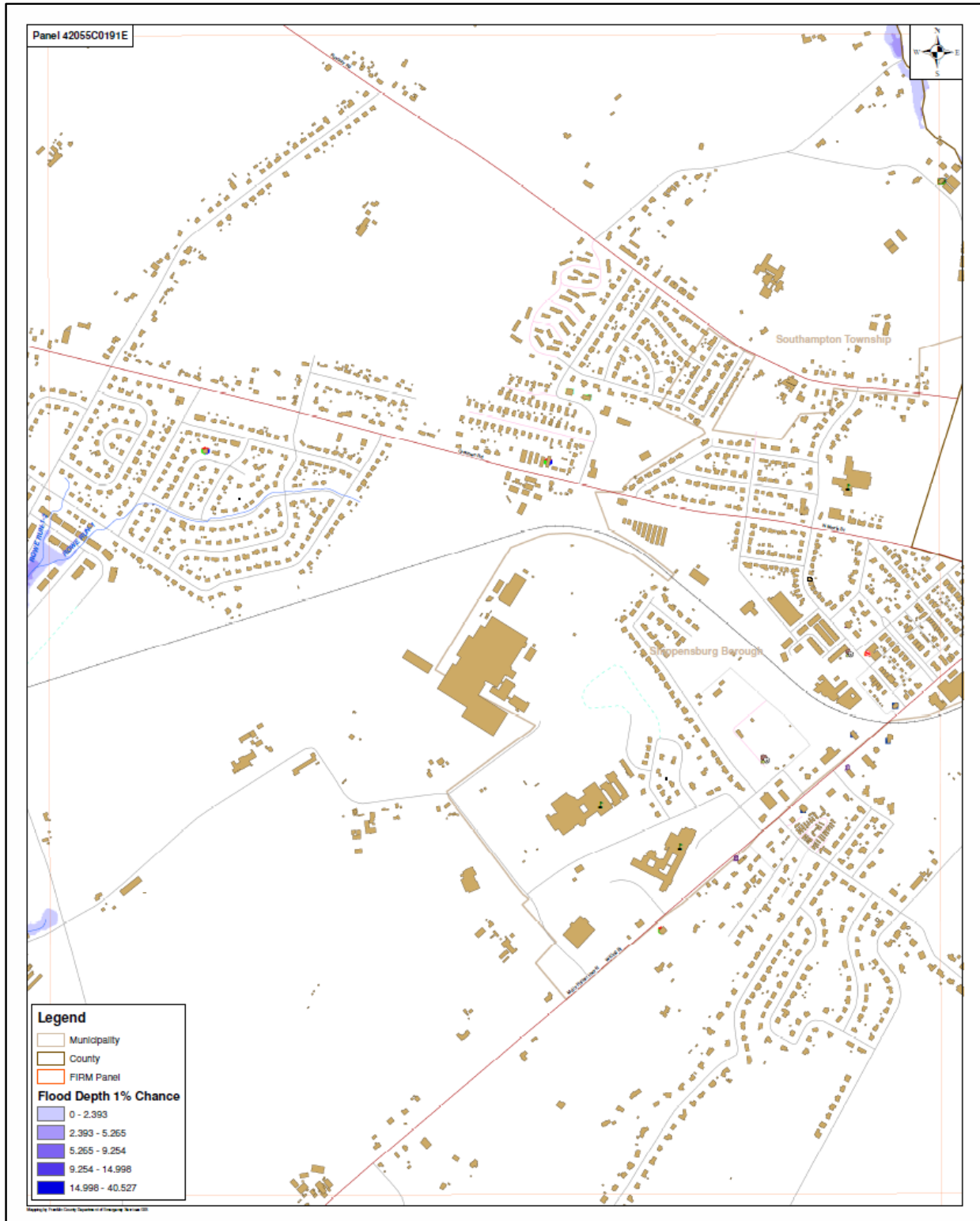


Figure G.33: Quadrant 2, Panel Number 42055C0191E

Appendix G: Franklin County DFIRM

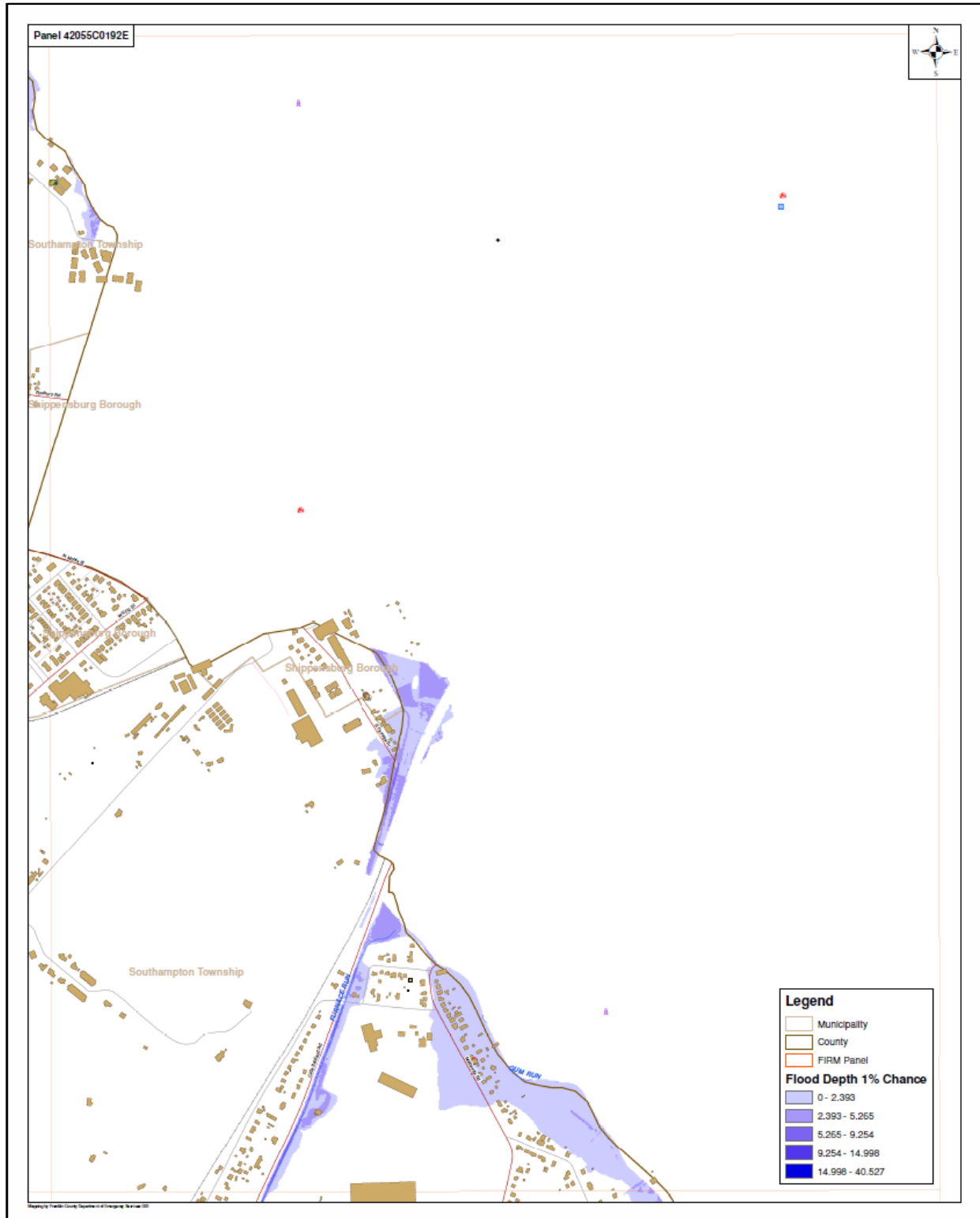


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Appendix G: Franklin County DFIRM

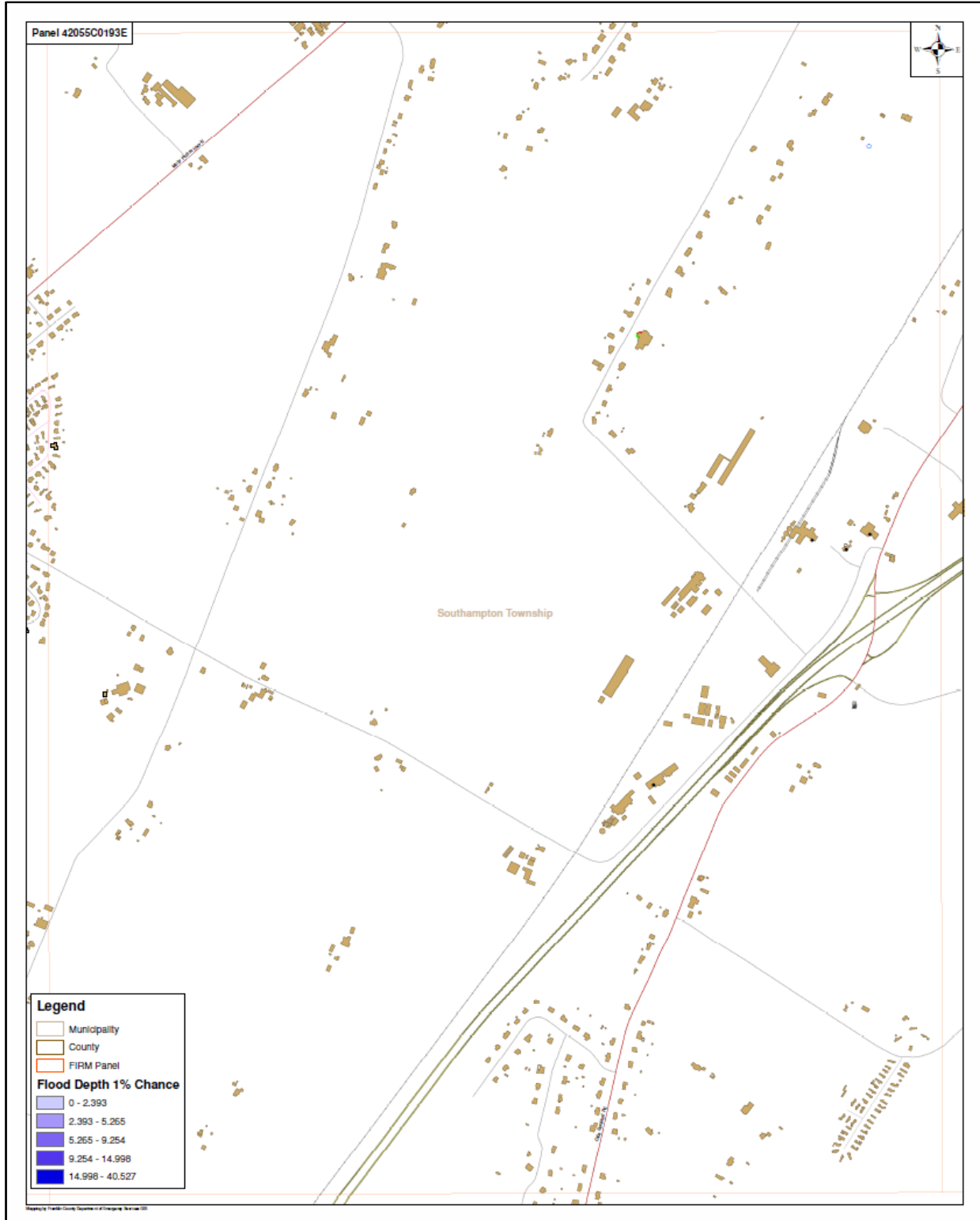


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Appendix G: Franklin County DFIRM

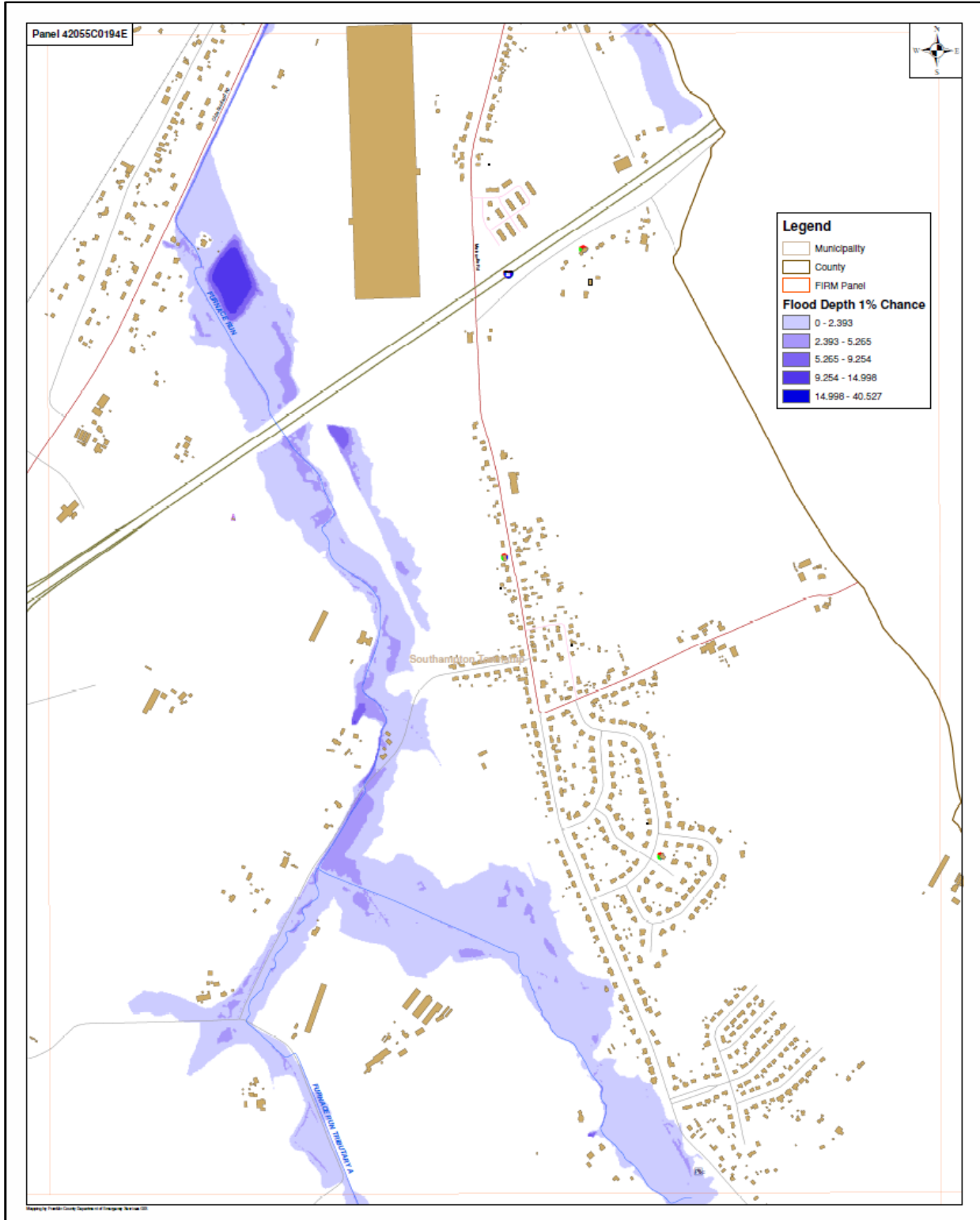


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Appendix G: Franklin County DFIRM

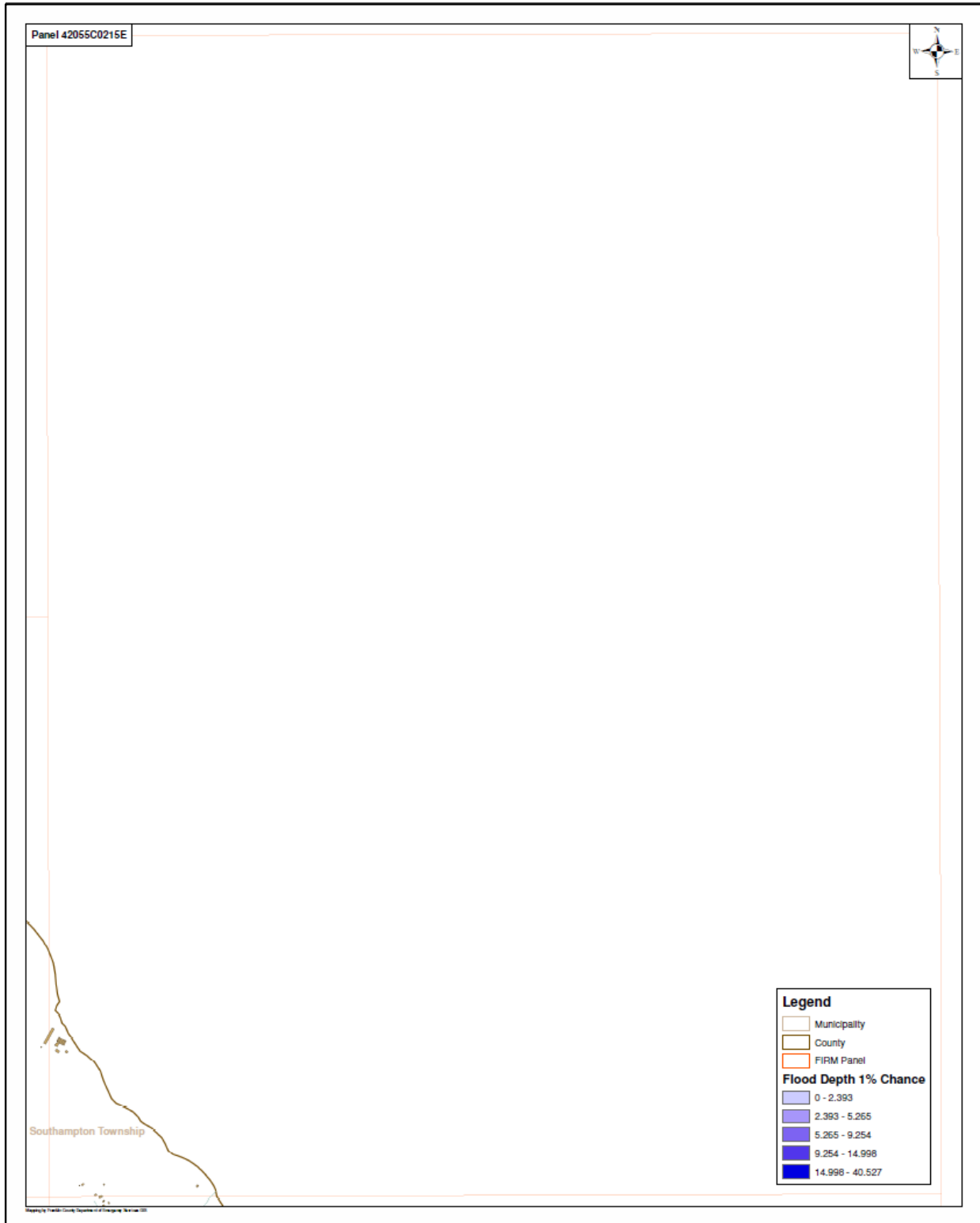


Figure G.37: Quadrant 2, Panel Number 42055C0215E

Appendix G: Franklin County DFIRM

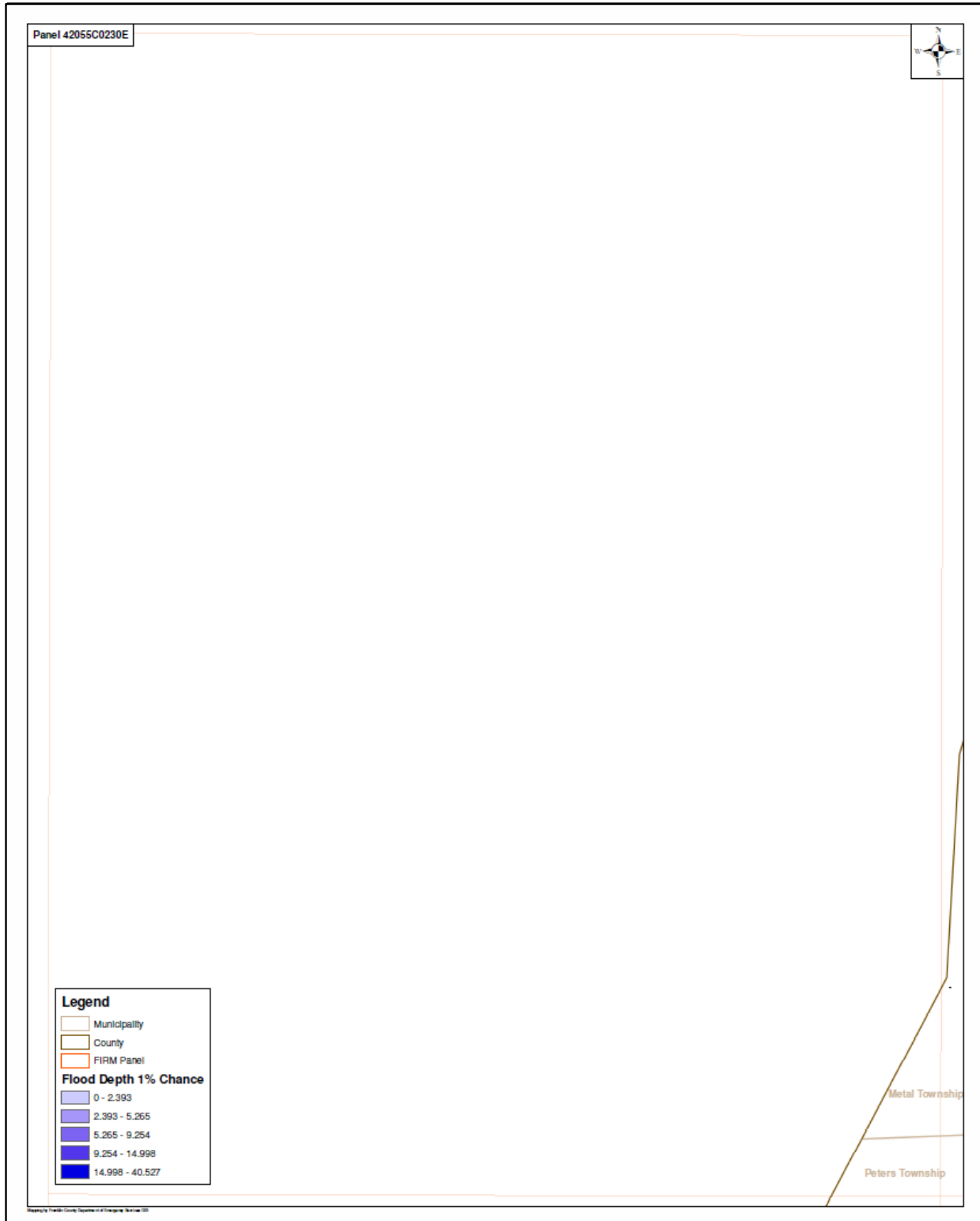


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Appendix G: Franklin County DFIRM

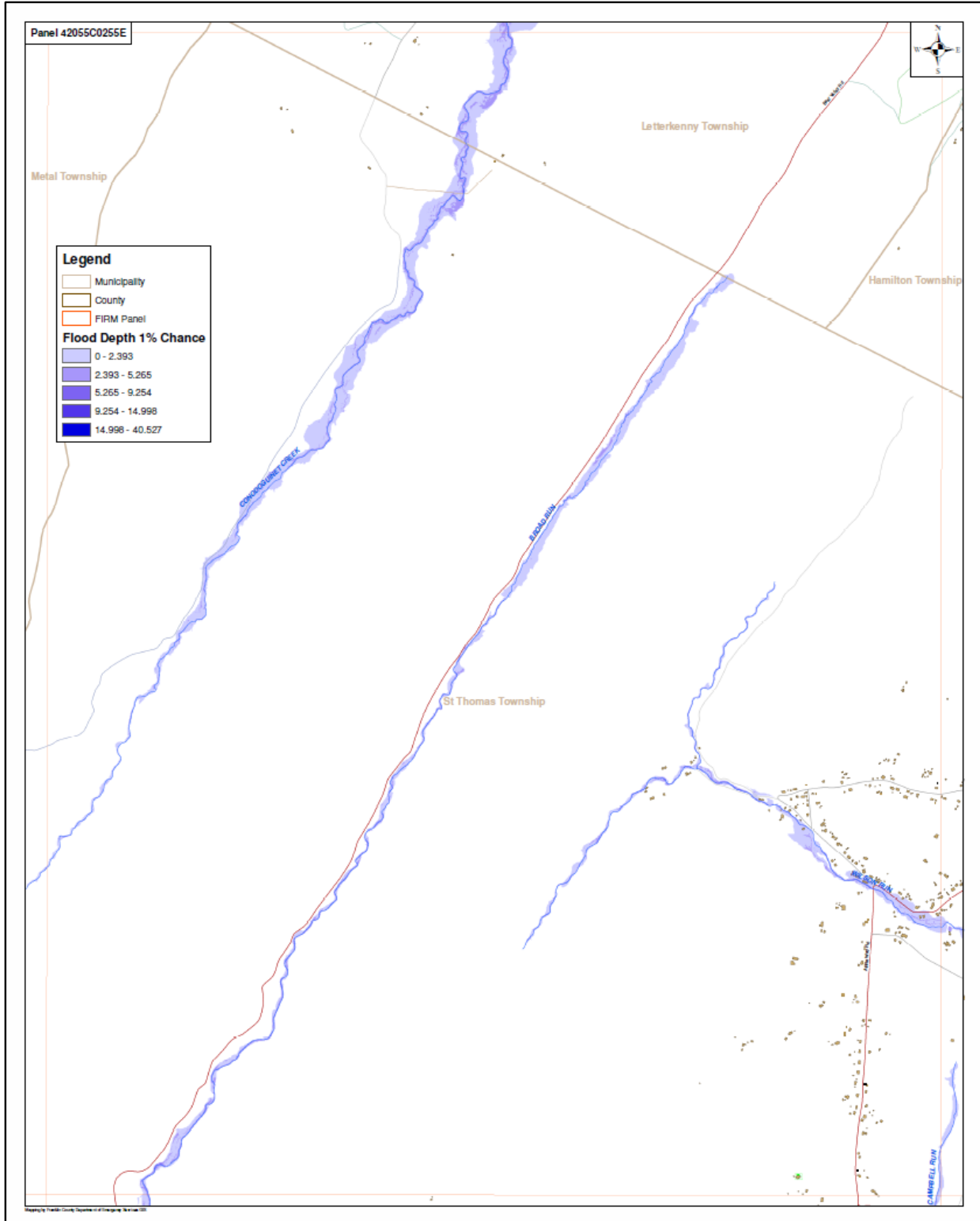


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Appendix G: Franklin County DFIRM

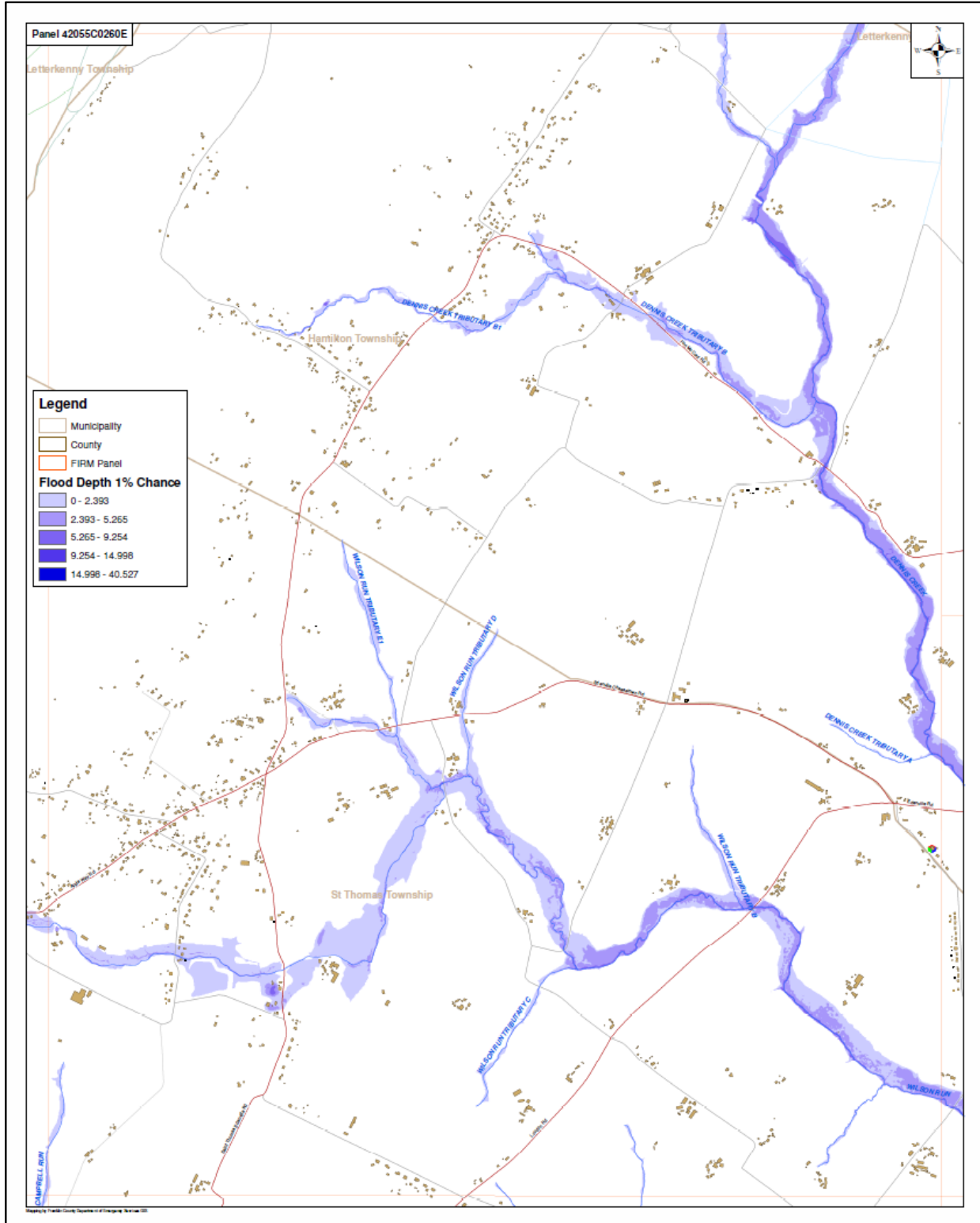


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Appendix G: Franklin County DFIRM

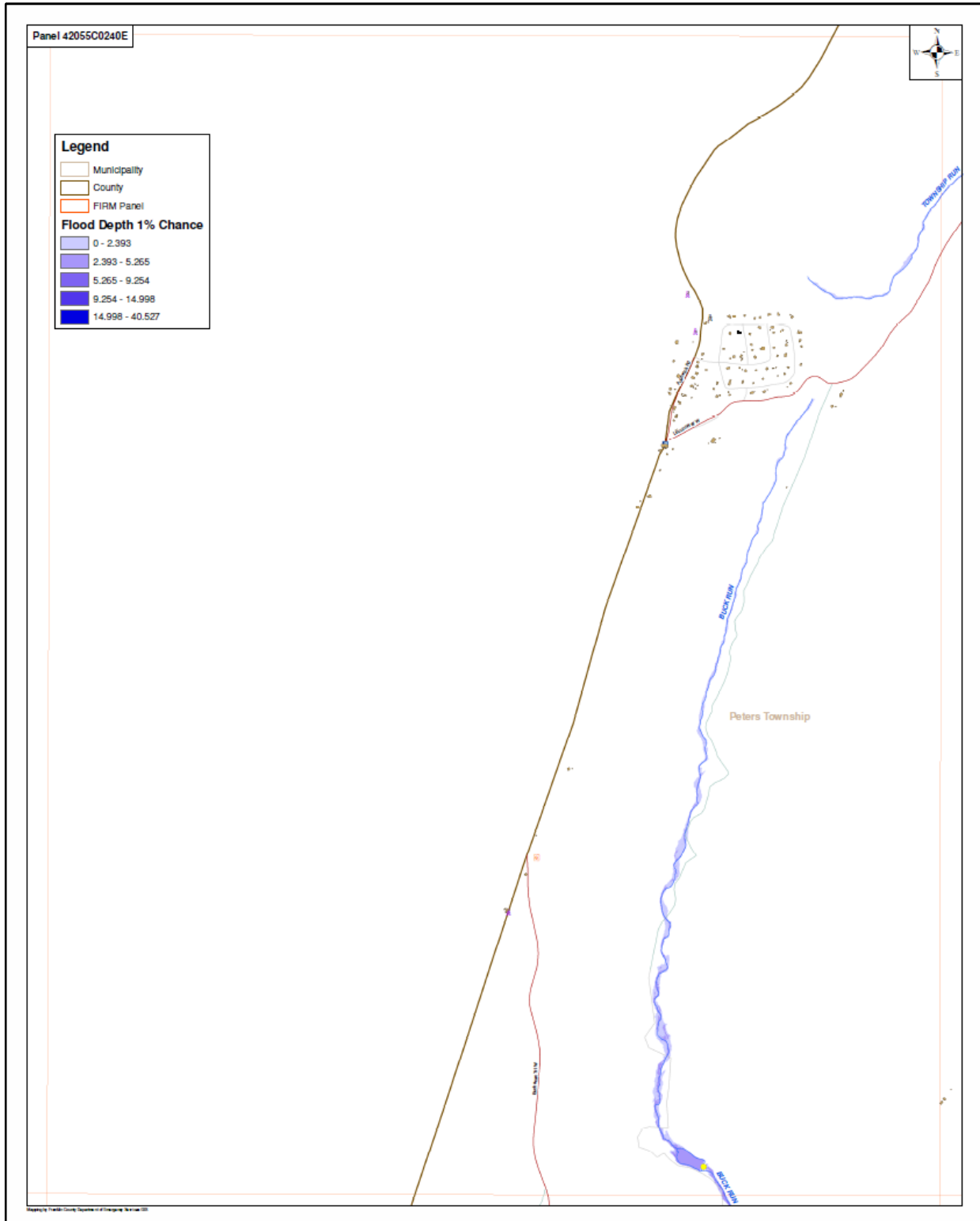


Figure G.42: Quadrant 3, Panel Number 42055C0240E

Appendix G: Franklin County DFIRM

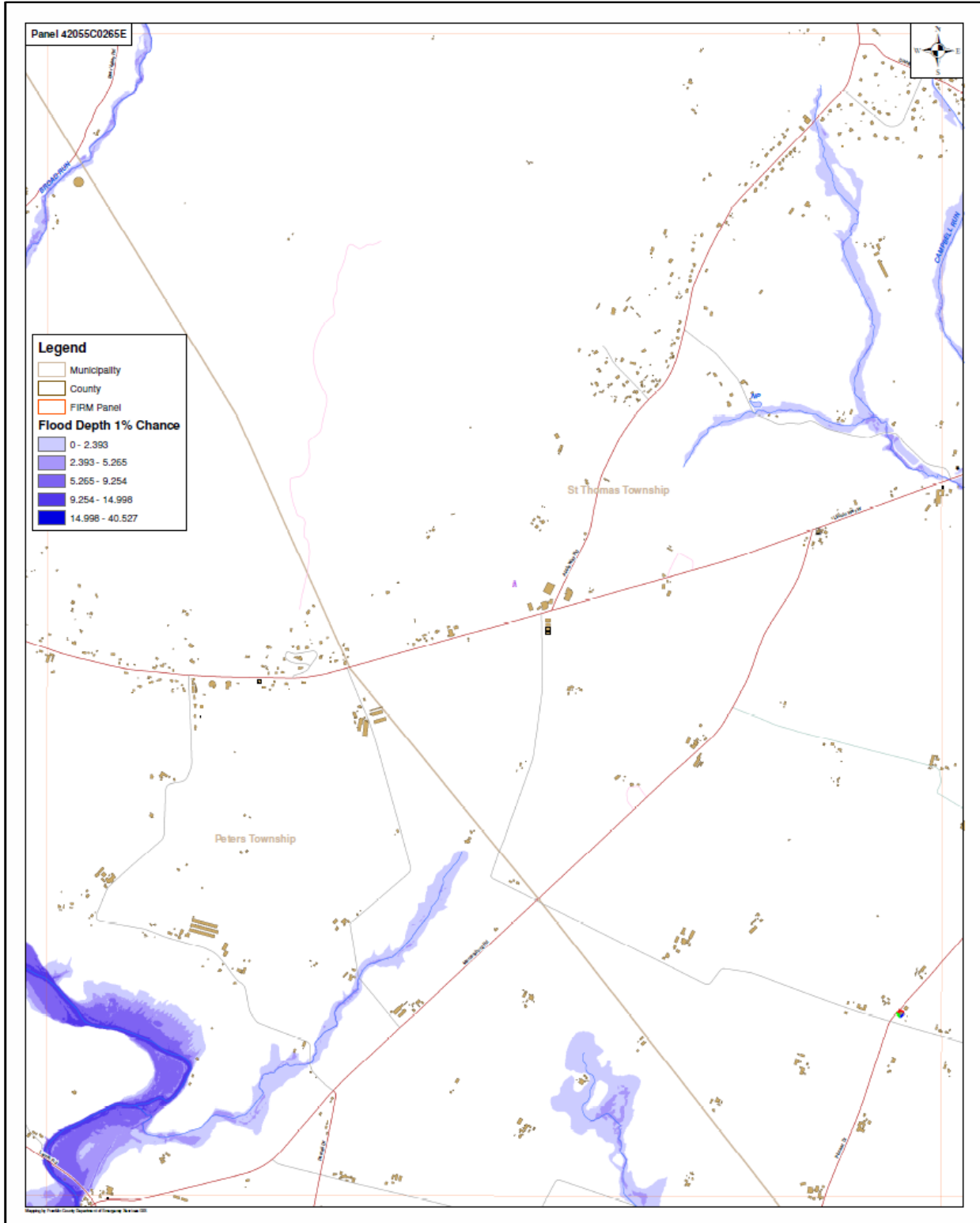


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Appendix G: Franklin County DFIRM

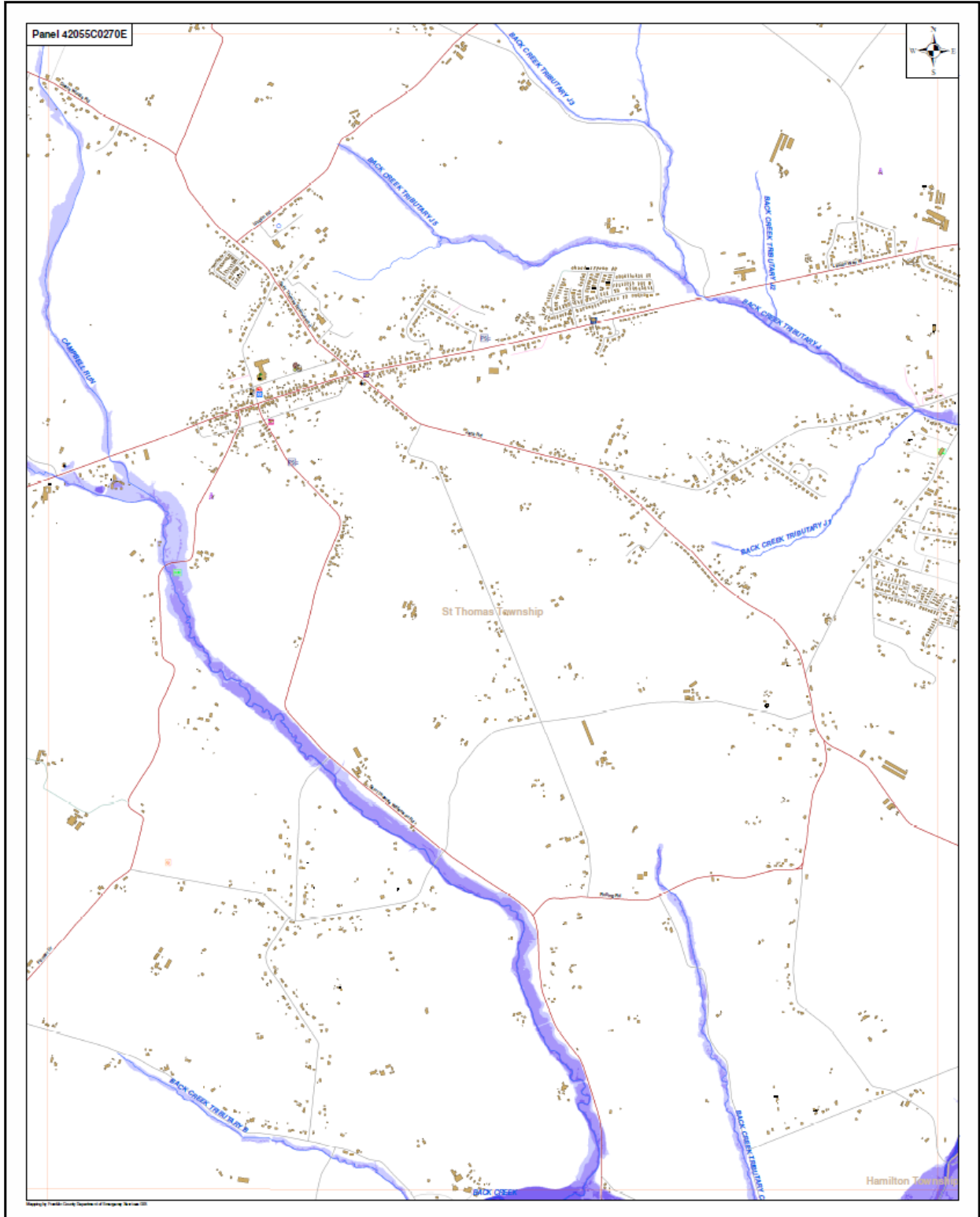


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Appendix G: Franklin County DFIRM

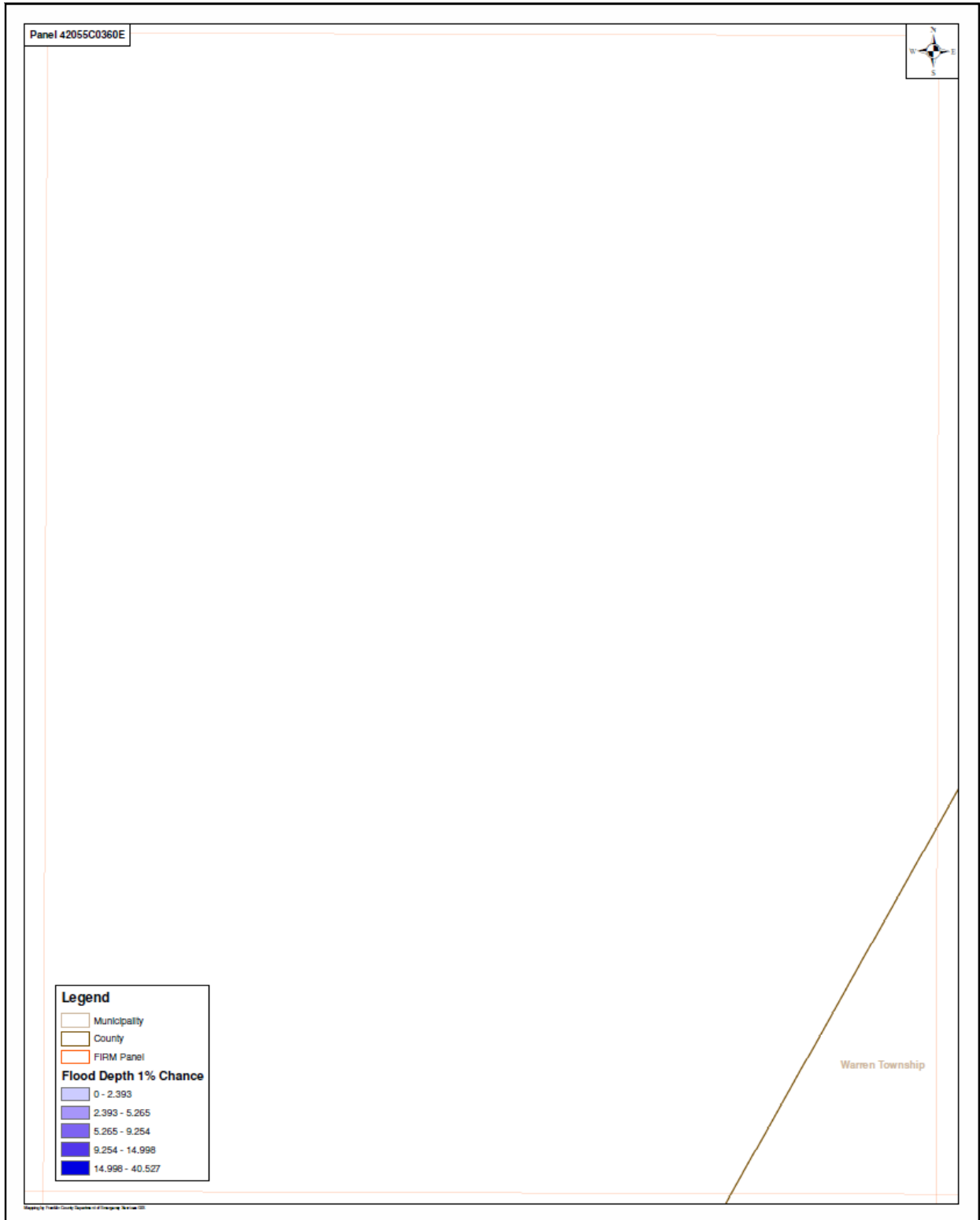


Figure G.46: Quadrant 3, Panel Number 42055C0360E

Appendix G: Franklin County DFIRM

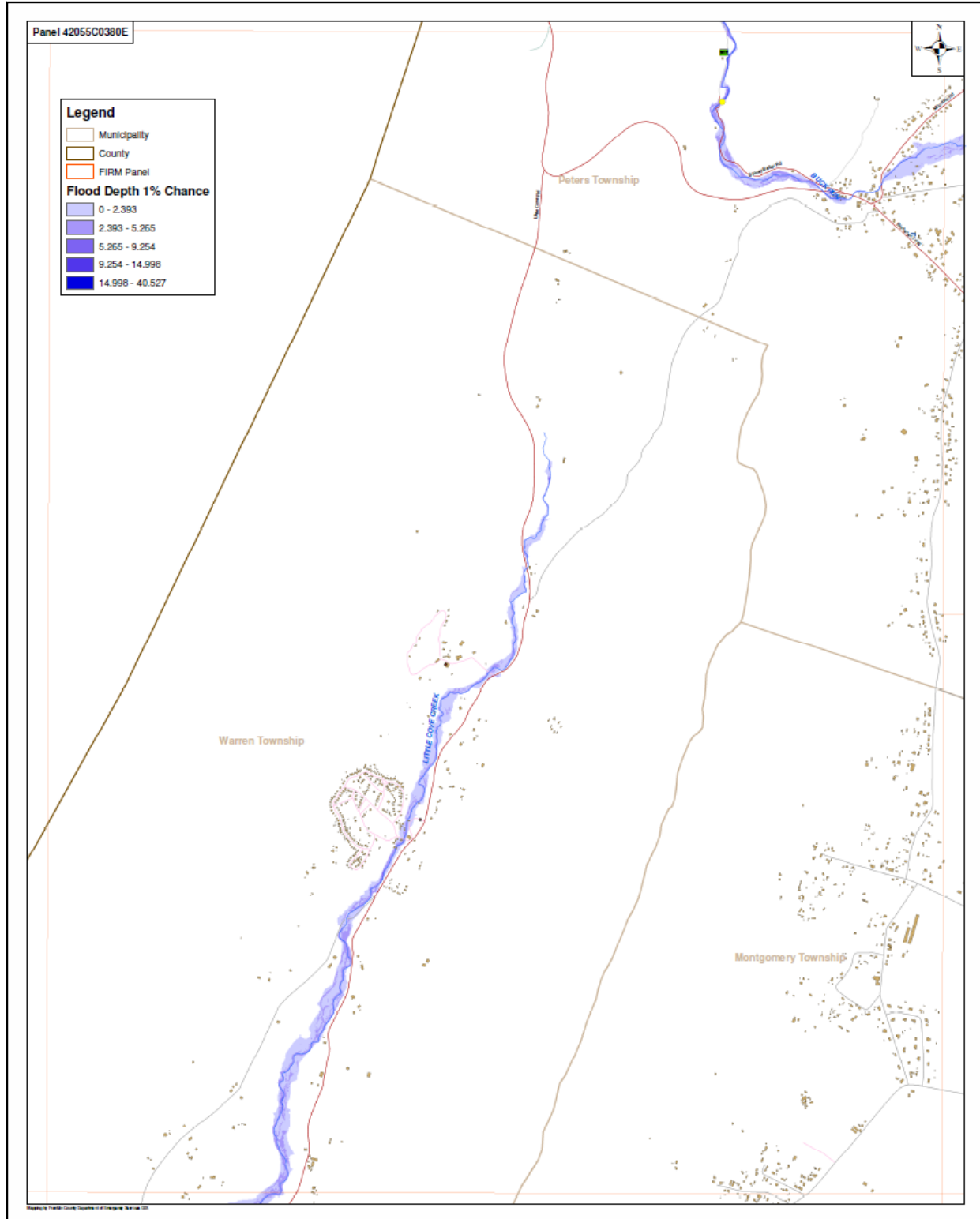


Figure G.47: Quadrant 3, Panel Number 42055C0380E

Appendix G: Franklin County DFIRM

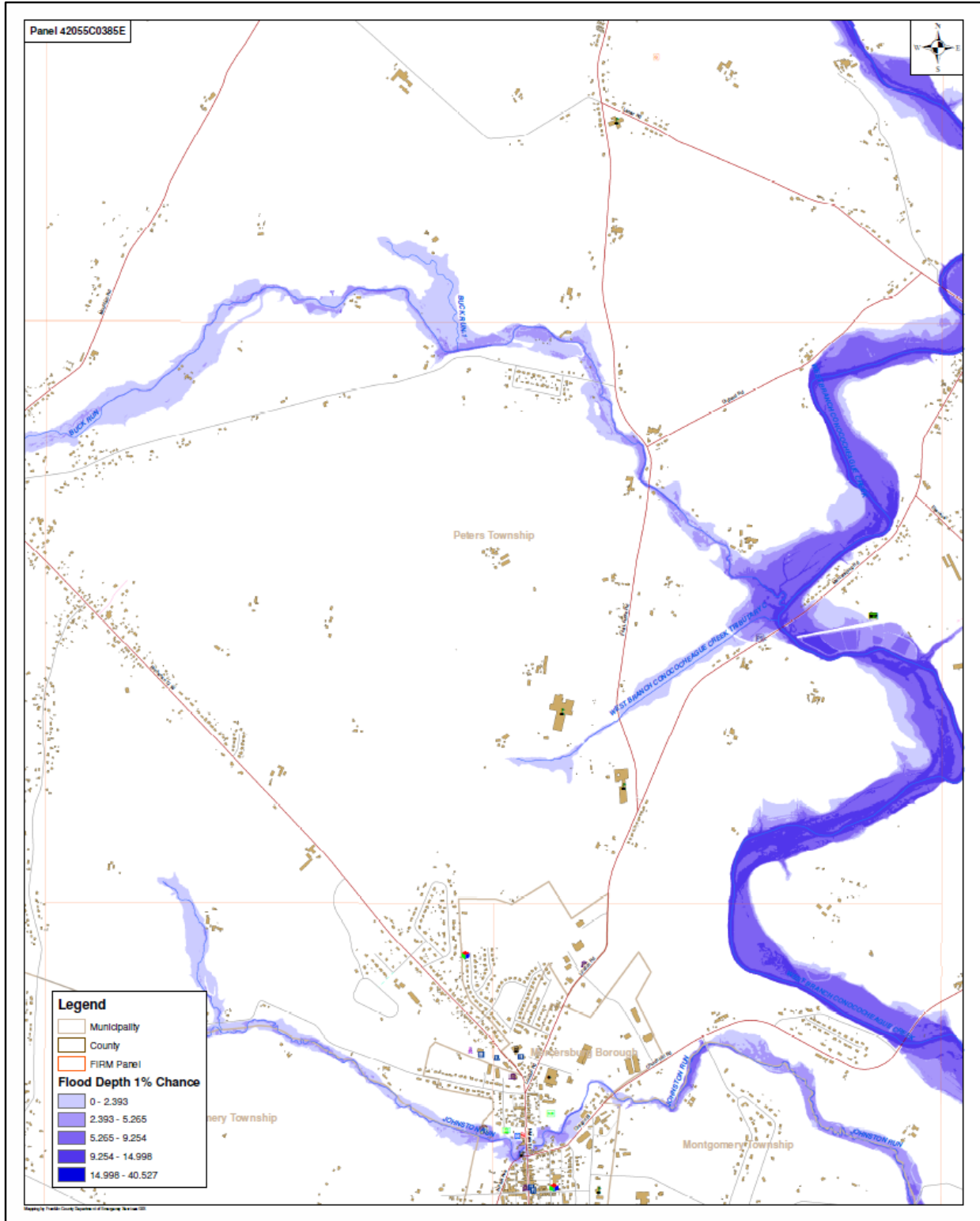


Figure G.48: Quadrant 3, Panel Number 42055C0385E

Appendix G: Franklin County DFIRM

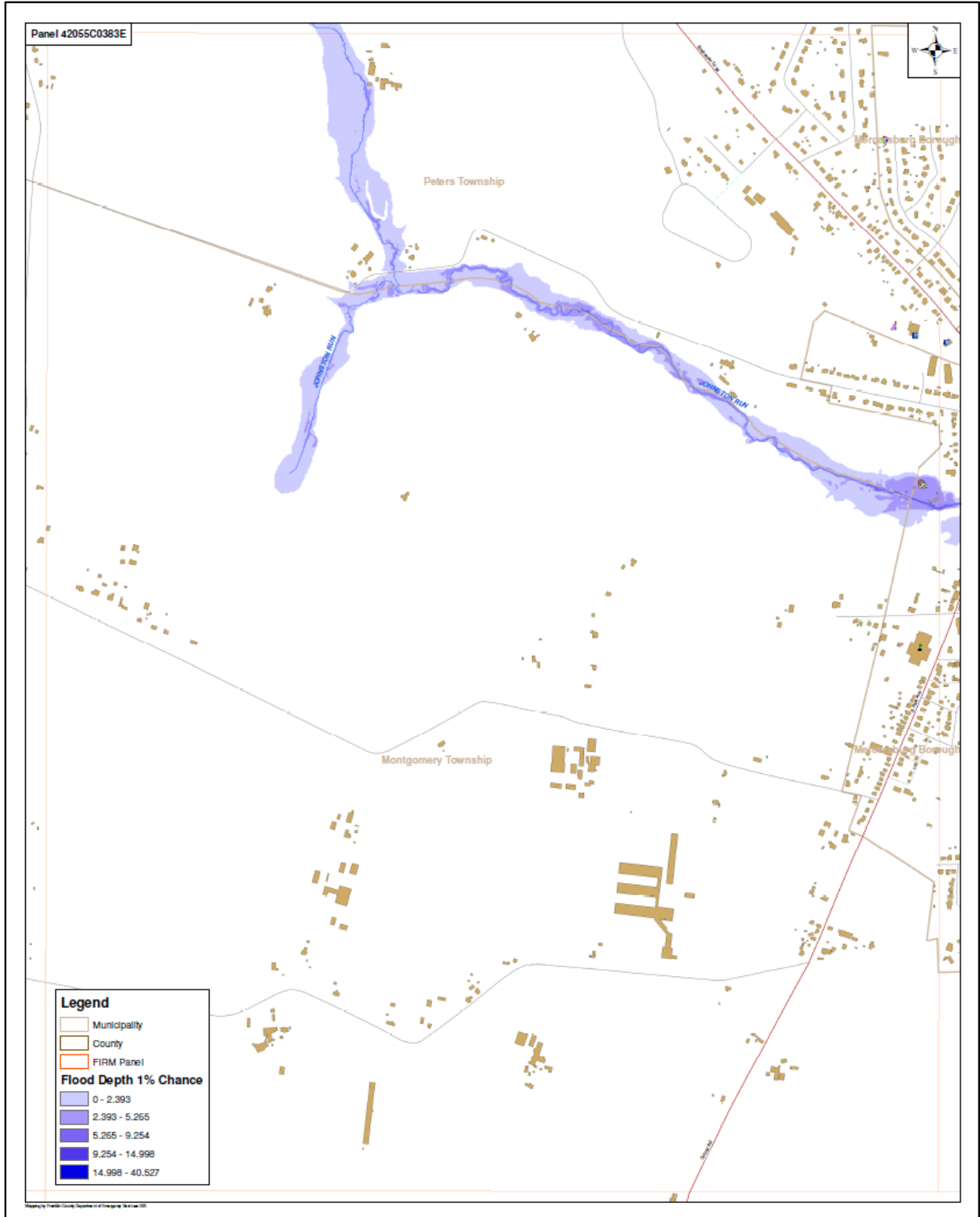


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Appendix G: Franklin County DFIRM

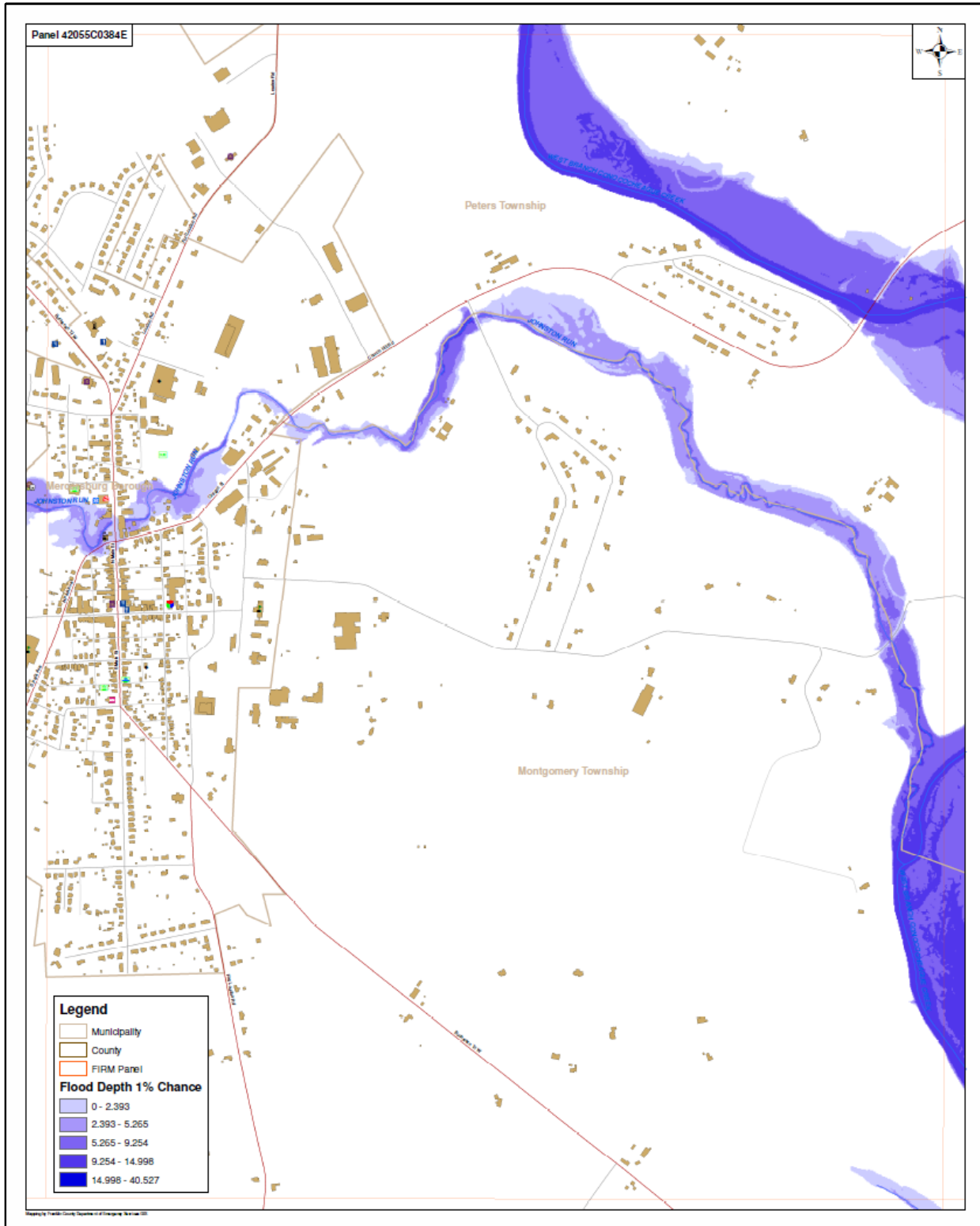


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Appendix G: Franklin County DFIRM

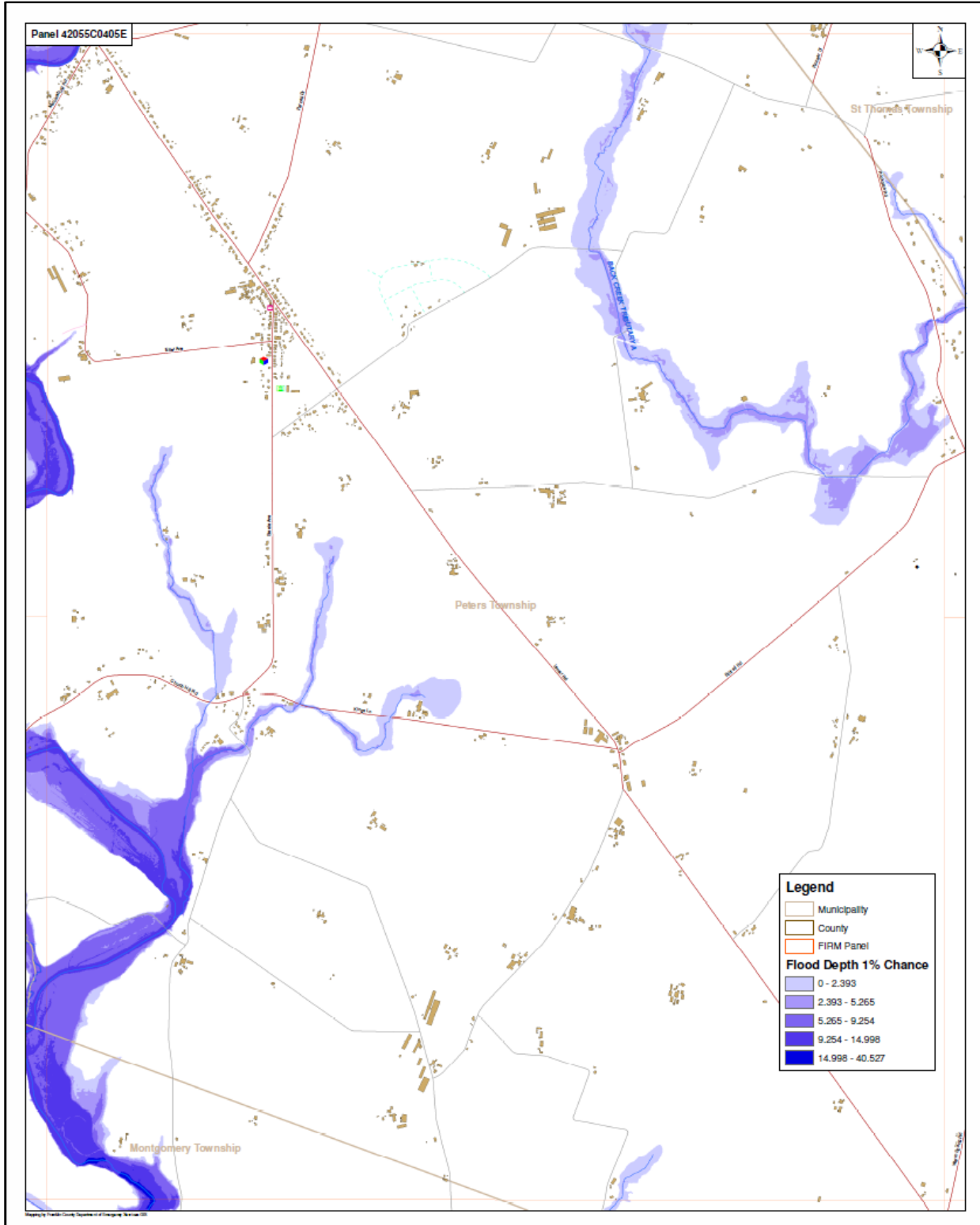


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Appendix G: Franklin County DFIRM

