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**MONTGOMERY COUNTY  
PLANNING COMMISSION**

MONTGOMERY COUNTY COURTHOUSE • PO Box 311  
NORRISTOWN, PA 19404-0311  
610-278-3722

FAX: 610-278-3941 • TDD: 610-631-1211  
WWW.MONTCOPA.ORG

SCOTT FRANCE, AICP  
EXECUTIVE DIRECTOR

**HAZARD MITIGATION QUESTIONNAIRE FOR MONTGOMERY COUNTY RESIDENTS  
Report of Results, November 2021**

**Purpose**

The purpose of the voluntary questionnaire was to better understand resident's concerns and vulnerabilities regarding natural and man-made hazards and their resulting disasters. In the past, planners have had difficulty obtaining substantial public input at public meetings. By disseminating questionnaires prior to public meetings, the Planning Commission was able to identify public opinions and advertise for three future public meetings. Hosting a variety of types of public events was essential to elevating equity and increasing the level of participation among the county's residents who might be at greater risk to certain hazards.

**Executive Summary**

The 2023 Hazard Mitigation Plan (HMP) is the fourth iteration of a quinquennial project, which aims to anticipate and accurately understand communities' exposure to hazards. The Plan Update is a collaborative project undertaken by Montgomery County's Planning Commission and Department of Public Safety with critical input from a Planning Team consisting of local emergency staff, planning staff and a diverse set of stakeholders. The current HMP update is the first time a public questionnaire has been applied to gather input from the residents on both experienced and perceived hazards. As the HMP evaluates over twenty hazards, the questionnaire maximizes the value of the responses by focusing on recently experienced disasters that might be at the forefront of public attention.

Respondents had a markedly high interest in flooding/precipitation risks, and associated power outages or traffic incidents. Many residents noted that climate change risk was their highest concern, as it would exacerbate current natural hazards in their communities. Many residents were concerned that new developments are not held to higher stormwater management or native vegetation requirements to rectify current flooding and heat hazards in their communities. One key take away was that residents hoped that municipalities could partner with utility management companies to modernize infrastructure and reduce the risk of failure during hazard events.

Generally, residents agreed that information on stormwater management practices and invasive species management was readily available and utilized by individuals, however, they felt that municipalities were not prioritizing maintenance or removal. This perceived lack of target interest in maintenance/vegetation management was concerning to many residents; many even commented that deferred maintenance of public infrastructure was directly enhancing risk of flooding events as well as decreasing property values.

Understandably, influenza was considered the top health concern in the near future, followed by diabetes and tick-borne illnesses. Many residents cited the high cost of health care as the primary area of concern regarding illness and were particularly troubled by the costs relating to treatable or chronic conditions such as diabetes, heart diseases and cancers. In a fairly consistent manner, residents



expressed the need for affordable mental health treatment and trauma-informed services to be expanded throughout the county.

Generally, there were mixed opinions related to the topic of civil disturbance which encompasses a wide range of possible events that cause civil disorder, confusion, strife, and economic hardship. While it was clear that residents recognized citizens' rights to protest or peacefully assemble, they also supported the need for enhanced resources and training for law enforcement to manage community action events to prevent violence or prevent discriminatory action taken against an event's attendees. Additionally, although many residents were highly concerned about cyber security, a consensus arose that mitigation and action on this topic would need to come from the federal or state government.

### **Methodology**

The questionnaire available online for three months and advertised using social media (Facebook and Twitter). As well, flyers were sent via direct mail to all municipal offices, and promotional material was displayed at county events (including 4-H Fair and National Night Out). Although respondents were able to complete the online survey in English or Spanish, the only responses received were for the English copy.

In addition to the online surveys, the Montgomery County Planning Commission placed questionnaires (English only) at the following six library locations for a two-month period:

- Norristown Public Library
- Perkiomen Valley Library
- Upper Moreland Free Library
- Lansdale Public Library
- Upper Perkiomen Valley Library
- Ardmore Library

An effort was made find a host facility in the Pottstown region, however, due to COVID-19 requirements and construction activities, this was not possible.

Overall, 278 responses were generated by the online questionnaire and 16 responses arrived via paper questionnaires.

### **Survey Results**

#### *General*

This report explores two hundred and ninety-four (294) responses to a questionnaire that provided the option of taking the survey online via Survey Monkey in English or Spanish, or in-person at five libraries across Montgomery County, PA. The vast majority of questionnaires (over 97%) were completed by full-time residents of Montgomery County. The remaining questionnaires were submitted by visitors to the county, including but not limited to employees of the region or business-owners. Over 25% of respondents were retired; 2% of were unemployed, and 4% were local business owners.

