



Pennsylvania
Department of Community
& Economic Development

ACTION PLAN

2021 CDBG-DR

Hurricane Ida [4618-DR-PA] FR-6326-N-01

January 2023



Collegeville, PA



Commonwealth of Pennsylvania
Josh Shapiro, Governor

PA Department of Community & Economic Development
dced.pa.gov



ABSTRACT

The U.S. Department of Housing and Urban Development (HUD) has allocated a total of \$38,282,000 in Community Development Block Grant- Disaster Recovery (CDBG-DR) funding to the Pennsylvania Department of Community and Economic Development (DCED) to support long-term recovery efforts following the remnants of Hurricane Ida. The total allocation was provided in two tranches: \$23,152,000 from the Disaster Relief Supplemental Appropriations Act, 2022 (Public Law 117-42); and \$15,130,000 from the Continuing Appropriations Act, 2023 (Public Law 117-180). HUD has issued two Federal Register Notices to govern these tranches: one on May 24, 2022, (the May 24 Notice) and one on January 18, 2023 (the January 18 Notice). Collectively, they will be referred to in this document as the 'Notices'. The CDBG-DR funding is designed to address unmet needs after considering other forms of assistance. This plan details how the funds will be allocated to address remaining unmet need in the following Pennsylvania counties: Bedford, Bucks, Chester, Delaware, Montgomery, and York.

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Executive Summary

Overview

The U.S. Department of Housing and Urban Development (HUD) announced that the Commonwealth of Pennsylvania will receive \$38,282,000 in funding to support long-term recovery efforts following the remnants of Hurricane Ida through the Pennsylvania Department of Community and Economic Development. Community Development Block Grant-Disaster Recovery (CDBG-DR) funding is designed to address needs that remain after all other assistance has been exhausted. This plan details how funds will be allocated to address the remaining unmet need in Bedford, Bucks, Chester, Delaware, Montgomery, and York Counties.

To meet disaster recovery needs, the statutes making CDBG-DR funds available have imposed additional requirements and authorized HUD to modify the rules that apply to the annual CDBG program to enhance flexibility and allow for a quicker recovery. HUD has allocated \$38,282,000 in CDBG-DR funds to the Commonwealth of Pennsylvania in response to the Remnants of Hurricane Ida, 4618-DR, through the publication of the Federal Register, Vol. 88, No. 11, January 18, 2023. This allocation was made available through the Continuing Appropriations Act, 2023.

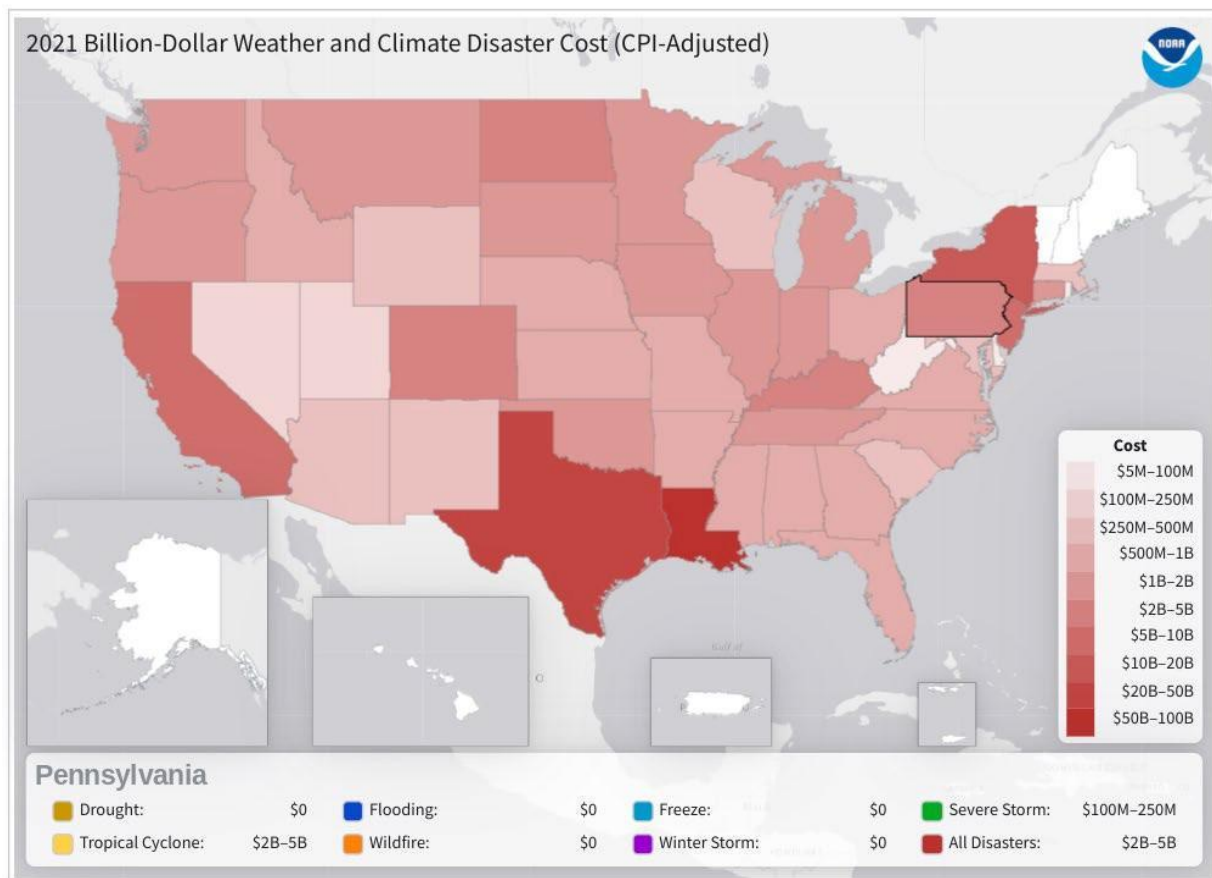
Initially, HUD allocated \$23,152,000 in CDBG-DR funding to Pennsylvania in response to Ida-related damage under the Disaster Relief Supplemental Appropriations Act, 2022 (Public Law 117-43), through publication of the Federal Register, Vol. 87, No. 100, May 24, 2022. The second allocation of \$15,130,000, which brought the total of funds available to \$38,282,000, was announced by dated November 3, 2022, that Pennsylvania would receive the additional funds in response to the Hurricane Ida declaration. This brought the total amount available to \$38,282,000. In developing and issuing the Draft Action Plan for public comment, DCED opted to include the full \$38 million in the draft plan, published on November 9th, based on an assumption that the requirements applicable to the initial \$23 million would also be applicable to the \$15 million. This assumption proved correct as the January 18 Notice is effectively identical to May 24 Notice. press release dated November 3, 2022. In developing and issuing the Draft Action Plan for public comment, DCED opted to include the full \$38 million in the draft plan, published on November 9th, based on an assumption that the requirements applicable to the initial \$23 million would also be applicable to the \$15 million. This assumption proved correct as the January 18 Notice is effectively identical to the May 24 Notice.

For purposes of this Action Plan, the May 24 and January 18 Notices may be referred to collectively as the 'Notices' or may be referred to separately if appropriate.

1.1 Disaster-Specific Overview

Hurricane Ida was the most significant severe weather event to strike the continental United States in 2021, a year in which twenty different events created losses exceeding \$1 billion (CPI-Adjusted). The National Centers for Environmental Information (NCEI) tracks this information through its U.S. Weather and Climate Disasters project and for 2021, the nationwide loss associated with severe weather totaled more than \$152 billion.

The map below reflects state-by-state data and includes a specific breakout for Pennsylvania. Estimates vary greatly, but the estimates of the cost of damages range between \$2 billion and \$5 billion within the state, attributable to Hurricane Ida.



Please note that the map reflects a summation of billion-dollar events for each state affected (i.e., it does not mean that each state shown suffered at least \$1 billion in losses for each event).

Figure 1: Pennsylvania profile within 2021 Weather and Climate Disaster Cost (CPI- Adjusted) Map¹

As it traveled over the United States from August 29, 2021 - September 2, 2021, Hurricane Ida caused massive damage along the full length of its path. It made landfall as a Category 4 hurricane on August 29, 2021, at Port Fourchon, Louisiana, and transitioned to an extratropical storm as it moved through the Tennessee Valley. It moved east northeastward through West Virginia, northern Virginia, and central Maryland, reaching southeastern Pennsylvania on September 1, 2021, and continued northward. The map below illustrates Hurricane's Ida's trajectory as it made its way up from the Gulf states and into the Northeast United States.

Source: NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2022), retrieved Oct. 19, 2022 from: <https://www.ncei.noaa.gov/access/billions/mapping>

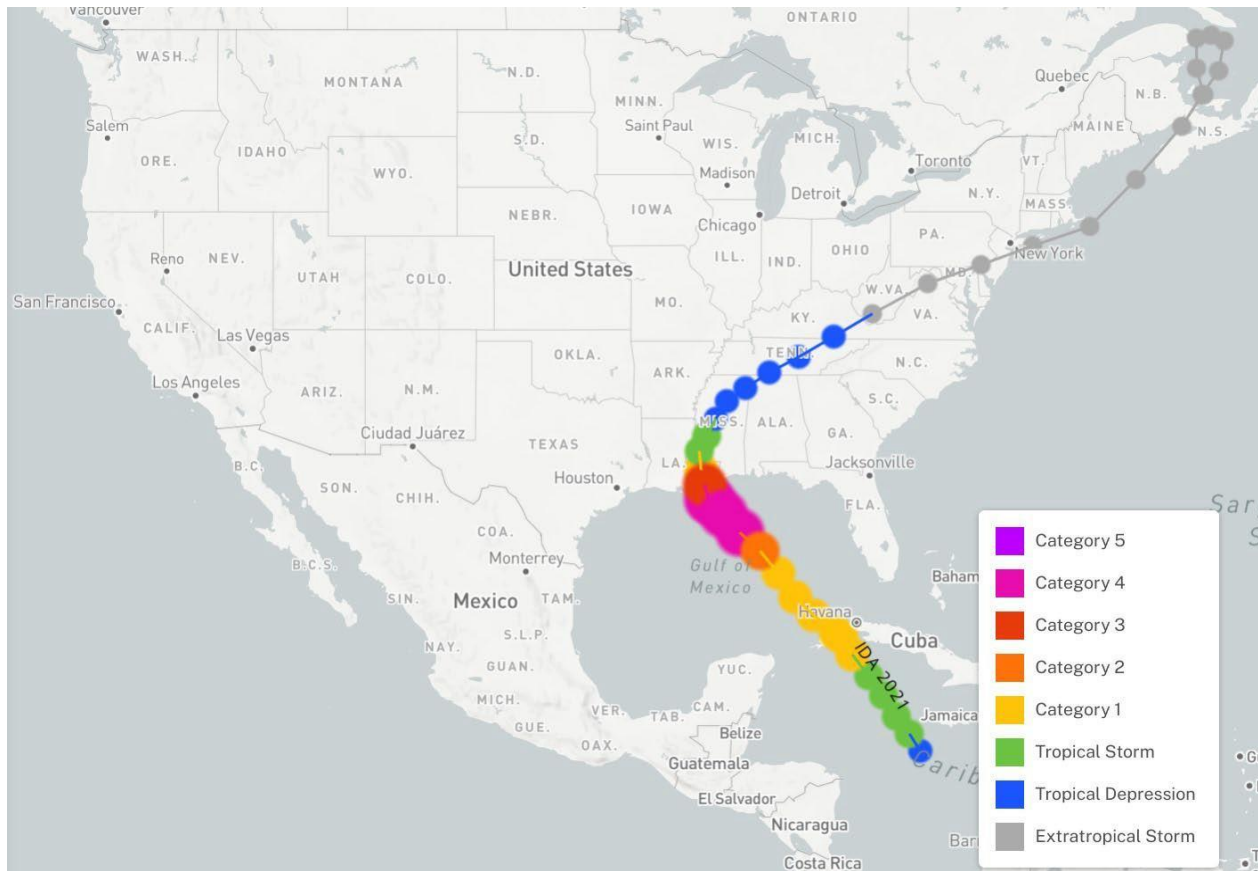


Figure 2: Map of Hurricane Ida's Track August 29 – September 4, 2021²

Though it had significantly downgraded by the time it arrived in Pennsylvania, Ida caused catastrophic damage through a combination of record-breaking rainfall, flooding, high winds and tornadoes. A Presidential Major Disaster Declaration was approved for Pennsylvania on September 10, 2022 (DR-4618). This Declaration is discussed in greater detail in the following section.

The remnants of Hurricane Ida produced extensive and, in some cases, record-setting rainfall over a forty-eight (48) hour period. The following maps and narratives have been retrieved from National Weather Service (NWS) websites and reflect Ida's impact on that area with a particular focus on southeastern Pennsylvania. See <https://www.weather.gov/phi/eventreview20210901#hydro3> as source.

The map below (produced at 8:20 am on September 1, 2021) shows the projected Ida-related excessive rainfall outlook for the mid-Atlantic area ranging from the Washington, DC metropolitan area northward through the New York City metropolitan area. The superimposed

oval west of Philadelphia roughly approximates the two Most-Impacted and Distressed (MID) counties – Delaware and Montgomery - as identified by HUD in the Notices.