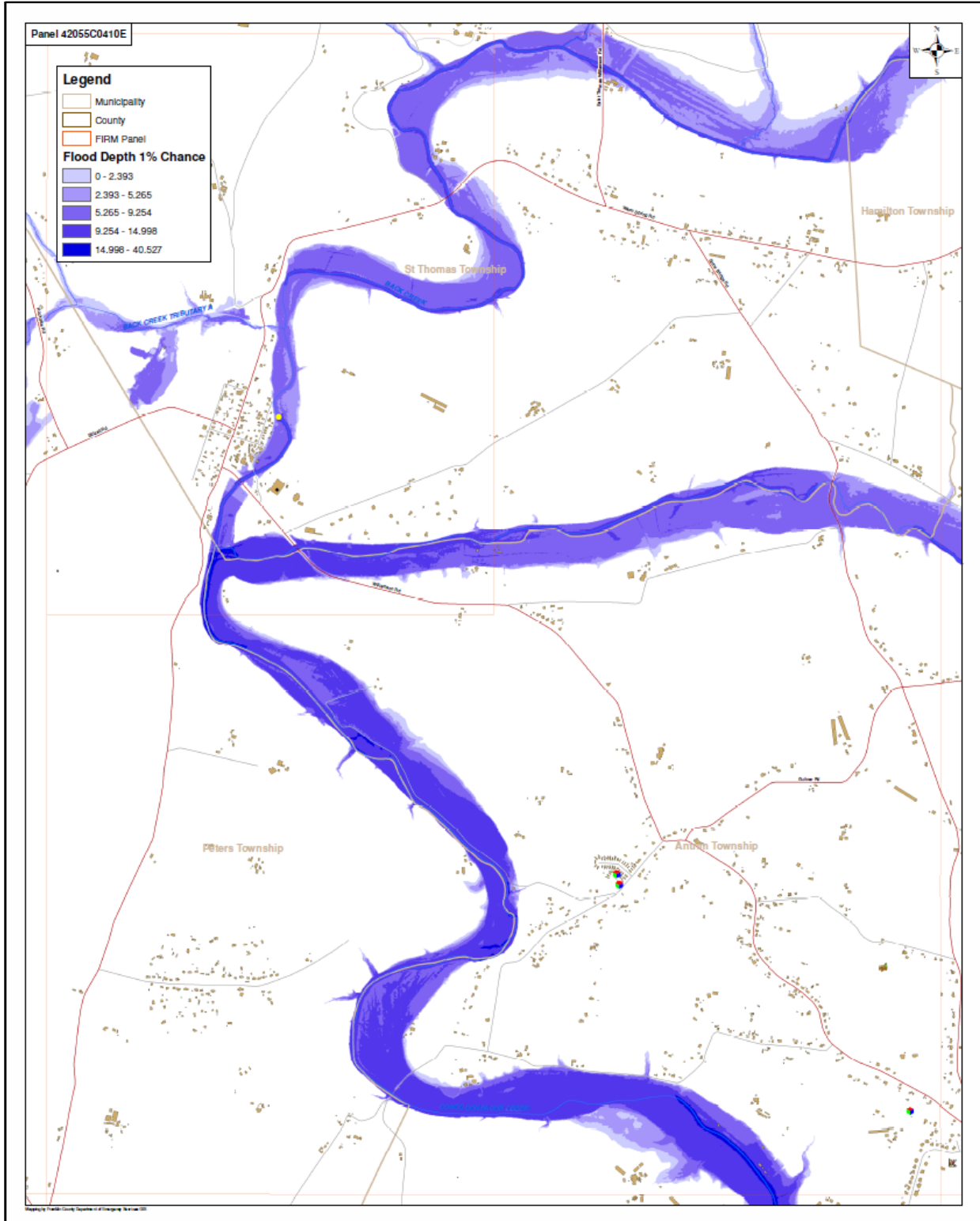


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Appendix G: Franklin County DFIRM

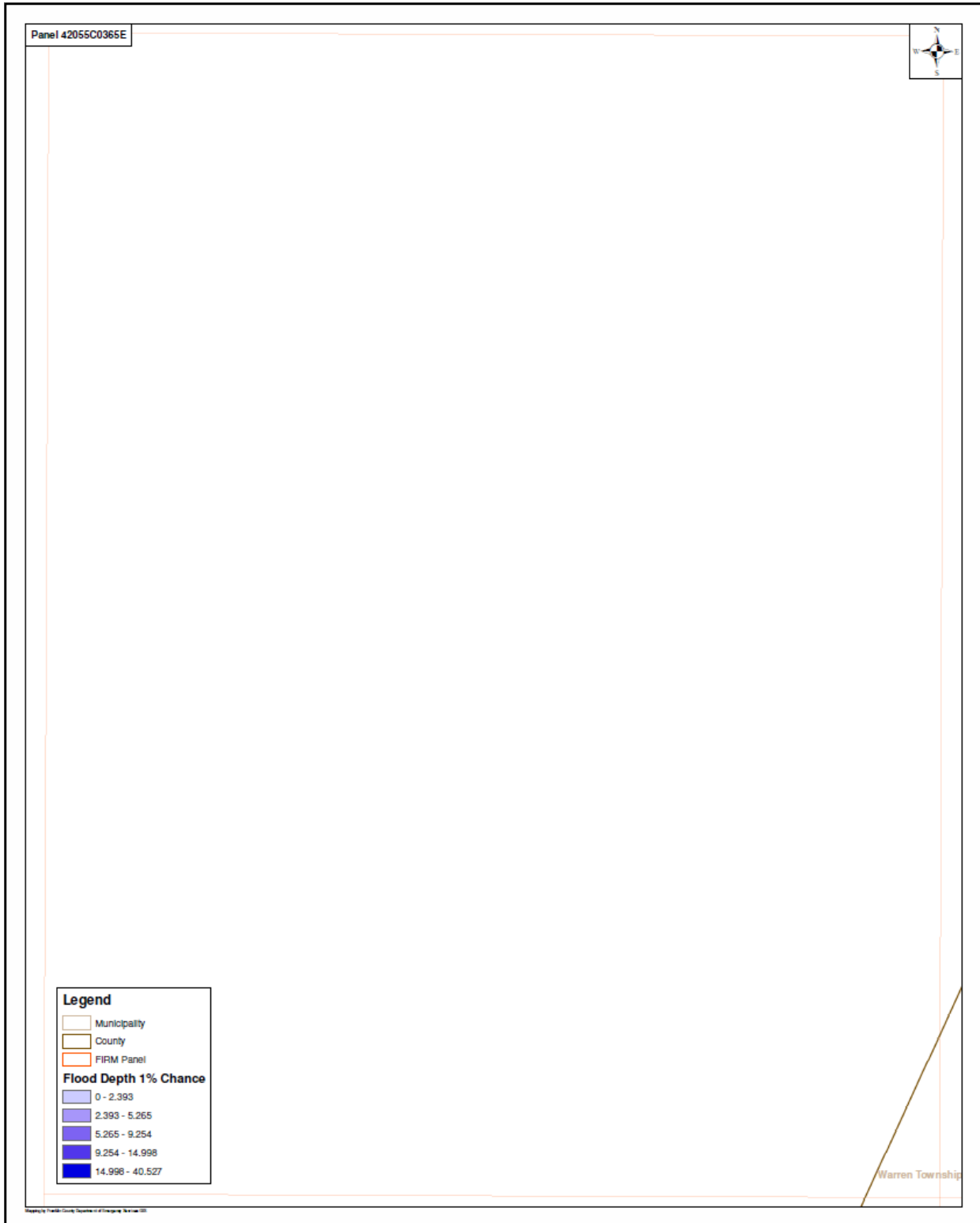


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Appendix G: Franklin County DFIRM

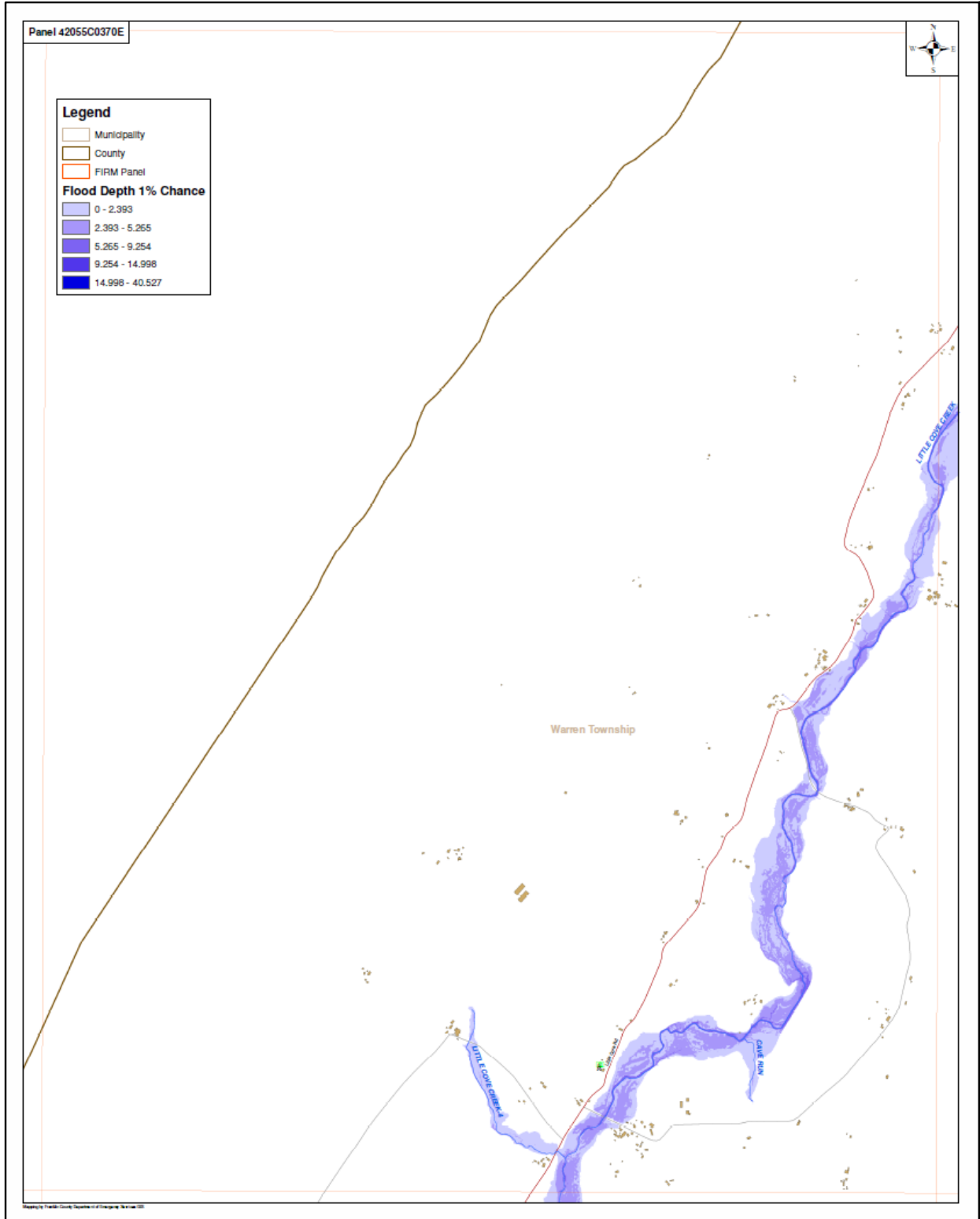


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Appendix G: Franklin County DFIRM

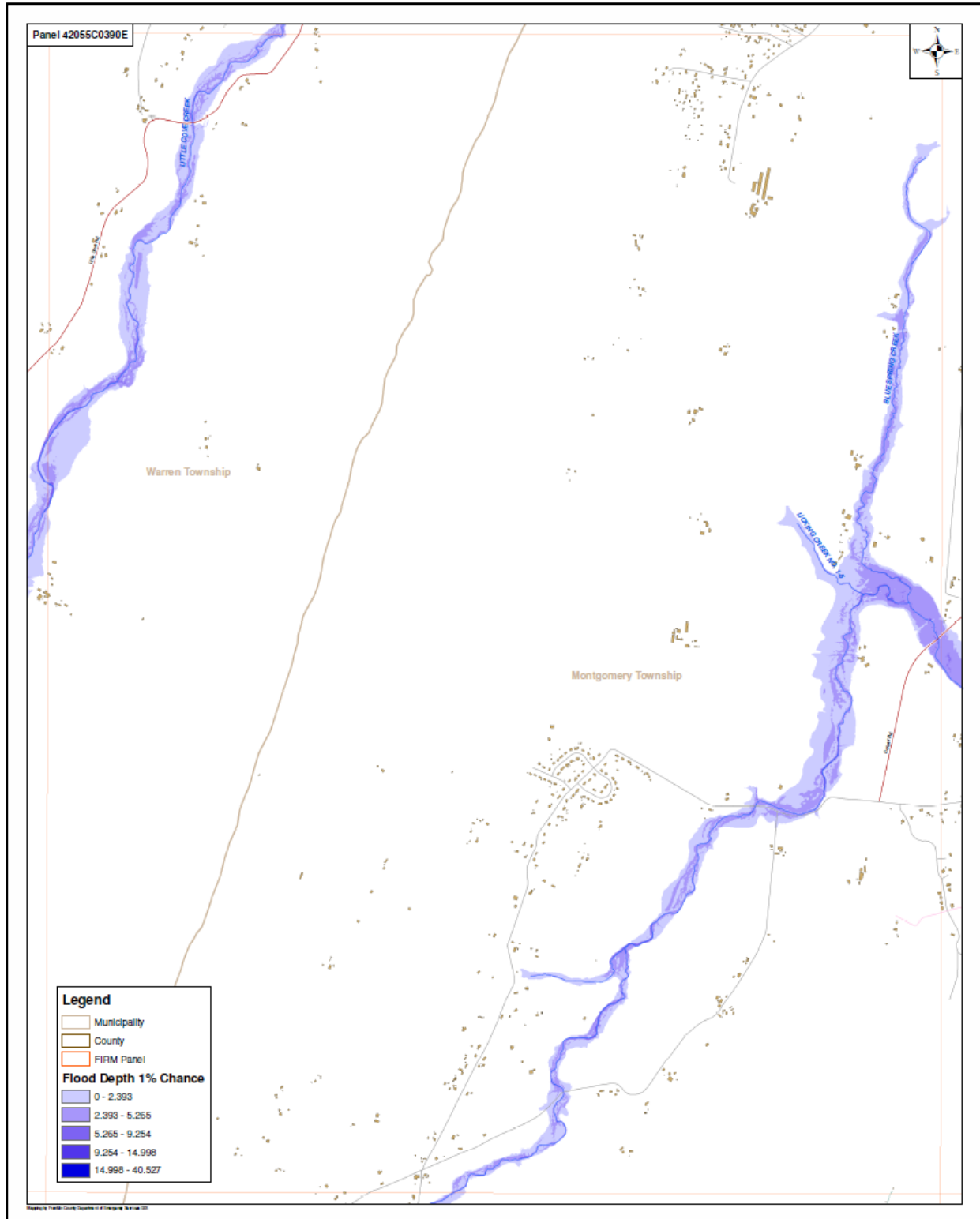


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Appendix G: Franklin County DFIRM

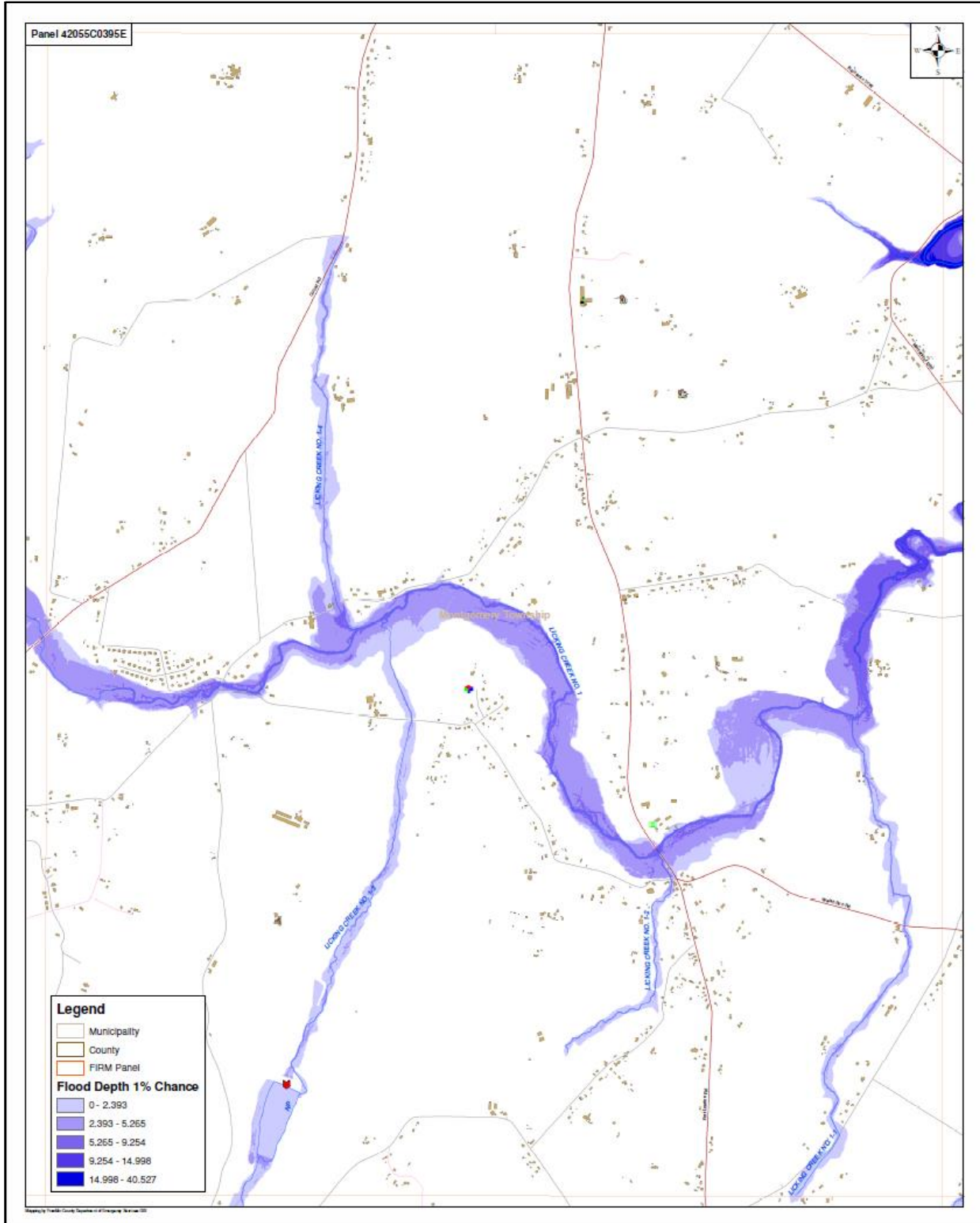


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Appendix G: Franklin County DFIRM

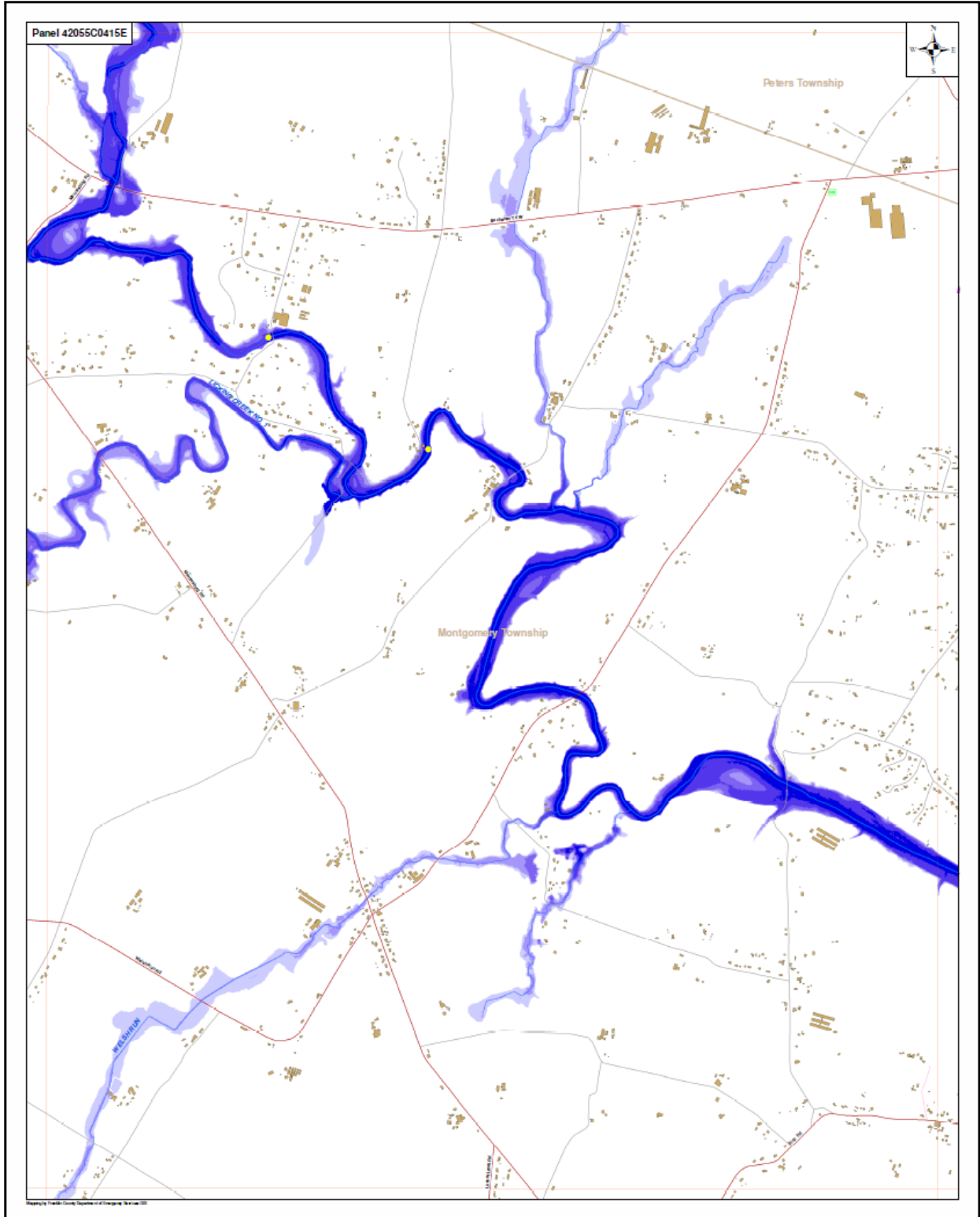


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Appendix G: Franklin County DFIRM

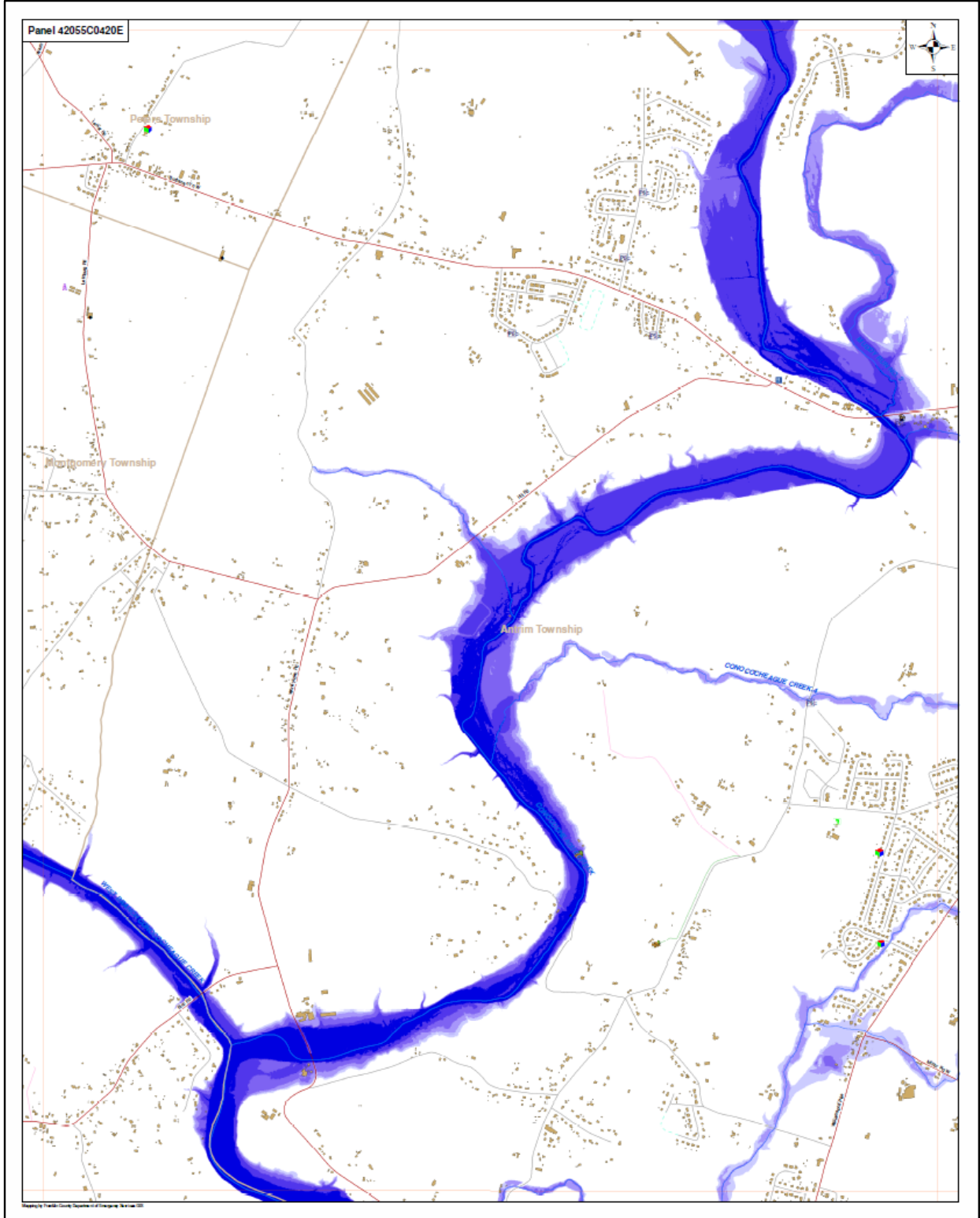


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Appendix G: Franklin County DFIRM

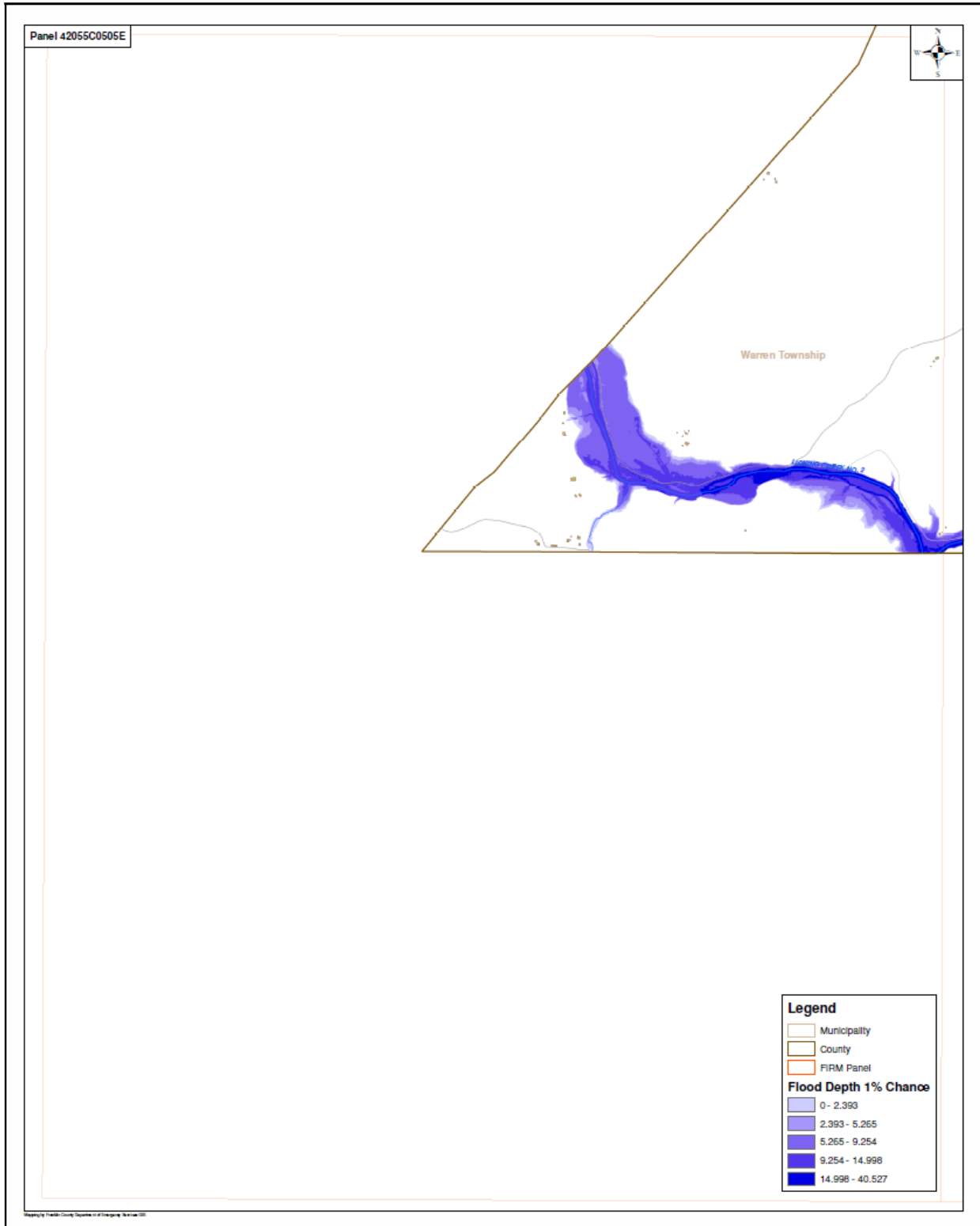


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Appendix G: Franklin County DFIRM

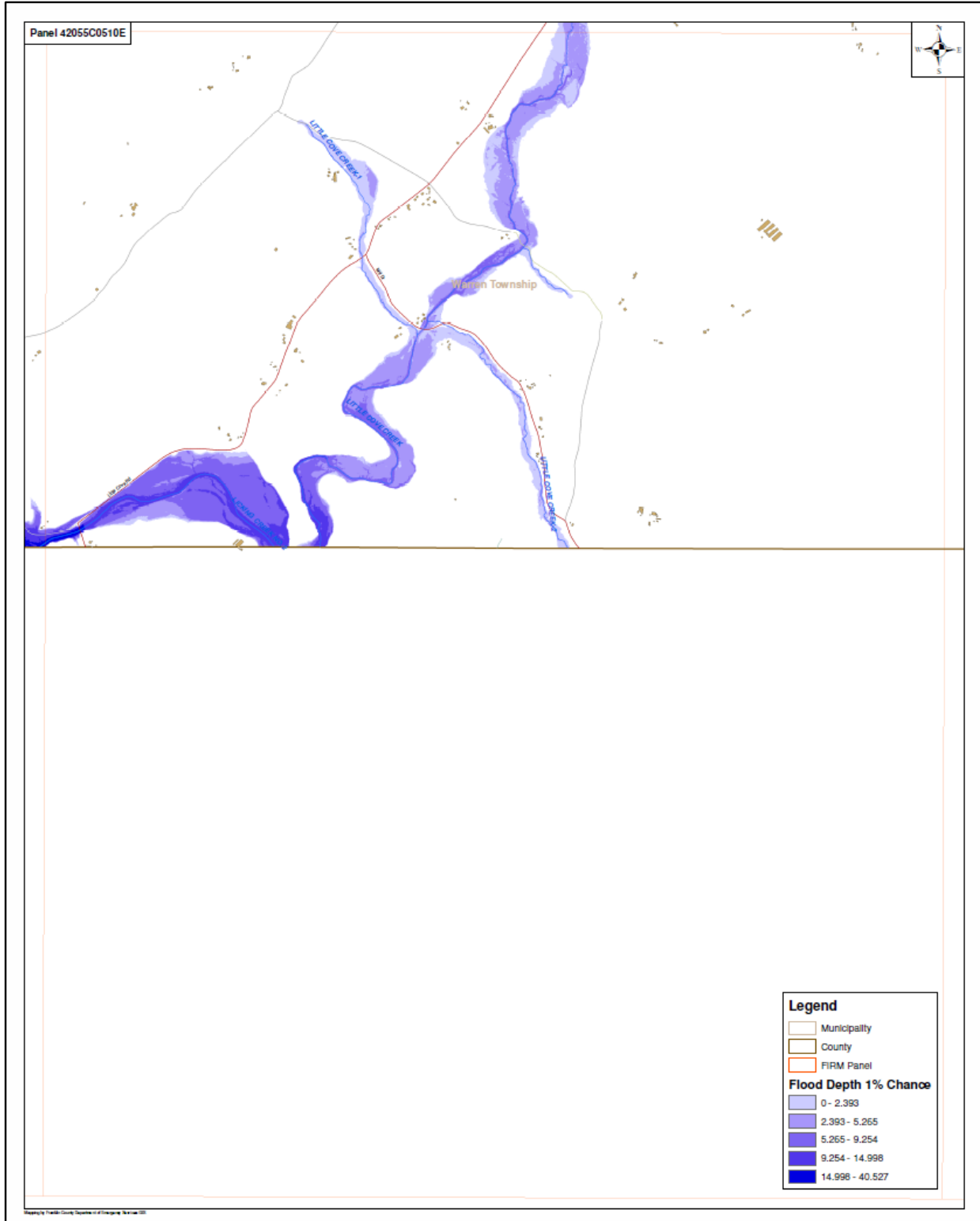


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Appendix G: Franklin County DFIRM

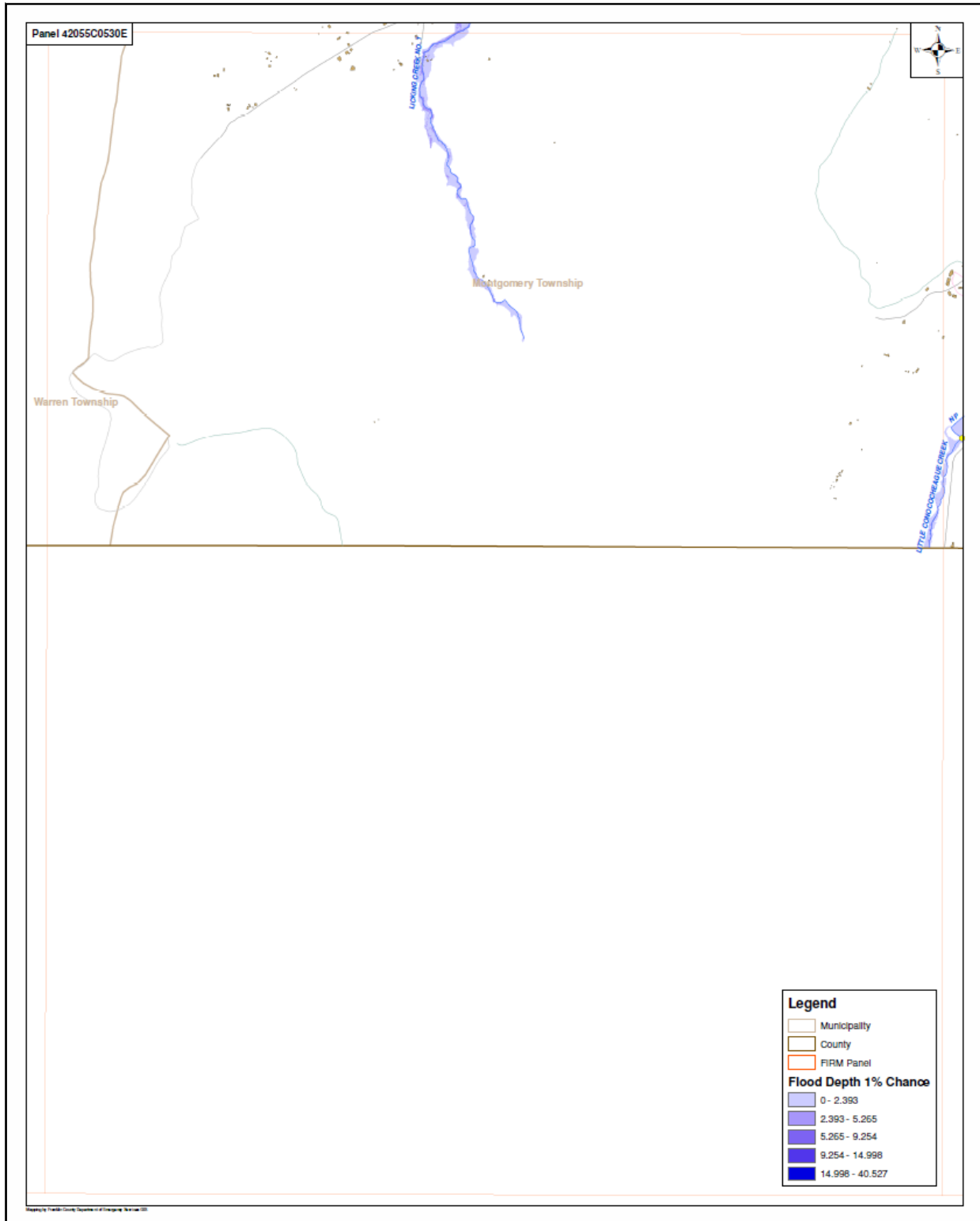


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Appendix G: Franklin County DFIRM