When asked whether they were familiar with the phrase "hazard mitigation", 79% respondents said "yes". There was clear consensus on the following two points: 1) respondents were most affected and threatened by flooding/severe weather events; and 2) that these types of hazards were of paramount concern to them in the next 1-5 years. When respondents were asked to rank hazards based on how the government should prioritize them for allocation of resources the following ranking emerged:

1. Flooding/severe weather events



2. Disease outbreaks
3. Cyber security
4. Civil disturbance
5. Heat events
6. Invasive species

The questionnaire only identified the previously mentioned six hazards for ranking purposes. Other hazards of concern identified by respondents were:

- Climate Change (4)
- Systemic Racism (4)
- Power Outages (4)
- Traffic/Transportation Accidents (4)
- Heavy Winds/Tornadoes (2)
- Sinkholes (2)
- Aggressive/Over-policing (2)
- Tree Falls (1)
- Prison Overcrowding/Penal System (1)

*Flooding/Severe Precipitation Events*

Over the past 10 years, 9% of respondents said they were evacuated from their home because of a disaster. Disasters cited include flooding, sewer back-ups associated with flooding damage and power outages due to rain and winter storms. None of the respondents reported to an emergency shelter after these evacuations and instead stayed with family, friends or neighbors.

15% of those surveyed possess flooding insurance and 9% (or 60% of those with insurance) had trouble attaining homeowners/renters insurance due to their risk from natural hazards.

Respondents noticed repeated disruption or damage due to flooding/severe weather in the following core locations:

**Flooding**

Municipality	Approximate Location	
Whitemarsh Township	Fairway Road & Hillside Road Joshua Road & Germantown Pike (2)	
Upper Hanover Township	East Buck Road Fry Road	
Montgomery Township	Brookwood Road	
Borough of East Greenville	Main Street & Water Street	
Lower Pottsgrove Township	North Keim Street & Buchert Road Potter Drive & Overlook Drive	
Bridgeport Borough	East 4th Street Front Street	River Road West Front Street & Mill Street
West Norriton Township	Port Indian Lane	
Norristown Borough	Elmwood Park Zoo Area Schuylkill Avenue Dekalb Street East Washington Street	East Lafayette Street East Main Street Water Street
Hatfield Borough	Broad Street	
Ambler Borough	Church Street	



	Tennis Avenue	
Abington Township	Easton Road Keswick Avenue Grovania Avenue	
Towamencin Township	Kriebel Road & Bustard Road	
Upper Dublin Township	Loch Alsh Field – Loch Alsh Avenue and Fort Washington Avenue Fort Washington Interchange	
Lower Frederick Township	Main Street & Park Avenue Spring Mount Road & Gravel Pike	
Springfield Township	Norfolk Road & Larchwood Road	
Schwenksville Borough	Meadow Park Schwenksville Wastewater Treatment Plant Main Street & Centennial Street Main Street & Park Avenue	Centennial Street & 2 <sup>nd</sup> Street Game Farm Rd & Smith Road East Park Avenue between Route 29 (Main Street/Gravel Pike) and Pennypacker Road
Whitpain Township	Walton Road Dundee Drive Valley Road	Skippack Road (Between Penllyn Blue Bell Pike & Butler Pike)
Skippack Township	Stump Hall Road	
Upper Moreland Township	South York Road & Mill Road	
Upper Merion Township	Upper Merion Area Middle School Upper Merion Community Center Roberts Elementary School Martin’s Dam Club Bob White Park - 485 Falcon Road Wayne, PA Walker Field – 520 Old Fort Road Sweetbriar Park Near Hansen Road/Beidler Road McKaig Nature Center Trinity Lane Between Balligomingo Road & Holstein Road Covered Bridge Road Abrams Road Between West Beidler Road & Hamlet Drive Croton Road Between Sharon Drive & Alderbrook Drive Croton Road Between County Boundary & Kathwood Drive Penn Circle & Old Forge Lane Springdell Road & Jasper Road 1 <sup>st</sup> Avenue Near American Avenue North Gulph Road, Particularly near the Intersections of 76, 276, and 422 Firethorn Road & Henderson Road Jasper Road and Bernard Drive near Crow Creek Crooked Lane near Gulph Mills Golf Club King of Prussia Road & Croton Road Arden Road & South Gulph Road Caley Road & Regimental Road	Hamlet Mews – Hamlet Drive Jonas Road Bridge Brownlie Road Bridge Keebler Bridge Balligomingo Road Sweetbriar Road River Road South Gulph Road Beidler Road/Abrams Road/Route 23 Caley Road Suellen Drive Garrison Way Brookwood Road Lafayette Road Longview Road Lantern Road West Valley Forge Road General Washington Road Hansen Road Cul-de-sac Crossfield Road Between Thomas Drive and Prince Frederick Street Including Upper Merion High School Complex George Drive & Jasper Road N Warner Road & N Gulph Road Bill Smith Boulevard Keebler Road & Allendale Road Garrison Way Riverview Road