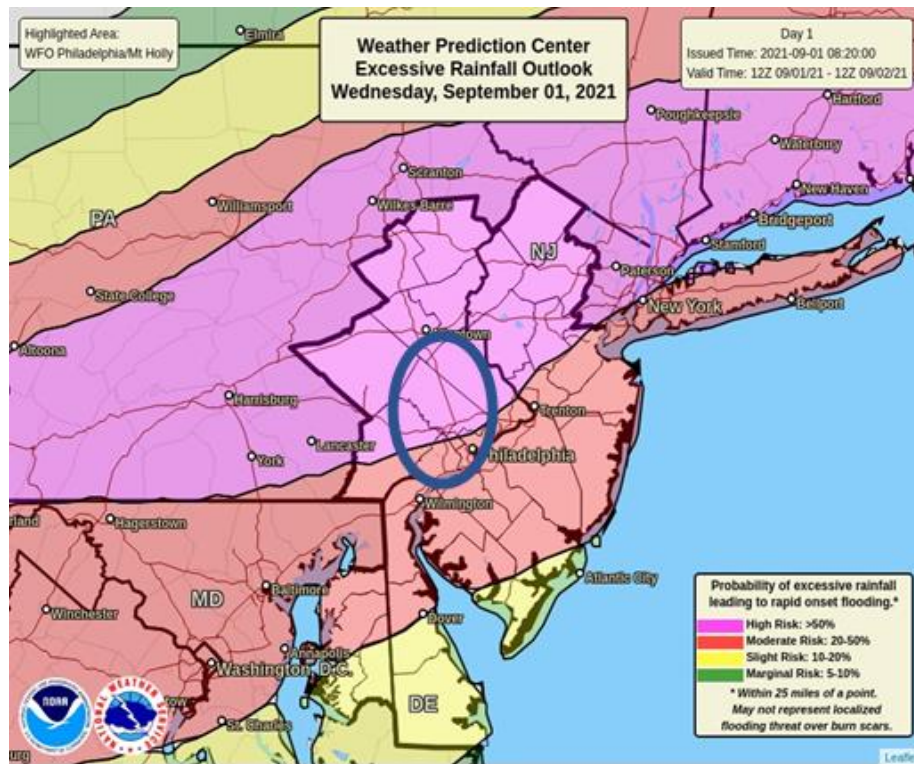


Figure 3: Weather Prediction Center Excessive Rainfall Outlook

The following map is a more nuanced prediction produced almost twenty-four hours later that provides measurable rainfall estimates over a similar area. Again, the superimposed oval represents the HUD-defined MID counties, and the scale indicates rainfall in the MID area of above ten inches in most of the county.

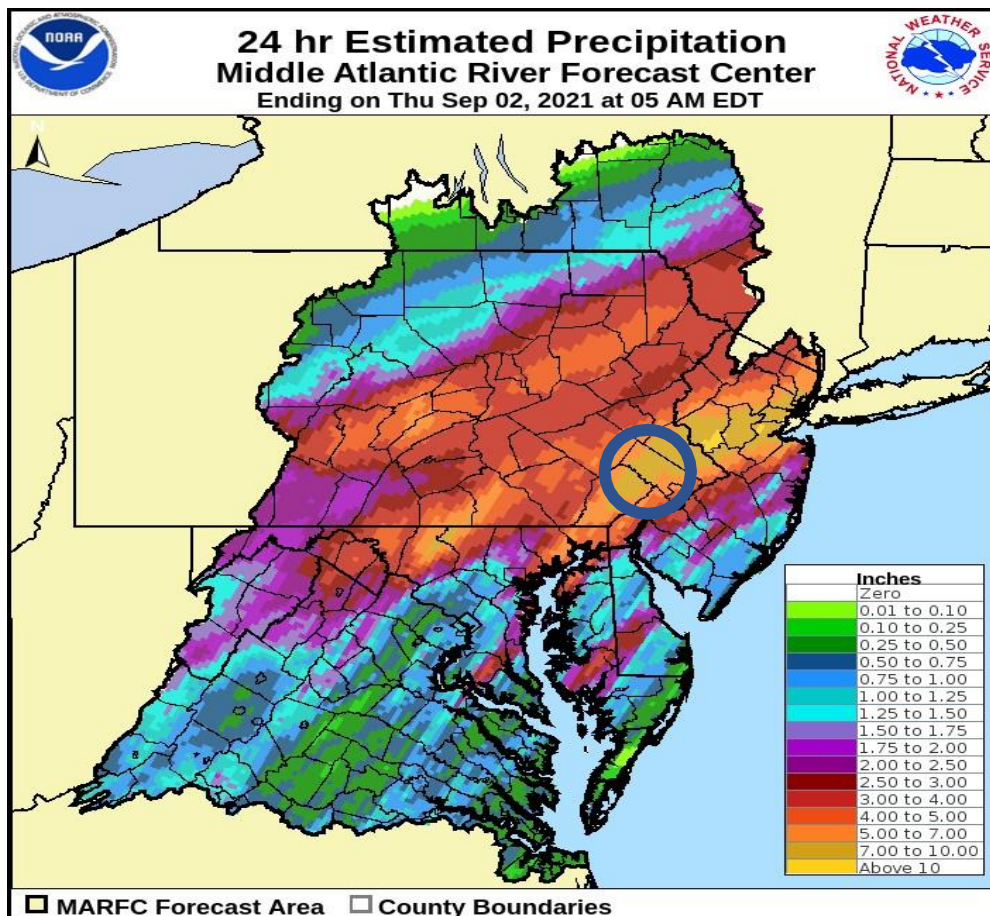


Figure 4: 24-hr Estimated Precipitation

The map below reflects NWS's presentation of the CREST Unit Streamflow product which is used by forecasters to monitor flash flooding potential. "The presence of widespread red and pink values typically indicates high confidence in flash flooding. When blue pixels begin to appear, especially over a wide area, it is typically an indicator of significant flash flooding. Here, the highest values are over southeastern Pennsylvania, while heavier rain is yet to arrive in areas further northeast. ***To see such a large area of purple, blue, and white pixels as the scale maxes out is highly unusual and is seen only in the rarest cases.***" (Emphasis added)

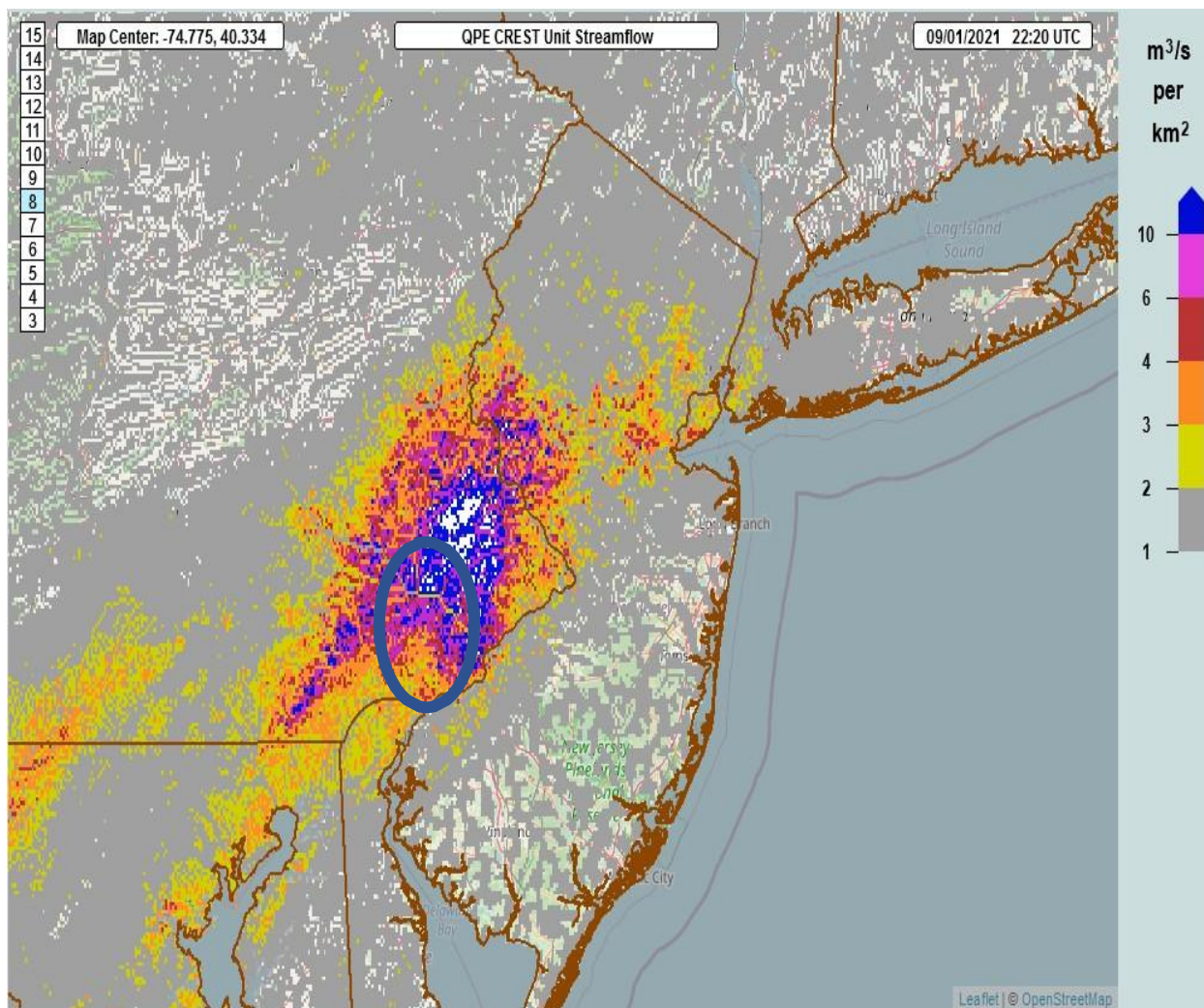


Figure 5: CREST Unit Streamflow

Consistent with the above maps, municipalities in Montgomery County recorded high rainfall amounts as reflected by NWS data reflected below:

Location	Amount	Time	Date
Hatfield	8.41 in	0850 AM	09/02/21
Eagleville	7.70 in	1210 AM	09/02/21
Hatfield 2 WSW	7.54 in	0800 AM	09/02/21
Skippack 2.6 ESE	7.46 in	0700 AM	09/02/21
Harleysville 3.9 WNW	7.45 in	0700 AM	09/02/21
Royersford	7.36 in	0126 PM	09/02/21
Gilbertsville	7.32 in	0129 PM	09/02/21
Lansdale	7.18 in	1030 AM	09/02/21
Hatfield 0.1 SSW	7.02 in	0600 AM	09/02/21

Willow Grove 0.9 ESE	6.95 in	0700 AM	09/02/21
Harleysville 2.1 SW	6.90 in	0700 AM	09/02/21
Limerick 1.1 W	6.85 in	0700 AM	09/02/21
Green Lane 1.7 E	6.74 in	0903 AM	09/02/21
Pennsburg 1.3 ENE	6.60 in	0700 AM	09/02/21
Eagleville	6.55 in	0125 PM	09/02/21
Norristown (Eagleville)	6.35 in	0129 PM	09/02/21
Pennsburg 1.6 SSW	6.34 in	0730 AM	09/02/21
Willow Grove	6.32 in	0125 PM	09/02/21
Lansdale 3.9 SW	6.27 in	0630 AM	09/02/21
Wyncote	6.27 in	0730 AM	09/02/21
Hatboro 0.3 NW	6.24 in	0800 AM	09/02/21
Harleysville 2.9 S	6.22 in	0812 AM	09/02/21
Hatboro 0.6 E	6.17 in	0600 AM	09/02/21

Table 1: Rainfall in Montgomery County

The National Weather Service provided a Multi-Radar/Multi-Sensor (MRMS) Average Recurrence Interval for the radar-estimated rainfall for the six-hour period ending slightly after 10 pm local time on September 1, 2021. This image shows the average return period (in years) for the amount of rain that fell in this six-hour period and indicates that Ida was a distinct extreme outlier for rainfall amounts.