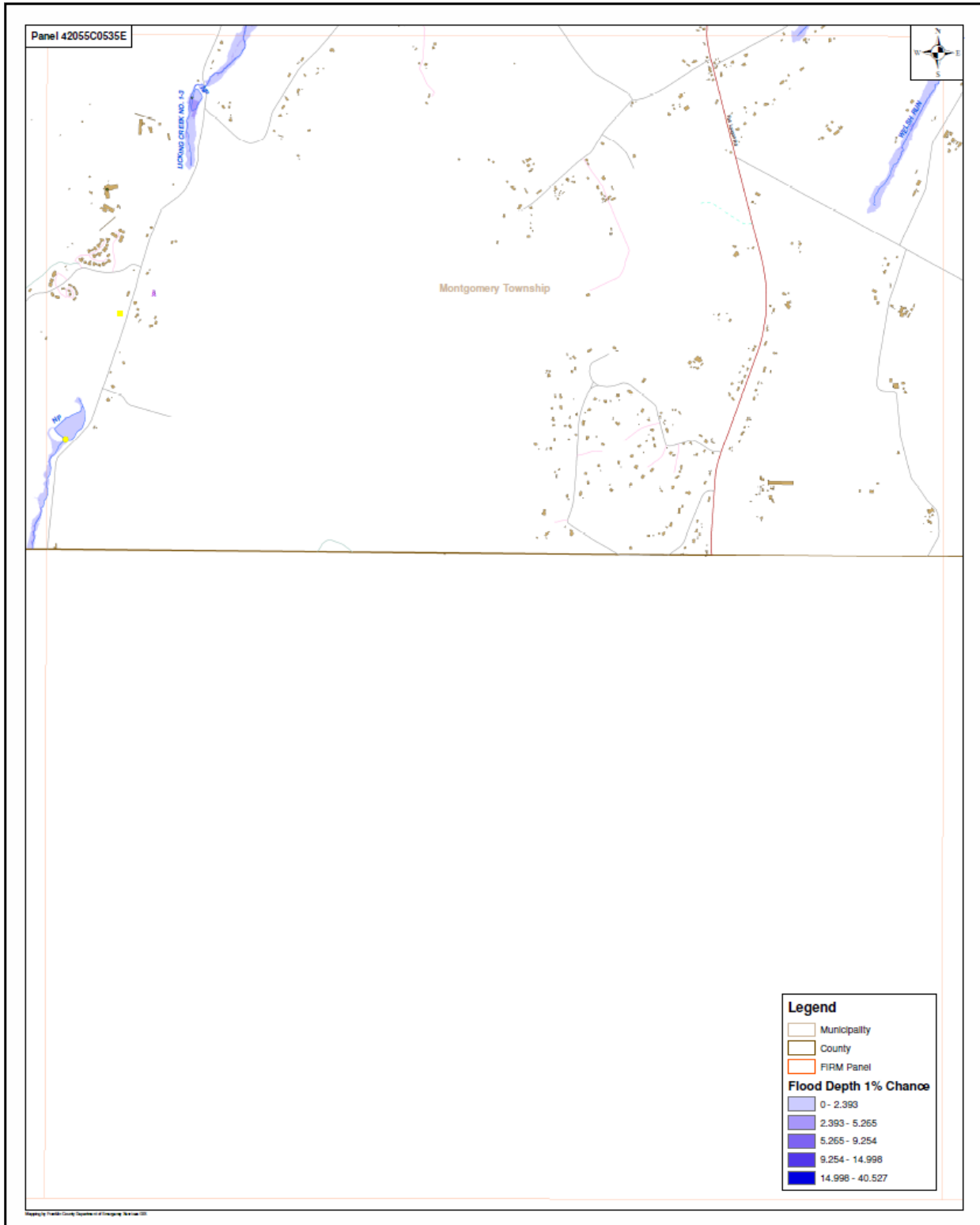


Figure G.63: Quadrant 3, Panel Number 42055C0535E

Appendix G: Franklin County DFIRM

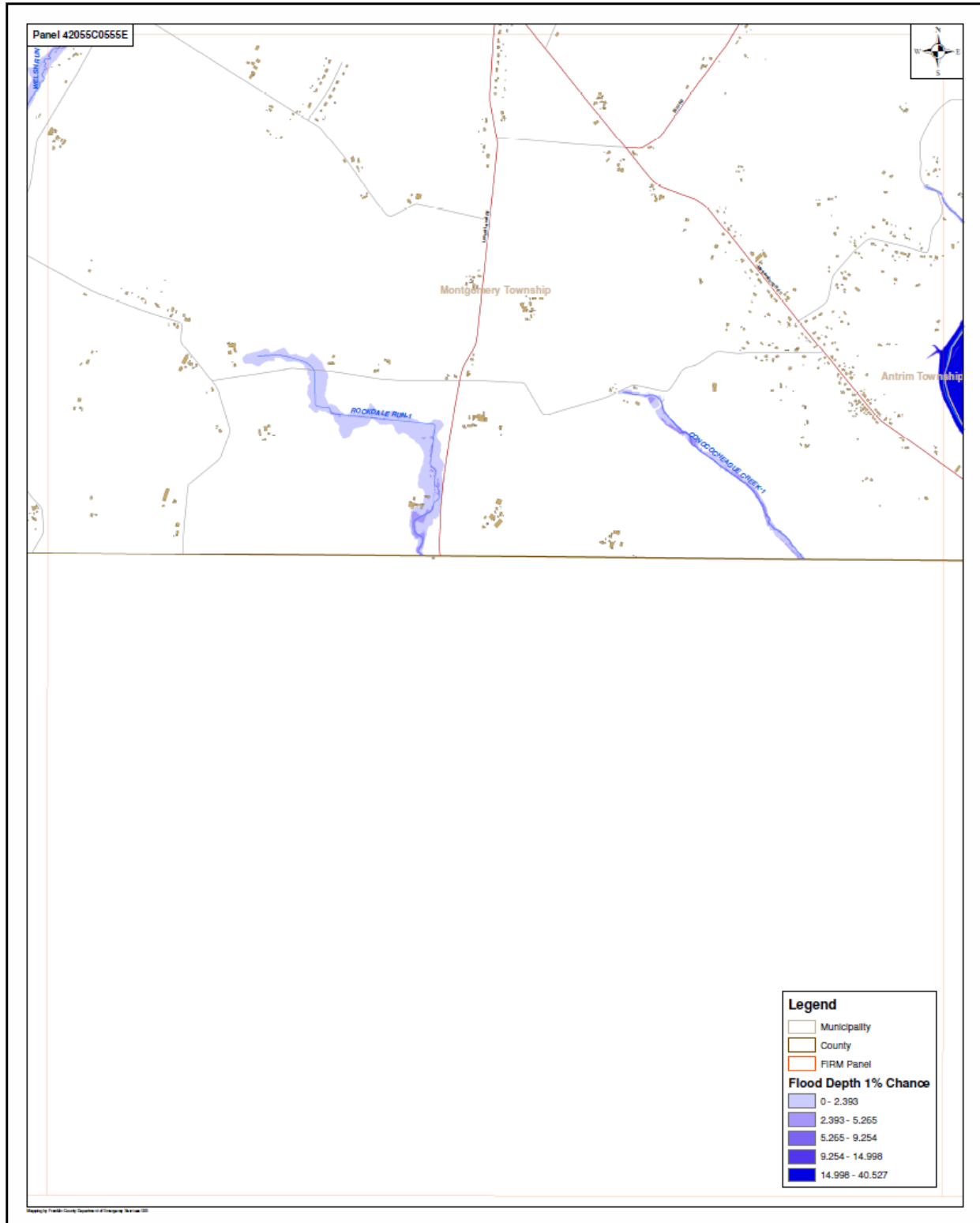


Figure G.64: Quadrant 3, Panel Number 42055C0555E

Appendix G: Franklin County DFIRM

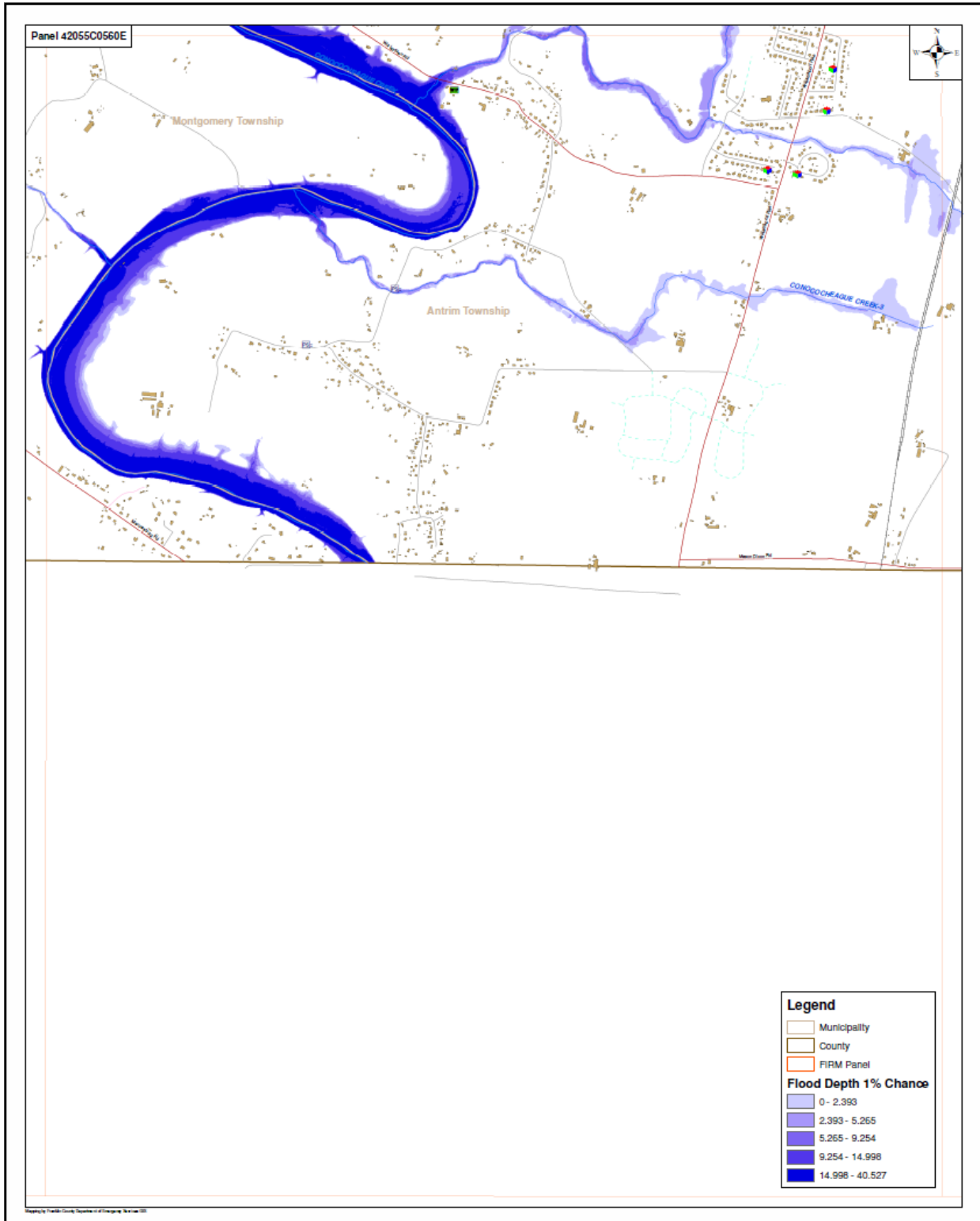


Figure G.65: Quadrant 3, Panel Number 42055C0560E

Appendix G: Franklin County DFIRM

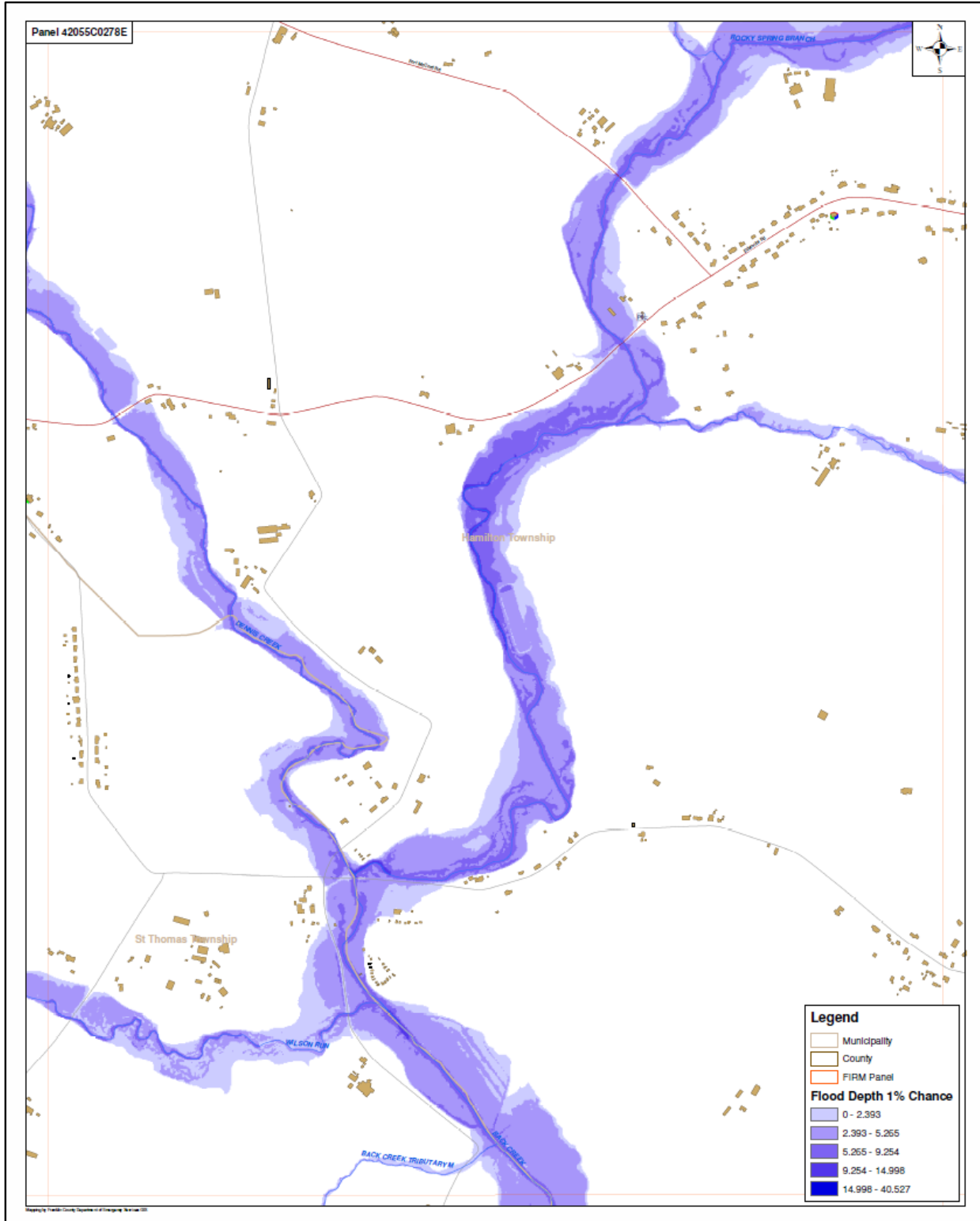


Figure G.66: Quadrant 4, Panel Number 42055C0278E

Appendix G: Franklin County DFIRM

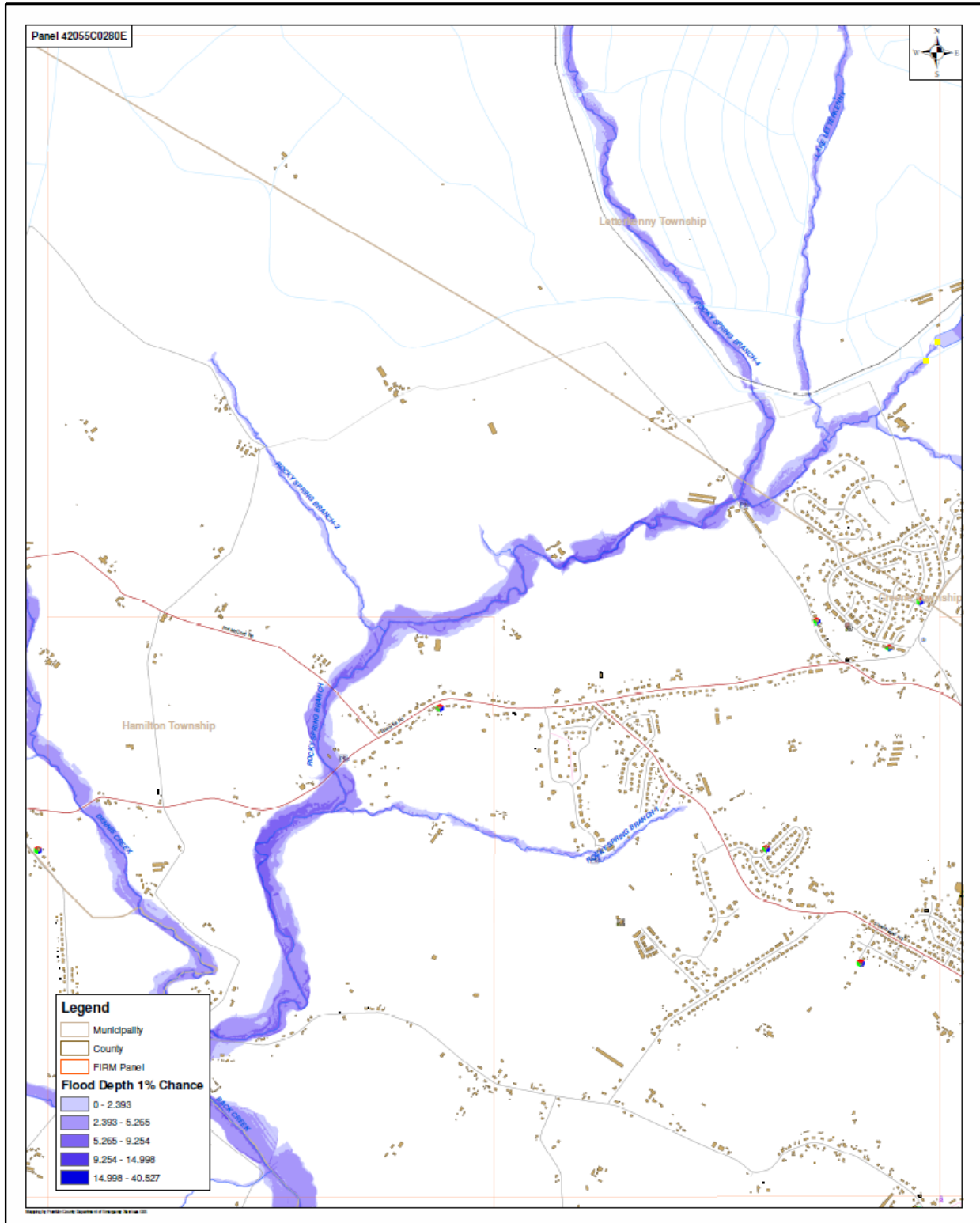


Figure G.67: Quadrant 4, Panel Number 42055C0280E

Appendix G: Franklin County DFIRM

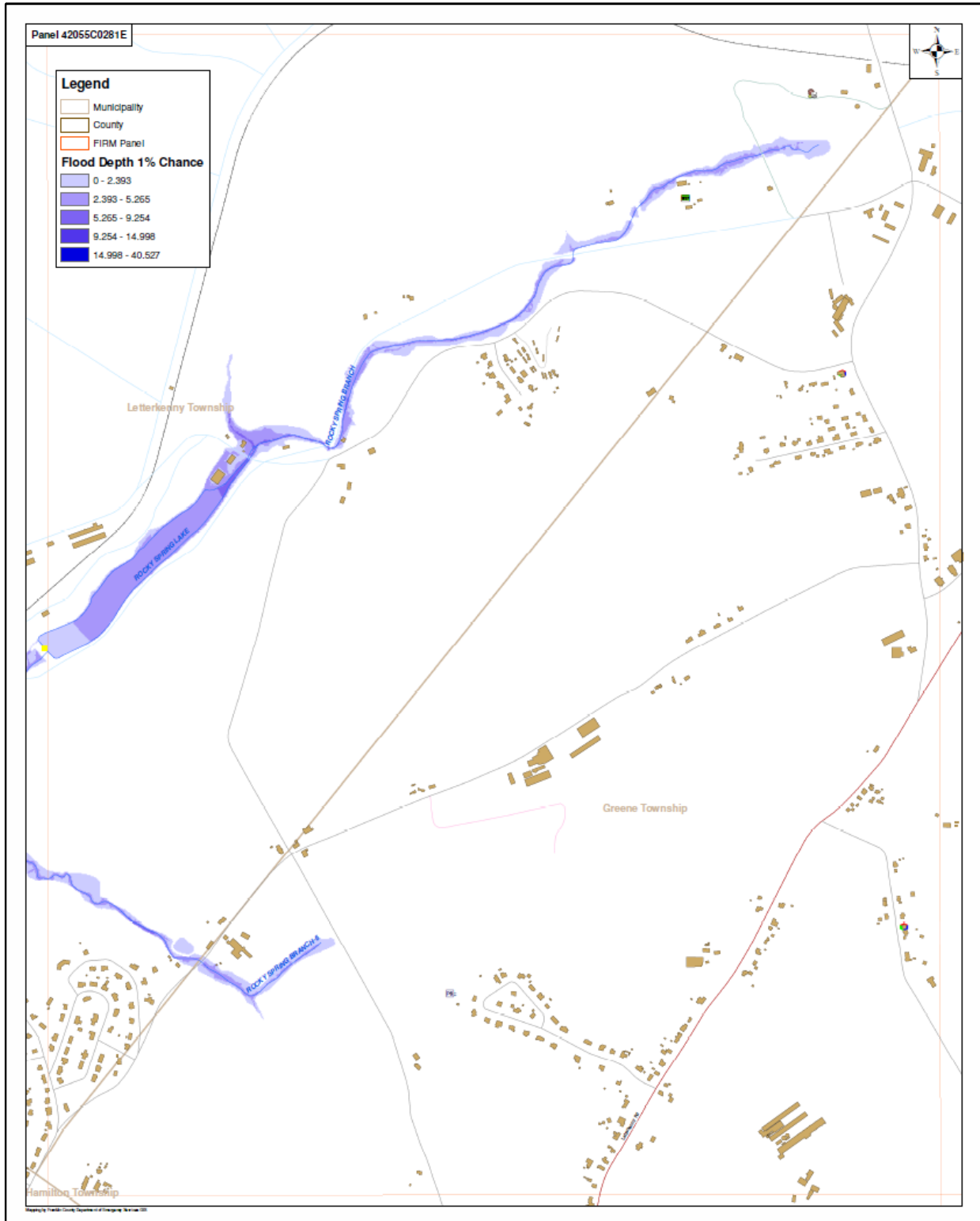


Figure G.68: Quadrant 4, Panel Number 42055C0281E

Appendix G: Franklin County DFIRM

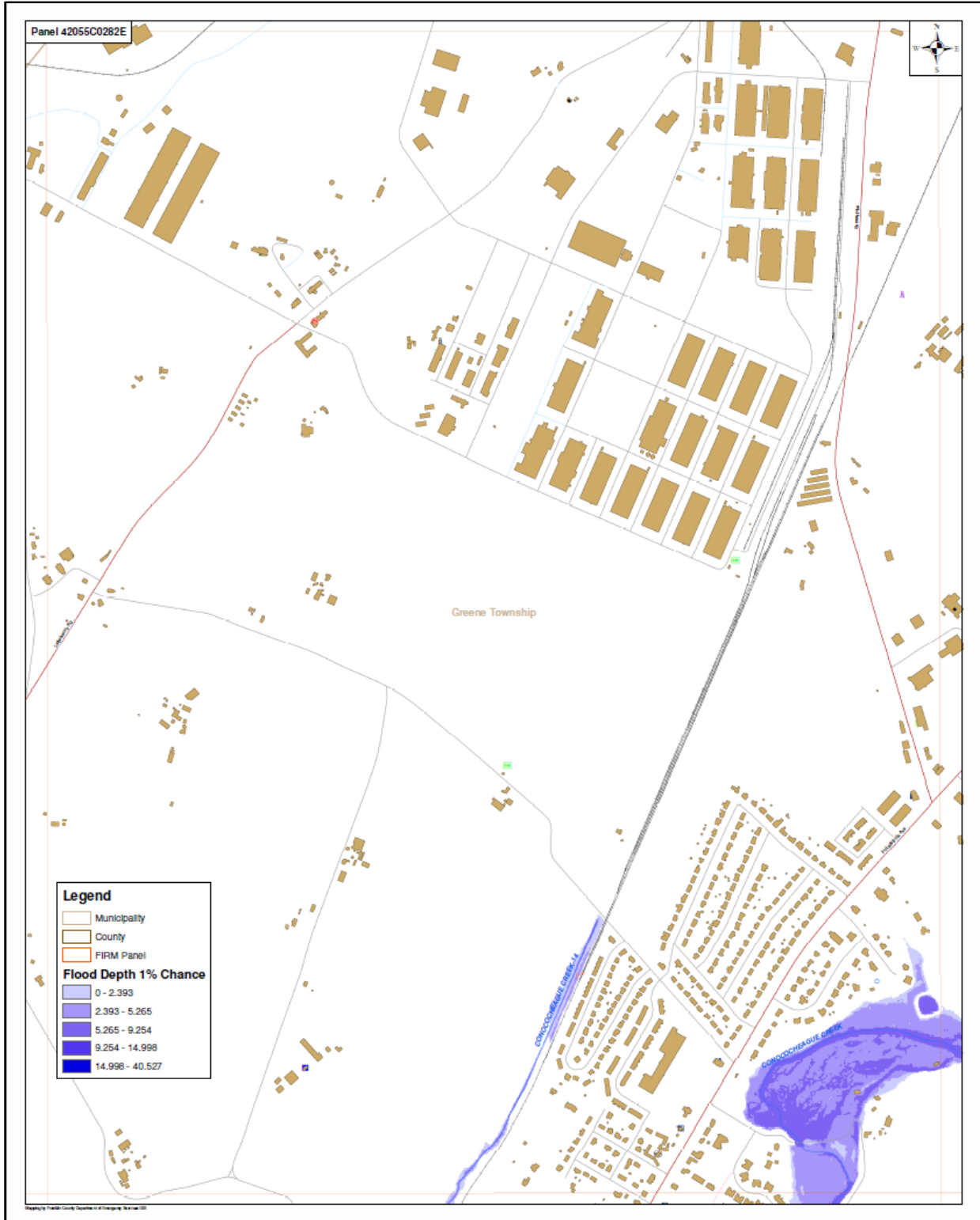


Figure G.69: Quadrant 4, Panel Number 42055C0282E

Appendix G: Franklin County DFIRM

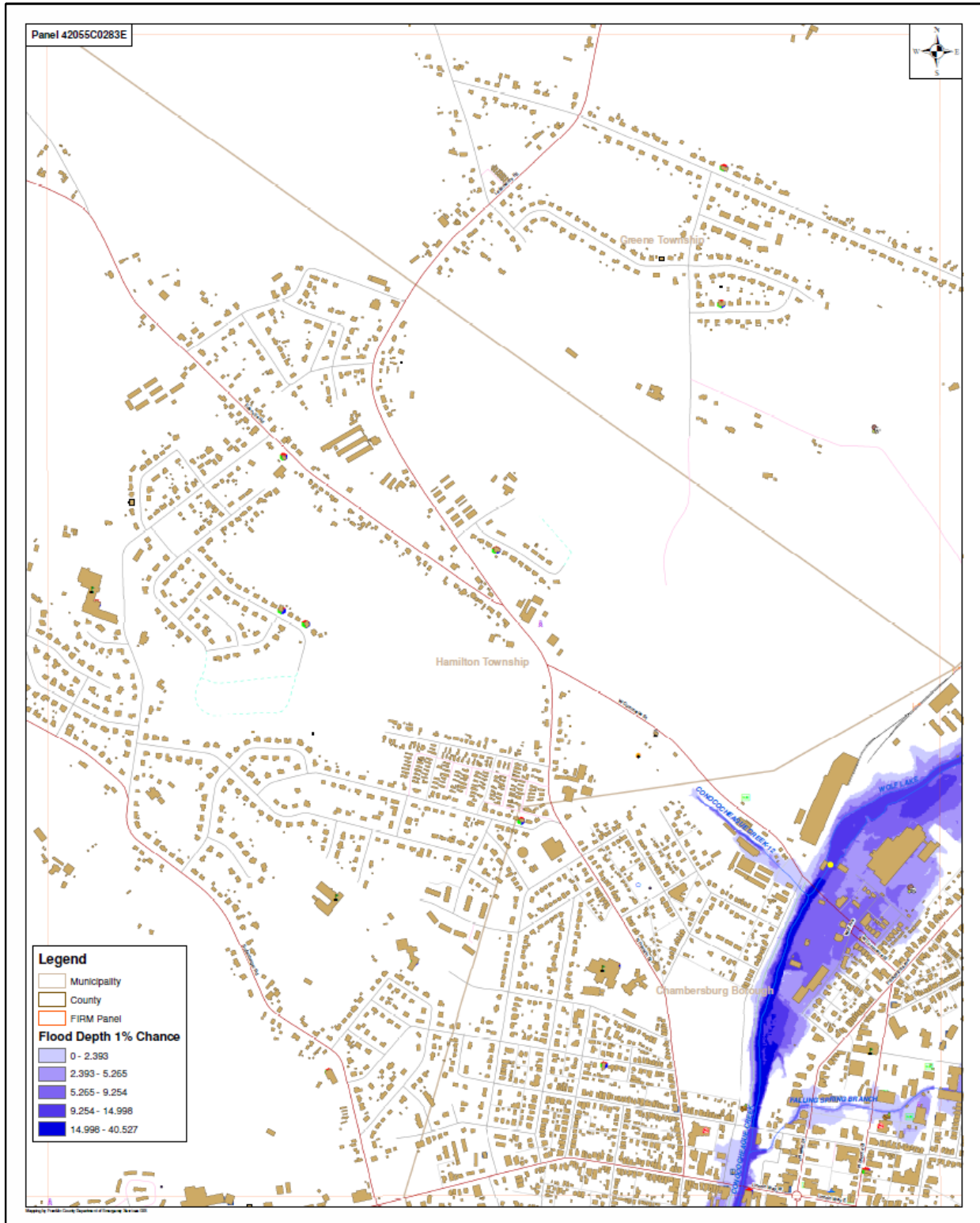


Figure G.70: Quadrant 4, Panel Number 42055C0283E

Appendix G: Franklin County DFIRM

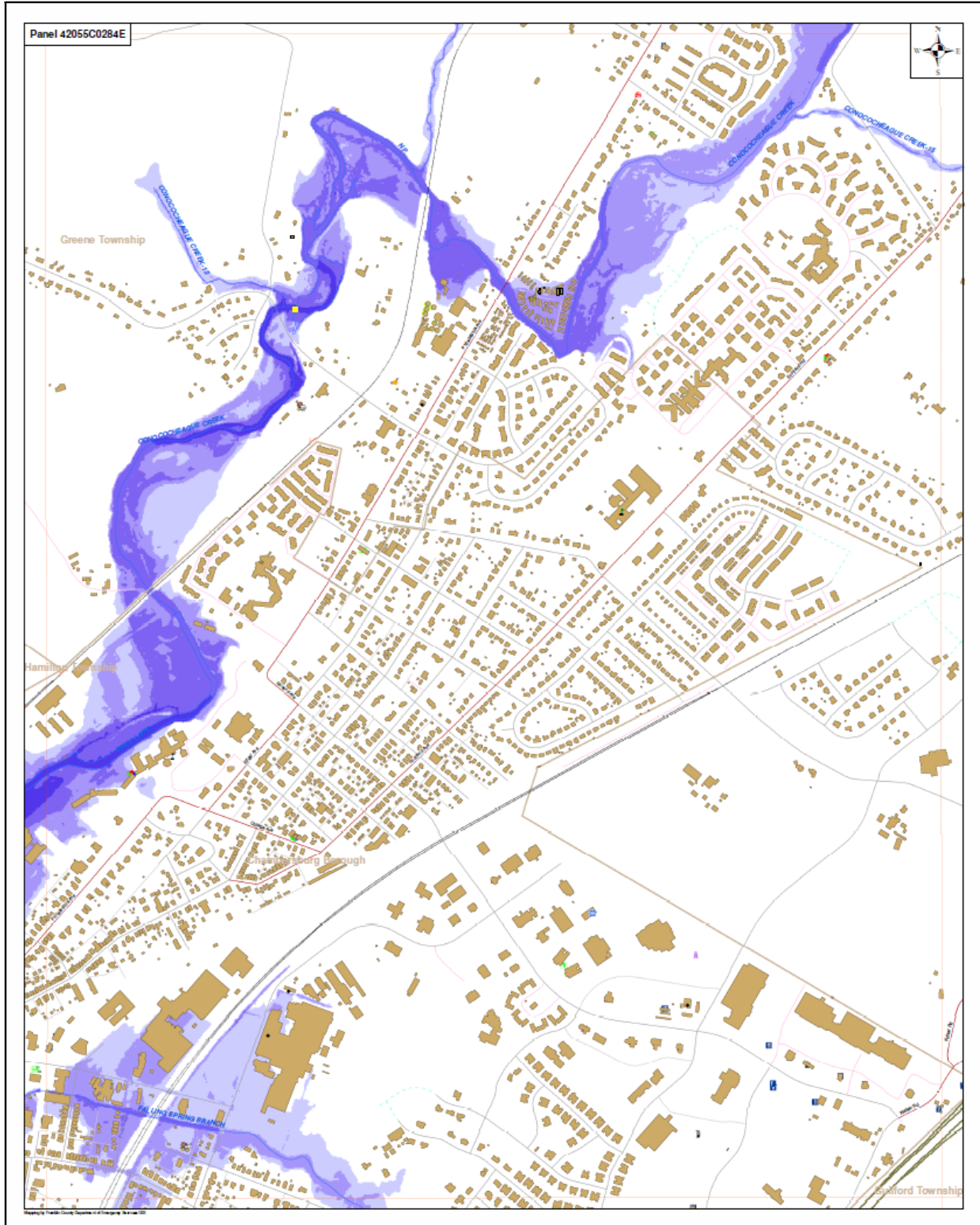


Figure G.71: Quadrant 4, Panel Number 42055C0284E

Appendix G: Franklin County DFIRM

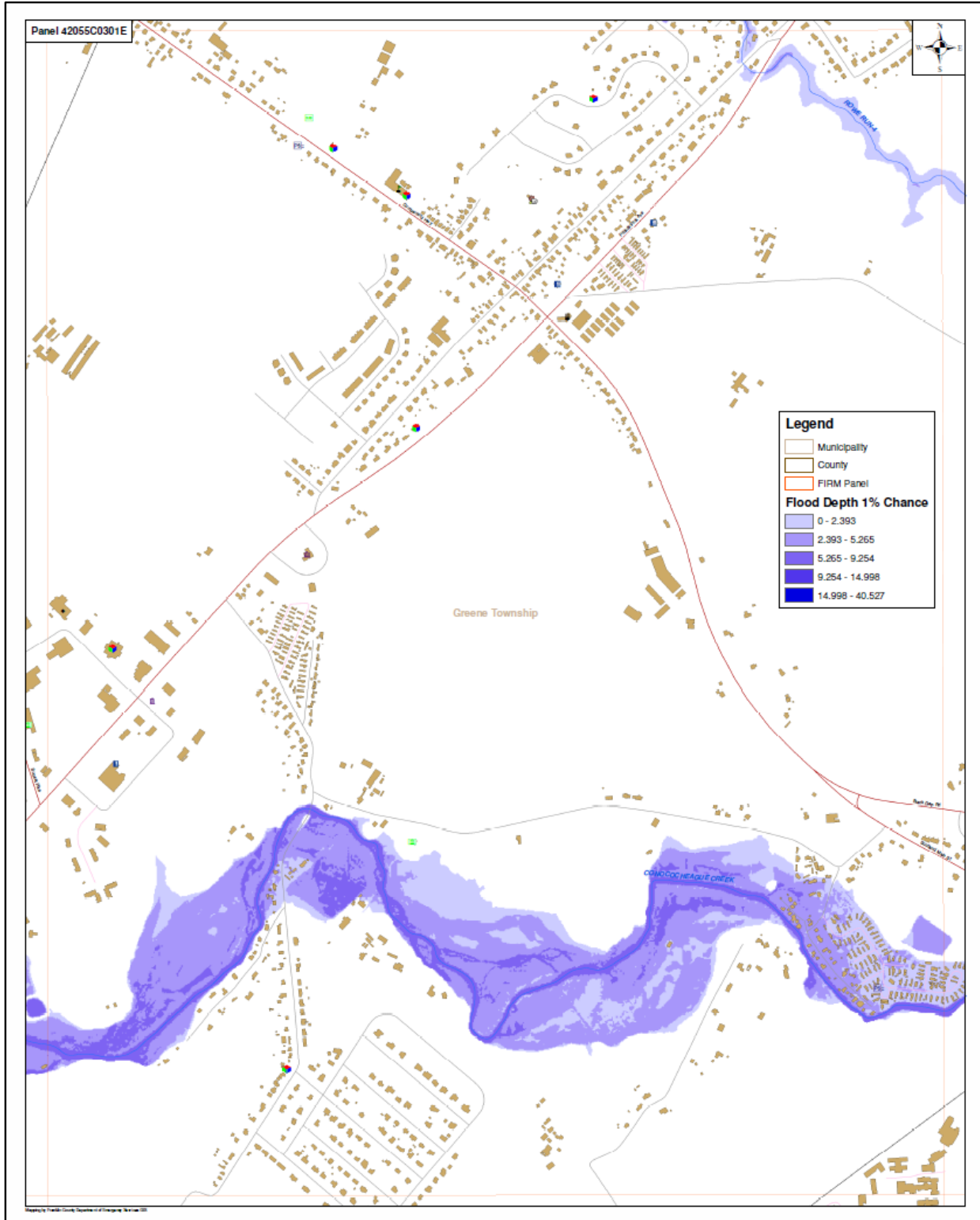


Figure G.72: Quadrant 4, Panel Number 42055C0301E

Appendix G: Franklin County DFIRM

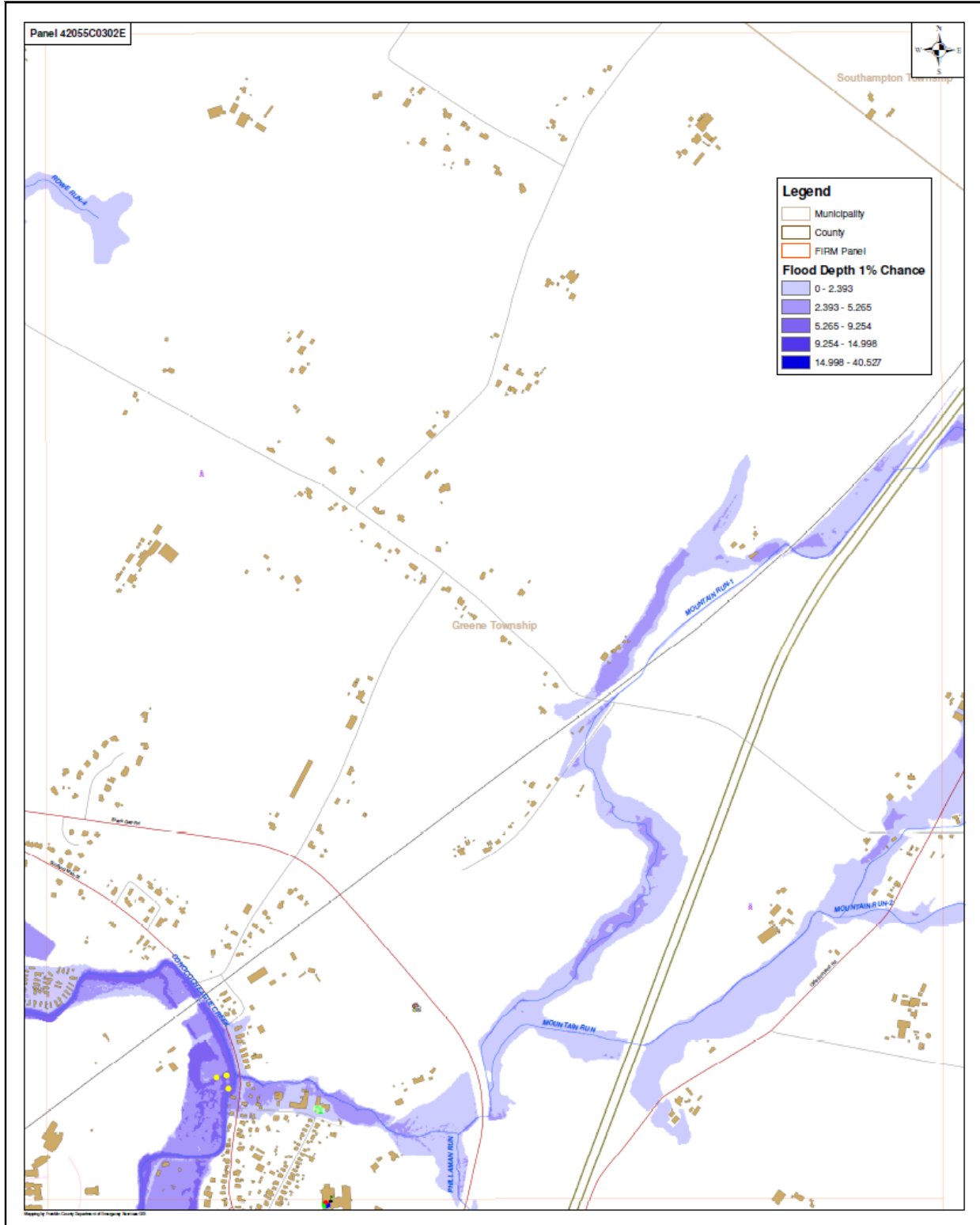


Figure G.73: Quadrant 4, Panel Number 42055C0302E

Appendix G: Franklin County DFIRM

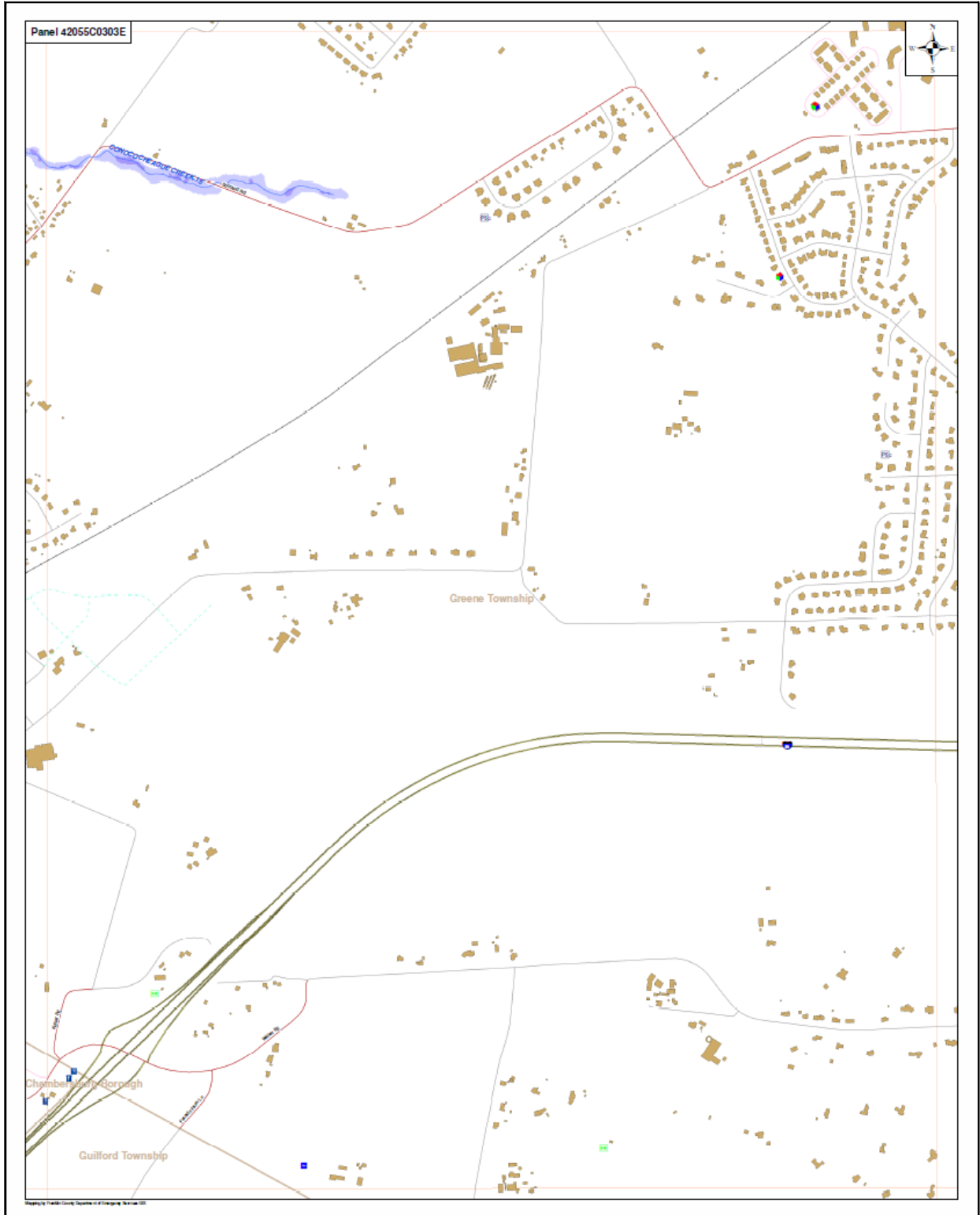


Figure G.74: Quadrant 4, Panel Number 42055C0303E

Appendix G: Franklin County DFIRM

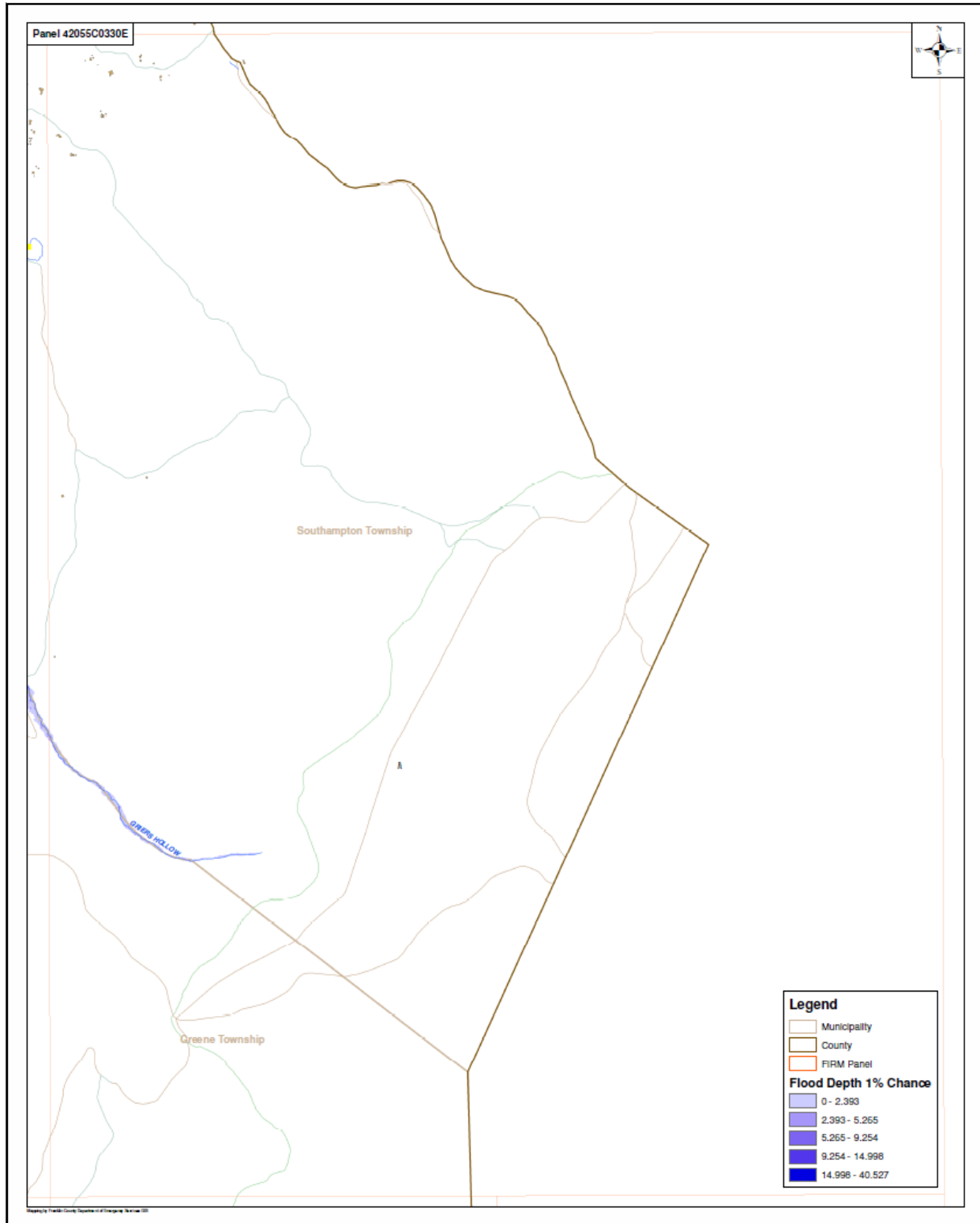


Figure G.77: Quadrant 4, Panel Number 42055C0330E

Appendix G: Franklin County DFIRM

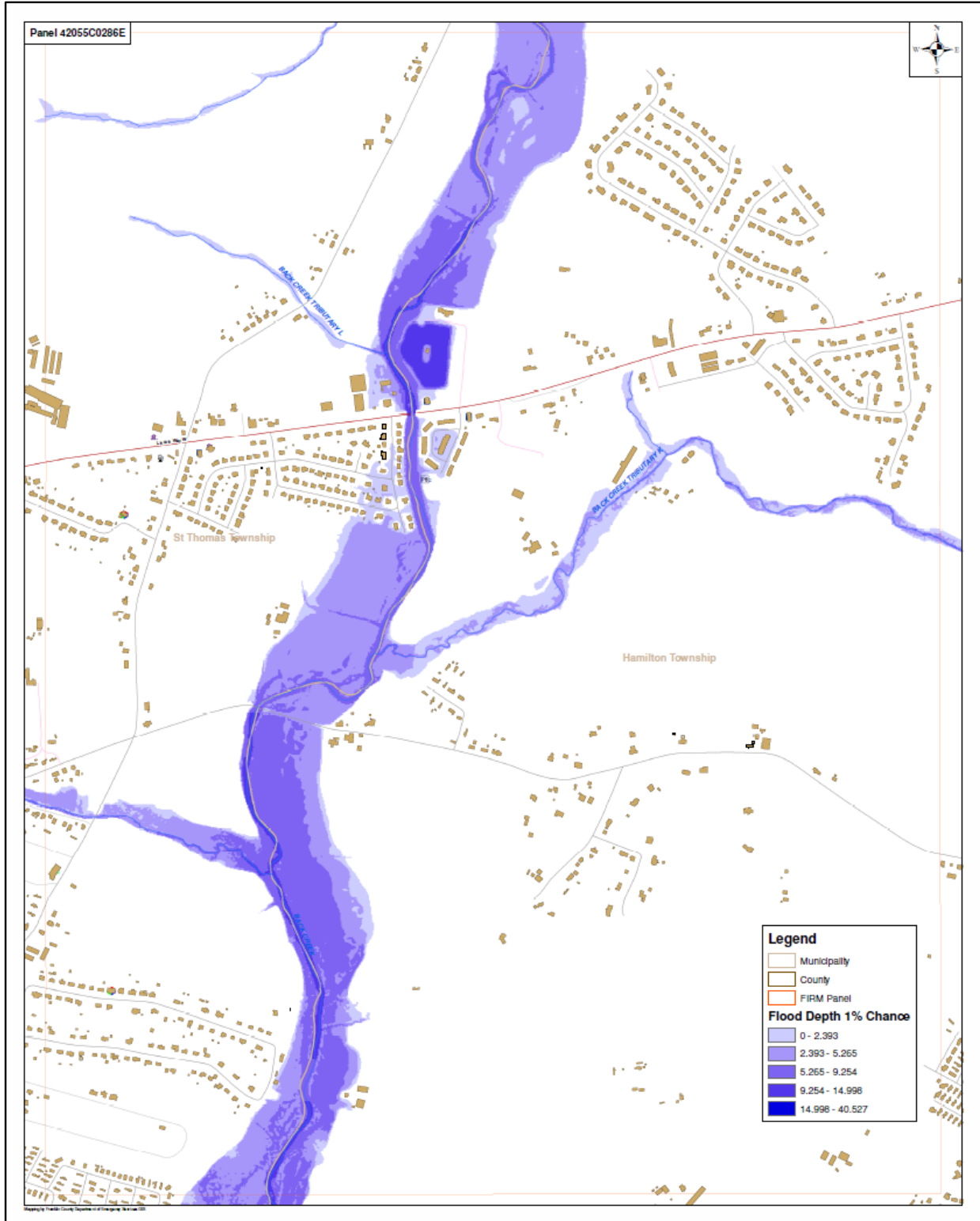


Figure G.78: Quadrant 4, Panel Number 42055C0286E

Appendix G: Franklin County DFIRM

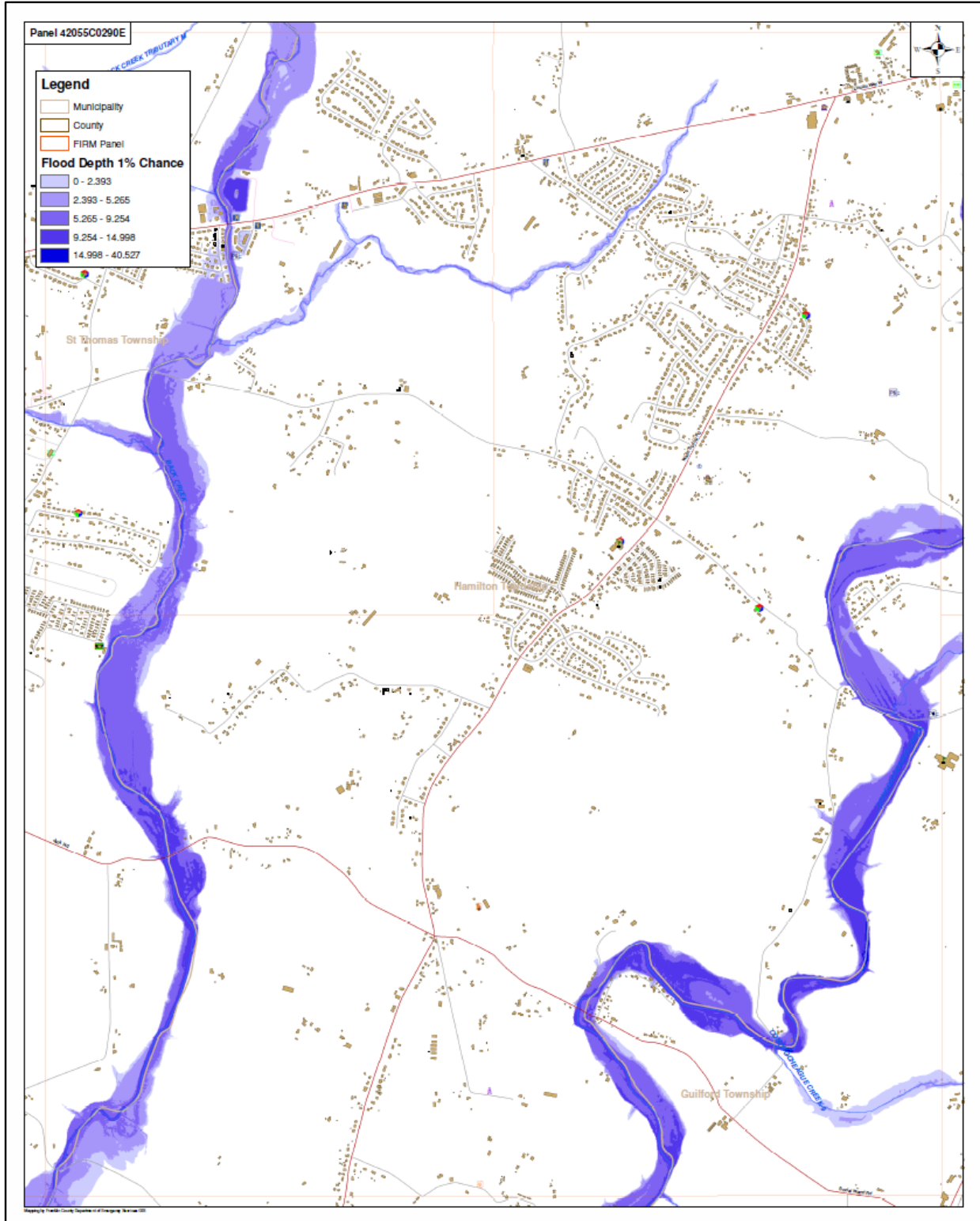


Figure G.79: Quadrant 4, Panel Number 42055C0290E

Appendix G: Franklin County DFIRM

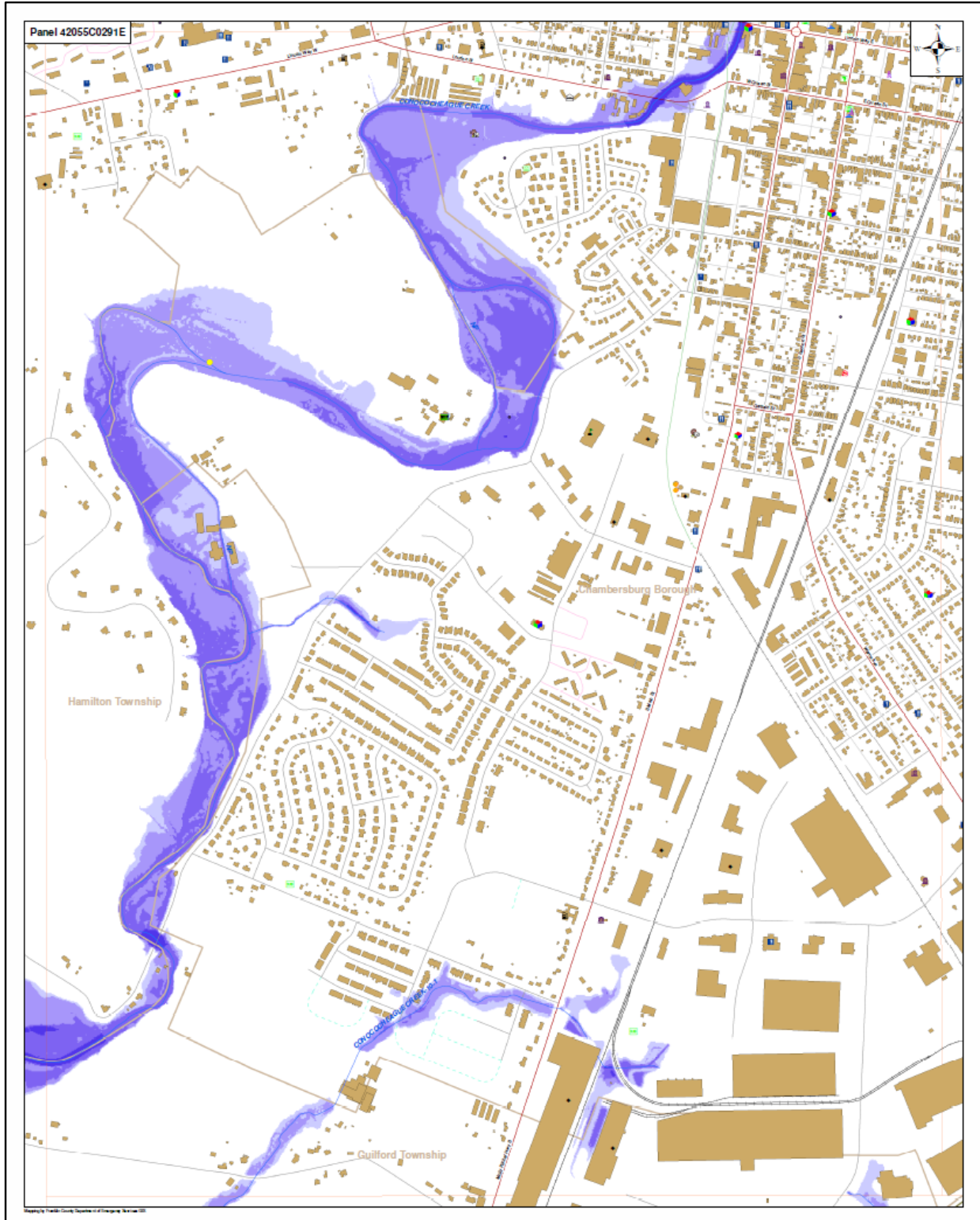


Figure G.80: Quadrant 4, Panel Number 42055C0291E

Appendix G: Franklin County DFIRM

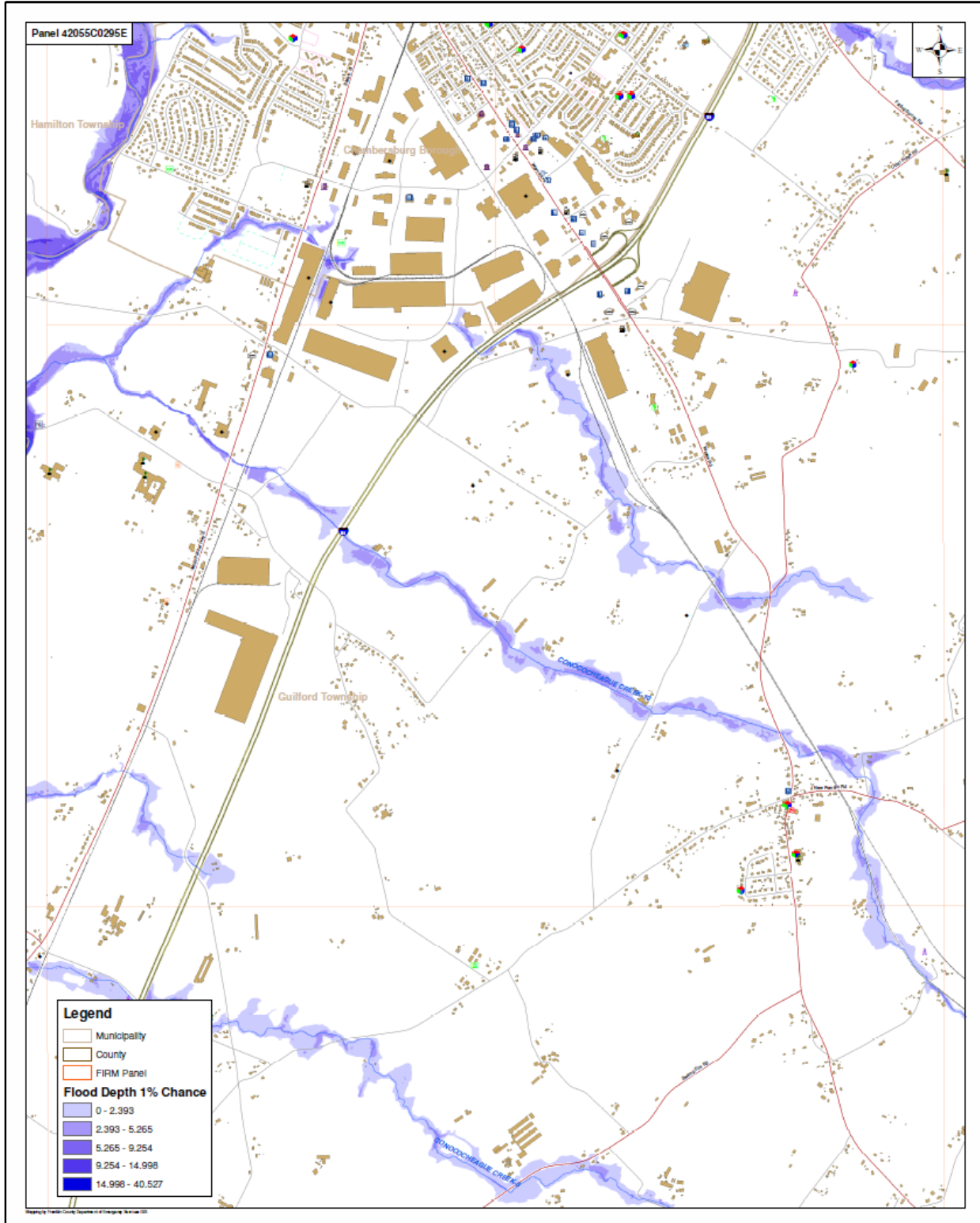


Figure G.82: Quadrant 4, Panel Number 42055C0295E

Appendix G: Franklin County DFIRM

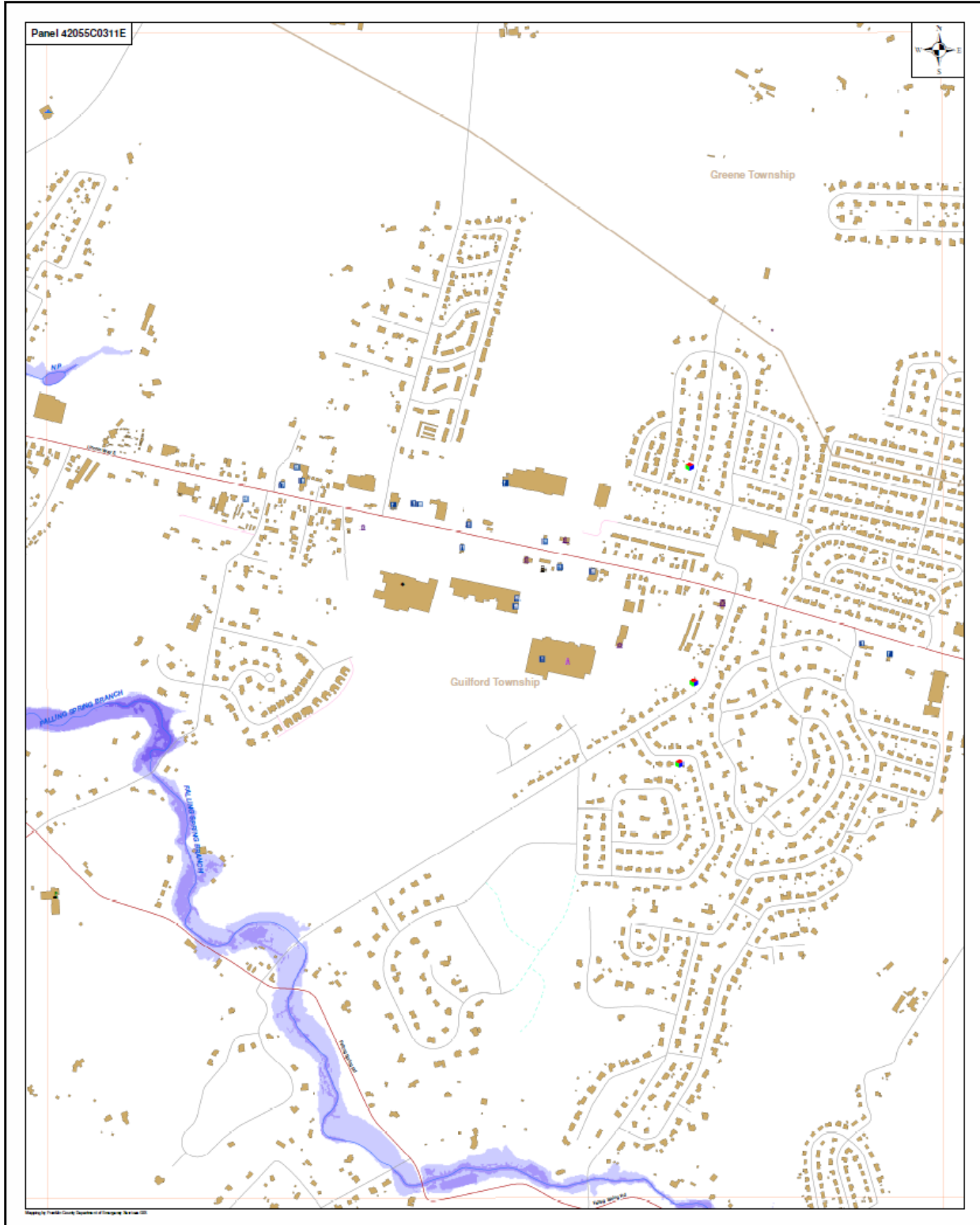


Figure G.83: Quadrant 4, Panel Number 42055C0311E

Appendix G: Franklin County DFIRM

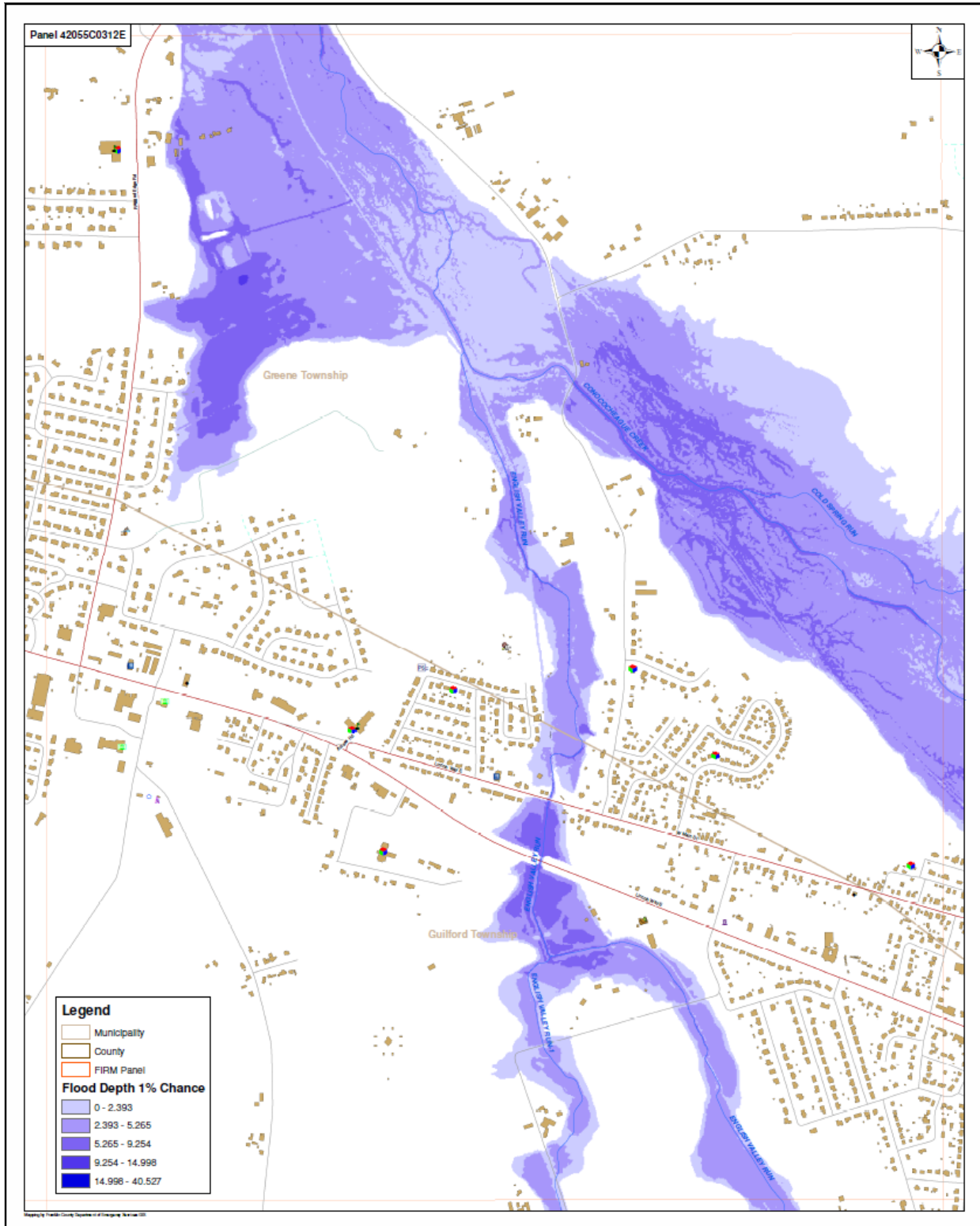


Figure G.84: Quadrant 4, Panel Number 42055C0312E

Appendix G: Franklin County DFIRM

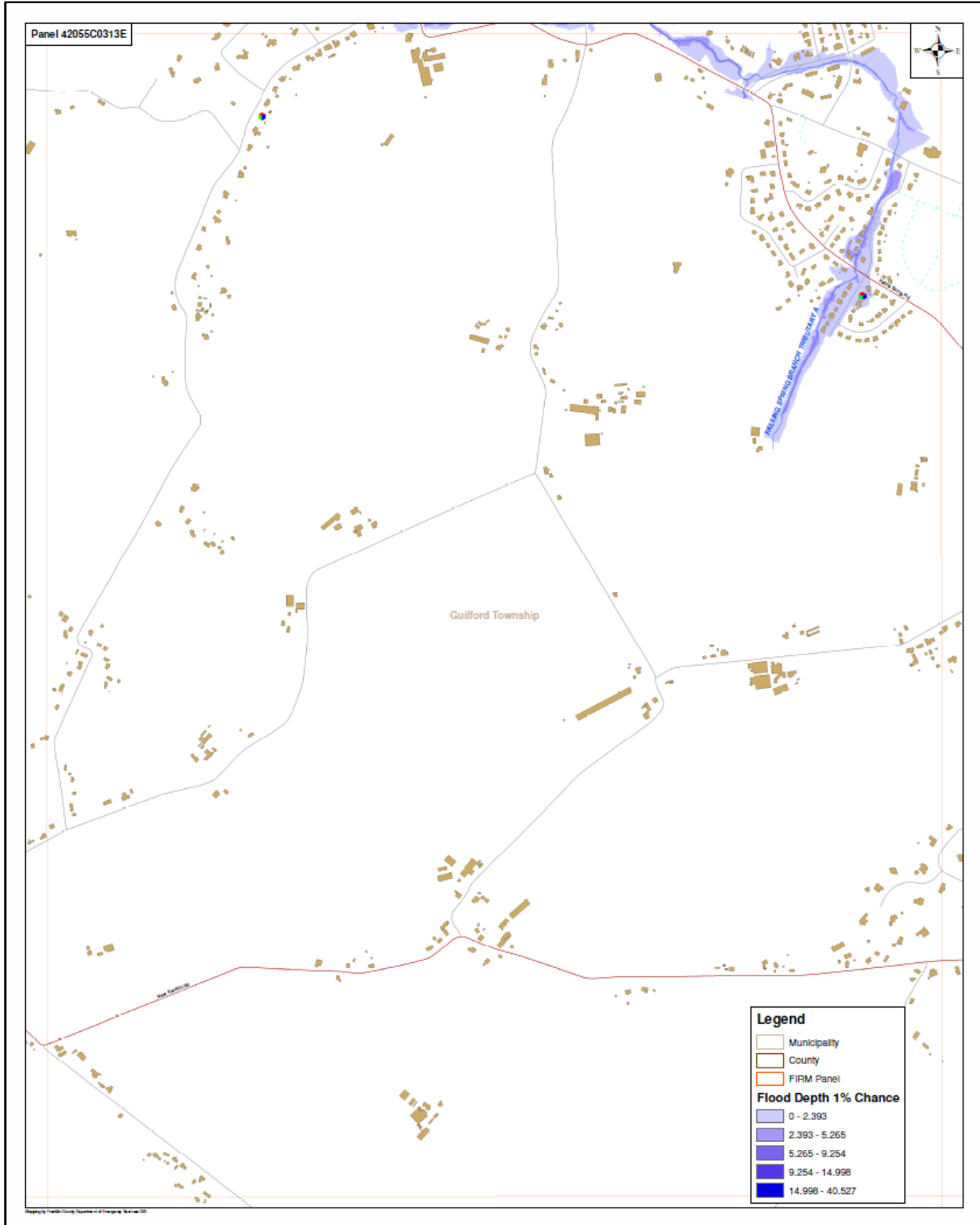


Figure G.85: Quadrant 4, Panel Number 42055C0313E

Appendix G: Franklin County DFIRM

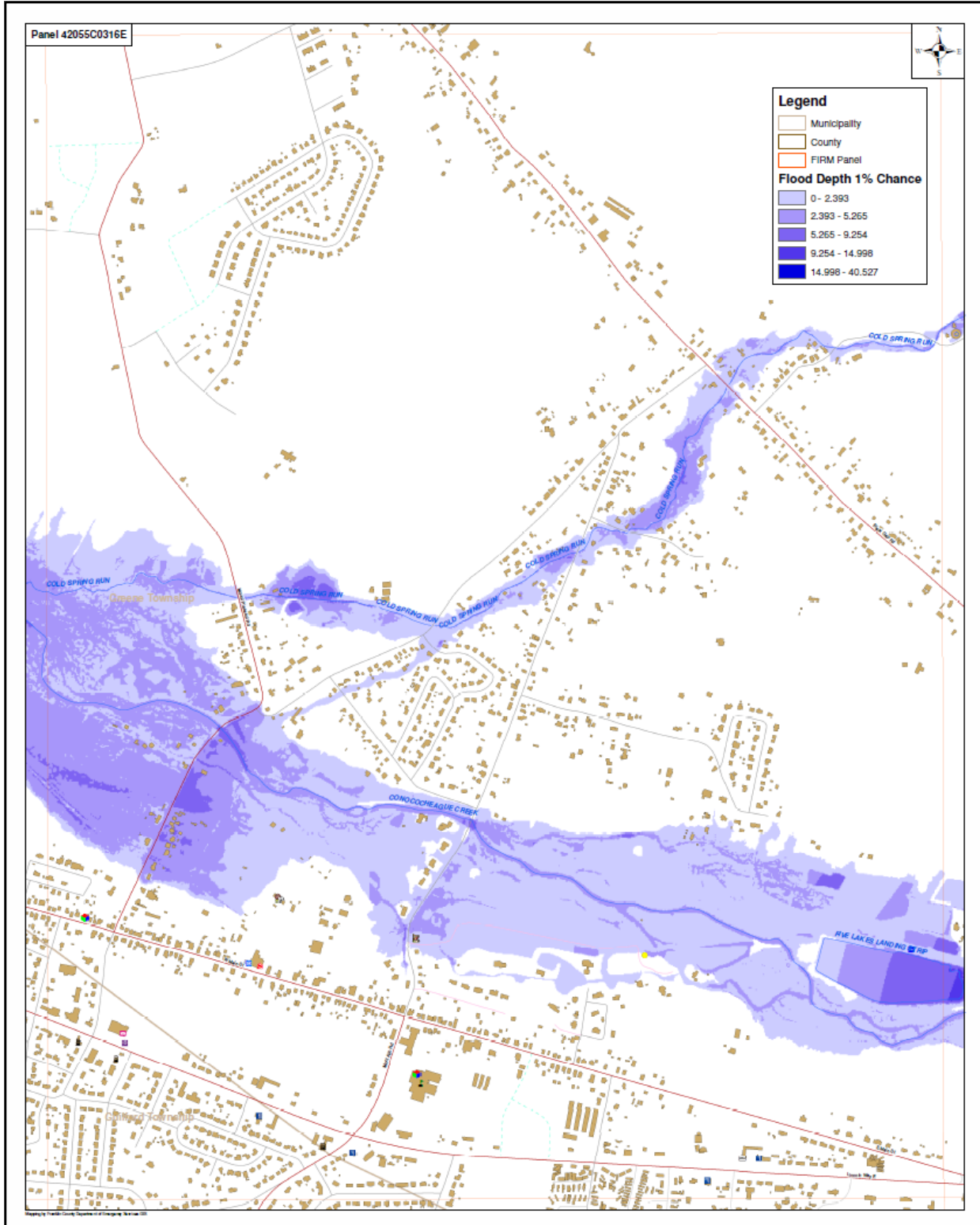


Figure G.87: Quadrant 4, Panel Number 42055C0316E

Appendix G: Franklin County DFIRM

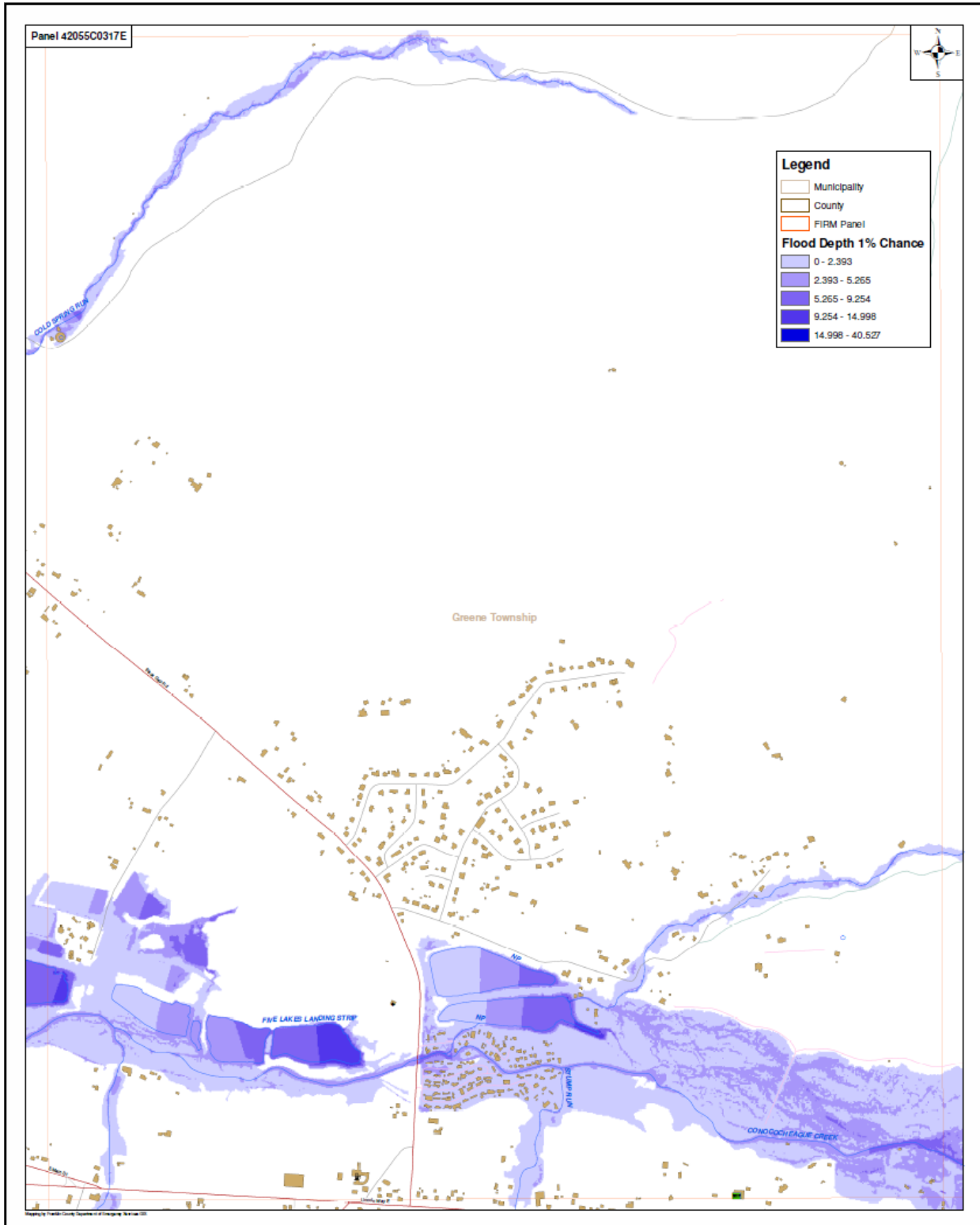


Figure G.88: Quadrant 4, Panel Number 42055C0317E

Appendix G: Franklin County DFIRM

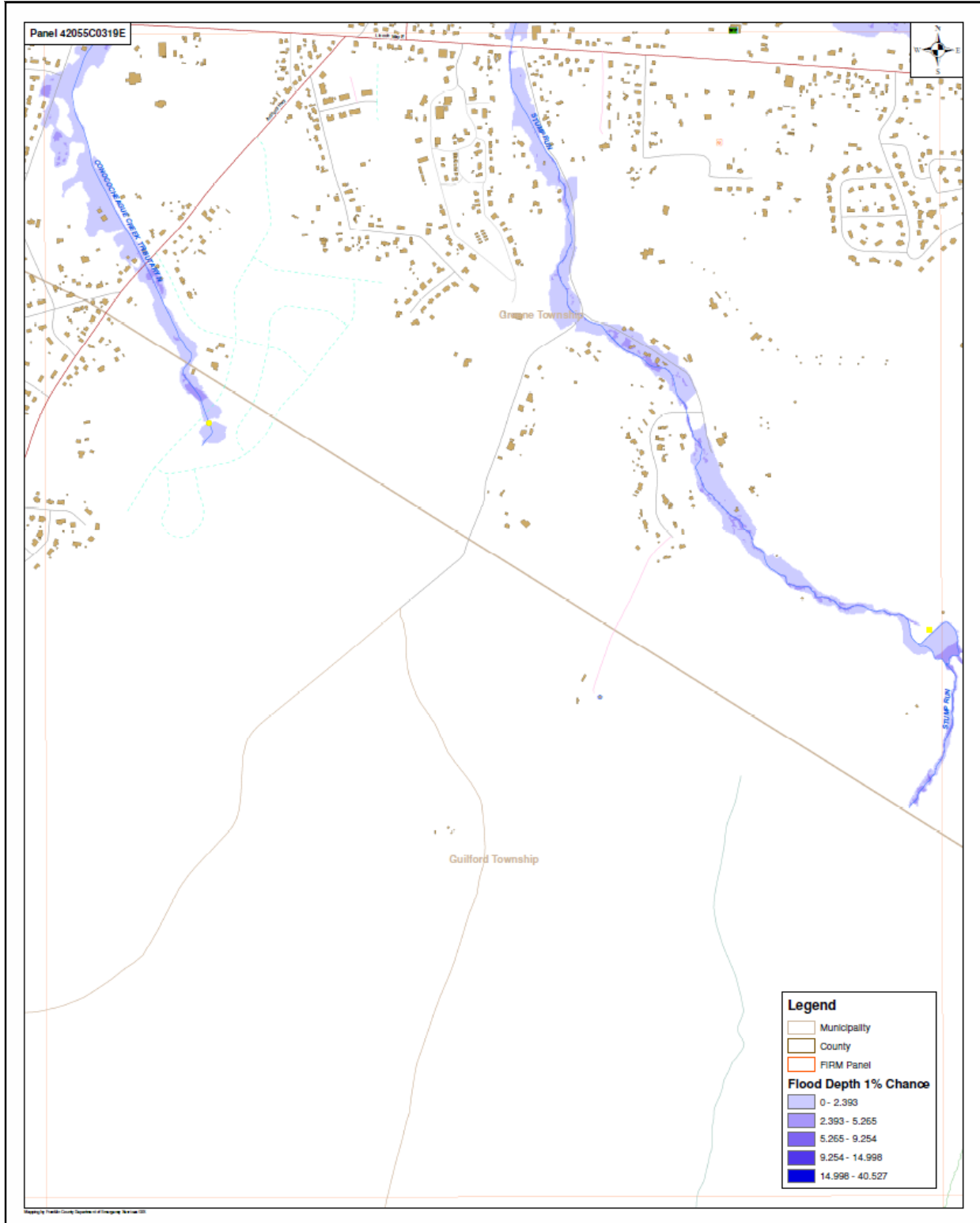


Figure G.90: Quadrant 4, Panel Number 42055C0319E

Appendix G: Franklin County DFIRM

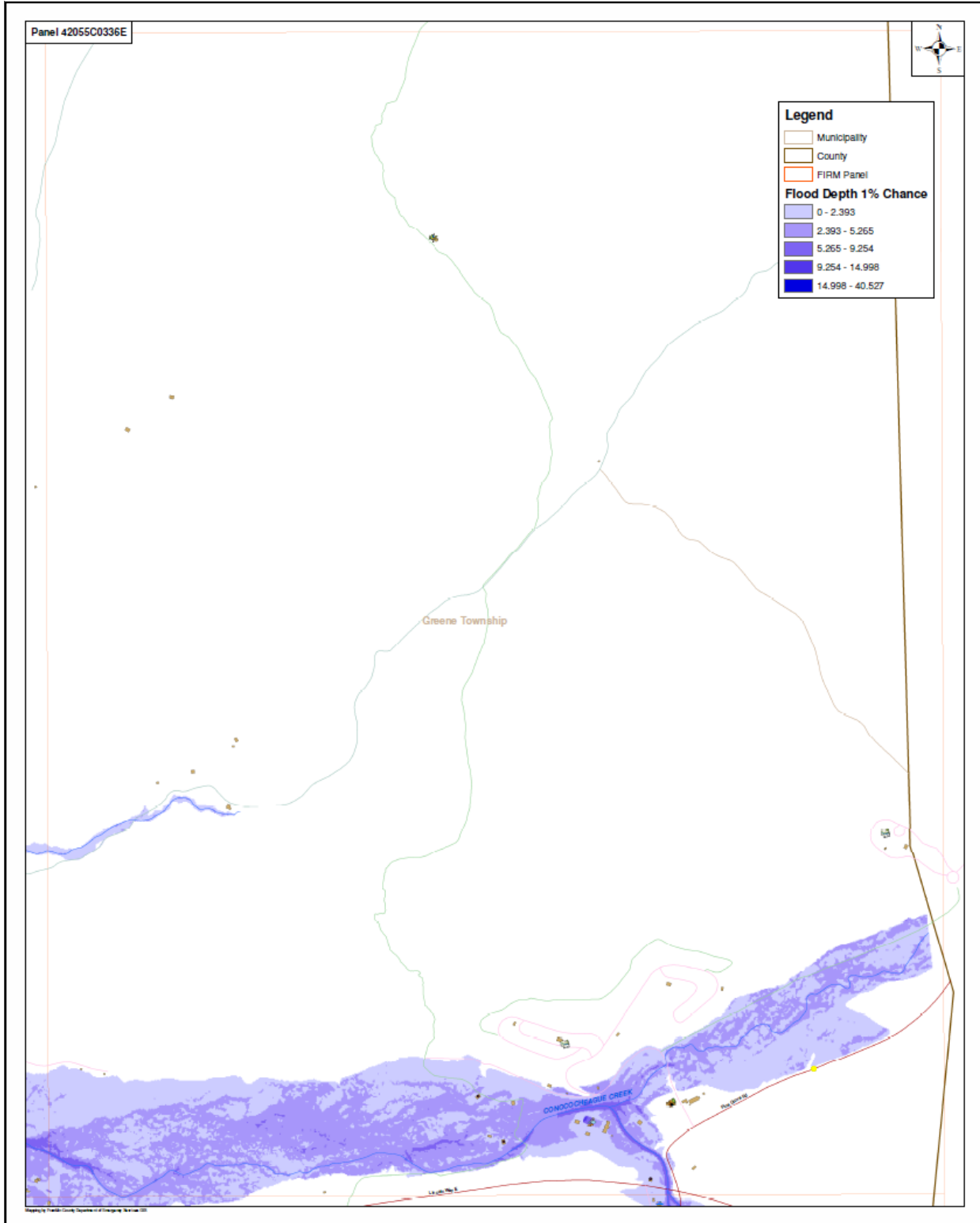


Figure G.91: Quadrant 4, Panel Number 42055C0336E

Appendix G: Franklin County DFIRM

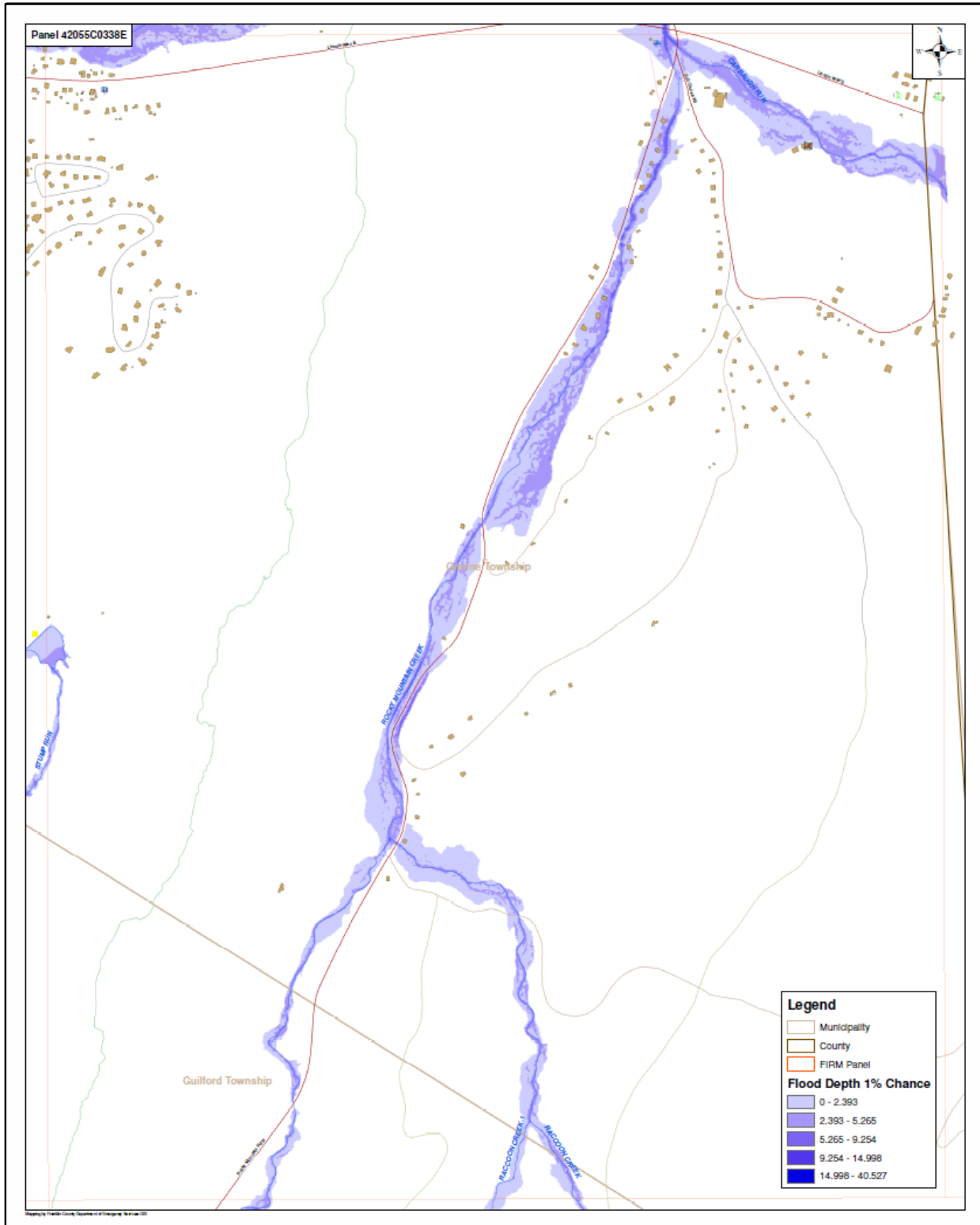


Figure G.92: Quadrant 4, Panel Number 42055C0338E

Appendix G: Franklin County DFIRM

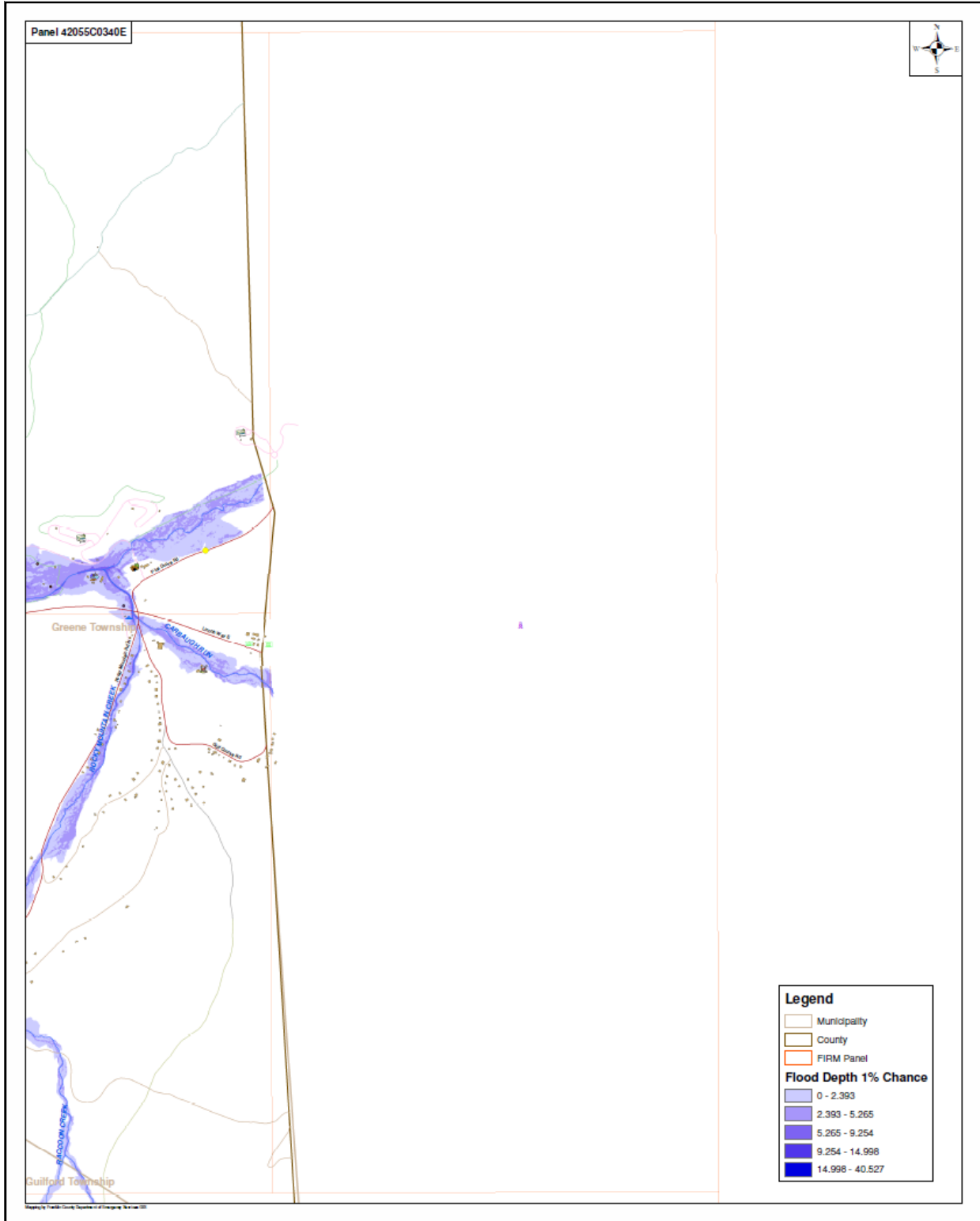


Figure G.93: Quadrant 4, Panel Number 42055C0340E

Appendix G: Franklin County DFIRM

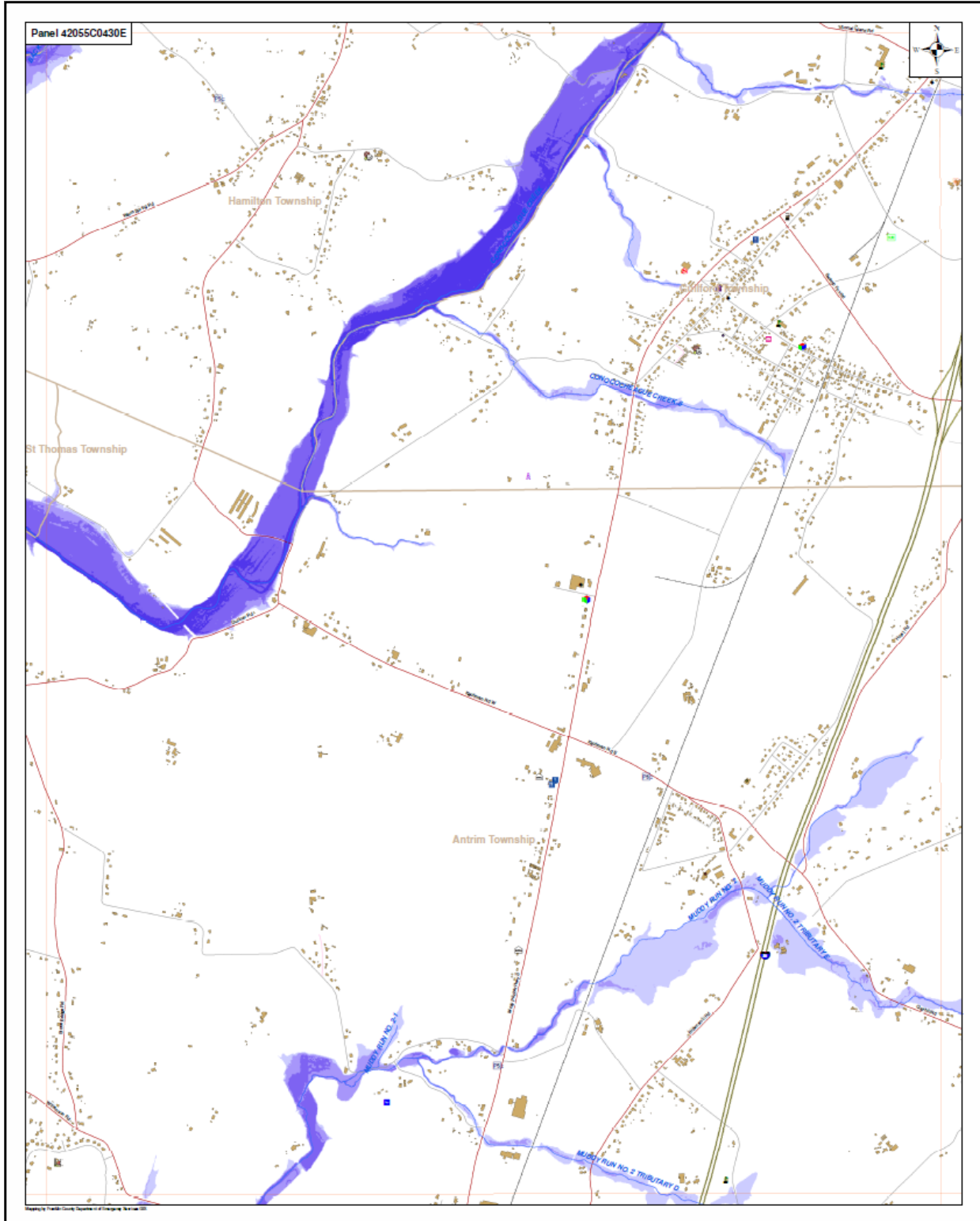


Figure G.94: Quadrant 4, Panel Number 42055C0430E

Appendix G: Franklin County DFIRM

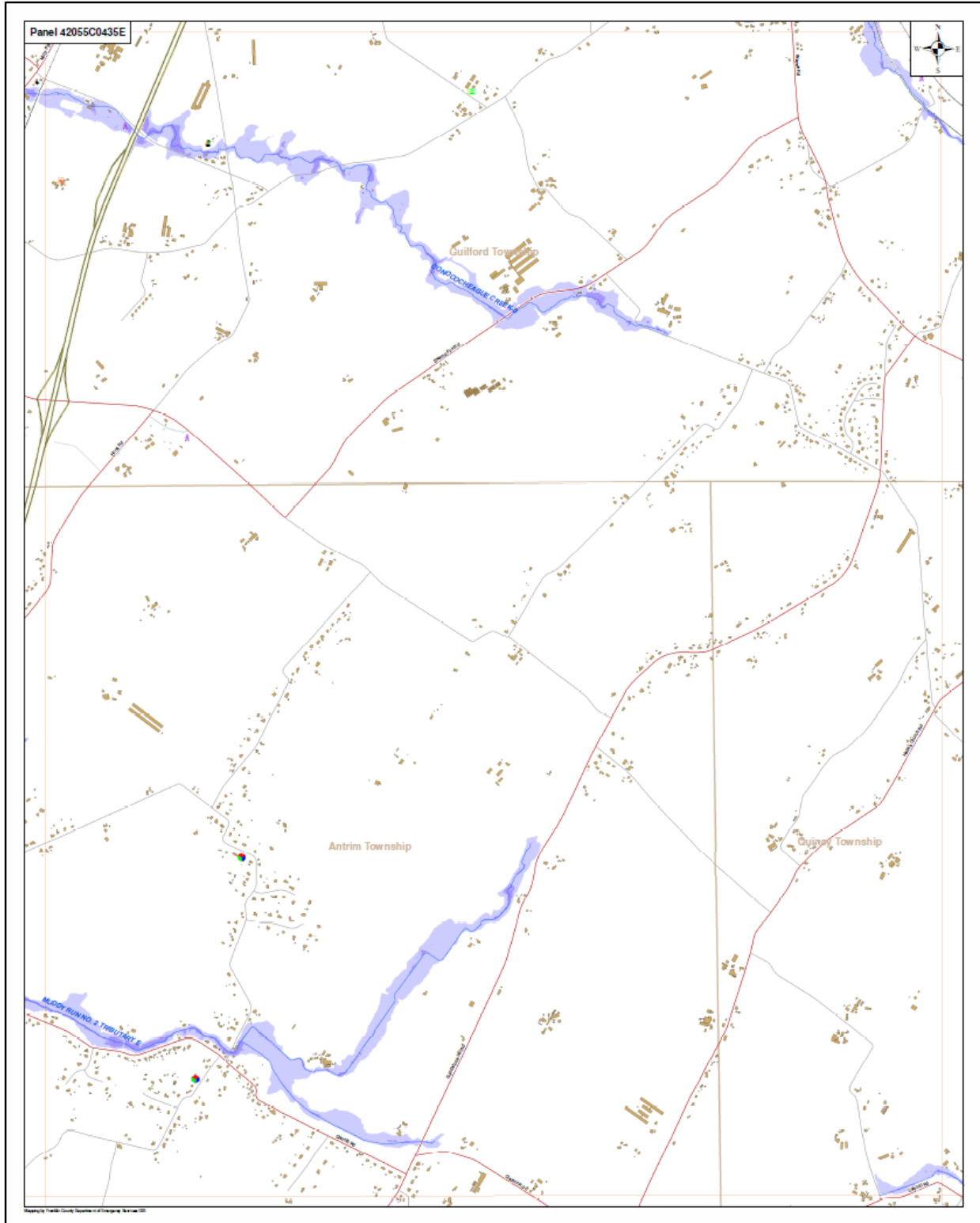


Figure G.95: Quadrant 4, Panel Number 42055C0435E

Appendix G: Franklin County DFIRM

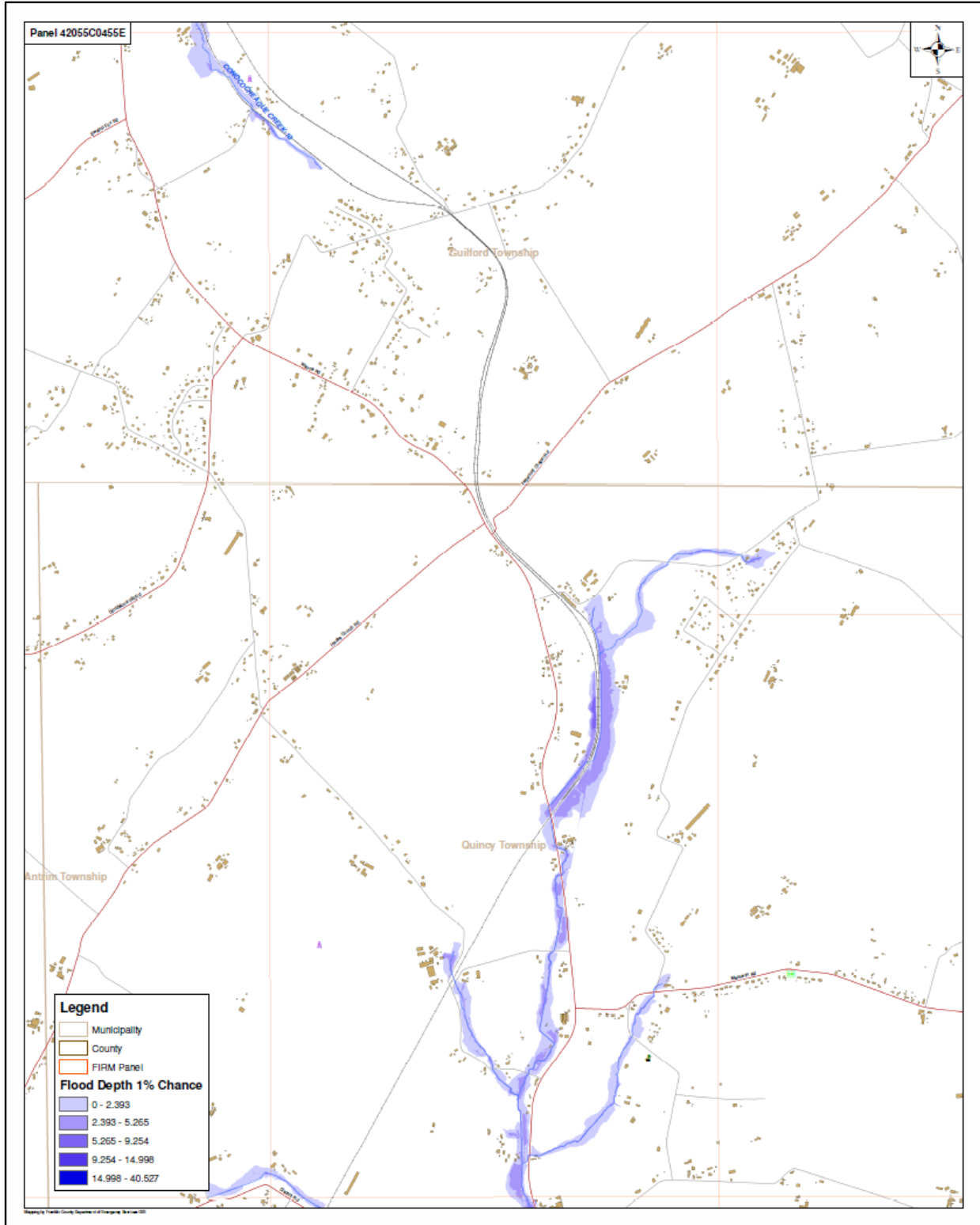


Figure G.96: Quadrant 4, Panel Number 42055C0455E

Appendix G: Franklin County DFIRM

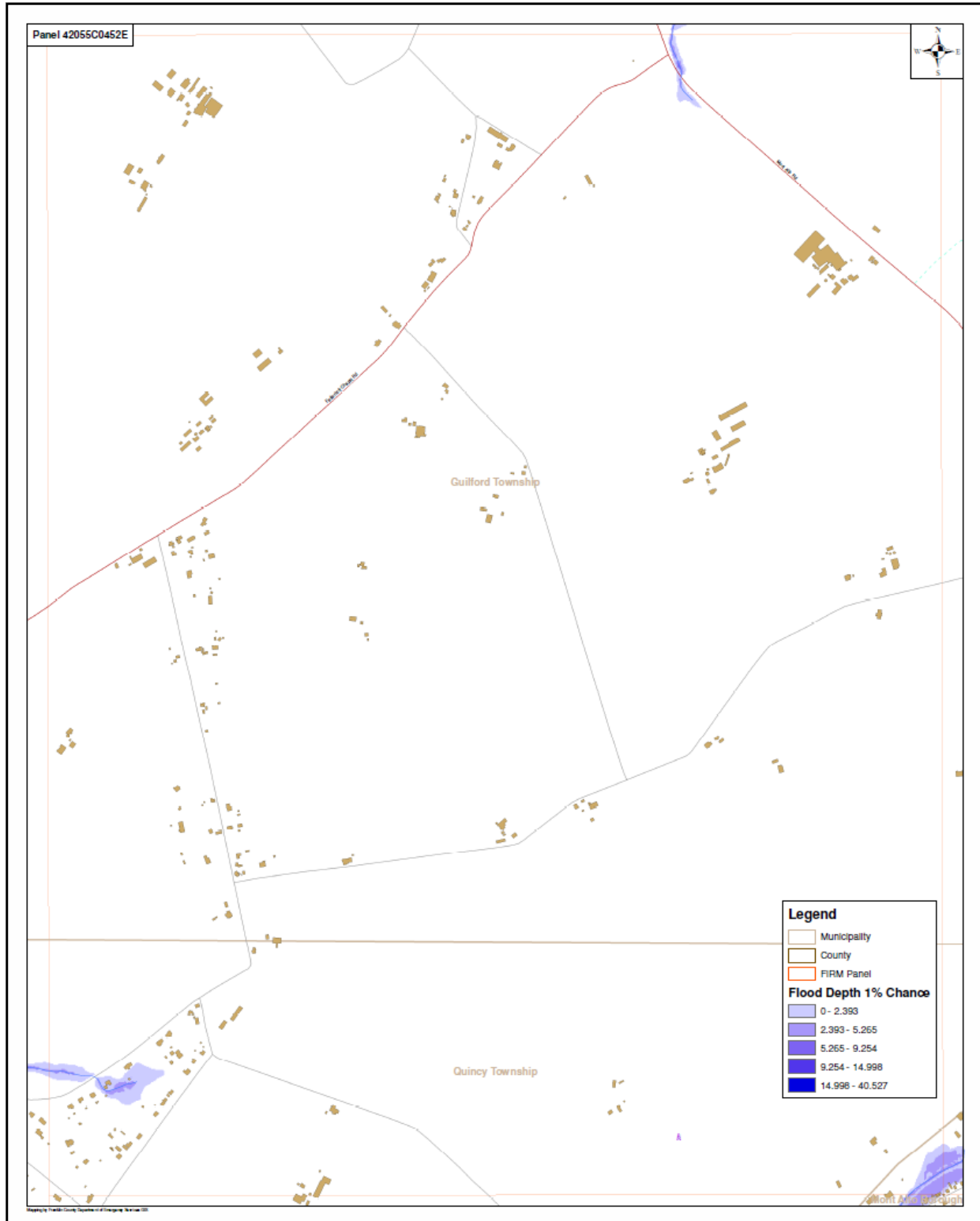


Figure G.97: Quadrant 4, Panel Number 42055C0452E

Appendix G: Franklin County DFIRM

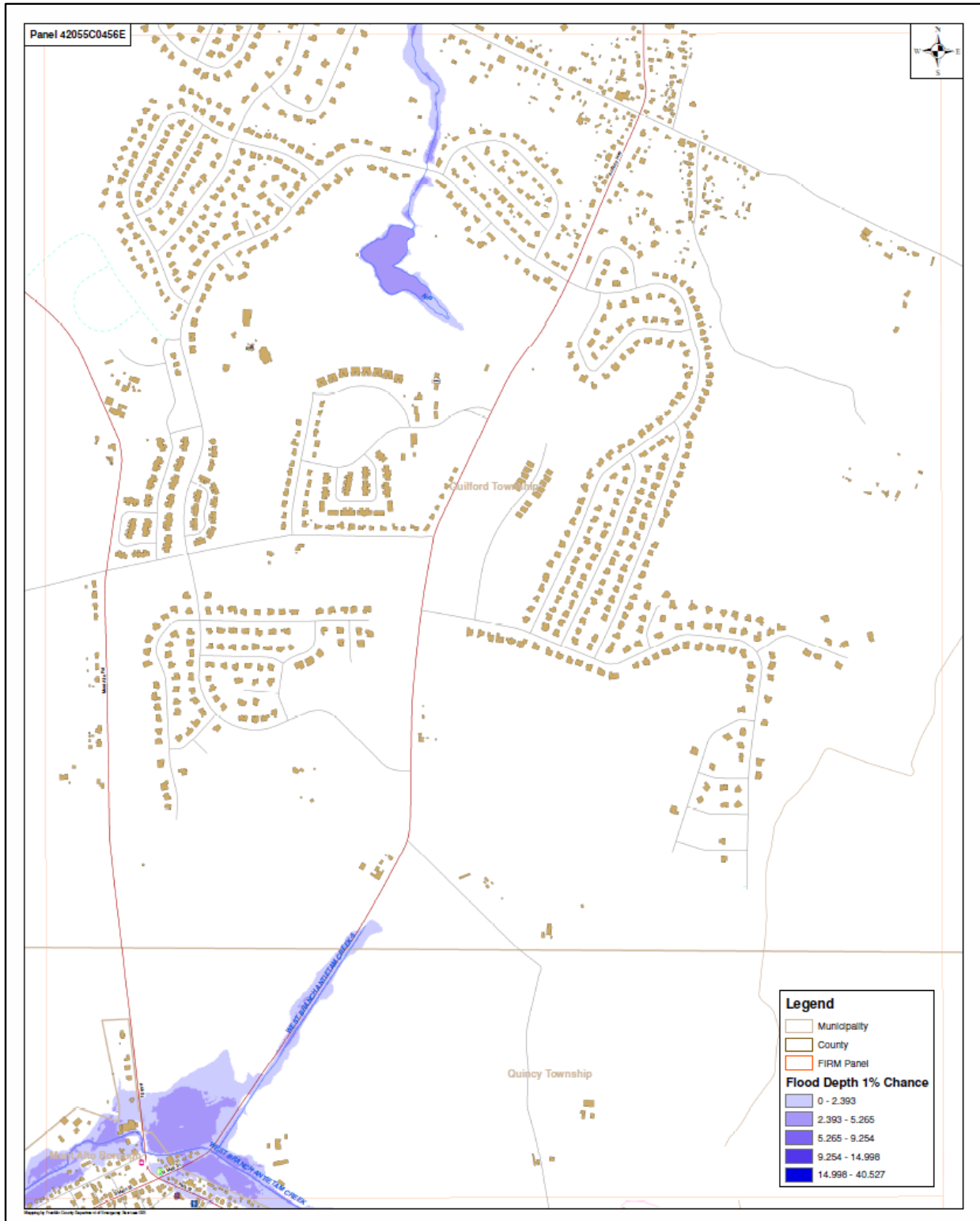


Figure G.99: Quadrant 4, Panel Number 42055C0456E

Appendix G: Franklin County DFIRM

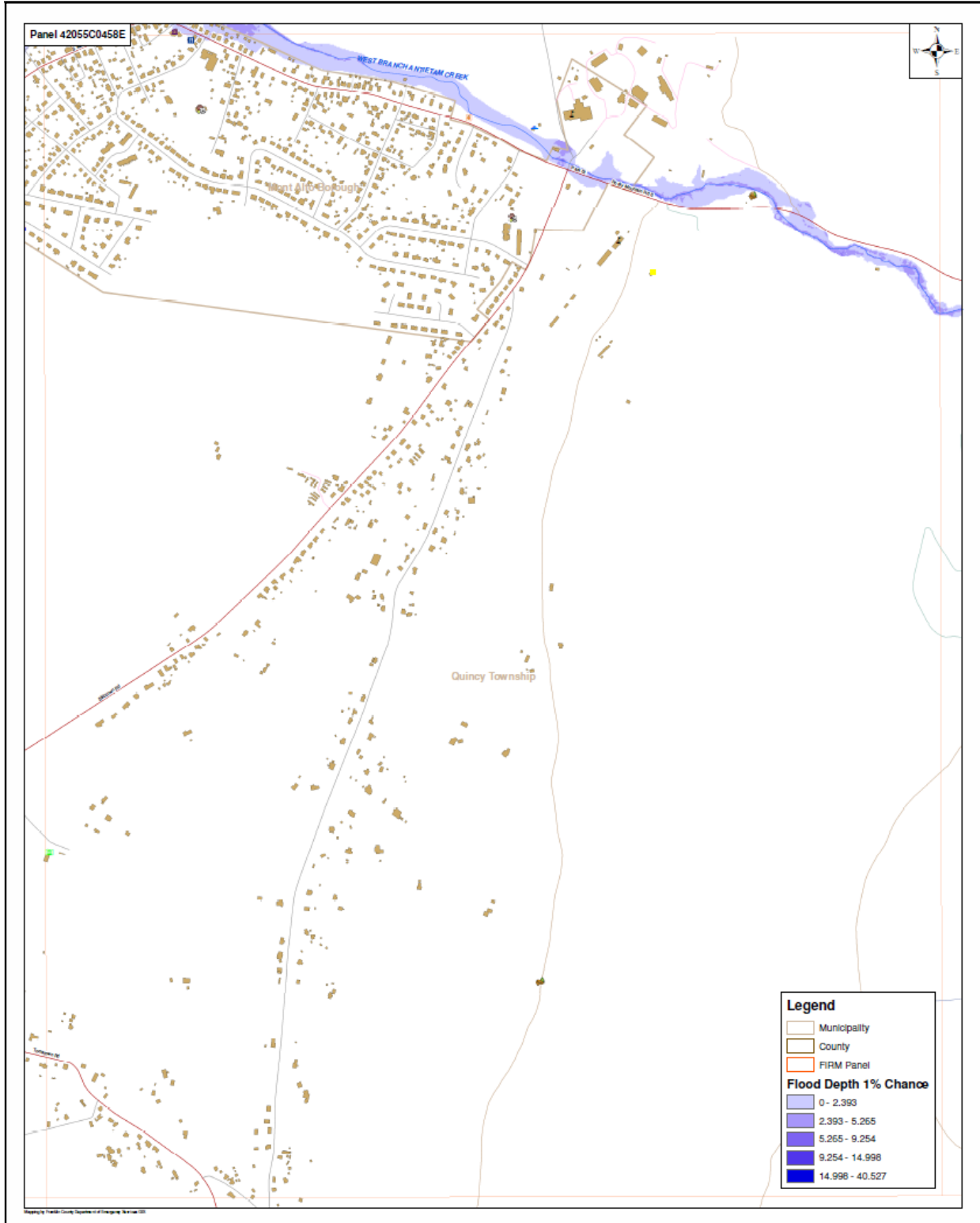


Figure G.100: Quadrant 4, Panel Number 42055C0458E

Appendix G: Franklin County DFIRM

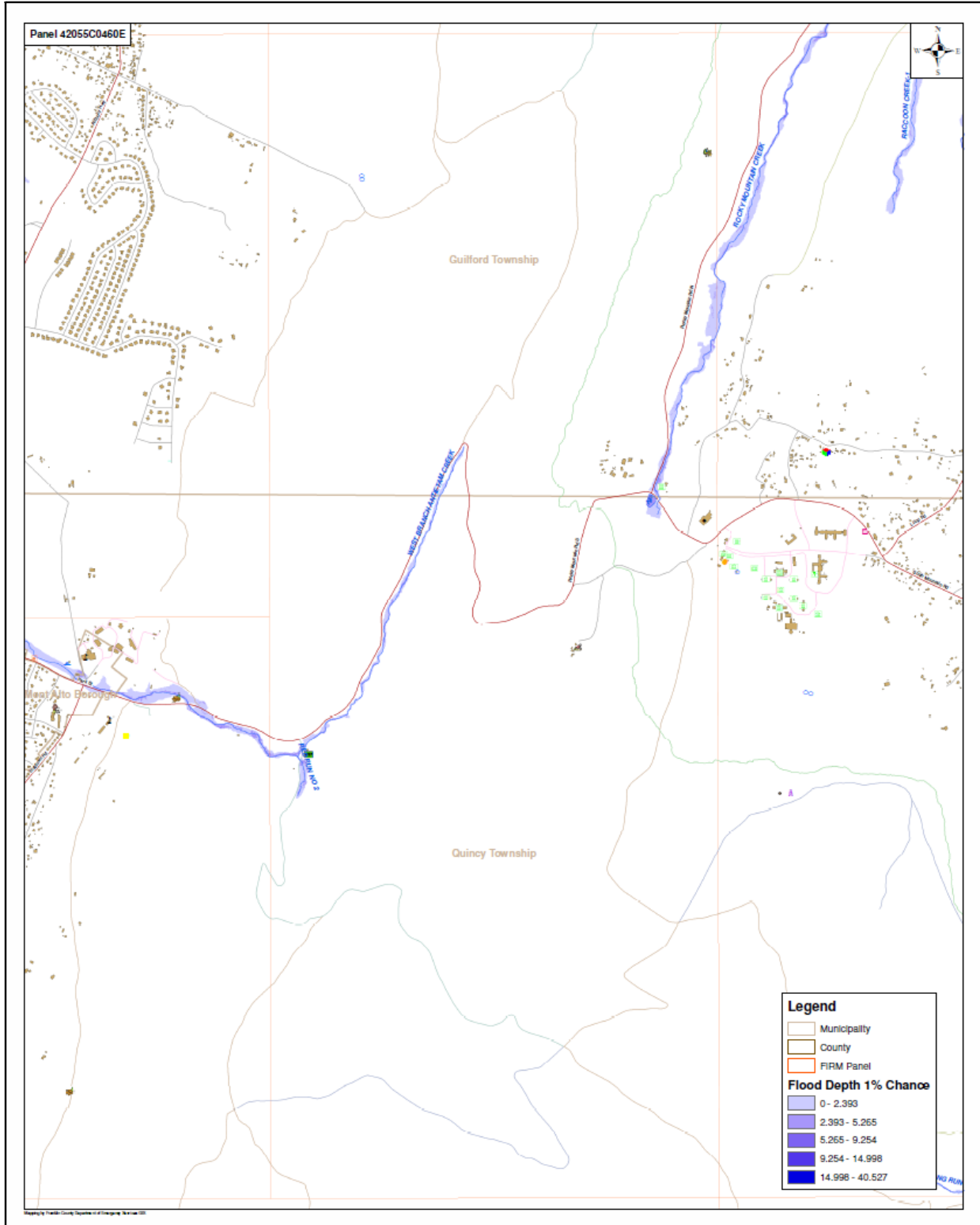


Figure G.101: Quadrant 4, Panel Number 42055C0460E

Appendix G: Franklin County DFIRM

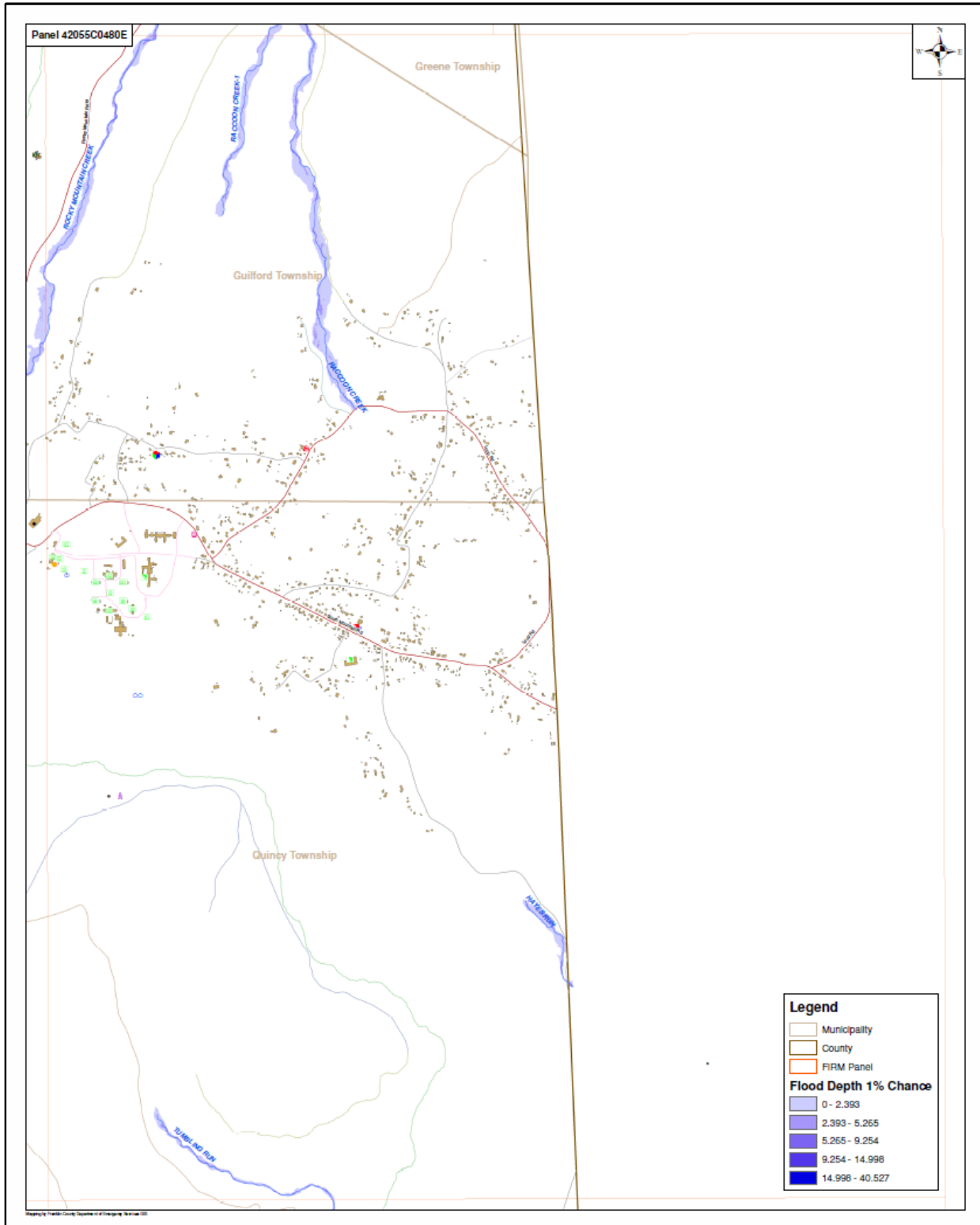


Figure G.102: Quadrant 4, Panel Number 42055C0480E

Appendix G: Franklin County DFIRM

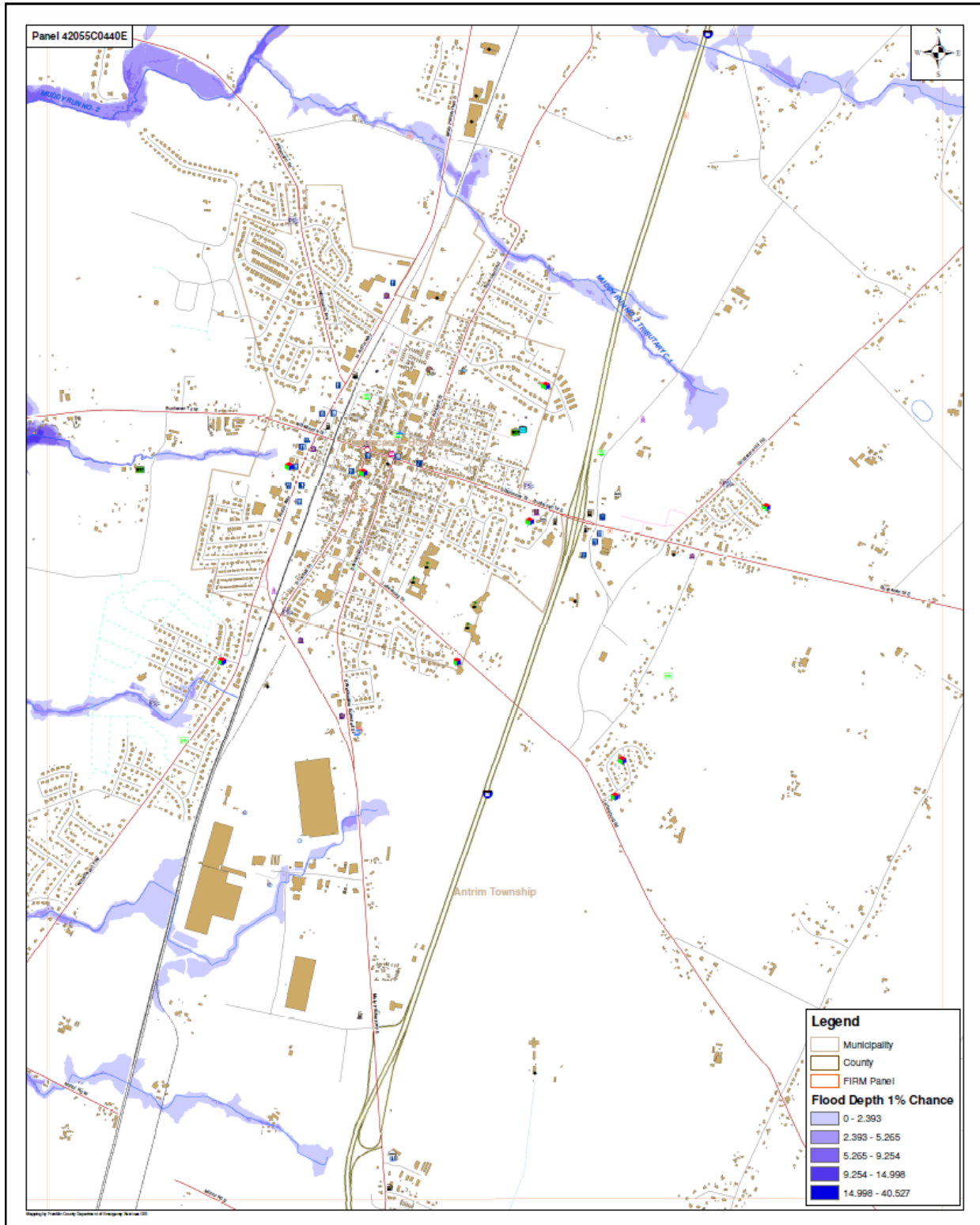


Figure G.103: Quadrant 4, Panel Number 42055C0440E

Appendix G: Franklin County DFIRM

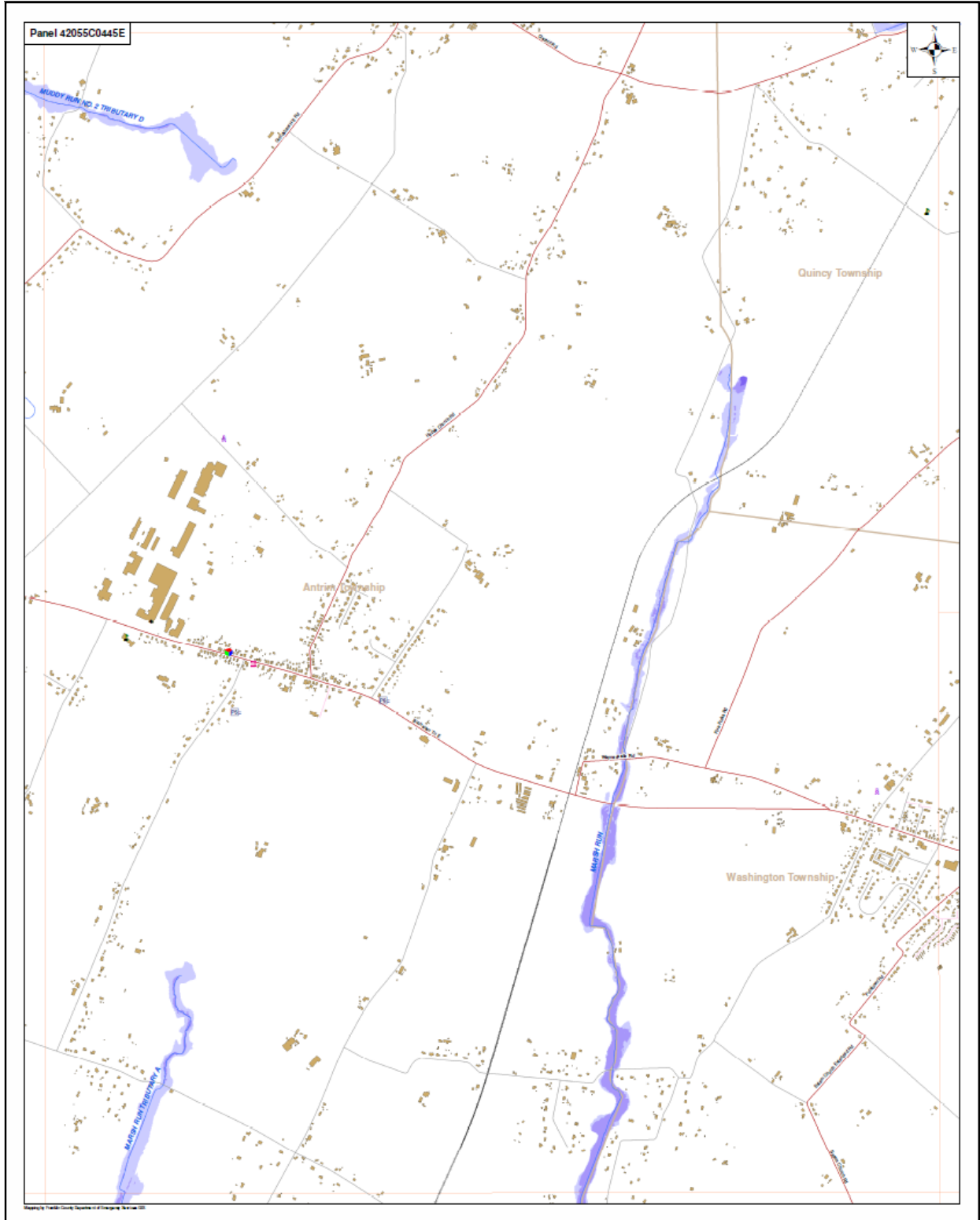


Figure G.104: Quadrant 4, Panel Number 42055C0445E

Appendix G: Franklin County DFIRM

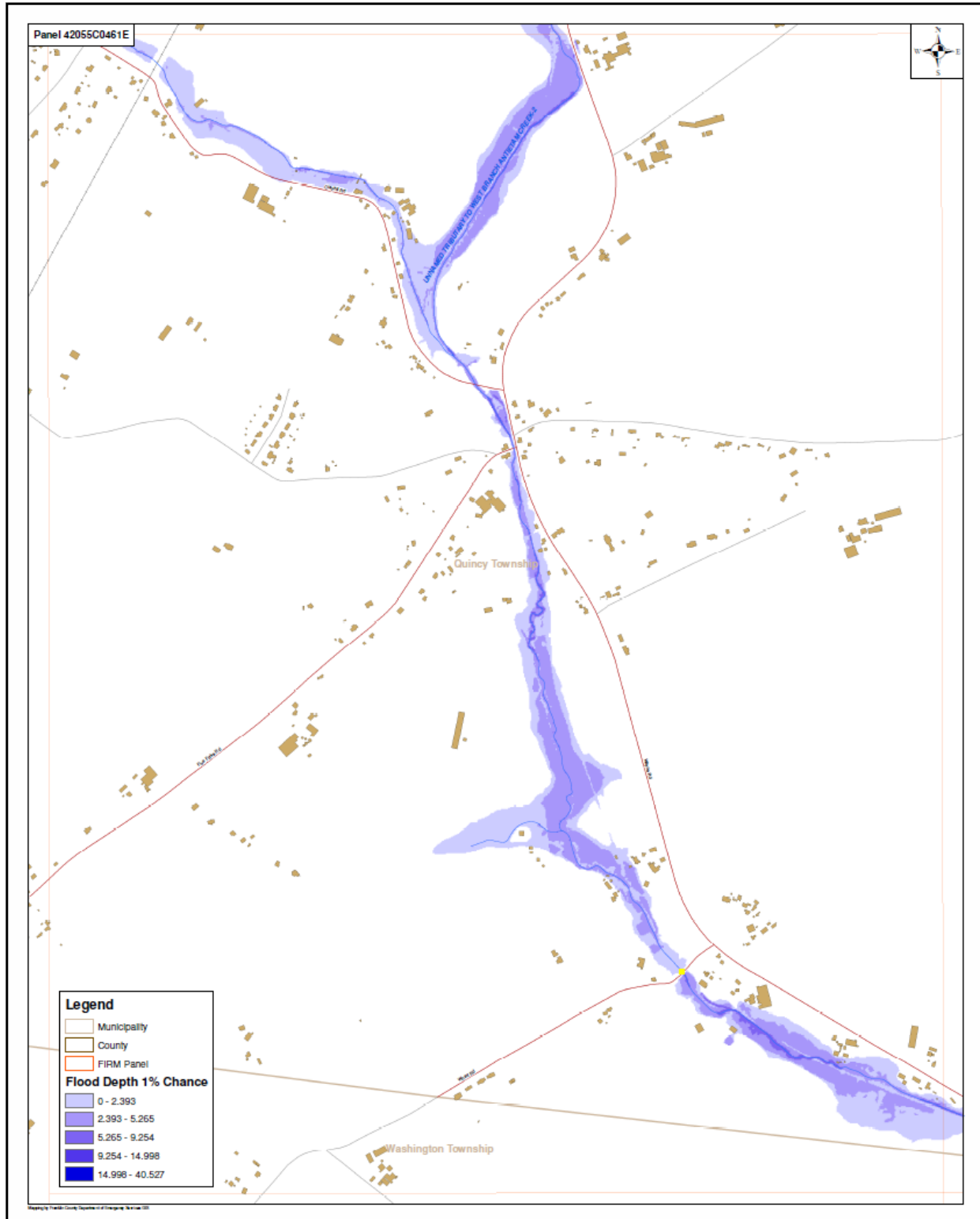


Figure G.105: Quadrant 4, Panel Number 42055C0461E

Appendix G: Franklin County DFIRM

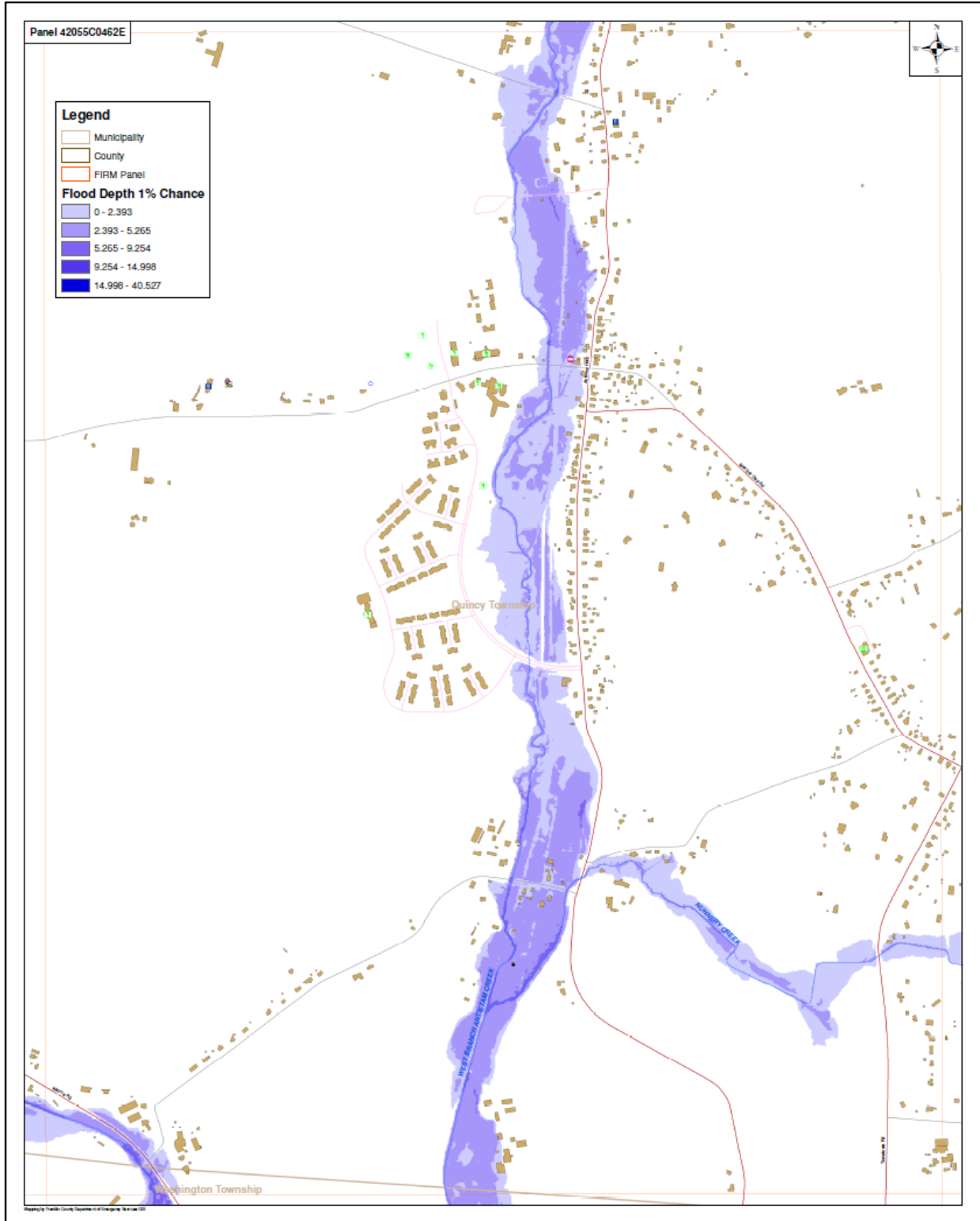


Figure G.106: Quadrant 4, Panel Number 42055C0462E

Appendix G: Franklin County DFIRM

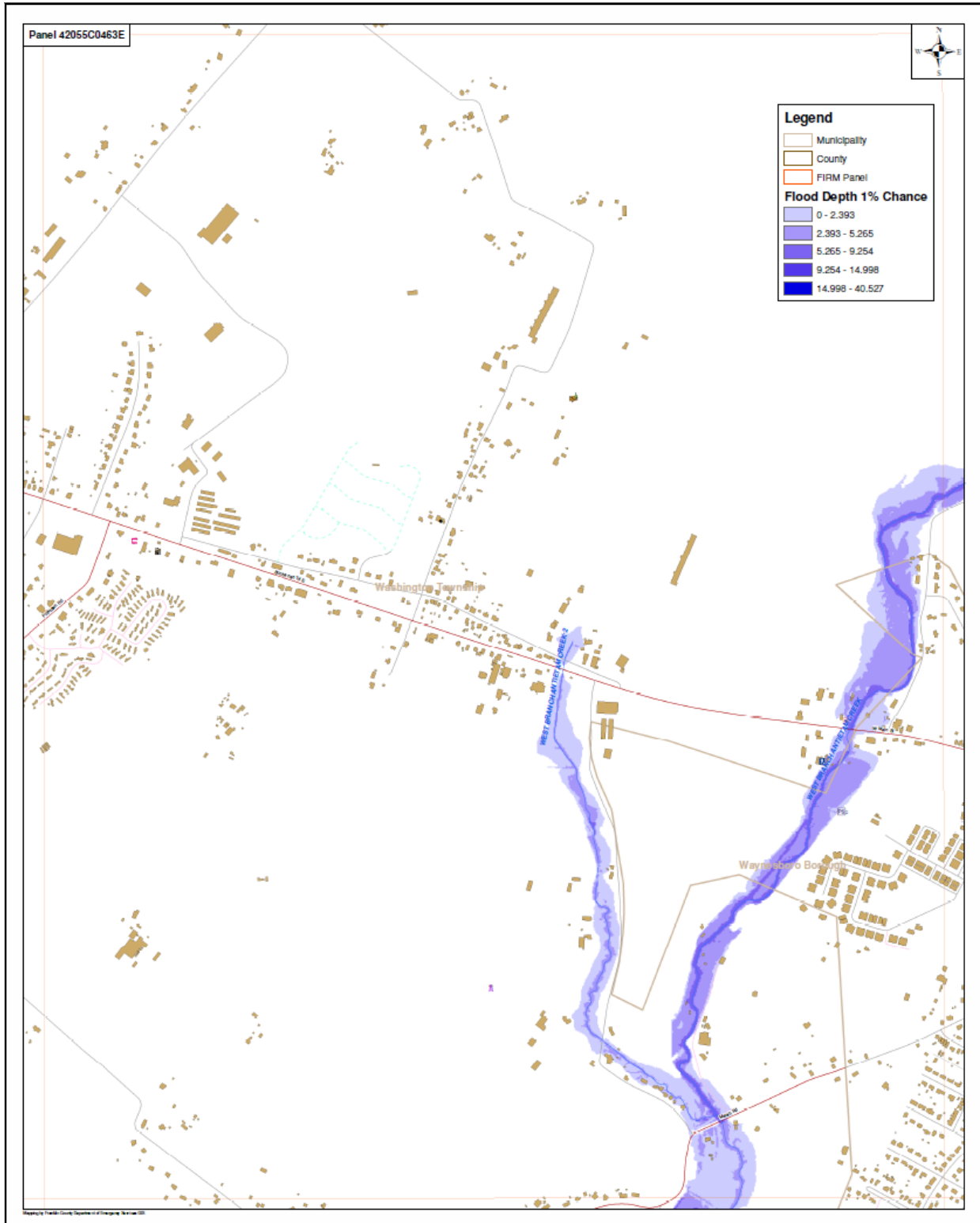


Figure G.107: Quadrant 4, Panel Number 42055C0463E

Appendix G: Franklin County DFIRM

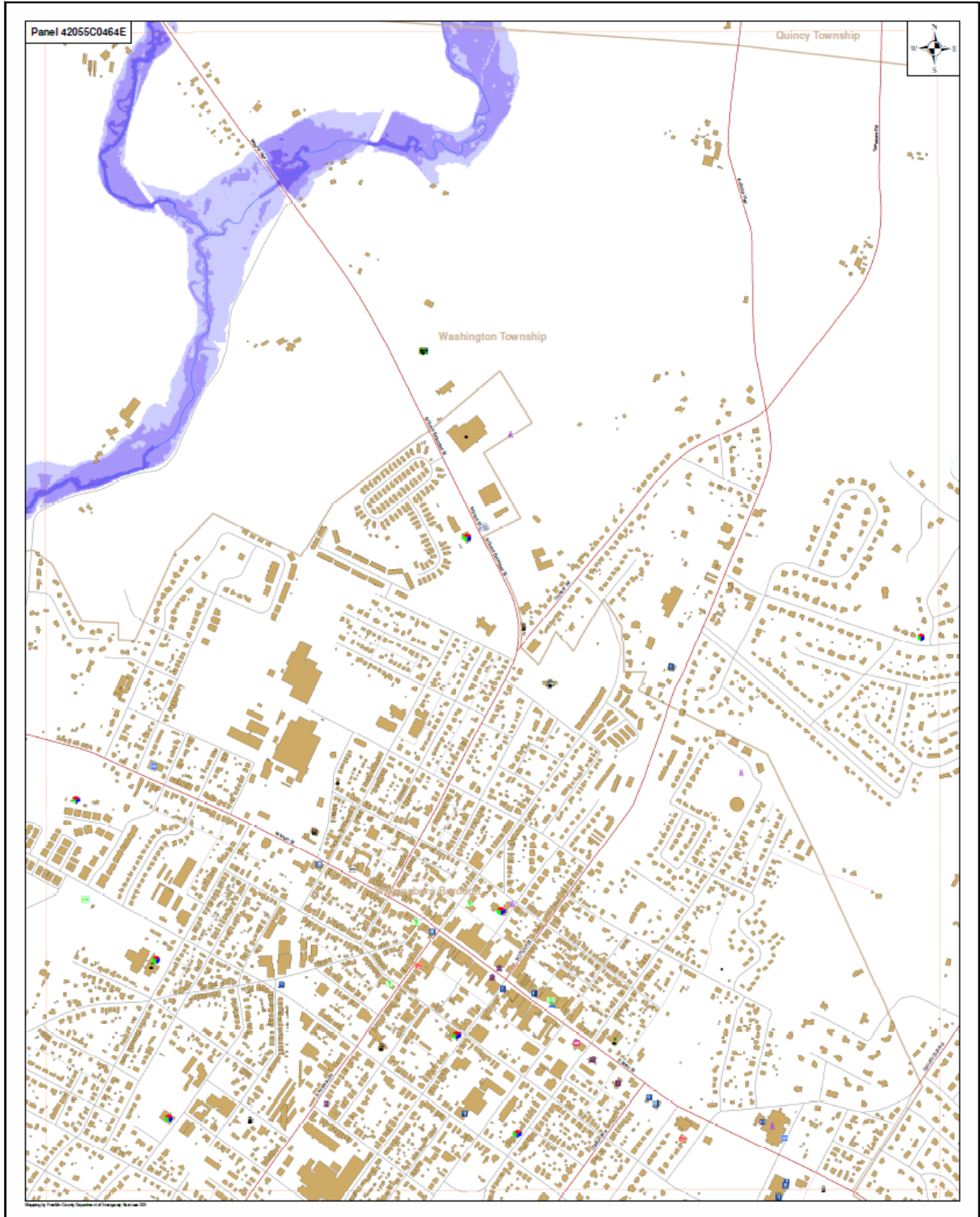


Figure G.108: Quadrant 4, Panel Number 42055C0464E

Appendix G: Franklin County DFIRM

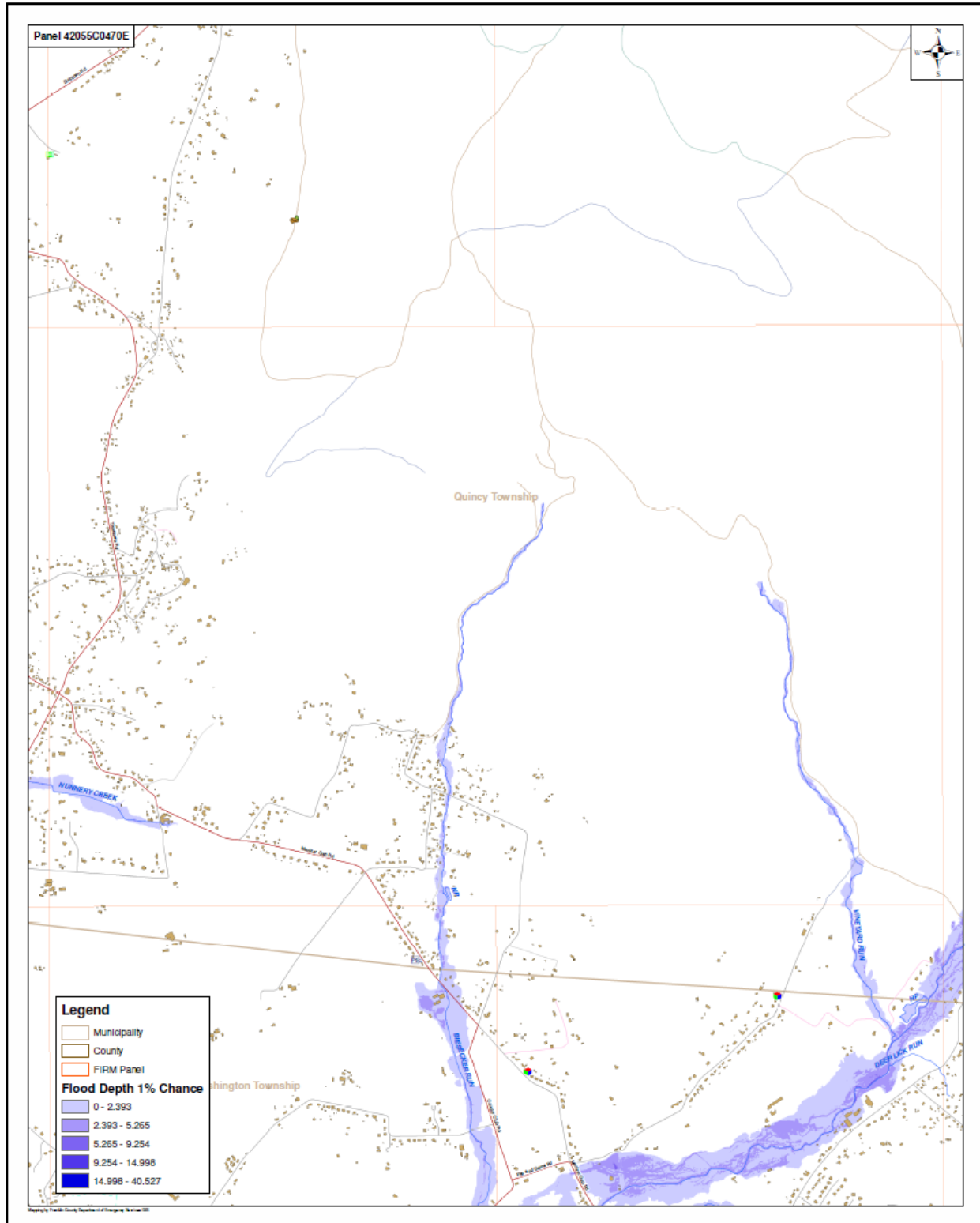


Figure G.109: Quadrant 4, Panel Number 42055C0470E

Appendix G: Franklin County DFIRM

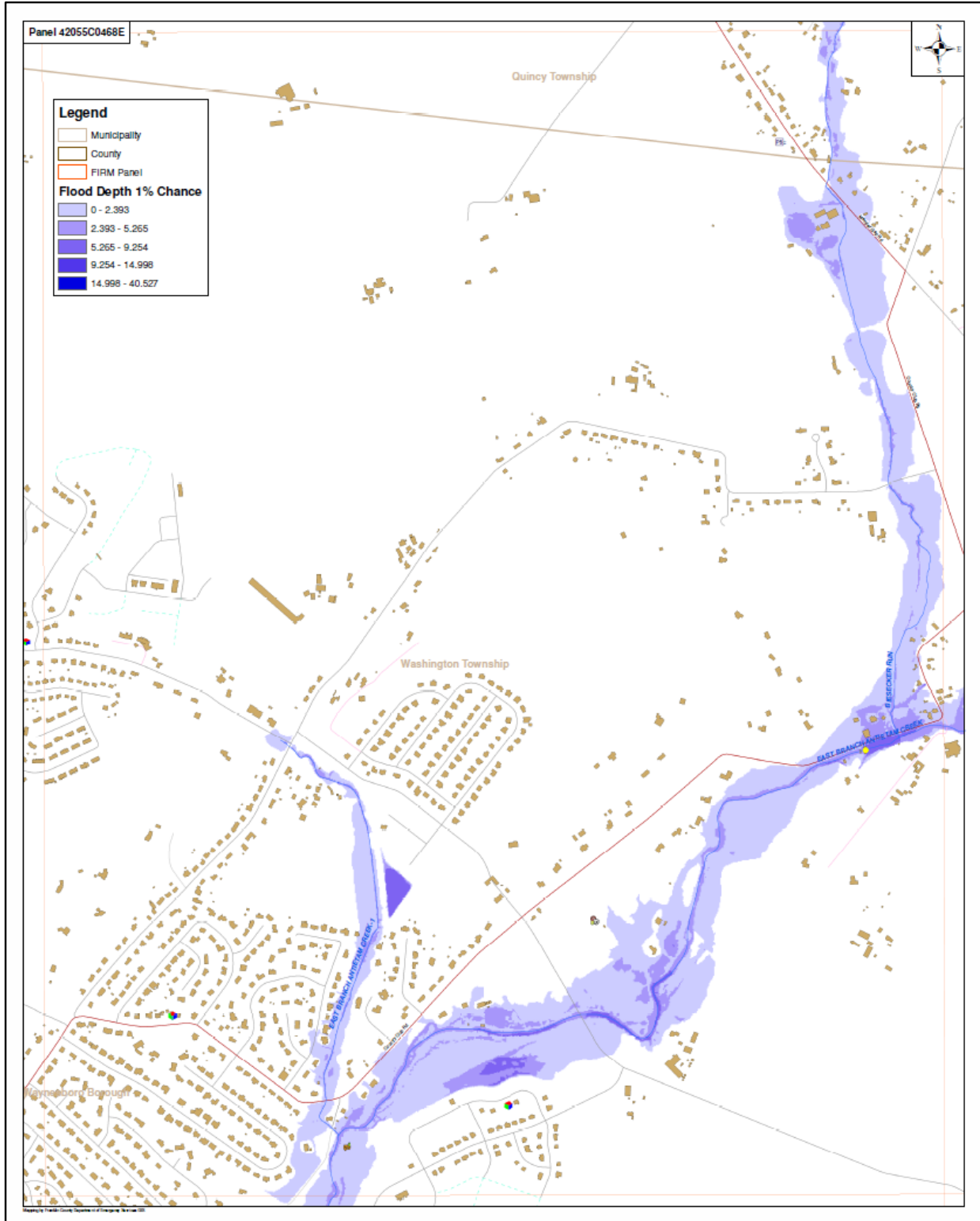


Figure G.110: Quadrant 4, Panel Number 42055C0468E

Appendix G: Franklin County DFIRM

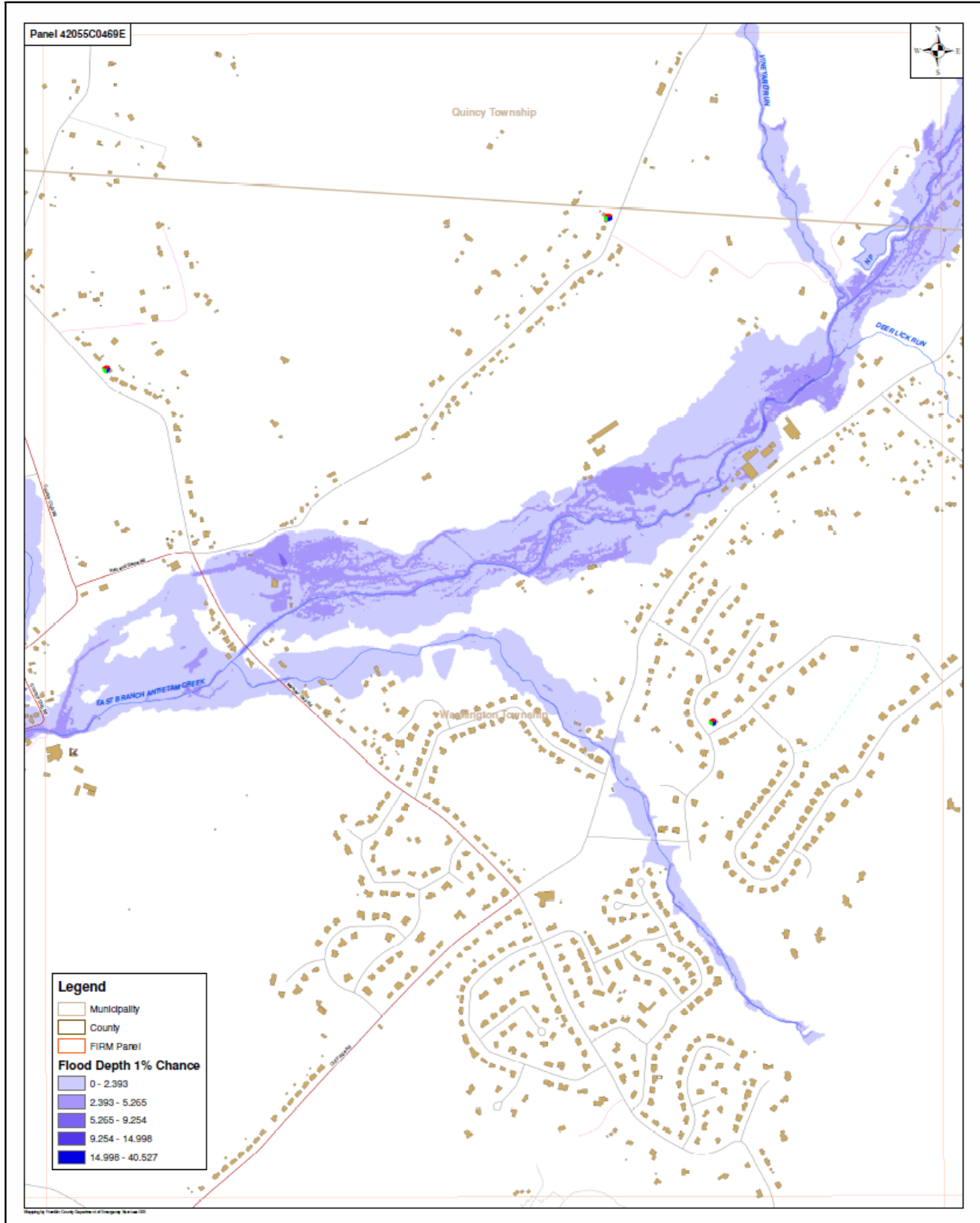


Figure G.111: Quadrant 4, Panel Number 42055C0469E

Appendix G: Franklin County DFIRM

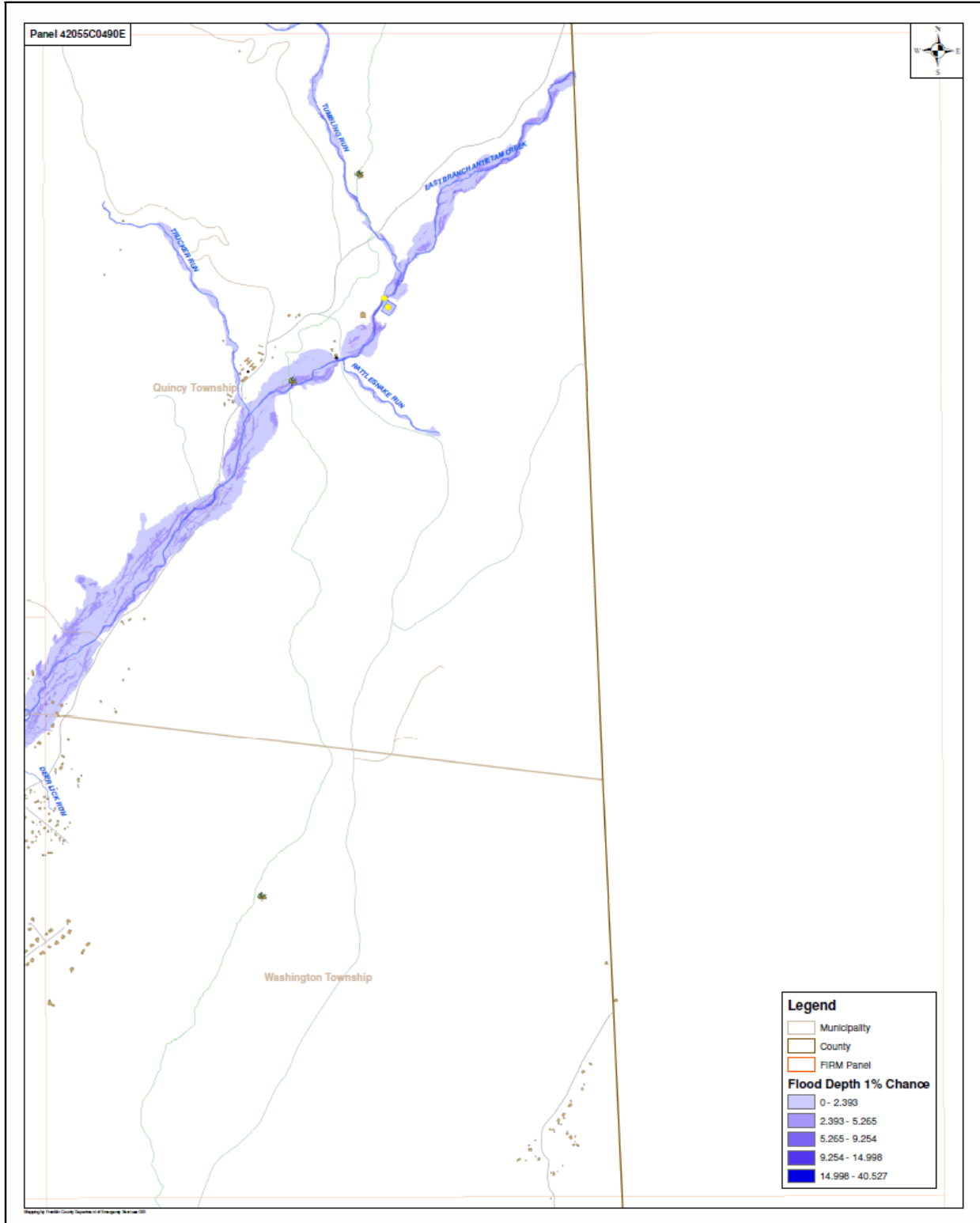


Figure G.112: Quadrant 4, Panel Number 42055C0490E

Appendix G: Franklin County DFIRM

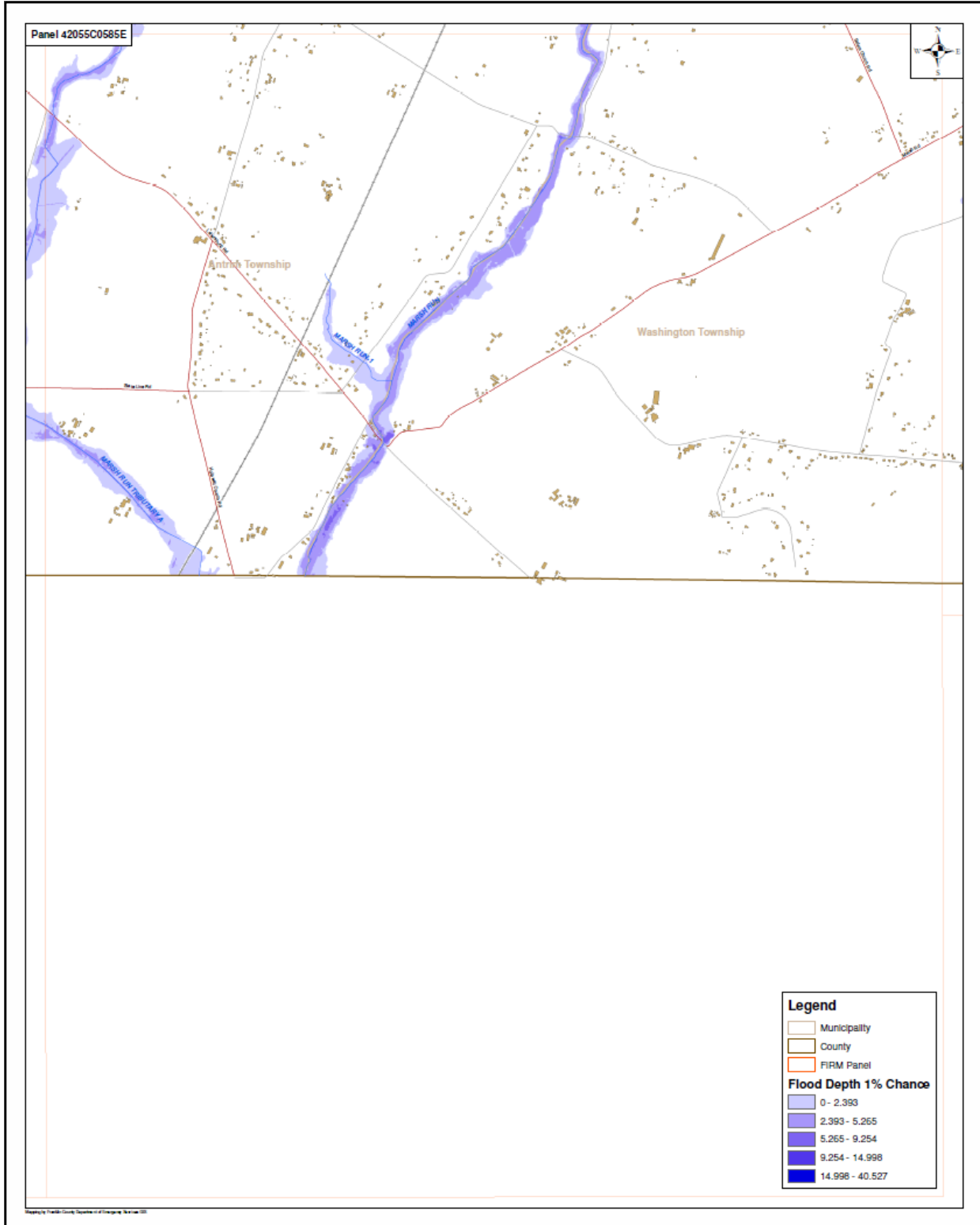


Figure G.114: Quadrant 4, Panel Number 42055C0585E

Appendix G: Franklin County DFIRM

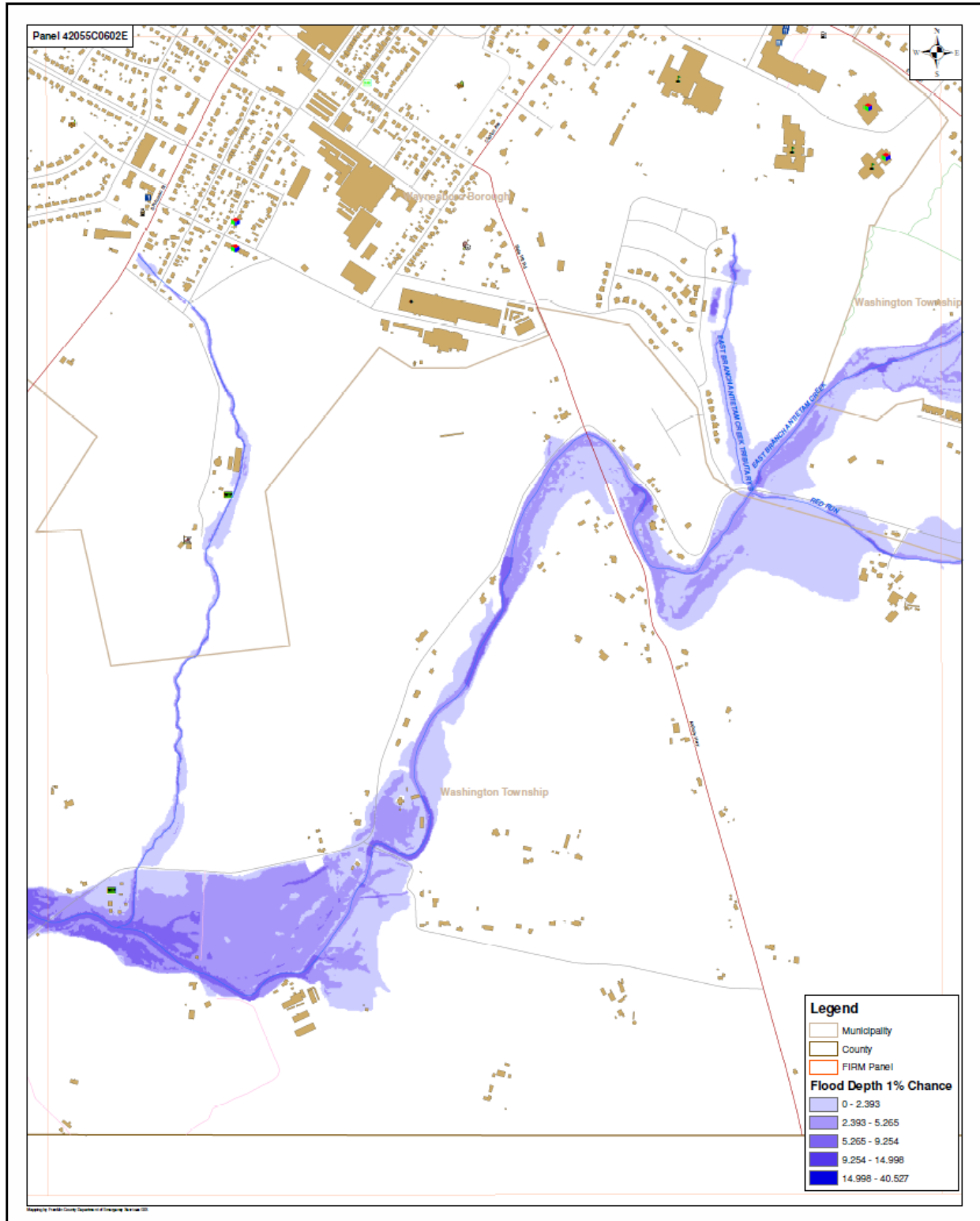


Figure G.116: Quadrant 4, Panel Number 42055C0602E

Appendix G: Franklin County DFIRM

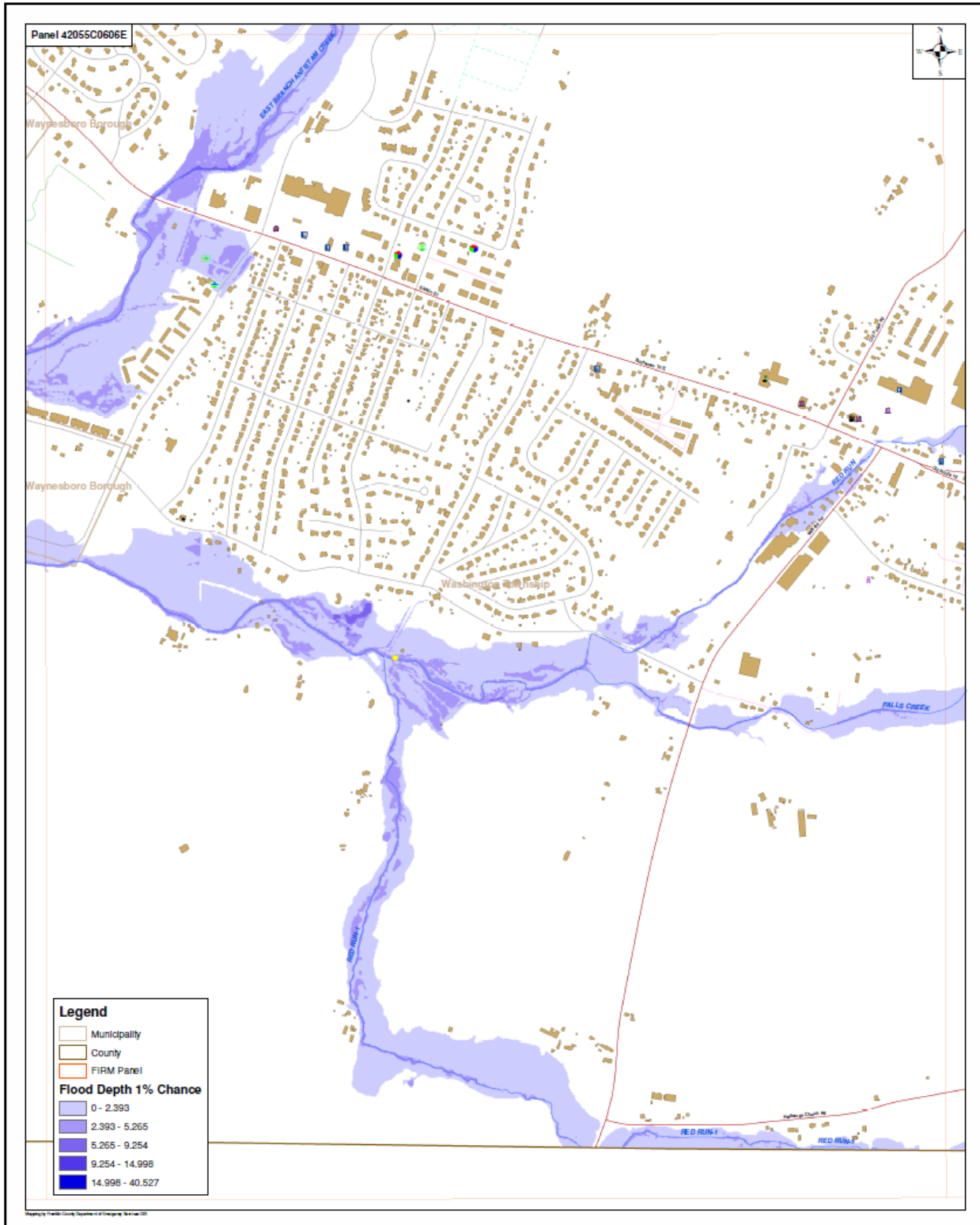


Figure G.117: Quadrant 4, Panel Number 42055C0606E

Appendix G: Franklin County DFIRM

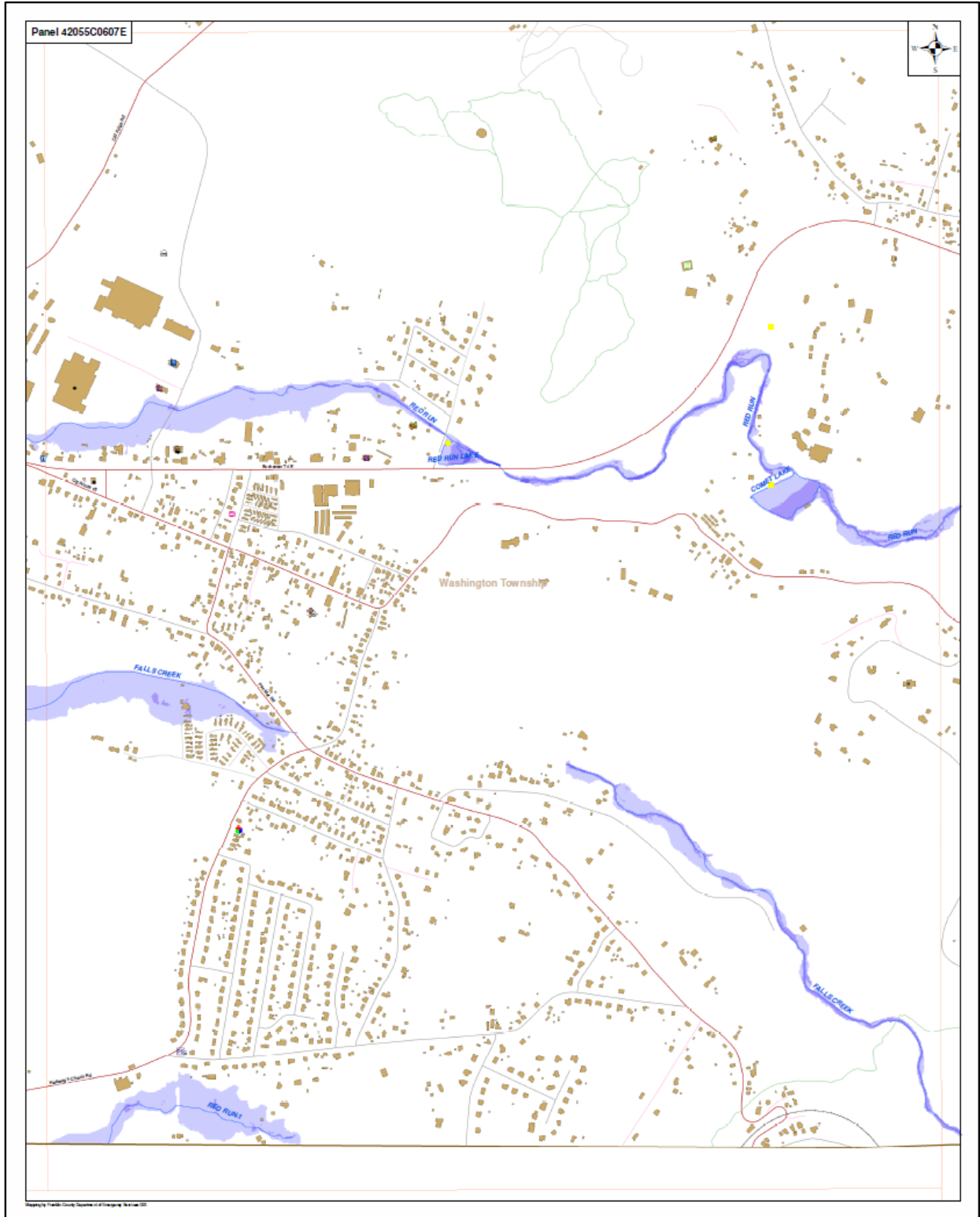


Figure G.118: Quadrant 4, Panel Number 42055C0607E

Appendix G: Franklin County DFIRM

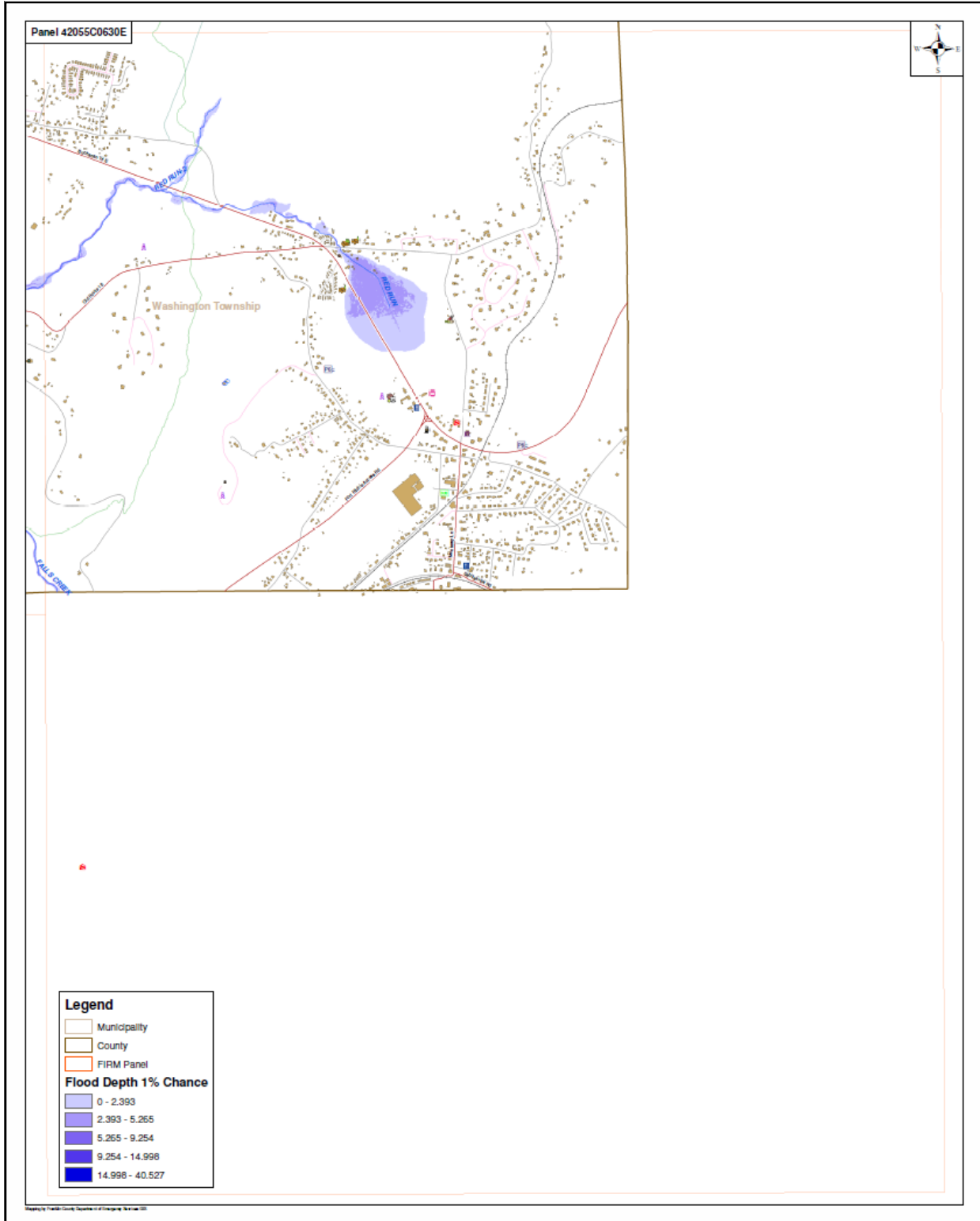


Figure G.119: Quadrant 4, Panel Number 42055C0630E

Appendix H: Franklin County Windstorm Events (1963 – 2017)

Municipality	Date	Time	Type	Wind Speed (kts)	Deaths	Injuries	Property Damage	Crop Damage
Guilford Township	4/22/63	2200	Thunderstorm Wind		0	0	\$0	\$0
Quincy Township	8/26/65	1400	Thunderstorm Wind		0	0	\$0	\$0
Guilford Township	7/27/69	1600	Thunderstorm Wind		0	0	\$0	\$0
Montgomery Township	5/24/70	1325	Thunderstorm Wind		0	0	\$0	\$0
Southampton Township	6/18/70	1335	Thunderstorm Wind		0	0	\$0	\$0
Washington Township	6/18/70	1400	Thunderstorm Wind		0	0	\$0	\$0
Guilford Township	7/15/70	1350	Thunderstorm Wind		0	0	\$0	\$0
Letterkenny Township	6/7/71	1315	Thunderstorm Wind		0	0	\$0	\$0
Guilford Township	6/14/71	1500	Thunderstorm Wind		0	0	\$0	\$0
Guilford Township	8/7/73	1600	Thunderstorm Wind	55	0	0	\$0	\$0
Hamilton Township	6/10/74	1650	Thunderstorm Wind		0	0	\$0	\$0
Mercersburg Borough	6/10/74	1630	Thunderstorm Wind		0	0	\$0	\$0
Hamilton Township	3/21/76	1100	Thunderstorm Wind	61	0	0	\$0	\$0
Hamilton Township	5/18/76	0008	Thunderstorm Wind		0	0	\$0	\$0
Hamilton Township	7/11/76	1430	Thunderstorm Wind	55	0	0	\$0	\$0
Hamilton Township	4/5/77	1700	Thunderstorm Wind	72	0	0	\$0	\$0
Greene Township	7/17/77	1600	Thunderstorm Wind	60	0	0	\$0	\$0
Chambersburg Borough	8/8/77	1530	Thunderstorm Wind		0	0	\$0	\$0
Hamilton Township	8/7/78	1430	Thunderstorm Wind		0	0	\$0	\$0
Hamilton Township	5/12/80	1700	Thunderstorm Wind		0	0	\$0	\$0
Hamilton Township	7/21/80	1600	Thunderstorm Wind		0	0	\$0	\$0
Hamilton Township	8/11/80	1530	Thunderstorm Wind	56	0	0	\$0	\$0
Hamilton Township	9/2/80	1835	Thunderstorm Wind		0	0	\$0	\$0
Hamilton Township	7/20/81	1400	Thunderstorm Wind		0	0	\$0	\$0
Metal Township	10/1/81	1700	Thunderstorm Wind		0	0	\$0	\$0
Waynesboro Borough	9/2/82	1520	Thunderstorm Wind		0	0	\$0	\$0
Hamilton Township	7/21/83	1700	Thunderstorm Wind	76	0	0	\$0	\$0
Hamilton Township	7/21/83	1715	Thunderstorm Wind	87	0	0	\$0	\$0
St Thomas Township	7/21/83	1730	Thunderstorm Wind		0	0	\$0	\$0
Washington Township	7/26/87	1130	Thunderstorm Wind	69	0	0	\$0	\$0
Hamilton Township	7/30/88	1735	Thunderstorm Wind		0	0	\$0	\$0
Chambersburg Borough	8/6/88	1305	Thunderstorm Wind		0	0	\$0	\$0
Guilford Township	8/6/88	1324	Thunderstorm Wind		0	0	\$0	\$0
Antrim Township	8/15/88	1532	Thunderstorm Wind		0	0	\$0	\$0
Quincy Township	8/15/88	1517	Thunderstorm Wind		0	0	\$0	\$0
Warren Township	8/15/88	1508	Thunderstorm Wind		0	0	\$0	\$0
Washington Township	3/31/89	1345	Thunderstorm Wind		0	0	\$0	\$0

Figure H.1.1: Franklin County Windstorm Events – Page 1 of 7

Appendix H: Franklin County Windstorm Events (1963 – 2017)

Municipality	Date	Time	Type	Wind Speed (kts)	Deaths	Injuries	Property Damage	Crop Damage
Antrim Township	11/20/89	1810	Thunderstorm Wind		0	0	\$0	\$0
Chambersburg Borough	11/20/89	2015	Thunderstorm Wind		0	0	\$0	\$0
Hamilton Township	11/20/89	1810	Thunderstorm Wind	72	0	0	\$0	\$0
Washington Township	5/10/90	1200	Thunderstorm Wind		0	0	\$0	\$0
Hamilton Township	6/8/90	1445	Thunderstorm Wind		0	0	\$0	\$0
Washington Township	6/18/90	1335	Thunderstorm Wind		0	0	\$0	\$0
Hamilton Township	6/30/90	1900	Thunderstorm Wind		0	0	\$0	\$0
Hamilton Township	4/9/91	2003	Thunderstorm Wind		0	0	\$0	\$0
Mercersburg Borough	4/9/91	2003	Thunderstorm Wind		0	0	\$0	\$0
Hamilton Township	5/6/91	1415	Thunderstorm Wind	57	0	0	\$0	\$0
Waynesboro Borough	5/6/91	1420	Thunderstorm Wind	61	0	0	\$0	\$0
Waynesboro Borough	5/13/91	1230	Thunderstorm Wind		0	0	\$0	\$0
Guilford Township	7/7/91	1100	Thunderstorm Wind		0	0	\$0	\$0
Hamilton Township	7/7/91	1045	Thunderstorm Wind	61	0	0	\$0	\$0
Greene Township	8/19/91	1645	Thunderstorm Wind		0	0	\$0	\$0
Guilford Township	9/18/91	1510	Thunderstorm Wind		0	0	\$0	\$0
Waynesboro Borough	1/14/92	0748	Thunderstorm Wind		0	0	\$0	\$0
Antrim Township	6/30/92	1415	Thunderstorm Wind		0	0	\$0	\$0
Letterkenny Township	7/17/92	1409	Thunderstorm Wind		0	0	\$0	\$0
Waynesboro Borough	7/17/92	1419	Thunderstorm Wind		0	0	\$0	\$0