	Beidler Road Between Susan Drive and Abrams Mill Road	
Lower Providence Township	Eagle Stream Apartment Complex Pawlings Road & Gertrude Avenue Pawlings Road & Eagleville Road Level Road & Arcola Road Pinetown Road & Egypt Road Egypt Road & Ridge Pike Germantown Pike Bridge over Skippack Creek	Brimfield Road Catfish Lane Miami Avenue Park Avenue Van Buren Avenue & Adams Avenue Clearfield Avenue & Woodlyn Avenue
Pottstown Borough	Montgomery County Community College, 101 College Drive, Pottstown, PA 19464	
Upper Providence Township	2 <sup>nd</sup> Avenue Lower Perkiomen Valley Park Yerkes Road	
Limerick Township	Lewis Road Btw County Club & Benner Road	
Perkiomen Township	East Park Avenue between Route 29 (Main Street/Gravel Pike) and Pennypacker Road	
Upper Gwynedd Township	Sumneytown Pike Near West Point Pike/Church Road	
Plymouth Township	Launfall Road & West Germantown Pike	

#### Power Outages

Municipality	Approximate Location
Abington Township	Rockwell Road Edge Hill Avenue
Montgomery Township	Woodbrook Development, Doylestown Road & Meadow Glen Road
Whitpain Township	Clearview Road Between Township Line Road and Swede Road Yost Road Btw North Wales Road and Route 202
Upper Merion Township	Valley Forge Acres Firethorn Road & Henderson Road General Washington Road
Lower Pottsgrove Township	North Keim Street & Buchert Road

#### Heat Events

Almost all (98%) of the respondents said they have access to air-conditioning in their living environment. It is important to note that perceptions of heat risk expressed in these surveys will not include those living in higher risk environment across Montgomery County. Nonetheless, almost 6% of respondents have experienced heat stress, exhaustion, stroke or rash in their living environment. Less than half (42%), of those experiencing heat stresses, etc. went to a cooling shelter or space with air-conditioning. Respondents identified the following shelters which have been visited during heat events:

- Abington High Schools (Abington Townships and Rockledge Borough)
- Glenside Library or Abington Library (Cheltenham Township and Abington Township)
- King of Prussia Mall (Upper Merion Township)

While only 6% of respondents have workplaces located directly outdoors, 15% of respondents have workplaces that are affected by outdoor temperatures. All in all, 3% of respondents have experienced heat stress, exhaustion, stroke or rash at work. The types of careers of those experiencing heat-related health stresses include:



Librarians  
Landscapers/Gardeners  
Teachers  
Sports Referee  
Federal/Local Gov. Employees (at home-office)  
Computer Programmers

Auto Technicians  
Nurses  
Pharmacists/Pharmacy Specialist  
Lifeguard  
Construction, Numerous Positions  
Corporate/Product Marketers

The questionnaire identified two potential methods that local governments could utilize to mitigate heat impacts, and respondents were invited to specify other solutions/methods. The responses are as follows:

- Tree planting and other vegetation in public space (142)
- Assess to air-conditioning units and installation for low-income residents (101)
- Enhance vegetation requirements for large developments (4)
- Preserve open space and critical habitats (2)
- Upgrade electric grid to reduce power outages and interruptions (2)
- Provide air-conditioning in all public space including transportation infrastructure (2)
- Establish government run cooling centers (2)
- Enhance new development and renovation standards to require effective energy and environmental standards including improved ventilation, insulation, etc. (1)

### *Disease Outbreaks*

Respondents were asked a selected number of questions regarding the Coronavirus (COVID-19) pandemic or other infectious diseases that have occurred over the last five years. Responses were as follows:

- 30% of respondents or members of their family have experienced a decrease in income
- 38% of respondents or members of their family have experienced a reduction in work hours
- 20% of respondents or members of their family have experienced layoffs or had to resign from their job
- 3% of respondents or members of their family have experienced a loss of health insurance/benefits
- 39% of respondents or members of their family have been exposed or had a diagnosis of Covid-19
- 6% of respondents have had someone in their family die from Covid-19
- 95% of respondents or members of their family have taken the COVID-19 vaccine or plan to take the vaccines