“The scale maxes out at a 200-year return period, however, that proved to be severely inadequate for this event. A 200-year return period means that a given event would be expected to occur on average once every 200 years. Ida’s rainfall easily eclipsed that threshold over much of the area seen above. While confidence in return periods begins to decrease at these more extreme thresholds, the actual return period for this amount of 6-hour rainfall for the hardest hit areas was probably closer to 500 or 1000 years.” (Emphasis added)

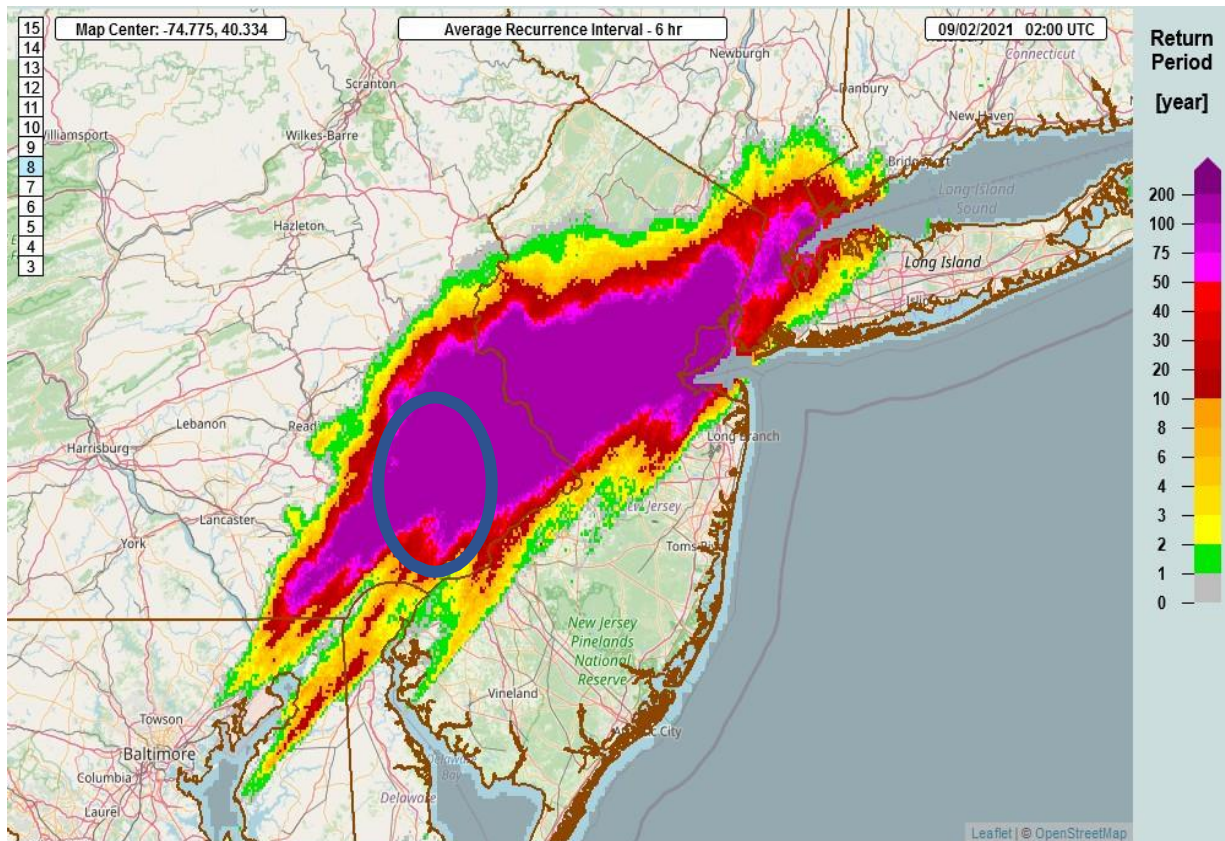


Figure 6: Multi-Radar/Multi-Sensor (MRMS) Average Recurrence Interval

Such a significant amount of rainfall caused dramatic flooding of the Schuylkill River in Montgomery County, which peaked at 26.85 feet, over seven feet above the major flooding level of 19 feet, and over 17 feet above its daily average, as shown in the table below.

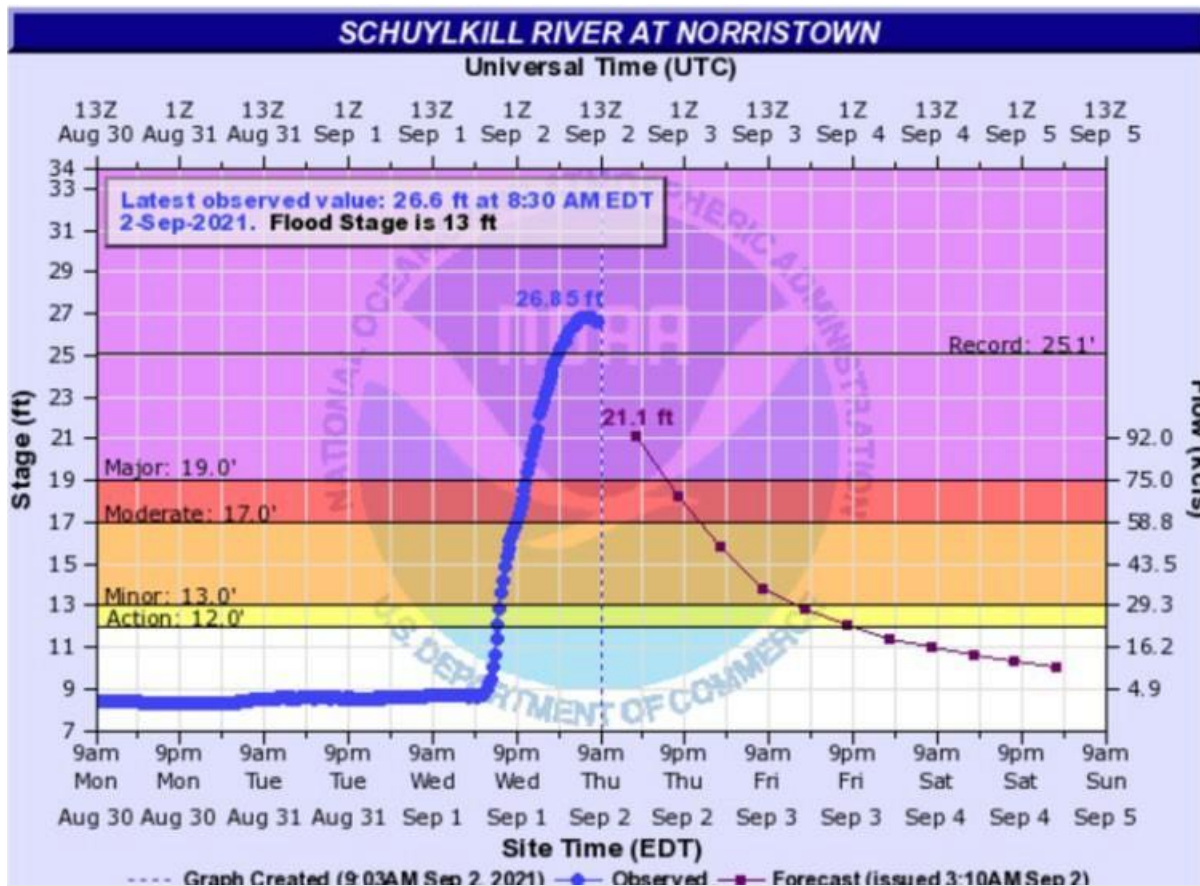


Figure 7: Flooding depth on the Schuylkill River as recorded by the National Weather Service

Ida's remnants also spawned several tornadoes through southeastern Pennsylvania with the most notable being an EF-2 tornado. This tornado passed through the north central portion of Montgomery County as depicted in the map below. Damage was concentrated north of Interstate 76 (Pennsylvania Turnpike) as it passed through Upper Dublin Township. Significant damage was sustained to Upper Dublin High School and an adjacent township building with scattered damage to various residential areas and Temple University's Ambler Campus. One fatality was attributed to this tornado when a tree landed upon a house and killed an occupant.³

³ https://www.weather.gov/media/phi/Events/20210901/Tornado_Tracks.pdf



Figure 8: EF-2 Tornado Fort Washington-Upper Dublin-Horsham, PA

Taken as a composite, these maps and data points present the substantial impact of Ida-related rainfall and flooding, as well as tornadoes across southeastern Pennsylvania in the period of September 1- 2, 2021 and led to HUD’s allocation of CDBG-DR funds to the Commonwealth to address unmet recovery needs associated with this extreme weather event.

Disaster Declaration

Based upon a preliminary evaluation of Ida’s widespread damage, a Federal Disaster declaration (DR-4618) was approved for Pennsylvania on September 10, 2022. While this disaster is officially “the Remnants of Hurricane Ida,” it is referred to as Hurricane Ida throughout this document. The Federal Emergency Management Agency (FEMA) ultimately designated seven counties as eligible for both its Public Assistance (PA) and Individual Assistance (IA) programs: Bedford, Bucks, Chester, Delaware, Montgomery, Philadelphia and York. Five counties -Dauphin, Fulton, Huntingdon, Luzerne, and Schuylkill- were declared eligible for only Public Assistance (PA), and one county, Northampton, was declared eligible for Individual Assistance (IA) only, as indicated on the map below.

- On February 28, 2022, FEMA approved a request from the Commonwealth to extend through March 29, 2022, the use of emergency, non-congregate sheltering in those Counties designated for Public Assistance.⁴ FEMA approved applications for 43,165 individuals and households and obligated \$127,638,653.53 in Individual Assistance.
- The Public Assistance program allocation provided \$27,586,845.01.
- \$942,777.33 was delivered through the Hazard Mitigation Grant Program (HMGP), for a total of \$155,931,025.87.

Funding Obligations

Individual Assistance	Amount
Total Housing Assistance (HA) - Dollars Approved	\$99,102,387.39
Total Other Needs Assistance (ONA) - Dollars Approved	\$28,651,523.78
Total Individual & Households Program Dollars Approved	\$127,753,911.17
Individual Assistance Applications Approved	43188

Public Assistance	Amount
Emergency Work (Categories A-B) - Dollars Obligated	\$8,274,807.65
Permanent Work (Categories C-G) - Dollars Obligated	\$17,592,123.38
Total Public Assistance Grants Dollars Obligated	\$27,586,845.01

Hazard Mitigation Assistance	Amount
Hazard Mitigation Grant Program (HMGP) - Dollars Obligated	\$942,777.33

Figure 10: FEMA Funding Figures for 4618-DR-PA as of February 7, 2023⁵

These figures are inclusive of assistance provided within all local governments in Pennsylvania (including the city of Philadelphia) that received an IA and/or PA eligibility designation.

⁴ <https://www.fema.gov/press-release/20220314/pennsylvania-recovery-six-months-ida-hit>

⁵ <https://www.fema.gov/disaster/4618>

Individual Assistance Application Distribution

Overall, FEMA validated 23,262 Individual Assistance applications in the six eligible counties. The following “heat maps” illustrate the location and concentration of these IA applications for each of the six counties. Each square represents the concentration of applicants per square kilometer (sq km).

Bedford County is a mostly rural county, approximately 200 miles west of Philadelphia. Bedford covers approximately 2,634 square kilometers, with a population of 47,461 (2021 U.S. Census estimate). Bedford County’s 376 IA applicants were concentrated in relatively populous areas around the town of Bedford, at the junction of several major highways that reported deep flooding.

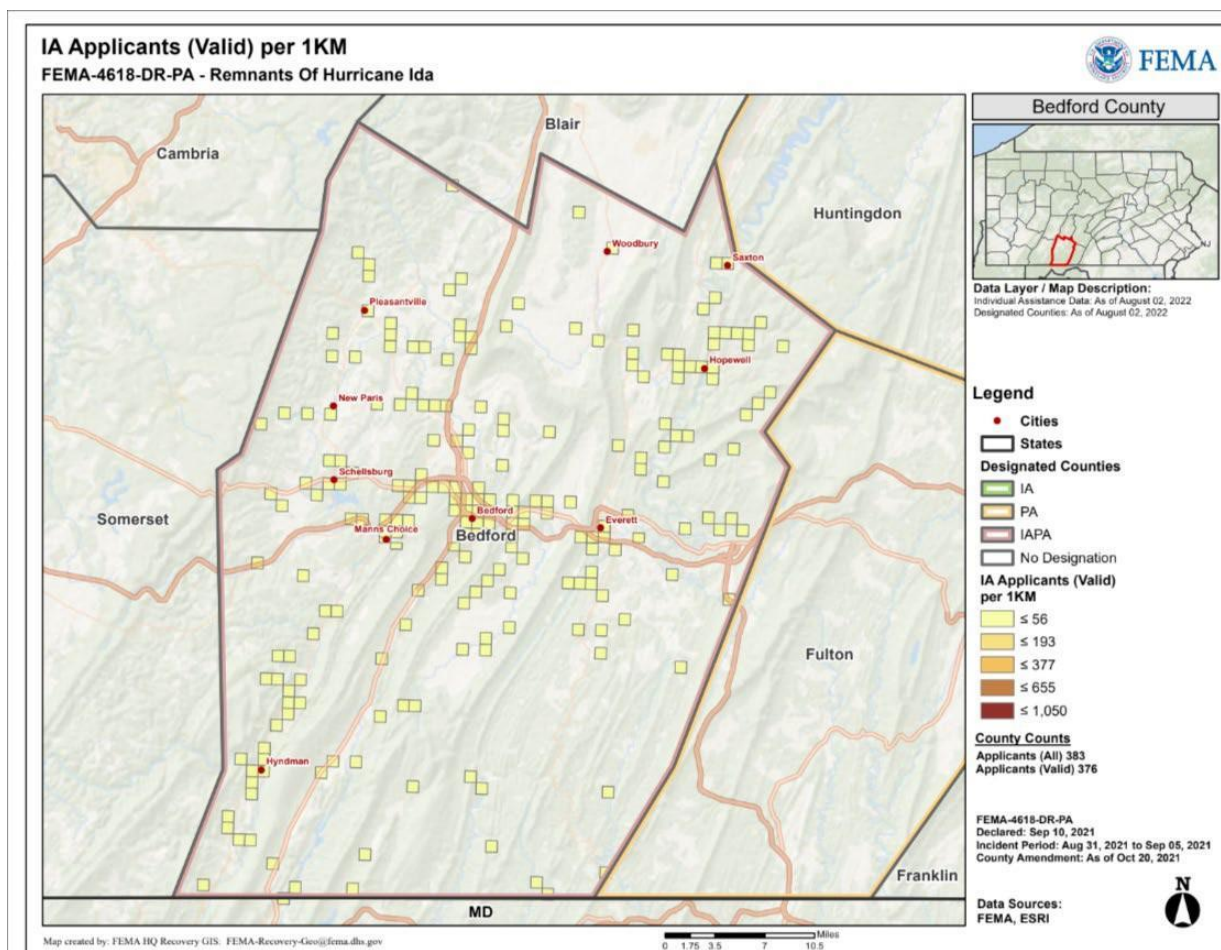


Figure 11: Bedford County Individual Assistance Applicants per 1KM

Bucks County is immediately north of the city of Philadelphia and borders the Delaware River, covering approximately 1,611 square kilometers of land and having 646,098 residents (2021 Census estimate). The number of IA applicants in Bucks County totaled 2,883, with the majority of those applicants living in the southwestern portion of the county which borders Montgomery County and Philadelphia.