Fannett Township	8/28/92	1605	Thunderstorm Wind		0	0	\$0	\$0
Waynesboro Borough	9/10/92	1540	Thunderstorm Wind		0	0	\$0	\$0
Quincy Township	8/11/93	2007	Thunderstorm Wind		0	0	\$0	\$0
Antrim Township	4/30/94	2000	Thunderstorm Wind		0	0	\$50,000	\$0
Chambersburg Borough	6/6/94	1350	Thunderstorm Wind		0	1	\$500	\$0
Waynesboro Borough	7/6/94	1610	Thunderstorm Wind		0	0	\$5,000	\$0
Chambersburg Borough	7/7/94	1930	Thunderstorm Wind		0	0	\$500	\$0
Greencastle Borough	5/25/95	1715	Thunderstorm Wind		0	0	\$0	\$0
Chambersburg Borough	6/2/95	1630	Thunderstorm Wind		0	0	\$0	\$0
Guilford Township	6/7/95	1800	Thunderstorm Wind		0	0	\$0	\$0
Chambersburg Borough	6/11/95	1800	Thunderstorm Wind		0	0	\$0	\$0
Antrim Township	6/21/95	1545	Thunderstorm Wind		0	0	\$0	\$0
Mercersburg Borough	6/21/95	1545	Thunderstorm Wind		0	0	\$0	\$0
Quincy Township	6/25/95	1715	Thunderstorm Wind		0	0	\$0	\$0
Greene Township	7/1/95	1330	Thunderstorm Wind		0	0	\$0	\$0
Chambersburg Borough	7/4/95	2125	Thunderstorm Wind		0	0	\$0	\$0
Mercersburg Borough	7/6/95	1303	Thunderstorm Wind		0	0	\$0	\$0

Figure H.1.2: Franklin County Windstorm Events – Page 2 of 7

Appendix H: Franklin County Windstorm Events (1963 – 2017)

Municipality	Date	Time	Type	Wind Speed (kts)	Deaths	Injuries	Property Damage	Crop Damage
Waynesboro Borough	7/10/95	2000	Thunderstorm Wind		0	0	\$0	\$0
Greene Township	7/15/95	2030	Thunderstorm Wind		0	0	\$0	\$0
Greene Township	7/15/95	2330	Thunderstorm Wind		0	0	\$0	\$0
Letterkenny Township	7/15/95	2122	Thunderstorm Wind		0	0	\$0	\$0
Guilford Township	8/5/95	1300	Thunderstorm Wind		0	0	\$0	\$0
Greencastle Borough	11/11/95	1725	Thunderstorm Wind	52	0	0	\$0	\$0
Greene Township	1/19/96	0940	Thunderstorm Wind		0	0	\$500,000	\$0
Franklin County	2/24/96	1200	High Wind	60	0	0	\$0	\$0
Hamilton Township	5/11/96	1304	Thunderstorm Wind		0	0	\$20,000	\$0
Shippensburg Borough	5/11/96	1327	Thunderstorm Wind		0	0	\$0	\$0
Mercersburg Borough	6/14/96	1700	Thunderstorm Wind		0	0	\$0	\$0
Washington Township	6/14/96	1700	Thunderstorm Wind		0	0	\$0	\$0
Antrim Township	6/24/96	1625	Thunderstorm Wind		0	0	\$0	\$0
Greene Township	6/24/96	1645	Thunderstorm Wind		0	0	\$0	\$0
Guilford Township	6/24/96	1645	Thunderstorm Wind		0	0	\$0	\$0
Mercersburg Borough	6/24/96	1616	Thunderstorm Wind		0	0	\$0	\$0
Guilford Township	6/30/96	1815	Thunderstorm Wind		0	0	\$0	\$0
Lurgan Township	7/3/96	0410	Thunderstorm Wind	50	0	0	\$0	\$0
Waynesboro Borough	7/8/96	1550	Thunderstorm Wind	50	0	0	\$0	\$0
Letterkenny Township	7/30/96	1730	Thunderstorm Wind	50	0	0	\$0	\$0
Antrim Township	10/18/96	1815	Thunderstorm Wind	50	0	0	\$0	\$0
Fannett Township	10/18/96	1800	Thunderstorm Wind	50	0	0	\$0	\$0
Franklin County	5/3/97	1330	High Wind	50	1	0	\$0	\$0
Waynesboro Borough	7/9/97	1522	Thunderstorm Wind	54	0	0	\$0	\$0
Greene Township	7/21/96	2135	Thunderstorm Wind	51	0	0	\$0	\$0
Waynesboro Borough	7/28/96	1530	Thunderstorm Wind	51	0	0	\$0	\$0
Mercersburg Borough	8/17/96	1715	Thunderstorm Wind	51	0	0	\$0	\$0
Letterkenny Township	5/29/98	1730	Thunderstorm Wind	51	0	0	\$0	\$0
Hamilton Township	5/31/98	2233	Thunderstorm Wind	51	0	0	\$0	\$0
Waynesboro Borough	6/16/98	1810	Thunderstorm Wind	51	0	0	\$0	\$0
Antrim Township	6/30/98	1641	Thunderstorm Wind	51	0	0	\$0	\$0
Waynesboro Borough	1/18/99	1410	Thunderstorm Wind		0	0	\$10,000	\$0
Warren Township	2/12/99	1245	Thunderstorm Wind		0	0	\$5,000	\$0
Antrim Township	3/3/99	1905	Thunderstorm Wind		0	0	\$2,000	\$0
Hamilton Township	6/2/99	1715	Thunderstorm Wind		0	0	\$5,000	\$0
Franklin County	9/29/99	2000	High Wind	60	0	0	\$0	\$0
Antrim Township	6/2/00	1815	Thunderstorm Wind		0	0	\$10,000	\$0

Figure H.1.3: Franklin County Windstorm Events – Page 3 of 7

Appendix H: Franklin County Windstorm Events (1963 – 2017)

Municipality	Date	Time	Type	Wind Speed (kts)	Deaths	Injuries	Property Damage	Crop Damage
Mercersburg Borough	6/16/00	1600	Thunderstorm Wind		0	0	\$2,000	\$0
Mercersburg Borough	6/21/00	1820	Thunderstorm Wind		0	0	\$3,000	\$0
Hamilton Township	7/14/00	1953	Thunderstorm Wind		0	0	\$2,000	\$0
Hamilton Township	7/28/00	1725	Thunderstorm Wind		0	0	\$3,000	\$0
Franklin County	12/12/00	0400	High Wind		0	0	\$13,900	\$0
Franklin County	2/10/01	0200	High Wind		0	0	\$5,550	\$0
Hamilton Township	4/9/01	1815	Thunderstorm Wind		0	0	\$10,000	\$0
Hamilton Township	6/20/01	1515	Thunderstorm Wind	50	0	0	\$0	\$0
Mercersburg Borough	6/20/01	1535	Thunderstorm Wind	50	0	0	\$0	\$0
Hamilton Township	7/1/01	1530	Thunderstorm Wind	50	0	0	\$0	\$0
Quincy Township	7/10/01	1450	Thunderstorm Wind	50	0	0	\$0	\$0
Washington Township	8/4/01	1440	Thunderstorm Wind		0	0	\$0	\$0
Fannett Township	8/4/01	1734	Thunderstorm Wind	50	0	0	\$0	\$0
Franklin County	3/9/02	1930	High Wind	50	0	0	\$0	\$0
Antrim Township	5/12/02	1635	Thunderstorm Wind	50	0	0	\$0	\$0
Waynesboro Borough	5/12/02	1645	Thunderstorm Wind	50	0	0	\$0	\$0
Washington Township	6/5/02	1709	Thunderstorm Wind		0	0	\$5,000	\$0
Waynesboro Borough	6/5/02	1650	Thunderstorm Wind	50	0	0	\$0	\$0
Antrim Township	8/1/02	1632	Thunderstorm Wind	50	0	0	\$0	\$0
Hamilton Township	8/1/02	1557	Thunderstorm Wind	50	0	0	\$0	\$0
Montgomery Township	8/1/02	1624	Thunderstorm Wind	50	0	0	\$0	\$0
Southampton Township	8/2/02	1715	Thunderstorm Wind	50	0	0	\$0	\$0
Antrim Township	7/21/03	1445	Thunderstorm Wind	50	0	0	\$0	\$0
Waynesboro Borough	7/21/03	1850	Thunderstorm Wind	50	0	0	\$0	\$0
Greene Township	8/26/03	1420	Thunderstorm Wind	50	0	0	\$0	\$0
Hamilton Township	8/27/03	1745	Thunderstorm Wind	50	0	0	\$0	\$0
Franklin County	11/13/03	0500	High Wind	60	0	0	\$0	\$0
Letterkenny Township	11/19/03	1400	Thunderstorm Wind	50	0	0	\$50,000	\$0
Metal Township	5/7/04	1115	Thunderstorm Wind	50	0	0	\$0	\$0
Waynesboro Borough	5/25/04	1645	Thunderstorm Wind	50	0	0	\$0	\$0
St Thomas Township	7/31/04	1410	Thunderstorm Wind	50	0	0	\$0	\$0
Quincy Township	8/4/04	1700	Thunderstorm Wind	50	0	0	\$0	\$0
Guilford Township	8/20/04	1655	Thunderstorm Wind	50	0	0	\$0	\$0
Lurgan Township	8/20/04	1650	Thunderstorm Wind	50	0	0	\$0	\$0
Mercersburg Borough	8/20/04	1645	Thunderstorm Wind	50	0	0	\$0	\$0
Quincy Township	1/14/05	0040	Thunderstorm Wind	50	0	0	\$0	\$0
Antrim Township	6/6/05	1430	Thunderstorm Wind	50	0	0	\$0	\$0

Figure H.1.4: Franklin County Windstorm Events – Page 4 of 7

Appendix H: Franklin County Windstorm Events (1963 – 2017)

Municipality	Date	Time	Type	Wind Speed (kts)	Deaths	Injuries	Property Damage	Crop Damage
Antrim Township	6/6/05	1615	Thunderstorm Wind	50	0	0	\$0	\$0
St Thomas Township	6/6/05	1430	Thunderstorm Wind	50	0	0	\$0	\$0
Antrim Township	7/21/05	1439	Thunderstorm Wind	50	0	0	\$0	\$0
Quincy Township	11/29/05	1817	Thunderstorm Wind	50	0	0	\$0	\$0
Mercersburg Borough	7/18/06	1550	Thunderstorm Wind	50	0	0	\$0	\$0
Hamilton Township	9/28/06	1550	Thunderstorm Wind	50	0	0	\$0	\$0
Fannett Township	11/16/06	1320	Thunderstorm Wind	50	0	0	\$0	\$0
Franklin County	12/1/06	1500	High Wind	45	0	0	\$5,000	\$0
Waynesboro Borough	6/1/07	2035	Thunderstorm Wind	50	0	0	\$0	\$0
Waynesboro Borough	6/8/07	1855	Thunderstorm Wind	50	0	0	\$0	\$0
Antrim Township	6/12/07	1815	Thunderstorm Wind	50	0	0	\$0	\$0
Chambersburg Borough	6/13/07	1615	Thunderstorm Wind	50	0	0	\$0	\$0
Letterkenny Township	7/29/07	1110	Thunderstorm Wind	50	0	0	\$0	\$0
Letterkenny Township	8/9/07	1715	Thunderstorm Wind	50	0	0	\$0	\$0
Waynesboro Borough	8/9/07	1025	Thunderstorm Wind	50	0	0	\$0	\$0
Fannett Township	6/10/08	1630	Thunderstorm Wind	50	0	0	\$3,000	\$0
Fannett Township	6/10/08	1635	Thunderstorm Wind	61	0	0	\$3,000	\$0
Fannett Township	6/10/08	1635	Thunderstorm Wind	61	0	0	\$1,000	\$0
Mercersburg Borough	6/20/08	1449	Thunderstorm Wind	50	0	0	\$2,500	\$0
Mercersburg Borough	7/26/08	1456	Thunderstorm Wind	61	0	0	\$0	\$0
Chambersburg Borough	8/2/08	1235	Thunderstorm Wind	50	0	0	\$0	\$0
Franklin County	12/31/08	0800	High Wind	50	0	0	\$5,000	\$0
Franklin County	2/12/09	0100	High Wind	50	0	0	\$25,000	\$0
Greencastle Borough	6/13/09	1721	Thunderstorm Wind	50	0	0	\$5,000	\$0
Chambersburg Borough	7/23/09	1615	Thunderstorm Wind	50	0	0	\$5,000	\$0
Chambersburg Borough	7/29/09	1641	Thunderstorm Wind	60	0	0	\$10,000	\$0
Mercersburg Borough	7/29/09	1530	Thunderstorm Wind	60	0	0	\$5,000	\$0
Peters Township	7/29/09	1534	Thunderstorm Wind	60	0	0	\$12,000	\$0
Chambersburg Borough	4/8/10	1630	Thunderstorm Wind	50	0	0	\$5,000	\$0
Chambersburg Borough	4/16/10	1641	Thunderstorm Wind	50	0	0	\$5,000	\$0
Guilford Township	5/14/10	1630	Thunderstorm Wind	61	0	0	\$10,000	\$0
Hamilton Township	6/4/10	1730	Thunderstorm Wind	50	0	0	\$5,000	\$0
Lurgan Township	6/12/10	1645	Thunderstorm Wind	50	0	0	\$5,000	\$0
Metal Township	6/24/10	1245	Thunderstorm Wind	50	0	0	\$5,000	\$0
Fannett Township	7/25/10	1219	Thunderstorm Wind	50	0	0	\$5,000	\$0
Lurgan Township	7/25/10	1220	Thunderstorm Wind	50	0	0	\$5,000	\$0
Greencastle Borough	8/4/10	1750	Thunderstorm Wind	50	0	0	\$5,000	\$0

Figure H.1.5: Franklin County Windstorm Events – Page 5 of 7

Appendix H: Franklin County Windstorm Events (1963 – 2017)

Municipality	Date	Time	Type	Wind Speed (kts)	Deaths	Injuries	Property Damage	Crop Damage
Chambersburg Borough	9/22/10	1735	Thunderstorm Wind	50	0	0	\$5,000	\$0
Shippensburg Borough	9/22/10	1742	Thunderstorm Wind	50	0	0	\$5,000	\$0
St Thomas Township	9/22/10	1732	Thunderstorm Wind	50	0	0	\$5,000	\$0
Chambersburg Borough	5/26/11	1625	Thunderstorm Wind	50	0	0	\$5,000	\$0
Chambersburg Borough	5/26/11	1710	Thunderstorm Wind	50	0	0	\$5,000	\$0
Greencastle Borough	5/26/11	1653	Thunderstorm Wind	52	0	0	\$0	\$0
Guilford Township	5/26/11	1713	Thunderstorm Wind	61	0	0	\$0	\$0
Mercersburg Borough	5/26/11	1640	Thunderstorm Wind	50	0	0	\$5,000	\$0
Waynesboro Borough	5/27/11	1912	Thunderstorm Wind	50	0	0	\$5,000	\$0
Guilford Township	6/9/11	1625	Thunderstorm Wind	50	0	0	\$5,000	\$0
Guilford Township	8/14/11	1734	Thunderstorm Wind	50	0	0	\$5,000	\$0
Quincy Township	8/14/11	1717	Thunderstorm Wind	50	0	0	\$5,000	\$0
Washington Township	8/14/11	1746	Thunderstorm Wind	50	0	0	\$2,000	\$0
Washington Township	8/14/11	1750	Thunderstorm Wind	50	0	0	\$5,000	\$0
Waynesboro Borough	8/14/11	1733	Thunderstorm Wind	50	0	0	\$5,000	\$0
Waynesboro Borough	8/14/11	1737	Thunderstorm Wind	50	0	0	\$0	\$0
Montgomery Township	9/4/11	2005	Thunderstorm Wind	50	0	0	\$10,000	\$0
Guilford Township	9/14/11	1715	Thunderstorm Wind	50	0	0	\$5,000	\$0