Respondents identified the following diseases or conditions that are of most concerned in the next one to five years:

Diabetes (33)  
Cancers (9)  
Asthma (6)  
West Nile Virus or Other Mosquito-Borne Illnesses (12)  
Lyme Disease or Other Tick-borne Illnesses (31)  
Influenza or COVID-19 (175)  
High Cholesterol and Associated Heart Disease (4)  
Viral Hepatitis (2)  
Varicella-Zoster Virus (1)  
Sexually Transmitted Diseases (1)



Significantly, many respondents noted that the unaffordability of and lack of access to medical care was a primary concern.

### *Civil Disturbance*

When respondents were asked how satisfied they were with the provision of police services related to civil disturbance in their community, the majority of respondents, 36%, answered *satisfied*. 32% of respondents answered *very satisfied*, while 26% identified themselves as *neither satisfied nor dissatisfied*. 5% of respondents were *dissatisfied* or *very dissatisfied* with the provision of police services related to civil disturbances.

Respondents were asked how equipped local police were to address local civil disturbances issues. A majority, 37%, said *a moderate amount*. 15% of respondents answered *a little or none at all*. Whereas 48% answered *a great deal or a lot*.

The questionnaire identified two potential methods that local governments could utilize to mitigate negative outcomes from spontaneous mass gatherings and invited respondents to specify other solutions/methods. The responses are as follows:

- Streamline and advertise mass gathering permits/emergency service notification reqs. (75)
- Develop a list of “safe spaces” for protesting (i.e., access to restrooms and drinking water facilities, emergency service, nearby low-speed/low-risk traffic conditions) (151)
- Demilitarize local police forces and support training on non-violent intervention/crowd control/de-escalation methods, anti-bias training (7)
- Increase police presence and target violent criminals (8)
- Improve access to mental health services, emergency trauma care and other community aid (3)
- Support efforts to control misinformation particularly of any extremist viewpoints (1)
- Update laws relating to firearms (1)
- Install video surveillance cameras in high-crime areas (1)
- Expand career firefighter and other emergencies service positions instead of relying on exhausted emergency volunteers (1)

### *Cyber Security*

When respondents were asked how concerned they were about personal data security, the majority of respondents(51%) answered *somewhat concerned*. 39% of respondents answered *very concerned*, while 10% were *not so concerned* or *not at all concerned*.

The questionnaire asked respondents to specify which issue represents their primary concern. The responses are as follows:

- Medical records (22)
- Credit/financial information (264)
- Purchasing habits/visited sites (30)
- Criminal History (1)
- Ransomware (1)
- Infrastructure/Utility Disruption (4)
- Voting Security (1)



The questionnaire asked respondents to expand upon any cyber security concerns and comment on how local governments may boost cyber security measures. Core responses are as follows:

- Local governments could provide monthly tips/news on how to avoid becoming a victim to scams/phishing (5)
- Development a recommended action plan for individuals in the case of a cyber-incident (2)
- Update cyber security laws and better regulate (2)
- Create a hotline for cyber incidents/attacks (1)
- Conduct an assessment of the vulnerability of utilities to cyber-attacks (2)

### *Invasive Species*

The majority, 75.82% of respondents, have had their property, business or employment affected by invasive species. Species identified include:

spotted lanternfly (94)	emerald ash borer (41)	bamboo (7)
asian tiger mosquito (1)	wisteria (6)	tree of heaven (4)
amur cork tree (1)	stink bugs (4)	Japanese beetle (4)
japanese knotweed (1)	wild garlic (4)	gypsy moth (1)
poison ivy (2)	white snakeroot (1)	mile-a-minute vine (1)
hemlock woolly adelgid (1)	english ivy (3)	norway maple (1)
kudzu (2)	japanese stiltgrass (4)	lesser celandine (2)

When respondents were asked how satisfied they were with the local governments handling of the recent spotted lanternfly outbreak, the majority of respondents, 47.27% answered *neither satisfied nor dissatisfied*. 33.09% of respondents answered *very satisfied* or *somewhat satisfied*, while 19.64% were *somewhat dissatisfied* or *very dissatisfied*.

The questionnaire asked respondents which methods should be utilize to mitigate negative outcomes from invasive species. The responses are as follows:

- Stricter regulations (47)
- Public awareness (98)
- Early detection (95)
- Surveillance, control, and eradication (192)