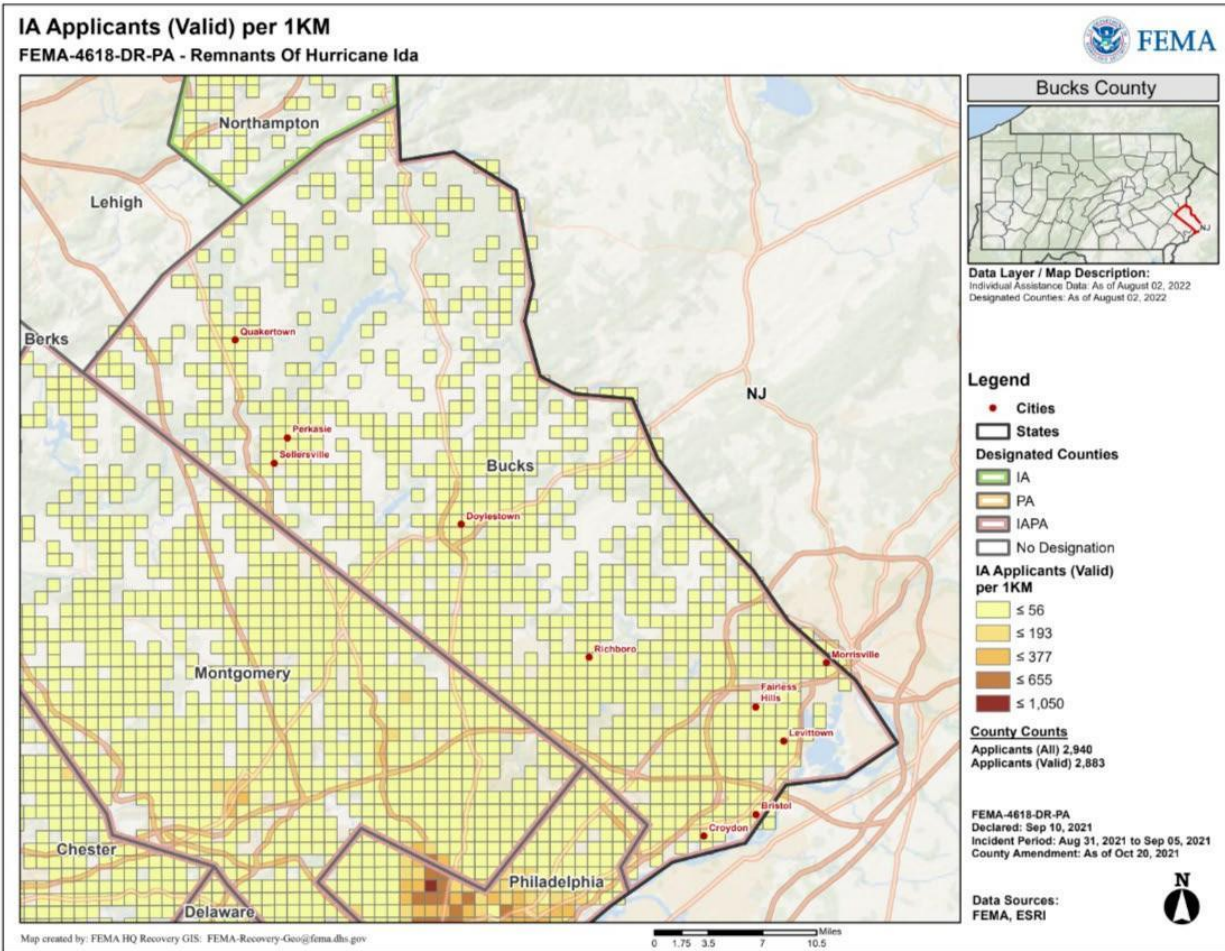


Figure 12: Bucks County Individual Assistance Applicants per 1KM

Montgomery County is northwest of Philadelphia, wedged southwest of Bucks County and northeast of Chester County. Montgomery County covers 1,251 square kilometers and has a population of 860,578 (2021 Census estimate). A total of 6,777 IA applicants were densely clustered in areas adjacent to Philadelphia (between 377 and 655 applicants per sq km), and along the Schuylkill River towards Norristown, the county seat.

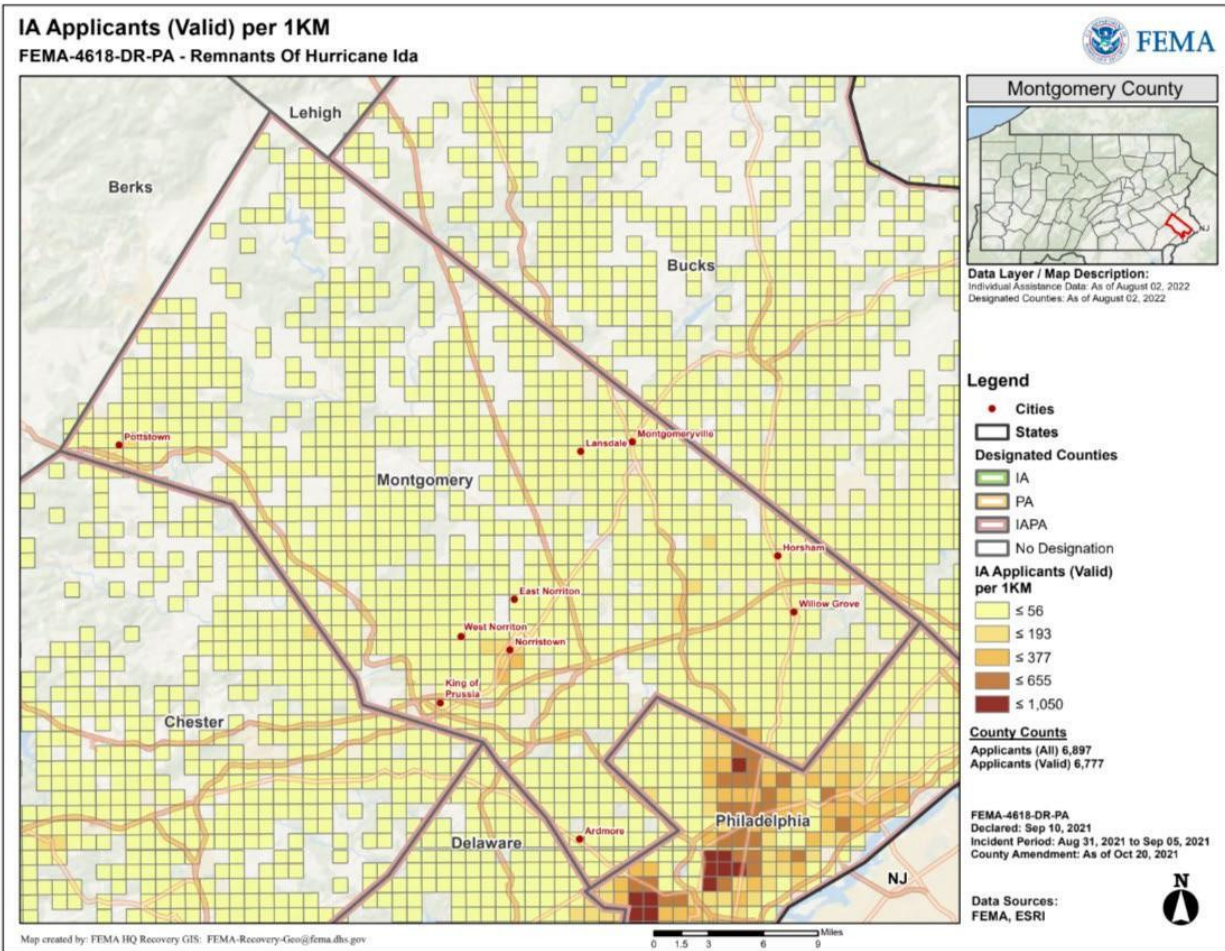


Figure 13: Montgomery County Individual Assistance Applicants per 1KM

Delaware County lies west and southwest of Philadelphia and is approximately 494 square kilometers in size, with a population of 573,849. Like Montgomery, Delaware saw the greatest concentration of its 7,615 IA applicants (between 655 and 1,050 applicants per sq km) on its border with Philadelphia. Areas along the Schuylkill River near the city of Chester also had higher percentages of applicants.

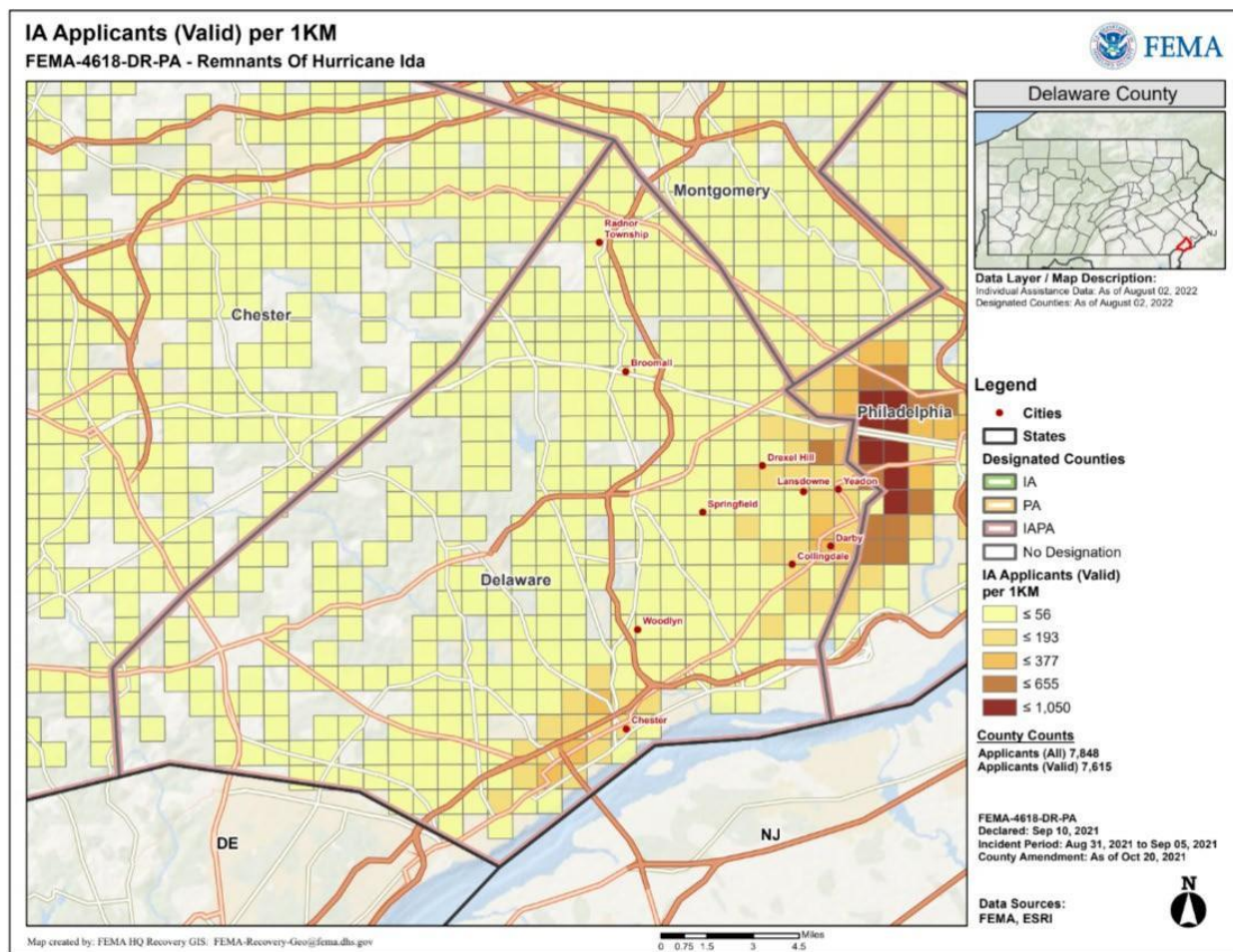


Figure 14: Delaware County Individual Assistance Applicants per 1KM

Chester County, with an area of approximately 1,965 square kilometers, is located in the west of Philadelphia and between Montgomery and Delaware counties. Chester County's population is 538,649 (2021 Census estimate). There were 2,737 IA applications validated for Chester County, most under 56 applicants per sq km, with some at or less than 377 applicants per sq km clustered near the Eastern border of the county.