Chambersburg Borough	5/27/12	1820	Thunderstorm Wind	76	0	0	\$0	\$0
Chambersburg Borough	5/27/12	1820	Thunderstorm Wind	50	0	0	\$5,000	\$0
St Thomas Township	5/29/12	1515	Thunderstorm Wind	50	0	0	\$5,000	\$0
St Thomas Township	5/29/12	1530	Thunderstorm Wind	50	0	0	\$15,000	\$0
Mercersburg Borough	6/29/12	2025	Thunderstorm Wind	50	0	0	\$5,000	\$0
Greencastle Borough	7/3/12	1722	Thunderstorm Wind	50	0	0	\$1,000	\$0
Greene Township	7/15/12	1352	Thunderstorm Wind	50	0	0	\$5,000	\$0
Hamilton Township	7/15/12	1340	Thunderstorm Wind	50	0	0	\$5,000	\$0
Antrim Township	7/18/12	1400	Thunderstorm Wind	50	0	0	\$5,000	\$0
Chambersburg Borough	7/18/12	1327	Thunderstorm Wind	50	0	0	\$5,000	\$0
Guilford Township	7/18/12	1330	Thunderstorm Wind	50	0	0	\$5,000	\$0
Hamilton Township	7/18/12	1326	Thunderstorm Wind	50	0	0	\$7,500	\$0
Greene Township	8/3/12	1310	Thunderstorm Wind	50	0	0	\$2,500	\$0
Hamilton Township	8/5/12	1340	Thunderstorm Wind	50	0	0	\$5,000	\$0
St Thomas Township	8/5/12	1337	Thunderstorm Wind	50	0	0	\$7,500	\$0
Franklin County	10/29/12	1600	High Wind	50	0	0	\$0	\$0
Greencastle Borough	4/24/13	1640	Thunderstorm Wind	50	0	0	\$2,000	\$0
Mercersburg Borough	4/24/13	1630	Thunderstorm Wind	50	0	0	\$2,000	\$0
Washington Township	6/2/13	1450	Thunderstorm Wind	50	0	0	\$10,000	\$0

Figure H.1.6: Franklin County Windstorm Events – Page 6 of 7

Appendix H: Franklin County Windstorm Events (1963 – 2017)

Municipality	Date	Time	Type	Wind Speed (kts)	Deaths	Injuries	Property Damage	Crop Damage
Fannett Township	6/25/13	1934	Thunderstorm Wind	50	0	0	\$5,000	\$0
Chambersburg Borough	6/28/13	1540	Thunderstorm Wind	50	0	0	\$2,500	\$0
Shippensburg Borough	7/7/13	1500	Thunderstorm Wind	50	0	0	\$5,000	\$0
Greencastle Borough	7/19/13	1732	Thunderstorm Wind	50	0	0	\$2,500	\$0
Hamilton Township	7/19/13	1658	Thunderstorm Wind	50	0	0	\$5,000	\$0
Chambersburg Borough	9/12/13	1400	Thunderstorm Wind	50	0	0	\$2,000	\$0
Greene Township	10/7/13	0823	Thunderstorm Wind	50	0	0	\$2,000	\$0
Waynesboro Borough	11/18/13	0100	Thunderstorm Wind	50	0	0	\$0	\$0
Greencastle Borough	7/1/14	1710	Thunderstorm Wind	50	0	0	\$1,000	\$0
Greencastle Borough	7/8/14	1702	Thunderstorm Wind	50	0	0	\$500	\$0
Guilford Township	7/8/14	1705	Thunderstorm Wind	50	0	0	\$1,000	\$0
Mercersburg Borough	7/8/14	1652	Thunderstorm Wind	50	0	0	\$1,000	\$0
Greencastle Borough	7/13/14	1920	Thunderstorm Wind	50	0	0	\$500	\$0
Quincy Township	7/23/14	1625	Thunderstorm Wind	50	0	0	\$1,000	\$0
Greene Township	9/2/14	1610	Thunderstorm Wind	50	0	0	\$1,000	\$0
Guilford Township	9/2/14	1602	Thunderstorm Wind	50	0	0	\$500	\$0
Washington Township	6/18/15	1902	Thunderstorm Wind	50	0	0	\$500	\$0
Letterkenny Township	6/20/15	1930	Thunderstorm Wind	50	0	0	\$1,000	\$0
Guilford Township	7/9/15	1550	Thunderstorm Wind	50	0	0	\$1,500	\$0
Shippensburg Borough	7/9/15	1550	Thunderstorm Wind	50	0	0	\$2,000	\$0
Franklin County	4/3/16	0000	High Wind	52	0	0	\$4,000	\$4,000
Guilford Township	6/28/16	1350	Thunderstorm Wind	52	0	0	\$2,000	\$0
Fannett Township	7/30/16	1427	Thunderstorm Wind	52	0	0	\$4,000	\$0
Guilford Township	8/16/16	2058	Thunderstorm Wind	52	0	0	\$4,000	\$0
Hamilton Township	8/16/16	1330	Thunderstorm Wind	52	0	0	\$108,000	\$0
Mercersburg Borough	2/12/17	2155	Thunderstorm Wind	52	0	0	\$35,500	\$0
Washington Township	2/12/17	2156	Thunderstorm Wind	52	0	0	\$33,500	\$0
Antrim Township	4/6/17	1140	Thunderstorm Wind	52	0	0	\$41,500	\$0
Fannett Township	5/1/17	2005	Thunderstorm Wind	52	0	0	\$39,500	\$0
Greencastle Borough	6/19/17	1125	Thunderstorm Wind	52	0	0	\$41,500	\$0
Totals					1	1	\$1,076,950	\$4,000

Figure H.1.7: Franklin County Windstorm Events – Page 7 of 7

Appendix I: DCNR Wildfire Data for Franklin County (1940 – 2015)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1940	6	4	57	874	909	75	64	121	9	140	147	5	2,411
1941	1	7	37	2,051	1,028	63	35	67	173	140	433	49	4,084
1942	3	18	149	1,336	279	6	14	11	10	93	91	0	2,010
1943	2	3	356	553	240	12	12	42	192	427	126	152	2,117
1944	7	29	68	560	529	19	60	127	46	119	154	4	1,722
1945	0	0	08	391	81	4	3	6	5	56	111	0	865
1946	2	15	390	955	167	10	22	6	33	63	303	205	2,171
1947	10	5	34	581	230	26	1	3	9	520	31	47	1,497
1948	0	8	142	379	124	20	3	9	50	46	69	21	871
1949	11	30	145	442	294	148	60	56	10	145	193	6	1,540
1950	2	3	54	363	308	20	3	5	0	52	95	2	907
1951	2	11	61	228	247	5	5	24	28	166	69	7	853
1952	1	17	86	425	408	85	119	21	19	269	178	5	1,633
1953	4	21	69	126	91	15	41	151	94	389	384	32	1,417
1954	7	24	92	382	119	65	157	21	7	17	49	6	946
1955	3	2	77	453	391	34	127	80	24	13	24	18	1,246
1956	6	2	21	181	124	26	1	5	0	87	95	12	560
1957	4	7	195	156	323	22	55	186	71	117	60	18	1,214
1958	4	2	28	465	194	31	3	2	2	52	123	7	913
1959	7	16	137	441	203	18	18	29	61	10	35	9	984
1960	4	5	2	606	6	10	10	6	5	63	180	155	1,052
1961	0	1	45	71	83	12	11	5	9	118	93	87	535
1962	3	1	217	595	300	39	179	72	11	91	48	117	1,673
1963	0	0	95	919	363	62	45	27	57	836	78	0	2,482
1964	1	0	45	279	388	29	45	62	277	294	493	117	2,000
1965	0	10	24	233	359	137	157	19	11	107	130	32	1,219
1966	4	0	99	126	286	169	252	87	35	212	80	2	1,352
1967	3	4	34	357	235	164	8	2	9	32	64	6	918
1968	0	91	232	760	154	13	48	45	13	59	21	18	1,454
1969	5	11	308	729	392	41	19	16	12	170	19	13	1,735
1970	0	8	39	502	228	4	20	23	10	11	39	21	905
1971	2	9	63	1,102	209	45	45	46	3	15	60	8	1,607
1972	12	2	108	485	308	18	3	15	29	15	4	1	1,000
1973	26	28	231	369	66	20	10	6	10	103	108	23	1,000
1974	7	26	250	595	162	23	20	14	4	211	123	11	1,446
1975	0	14	68	680	215	8	9	18	1	125	160	25	1,323
1976	2	173	309	926	177	33	2	8	10	21	103	17	1,781
1977	1	7	375	776	315	56	28	2	7	39	22	2	1,630
1978	0	0	40	663	208	21	12	4	4	36	136	17	1,141

Figure I.1.1: Franklin County Wildfire Data (DCNR) – Page 1 of 2

Appendix I: DCNR Wildfire Data for Franklin County (1940 – 2015)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1979	0	6	567	527	247	27	7	2	2	41	56	66	1,548
1980	19	98	72	783	324	33	45	44	99	131	181	35	1,864
1981	17	13	466	731	366	22	22	34	6	45	105	0	1,827
1982	1	1	118	809	438	0	6	3	9	75	63	13	1,536
1983	16	37	239	260	169	17	38	38	72	50	11	1	948
1984	0	10	47	427	140	32	11	4	11	49	67	2	800
1985	4	24	392	538	140	6	7	7	28	89	46	3	1,284
1986	6	1	662	449	435	18	29	6	14	12	5	3	1,640
1987	2	15	499	294	255	15	13	45	2	50	139	2	1,331
1988	0	6	341	430	208	172	396	71	9	26	31	81	1,771
1989	64	54	325	726	57	4	4	5	9	53	24	2	1,327
1990	2	36	215	366	58	15	25	5	2	7	77	21	829
1991	2	36	144	234	83	93	121	108	701	177	257	5	1,961
1992	12	38	154	344	212	50	21	7	8	16	14	0	876
1993	10	71	2	188	221	49	63	23	6	27	40	2	702
1994	0	0	3	511	144	39	15	6	23	30	78	18	867
1995	11	5	314	344	133	14	13	79	85	33	3	0	1,034
1996	0	12	46	212	65	14	3	2	0	17	26	0	397
1997	4	35	95	501	135	23	87	45	3	30	2	7	967
1998	2	23	250	204	29	17	10	36	17	66	165	91	910
1999	1	35	289	246	245	46	123	100	20	30	163	7	1,305
2000	11	13	198	224	112	5	8	4	2	78	80	9	744
2001	1	15	66	270	224	18	11	27	10	108	220	4	974
2002	34	46	105	142	92	7	49	98	53	0	0	0	626
2003	1	0	59	242	64	2	6	2	1	6	23	1	407
2004	4	4	34	102	10	2	2	0	0	4	45	4	211
2005	3	0	27	458	139	31	25	36	36	12	37	0	804
2006	4	49	266	342	167	26	2	27	0	3	6	20	912
2007	3	3	65	162	171	17	41	13	19	28	14	4	540
2008	9	0	136	408	46	22	10	16	12	22	8	0	689
2009	0	31	222	284	30	3	8	1	3	2	34	1	619
2010	1	1	73	256	25	7	47	18	59	23	53	10	573
2011	4	8	65	22	26	8	31	6	0	1	24	7	202
2012	11	31	215	316	17	15	29	4	5	16	57	1	717
2013	2	5	70	315	120	9	6	12	11	23	58	1	632
2014	1	3	152	449	69	7	11	11	11	46	111	0	871
2015	2	1	83	446	161	5	4	14	16	23	60	2	817
Total	416	1,380	12,066	35,647	16,320	2,498	3,075	2,408	2,724	6,928	7,114	1,700	92,276
%/Month	0.45	1.50	13.08	38.63	17.69	2.71	3.33	2.61	2.95	7.51	7.71	1.84	100.00

Figure I.1.2: Franklin County Wildfire Data (DCNR) – Page 2 of 2

Appendix J: Analysis of 2014 Franklin County HMP Action Plan

Hazard Assessed	Lead Agency for Implementation	Mitigation Action	Possible Funding Sources	Approximate Cost	Time Frame	Status/Progress	Recommended Action
All Hazards	FCDES & Franklin County Municipalities	Review mutual aid agreements and recommend changes as required.	None Needed	Staff Time	Short Term	Mutual Aid agreements reviewed, but revisions are required.	Improve
All Hazards	FCDES & Franklin County Municipalities	Review and evaluate facilities, equipment, personnel and other resources needed to support emergency response annually.	None Needed	Staff Time	Short Term	County requests updates annually and updates the County Resource Book	Maintain
All Hazards	FCDES	Continue to maintain webpages where presentations, training documentation, and webinars can be posted. This will allow municipal officials to access the information at their own schedule and pace.	None Needed	Staff Time	Short Term	Webpages maintained and up to date with training information.	Maintain
All Hazards	FCDES & Franklin County Municipalities	Monitor and evaluate mitigation actions annually and update the hazard mitigation plan every five years.	None Needed	Staff Time	Short Term	Hazard Mitigation Plan update at the 5 yr point, but annual reviews are lacking.	Improve
All Hazards	FCDES, County Grant Writing & Franklin County Municipalities	On an annual basis, conduct Municipal Officials Training and/or State sponsored training courses to address hazard mitigation topics, such as Damage Assessment, Storm Water Management, Mutual Aid Agreements, Public Disaster Assistance, and Hazard Mitigation Grant assistance.	None Needed	Staff Time	Short Term	Courses offered at FCDES facilities and integrated into the Franklin County Public Safety Training Center, open to public and not just Municipal Officials..	Maintain
All Hazards	FCDES 7 Franklin County Municipalities	Advocate for municipalities to find alternative methods of funding to the Hazard Mitigation Grant Program.	None Needed	Staff Time	Short Term	Work with county grants to determine other grant/loan funding opportunities.	Improve
All Hazards	FCDES & Franklin County IT	Train additional personnel on the use of GIS systems to support emergency operations.	None Needed	County Funds	Short Term	GIS personnel centralized, shared GIS support to DES operations.	Improve
All Hazards	Franklin County Plans Department	Map new developments as plans are approved for purpose of emergency and land use planning.	None Needed	Staff Time	Short Term	Incomplete. Currently done as part of the County Comprehensive Plan, needs updated.	Maintain