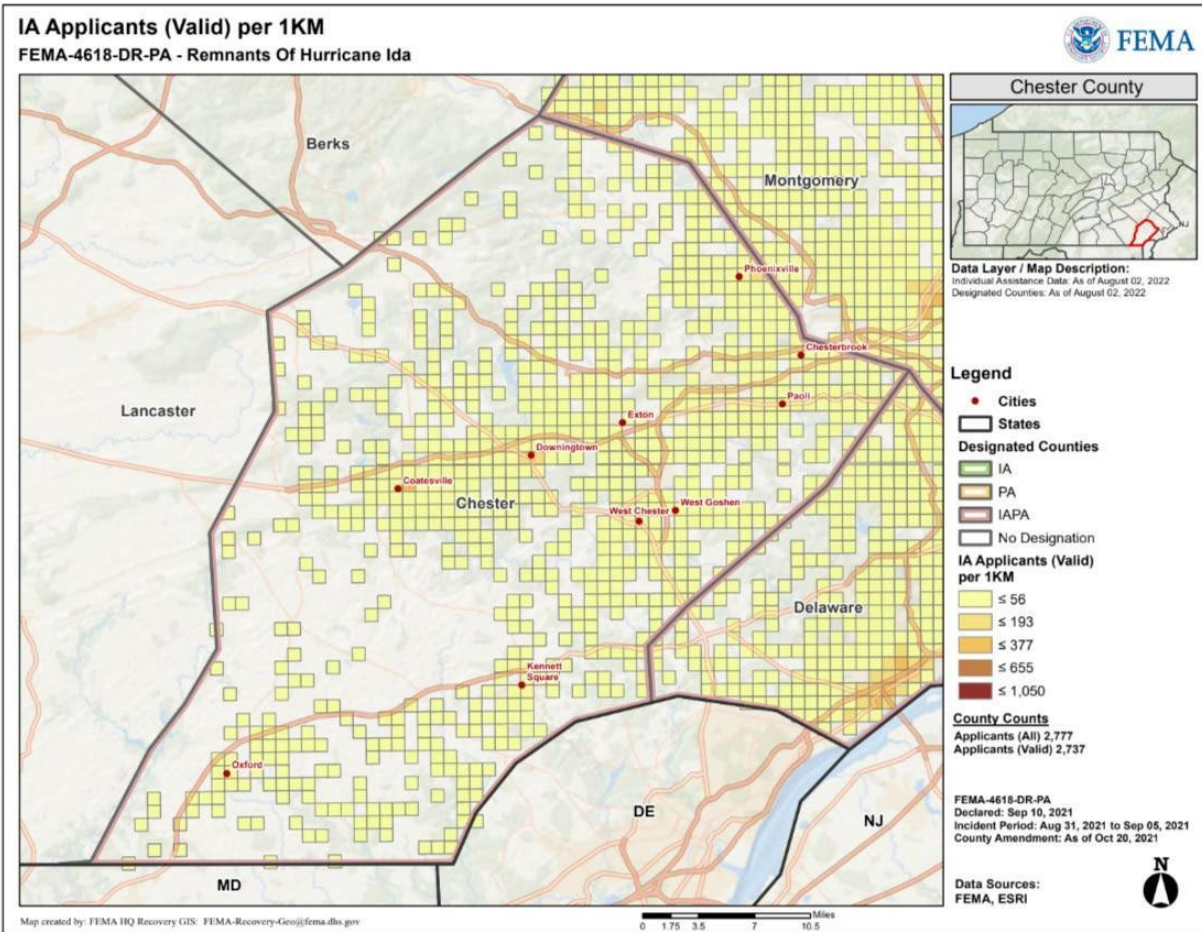


Figure 15: Chester County Individual Assistance Applicants per 1KM

York County, with an area of approximately 903 square kilometers and has the Susquehanna River -the longest river on the east coast- as its eastern boundary. York County's population is 458,696 (2021 Census estimate). There were 2,874 IA applications validated for York County, all under 56 applicants per sq km. They were clustered toward the more densely populated places in the center of the county and along the Susquehanna riverbank.

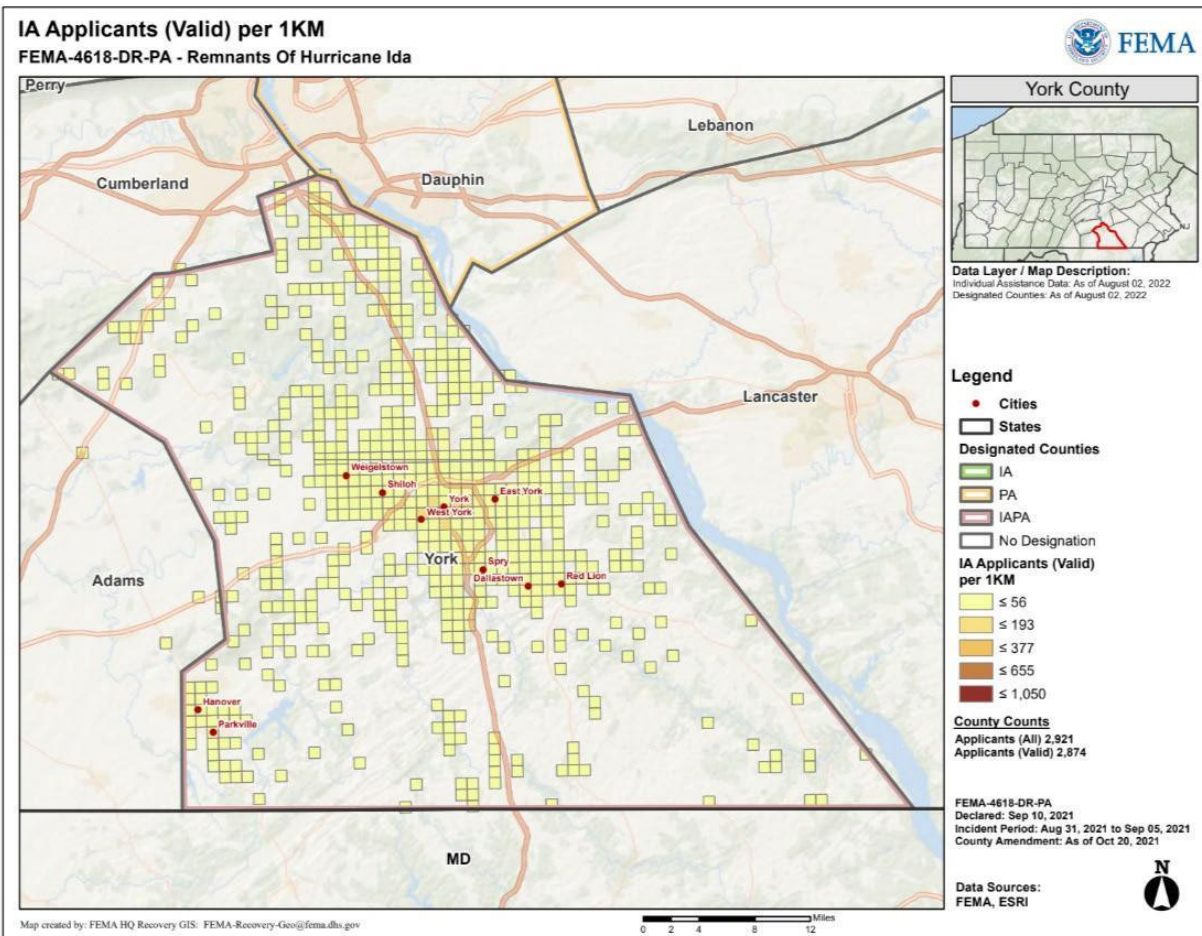


Figure 16: York County Individual Assistance Applicants per 1KM

Summary

HUD has allocated a total of \$38,282,000 in CDBG-DR funding to Pennsylvania for recovery from the impacts of the remnants of Hurricane Ida. Pennsylvania intends to use these funds to address the greatest unmet needs in the counties that received both FEMA Individual and Household Assistance (IA) and Public Assistance (PA) designations. These counties are: Bedford, Bucks, Chester, Delaware, Montgomery, and York.

HUD's Notices identified Delaware and Montgomery counties as the Most Impacted and Distressed (MID) areas, and *at least* 80 percent of the CDBG-DR allocation must be dedicated to activities and projects within these two counties. The Commonwealth has designated four additional counties - Bedford, Bucks, Chester, and York- as "State-Targeted Counties" and may allocate up to 20 percent of the funds to these counties. The Notice set-aside for mitigation activities may be expended in any of these six eligible counties but DCED will structure awards to ensure they contribute to the grant's compliance with the 80% MID targeting requirement and the 70% overall low- and moderate-income benefit test.

The following table provides a quick side-by-side comparison of the six counties.

	Bedford	Bucks	Chester	Delaware	Montgomery	York
Population (est. 7-1-21)	47,461	646,098	538,649	573,849	860,578	458,696
Pop. Density/Sq. Mile	47.0	1,069.8	712.0	3,138.1	1,773.5	504.7
Percent 65 or older	23.6%	19.8%	17.2%	17.2%	18.3%	18.3%
Percent Female	49.7%	50.5%	50.4%	51.6%	51.0%	50.2%
Percent White	96.5%	82.4%	77.9%	64.3%	74.0%	81.4%
Number of Housing Units	23,538	256,391	210,787	229,398	348,943	188,598
Owner-Occupied Housing Rate 2016-2020	79.4%	78.1%	75.0%	68.7%	71.9%	74.8%
Median Value of Owner-Occupied Units 2016-2020	\$141,700	\$340,500	\$369,500	\$247,900	\$326,200	\$183,300
Median Gross Rent	\$684	\$1,252	\$1,354	\$1,109	\$1,323	\$972
Language other than English Spoken at home	2.7%	12.4%	12.4%	12.5%	13.9%	7.9%
Percent High School Graduates	88.7%	94.3%	94.3%	93.2%	94.4%	90.3%
Percent with Bachelor's Degree	15.9%	42.2%	54.2%	39.5%	49.6%	25.2%
Median Household Income (2016-2020)	\$51,531	\$93,181	\$104,161	\$76,238	\$93,518	\$68,940

Table 2: Census- County Figures-at-a-Glance

Pursuant to this Action Plan, Pennsylvania will allocate approximately 71 percent of its CDBG-DR grant funds to housing.

Approximately 11 percent will be allocated to infrastructure programs. This distribution is consistent with data used by HUD to allocate the funds to Pennsylvania in which unmet housing damage need represents 80 percent of the allocation, 12 percent is represented by unmet infrastructure needs and the remainder is attributable to economic revitalization needs.

DCED is choosing not to allocate funds to economic revitalization needs. While data received from the Small Business Administration (SBA) indicates that several hundred small businesses suffered some level of property and/or content damage, particularly in Montgomery County, SBA loans covered a notable portion of those estimated losses. In general, it appears that most impacted businesses found other, more immediately available sources of assistance to re-establish operations. Given this observation and the need to balance available public and private financing resources, DCED will focus the limited allocation it received from HUD on housing and infrastructure investments.

Consistent with the Notices, DCED will dedicate \$4,993,000 towards mitigation projects which may include a variety of planning, housing, and infrastructure projects as well as providing support for adopted state and local Hazard Mitigation Grant Plans (HMGP). These funds will be used to support the integration of resilience measures into residential, institutional, and public facilities which benefit the broader community.

The City of Philadelphia sustained substantial impact and damage from Ida and HUD has provided the City with their own direct allocation of CDBG-DR funds and, as a result, damage within the City is not included or discussed in this plan. The City is developing its own Action Plan and the Commonwealth will engage with the City to ensure appropriate coordination where these funding streams may coincide.

DCED is defining the amount available for program allocation to be \$32,094,000, which is net of the five percent administrative allowance and the HUD-specified amount of \$4,993,000 million reserved solely for mitigation purposes.

Citizen Engagement

DCED has developed this plan with input from a diverse group of stakeholders, a wide range of government agencies, and nonprofit organizations. The draft CDBG-DR Action Plan was published in a manner that afforded citizens, units of local governments, public agencies, and other interested parties a reasonable opportunity to examine its contents and to submit comments.

While the Notices required a 30-day public comment period on the Draft Action Plan, DCED posted the draft on its website for a 60-day comment period to maximize public input. DCED

held a total of 24 virtual meetings and two in-person meetings prior to publication of the Draft Action Plan and two in-person public hearings and three virtual meetings subsequent to the release of the Draft Action Plan. The document was also posted on the DCED website for public comment. Notice of all hearings were posted a minimum of 10 business days prior to their scheduled date consistent with DCED's citizen participation policies.

Distribution of Funds

The Pennsylvania Department of Community and Economic Development (DCED) will manage the CDBG-DR allocation on behalf of the Commonwealth of Pennsylvania and will award funds to state agencies, counties, and units of general local government which will then implement eligible programs and activities. Pursuant to HUD's

Notices, DCED will utilize five percent of the total grant amount (from \$1,914,100) for its general administrative costs. DCED is considering allocating up to one percent of this amount for local administration of the programs and will make that decision in consultation with its subrecipients.

Per the requirements of the HUD Notices, at least 80 percent of the funds, \$30,625,000, must be expended in the HUD-defined MID area - Delaware and Montgomery counties. At least \$4,993,000 of the grant must be used for mitigation activities pursuant to the Notices. All programs have been designed in accordance with applicable statutory and regulatory provisions including those of HUD's Notices governing CDBG-DR eligibility, national objectives, and cross-cutting requirements.

Primary Objectives

DCED's approach to designing and administering its Ida-related recovery program will ensure that at least 70 percent (\$26,797,400) of the allocated CDBG-DR grant funds will be expended for activities that benefit low- and moderate-income (LMI) persons. This will achieve statutory and regulatory compliance.

Five of the six are "urban counties" for purposes of the 'CDBG Entitlement Communities' Program, and those five counties qualify as "upper quartile" or "exception criteria" jurisdictions. This designation provides relief in qualifying activities for meeting the LMI area benefit standard when fewer than one-quarter of the populated block groups in a jurisdiction contain 51 percent or more LMI persons. Only Bedford County does not qualify for this designation. The table below reflects data extracted from the HUDExchange.info website regarding the upper quartile exception for the qualifying five counties. DCED will enable these five counties to apply the exception criteria as appropriate. While DCED does not believe it will need to seek a waiver of the overall benefit standard, DCED will evaluate conditions as they emerge, particularly with respect to the impact of the upper quartile designations.

County	Low-Mod Percentage	Top Quartile Threshold
Bucks	26.75	35.40
Chester	29.12	41.69
Delaware	34.85	48.91
Montgomery	28.20	39.34
York	33.80	44.25

Table 3: Upper Quartile/Exception Criteria Counties With DR-4618 IA and PA Designations⁶

⁶ Source - [FY 2022 ACS 5-Year 2011-2015 Low- and Moderate-Income Summary Data - HUD Exchange](#)

The programs and activities identified in this Action Plan will primarily address unmet housing needs in the Targeted Counties and, specifically, in the two MID counties. Housing market conditions for LMI households were challenging in these counties prior to Ida, and Ida-related damage to the housing stock exacerbated those challenges. In addressing these unmet needs, DCED will promote and ensure fair access to housing for all residents, expand sustainable homeownership opportunities for LMI persons, and strengthen neighborhoods impacted by the disaster by investing in infrastructure.

In addition, the Action Plan describes how CDBG-DR funds will be targeted toward and meet the needs of vulnerable communities, including those with low- to moderate-income, limited English proficiency, racially and ethnically concentrated communities, individuals experiencing homelessness and those with disabilities. DCED will work closely with the six counties, particularly those that are CDBG urban counties, to leverage their local knowledge and experience to ensure that the unmet needs of these vulnerable populations are evaluated and addressed within the context of the proposed programs.

DCED has used a range of data to perform the analyses of the impacted areas, the losses sustained, and resources available to respond to housing and infrastructure needs. This includes data available from HUD including LMI summary data, other data from the Census Bureau's American Community Survey (ACS) and American Housing Survey (AHS). DCED will leverage its five-year Consolidated Plans and related annual Action Plan, as well as consolidated plans and Hazard Mitigation Plans for the six counties covered by the DR-4618 designation. DCED also uses these same sources to analyze needs and to consider how recovery dollars can help implement existing priorities. News sources have also been referenced throughout the plan, primarily to describe damage and to paint a better picture of the impact on local communities.

Pursuant to data-sharing and computer matching agreements executed with HUD, DCED has received and will continue to receive data that informs the CDBG-DR allocation and will facilitate program implementation and duplication of benefit checks. If additional data regarding unmet needs becomes available, DCED will evaluate that information and potentially make program modifications through policy revisions or amendments to the Action Plan (either substantial or non-substantial).

Unmet Need and Proposed Allocation

Category	Remaining Unmet Need*	% of Unmet Need	Program Allocation Amount	% of Program Allocation
Administration	\$0.00	0.00	\$1,914,000	5.00
Planning	\$0.00	0.00	\$0.00	0.00
Housing	\$41,022,646	58.64	\$27,259,685.00	71
Infrastructure	\$18,228,429	26.05	\$4,115,315.00	11
Economic Revitalization	\$10,710,059	15.3	\$0.00	0.00
Public Services	\$0.00	0.00	\$0.00	0.00
Mitigation ¹	\$0.00	0.00	\$4,993,000.00	13
Total	\$69,961,134	100.00	\$38,282,000²	100.00

Table 4: Unmet Need and Proposed Allocation

*Data Source(s): FEMA IA/PA and SBA business data. HUD bases its analysis of unmet need upon the amount of denied business loans. The proposed allocation amounts include project delivery costs excluding planning and administration costs.

2.0 Unmet Needs Assessment

2.1 Overview

This assessment describes the impacts of the storm, the long-standing vulnerabilities that have contributed to those impacts, and opportunities for building resilience toward future disasters. To prepare this assessment, DCED consulted with and drew on data from the following:

- U.S. Department of Housing and Urban Development (HUD)
- Federal Emergency Management Agency (FEMA)
- Small Business Administration (SBA)
- Pennsylvania Emergency Management Agency (PEMA)
- County and Local governments
- Public housing authorities
- Community-based organizations

Data provided via the data sharing agreement HUD recently executed with FEMA, provided the

¹ Based on the Federal Register Notice published on May 24, 2022

² HUD is allocating additional funds to Pennsylvania and those funds will be allocated based on the above percentages unless otherwise directed by HUD.

bulk of the information utilized for the preparation of this document. The Commonwealth acknowledges that some areas have limited data which impacts the ability to provide a complete and accurate picture of housing damages and needs. DCED sent emails out to the list of public and private housing entities (Appendix xx) several times beginning in September 2022 and into January 2023, including phone calls with minimal responses. DCED will continue to reach out specifically to public housing agencies, housing providers and advocates, in collaboration with the counties (subrecipients), to implement the housing activities identified in the Action Plan, targeting low-moderate income, public housing and vulnerable populations.

2.2 Most Impacted and Distressed (MID) Areas

HUD's Notices identify Delaware and Montgomery counties as "Most Impacted and Distressed" (MID) areas – those areas with the most significant damage resulting from Hurricane Ida. The Notices require Pennsylvania to spend at least 80 percent of all Ida CDBG-DR funds to benefit the HUD-designated MID areas.

In addition to HUD's two identified MID, Pennsylvania has designated Bedford, Bucks, Chester and York counties as 'State-Targeted Counties', allocating up to 20 percent of the remaining CDBG-DR grant funds to those areas. The four counties have needs above and beyond what they are projected to receive through FEMA Individual Assistance (IA), FEMA Public Assistance (PA), the Small Business Administration and other funding. The map below illustrates the geographic placement of the six eligible counties.

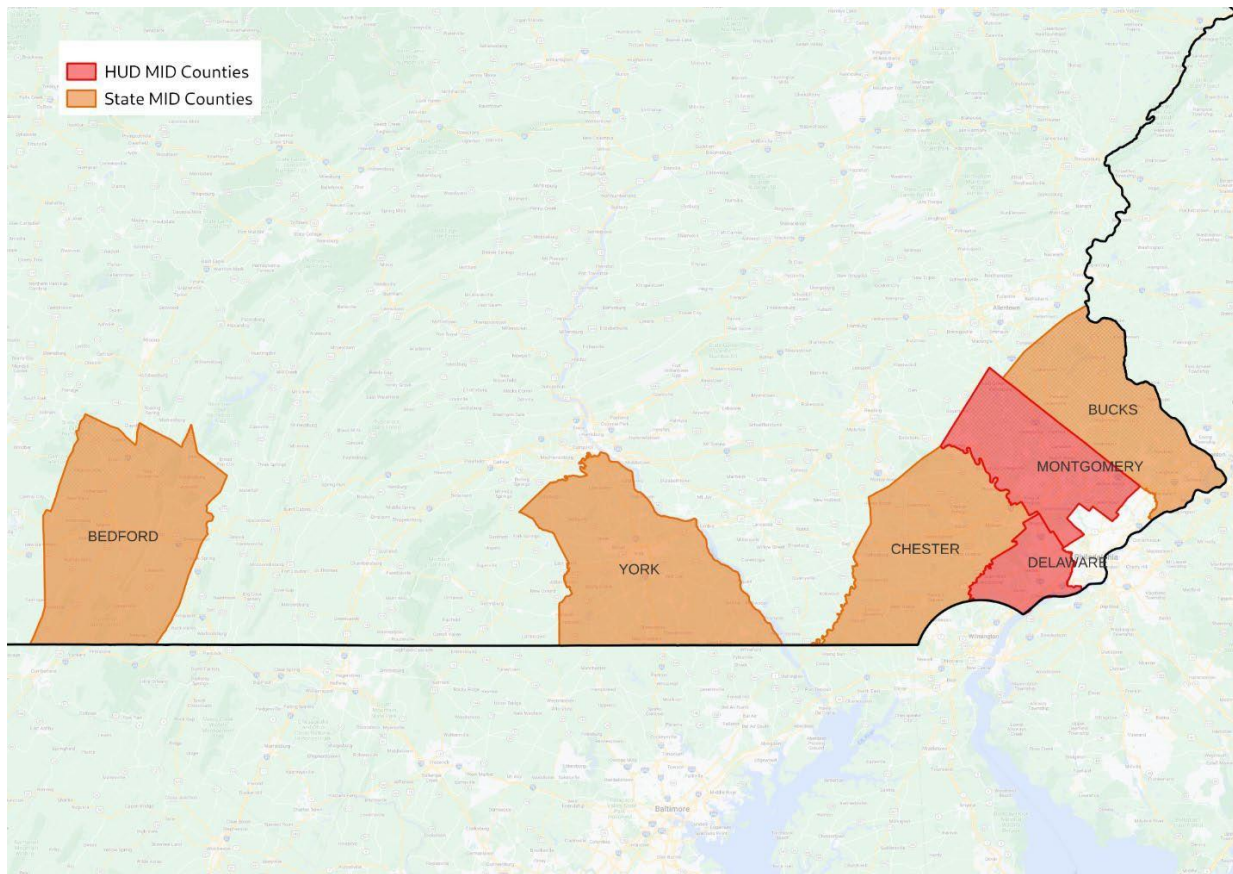


Figure 17: Map of Counties Eligible for Ida-related CDBG-DR Funding

The affected areas in these six counties include a mostly rural county with low population density (Bedford), a county that has an urbanized area but also has suburban and rural characteristics (York) and four suburban counties (Bucks, Chester, Delaware and Montgomery) that border the City of Philadelphia and form a significant portion of the Philadelphia metropolitan statistical area (MSA).

These long-established communities have older housing stock which provides a substantial portion of the affordable housing base for the metropolitan area. They also contain multiple units of local governments and public agencies with overlapping jurisdictional boundaries and responsibilities.

2.3 Housing Unmet Need

Pre-Disaster Housing Conditions

Every analysis of housing stock in Pennsylvania acknowledges the fact that it consists of older housing. The following table demonstrates the relative age of the housing stock in five of the six target counties.

County	Total Units	Pre-1940	1940-1949	1950-1959	Pre-1960 Units as Percent of Total
Bucks	256,387	26,842	8,365	43,006	31%
Chester	210,814	25,761	5,841	14,685	22%
Delaware	229,381	49,035	30,073	53,441	58%
Montgomery	348,926	57,415	20,690	54,665	38%
York	125,154	20,739	6,405	15,549	34%

Table 5: Relative Age of Housing Stock in PA Counties

Source: Census Bureau, ACS 1-Year Estimates Public Use Microdata Sample (PUMAs) 2021

Housing data for Bedford County could not be isolated as it is combined with Somerset and Fulton counties in the ACS PUMAs data set, but 42.9 percent of the housing units in those counties predate 1960.

This information has consequences impacting housing recovery efforts in the wake of Ida. Older buildings, because of deferred maintenance, mechanical and structural deterioration, are more vulnerable to damage from heavy rain, flooding, high wind and winter storms. Storm damage can also expose materials like asbestos and lead paint that present health hazards.

Older structures, including historic buildings, may have materials and structural aspects that require specialized treatment and additional expense to rehabilitate. Older housing often does not meet updated building codes that would make it more resilient to extreme weather, nor accessibility requirements for those with disabilities, or energy-saving technology and other mitigation measures to reduce energy use and expensive utilities bills. Repairs and upgrades in the context of disaster recovery do present an opportunity to address some of these problems, and to make older buildings healthier and more affordable to operate while fortifying them against future extreme weather events. In terms of life safety, basement apartments remain a challenge, as they are most prone to flood damage and often least up to code.