Figure J.1.1: Analysis of 2014 HMP Action Plan – Page 1 of 6

Appendix J: Analysis of 2014 Franklin County HMP Action Plan

Hazard Assessed	Lead Agency for Implementation	Mitigation Action	Possible Funding Sources	Approximate Cost	Time Frame	Status/Progress	Recommended Action
All Hazards	FCDES	Implement a community advisory board which consists of representatives from the community at large, homeowners associations, emergency management, agricultural community, business community, special interest groups, elected officials, and government representatives with the goal of identifying strategies for community risk reduction.	None Needed	Staff Time	Short Term	Never done. Will be achieved by continuing the HMP team with annual update meetings.	Remove
All Hazards	Franklin County Municipalities	Utilize most recent hazard assessment, including National Flood Plain reports and historical records, when planning or authorizing building projects, including significant renovations.	None Needed	Staff Time	Short Term	Those municipalities that are part of the NFIP program are doing this...not all 22 are NFIP.	Maintain
All Hazards	Franklin County Municipalities	Adopt and support codes that restrict building and developing in areas identified as being high risk for natural and man made incidents.	None Needed	Staff Time	Short Term	All municipalities have building codes. Ones that have comprehensive plans are doing this. Not all have comprehensive plans or are part of NFIP program.	Improve
All Hazards	Franklin County Municipalities	Municipalities should develop and implement a plan which addresses the risks which face the municipality. These plans should coordinate with the plans in neighboring municipalities and with the County plan.	None Needed	Staff Time	Short Term	The municipal EOP should do this. Most municipalities provided a threat self assessment as part of the HMP update and can use this as an HVA. They can reference the County HMP for overall risks.	Remove
Flood	Franklin County Municipalities	Encourage municipalities to update their storm water regulations as needed. A model PA DEP ordinance is available on line that can be used.	None Needed	Staff Time	Short Term	Need to survey municipalities to see who has a storm water management ordinance.	Improve
Flood	Franklin County Municipalities	Where acquisition is not feasible, advise homeowners of a preferred mitigation alternative, such as elevation or flood proofing.	None Needed	Staff Time	Short Term	Not being done.	Improve
Flood	Franklin County Municipalities	Encourage municipalities to pass Tree City USA ordinance and meet requirements of Tree City USA. This will reduce the speed of runoff due to storm water and mitigate storm water impact.	None Needed	Staff Time	Short Term	Not being done. No political will to pursue this program. Other threats higher priority.	Remove

Figure J.1.2: Analysis of 2014 HMP Action Plan – Page 2 of 6

Appendix J: Analysis of 2014 Franklin County HMP Action Plan

Hazard Assessed	Lead Agency for Implementation	Mitigation Action	Possible Funding Sources	Approximate Cost	Time Frame	Status/Progress	Recommended Action
Flood	Franklin County Municipalities	Install traffic control devices on roads subject to flooding.	Grant Funding	TBD	Short Term	Not being done. Municipalities place barriers and barricades on roads that are flooded, but no active devices are being used. For the frequency of this hazard, it is not worth the expenditure.	Remove
Fire	Franklin County Municipalities	Enroll municipalities in the Firewise program. Encourage municipalities to reduce the vulnerability of critical facilities to wildfire by methods, such as: increasing buffers and introduction defensible spaces, identifying potential fire breaks, and providing assistance to FCDES to identify vulnerable structures.	None Needed	Staff Time	Short Term	No communities in Franklin County are Firewise. The rest is being done it is at the Fire Department level and not county.	Improve
Fire	Franklin County Municipalities	Implement policies and regulations to reduce the threat of fire and life loss in residential structures.	None Needed	Staff Time	Short Term	Combine into Firewise action above. Seems a bit redundant.	Remove
Hazardous Materials	FCDES	Develop a comprehensive assessment and safety exam of all SARA facilities every two years.	Grant Funds and County Funds	Staff Time	Short Term	Facility walk-throughs being performed and facility Tier II plans being updated by Franklin County HAZMAT Coordinator annually.	Maintain
All Hazards	FCDES and Franklin County Municipalities	Assign and train additional County employees and volunteers to assist the Emergency Operations Center Staff, so they can be called upon in the event of major emergencies.	County Funds	Staff Time	Medium Term	County Administrators have identified mandatory personnel for EOC positions to augment FCDES. Training is provided at FCPSTC and FCDES for all personnel on emergency management...very little EOC personnel attendance in training other than FCDES.	Improve
All Hazards	FCDES	Assist municipalities in the preparation and maintenance of Municipal Emergency Operations Plans	County Funds and EMPG	Staff Time	Medium Term	Currently being done by Planning Coordinator	Maintain

Figure J.1.3: Analysis of 2014 HMP Action Plan – Page 3 of 6

Appendix J: Analysis of 2014 Franklin County HMP Action Plan

Hazard Assessed	Lead Agency for Implementation	Mitigation Action	Possible Funding Sources	Approximate Cost	Time Frame	Status/Progress	Recommended Action
All Hazards	FCDES	Foster relationships with other counties so that Franklin County may utilize mutual aid in Emergency Operations positions.	None Needed	Staff Time	Medium Term	Relationships are good with all SCTF counties. Can use work on non-SCTF neighbors. All mutual aid agreements need to be updated.	Maintain
All Hazards	FCDES and Franklin County Planning Department	Provide assistance to municipalities in implementing individual hazard mitigation actions.	County Funds	Staff Time	Medium Term	As needed basis...has not happened, but may be due to the quality of original County HMP.	Improve
All Hazards	FCDES, Franklin County Municipalities, Franklin County Planning Department, and Franklin County IT Department	Incorporate local data in HAZUS models.	County Funds	Staff Time	Medium Term	Currently being done by GIS personnel	Maintain
Flood	Franklin County Municipalities	Ensure proper enforcement of municipal Floodplain ordinances.	None Needed	Staff Time	Medium Term	Currently being done.	Maintain
High Winds	Franklin County Municipalities	Develop a Debris Management Plan to include quick "Help Sheets" built upon various types of incidents and events.	None Needed	Staff Time	Medium Term	Not done. To be completed after HMP acceptance.	Improve
Fire	FCDES	Identify and implement incentives to encourage municipal officials to participate in training.	County Funds	TBD	Medium Term	Currently being done. County offers all emergency management and preparedness training at no cost to any Franklin County citizen.	Maintain
All Hazards	Franklin County Municipalities	Continue to stringently enforce all building codes in effect.	None	Staff Time	Medium Term	Currently being done.	Maintain

Figure J.1.4: Analysis of 2014 HMP Action Plan – Page 4 of 6

Appendix J: Analysis of 2014 Franklin County HMP Action Plan

Hazard Assessed	Lead Agency for Implementation	Mitigation Action	Possible Funding Sources	Approximate Cost	Time Frame	Status/Progress	Recommended Action
All Hazards	Franklin County Planning Department	Work with municipalities to integrate County Hazard Mitigation Plan into municipal Comprehensive Plans, subdivision and Land Development Ordinances, and Zoning Ordinances.	None	Staff Time	Medium Term	Currently being done, but need to reach out to some municipalities as they currently have no Comprehensive Plan or Zoning ordinances.	Improve
All Hazards	FCDES	Increase funding and resources for public outreach and education with focused programs designed to address the highest risks in the community with the goal of reducing community risk and the cost of emergencies in the community.	County Funds	TBD	Medium Term	Currently active in outreach program providing fire, weather, and Shelter -in-place preparedness training to high risk communities.	Maintain
All Hazards	FCDES	Identify metrics for measuring community risk to establish benchmark. Utilize these benchmarks when implementing risk reduction strategies and develop reporting mechanism for reporting progress.	None	Staff Time	Medium Term	Hazard Risk Self Assessment survey was sent out to each municipality as part of this HMP update. This tool will be used to update and modify priorities at the local and county level. Keeping the HMP team in place through the 5-yr cycle will help facilitate these changes being tracked and documented.	Maintain
All Hazards	FCDES	Develop a means to fund the purchase and distribution of NOAA weather radios at no or reduced cost to the citizens of Franklin County.	Grant Funds	TBD	Medium Terms	Not feasible. There are new means via WEA and smart phone technologies to get his information in real-time.	Remove
All Hazards	FCDES, American Red Cross, and Franklin County Municipalities.	Evaluate and update evacuation and sheltering plans throughout Franklin County.	Grant Funds and County Funds	TBD	Medium Term	Working with Red Cross to update sheltering plans for EOP and all annexes. Need additional space to cover Annex E.	Maintain
Flood	Franklin County Municipalities	Utilize engineered solutions to slow or alter streams to limit damage to the built environment.	Grant Funds	TBD	Medium Term	Not being done, but is a worthwhile effort to identify areas that may be good candidates with recurring damages.	Improve

Figure J.1.5: Analysis of 2014 HMP Action Plan – Page 5 of 6

Appendix J: Analysis of 2014 Franklin County HMP Action Plan

Hazard Assessed	Lead Agency for Implementation	Mitigation Action	Possible Funding Sources	Approximate Cost	Time Frame	Status/Progress	Recommended Action
Fire	Franklin County Municipalities	Develop programs which provide home safety exams throughout Franklin County.	Grant Funds and Municipal Funds	TBD	Medium Term	Some municipalities have programs for smoke detector installs, but not much more. Need to revise to be more specific.	Improve
Hazardous Materials	FCDES	Ensure and expand the capabilities of regional decontamination team to include providing mass, emergency, and technical decontamination.	Grant Funds and County Funds	TBD	Medium Terms	Work with Cumberland SHOTS team and SCTF on this. Also have basic mitigation response and decontamination resources at the County.	Maintain
Hazardous Materials	FCDES	Develop and maintain a cache of hazardous materials mitigation supplies for deployment as needed.	Grant Funds and County Funds	TBD	Medium Term	County does maintain a basic supply of response assets and consumables for mitigation responses.	Maintain
Transportation	FCDES	Develop a comprehensive approach to reducing the level of damage and loss due to transportation accidents.	County Funds and Grant Funds	TBD	Long Term	Not being done. Too general, needs to be revised to make a more specific action(s).	Improve

Figure J.1.6: Analysis of 2014 HMP Action Plan – Page 6 of 6

Appendix K: On-Line Survey Results

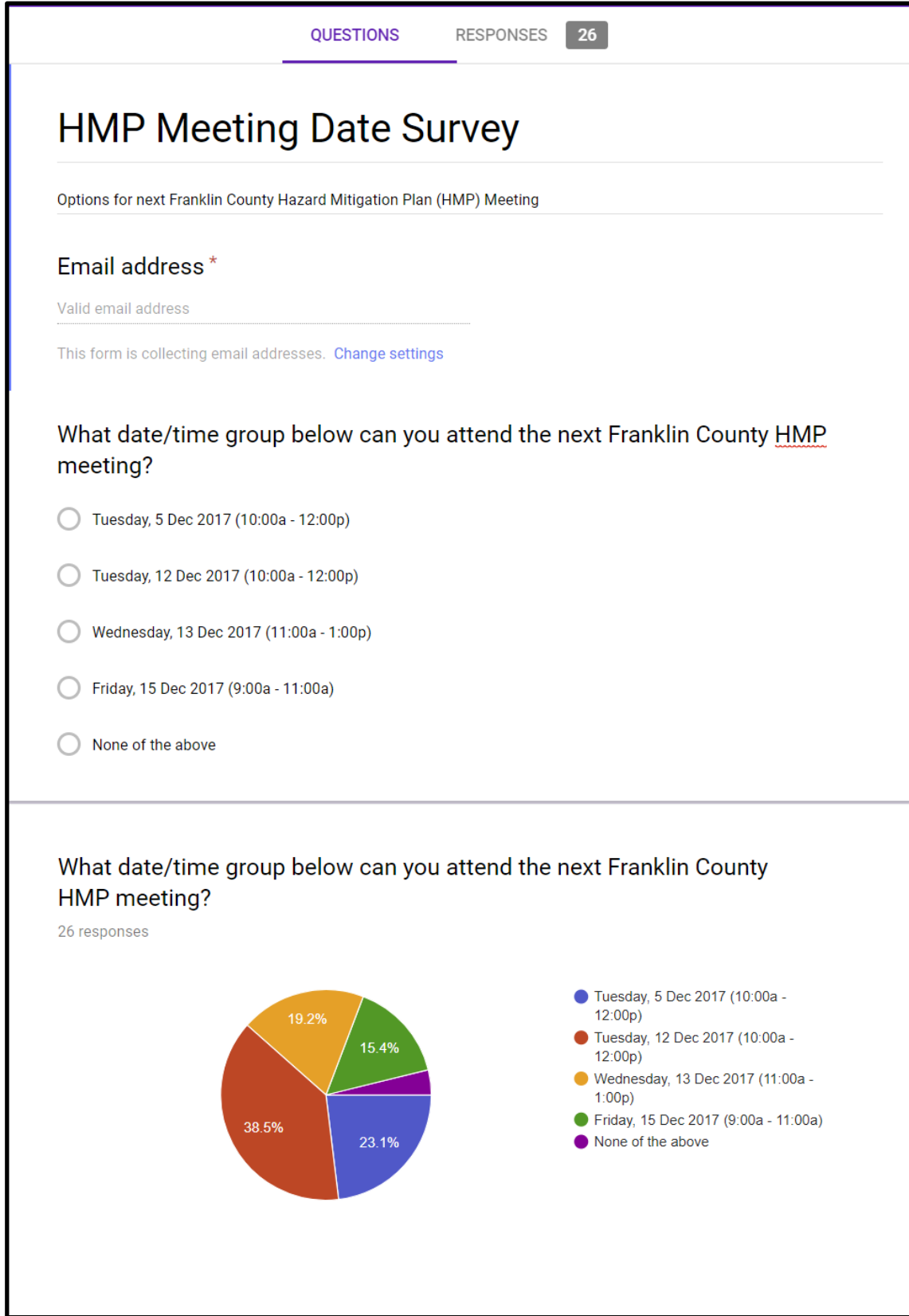


Figure K.1: Survey for Dec 2017 HMP Meeting (Posted 9 Oct 2017)

Appendix K: On-Line Survey Results

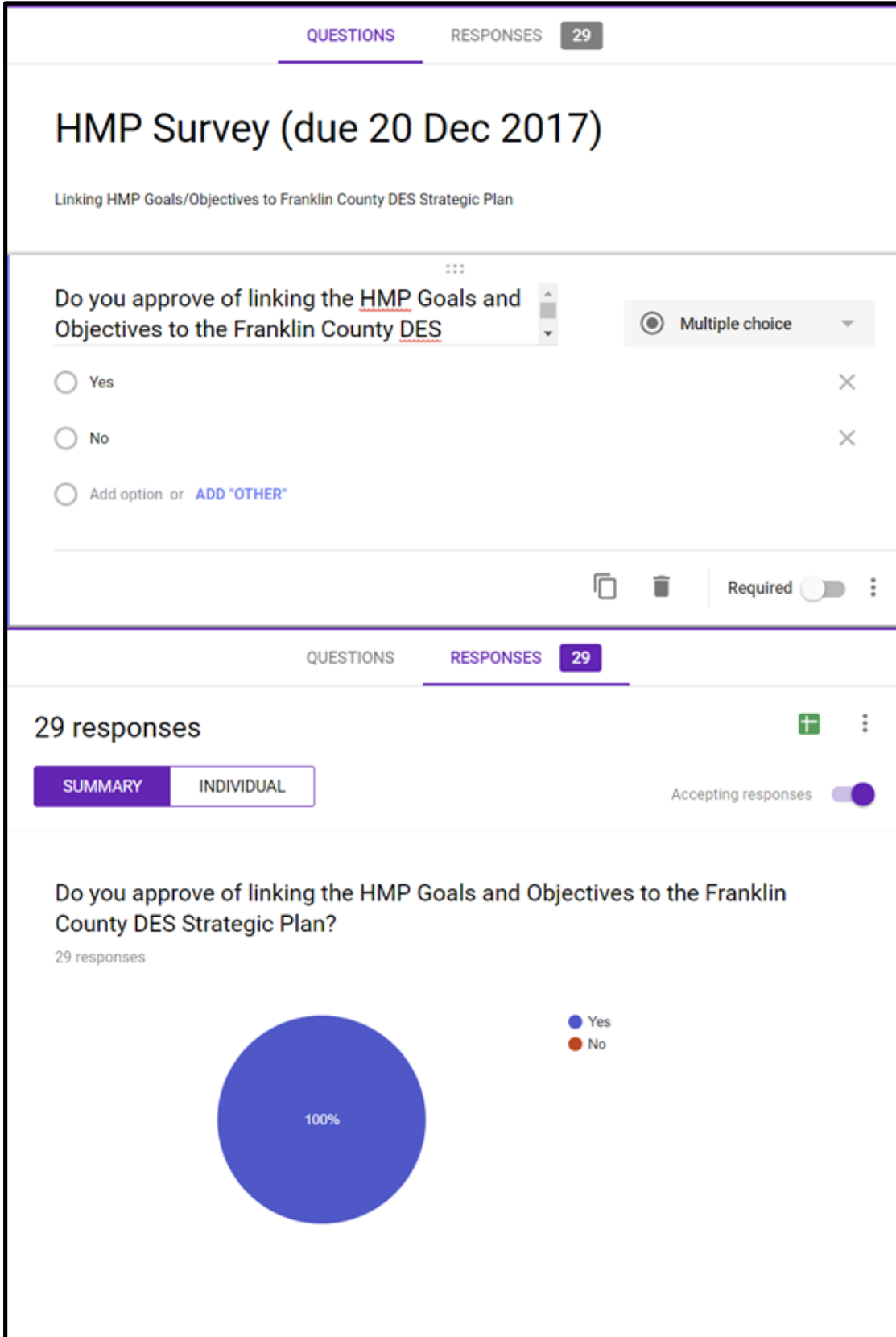


Figure K.2: Survey for Approval to Link HMP to FCDES Strategic Plan (Posted 14 Dec 2017)

Appendix K: On-Line Survey Results

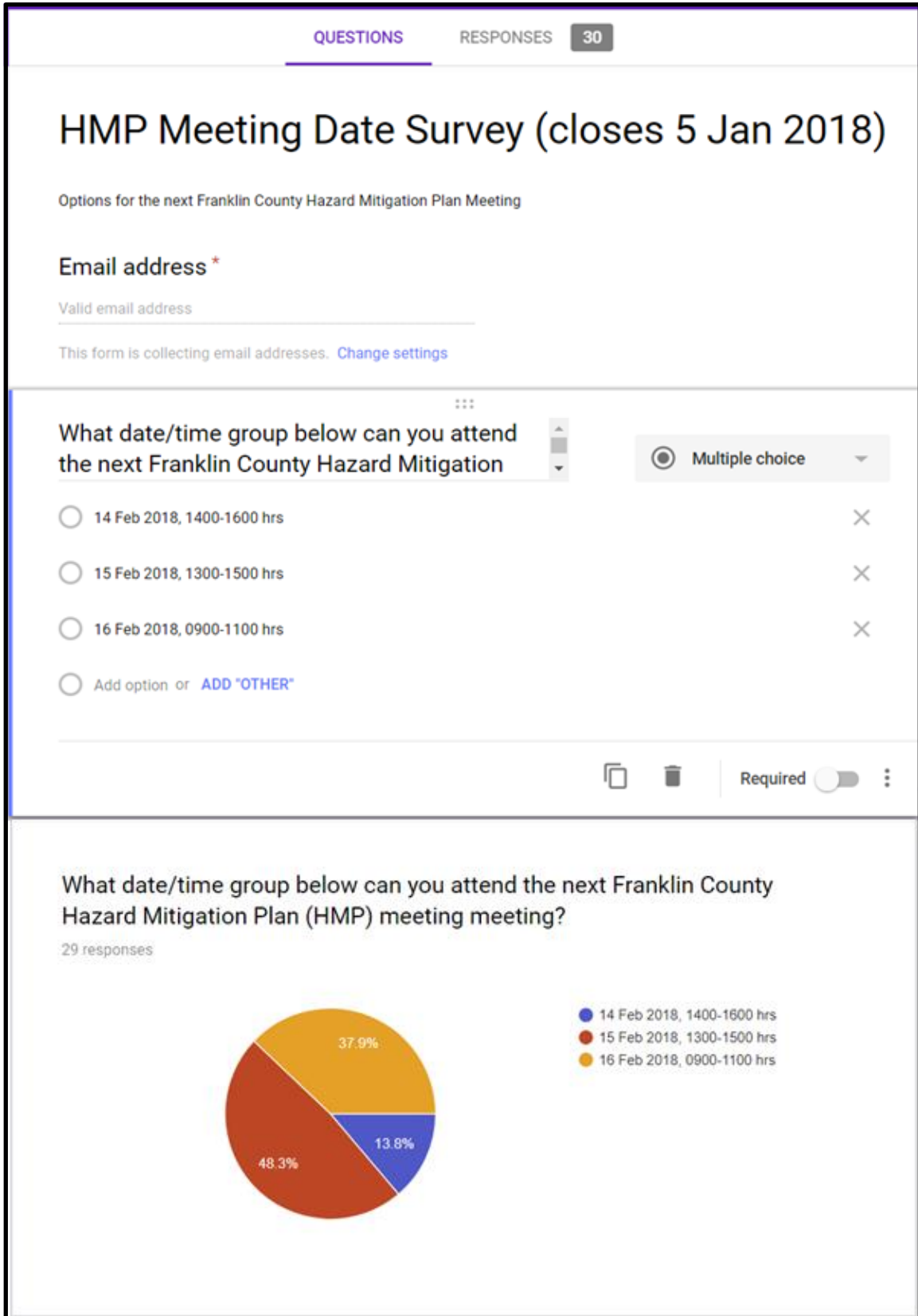


Figure K.3: Survey for Feb 2018 HMP Meeting (Posted 19 Dec 2017)

Appendix K: On-Line Survey Results

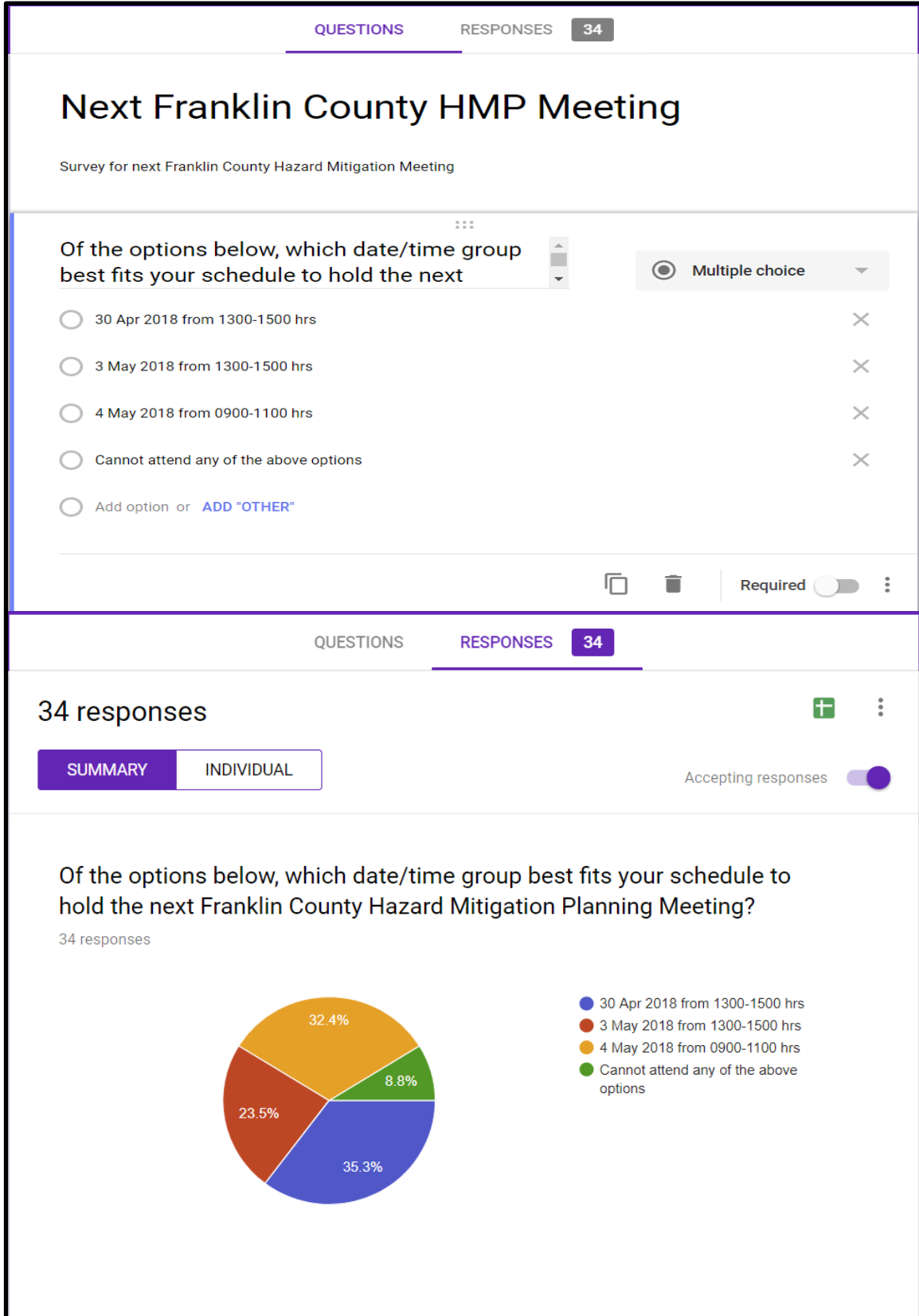


Figure K.4: Survey for Apr/May 2018 HMP Meeting (Posted 28 Feb 2018)

Appendix K: On-Line Survey Results

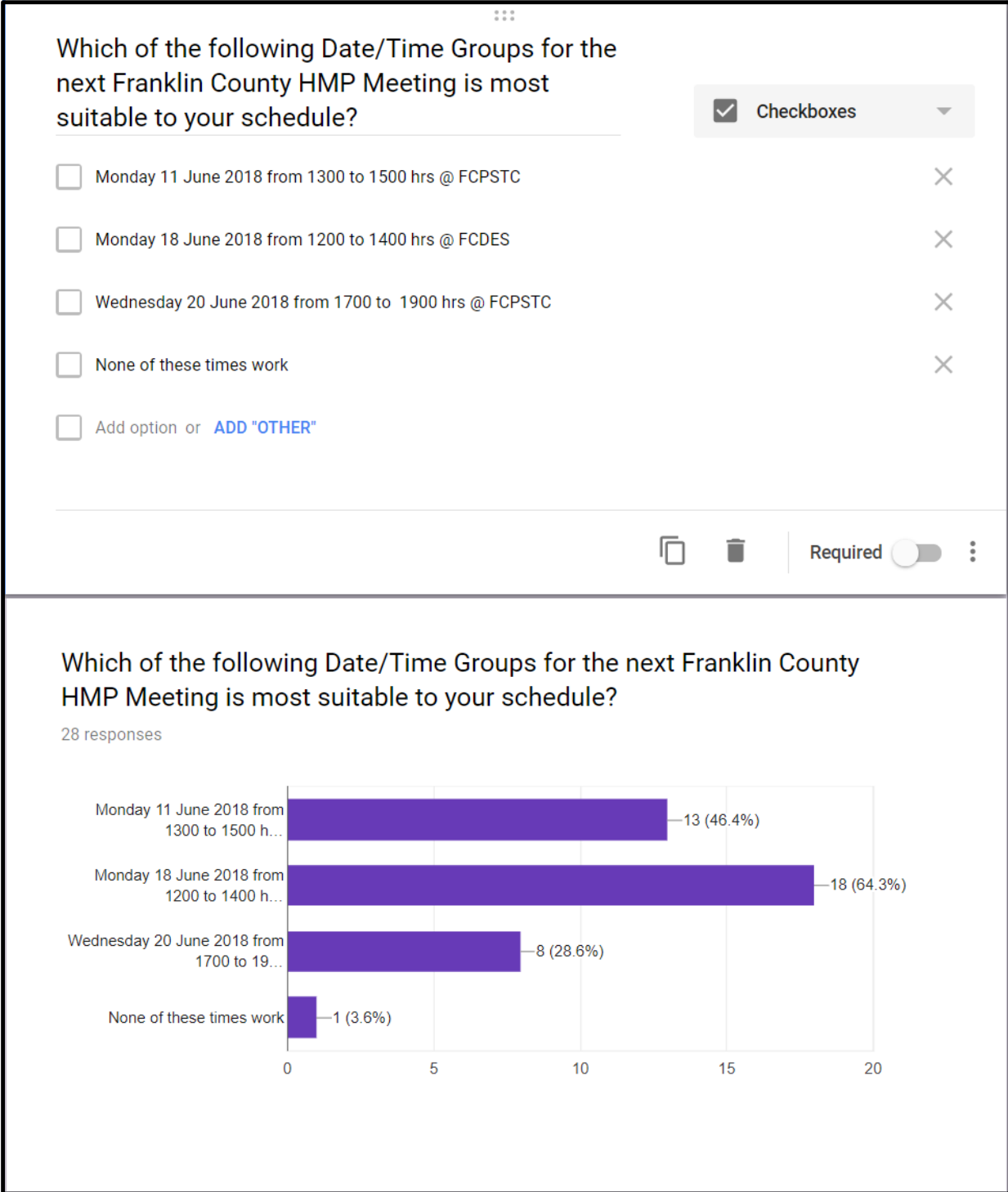


Figure K.5: Survey for June 2018 HMP Meeting (Posted 11 May 2018)

Appendix K: On-Line Survey Results

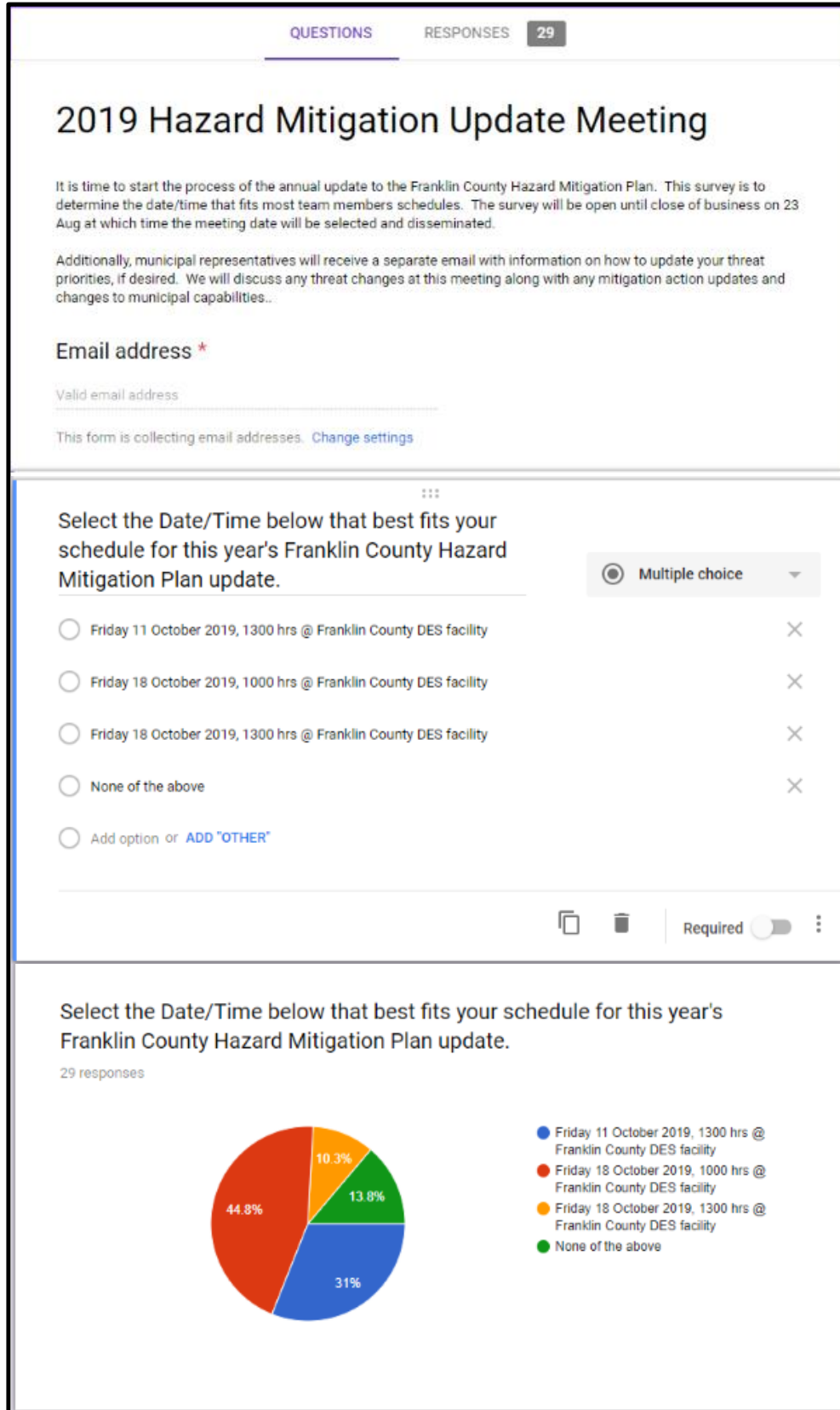


Figure K.6: Survey for Oct 2019 Annual HMP Update Meeting (Posted 30 August 2019)

Appendix K: On-Line Survey Results

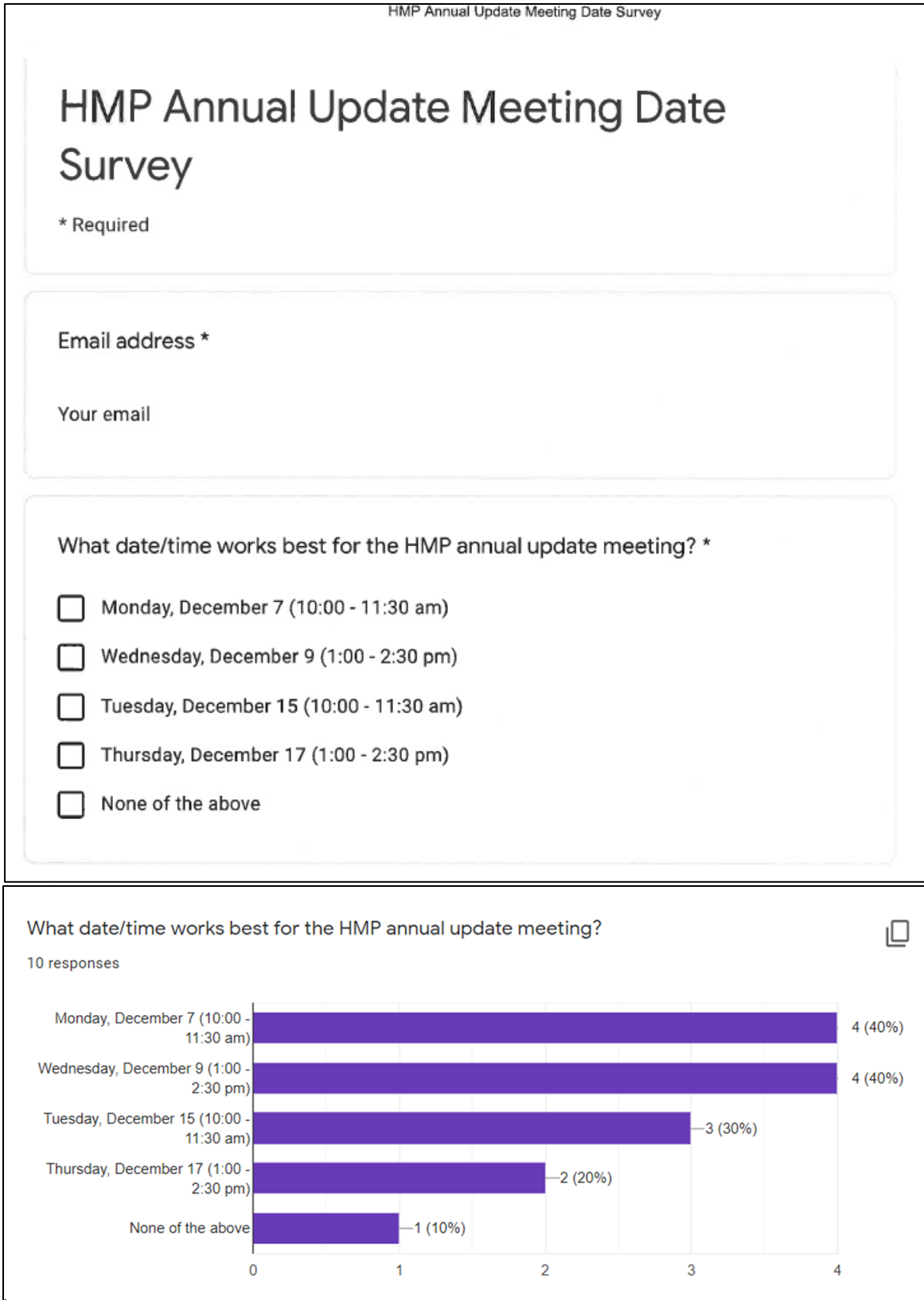


Figure K.7: Survey for Dec 2020 Annual HMP Update Meeting (Posted 21 October 2020)

Appendix L: Score Sheets for Grading Mitigation Actions

Goal 1 Mitigation Actions:

1A1: Assign and train additional County employees and volunteers to assist the Emergency Operations Center (EOC) staff, so they can be called upon in the event of major emergencies.

Life Safety:	0 – EOC Training will not directly save lives
Property Protection:	0 – EOC Training will not directly save property
Technical:	1 – This is feasible
Legal:	1 – DES has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has county support to do this
Cost:	1 – Staff time only
Administrative:	1 – County has mandated EOC membership
Local Champion:	1 – DES, EMC
Social:	1 – Addresses the needs of the entire county
Other Community Objectives:	1 – Impacts all hazards and plans

1A2: Incorporate local data in HAZUS models.

Life Safety:	0 – GIS mapping will not directly save lives
Property Protection:	1 – GIS planning can save property
Technical:	1 – This is feasible
Legal:	1 – GIS has authority to do this
Environmental:	1 – Planning can positively impact the environment
Political:	1 – GIS has county support to do this
Cost:	0 – May require more staff time than is available
Administrative:	-1 – Considerable time to invest, may need support
Local Champion:	1 – GIS Specialist
Social:	1 – This will address the entire county
Other Community Objectives:	1 – Impacts all hazards and plans

1A3: Conduct routine (monthly) inspections, regular maintenance, and annual tests on all emergency communications equipment, public address systems, and alert sirens to ensure unhindered operation during an emergency.

Life Safety:	1 – Early warning saves lives
Property Protection:	0 – Early warning does not necessarily save property
Technical:	1 – We currently do this
Legal:	1 – We have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – Commissioners support and expect us to do this
Cost:	1 – Already funded systems
Administrative:	1 – Manpower on staff to do this
Local Champion:	1 – DES already does this
Social:	1 – Does not leave sections of the population out
Other Community Objectives:	1 – Impacts all hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

1A4: Improve emergency management warning and response capabilities and procedures to better protect the public through continued implementation of early warning or alert systems that utilize cloud based communications technologies to distribute texts, phone calls, email alerts, or social media messages.

Life Safety:	1 – Early warning does save lives
Property Protection:	0 – Early warning does not necessarily save property
Technical:	1 – Already in place and used, so technically feasible
Legal:	1 – DES has authority to use these systems
Environmental:	0 – Neither positively nor negative impacts the environment
Political:	1 – Commissioners are supportive of this
Cost:	1 – Systems are already in place...previous expenditures
Administrative:	0 – Can be done with existing resources, but dedicated is better
Local Champion:	1 – DES already does this
Social:	-1 – May exclude older generations not on-line
Other Community Objectives:	1 – Impacts all hazards and plans

1A5: Design and implement a Mass Emergency Notification System for Greene Township. Township emergency notification system would contact residents within a geographical area of emergencies such as flooding, hazardous materials incidents, evacuations, police and fire related incidents.

Life Safety:	1 – Mass notification save lives
Property Protection:	1 – Mass notification can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	1 – Impacts all hazards and plans

1A6: Research and coordinate with PEMA and NWS on installation of an Integrated Flood Observation and Warning System (IFLOWS) Stream Gauge on the Conococheague Creek near the Chambersburg Waste Treatment facility to provide early warning of Flash Flood Conditions for Franklin County.

Life Safety:	1 – Early Warning Systems save lives
Property Protection:	1 – Early Warning Systems can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – Will require state approval and funding to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Franklin County EMC
Social:	1 – Addresses the needs of the County
Other Community Objectives:	0 – Only really addresses the flood, flash flood & ice jam threat

Appendix L: Score Sheets for Grading Mitigation Actions

1B1: Evaluate and update evacuation and sheltering plans throughout Franklin County annually.

Life Safety:	1 – Evacuation/Sheltering plans save lives
Property Protection:	0 – These plans do not save property
Technical:	1 – They are feasible
Legal:	1 – DES has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has the county support to do this
Cost:	1 – Would be staff time only
Administrative:	0 – DES would have to prioritize workload to complete
Local Champion:	1 – DES, Planning Coordinator
Social:	1 – Would address the entire county
Other Community Objectives:	1 – Impacts all hazards and plans

1B2: Identify and promote awareness of community shelters. These facilities would provide temporary refuge for the county's vulnerable populations during extreme cold or heat conditions.

Life Safety:	1 – Shelter preparedness can save lives
Property Protection:	0 – This will not save property
Technical:	1 – This is feasible
Legal:	1 – DES has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has county support to do this
Cost:	1 – Staff time only
Administrative:	1 – Can be done working with Red Cross
Local Champion:	1 – DES, EMC
Social:	1 – Will address the entire county
Other Community Objectives:	1 – Impacts multiple threats and plans

1B3: Review and assess for the need to upgrade insulation in commercial or residential buildings that currently house or will house high-risk populations during extreme winter weather events.

Life Safety:	1 – Shelter preparedness saves lives
Property Protection:	0 – This will not save property
Technical:	1 – This is feasible
Legal:	1 – May not have owner permission to alter facility
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – Cannot force owners to make changes
Cost:	-1 – This will require HMPG grants
Administrative:	0 – DES will have to prioritize workload to complete
Local Champion:	1 – DES, Planning Coordinator
Social:	1 – Addresses the needs of the entire county
Other Community Objectives:	1 – Impacts multiple hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

1B4: Develop, staff, fund, and exercise a robust County Animal Response Team (CART) capability to provide care and shelter for a wide variety of animals from livestock to exotic pets during a mass relocation event.

Life Safety:	0 – Does not save lives
Property Protection:	1 – Does save property
Technical:	1 – This is feasible
Legal:	1 – DES has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	0 – We have lost support for CERT and related programs
Cost:	-1 – We no longer have county/state funding, need grants
Administrative:	0 – Need more volunteers trained to support
Local Champion:	1 – Makenzie Moser
Social:	1 – Will support the entire county
Other Community Objectives:	1 – Impacts all hazards and plans

1C1: Review and evaluate facilities, equipment, personnel, and other resources needed to support emergency responses annually and update County/Municipal Resource Books.

Life Safety:	0 – This effort does not directly save lives
Property Protection:	0 – This effort does not save property
Technical:	1 – This is feasible
Legal:	1 – Des has authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has county support to do this
Cost:	1 – DES staff hours
Administrative:	1 – DES already does this
Local Champion:	1 – DES, IMT Coordinator
Social:	1 – Addresses the entire county
Other Community Objectives:	1 – Impacts all hazards and plans

1C2: Develop a comprehensive assessment and safety exam of all SARA facilities every two years.

Life Safety:	1 – HAZMAT preparedness saves lives
Property Protection:	1 – Routine inspections can save property
Technical:	1 – Currently do this
Legal:	1 – We have authority to do this
Environmental:	1 – Positive impacts on environment by keeping to standards
Political:	1 – We have political support to do this
Cost:	1 – Currently funded through HAZMAT Grants
Administrative:	1 – Have the staff to do this
Local Champion:	1 – DES HAZMAT Coordinator
Social:	1 – Addresses SARA facilities in all parts of the county
Other Community Objectives:	0 – Only really addresses environmental hazards threat

Appendix L: Score Sheets for Grading Mitigation Actions

1C3: Develop a Debris Management Plan to include quick "Help Sheets/checklists" built upon various types of incidents and events.

Life Safety:	0 – Debris management does not save lives
Property Protection:	0 – Debris management does not save property
Technical:	1 – This is feasible
Legal:	1 – DES has authority to do this
Environmental:	1 – Debris removal improves the environment
Political:	1 – DES has the county support to do this
Cost:	1 – Staff time only
Administrative:	0 – DES would have to prioritize workload to complete
Local Champion:	1 – DES, Planning Coordinator
Social:	1 – Addressed the entire county
Other Community Objectives:	1 – Impacts multiple plans and threats

1C4: Ensure and expand the capabilities of regional decontamination team to include providing mass, emergency, and technical decontamination.

Life Safety:	1 – Capability can save lives
Property Protection:	1 – Capability can save property
Technical:	1 – Capability already exists, so it is feasible
Legal:	0 – This is a SCTF asset...may not be able to influence changes
Environmental:	1 – Has positive impact by clean-up capabilities
Political:	0 – With TMI possibly shutting down...may not have support
Cost:	0 – Without driving need from TMI, may not have ROI
Administrative:	1 – Currently staffed through SCTF
Local Champion:	1 – DES IMT Coordinator
Social:	0 – May lose support without TMI mission
Other Community Objectives:	0 – Only really addresses the nuclear incident threat

1C5: Develop and maintain a cache of hazardous materials mitigation supplies for deployment as needed.

Life Safety:	0 – These supplies don't really save lives
Property Protection:	1 – These supplies do save property
Technical:	1 – We currently do this
Legal:	1 – We have the authority to do this
Environmental:	1 – Materials used to clean-up the environment
Political:	1 – We have county political support to do this
Cost:	1 – Currently funded through HAZMAT Grants
Administrative:	1 – We have current staff to do this
Local Champion:	1 – DES HAZMAT Coordinator
Social:	1 – Support provided to all county
Other Community Objectives:	0 – Really only addresses the environmental hazard threat

Appendix L: Score Sheets for Grading Mitigation Actions

1C6: Conduct hazard response practice drills and emergency management exercises on an annual basis.

Life Safety:	1 – Training and exercises save lives
Property Protection:	1 – Training and exercises save property
Technical:	1 – This is feasible
Legal:	1 – DES has authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has county support to do this
Cost:	1 – Staff time
Administrative:	0 – Will require additional resources/funds to execute
Local Champion:	1 – DES, EMC
Social:	0 – Will have to focus on small sections of the county and grow
Other Community Objectives:	1 – Impacts all hazards and plans

1C7: Work with utility companies to improve right-of-way tree management and encourage the burying of utility lines, especially in high frequency outage areas.

Life Safety:	1 – This could save lives, reducing car/telephone pole accidents
Property Protection:	1 – Could save property
Technical:	1 – This is feasible
Legal:	0 – Cannot force utilities to bury lines
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	0 – May not get all municipalities/utilities to participate
Cost:	-1 – Would require HMPG funding
Administrative:	0 – Municipalities/utilities would need resource augmentation
Local Champion:	1 – Local EMCs
Social:	0 – Some municipalities and utilities will not support
Other Community Objectives:	1 – Impacts multiple hazards and plans

1C8: Upgrade/maintain Radiological Emergency Preparedness activities, Radiological Testing/Response Equipment, and Franklin County Annex E for the Three Mile Island Power Station to ensure they comply with FEMA's 2016 Radiological Emergency Preparedness Program guidance.

Life Safety:	1 – Radiological preparedness saves lives
Property Protection:	1 – Radiological preparedness can save property
Technical:	1 – We already do this
Legal:	1 – We have the authority to do this
Environmental:	1 – Radiological preparedness and clean-up is a positive
Political:	0 – May lose support if TMI mission goes away
Cost:	1 – Currently funded through RERF Grant
Administrative:	-1 – Not enough staff to do this ad man EOC
Local Champion:	0 – Have radiological Officer, but double tapped
Social:	0 – Support may wane with TMI mission closure
Other Community Objectives:	0 – Only really addresses the nuclear incident threat

Appendix L: Score Sheets for Grading Mitigation Actions

1C9: Foster increased cooperation and communication between Franklin County EMC and the owners of privately held dams that might impact downstream communities through outreach, education, and dam failure scenarios or exercises, as appropriate.

Life Safety:	1 – Dam failure preparedness can save lives
Property Protection:	1 – Dam failure preparedness can save property
Technical:	1 – This is feasible
Legal:	0 – May not have authority to address all dams
Environmental:	1 – Precluding dam failures can protect the environment
Political:	1 – DES has county support to do this
Cost:	1 – Only staff time
Administrative:	0 – DES will have to prioritize workload to complete
Local Champion:	1 – DES, EMC
Social:	-1 – Some dam owners communities will not support
Other Community Objectives:	1 – Impacts multiple hazards and plans

1C10: Identify a source of back-up power for all critical facilities including schools, government buildings, medical facilities, and emergency services (police, Fire, and EMS).

Life Safety:	1 – Back-up power can sustain lives
Property Protection:	1 – Back-up power can protect property (perishables)
Technical:	1 – It is technically feasible
Legal:	0 – Cannot force all entities to get back-up power
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	0 – May not get full support of all municipalities
Cost:	-1 – Would need to fund through grants
Administrative:	0 – Staff may not be able to capture entire county
Local Champion:	1 – County plans Department
Social:	0 – Only applies to critical facilities
Other Community Objectives:	1 – Impacts multiple threats and plans

1C11: Demolish abandoned or collapsed structures and clean up junk and debris.

Life Safety:	1 – Fire prevention saves lives
Property Protection:	1 – Fire prevention saves property
Technical:	1 – This is feasible
Legal:	0 – Municipalities cannot force home owners to comply
Environmental:	1 – Debris management will improve the environment
Political:	0 – Municipalities may not support this
Cost:	-1 – Will require HMPG grants
Administrative:	0 – Municipalities will need resource augmentation
Local Champion:	0 – Will need to find local advocate
Social:	-1 – Some property owners will not support
Other Community Objectives:	0 – Only impacts the Urban Fire & Explosion hazard

Appendix L: Score Sheets for Grading Mitigation Actions

1C12: Work aggressively to control and manage roadside brush and trees that could block roadways following a severe storm.

Life Safety:	0 – Will not directly save lives
Property Protection:	1 – Can save property
Technical:	1 – It is feasible
Legal:	0 – Municipal and state authorities will have to agree
Environmental:	1 – Can positively impact environment, reduce fire hazard
Political:	1 – County will support this effort
Cost:	0 – Some funding available, but will require additional grants
Administrative:	0 – Municipal public works staff will require augmentation
Local Champion:	1 – Public Works management
Social:	0 – May require right-of-way discussions with home owners
Other Community Objectives:	1 – Impacts multiple hazards and plans

1C13: Study the feasibility of mandatory or voluntary installation of seismic shutoff valves on natural gas meters at commercial and residential buildings.

Life Safety:	1 – Utility preparedness can save lives
Property Protection:	1 – Utility preparedness can save properties
Technical:	1 – This is feasible
Legal:	0 – Cannot force property owners to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	0 – May not get municipalities to support this
Cost:	1 – To study this, only staff time—implement is bigger issue
Administrative:	0 – Local Government's to staff
Local Champion:	0 – to local Government to prioritize
Social:	0 – Only impacts houses with natural gas
Other Community Objectives:	1 – Impacts multiple hazards and plans

1C14: Develop plans and coordinate the breaching of the W. H. Walker Dam in Fannettsburg. Work with DEP and Army Corps of Engineers to breach dam due to abandonment and disrepair to prevent inundation to the Path Valley area.

Life Safety:	1 – Dam failure prevention saves lives
Property Protection:	1 – Dam failure prevention saves property
Technical:	1 – This is feasible
Legal:	1 – State/County/Municipality all have legal authority
Environmental:	1 – Preventing dam failure protects the environment
Political:	0 – Local support may be tough to get, no land owner
Cost:	-1 – Will require HMPG grant funding
Administrative:	0 – Will require additional resources
Local Champion:	1 – Metal Township, EMC
Social:	-1 – Parts of the community will not support
Other Community Objectives:	1 – Impacts multiple hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

1C15: Improve tracking and collection of boil water advisories throughout the county to identify potential problem areas for mitigation project development.

Life Safety:	0 – Collecting boil water data will not save lives
Property Protection:	0 – Collecting boil water data will not save property
Technical:	1 – This is possible
Legal:	1 – DES, 911 has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES, 911 has county support to do this
Cost:	1 – Staff time only
Administrative:	0 – Will have to develop process to do this, resources
Local Champion:	1 – DES, 911 Coordinator
Social:	1 – This will address the entire county
Other Community Objectives:	0 – Only impacts the Drought hazard

1C16: Install traffic signal to mitigate accidents at intersection. (Grandpoint Rd. and North Parkwood Dr.)

Life Safety:	1 – Traffic control saves lives
Property Protection:	1 – Traffic control saves property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	1 – They have the manpower to execute this
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Transportation Accident

1C17: Collect data and engineer a solution to reduce congestion and number of accidents at critical intersection (Kohler Rd. at Walker Rd.)

Life Safety:	1 – Traffic control saves lives
Property Protection:	1 – Traffic control saves property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	1 – They have the manpower to execute this
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Transportation Accident

Appendix L: Score Sheets for Grading Mitigation Actions

1C18: Widen I-81 to 6 lanes (3 each direction) between Exit 17 and 20 to assist in reduction of traffic congestion.

Life Safety:	1 – Traffic control saves lives
Property Protection:	1 – Traffic control saves property
Technical:	1 – This is feasible
Legal:	0 – Will have to coordinate with PennDOT to execute
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	0 – I-81 traffic caused by construction may not be liked
Cost:	-1 – This will require significant external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Transportation Accident

1C19: Execute a traffic analysis survey on SR 997 (Black Gap Road) to Scotland, PA to determine if reduction in speed limit could reduce accidents. Multiple accidents in the area with at least 1 fatality.

Life Safety:	1 – Traffic control saves lives
Property Protection:	1 – Traffic control saves property
Technical:	1 – This is feasible
Legal:	0 – May have to coordinate with PennDOT to execute
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	0 – This will require external funding
Administrative:	1 – They have the manpower to execute this
Local Champion:	1 – Greene Township EMC
Social:	0 – Reduced speed will not be like by all
Other Community Objectives:	0 – Only impacts Transportation Accident

1C20: Work with PennDOT to analyze traffic patterns at the I-81 Northbound Exit 20 off-ramp to determine if the deceleration lane is of sufficient length. Engineer, plan, and implement a solution to address the deficiencies found. Multiple accidents in this area.

Life Safety:	1 – Traffic control saves lives
Property Protection:	1 – Traffic control saves property
Technical:	1 – This is feasible
Legal:	0 – Will have to coordinate with PennDOT to execute
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require significant external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Transportation Accident

Appendix L: Score Sheets for Grading Mitigation Actions

1C21: Partner with PennDOT to determine proper sight distance for intersection (SR 997 (Cumberland Hwy) and Smith Rd.). Engineer, plan, and implement solutions to address the deficiencies found.

Life Safety:	1 – Traffic control saves lives
Property Protection:	1 – Traffic control saves property
Technical:	1 – This is feasible
Legal:	0 – May have to coordinate with PennDOT to execute
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Transportation Accident

1C22: Perform traffic study to assess the need for new turning lanes and traffic signals at intersection (Coffee Ave, SR 433, and SR 997). (Letterkenny Army Depot Main Gate). Engineer, plan, and implement solutions to address the deficiencies found.

Life Safety:	1 – Traffic control saves lives
Property Protection:	1 – Traffic control saves property
Technical:	1 – This is feasible
Legal:	0 – May have to coordinate with PennDOT to execute
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Transportation Accident

1C23: Perform traffic study to determine if traffic signals are warranted at intersection (Siloam Rd, SR 11 (Philadelphia Ave), and Chancellor Dr) (2 fatal accidents at this intersection). Engineer, plan, and implement solutions to address the deficiencies found.

Life Safety:	1 – Traffic control saves lives
Property Protection:	1 – Traffic control saves property
Technical:	1 – This is feasible
Legal:	0 – May have to coordinate with PennDOT to execute
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Transportation Accident

Appendix L: Score Sheets for Grading Mitigation Actions

1C24: Perform traffic study to address the sight distance at intersection (Mower Rd. and Walker Rd.). Engineer, plan, and implement solutions to address the deficiencies found.

Life Safety:	1 – Traffic control saves lives
Property Protection:	1 – Traffic control saves property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Transportation Accident

1C25: Perform traffic study at intersection of SR 997 (Black Gap Road) and Byers Rd. to determine if reduction in speed limit or traffic signal could reduce accidents. Engineer, plan, and implement solutions to address the deficiencies found.

Life Safety:	1 – Traffic control saves lives
Property Protection:	1 – Traffic control saves property
Technical:	1 – This is feasible
Legal:	0 – May have to coordinate with PennDOT to execute
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Transportation Accident

1C26: Study the feasibility of replacing the one lane bridge over Mountain Run at Coldsmith Rd and Church Rd to reduce accidents. Engineer, plan, and implement solutions to address the deficiencies found.

Life Safety:	1 – Traffic control saves lives
Property Protection:	1 – Traffic control saves property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	1 – They have the manpower to execute this
Local Champion:	1 – Greene Township EMC
Social:	0 – Execution of project will reroute traffic for residents
Other Community Objectives:	0 – Only impacts Transportation Accident

Appendix L: Score Sheets for Grading Mitigation Actions

1C27: Perform a study on the bridge overpasses at Pine Stump Rd. and Woodstock Rd to determine if width and height could be increased to reduce accidents. Engineer, plan, and implement solutions to address the deficiencies found.

Life Safety:	1 – Traffic control saves lives
Property Protection:	1 – Traffic control saves property
Technical:	1 – This is feasible
Legal:	-1 – Will have to coordinate with RR Owner and/or FRA
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require significant external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	0 – Construction will cause alt routes for residents
Other Community Objectives:	0 – Only impacts Transportation Accident

1C28: Procure battery back-up for all traffic signals in Greene Township. Battery back-up would assist in traffic flow during a power outage. This would reduce the need for emergency personnel at an intersection to direct traffic.

Life Safety:	1 – Emergency power for traffic signals can save lives
Property Protection:	1 – Emergency power for traffic signals can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Transportation Accident

1C29: Procure a generator for the Greene Township Emergency Management Agency Office. This generator will need to be 30,000 KW, fuel source will be Natural Gas.

Life Safety:	1 – Emergency Power for Local EOC can save lives
Property Protection:	0 – Emergency Power for EOC does not directly save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	1 – Impacts all hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

1C30: Research and develop a Continuity of Operations Plan (COOP) for Hamilton Township to assure the continuous operations of critical facilities and services during disasters/emergencies.

Life Safety:	1 – Hardened critical facilities and services can save lives
Property Protection:	1 – Hardened critical facilities can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	1 – This can be done within staff time only
Administrative:	0 – This will have to be prioritized in current workload
Local Champion:	1 – Hamilton Township EMC
Social:	0 – Only impacts critical facilities and services
Other Community Objectives:	1 – Impacts all hazards and plans

1C31: Research and develop a Continuity of Operations Plan (COOP) for Waynesboro Borough to assure the continuous operations of critical facilities and services during disasters/emergencies.

Life Safety:	1 – Hardened critical facilities and services can save lives
Property Protection:	1 – Hardened critical facilities can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Borough support to do this
Cost:	1 – This can be done within staff time only
Administrative:	0 – This will have to be prioritized in current workload
Local Champion:	1 – Waynesboro Borough EMC
Social:	0 – Only impacts critical facilities and services
Other Community Objectives:	1 – Impacts all hazards and plans

1C32: Research and develop a Continuity of Operations Plan (COOP) for Quincy Township to assure the continuous operations of critical facilities and services during disasters/emergencies.

Life Safety:	1 – Hardened critical facilities and services can save lives
Property Protection:	1 – Hardened critical facilities can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	1 – This can be done within staff time only
Administrative:	0 – This will have to be prioritized in current workload
Local Champion:	1 – Quincy Township EMC
Social:	0 – Only impacts critical facilities and services
Other Community Objectives:	1 – Impacts all hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

1C33: Research and develop a Continuity of Operations Plan (COOP) for Guilford Township to assure the continuous operations of critical facilities and services during disasters/emergencies.

Life Safety:	1 – Hardened critical facilities and services can save lives
Property Protection:	1 – Hardened critical facilities can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	1 – This can be done within staff time only
Administrative:	0 – This will have to be prioritized in current workload
Local Champion:	1 – Guilford Township EMC
Social:	0 – Only impacts critical facilities and services
Other Community Objectives:	1 – Impacts all hazards and plans

1C34: Research and develop a Continuity of Operations Plan (COOP) for Washington Township to assure the continuous operations of critical facilities and services during disasters/emergencies.

Life Safety:	1 – Hardened critical facilities and services can save lives
Property Protection:	1 – Hardened critical facilities can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	1 – This can be done within staff time only
Administrative:	0 – This will have to be prioritized in current workload
Local Champion:	1 – Washington Township EMC
Social:	0 – Only impacts critical facilities and services
Other Community Objectives:	1 – Impacts all hazards and plans

1C35: Research and develop a Continuity of Operations Plan (COOP) for Antrim Township to assure the continuous operations of critical facilities and services during disasters/emergencies.

Life Safety:	1 – Hardened critical facilities and services can save lives
Property Protection:	1 – Hardened critical facilities can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	1 – This can be done within staff time only
Administrative:	0 – This will have to be prioritized in current workload
Local Champion:	1 – Antrim Township EMC
Social:	0 – Only impacts critical facilities and services
Other Community Objectives:	1 – Impacts all hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

1C36: Research and develop a Continuity of Operations Plan (COOP) for Montgomery Township to assure the continuous operations of critical facilities and services during disasters/emergencies.

Life Safety:	1 – Hardened critical facilities and services can save lives
Property Protection:	1 – Hardened critical facilities can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	1 – This can be done within staff time only
Administrative:	0 – This will have to be prioritized in current workload
Local Champion:	1 – Montgomery Township EMC
Social:	0 – Only impacts critical facilities and services
Other Community Objectives:	1 – Impacts all hazards and plans

1C37: Research and develop a Continuity of Operations Plan (COOP) for Warren Township to assure the continuous operations of critical facilities and services during disasters/emergencies.

Life Safety:	1 – Hardened critical facilities and services can save lives
Property Protection:	1 – Hardened critical facilities can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	1 – This can be done within staff time only
Administrative:	0 – This will have to be prioritized in current workload
Local Champion:	1 – Warren Township EMC
Social:	0 – Only impacts critical facilities and services
Other Community Objectives:	1 – Impacts all hazards and plans

1D1: Review Mutual Aid Agreements annually and recommend changes/updates as required.

Life Safety:	0 – This will not directly save lives
Property Protection:	0 – This will not directly save property
Technical:	1 – This is feasible
Legal:	1 – DES/municipalities have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – County/municipalities support this
Cost:	1 – Staff time only
Administrative:	1 – This is a priority for DES
Local Champion:	1 – DES, Planning Coordinator
Social:	1 – Addresses the entire county
Other Community Objectives:	1 – Impacts all hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

1D2: Assist municipalities in the preparation and maintenance of Municipal Emergency Operations Plans (EOPs).

Life Safety:	1 – Preparedness saves lives
Property Protection:	1 – Preparedness saves property
Technical:	1 – We do this already
Legal:	1 – We have county support to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	-1 – We cannot force the municipalities to do this
Cost:	1 – Staff time would be only expenditure
Administrative:	0 – We have the staff, but not the time to do this completely
Local Champion:	1 – DES Planning Coordinator
Social:	0 – Not all communities want this help
Other Community Objectives:	1 – Impacts all hazards and plans

1D3: Foster relationships with other counties so that Franklin County may utilize mutual aid in Emergency Operations Center (EOC) positions.

Life Safety:	0 – This does not directly save lives
Property Protection:	0 – This will not save property
Technical:	1 – This is feasible
Legal:	1 – DES has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has county support to do this
Cost:	1 – Staff time only
Administrative:	0 – DES will have to prioritize workload to complete
Local Champion:	1 – DES, EMC
Social:	1 – This addresses the needs of the entire county
Other Community Objectives:	1 – Impacts all hazards and plans

1D4: Coordinate with local USDA and PSU Agriculture Extension representatives to develop a Mass Food Contamination annex to the Franklin County Emergency Operations Plan.

Life Safety:	1 – Mass contamination preparedness saves lives
Property Protection:	1 – Mass contamination preparedness saves property
Technical:	1 – This is feasible
Legal:	1 – DES has the authority to do this
Environmental:	1 – Preventing mass animal die-offs protects the environment
Political:	1 – DES has the support to do this
Cost:	1 – Staff time only
Administrative:	0 – DES will have to prioritize the workload to complete
Local Champion:	1 – DES, Planning Coordinator
Social:	1 – This will address the entire county
Other Community Objectives:	0 – Only impacts Mass Food/Animal Feed Contamination hazard

Appendix L: Score Sheets for Grading Mitigation Actions

1D5: Encourage Utility and Pipeline companies to prepare vulnerability studies to identify and remediate potential exploitable threats and problems.

Life Safety:	0 – This would not directly save lives
Property Protection:	1 – This could save property
Technical:	1 – This is feasible
Legal:	0 – Cannot force utility companies to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	0 – May not get all municipalities/utilities to participate
Cost:	-1 – Would require HMPG funding
Administrative:	0 – Municipalities/utilities would need resource augmentation
Local Champion:	1 – Local EMCs
Social:	0 – Some municipalities and utilities will not support
Other Community Objectives:	1 – Impacts multiple hazards and plans

1D6: Work with local Police Departments, Pennsylvania State Police, and First Responders to provide civil disturbance response training. Provide police presence at controversial events with large crowd gatherings as a means of discouraging conflict.