Pennsylvania has been moving to address these legacy conditions. The Pennsylvania Climate Action Plan of 2021 identifies older residential buildings as 61 percent less energy-efficient than structures built after 2009 and identifies retrofits for older residential and commercial buildings as a priority strategy for reducing greenhouse gases. Rehabilitation and repair projects with mitigation components are essential to making buildings more resilient to future disasters and addressing the long-term effects of climate-change.

Disaster Damage and Impacts

FEMA conducted 11,738 IA program assessments of owner-occupied units in the six counties: 5,310 sustained damage; of 11,427 rental units assessed, 4,880 were identified as having

personal property damage. Most of the housing stock in the six counties is owner-occupied single-family homes.

Montgomery and Delaware counties bore the brunt of damage with 1,821 single-family units and 37 rental units affected in Montgomery, and 1,378 homes and 4 rental properties in Delaware, where 27 units were destroyed. Five structures were destroyed in Chester County, one each in Bedford and Delaware, and none in both Bucks and York. In its analysis of FEMA data, HUD determined that 376 homes suffered “major-high damage” which HUD classifies as \$15,000 to \$28,000 of FEMA-inspected real property damage. In Delaware County, 11 structures suffered “major-high damage” and 181 structures in Montgomery County. The most common level of damage across all counties was “minor-low” damage or less than \$3,000 in damage.

County	Number of Units	Cost (FEMA Verified Loss)
Bedford	125	\$740,276.05
Bucks	753	\$4,089,901.10
Chester	568	\$4,602,606.73
Delaware	1385	\$4,530,101.61
Montgomery	1866	\$19,531,110.35
York	613	\$2,246,575.45
Total	5310	\$35,740,571.29

Table 6: Real Property Damage for All FEMA-Inspected Owner Units
Source: FEMA Verified Real Property Loss

Single-family v. Multi-family Needs; Owner-Occupied v. Tenant

A breakdown by housing type suggests the units damaged are almost exclusively single-family homes. Of 5,310 units, 54 appear to be multi-family, and 45 are identified as mobile homes, travel trailers or other. While single-family homes represent the majority of damaged housing units, the multi-family properties are likely underrepresented in the building damage data. This may be due to several factors: damage is less visible from street-side inspections; property owners seldom reside on-site and may be less aware of the extent of damage. Property owners typically rely on insurance for reimbursement, so they are less likely to contact FEMA for inspections. DCED's outreach to public and private housing entities was unsuccessful in collecting additional data.

County	Single-Family	Multi-family	Mobile Home/Travel Trailer/Other	Total
Bedford	106	0	19	125
Bucks	745	5	3	753
Chester	557	8	3	568
Delaware	1378	4	3	1385
Montgomery	1821	37	8	1866
York	604	0	9	613
Total	5211	54	45	5310

Table 6: Number of Housing Units by Damaged Type
Source: FEMA Verified Real Property Loss

A comparison of real property and personal property claims made to FEMA shows that even if all homeowners reporting damage to their buildings also reported damage to their personal property, there are additional personal property claims above and beyond those, suggesting that 2,968 renters made claims, most of them residing within Montgomery County.

County	Number of Personal Property Claims by Household	Difference Real Property vs Personal Property Claims
Bedford	93	-32
Bucks	636	-117
Chester	656	88
Delaware	3751	2366
Montgomery	2304	438
York	898	285
Total	8338	2968

Table 7: Personal vs. Real Property Claims by County

Source: FEMA Verified Real Property Loss

The monetary value of real property damage across the six counties totals \$35,740,571, with Montgomery County incurring almost four times the amount of damage identified for other counties.

County	Single-Family	Multi-family	Mobile Home/Travel Trailer/Other	Total
Bedford	\$599,724.86	\$0.00	\$140,551.19	\$740,276.05
Bucks	\$4,055,983.78	\$19,982.40	\$13,934.92	\$4,089,901.10
Chester	\$4,540,609.74	\$26,554.66	\$35,442.33	\$4,602,606.73
Delaware	\$4,517,783.19	\$8,558.44	\$3,759.98	\$4,530,101.61
Montgomery	\$19,182,301.15	\$239,930.11	\$108,879.09	\$19,531,110.35
York	\$2,208,396.67	\$0.00	\$38,178.78	\$2,246,575.45
Total	\$35,104,799.39	\$295,025.61	\$340,746.29	\$35,740,571.29

Table 8: Dollar Value of Property Damages by Unit Type

Source: FEMA Verified Real Property Loss

County	No Damage	Minor-Low	Minor-High	Major-Low	Major-High	Severe	Destroyed	All
Bedford	161	47	46	15	13	4	1	287
Bucks	971	364	203	88	71	29	0	1726
Chester	943	244	142	47	79	56	2	1513
Delaware	1443	776	512	74	11	6	0	2822

Montgomery	2042	726	449	258	181	253	6	3915
York	862	329	229	28	21	6	0	1475
Total	6422	2486	1581	510	376	354	9	11738

Table 9: Total Damaged Real Property by Severity

Source: FEMA Verified Real Property Loss

Public Housing and Affordable Housing

DCED, at the initiation of the action plan document preparation, during the collection of data, after distribution of a draft document and during the public review period, sent emails, meeting invitations, and made telephone calls to public housing authorities (PHAs) in the six counties. As previously mentioned, DCED held 26 virtual (on-line) meetings and four in-person meetings. DCED received no responses from PHA's in the six counties.

DCED also reached out to HUD's disaster recovery (and response) team in an effort to identify Hurricane Ida's impacts on public housing, public assisted housing and multi-family properties. HUD's housing recovery support function (RSF) team was not tasked with conducting these assessments in Pennsylvania in the wake of Hurricane Ida. As a result, data that is routinely collected via that mechanism was also not available for this analysis. DCED has attempted to fill in the gaps in data but has received limited feedback from a range of housing providers and interested parties in response to multiple inquiries.

DCED is prepared to brief HUD on the extent of the outreach effort and to convey the level of response received in response to that outreach.

Multi-family Housing (including HUD-assisted)

Due to challenges in obtaining responses from property owners and managers during the course of the outreach efforts for the action plan, the effects of the storm on multi-family assisted housing are not fully known at this time. Some of the most significant damage to multi-family property is reported to be associated with one affordable housing development in Montgomery County, Riverside Apartments, where the storm rendered 124 units uninhabitable.

Public Housing Authority Damage

DCED has concluded that there is no material damage to public housing in the six-county target area as a result of Ida-related impacts. DCED made multiple email and telephone outreach efforts to housing authorities in the six-county target area but there was no substantive response to these inquiries. Additionally, DCED solicited input from HUD regarding its knowledge of reported public housing damage as a result of Ida and received no response in return.

The table below provides information regarding HUD Housing Choice Voucher (HCV) Program for the six Target Counties. In reviewing these data points, note that budget utilization rates are uniformly above 94 percent indicating that housing authorities in these counties are making effective use of their HCV funding with the unexpended gap of less than six percent being consistent with HUD guidance on reserves for the program. Leasing rates for the counties range between 70 and 86 percent indicating that current funding is inadequate to enable full voucher utilization. Also note that average unit costs in Montgomery County are in excess of \$1,000 per month, which is indicative of cost pressures and rent burdens for low- and moderate-income households.

HOUSING CHOICE VOUCHER DATA OVERVIEW (Date as of November 2022)

County	Total Annual Contributions Contract (AAC) Units	AAC Units Leased	Percent ACC Units Leased	Project Based Voucher Units	Budget Utilization Rate	Average Per Unit Cost
Bedford	380	266	86%	0	94%	\$381
Bucks	3,533	2,392	70%	183	95%	\$799
Chester	2,119	1,737	82%	621	99%	\$866
Delaware	2,894	2,362	85%	178	94%	\$738
Montgomery	2,869	2,100	75%	175	95%	\$1,065
York	1,576	1,276	81%	300	95%	\$590

Source: HUD PIH Housing Choice Voucher Dashboard, accessed February 3, 2023

<https://app.powerbigov.us/view?r=eyJrIjozM2Y2OTQ2MTAtODVhNC00YmM2LThhOWEtZWY4MGU5YWVmZDFmliwidCI6IjYxNTUyNGM1LTlyZTk0NGJjZC1hODkzLTExODBhNTNmYzdiMj9>

Housing Damage Overview

In dedicating 80 percent of the CDBG-DR allocation to the HUD MID Areas, the State will be directing the CDBG-DR funds to areas of greatest need while also addressing critical challenges in the State-Targeted Counties. The most significant needs are the 251 damaged housing units in the HUD MID Area, and the 2,059 in the State-Targeted counties.

Some data regarding the value of home repair has been provided by SBA. This information is critical for projecting the actual costs for home repairs. SBA's verified loss process is a comprehensive assessment of structural and real property losses and the costs to return the home to its pre-disaster state. This contrasts with FEMA's verified loss assessment, which is limited to the costs to make the home habitable. As DCED continues to collect data, DCED may use various methods to adjust costs for rehabilitation or reconstruction.

Methodology

DCED relied on FEMA Individual Assistance (IA) records dated September 28, 2021. In this dataset, FEMA provides damage estimates for all FEMA IA applicants using information collected by FEMA inspectors shortly after the disaster event. This includes damage to the housing unit itself (Real Property Loss or RPL) and damage to contents of the home (Personal Property Loss or PPL). Only the RPL was used in calculating housing unmet needs. DCED categorizes the damage for each IA applicant that received FEMA funds using the categories outlined below. For example, if FEMA estimated the Real Property Loss for a home at \$4,000, then that home has a damage category of 2, or Minor-Low. In total 23,260 applications were assigned values ranging from 0 (no damage) to 5 (severe damage).

DCED adjusted the damage category upwards for homes that flooded more than four feet. Homes that experienced flooding between four and six feet are categorized as having Major-High damage, while homes that experienced flooding in excess of six feet are categorized as having Severe damage, regardless of the FEMA damage estimate.

Because the SBA inspects properties and documents the full cost of repair, as opposed to FEMA's initial estimates, the SBA figures are a more reliable figure for estimating actual damage costs. It should be noted that SBA does not inspect all properties; only a small subset reflecting those who actually applied for and received an SBA home loan. In order to evaluate the damage for the IA applicants, SBA inspections were used to quantify the difference between FEMA initial estimates and SBA estimates. It was observed that SBA applicants almost exclusively had severe damages to their properties. SBA estimates per applicant were compared to FEMA initial estimates per applicant for severely damaged properties and multipliers were calculated for each state.

DCED assumes that only the uninsured properties will have unmet needs after the combined payouts by insurance companies and FEMA. The unmet needs were therefore calculated as the difference between the FEMA verified loss, adjusted by SBA factors for

severely damaged properties, and FEMA awards. SBA-adjusted total FEMA verified loss was used to calculate the total damage to housing.

Affordable Housing

Housing is generally considered affordable if a household spends less than 30% of monthly household income on monthly housing costs. There is a critical shortage of affordable homes in the six impacted counties. Households that spend 30% or more of their monthly income on housing costs are identified as “cost-burdened” and, for context, an extremely low-income family (four individuals) in Pennsylvania has income of less than \$23,300 a year. The information below draws upon a series of data sources and studies but collectively makes the point that affordable housing is difficult to obtain in the Target Counties and, specifically, in the suburban Philadelphia counties.

The Housing Alliance of Pennsylvania’s 2022 County ‘Snapshots’³ provides some insight into the challenges of affordable rental housing in the six counties as aggregated in the table below:

County	Hourly Wage to Afford “Modest” 2 Bedroom Rent	Extremely Low Income Level (Family of Four)	Available Affordable Rentals per 100 ELI Households	Most Cost-burdened Group
Bedford	\$13.92	\$18,690	37	64% of Latinos
Bucks	\$24.23	\$28,350	28	54% of Latinos
Chester	\$24.23	\$28,350	24	49% of African-American
Delaware	\$24.23	\$28,350	23	54% of African-American
Montgomery	\$24.23	\$28,350	23	55% of Latinos
York	\$18.63	\$24,540	28	60% of Latinos

Table 10: Housing Snapshot by County

The National Low Income Housing Coalition (NLIHC) issues their “Out of Reach” report each year estimating the necessary hourly wages to afford two-bedroom apartments at Fair Market Rent (FMR). According to NLIHC’s 2022 data, a Pennsylvania household would need to make at least

³ <https://housingalliancepa.org/tags/?slug=county-fact-sheet&title=County%20Fact%20Sheet>

\$20.89 an hour, or \$43,463 a year to afford a modest two-bedroom rental home. This stands in contrast to the extremely low-income level of \$28,350 in the suburban Philadelphia counties and \$24,300 statewide. As a result, 70 percent of low-income households in Pennsylvania have a severe cost burden and, notably, 55 percent of Latino renters are paying more than 30% of their income on rent.

⁷ <https://www.chesco.org/DocumentCenter/View/63888/Chester-County-HMP-July21>

⁸ <https://www.delcopa.gov/planning/pubs/DelawareCounty-HMP-2016.pdf>

⁹ <https://www.montcopa.org/DocumentCenter/View/19172/2017-Hazard-Mitigation-Plan?bidId=>

¹⁰ <https://www.ycpc.org/DocumentCenter/View/290/Hazard-Mitigation-Plan-PDF>

¹¹ <https://sgp.fas.org/crs/misc/R40650.pdf>

Fair Housing, Civil Rights Data and Advancing Equity

Five of the six counties comprise both urban and rural residential development which present different challenges for housing, but all six are experiencing similar trends: increased aging and disabled populations; fewer households with children; increasing racial and ethnic diversity; and weak income growth.