Life Safety:	1 – Civil Disturbance preparedness can save lives
Property Protection:	1 – Civil Disturbance preparedness can save property
Technical:	1 – This is feasible
Legal:	0 – Jurisdictions will have to approve
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	0 – May be difficult getting all players to buy in
Cost:	1 – Training budget and staff time
Administrative:	0 – DES will have to prioritize workload to do this
Local Champion:	1 – DES, Operations and Training Officer
Social:	1 – Will address the entire county
Other Community Objectives:	1 – Impacts multiple hazards and plans

1D7: Work with Public Works and PennDOT to identify high hazard roads in mountain passes and cut-areas to identify potential initiatives for cut backs off the right-of-way, fence, or wall/barrier projects to mitigate the damage of rockslide or falling debris hazards.

Life Safety:	1 – Prevention of landslides can save lives
Property Protection:	1 – Prevention of landslides can save property
Technical:	1 – This is feasible
Legal:	1 – Municipalities have the authority to do this
Environmental:	1 – Landslide prevention can protect the environment
Political:	0 – Will require state-level support
Cost:	0 – Some state funding exists, will need municipal grants
Administrative:	1 – Public works has the staff
Local Champion:	1 – Public works managers
Social:	0 – Will only impact the higher elevations in the county
Other Community Objectives:	1 – Impacts multiple hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

1D8: Work with local industry partners to assess the capacity of landfills to accommodate earthquake debris. Develop coordination plans for disposal of debris in the aftermath of an earthquake.

Life Safety:	0 – Debris management does not save lives
Property Protection:	0 – Debris management does not save property
Technical:	1 – This can be done
Legal:	1 – DES has the authority to do this
Environmental:	1 – clean up of debris improves the environment
Political:	1 – DES has county support to do this
Cost:	1 – Cost to put in place will be staff time
Administrative:	1 – DES has the staff to do this
Local Champion:	1 – DES, Planning Coordinator
Social:	1 – This will serve the entire county
Other Community Objectives:	1 – Impacts multiple hazards and plans

1D9: Study the possibility of forming a Township/County Hazardous Materials Team. Study number of trained volunteers or career persons in the county to form a hazardous materials team.

Life Safety:	1 – HAZMAT Response can save lives
Property Protection:	1 – HAZMAT Response can save property
Technical:	0 – Not sure this can be supported with trained personnel
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	-1 – The county already has a contract to do this
Cost:	-1 – This will require external funding
Administrative:	0 – Staff for study, but not implementation
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Environment Hazards

1E1: Survey, document, and incorporate private well locations in Franklin County into the GIS database for analyses of available water resources.

Life Safety:	1 – Could save lives, project dependent
Property Protection:	1 – May save property
Technical:	0 – May not be feasible, depending on project
Legal:	1 – DES has authority to do this
Environmental:	0 – Environmental impacts undefined
Political:	0 – May not be politically supported, project dependent
Cost:	0 – County may not have funding to support
Administrative:	0 – Will depend on the support need
Local Champion:	1 – DES, EMC
Social:	1 – Will support all municipal efforts at mitigation
Other Community Objectives:	1 – Can impact all hazard and plans

Appendix L: Score Sheets for Grading Mitigation Actions

1E2: Maintain/develop traffic re-route plans and coordinate them with neighboring municipalities for traffic accidents that impact major arteries in the County.

Life Safety:	1 – Alternative routes for EMS services saves lives
Property Protection:	0 – Does not directly save property
Technical:	1 – This is technically feasible
Legal:	1 – Municipalities have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – Municipalities have county support to do this
Cost:	1 – Staff time only
Administrative:	0 – Public works will need additional resources to do this
Local Champion:	1 – County Plans, Planning Coordinator, LRTCP
Social:	1 – This addressed the needs of the entire county
Other Community Objectives:	0 – Only impacts the Transportation Accident hazard

1E3: Develop and implement a Pandemic Response Plan early and in a coordinated effort with layered approach - individuals, community, county, and regional measures.

Life Safety:	1 – Preparedness saves lives
Property Protection:	0 – This response plan would not save property
Technical:	1 – This is feasible
Legal:	1 – DES has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has county support to do this
Cost:	1 – DES has the staff to do this
Administrative:	0 – DES would have to prioritize workload to complete
Local Champion:	1 – DES, Planning Coordinator
Social:	1 – This would address entire county
Other Community Objectives:	0 – Only impacts Pandemic and Infectious Disease threat

1E4: Survey, document, and incorporate private well locations in Franklin County into the GIS database for analyses of available water resources.

Life Safety:	0 – Drought preparedness does not directly save lives
Property Protection:	1 – Drought preparedness can save property
Technical:	1 – This is feasible
Legal:	1 – GIS has authority to do this
Environmental:	1 – Water management protects the environment
Political:	1 – GIS has county support to do this
Cost:	1 – Staff time only
Administrative:	0 – GIS will have to prioritize workload to complete
Local Champion:	1 – GIS, Specialist
Social:	0 – This only impacts citizens with wells in the county
Other Community Objectives:	0 – Only impacts Drought hazard

Appendix L: Score Sheets for Grading Mitigation Actions

1F1: Partner with the Franklin County Public Safety Training Center (FCPSTC), the Franklin County Fire Chiefs Association (FCFCA), the Emergency Alliance, and other first responder groups in the county to organize and execute outreach programs and open houses to educate the community on responder capabilities and showcase opportunities for community service.

Life Safety:	1 – First responder retention/awareness can save lives
Property Protection:	1 – First responder retention/awareness can save property
Technical:	1 – This is feasible
Legal:	1 – DES has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has county support to do this
Cost:	1 – Staff time and current training budget
Administrative:	0 – DES will have to prioritize workload to complete
Local Champion:	1 – DES, Operations and Training Officer
Social:	0 – Not all fire department will participate
Other Community Objectives:	1 – Impacts all hazards and plans

1F2: Perform a fire & EMS services study throughout the Township to assess and identify causes and/or solutions to the decline in first responder volunteerism.

Life Safety:	1 – Fire/EMS Service stability saves lives
Property Protection:	1 – This will also save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	1 – This can be done with staff hours
Administrative:	1 – Could be done within Township resources
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the entire Township
Other Community Objectives:	1 – Impacts multiple hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

Goal 2 Mitigation Actions:

2A1: Train additional personnel on the use of GIS systems to support emergency operations.

Life Safety:	0 – This does not directly save lives
Property Protection:	0 – This does not save property
Technical:	1 – This is feasible
Legal:	1 – GIS has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – GIS has county support to do this
Cost:	1 – Staff time only
Administrative:	0 – GIS will have to prioritize workload to complete
Local Champion:	1 – GIS, Specialist
Social:	1 – Impacts entire county preparedness
Other Community Objectives:	1 – Impacts all hazards and plans

2A2: Where acquisition is not feasible, advise homeowners/businesses of preferred mitigation alternatives.

Life Safety:	1 – Mitigation training saves lives
Property Protection:	1 – Mitigation training saves property
Technical:	1 – This is feasible
Legal:	1 – County Plans has authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – County Plans has county support to do this
Cost:	1 – Staff time only
Administrative:	0 – County Plans will have to prioritize workload to complete
Local Champion:	1 – County Plans, Planner
Social:	0 – This only impacts citizens in floodplain areas
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam hazard

2A3: Maintain and update the county Hazard Vulnerability Assessment (HVA) annually. Utilize the HVA to prioritize risk reduction strategies and funding opportunities.

Life Safety:	0 – This will not directly save lives
Property Protection:	0 – This will not directly save property
Technical:	1 – This is feasible
Legal:	1 – DES has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has county support to do this
Cost:	1 – Staff time only
Administrative:	0 – DES will have to prioritize workload to complete
Local Champion:	1 – DES, Planning Coordinator
Social:	0 – Not all municipalities will participate
Other Community Objectives:	1 – Impacts all hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

2A4: Improve communications between the public and emergency management services through social media.

Life Safety:	1 – Preparedness saves lives
Property Protection:	1 – Preparedness can save property
Technical:	1 – Social media platforms already being used
Legal:	1 – We have the legal authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – We have commissioners support to do this
Cost:	1 – Expenditures already made within IT systems
Administrative:	0 – Can be done with existing resources, but dedicated is better
Local Champion:	1 – DES is currently doing this
Social:	-1 – May exclude older generations not on-line
Other Community Objectives:	1 – Impacts all hazards and plans

2A5: Conduct outreach to residents of mobile home parks or trailers on how and why to anchor trailers to protect against severe weather conditions.

Life Safety:	1 – Preparedness saves lives
Property Protection:	1 – This preparedness could save property
Technical:	1 – this is feasible
Legal:	1 – DES has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has county support to do this
Cost:	1 – Would be staff time only
Administrative:	0 – DES would have to prioritize workload to complete
Local Champion:	1 – DES, Operations and Training Officer
Social:	0 – Does not address the entire county
Other Community Objectives:	1 – Impacts multiple threats and plans

2A6: Create and distribute electronic and print information on Radon exposure and Radon mitigation systems to homeowners throughout the county, especially those in areas with elevated Radon test levels.

Life Safety:	1 – Preparedness can save lives
Property Protection:	0 – This effort will not save property
Technical:	1 – It is feasible
Legal:	1 – DES has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has county support to do this
Cost:	1 – Would be staff time and consumables
Administrative:	0 – DES would have to prioritize workload to complete
Local Champion:	1 – DES, HAZMAT Coordinator
Social:	1 – Would address the entire county
Other Community Objectives:	0 – Only impacts the Radon Exposure threat

Appendix L: Score Sheets for Grading Mitigation Actions

2A7: Create information pamphlets and outreach programs to discuss the older building codes and subsequent deficiencies in snow load capabilities for citizens with older homes in the County.

Life Safety:	1 – Home preparedness can save lives
Property Protection:	1 – Home preparedness can save property
Technical:	1 – This is feasible
Legal:	1 – County Plans has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – County Plans has county support to do this
Cost:	1 – Staff time and consumable
Administrative:	0 – County Plans will have to prioritize workload to complete
Local Champion:	1 – County Plans, Planner
Social:	1 – Will address the entire county
Other Community Objectives:	0 – Only impacts the Winter Storm hazard

2A8: Promote public awareness of hail-resistant building and construction practices including the use of structural bracing, window shutters, laminated glass in window panes, and hail resistant roof shingles.

Life Safety:	0 – Will not directly save lives
Property Protection:	1 – Will save property
Technical:	1 – This is feasible
Legal:	1 – County Plans has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – County Plans has the county support to do this
Cost:	1 – Staff time only
Administrative:	0 – County Plans will have to prioritize workload to complete
Local Champion:	1 – County Plans, Planner
Social:	1 – Will address the entire county
Other Community Objectives:	1 – Impacts multiple hazards and plans

2A9: Map abandoned mine shafts, caves, and potentially vulnerable areas to cave-ins or subsidence.

Life Safety:	0 – This will not directly save lives
Property Protection:	0 – This will not directly save property
Technical:	1 – This is feasible
Legal:	-1 – May not get property owner permission
Environmental:	1 – Can identify areas for Environmental projects
Political:	1 – GIS has county support to do this
Cost:	1 – Staff time only
Administrative:	0 – GIS will have to prioritize workload to complete
Local Champion:	1 – GIS, Specialist
Social:	0 – Not all personnel want this data collected, cavers
Other Community Objectives:	0 – Only impacts the Subsidence/Sinkhole hazard

Appendix L: Score Sheets for Grading Mitigation Actions

2A10: Work with PSU Agriculture Extension to develop an information pamphlet on lightning arrestors and implementation of these devices on barns and out-buildings to protect against lightning strike fires and livestock deaths.

Life Safety:	1 – This preparedness can save lives
Property Protection:	1 – This preparedness can save property
Technical:	1 – This is feasible
Legal:	1 – DES has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has the county support to do this
Cost:	1 – Would be staff time only
Administrative:	0 – DES would have to prioritize workload to complete this
Local Champion:	1 – DES, Planning Coordinator
Social:	0 – Only addressed Agricultural communities
Other Community Objectives:	0 – Only impacts the Lightning Strike threat

2B1: Continue to maintain webpages where presentations, training documentation, and webinars can be posted. This will allow municipal officials to access the information at their own schedule and pace.

Life Safety:	1 – Making training accessible saves lives
Property Protection:	1 – Making training available saves property
Technical:	1 – This is feasible
Legal:	1 – County IS has authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – County IS has county support to do this
Cost:	1 – Staff Time only
Administrative:	0 – County IS will have to prioritize workload to complete
Local Champion:	1 – County IS Specialist
Social:	1 – This is accessible to all county citizens
Other Community Objectives:	1 – Impacts all hazards and plans

2B2: Increase funding and resources for public outreach and education with focused programs designed to address the highest risks in the community with the goal of reducing community risk and the cost of emergencies in the community.

Life Safety:	1 – Community outreach/preparedness saves lives
Property Protection:	1 – Community outreach/preparedness saves property
Technical:	1 – This is feasible
Legal:	1 – DES has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – County supports this
Cost:	0 – DES will have to ask county for increased funding
Administrative:	0 – Additional funding and resources required
Local Champion:	1 – DES, Director
Social:	1 – Addresses the needs of the entire county
Other Community Objectives:	1 – Impacts all hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

2B3: Continue and/or develop programs to increase home safety and disaster prevention (some/CO detector installs) for citizens that are members of high risk populations.

Life Safety:	1 – Home safety saves lives
Property Protection:	1 – Home preparedness can save property
Technical:	1 – This is technically feasible
Legal:	0 – Need to make sure we have no liabilities
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – Will have county support to do this
Cost:	0 – Will have to find funding for devices
Administrative:	0 – Will need local fire departments to install
Local Champion:	1 – DES, IMT Coordinator
Social:	0 – Would have to limited to high risk communities
Other Community Objectives:	0 – Only addresses Urban Fire & Explosion threat

2B4: Develop, maintain, and disseminate an Invasive Species Plants and Animals listing for citizen education and future Land Use development planning.

Life Safety:	0 – Will not directly save lives
Property Protection:	1 – Can save property
Technical:	1 – it is feasible
Legal:	1 – DES has authority to do this
Environmental:	1 – Awareness of invasive species can improve the environment
Political:	1 – DES has county support to do this
Cost:	1 – Staff time only
Administrative:	0 – DES will have to prioritize workload to complete
Local Champion:	1 – DES, Planning Coordinator
Social:	1 – This will address the entire county
Other Community Objectives:	0 – Only addresses the Invasive Species threat

2C1: On an annual basis, conduct Municipal Officials training and/or state sponsored training courses to address hazard mitigation topics, such as Damage Assessment, Storm Water Management, Mutual Aid Agreements, Public Disaster Assistance, and the Hazard Mitigation Grant Program.

Life Safety:	1 – Training and preparedness can save lives
Property Protection:	1 – Training and preparedness can save property
Technical:	1 – This is feasible
Legal:	1 – DES has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has county support to do this
Cost:	1 – Staff time and annual training budget
Administrative:	1 – This is a priority for DES
Local Champion:	1 – DES, Operations and Training Officer
Social:	0 – Not all municipalities will participate
Other Community Objectives:	1 – Impacts all hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

2C2: Identify and implement incentives to encourage municipal officials to participate in fire prevention and response training.

Life Safety:	1 – Training and preparedness can save lives
Property Protection:	1 – Training and preparedness can save property
Technical:	1 – This is feasible
Legal:	1 – DES has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has county support to do this
Cost:	1 – Staff time and annual training budget
Administrative:	0 – DES will have to prioritize workload to complete
Local Champion:	1 – DES, EMC
Social:	0 – Not all municipalities will participate
Other Community Objectives:	1 – Impacts all hazards and plans

2C3: Promote inter and intra-agency coordination on potential terrorist activity. This can be accomplished through training, exercises, and networked information systems.

Life Safety:	1 – Terrorism training can save lives
Property Protection:	1 – Terrorism training can save property
Technical:	1 – This is feasible
Legal:	0 – Need to seek buy-in from state and local authorities
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – County support this
Cost:	1 – Staff time only
Administrative:	1 – DES has resources to do this
Local Champion:	1 – DES, EMC & Operations and Training Officer
Social:	1 – This addresses the needs of the entire county
Other Community Objectives:	0 – Only impacts the Terrorism hazard

2C4: Work with privately held dam owners, DEP, and Fish and Boat Commission to determine inspection dates or trigger new inspections for all dams in Franklin County. Seek mitigation actions for deficiencies uncovered in the data collection.

Life Safety:	1 – Dam failure preparedness saves lives
Property Protection:	1 – Dam Failure preparedness saves property
Technical:	1 – This is feasible
Legal:	-1 – Some property owners will not comply
Environmental:	1 – Preserving dams can protect the environment
Political:	0 – May not get support from some municipalities
Cost:	1 – Staff time only
Administrative:	1 – DES has the staff to do this
Local Champion:	1 – DES, EMC
Social:	0 – Some property owners and communities affected more
Other Community Objectives:	1 – Impacts multiple hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

2C5: Establish program to educate residents on emergency management.

Life Safety:	1 – Training and preparedness can save lives
Property Protection:	1 – Training and preparedness can save property
Technical:	1 – This is feasible
Legal:	1 – Township has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – They have Township support to do this
Cost:	1 – Staff time and annual training budget
Administrative:	1 – Township has the manpower to do this
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	1 – Impacts all hazards and plans

2C6: Research, develop, and execute an annual Floodplain Management Outreach Program to educate the municipalities on NFIP, DFIRM, and their associated requirements and regulations to assure a common understanding across the county.

Life Safety:	1 – Training and preparedness can save lives
Property Protection:	1 – Training and preparedness can save property
Technical:	1 – This is feasible
Legal:	0 – Cannot mandate municipalities to participate
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – The County will support this
Cost:	1 – Staff time and annual training budget
Administrative:	0 – Planning will have to prioritize this in current workload
Local Champion:	1 – Franklin County Plans Department, Planner
Social:	1 – Addresses the needs of all municipalities
Other Community Objectives:	0 – Only impacts the Flood, Flash Flood & Ice jam Hazard

Appendix L: Score Sheets for Grading Mitigation Actions

Goal 3 Mitigation Actions:

3A1: Map new housing developments as plans are approved for the purpose of emergency and land use planning.

Life Safety:	0 – GIS mapping will not directly save lives
Property Protection:	1 – GIS planning can save property
Technical:	1 – This is feasible
Legal:	1 – GIS has authority to do this
Environmental:	1 – Land use planning positively impacts the environment
Political:	1 – GIS has county support to do this
Cost:	1 – Staff time only
Administrative:	0 – GIS will have to prioritize workload to complete
Local Champion:	1 – GIS Specialist
Social:	1 – This will address the entire county
Other Community Objectives:	1 – Impacts all hazards and plans

3A2: Utilize most recent hazard assessment, including the National Flood Plain reports and historical records, when planning or authorizing building projects, including significant renovations.

Life Safety:	1 – Land use planning can save lives
Property Protection:	1 – Land use planning can save property
Technical:	1 – This is feasible
Legal:	0 – Cannot force municipalities to comply
Environmental:	1 – Land use planning can benefit the environment
Political:	0 – Not all municipalities will participate
Cost:	1 – Staff time only
Administrative:	0 – Plans Dept will have to prioritize workload to complete
Local Champion:	1 – Plans Department Planner
Social:	0 – Only participating municipalities will benefit
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam hazard

3A3: Adopt and support codes that restrict building and developing in areas identified as being high risk for natural and man-made incidents.

Life Safety:	1 – Building codes save lives
Property Protection:	1 – Building codes save property
Technical:	1 – This is feasible
Legal:	0 – Cannot force municipalities to do this
Environmental:	1 – Building codes can protect the environment
Political:	1 – has county support to do this
Cost:	1 – Staff time
Administrative:	0 – County Plans will have to prioritize workload to complete
Local Champion:	1 – County Plans, Planning Coordinator
Social:	0 – Some municipalities will not participate
Other Community Objectives:	1 – Impacts all hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

3A4: Continue to stringently enforce all building codes in effect.

Life Safety:	1 – Building code enforcement can save lives
Property Protection:	1 – Building code enforcement can save property
Technical:	1 – This is feasible
Legal:	1 – Municipalities have the authority to do this
Environmental:	1 – Restricting development in floodplains is good for environ.
Political:	0 – May have some issues with political support
Cost:	0 – Municipalities may not have the means to do this
Administrative:	0 – Municipalities may not have the staff to do this
Local Champion:	1 – Each municipality has personnel assigned to this
Social:	-1 – May impact lower income areas of the county more
Other Community Objectives:	1 – Impacts all hazards and plans

3A5: Work with municipalities to integrate County Hazard Mitigation Plan into municipal Comprehensive Plans, Subdivision and Land Use Development Ordinances, and Zoning Ordinances.

Life Safety:	0 – This effort will not directly save lives
Property Protection:	1 – This effort can save property
Technical:	1 – This is feasible
Legal:	1 – DES has authority to do this
Environmental:	1 – Comprehensive Plans are a positive impact to the environment
Political:	0 – Not all municipalities will participate
Cost:	1 – Only staff time
Administrative:	0 – DES will have to prioritize workload to complete
Local Champion:	1 – DES, Planning Coordinator
Social:	1 – Will address entire county if Municipalities participate
Other Community Objectives:	1 – Impacts all hazards and plans

3A6: Research and develop Zoning Regulations for St Thomas Township to specify which zones can be used for residential, commercial, institutional, or open space purposes. Additionally, regulate the placement (SFHA restrictions), bulk (or density), and the elevation of structures (to or above the BFE).

Life Safety:	0 – Zoning Regulations will not directly save lives
Property Protection:	1 – Zoning Regulations can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Zoning regulations can be helpful to environmental controls
Political:	1 – They have Township support to do this
Cost:	1 – This can be done within staff time only
Administrative:	0 – This will have to be prioritized in current workload
Local Champion:	1 – St Thomas Township EMC
Social:	1 – Supports the needs of the entire Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam hazard

Appendix L: Score Sheets for Grading Mitigation Actions

3A7: Coordinate between Lurgan Township, Letterkenny Township, and Fannett Township to update their Joint Comprehensive Plan, last update was in 2007.

Life Safety:	0 – Comprehensive Plans do not directly save lives
Property Protection:	1 – Comprehensive Plans can save property
Technical:	1 – This has been done previously, this is an update
Legal:	1 – They have the authority to do this
Environmental:	1 – Comprehensive Plans are a positive impact to the environment
Political:	1 – The Townships support doing this
Cost:	1 – This will be staff time only
Administrative:	1 – They have the staff to do this
Local Champion:	1 – Lurgan Township EMC
Social:	1 – Addresses the needs of the Townships
Other Community Objectives:	1 – Impacts multiple hazards and plans

3A8: Research, assess, and if feasible, develop a Comprehensive Land Use plan to guide the future development actions of Greencastle Borough.

Life Safety:	0 – Comprehensive Plans do not directly save lives
Property Protection:	1 – Comprehensive Plans can save property
Technical:	1 – This can be done
Legal:	1 – They have the authority to do this
Environmental:	1 – Comprehensive Plans are a positive impact to the environment
Political:	1 – The Borough supports doing this
Cost:	1 – This will be staff time only
Administrative:	1 – They have the staff to do this
Local Champion:	1 – Greencastle Borough EMC
Social:	1 – Addresses the needs of the Borough
Other Community Objectives:	1 – Impacts multiple hazards and plans

3A9: Research, assess, and if feasible, develop a Comprehensive Land Use plan to guide the future development actions of Mont Alto Borough.

Life Safety:	0 – Comprehensive Plans do not directly save lives
Property Protection:	1 – Comprehensive Plans can save property
Technical:	1 – This can be done
Legal:	1 – They have the authority to do this
Environmental:	1 – Comprehensive Plans are a positive impact to the environment
Political:	1 – The Borough supports doing this
Cost:	1 – This will be staff time only
Administrative:	1 – They have the staff to do this
Local Champion:	1 – Mon Alto Borough EMC
Social:	1 – Addresses the needs of the Borough
Other Community Objectives:	1 – Impacts multiple hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

3A10: Research, assess, and if feasible, develop an Evacuation Plan for Shippensburg Borough (Franklin County) to address large scale disaster scenarios.

Life Safety:	1 – Evacuation Plans save lives
Property Protection:	0 – Evacuation Plans may not save property
Technical:	1 – This can be done
Legal:	1 – They have the authority to do this
Environmental:	1 – Evacuation Plans neither positively nor negatively impact the environment
Political:	1 – The Borough supports doing this
Cost:	1 – This will be staff time only
Administrative:	1 – They have the staff to do this
Local Champion:	1 – Shippensburg Borough EMC
Social:	1 – Addresses the needs of the Borough
Other Community Objectives:	1 – Impacts multiple hazards and plans

3B1: Utilize engineered solutions to slow or alter streams to limit damage to the built environment.

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	0 – Cannot force municipalities to do this
Environmental:	1 – Flood prevention protects the environment
Political:	0 – Some municipalities will not support
Cost:	-1 – Will require HMPG grants
Administrative:	0 – Municipalities will need augmented resources
Local Champion:	1 – County Plans, Planner
Social:	0 – Only impacts citizens in the floodplain
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam hazard

3B2: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Chambersburg Borough to SR 11).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

Appendix L: Score Sheets for Grading Mitigation Actions

3B3: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From SR 11 to Cornertown Rd.).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

3B4: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Cornertown Rd. to Sycamore Grove Rd.).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

3B5: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Sycamore Grove Rd. to Scotland Main St. at rail road overpass).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

Appendix L: Score Sheets for Grading Mitigation Actions

3B6: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Scotland Main St. at rail road overpass to Scotland Rd.).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

3B7: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Scotland Rd. to Interstate I-81).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

3B8: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Interstate I-81 to Brindle Rd.).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

Appendix L: Score Sheets for Grading Mitigation Actions

3B9: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Brindle Rd. to Woodstock Rd.).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

3B10: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Brindle Rd. to Main St. Fayetteville).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

3B11: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Woodstock Rd. to Mt Pleasant Rd.).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

Appendix L: Score Sheets for Grading Mitigation Actions

3B12: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Mt Pleasant Rd. to Area East of Mt Shadow Subdivision).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

3B13: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Mt Pleasant Rd. to Brookens Rd.).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

3B14: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Brookens Rd. to Ridge Rd.).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

Appendix L: Score Sheets for Grading Mitigation Actions

3B15: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Mt Pleasant Rd. to Coldspring Rd.).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

3B16: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Coldspring Rd. to SR 997 (Black Gap Road)).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

3B17: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From Coldspring Rd. to SR 30 (Lincoln Way East)).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

Appendix L: Score Sheets for Grading Mitigation Actions

3B18: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From SR 997 (Black Gap Road) to Houser Rd.).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

3B19: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From SR 997 (Black Gap Rd) to SR 30 (Lincoln Way East)).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

3B20: Stream Restoration – Watershed Protection. Clean stream beds of debris, such as trees, tires, brush, etc. Elevate all stream banks if needed to keep flow in stream bed. (From SR 30 (Lincoln Way East) to South of SR 30 (Lincoln Way East)).

Life Safety:	1 – Flood prevention can save lives
Property Protection:	1 – Flood prevention can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stream reclamation will improve the environment
Political:	1 – They have Township support to do this
Cost:	-1 – This will require external funding
Administrative:	0 – This will be contract work
Local Champion:	1 – Greene Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

Appendix L: Score Sheets for Grading Mitigation Actions

3B21: Research and develop a Stormwater Management Plan for Mercersburg Borough in compliance with DEP's Act 167.

Life Safety:	1 – Stormwater Management can save lives
Property Protection:	1 – Stormwater Management can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stormwater management is good for the environment
Political:	1 – They have Borough support to do this
Cost:	1 – This can be done with staff time only
Administrative:	0 – This will have to be prioritized in current workload
Local Champion:	1 – Mercersburg Borough EMC
Social:	1 – Addresses the needs of the Borough
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

3B22: Research and develop a Stormwater Management Plan for Orrstown Borough in compliance with DEP's Act 167.

Life Safety:	1 – Stormwater Management can save lives
Property Protection:	1 – Stormwater Management can save property
Technical:	1 – This is feasible
Legal:	1 – They have the authority to do this
Environmental:	1 – Stormwater management is good for the environment
Political:	1 – They have Borough support to do this
Cost:	1 – This can be done with staff time only
Administrative:	0 – This will have to be prioritized in current workload
Local Champion:	1 – Orrstown Borough EMC
Social:	1 – Addresses the needs of the Borough
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam

3C1: Advocate for municipalities to find alternative methods of funding to the Hazard Mitigation Program.

Life Safety:	0 – This will not directly save lives
Property Protection:	0 – This will not directly save property
Technical:	1 – This is feasible
Legal:	1 – County Plans has authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – County Plans has county support to do this
Cost:	1 – Staff time only
Administrative:	0 – County plans will have to prioritize workload to complete
Local Champion:	1 – County Plans, Planner
Social:	1 – This will address the entire county
Other Community Objectives:	1 – Impacts all hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

3D1: Encourage municipal compliance with NFIP and PA Act 166 Floodplain development regulations and/or encourage more restrictive requirements, as appropriate by conducting training and inspection workshops.

Life Safety:	1 – Floodplain management saves lives
Property Protection:	1 – Floodplain management saves property
Technical:	1 – This is feasible
Legal:	1 – County and Municipalities have authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – Municipalities support this
Cost:	0 – May have issues with fully funding this
Administrative:	0 – May lack personnel for enforcement
Local Champion:	1 – Municipalities have personnel assigned to this
Social:	0 – May impact lower income areas more
Other Community Objectives:	0 – Only impacts the Flood, Flash Flood & Ice Jam threat

3D2: Research and develop a Floodplain Management Plan for Peters Township to meet the requirements of the National Flood Insurance Program (NFIP).

Life Safety:	1 – Floodplain management saves lives
Property Protection:	1 – Floodplain management saves property
Technical:	1 – This is feasible
Legal:	1 – They have authority to do this
Environmental:	1 – Floodplain management is good for the environment
Political:	1 – The Township supports this
Cost:	1 – Can be done with staff time only
Administrative:	0 – Will have to prioritize this in current workload
Local Champion:	1 – Peters Township EMC
Social:	1 – Addresses the needs of the Township
Other Community Objectives:	0 – Only impacts the Flood, Flash Flood & Ice Jam threat

3D3: Research and develop a Floodplain Management Plan for Chambersburg Borough to meet the requirements of the National Flood Insurance Program (NFIP).

Life Safety:	1 – Floodplain management saves lives
Property Protection:	1 – Floodplain management saves property
Technical:	1 – This is feasible
Legal:	1 – They have authority to do this
Environmental:	1 – Floodplain management is good for the environment
Political:	1 – The Borough supports this
Cost:	1 – Can be done with staff time only
Administrative:	0 – Will have to prioritize this in current workload
Local Champion:	1 – Chambersburg Borough EMC
Social:	1 – Addresses the needs of the Borough
Other Community Objectives:	0 – Only impacts the Flood, Flash Flood & Ice Jam threat

Appendix L: Score Sheets for Grading Mitigation Actions

3E1: Renew/start Franklin County/Municipal Firewise program and encourage municipalities to reduce the vulnerability of critical facilities to wildfire by methods such as: increasing buffers and introduction of defensive spaces, identifying potential fire breaks, and providing assistance to FCDES to identify vulnerable structures.

Life Safety:	1 – Fire prevention and awareness can save lives
Property Protection:	1 – Fire prevention and preparedness can save property
Technical:	1 – This is feasible
Legal:	0 – Cannot force municipalities to do this
Environmental:	1 – Initiatives can protect the environment from wildfires
Political:	0 – Let lapse in county before, may not have support
Cost:	1 – Staff time only
Administrative:	0 – DES will have to prioritize workload to complete
Local Champion:	1 – DES, IMT Coordinator
Social:	0 – Not all communities will participate
Other Community Objectives:	0 – Only impacts the Wildfire hazard

3E2: Continue/start participation in the National Weather Service StormReady Program.

Life Safety:	1 – Hazardous weather preparedness saves lives
Property Protection:	1 – Hazardous weather preparedness can save property
Technical:	1 – This is feasible
Legal:	1 – DES/Municipalities have authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES/Municipalities have county support to do this
Cost:	1 – Staff time only
Administrative:	1 – This is a priority for the county
Local Champion:	1 – DES, EMC
Social:	0 – Only county involved now, need municipality support
Other Community Objectives:	1 – Impacts multiple hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

Goal 4 Mitigation Actions:

4A1: Evaluate the property of Mickey's Inn Trailer Park for possible acquisition and repurpose under the Flood Mitigation Program.

Life Safety:	1 – This project could save lives
Property Protection:	1 – This project could save property
Technical:	1 – This project is feasible
Legal:	-1 – Home owners may not want to sell
Environmental:	1 – Would get properties out of the floodplain
Political:	1 – Greene TWP would support
Cost:	0 – Would have to be HMGP funded
Administrative:	0 – Greene TWP would need some support to execute
Local Champion:	1 – Greene TWP Plans
Social:	0 – Only impacts the Mickey's Inn Trailer Park
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam hazard

4A2: Evaluate the property of Lincoln Dell Camping Area for possible acquisition and repurpose under the Flood Mitigation Program.

Life Safety:	1 – This project could save lives
Property Protection:	1 – This project could save property
Technical:	1 – This project is feasible
Legal:	-1 – Home owners may not want to sell
Environmental:	1 – Would get properties out of the floodplain
Political:	1 – Greene TWP would support
Cost:	0 – Would have to be HMGP funded
Administrative:	0 – Greene TWP would need some support to execute
Local Champion:	1 – Greene TWP Plans
Social:	0 – Only impacts the Lincoln Dell Camping Area
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam hazard

4A3: Identify underdeveloped floodplain and wetland areas through the enforcement of county or municipal Subdivision and Land Development Ordinances (SALDOs), and when available, seek grants to acquire public open space for passive recreational uses in an effort to minimize/prevent potential flooding damages and enhance the regional environment.

Life Safety:	1 – Land use planning saves lives
Property Protection:	1 – Land use planning saves property
Technical:	1 – This is feasible
Legal:	0 – Some municipalities will not do this
Environmental:	1 – Land use management protects the environment
Political:	0 – Cannot force municipalities to participate
Cost:	0 – Will need HMPG grant funding
Administrative:	0 – County Plans and municipalities need resource support
Local Champion:	1 – County Plans, Planner
Social:	-1 – May require ordinance changes impacting owners
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice jam hazard

Appendix L: Score Sheets for Grading Mitigation Actions

4A4: Establish a voluntary acquisition program of floodway properties (McClays Mill Rd, along the Conodoquinet Creek) based on Fair Market Value. Retain in public ownership and rezone as a conservation area.

Life Safety:	1 – This project could save lives
Property Protection:	1 – This project could save property
Technical:	1 – This project is feasible
Legal:	-1 – Home owners may not want to sell
Environmental:	1 – Would get properties out of the floodplain
Political:	1 – Southampton TWP would support
Cost:	0 – Would have to be HMGP funded
Administrative:	0 – Southampton TWP would need some support to execute
Local Champion:	1 – Southampton TWP Board of Supervisors
Social:	0 – Only impacts the McClays Mill Rd Area
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam hazard

4A5: Research, identify, and pursue acquisition of land parcels/structures in floodplains for demolition and relocation to reduce exposure to flood damage losses, to include options for mitigation reconstruction for homeowners that are reluctant to relocate.

Life Safety:	1 – This project could save lives
Property Protection:	1 – This project could save property
Technical:	1 – This project is feasible
Legal:	-1 – Home owners may not want to sell
Environmental:	1 – Would get properties out of the floodplain
Political:	1 – County and Municipalities would support
Cost:	0 – Would have to be HMGP funded
Administrative:	0 – Municipalities would need some support to execute
Local Champion:	1 – Local EMCs & Municipal Leaders
Social:	1 – Addresses needs throughout the county
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam hazard

4B1: Encourage municipalities to update their storm water regulations as needed. A model PADEP Ordinance is available online that can be used.

Life Safety:	1 – Storm water management can save lives
Property Protection:	1 – Storm water management saves property
Technical:	1 – This is feasible
Legal:	0 – Cannot force municipalities to do this
Environmental:	1 – Storm water management can protect the environment
Political:	0 – Not all municipalities will support
Cost:	0 – May require grants to execute
Administrative:	0 – May require additional resources to execute
Local Champion:	1 – Municipal managers
Social:	-1 – May require ordinance changes impacting owners
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam hazard

Appendix L: Score Sheets for Grading Mitigation Actions

4B2: Ensure proper enforcement of municipal Floodplain Ordinances.

Life Safety:	1 – Floodplain management saves lives
Property Protection:	1 – Floodplain management save property
Technical:	1 – This is feasible
Legal:	0 – Cannot force municipalities to do this
Environmental:	1 – Floodplain management protects the environment
Political:	1 – County Plans has county support to do this
Cost:	1 – Staff time only
Administrative:	1 – This is a County Plans priority
Local Champion:	1 – County Plans, Planner
Social:	0 – Not all municipalities will participate
Other Community Objectives:	0 – Only impacts the Flood, Flash Flood & Ice Jam hazard

4B3: Update and implement a comprehensive water resources management plan that analyzes the County's anticipated water use in an effort to identify suspected water supply shortages and potential new water supply sources.

Life Safety:	0 – Drought preparedness does not directly save lives
Property Protection:	1 – Drought preparedness can save property
Technical:	1 – This is feasible
Legal:	1 – County Plans has the authority to do this
Environmental:	1 – Water management protects the environment
Political:	1 – County Plans has county support
Cost:	0 – Will require HMPG grant funding to execute
Administrative:	0 – County Plans will have to prioritize workload to complete
Local Champion:	1 – County Pans, Planner
Social:	1 – Addresses the needs of the entire county
Other Community Objectives:	0 – Only impacts the Drought hazard

4B4: Ensure municipal compliance with local watershed-specific Act 167 Storm Water Management Plan 2001 and Ordinances.

Life Safety:	1 – Storm water management saves lives
Property Protection:	1 – Storm water management saves property
Technical:	1 – This is feasible
Legal:	1 – County Plans has the authority to do this
Environmental:	1 – Storm water management protects the environment
Political:	0 – Cannot force municipalities to participate
Cost:	1 – Staff time only
Administrative:	0 – County Plans will have to prioritize workload to complete
Local Champion:	1 – County Plans, Planner
Social:	1 – This addresses the needs of the entire county
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam hazard

Appendix L: Score Sheets for Grading Mitigation Actions

4B5: Conduct drainage system and ditch line maintenance & upgrades throughout the county to prevent roadway flooding. Ensure existing drainage systems are adequate and functioning properly in order to reduce impacts related to flash flooding and storm water runoff.

Life Safety:	1 – Storm water management can save lives
Property Protection:	1 – Storm water management saves property
Technical:	1 – This is feasible
Legal:	0 – Cannot force municipalities to do this
Environmental:	1 – Storm water management can protect the environment
Political:	0 – Not all municipalities will support
Cost:	0 – Some state funds available, may need grants
Administrative:	0 – May require additional resources to execute
Local Champion:	1 – Municipal managers
Social:	0 – Not all municipalities will participate
Other Community Objectives:	0 – Only impacts Flood, Flash Flood & Ice Jam hazard

4B6: Perform preliminary/conceptual design work and permitting for the upgrade to the Antietam Dam spillway to meet the required capacity for 100% of the Probable Maximum Flood level.

Life Safety:	1 – Dam safety can save lives
Property Protection:	1 – Dam safety saves property
Technical:	1 – This is feasible
Legal:	1 – Waynesboro Borough Authority has the authority to do this
Environmental:	0 – Both positive and negative impacts due to this project
Political:	1 – Waynesboro Authority has Borough Approval for this
Cost:	-1 – This will require external funding
Administrative:	1 – May require additional resources to execute
Local Champion:	1 – Municipal Authority and Borough Managers
Social:	1 – Addresses needs of Washington Township/Waynesboro Borough
Other Community Objectives:	1 – Impacts both Dam Failure and Flood, Flash Flood & Ice Jam hazard

4C1: Monitor and evaluate mitigation actions annually and update the Hazard Mitigation Plan every five years.

Life Safety:	0 – This effort will not directly save lives
Property Protection:	0 – This effort will not save property
Technical:	1 – This is feasible
Legal:	1 – DES has the authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has the county support to do this
Cost:	1 – Staff time only
Administrative:	1 – This is a DES priority
Local Champion:	1 – DES, Planning Coordinator
Social:	1 – Impacts the entire county
Other Community Objectives:	1 – Impacts all hazards and plans

Appendix L: Score Sheets for Grading Mitigation Actions

4C2: Continue to refine the Hazard Mitigation Planning Committee list to broaden participation throughout the entire Franklin County community. Conduct biannual meetings to discuss current trends in risk and/or required HMP updates.

Life Safety:	0 – This will not directly save lives
Property Protection:	0 – This will not directly save property
Technical:	1 – This is feasible
Legal:	1 – DES has authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has county support to do this
Cost:	1 – Staff time only
Administrative:	1 – This is a DES priority
Local Champion:	1 – DES, Planning Coordinator
Social:	0 – Getting broader participation is difficult
Other Community Objectives:	1 – Impacts all hazards and plans

4C3: Partner with the local PSU Agriculture Extension to look into crop insurance saturation rates in the county to determine the availability of insurance and any cost prohibitive factors that may be present.

Life Safety:	0 – This will not directly save lives
Property Protection:	1 – This will save property
Technical:	1 – This is feasible
Legal:	1 – DES has authority to do this
Environmental:	0 – Neither positively nor negatively impacts the environment
Political:	1 – DES has county support to do this
Cost:	1 – Staff time only
Administrative:	0 – DES will have to prioritize workload to complete
Local Champion:	1 – DES, Planning Coordinator
Social:	0 – Only impacts agricultural communities
Other Community Objectives:	1 – Impacts multiple hazards and plans

Appendix M: Municipal Adoption Resolutions

**Franklin County 2019 Hazard Mitigation Plan
County Adoption Resolution**

Resolution No. 2018-09
Franklin County, Pennsylvania

WHEREAS, the municipalities of Franklin County, Pennsylvania are most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, Franklin County acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, local municipal officials, and the citizens of Franklin County, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the County of Franklin that:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the County, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 18th day of October , 2018

ATTEST:

Carrie Jo Gray

FRANKLIN COUNTY COMMISSIONERS

By *D. J. Yellen*

By *Robert L. Harman*

By *Robert L. Zibrowski*

Figure M.1: Franklin County 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

**Township of Antrim
Franklin County, Pennsylvania**

Resolution #315

Adopting the Franklin County 2019 Hazard Mitigation Plan

WHEREAS, the Township of Antrim, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the Township of Antrim acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of the Township of Antrim, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the Township of Antrim:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the Township of Antrim and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 26th day of February, 2019

ATTEST:


Jennifer Becknell, Secretary

Township of Antrim

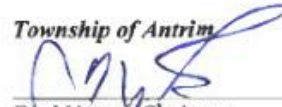

Fred Young, Chairman

Figure M.2: Antrim Township 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

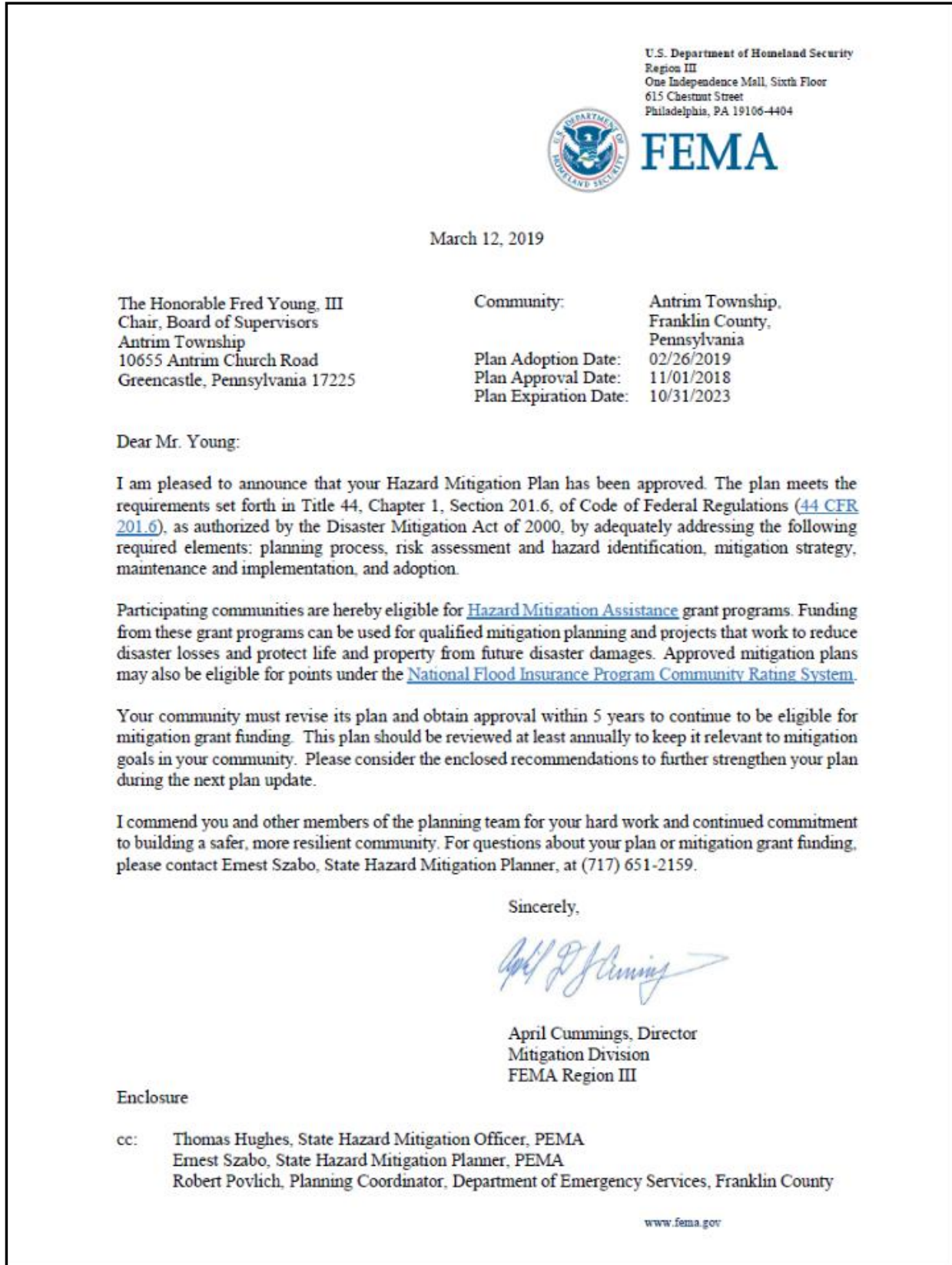


Figure M.3: FEMA Approval of Antrim Township HMP Adoption

Appendix M: Municipal Adoption Resolutions

Borough of Chambersburg, Franklin County, Pennsylvania

Franklin County 2019 Hazard Mitigation Plan
Municipal Adoption Resolution

WHEREAS, the Borough of Chambersburg, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the Borough of Chambersburg acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of Borough of Chambersburg, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the Borough of Chambersburg:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the Borough of Chambersburg, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 25th day of February, 2019

CERTIFICATE

I, Kristine Baker, Assistant Secretary, of the Borough of Chambersburg, do hereby certify that the foregoing was duly adopted as a Resolution on the 25th day of February 25, 2019, by Borough of Chambersburg, Borough Council in a lawful session duly assembled.



Kristine Baker, Assistant Borough Secretary

Figure M4: Chambersburg Borough 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

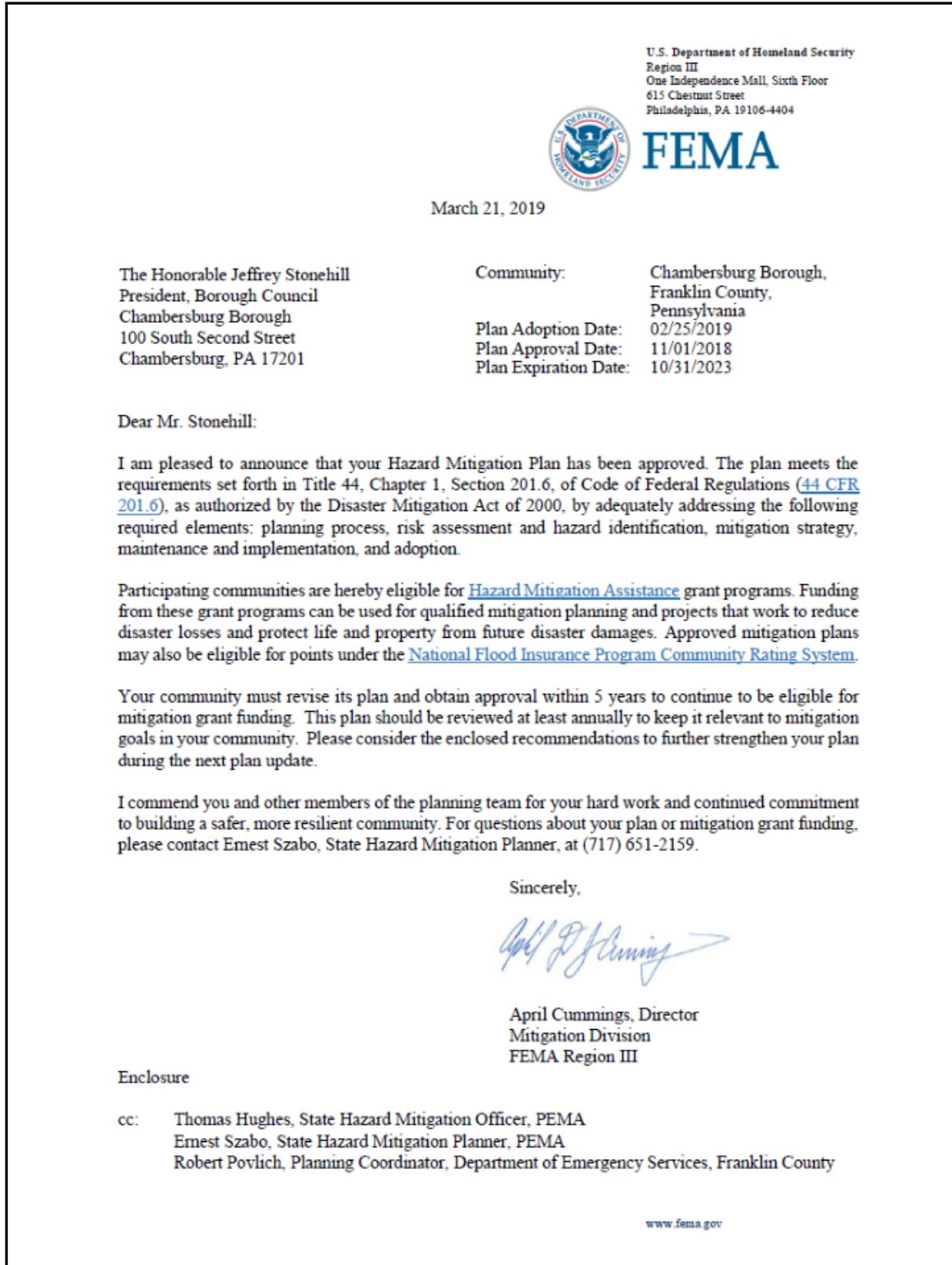


Figure M.5: FEMA Approval of Chambersburg Borough HMP Adoption

Appendix M: Municipal Adoption Resolutions

**Franklin County 2019 Hazard Mitigation Plan
Municipal Adoption Resolution**

Resolution No. 2-2019
Fannett Township, Franklin County, Pennsylvania

WHEREAS, the *Fannett Township*, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the *Fannett Township* acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of *Fannett Township*, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for *Fannett Township*;

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the *Fannett Township*, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 7th day of March, 2019

ATTEST:

TOWNSHIP OF FANNETT

By: [Signature], Chairman

By: [Signature], Secretary




Figure M.6: Fannett Township 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

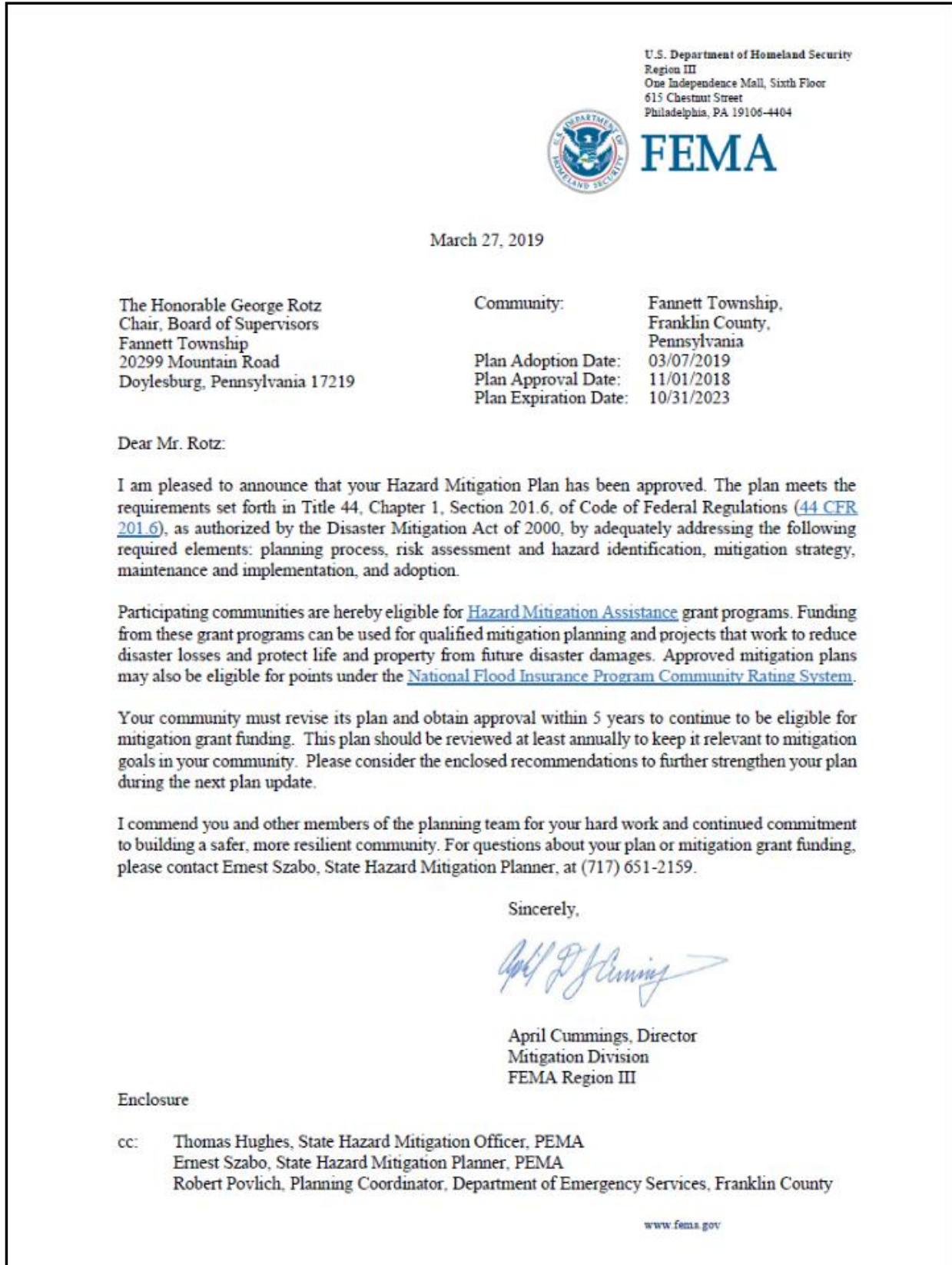


Figure M.7: FEMA Approval of Fannett Township HMP Adoption



RESOLUTION 2018-09

A RESOLUTION AUTHORIZING THE ADOPTION OF THE OFFICIAL FRANKLIN COUNTY 2019 HAZARD MITIGATION PLAN AS THE OFFICIAL HAZARD MITIGATION PLAN OF THE BOROUGH OF GREENCASTLE, FRANKLIN COUNTY, PENNSYLVANIA.

WHEREAS, the Borough of Greencastle, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the Borough of Greencastle, Franklin County, Pennsylvania acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of Borough of Greencastle, Franklin County, Pennsylvania, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the borough of Greencastle, Franklin County, Pennsylvania:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the Borough of Greencastle, Franklin County, Pennsylvania; and,
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

DULY ADOPTED into law this 3rd day of December, 2018 by the Borough of Greencastle, in lawful session duly assembled.

Figure M.8.1: Greencastle Borough 2018 HMP Adoption Resolution – Page 1 of 2

Appendix M: Municipal Adoption Resolutions

148

(Seal)

BOROUGH OF GREENCASTLE
FRANKLIN COUNTY, PENNSYLVANIA

Attest

By:



Eden R. Ratliff, Borough Secretary



Steven J. Miller, Council President

I, Eden R. Ratliff, Borough Secretary, of the Borough of Greencastle, do hereby certify that the foregoing is a true and correct copy of the Resolution adopted at a regular meeting of the Borough of Greencastle, held the 3rd day of December, 2018.

12/3/18

Date



Signature

Figure M.8.2: Greencastle Borough 2018 HMP Adoption Resolution – Page 2 of 2

Appendix M: Municipal Adoption Resolutions

U.S. Department of Homeland Security
Region III
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404



FEMA

February 6, 2019

The Honorable Eden R. Ratliff
President, Borough Council
Greencastle Borough
60 North Washington Street
Greencastle, Pennsylvania 17225

Community: Greencastle Borough,
Franklin County,
Pennsylvania
Plan Adoption Date: 12/03/2018
Plan Approval Date: 11/01/2018
Plan Expiration Date: 10/31/2023

Dear Mr. Ratliff:

I am pleased to announce that your Hazard Mitigation Plan has been approved. The plan meets the requirements set forth in Title 44, Chapter 1, Section 201.6, of Code of Federal Regulations ([44 CFR 201.6](#)), as authorized by the Disaster Mitigation Act of 2000, by adequately addressing the following required elements: planning process, risk assessment and hazard identification, mitigation strategy, maintenance and implementation, and adoption.

Participating communities are hereby eligible for [Hazard Mitigation Assistance](#) grant programs. Funding from these grant programs can be used for qualified mitigation planning and projects that work to reduce disaster losses and protect life and property from future disaster damages. Approved mitigation plans may also be eligible for points under the [National Flood Insurance Program Community Rating System](#).

Your community must revise its plan and obtain approval within 5 years to continue to be eligible for mitigation grant funding. This plan should be reviewed at least annually to keep it relevant to mitigation goals in your community. Please consider the enclosed recommendations to further strengthen your plan during the next plan update.

I commend you and other members of the planning team for your hard work and continued commitment to building a safer, more resilient community. For questions about your plan or mitigation grant funding, please contact Ernest Szabo, State Hazard Mitigation Planner, at (717) 651-2159.

Sincerely,

April Cummings, Director
Mitigation Division
FEMA Region III

Enclosure

cc: Thomas Hughes, State Hazard Mitigation Officer, PEMA
Ernest Szabo, State Hazard Mitigation Planner, PEMA
Robert Povlich, Planning Coordinator, Department of Emergency Services, Franklin County

www.fema.gov

Figure M.9: FEMA Approval of Greencastle Borough HMP Adoption



RESOLUTION 2018-09

A RESOLUTION AUTHORIZING THE ADOPTION OF THE OFFICIAL FRANKLIN COUNTY 2019 HAZARD MITIGATION PLAN AS THE OFFICIAL HAZARD MITIGATION PLAN OF THE BOROUGH OF GREENCASTLE, FRANKLIN COUNTY, PENNSYLVANIA.

WHEREAS, the Borough of Greencastle, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the Borough of Greencastle, Franklin County, Pennsylvania acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of Borough of Greencastle, Franklin County, Pennsylvania, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the borough of Greencastle, Franklin County, Pennsylvania:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the Borough of Greencastle, Franklin County, Pennsylvania; and,
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

DULY ADOPTED into law this 3rd day of December, 2018 by the Borough of Greencastle, in lawful session duly assembled.

Figure M.10.1: Greene Township 2018 HMP Adoption Resolution – Page 1 of 2

Appendix M: Municipal Adoption Resolutions

148

(Seal)

BOROUGH OF GREENCASTLE
FRANKLIN COUNTY, PENNSYLVANIA

Attest

By:



Eden R. Ratliff, Borough Secretary



Steven J. Miller, Council President

I, Eden R. Ratliff, Borough Secretary, of the Borough of Greencastle, do hereby certify that the foregoing is a true and correct copy of the Resolution adopted at a regular meeting of the Borough of Greencastle, held the 3rd day of December, 2018.

12/3/18

Date



Signature

Figure M.10.2: Greene Township 2018 HMP Adoption Resolution – Page 2 of 2

Appendix M: Municipal Adoption Resolutions

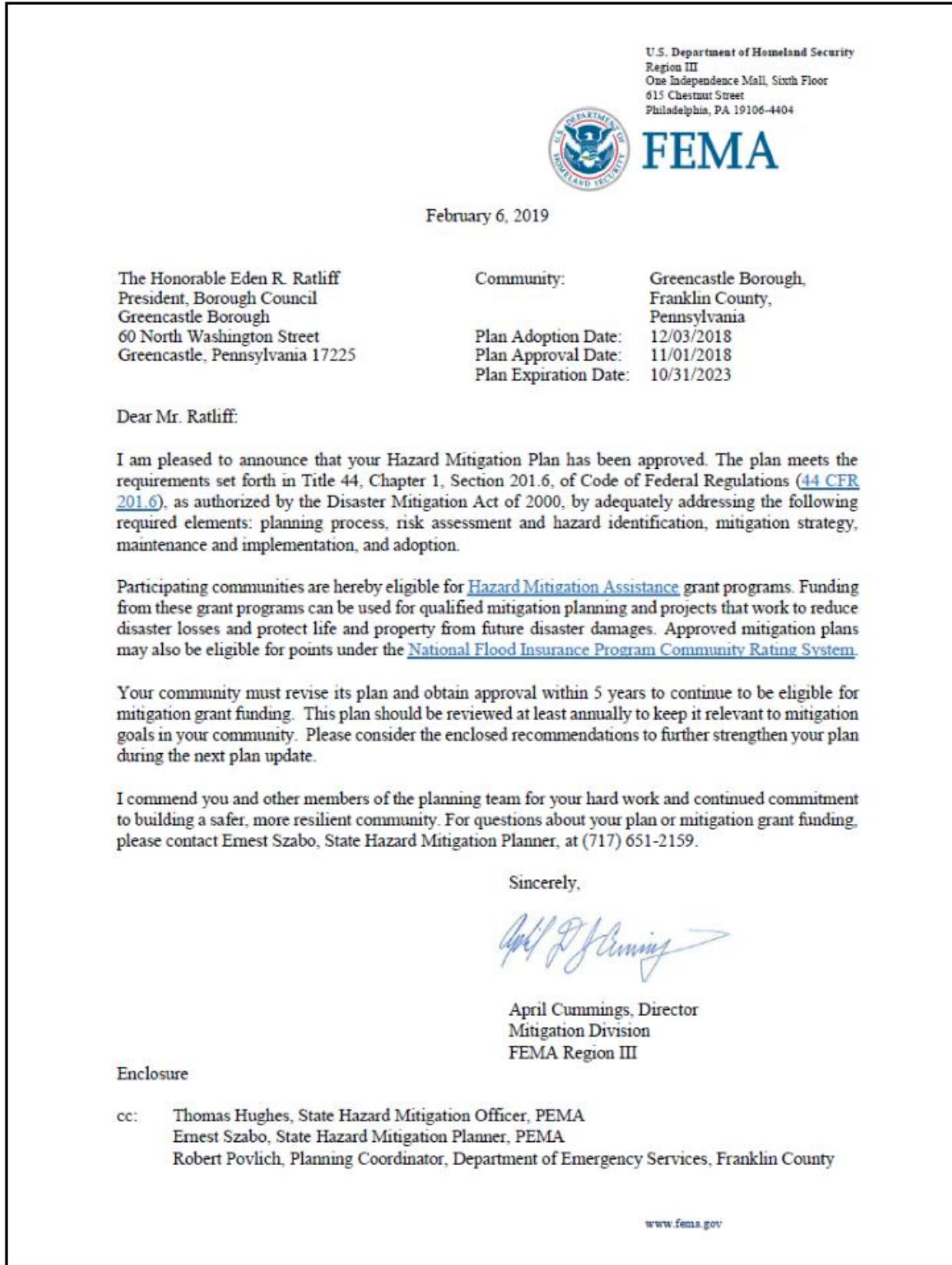


Figure M.11: FEMA Approval of Greene Township HMP Adoption

Appendix M: Municipal Adoption Resolutions

**Franklin County 2019 Hazard Mitigation Plan
Municipal Adoption Resolution**

Resolution No. 2018-11
Guilford Township, Franklin County, Pennsylvania

WHEREAS, Guilford Township, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, Guilford Township acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of Guilford Township, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for Guilford Township

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the Township, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 1st day of November, 2018

ATTEST:

Guilford Township Supervisors



By 

Don Clapper, Chairman

Figure M.12: Guilford Township 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

U.S. Department of Homeland Security
Region III
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404



FEMA

March 4, 2019

The Honorable Donald Clapper
Chair, Board of Supervisors
Guilford Township
115 Spring Valley Road
Chambersburg, Pennsylvania 17202

Community: Guilford Township,
Franklin County,
Pennsylvania
Plan Adoption Date: 11/01/2018
Plan Approval Date: 11/01/2018
Plan Expiration Date: 10/31/2023

Dear Mr. Clapper:

I am pleased to announce that your Hazard Mitigation Plan has been approved. The plan meets the requirements set forth in Title 44, Chapter 1, Section 201.6, of Code of Federal Regulations ([44 CFR 201.6](#)), as authorized by the Disaster Mitigation Act of 2000, by adequately addressing the following required elements: planning process, risk assessment and hazard identification, mitigation strategy, maintenance and implementation, and adoption.

Participating communities are hereby eligible for [Hazard Mitigation Assistance](#) grant programs. Funding from these grant programs can be used for qualified mitigation planning and projects that work to reduce disaster losses and protect life and property from future disaster damages. Approved mitigation plans may also be eligible for points under the [National Flood Insurance Program Community Rating System](#).

Your community must revise its plan and obtain approval within 5 years to continue to be eligible for mitigation grant funding. This plan should be reviewed at least annually to keep it relevant to mitigation goals in your community. Please consider the enclosed recommendations to further strengthen your plan during the next plan update.

I commend you and other members of the planning team for your hard work and continued commitment to building a safer, more resilient community. For questions about your plan or mitigation grant funding, please contact Ernest Szabo, State Hazard Mitigation Planner, at (717) 651-2159.

Sincerely,

April Cummings, Director
Mitigation Division
FEMA Region III

Enclosure

cc: Thomas Hughes, State Hazard Mitigation Officer, PEMA
Ernest Szabo, State Hazard Mitigation Planner, PEMA
Robert Povlich, Planning Coordinator, Department of Emergency Services, Franklin County
www.fema.gov

Figure M.13: FEMA Approval of Guilford Township HMP Adoption

Appendix M: Municipal Adoption Resolutions

**Franklin County 2019 Hazard Mitigation Plan
Municipal Adoption Resolution**

Resolution No. 124 of 2018
Hamilton Township, Franklin County, Pennsylvania

WHEREAS, the Township of Hamilton, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the Township of Hamilton acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of Hamilton Township, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the Township of Hamilton:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of Hamilton Township, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 7th day of November, 2018

HAMILTON TOWNSHIP SUPERVISORS


Randall E. Negley, Chairman


Jeffrey T. Rockwell, Vice-Chairman


ATTEST:


Deborah J. Hollenshead, Secretary

Figure M.14: Hamilton Township 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

U.S. Department of Homeland Security
Region III
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404

 **FEMA**

December 13, 2018

The Honorable Michael Kessinger Chair, Board of Supervisors Hamilton Township 1270 Crottlestown Road Chambersburg, Pennsylvania 17202	Community: Hamilton Township, Franklin County, Pennsylvania Plan Adoption Date: 11/07/2018 Plan Approval Date: 11/01/2018 Plan Expiration Date: 10/31/2023
---	---

Dear Mr. Kessinger:


I am pleased to announce that your Hazard Mitigation Plan has been approved. The plan meets the requirements set forth in Title 44, Chapter 1, Section 201.6, of Code of Federal Regulations ([44 CFR 201.6](#)), as authorized by the Disaster Mitigation Act of 2000, by adequately addressing the following required elements: planning process, risk assessment and hazard identification, mitigation strategy, maintenance and implementation, and adoption.

Participating communities are hereby eligible for [Hazard Mitigation Assistance](#) grant programs. Funding from these grant programs can be used for qualified mitigation planning and projects that work to reduce disaster losses and protect life and property from future disaster damages. Approved mitigation plans may also be eligible for points under the [National Flood Insurance Program Community Rating System](#).

Your community must revise its plan and obtain approval within 5 years to continue to be eligible for mitigation grant funding. This plan should be reviewed at least annually to keep it relevant to mitigation goals in your community. Please consider the enclosed recommendations to further strengthen your plan during the next plan update.

I commend you and other members of the planning team for your hard work and continued commitment to building a safer, more resilient community. For questions about your plan or mitigation grant funding, please contact Ernest Szabo, State Hazard Mitigation Planner, at (717) 651-2159.

Sincerely,



April Cummings, Acting Director
Mitigation Division
FEMA Region III

Enclosure

cc: Thomas Hughes, State Hazard Mitigation Officer, PEMA
Ernest Szabo, State Hazard Mitigation Planner, PEMA
Robert Povlich, Coordinator, Department of Emergency Services, Franklin County

www.fema.gov

Figure M.15: FEMA Approval of Hamilton Township HMP Adoption

Appendix M: Municipal Adoption Resolutions

**Franklin County 2019 Hazard Mitigation Plan
Municipal Adoption Resolution
Resolution No. 2018-3**

Letterkenny Township, Franklin County, Pennsylvania

WHEREAS, Letterkenny Township, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, Letterkenny Township acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of Letterkenny Township, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for Letterkenny Township:


- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of Letterkenny Township, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

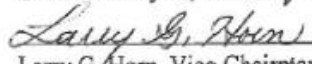
ADOPTED, this 20th day of November, 2018.

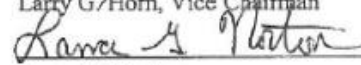
ATTEST:



Melissa W Kibbe, Manager

BOARD OF SUPERVISORS
LETTERKENNY TOWNSHIP


Charles H. Myers, Chairman


Larry G. Horn, Vice Chairman


Lance G. Norton

Figure M.16: Letterkenny Township 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

U.S. Department of Homeland Security
Region III
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404



FEMA

February 4, 2019

The Honorable Charles H. Myers
Chair, Board of Supervisors
Letterkenny Township
4924 Orrstown Road
Orrstown, Pennsylvania 17244

Community: Letterkenny Township,
Franklin County,
Pennsylvania
Plan Adoption Date: 11/20/2018
Plan Approval Date: 11/01/2018
Plan Expiration Date: 10/31/2023

Dear Mr. Myers:

I am pleased to announce that your Hazard Mitigation Plan has been approved. The plan meets the requirements set forth in Title 44, Chapter 1, Section 201.6, of Code of Federal Regulations ([44 CFR 201.6](#)), as authorized by the Disaster Mitigation Act of 2000, by adequately addressing the following required elements: planning process, risk assessment and hazard identification, mitigation strategy, maintenance and implementation, and adoption.

Participating communities are hereby eligible for [Hazard Mitigation Assistance](#) grant programs. Funding from these grant programs can be used for qualified mitigation planning and projects that work to reduce disaster losses and protect life and property from future disaster damages. Approved mitigation plans may also be eligible for points under the [National Flood Insurance Program Community Rating System](#).

Your community must revise its plan and obtain approval within 5 years to continue to be eligible for mitigation grant funding. This plan should be reviewed at least annually to keep it relevant to mitigation goals in your community. Please consider the enclosed recommendations to further strengthen your plan during the next plan update.

I commend you and other members of the planning team for your hard work and continued commitment to building a safer, more resilient community. For questions about your plan or mitigation grant funding, please contact Ernest Szabo, State Hazard Mitigation Planner, at (717) 651-2159.

Sincerely,

A handwritten signature in blue ink that reads "April Cummings".

April Cummings, Director
Mitigation Division
FEMA Region III

Enclosure

cc: Thomas Hughes, State Hazard Mitigation Officer, PEMA
Ernest Szabo, State Hazard Mitigation Planner, PEMA
Robert Povlich, Planning Coordinator, Department of Emergency Services, Franklin County

www.fema.gov

Figure M.17: FEMA Approval of Letterkenny Township HMP Adoption

Appendix M: Municipal Adoption Resolutions

**Franklin County 2019 Hazard Mitigation Plan
Municipal Adoption Resolution**

**Resolution No. 2018 - 2
Lurgan Township, Franklin County, Pennsylvania**

WHEREAS, Lurgan Township Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, Lurgan Township, acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of Lurgan Township, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for Lurgan Township:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan for Lurgan Township, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 17th day of November 2018

ATTEST: Lurgan Township, Franklin County, Pennsylvania

By [Signature]

By [Signature]

By [Signature]

Figure M.18: Lurgan Township 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

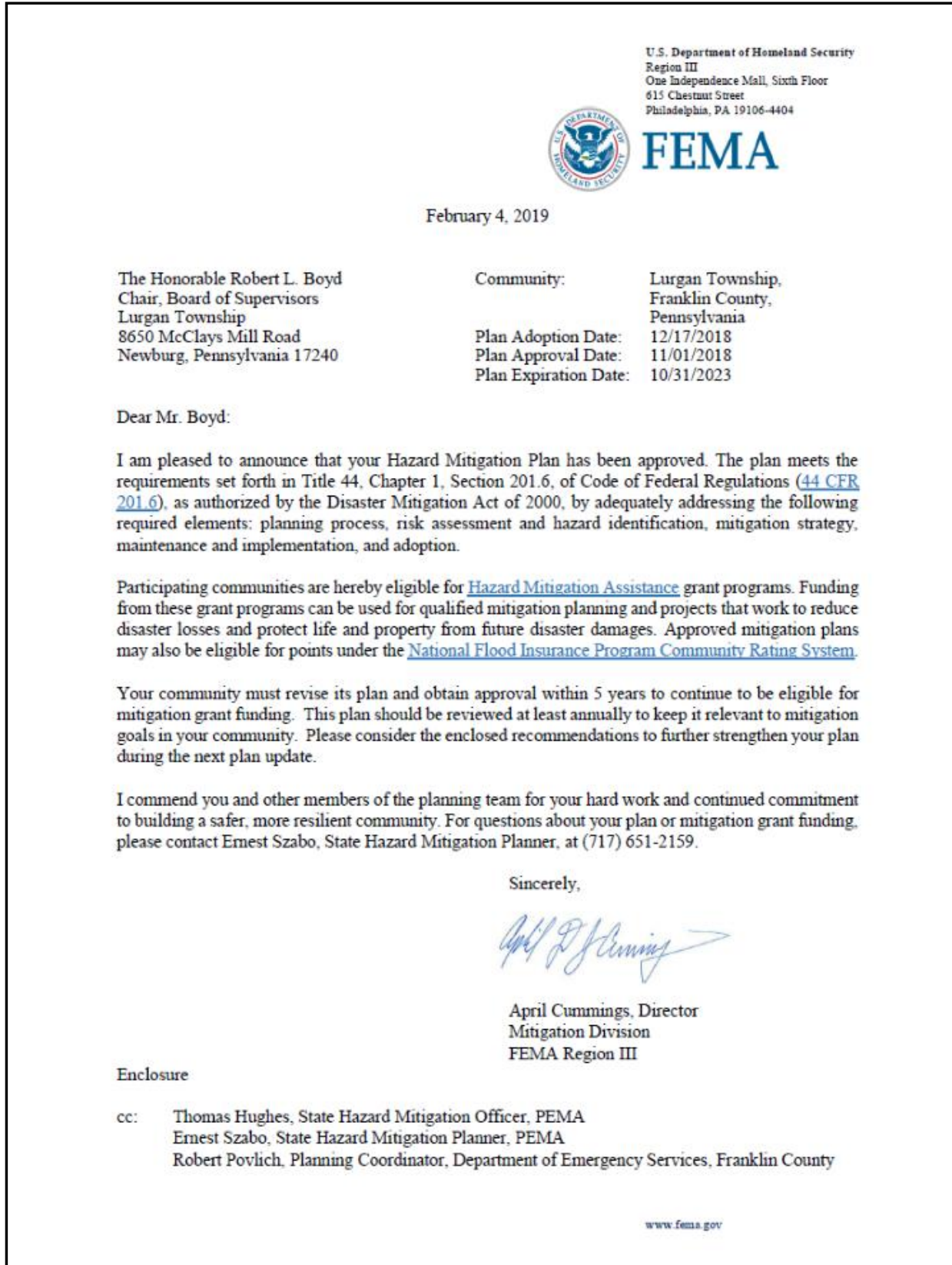


Figure M.19: FEMA Approval of Lurgan Township HMP Adoption

**Franklin County 2019 Hazard Mitigation Plan
Municipal Adoption Resolution**

Resolution No. 19-18

Borough of Mercersburg, Franklin County, Pennsylvania

WHEREAS, the **Borough of Mercersburg**, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the **Borough of Mercersburg** acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of **Borough of Mercersburg**, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

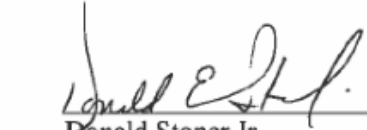
NOW THEREFORE BE IT RESOLVED by the governing body for the **Borough of Mercersburg**:

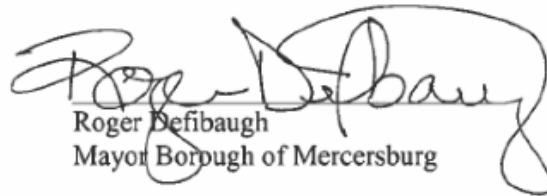
- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the **Borough of Mercersburg**, and

Figure M.20.1: Mercersburg Borough 2018 HMP Adoption Resolution – Page 1 of 2

Appendix M: Municipal Adoption Resolutions

- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.


Donald Stoner Jr.
Borough Council President


Roger Defibaugh
Mayor Borough of Mercersburg

Attest:

Stacey M. Golden
Borough Secretary

BOROUGH SEAL

ADOPTED, this 12th day of November, 2018

Figure M.20.2: Mercersburg Borough 2018 HMP Adoption Resolution – Page 2 of 2

Appendix M: Municipal Adoption Resolutions

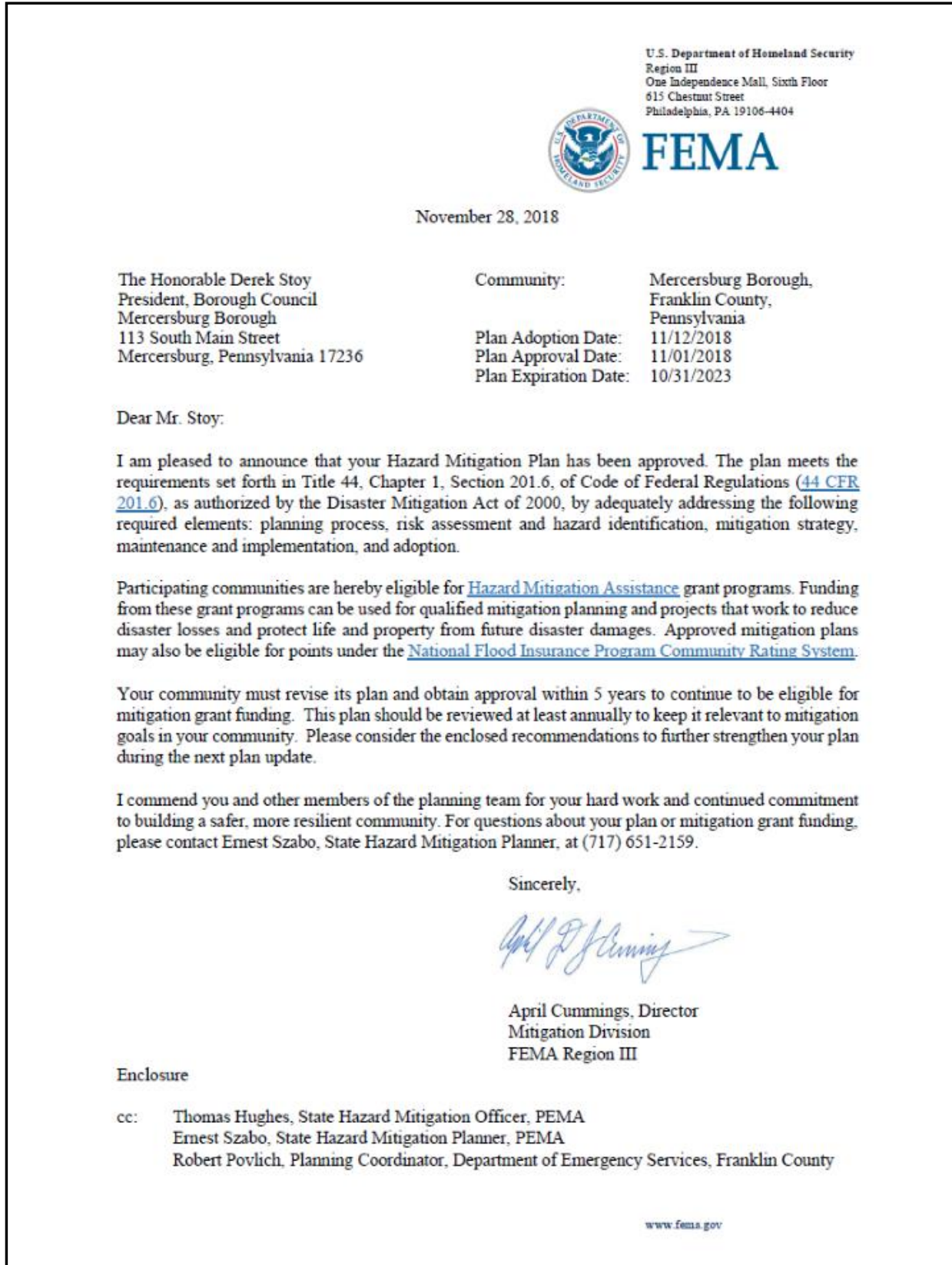


Figure M.21: FEMA Approval of Mercersburg Borough HMP Adoption

Appendix M: Municipal Adoption Resolutions

**Franklin County 2019 Hazard Mitigation Plan
Municipal Adoption Resolution**

Resolution No. 2018-001
Metal Township, Franklin County, Pennsylvania

WHEREAS, the *Township of Metal*, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the *Township of Metal* acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of *Township of Metal*, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the *Township of Metal*:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the *Township*, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 1 day of November, 2018



TOWNSHIP OF METAL

By *David J. Seal*

By *Chris H. Smith*

Figure M.22: Metal Township 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

U.S. Department of Homeland Security
Region III
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404



FEMA

December 3, 2018

The Honorable David A. Leab
Chair, Board of Supervisors
Metal Township
P.O. Box 332
Fannettsburg, Pennsylvania 17221

Community: Metal Township,
Franklin County,
Pennsylvania
Plan Adoption Date: 11/01/2018
Plan Approval Date: 11/01/2018
Plan Expiration Date: 10/31/2023

Dear Mr. Leab:

I am pleased to announce that your Hazard Mitigation Plan has been approved. The plan meets the requirements set forth in Title 44, Chapter 1, Section 201.6, of Code of Federal Regulations ([44 CFR 201.6](#)), as authorized by the Disaster Mitigation Act of 2000, by adequately addressing the following required elements: planning process, risk assessment and hazard identification, mitigation strategy, maintenance and implementation, and adoption.

Participating communities are hereby eligible for [Hazard Mitigation Assistance](#) grant programs. Funding from these grant programs can be used for qualified mitigation planning and projects that work to reduce disaster losses and protect life and property from future disaster damages. Approved mitigation plans may also be eligible for points under the [National Flood Insurance Program Community Rating System](#).

Your community must revise its plan and obtain approval within 5 years to continue to be eligible for mitigation grant funding. This plan should be reviewed at least annually to keep it relevant to mitigation goals in your community. Please consider the enclosed recommendations to further strengthen your plan during the next plan update.

I commend you and other members of the planning team for your hard work and continued commitment to building a safer, more resilient community. For questions about your plan or mitigation grant funding, please contact Ernest Szabo, State Hazard Mitigation Planner, at (717) 651-2159.

Sincerely,

A handwritten signature in blue ink that reads "April Cummings".

April Cummings
Director
Mitigation Division
FEMA Region III

Enclosure

cc: Thomas Hughes, State Hazard Mitigation Officer, PEMA
Ernest Szabo, State Hazard Mitigation Planner, PEMA
Robert Povlich, Coordinator, Department of Emergency Services, Franklin County

www.fema.gov

Figure M.23: FEMA Approval of Metal Township HMP Adoption

Appendix M: Municipal Adoption Resolutions

Resolution No. 694

A RESOLUTION OF THE COUNCIL OF THE BOROUGH OF MONT ALTO FRANKLIN COUNTY ADOPTING THE FRANKLIN COUNTY 2019 HAZARD MITIGATION PLAN AS THE OFFICIAL HAZARD MITIGATION PLAN OF THE BOROUGH OF MONT ALTO.

WHEREAS, the Borough of Mont Alto, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the Borough of Mont Alto acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of Borough of Mont Alto, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

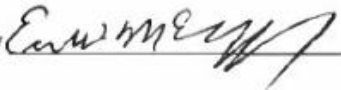
NOW THEREFORE BE IT RESOLVED by the governing body for the Borough of Mont Alto:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the Borough of Mont Alto, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 7th day of, January 2019

ATTEST:

BOROUGH OF MONT ALTO

By 

By _____

Figure M.24: Mont Alto Borough 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

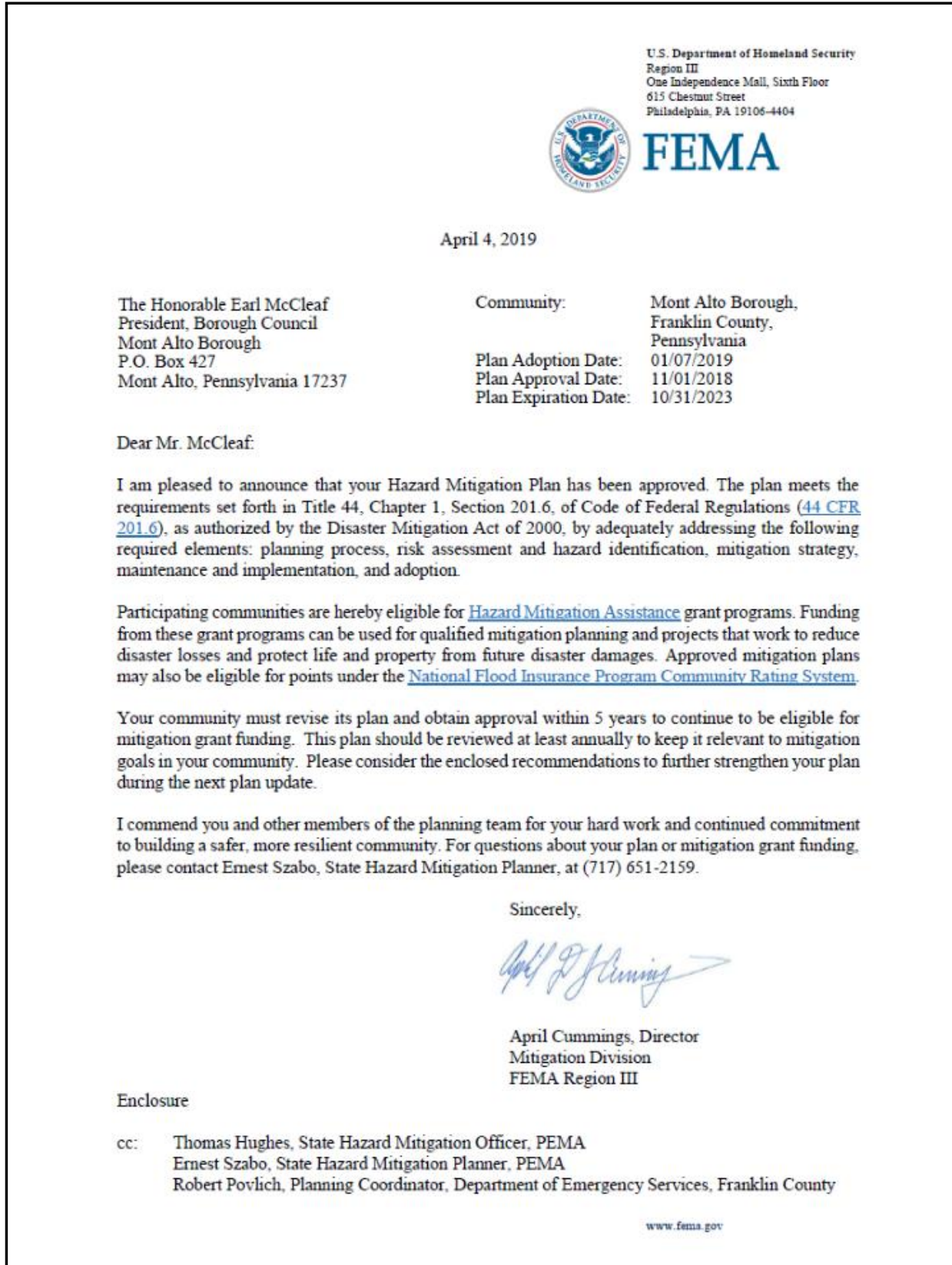


Figure M.25: FEMA Approval of Mont Alto Borough HMP Adoption

**Franklin County 2019 Hazard Mitigation Plan
Municipal Adoption Resolution**

Resolution No. 03-18

Montgomery Township Supervisors, Franklin County, Pennsylvania

WHEREAS, the *Montgomery Township Supervisors, Franklin County, Pennsylvania* is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the *Montgomery Township Supervisors* acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of *Montgomery Township Supervisors*, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the *Montgomery Township Supervisors*:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the *Montgomery Township*, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 1st day of November, 2018

ATTEST:

Montgomery Township Supervisors

By *[Signature]*

By *[Signature]*

[Signature]

Figure M.26: Montgomery Township 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

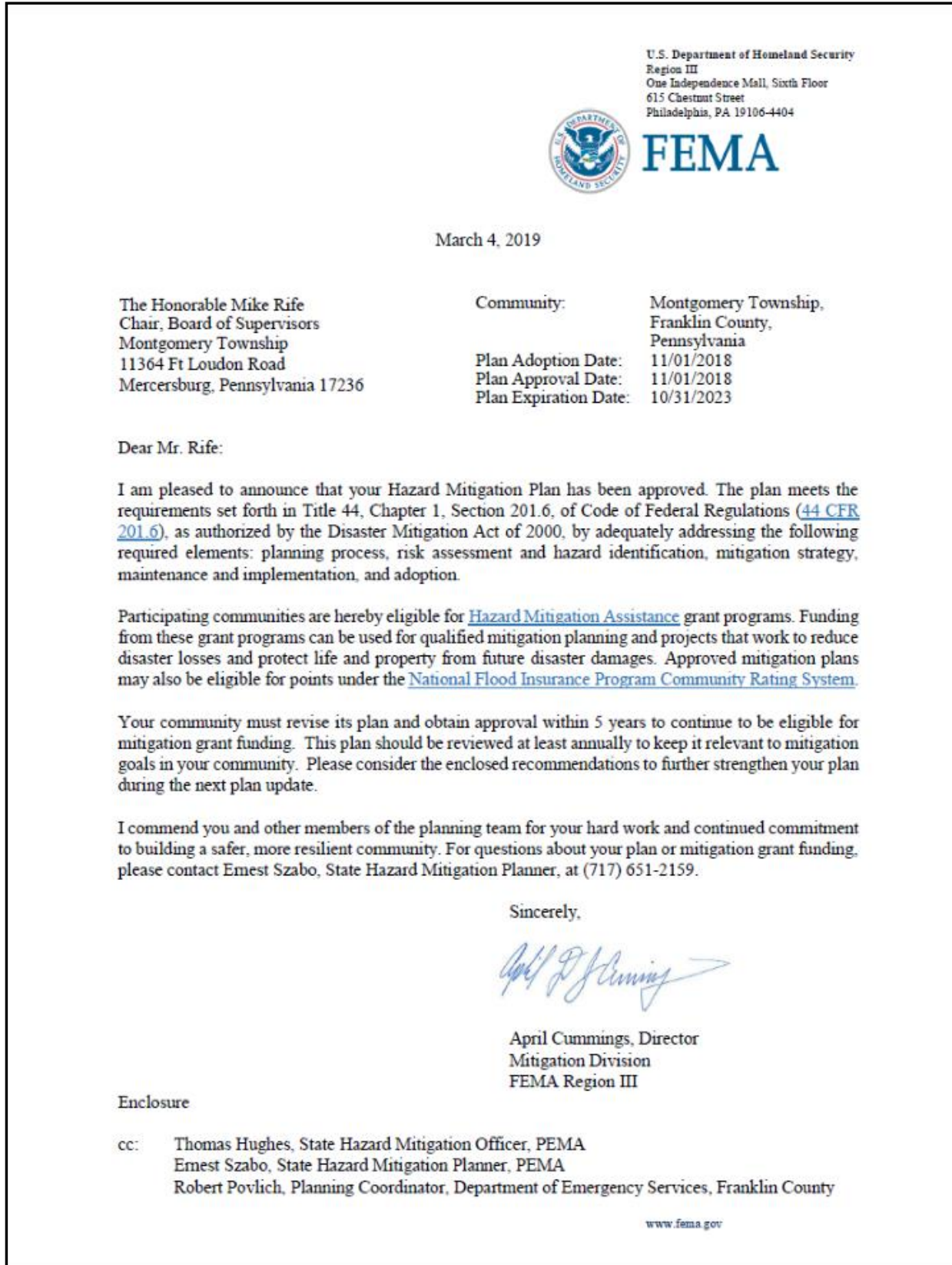


Figure M.27: FEMA Approval of Montgomery Township HMP Adoption

Appendix M: Municipal Adoption Resolutions

**Franklin County 2019 Hazard Mitigation Plan
Municipal Adoption Resolution**

Resolution No. 2018-01

Borough of Orrstown, Franklin County, Pennsylvania

WHEREAS, the Borough of Orrstown, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the Borough of Orrstown acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of Borough of Orrstown, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the Borough of Orrstown:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the Borough of Orrstown, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 5th day of November, 2018

ATTEST: Borough of Orrstown



By 
By 



Figure M.28: Orrstown Borough 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

U.S. Department of Homeland Security
Region III
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404



FEMA

February 6, 2019

The Honorable Douglas Prowant
President, Borough Council
Orrstown Borough
P.O. Box 47
Orrstown, Pennsylvania 17244

Community: Orrstown Borough,
Franklin County,
Pennsylvania
Plan Adoption Date: 11/05/2018
Plan Approval Date: 11/01/2018
Plan Expiration Date: 10/31/2023

Dear Mr. Prowant:

I am pleased to announce that your Hazard Mitigation Plan has been approved. The plan meets the requirements set forth in Title 44, Chapter 1, Section 201.6, of Code of Federal Regulations ([44 CFR 201.6](#)), as authorized by the Disaster Mitigation Act of 2000, by adequately addressing the following required elements: planning process, risk assessment and hazard identification, mitigation strategy, maintenance and implementation, and adoption.

Participating communities are hereby eligible for [Hazard Mitigation Assistance](#) grant programs. Funding from these grant programs can be used for qualified mitigation planning and projects that work to reduce disaster losses and protect life and property from future disaster damages. Approved mitigation plans may also be eligible for points under the [National Flood Insurance Program Community Rating System](#).

Your community must revise its plan and obtain approval within 5 years to continue to be eligible for mitigation grant funding. This plan should be reviewed at least annually to keep it relevant to mitigation goals in your community. Please consider the enclosed recommendations to further strengthen your plan during the next plan update.

I commend you and other members of the planning team for your hard work and continued commitment to building a safer, more resilient community. For questions about your plan or mitigation grant funding, please contact Ernest Szabo, State Hazard Mitigation Planner, at (717) 651-2159.

Sincerely,

April Cummings, Director
Mitigation Division
FEMA Region III

Enclosure

cc: Thomas Hughes, State Hazard Mitigation Officer, PEMA
Ernest Szabo, State Hazard Mitigation Planner, PEMA
Robert Povlich, Planning Coordinator, Department of Emergency Services, Franklin County

www.fema.gov

Figure M.29: FEMA Approval of Orrstown Borough HMP Adoption

Appendix M: Municipal Adoption Resolutions

**Franklin County 2019 Hazard Mitigation Plan
Municipal Adoption Resolution**

Resolution No. 11-A-18
Peters Township, Franklin County, Pennsylvania

WHEREAS, Peters Township, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, Peters Township, Franklin County, Pennsylvania acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of Peters Township, Franklin County, Pennsylvania, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for Peters Township, Franklin County, Pennsylvania:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of Peters Township, Franklin County, Pennsylvania, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 20th day of November, 2018

ATTEST: Peters Township, Franklin County, Pennsylvania

Roger W. Puri

By *Gregory J. W.*

By *Marshall C. Huff*

Figure M.30: Peters Township 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

U.S. Department of Homeland Security
Region III
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404



FEMA

February 4, 2019

The Honorable J. Samuel Rotz, IV
Chair, Board of Supervisors
Peters Township
5000 Steele Avenue
Lemasters, Pennsylvania 17231

Community: Peters Township,
Franklin County,
Pennsylvania
Plan Adoption Date: 11/20/2018
Plan Approval Date: 11/01/2018
Plan Expiration Date: 10/31/2023

Dear Mr. Rotz:

I am pleased to announce that your Hazard Mitigation Plan has been approved. The plan meets the requirements set forth in Title 44, Chapter 1, Section 201.6, of Code of Federal Regulations ([44 CFR 201.6](#)), as authorized by the Disaster Mitigation Act of 2000, by adequately addressing the following required elements: planning process, risk assessment and hazard identification, mitigation strategy, maintenance and implementation, and adoption.

Participating communities are hereby eligible for [Hazard Mitigation Assistance](#) grant programs. Funding from these grant programs can be used for qualified mitigation planning and projects that work to reduce disaster losses and protect life and property from future disaster damages. Approved mitigation plans may also be eligible for points under the [National Flood Insurance Program Community Rating System](#).

Your community must revise its plan and obtain approval within 5 years to continue to be eligible for mitigation grant funding. This plan should be reviewed at least annually to keep it relevant to mitigation goals in your community. Please consider the enclosed recommendations to further strengthen your plan during the next plan update.

I commend you and other members of the planning team for your hard work and continued commitment to building a safer, more resilient community. For questions about your plan or mitigation grant funding, please contact Ernest Szabo, State Hazard Mitigation Planner, at (717) 651-2159.

Sincerely,

A handwritten signature in blue ink that reads "April Cummings".

April Cummings, Director
Mitigation Division
FEMA Region III

Enclosure

cc: Thomas Hughes, State Hazard Mitigation Officer, PEMA
Ernest Szabo, State Hazard Mitigation Planner, PEMA
Robert Povlich, Planning Coordinator, Department of Emergency Services, Franklin County

www.fema.gov

Figure M.31: FEMA Approval of Peters Township HMP Adoption

Appendix M: Municipal Adoption Resolutions

**Franklin County Hazard Mitigation Plan
2019 Municipal Adoption Resolution**

Resolution No. 2019-3
Quincy Township, Franklin County, Pennsylvania

WHEREAS, the *Quincy Township*, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the *Quincy Township* acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of Quincy Township, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County Hazard Mitigation Plan, and

WHEREAS, the Franklin County Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the *Quincy Township*

- The Franklin County Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the *Quincy Township*, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 24 day of January, 2019

ATTEST:

Debi E. Noremaker

Quincy Township

By Rubyn Guedes
By [Signature]
By [Signature]

Figure M.32: Quincy Township 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

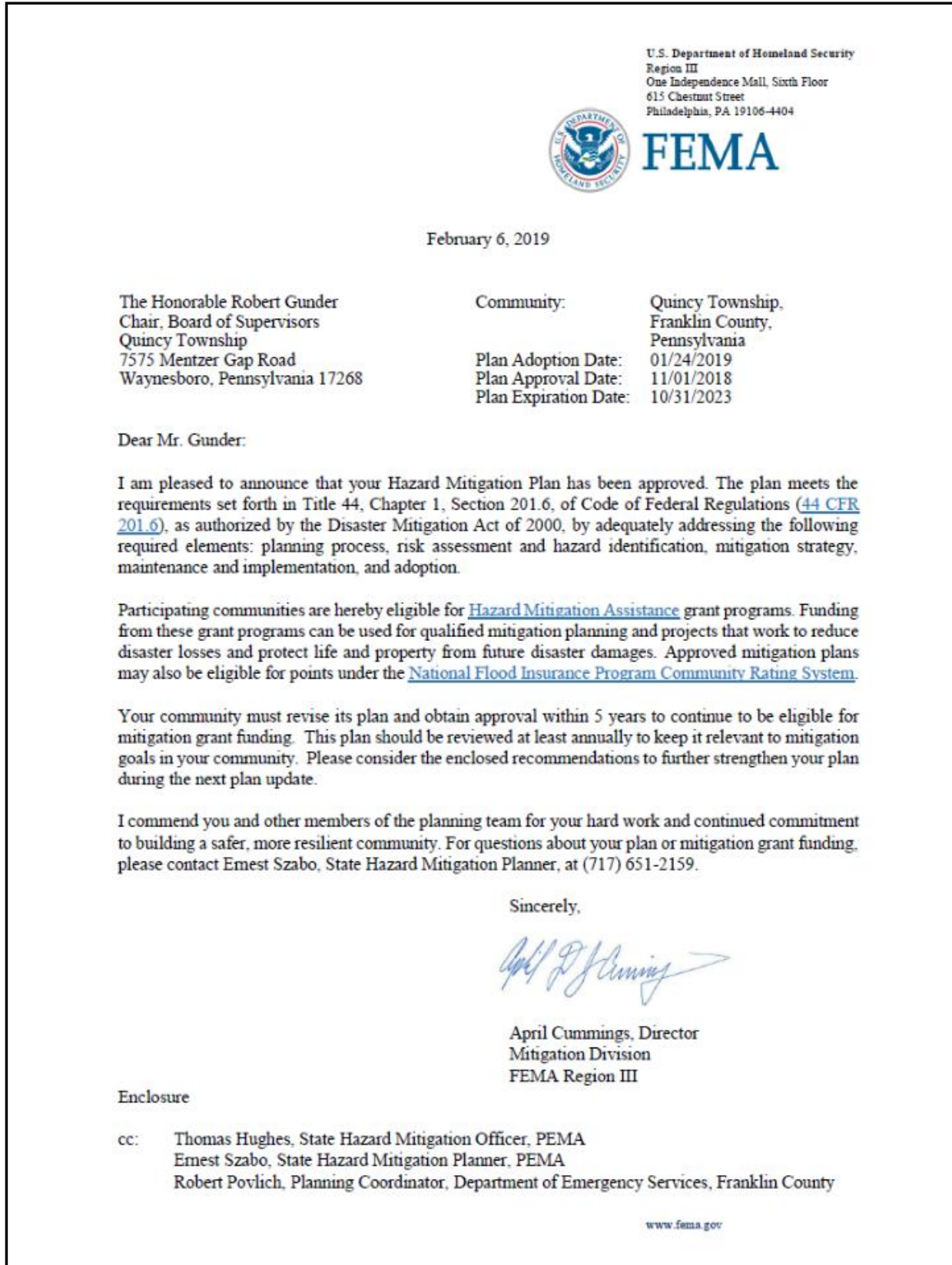


Figure M.33: FEMA Approval of Quincy Township HMP Adoption

RESOLUTION NO. 19-005

A RESOLUTION OF THE BOROUGH COUNCIL OF THE BOROUGH OF SHIPPENSBURG, CUMBERLAND AND FRANKLIN COUNTIES, PENNSYLVANIA, ADOPTING THE 2019 FRANKLIN COUNTY HAZARD MITIGATION PLAN

WHEREAS, the Borough of Shippensburg, Cumberland and Franklin Counties, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the Borough of Shippensburg acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of the Borough of Shippensburg, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments.

NOW THEREFORE BE IT RESOLVED by the governing body for the Borough of Shippensburg:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the Borough of Shippensburg (Franklin County), and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 5th day of February, 2019

BOROUGH COUNCIL OF THE BOROUGH OF SHIPPENSBURG, CUMBERLAND AND FRANKLIN COUNTIES, PENNSYLVANIA

BY: *Anders S. Heg*
President of Borough Council

ATTEST:
Kern Blasteren
Secretary

BY: *Kathy Co*
~~Vice President of Borough Council~~ Mayor

Figure M.34: Shippensburg Borough 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

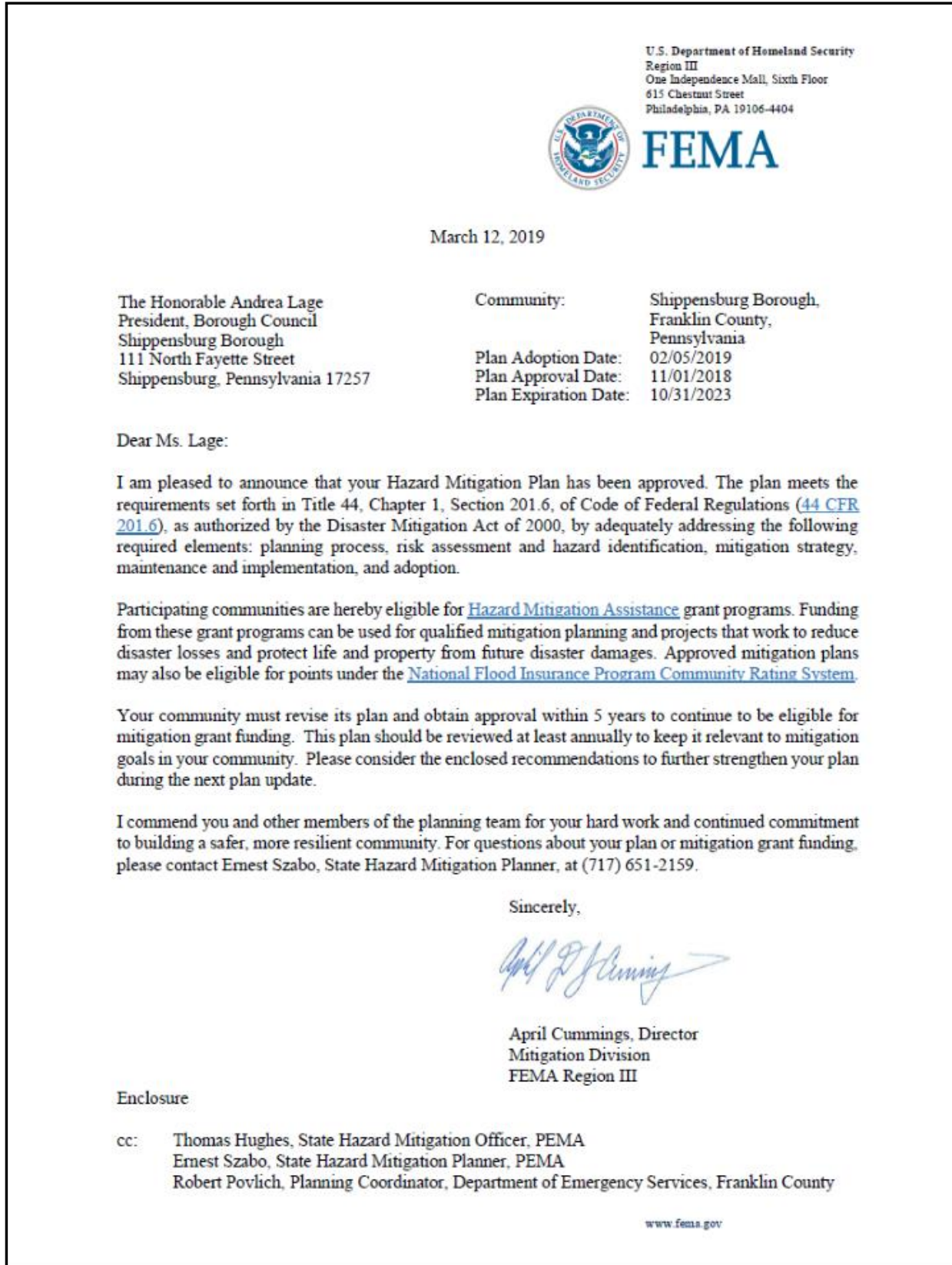


Figure M.35: FEMA Approval of Shippensburg Borough HMP Adoption

Appendix M: Municipal Adoption Resolutions

**Franklin County 2018 Hazard Mitigation Plan
Municipal Adoption Resolution**

Resolution No. 18-005
Southampton Township, Franklin County, Pennsylvania

WHEREAS, the *Southampton Township*, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the *Southampton Township* acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2018 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of *Southampton Township*, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2018 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2018 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the *Southampton Township*:

- The Franklin County 2018 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the *Southampton Township*, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2018 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 13 day of November, 2018

ATTEST: *Southampton Township, Franklin County*

By 

By _____

By _____

Figure M.36: Southampton Township 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

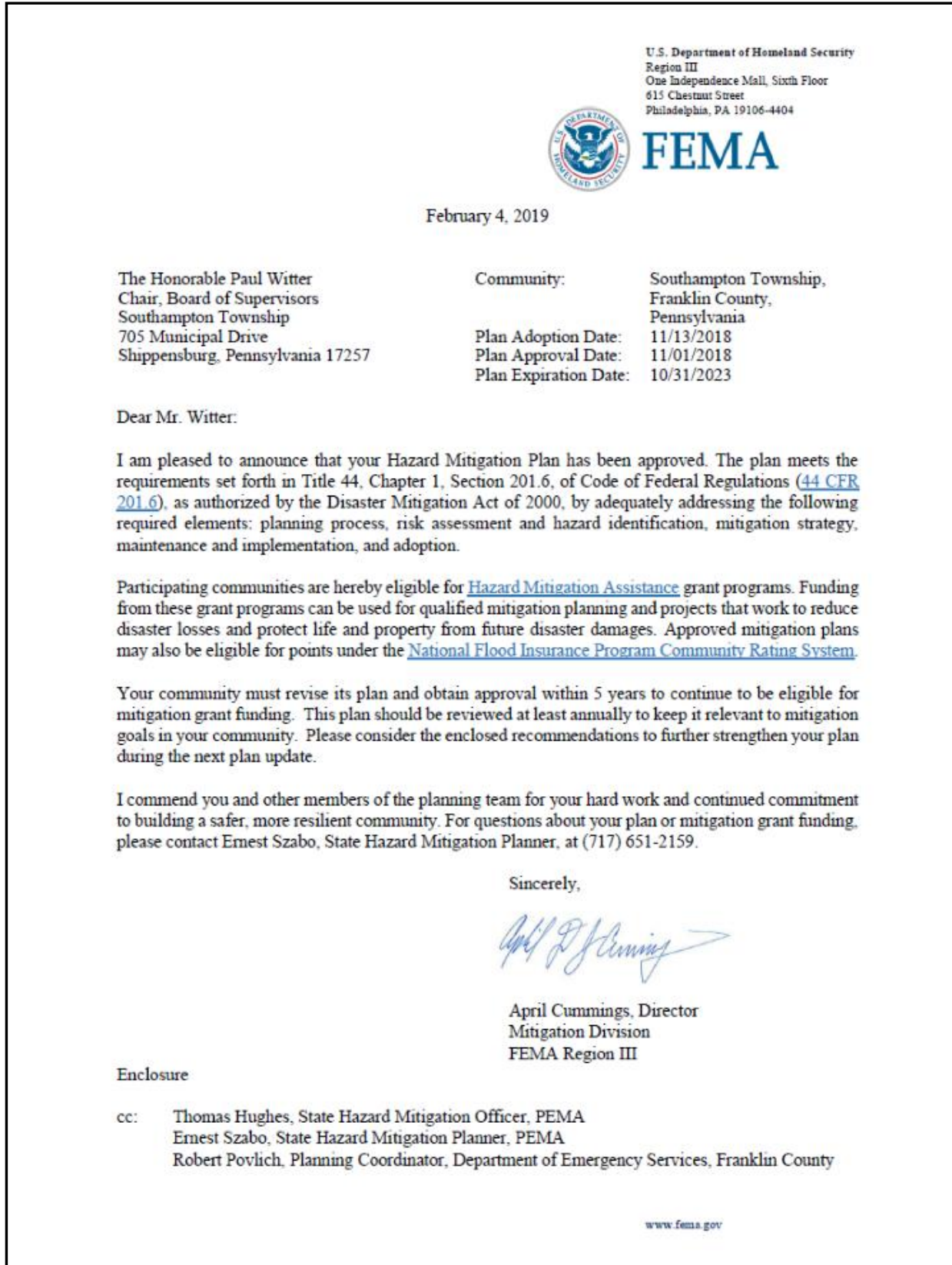


Figure M.37: FEMA Approval of Southamptton Township HMP Adoption

Appendix M: Municipal Adoption Resolutions

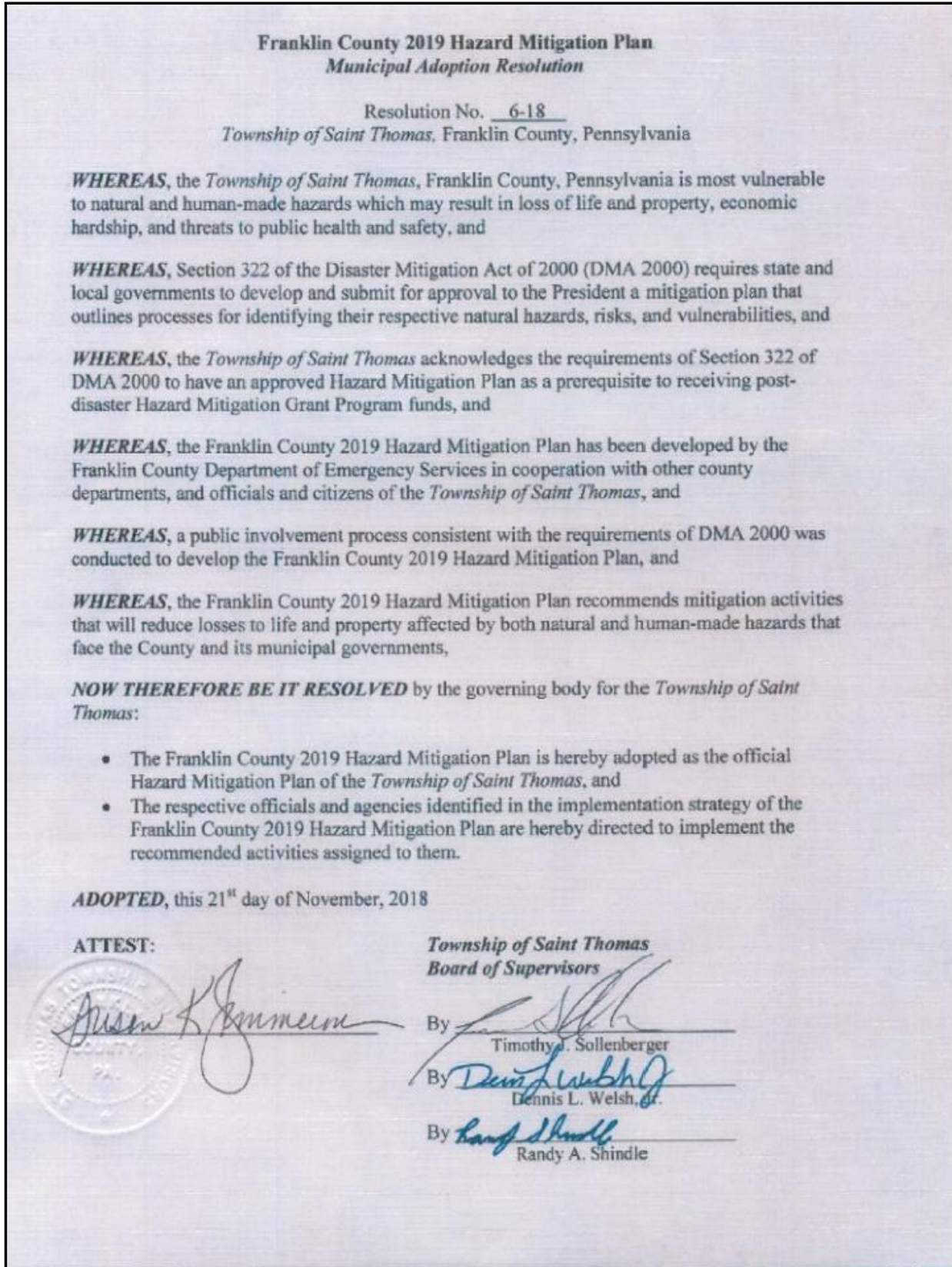


Figure M.38: St Thomas Township 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

U.S. Department of Homeland Security
Region III
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404



FEMA

February 4, 2019

The Honorable Timothy Sollenberger
Chair, Board of Supervisors
St. Thomas Township
965 Hade Road
Chambersburg, Pennsylvania 17202

Community: St. Thomas Township,
Franklin County,
Pennsylvania
Plan Adoption Date: 11/21/2018
Plan Approval Date: 11/01/2018
Plan Expiration Date: 10/31/2023

Dear Mr. Sollenberger:

I am pleased to announce that your Hazard Mitigation Plan has been approved. The plan meets the requirements set forth in Title 44, Chapter 1, Section 201.6, of Code of Federal Regulations ([44 CFR 201.6](#)), as authorized by the Disaster Mitigation Act of 2000, by adequately addressing the following required elements: planning process, risk assessment and hazard identification, mitigation strategy, maintenance and implementation, and adoption.

Participating communities are hereby eligible for [Hazard Mitigation Assistance](#) grant programs. Funding from these grant programs can be used for qualified mitigation planning and projects that work to reduce disaster losses and protect life and property from future disaster damages. Approved mitigation plans may also be eligible for points under the [National Flood Insurance Program Community Rating System](#).

Your community must revise its plan and obtain approval within 5 years to continue to be eligible for mitigation grant funding. This plan should be reviewed at least annually to keep it relevant to mitigation goals in your community. Please consider the enclosed recommendations to further strengthen your plan during the next plan update.

I commend you and other members of the planning team for your hard work and continued commitment to building a safer, more resilient community. For questions about your plan or mitigation grant funding, please contact Ernest Szabo, State Hazard Mitigation Planner, at (717) 651-2159.

Sincerely,

April Cummings, Director
Mitigation Division
FEMA Region III

Enclosure

cc: Thomas Hughes, State Hazard Mitigation Officer, PEMA
Ernest Szabo, State Hazard Mitigation Planner, PEMA
Robert Povlich, Planning Coordinator, Department of Emergency Services, Franklin County

www.fema.gov

Figure M.39: FEMA Approval of St Thomas Township HMP Adoption

Appendix M: Municipal Adoption Resolutions

**Franklin County 2019 Hazard Mitigation Plan
Municipal Adoption Resolution**

Resolution No. 2019-1
Township of Warren, Franklin County, Pennsylvania

WHEREAS, the *Township of Warren*, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the *Township of Warren* acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of the Township of Warren, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the *Township of Warren*:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the *Township of Warren*, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 4 day of March, 2019

ATTEST:

TOWNSHIP OF WARREN

By Harry R. Keefer
By Donald W. Keefer

Figure M.40: Warren Township 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

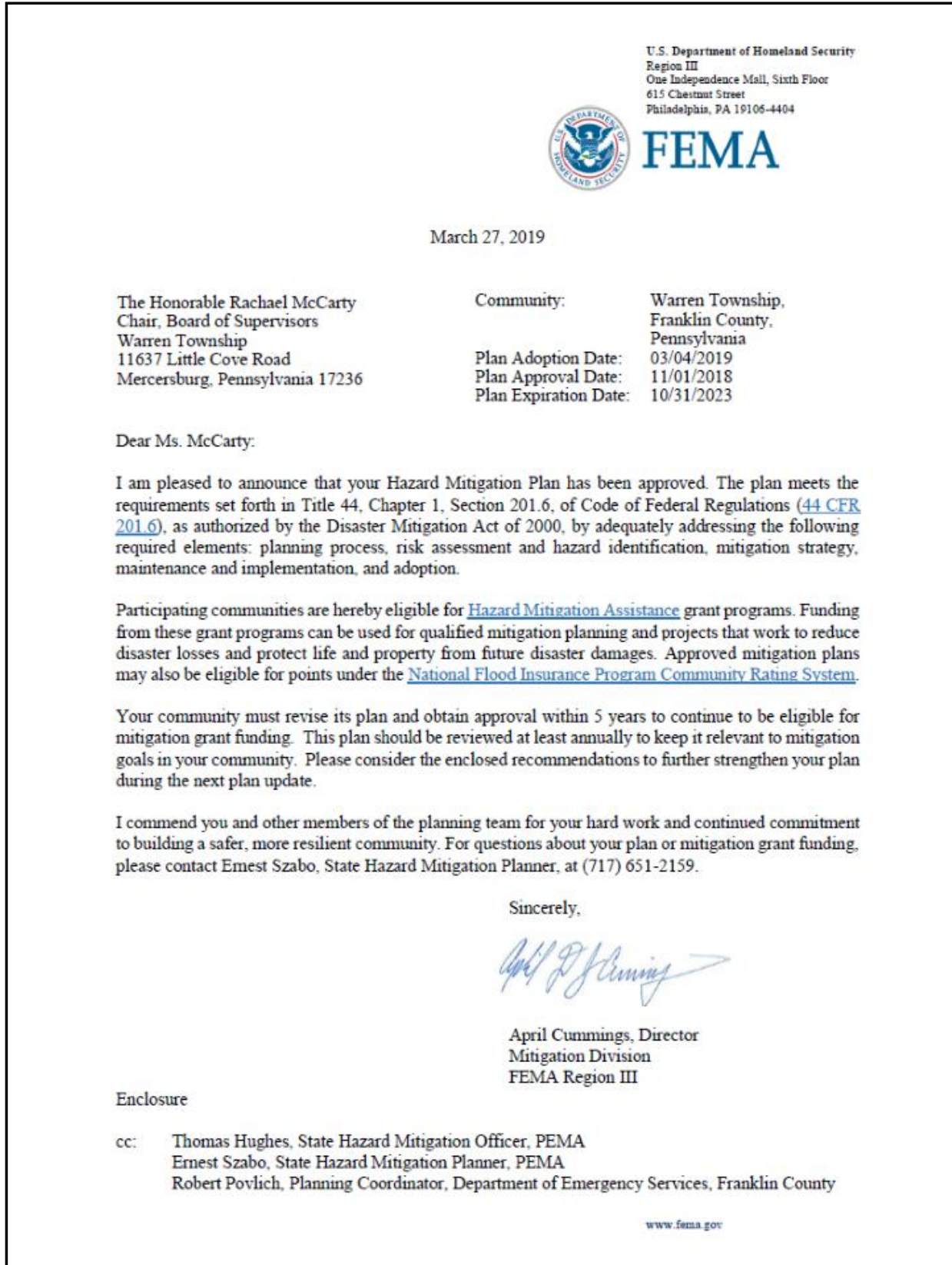


Figure M.41: FEMA Approval of Warren Township HMP Adoption

1573

Franklin County 2019 Hazard Mitigation Plan
Municipal Adoption Resolution

RESOLUTION NO. 685

Washington Township, Franklin County, Pennsylvania

WHEREAS, the Township of Washington, Franklin County, Pennsylvania is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the Township of Washington acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of the Township of Washington, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

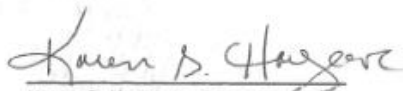
NOW THEREFORE BE IT RESOLVED by the governing body for the Township of Washington:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the Township of Washington, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 5th day of November 2018

ATTEST:

TOWNSHIP OF WASHINGTON
FRANKLIN COUNTY, PENNSYLVANIA


Karen S. Hargrave, Secretary

By 
C. Stewart McCleaf, Chairman

Figure M.42: Washington Township 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

U.S. Department of Homeland Security
Region III
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404



FEMA

November 28, 2018

The Honorable Jeff Geesaman
Chair, Board of Supervisors
Washington Township
13013 Welty Road
Waynesboro, PA 17268

Community: Washington Township,
Franklin County,
Pennsylvania
Plan Adoption Date: 11/05/2018
Plan Approval Date: 11/01/2018
Plan Expiration Date: 10/31/2023

Dear Mr. Geesaman:

I am pleased to announce that your Hazard Mitigation Plan has been approved. The plan meets the requirements set forth in Title 44, Chapter 1, Section 201.6, of Code of Federal Regulations ([44 CFR 201.6](#)), as authorized by the Disaster Mitigation Act of 2000, by adequately addressing the following required elements: planning process, risk assessment and hazard identification, mitigation strategy, maintenance and implementation, and adoption.

Participating communities are hereby eligible for [Hazard Mitigation Assistance](#) grant programs. Funding from these grant programs can be used for qualified mitigation planning and projects that work to reduce disaster losses and protect life and property from future disaster damages. Approved mitigation plans may also be eligible for points under the [National Flood Insurance Program Community Rating System](#).

Your community must revise its plan and obtain approval within 5 years to continue to be eligible for mitigation grant funding. This plan should be reviewed at least annually to keep it relevant to mitigation goals in your community. Please consider the enclosed recommendations to further strengthen your plan during the next plan update.

I commend you and other members of the planning team for your hard work and continued commitment to building a safer, more resilient community. For questions about your plan or mitigation grant funding, please contact Ernest Szabo, State Hazard Mitigation Planner, at (717) 651-2159.

Sincerely,

A handwritten signature in blue ink that reads "April Cummings".

April Cummings, Director
Mitigation Division
FEMA Region III

Enclosure

cc: Thomas Hughes, State Hazard Mitigation Officer, PEMA
Ernest Szabo, State Hazard Mitigation Planner, PEMA
Robert Povlich, Planning Coordinator, Department of Emergency Services, Franklin County

www.fema.gov

Figure M.43: FEMA Approval of Washington Township HMP Adoption

Appendix M: Municipal Adoption Resolutions

**Franklin County 2019 Hazard Mitigation Plan
Municipal Adoption Resolution**

Resolution No. 2018-22
Borough of Waynesboro, Franklin County, Pennsylvania

WHEREAS, the *Borough of Waynesboro*, Franklin County, Pennsylvania, is most vulnerable to natural and human-made hazards which may result in loss of life and property, economic hardship, and threats to public health and safety, and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to develop and submit for approval to the President a mitigation plan that outlines processes for identifying their respective natural hazards, risks, and vulnerabilities, and

WHEREAS, the *Borough of Waynesboro* acknowledges the requirements of Section 322 of DMA 2000 to have an approved Hazard Mitigation Plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan has been developed by the Franklin County Department of Emergency Services in cooperation with other county departments, and officials and citizens of the *Borough of Waynesboro*, and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the Franklin County 2019 Hazard Mitigation Plan, and

WHEREAS, the Franklin County 2019 Hazard Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by both natural and human-made hazards that face the County and its municipal governments,

NOW THEREFORE BE IT RESOLVED by the governing body for the *Borough of Waynesboro*:

- The Franklin County 2019 Hazard Mitigation Plan is hereby adopted as the official Hazard Mitigation Plan of the *Borough of Waynesboro*, and
- The respective officials and agencies identified in the implementation strategy of the Franklin County 2019 Hazard Mitigation Plan are hereby directed to implement the recommended activities assigned to them.

ADOPTED, this 14th day of November, 2018.

ATTEST:

Borough of Waynesboro

By 

By 

Figure M.44: Waynesboro Borough 2018 HMP Adoption Resolution

Appendix M: Municipal Adoption Resolutions

U.S. Department of Homeland Security
Region III
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404



FEMA

November 28, 2018

The Honorable Jason Stains
President, Borough Council
Waynesboro Borough
P.O. Box 310
55 East Main Street
Waynesboro, Pennsylvania 17268

Community: Waynesboro Borough,
Franklin County,
Pennsylvania
Plan Adoption Date: 11/14/2018
Plan Approval Date: 11/01/2018
Plan Expiration Date: 10/31/2023

Dear Mr. Stains:

I am pleased to announce that your Hazard Mitigation Plan has been approved. The plan meets the requirements set forth in Title 44, Chapter 1, Section 201.6, of Code of Federal Regulations ([44 CFR 201.6](#)), as authorized by the Disaster Mitigation Act of 2000, by adequately addressing the following required elements: planning process, risk assessment and hazard identification, mitigation strategy, maintenance and implementation, and adoption.

Participating communities are hereby eligible for [Hazard Mitigation Assistance](#) grant programs. Funding from these grant programs can be used for qualified mitigation planning and projects that work to reduce disaster losses and protect life and property from future disaster damages. Approved mitigation plans may also be eligible for points under the [National Flood Insurance Program Community Rating System](#).

Your community must revise its plan and obtain approval within 5 years to continue to be eligible for mitigation grant funding. This plan should be reviewed at least annually to keep it relevant to mitigation goals in your community. Please consider the enclosed recommendations to further strengthen your plan during the next plan update.

I commend you and other members of the planning team for your hard work and continued commitment to building a safer, more resilient community. For questions about your plan or mitigation grant funding, please contact Ernest Szabo, State Hazard Mitigation Planner, at (717) 651-2159.

Sincerely,

April Cummings, Director
Mitigation Division
FEMA Region III

Enclosure

cc: Thomas Hughes, State Hazard Mitigation Officer, PEMA
Ernest Szabo, State Hazard Mitigation Planner, PEMA
Robert Povlich, Planning Coordinator, Department of Emergency Services, Franklin County

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Figure M.45: FEMA Approval of Waynesboro Borough HMP Adoption