While large urban counties like Montgomery are growing rapidly, Bedford is a rural county experiencing gradual population decline. Housing an increasingly large aging population is a concern across all communities, which increases accessibility concerns connected to advanced age and disability. Seventeen (17) percent of Pennsylvania's population is 65 or older, one of the highest percentages in the country. Providing suitable housing options and community services for this growing demographic is a priority for all counties.

The "Pennsylvania Comprehensive Housing Study"⁴ completed in 2020 by the Pennsylvania Housing Finance Agency identified demographic trends shaping the housing market. A number of these factors that have bearing on the design of the Ida recovery programs are:

- In-migration to counties in the Philadelphia metropolitan area
- An increasing older population statewide
- One-third of seniors living alone, many with at least one disability
- Ownership is more common than renting (76 percent of state housing stock is single-family homes), but most new residents are likely to be renters
- The non-Hispanic White population shrank by almost 40,000 between 2009-2017, while the non-White population has grown
- Inflation-adjusted median income is static, remaining almost exactly what it was at the turn of the century
- Like most places in the country, there is increasing wealth disparity, and renters are concentrated at the lower end of the income spectrum
- The housing stock is aging as more than half the housing is over 50 years old
- For both owners and renters, housing is becoming more unaffordable, with more households becoming cost-burdened
- Rental costs are rising. The median gross rent is approximately \$885, up by nearly 20 percent statewide since 2000 (adjusting for inflation), and consumes nearly 30 percent of the median household's income
- The supply of low-cost units renting for less than \$600 per month in 2017 dollars has shrunk by more than 25 percent since 2000. The four large urban counties (Allegheny, Delaware, Montgomery, and Philadelphia) have large and growing deficits of housing affordable to those earning 30 percent or less of area median income (AMI). Small urban counties are somewhat better off, but the number of severely burdened renters in these counties doubled between 2000 and 2017

⁴ https://www.phfa.org/forms/housing_study/2020/pennsylvania-comprehensive-housing-study-full-report.pdf

- Rural counties have a small but stable share of rent burdened households. Unaffordability in urban counties is likely tied to income inequality and lack of supply, whereas in rural areas it is due to low incomes and inadequate housing options

The Commonwealth of Pennsylvania and DCED uphold the collective responsibilities pursuant to fair housing, civil rights, disability access and related legislation, and are committed to eliminating racial and ethnic segregation, illegal physical and other barriers to persons with disabilities and other discriminatory practices in housing. This commitment has been present over the past several decades in its administration of State CDBG funds and that experience informs the use of its CDBG-DR funding. In this regard, DCED will ensure that activities funded with CDBG-DR resources further opportunity and promote equity for Pennsylvanians and communities impacted by Ida.

DCED understands and commits itself to the principle that affirmatively furthering fair housing means taking meaningful actions that are designed to overcome patterns of segregation and foster inclusive communities free from barriers that restrict access to opportunity based on protected characteristics. In determining actions applicable for this grant allocation, DCED has relied upon several existing documents:

- The Commonwealth of Pennsylvania's 2019-2023 Consolidated Plan addressing the use of funding provided by HUD's Office of Community Planning and Development (CPD);
- The Commonwealth's Analysis of Impediments (AI) to Fair Housing (updated 2015) which is required by statute and regulation as a condition of receiving the CPD funding; and
- The Analyses of Impediments prepared by four of the five CDBG urban counties as well as the Assessment of Fair Housing (AFH) done by Delaware County in 2018.

DCED has reviewed these documents and its implementation of the CDBG-DR program will be guided by the various fair housing goals and strategies reflected therein. It should be noted that throughout these documents there is a strong, continuing focus on the lack of available affordable housing and DCED is proposing that the majority of the funding be dedicated to unmet housing needs consistent with the statutory requirement that at least seventy (70) percent of all funds be expended for activities that benefit low- and moderate-income persons.¹²

The Commonwealth will address unmet needs from Hurricane Ida of low-income housing, both owner-occupied and rental, to mitigate against future flooding and hurricane related damage. The Commonwealth will prioritize preserving the affordable housing stock in Delaware and Montgomery Counties. Finally, the Commonwealth will work with its subrecipients to ensure that their implementation of CDBG-DR funded activities will be compliant with the full range of applicable fair housing, civil rights, and equal opportunity requirements. DCED is fortunate in that its intended local government partners all have extensive experience working with HUD Community Planning and Development funding and are well versed in the expectations arising from these statutory and regulatory requirements.

¹² For further information, see <https://dced.pa.gov/download/fair-housing-tip-sheet/><https://dced.pa.gov/download/pa-ai-for-fair-housing-final-draft-2015/?wpdmdl=56387><https://www.montcopa.org/DocumentCenter/View/13104/Montgomery-County-Analysis-to-Fair-Housing?bidl=>

Goals that are supported by programs in this action plan:

- Affordable and Accessible Housing – Improve access to the full spectrum of quality affordable housing for Pennsylvanians, including by preserving the long-term affordability of homes through rehabilitation of existing units and increasing the number of accessible units.
- Community Stabilization - Prevent and arrest the decline of Pennsylvania neighborhoods and promote revitalization, including supporting strategic buyout activities which will mitigate against future flood damage.
- Public Facility and Infrastructure - Acquisition, construction, installation, rehabilitation, or improvement of facilities to support safe, sustainable, resilient communities.

In pursuing these goals, the Commonwealth has also established priorities for the use of its resources. Those priorities emphasize the targeting of activities at the local level, leveraging other resources and public investments, and promoting community impact. CDBG-DR Hurricane Ida grant funding will support the implementation of these activities.

Grantee Demographics and Disaster Impacted Populations

The HUD-defined MID counties – Delaware and Montgomery – can be characterized as relatively wealthy in comparison to the remainder of the Commonwealth. Table 13 provides income information at a high level and conveys that median household income in the MID is almost fifty (50) percent higher than Pennsylvania as a whole and that per capita income is thirty-nine (39) percent higher.

Income Demographics

Income/Economic Demographics	Statewide	Areas Impacted by Disaster	HUD MIDs
Median Household Income	\$63,627	\$93,866	\$92,710
Per Capita Income	\$35,518	\$47,544	\$49,487

Table 13: Income Demographics

Data Source(s): ACS 2020 DP03 Estimates aggregated for the affected counties using census aggregation methods. # households used as weights for median income, population per county used as weights for per-capita income.

Table 15 presents county-level data on FEMA IA registrations and it indicates that low- and moderate-income households are the majority of those registered, with 92 percent of Delaware County's applicants falling under the LMI threshold. Overall, 74 percent of valid applications to FEMA's IA program were LMI based on self-reported income boundaries, and calculated with HUD's formula for LMI income limits.

County	Total Applicants	Non-LMI Affected Applicants	LMI-Affected Applicants	Percent Applicants who are LMI
Bedford	320	121	199	62
Bucks	2540	1193	1347	53
Chester	2317	902	1415	61
Delaware	9718	756	8962	92
Montgomery	7707	2912	4795	62
York	3107	802	2305	74
Total	25,709	6,686	19,023	74

Table 15: Percentage of Affected Population who are Low-and Moderate- Income

Source: Open FEMA dataset, Individuals and Households Program, Valid registrations v1

County	Number of Units	% of Total Units in County	Remaining Unmet Need
Bedford	19	1.00	\$93,466.17
Bucks	3	0.10	\$9,731.48
Chester	3	0.10	\$54,954.94
Delaware	1	0.30	\$68.37
Montgomery	7	0.10	\$160,550.44
York	9	0.20	\$12,862.80
Total	42		\$331,634.20

Table 16: Manufactured Housing Units Impacted by Disaster

Source: Based on ACS DP05 2020 data and FEMA IA data. Calculated as percentage of total unmet need for properties without insurance by county. Percentage calculated based on FEMA initial assessments

Social Vulnerability and Area LMI Demographics

The Commonwealth considers demographic characteristics and their connection to risk during disasters in the State-Targeted Counties and HUD MID areas. Communities with higher percentages of socially vulnerable residents are impacted adversely at a rate that is higher than state-wide averages. These demographics are presented in Table 17 and Table 18.

Demographic Profile Information, American Community Survey (2020) ¹³						
Population						
	Bedford	Bucks	Chester	Delaware	Montgomery	York
Total population	48,154	627,668	521,980	565,328	827,180	447,628
Age and sex						
Persons under 5 years, percent	5.0	4.8	5.5	5.9	5.5	5.7
Persons under 18 years, percent	19.5	20.4	22.7	22.0	21.6	21.1
Persons over 65 years, percent	22.7	18.7	16.4	16.5	17.8	17.5
Race						
White alone, percent	96.5	82.6	78.8	65.9	74.9	82.6
Black or African American alone, percent	1.0	3.7	5.4	21.2	9.1	5.3
American Indian and Alaska Native alone, percent	0.1	0.1	0.0	0.1	0.0	0.1
Asian alone, percent	0.2	4.8	5.7	5.8	7.7	1.4
Native Hawaiian or Other Pacific Islander alone, percent	0.0	0.0	0.0	0.0	0.0	0.0
Two or More Races, percent	0.8	2.3	2.5	2.5	2.6	2.5
Hispanic or Latino, percent	1.2	5.5	7.5	4.0	5.3	7.8
Population Characteristics						
Veterans, percent	8.4	6.3	6.1	5.8	5.8	8.2
Foreign born persons, percent	0.8	9.7	9.5	10.6	11.1	4.1
Language other than English Spoken at home	2.7	12.4	12.4	12.5	13.9	7.9
Education						

¹³ ACS 2020 5-year estimates using tables DP02, DP03, and DP05

High school graduate or higher, percent of persons 25+ years	88.7	94.3	94.3	93.2	94.4	90.3
Bachelor's degree or higher, percent of persons 25+ years	15.9	42.2	54.2	39.5	49.6	25.2
Health						
With a disability, under age 18-64 years, percent	11.6	7.9	6.9	9.4	7.3	10.6
Persons without health insurance, percent	6.9	4.1	5.0	4.9	3.5	5.0
Economy						
In civilian labor force, total, percent of population age 16+ years,	57.8	67.3	68.2	65.5	68.0	65.7
Median household income	\$51,531	\$93,181	\$104,161	\$76,238	\$93,518	\$68,940
Per capita income in past 12 months	\$26,950	\$47,266	\$52,711	\$40,740	\$49,905	\$33,587
Persons in poverty, percent	11.2	5.6	6.3	9.9	5.8	8.7

Table 17: Demographic Profile Information by County

Demographic Profile Information, American Community Survey (2020) ¹⁴	
Population	
State	Pennsylvania
Total population	12,794,885
Age and sex	
Persons under 5 years, percent	5.5
Persons under 18 years, percent	20.7
Persons over 65 years, percent	18.3
Race	
White alone, percent	75.7
Black or African American alone, percent	10.6
American Indian and Alaska Native alone, percent	0.1
Asian alone, percent	3.5
Native Hawaiian or Other Pacific Islander alone, percent	0.0
Two or More Races, percent	2.2
Hispanic or Latino, percent	7.6
Population Characteristics	

Veterans, percent	7.2
Foreign born persons, percent	7.0
Language other than English Spoken at home	11.5
Education	
High school graduate or higher, percent of persons 25+ years	91.0
Bachelor's degree or higher, percent of persons 25+ years	32.3
Health	
With a disability, under age 18-64 years, percent	11.3
Persons without health insurance, percent	5.6
Economy	
In civilian labor force, total, percent of population age 16+ years,	62.7
Median household income	\$80,996.00
Per capita income in past 12 months	\$35,518.00
Persons in poverty, percent	12

Table 18: Demographic Profile Information Statewide

As illustrated in the tables above, most of the county areas impacted by Hurricane Ida have a percentage higher than or equal to the state average of residents 5 years or younger as well as the category of languages other than English spoken at home. While the averages for poverty across the counties vary, it is important to note that this population is at a higher risk than others. Poverty is an indicator of places that might see greater impacts from disasters because of a general lack of ability to prepare and plan for shocks and stresses.

There are many socially vulnerable populations in Bedford, Bucks, Chester, Delaware, Montgomery, and York counties based on several key indicators. Using HUD's LMI calculations, the Centers for Disease Control and Prevention (CDC) and Agency for Toxic Substances and Disease Registry (ATSDR) Social Vulnerability Index, an examination of the data reveals that there are a significant number of disadvantaged residents in all disaster-declared counties.

HUD's LMI calculations indicate the percentage of residents who are at or below 80 percent of the area median income (AMI), based on 2011–2015 American Community Survey estimates. Note that this table reflects the entire county population not just county population used as basis for the regular CDBG urban county program.

Table Key			
LOW	Low Income		
LOWMOD	Low and Moderate Income		
LOWMOD_PCT	Percentage of the eligible population who are LMI		
HUD MID Areas	State MID Areas		
Low- and Moderate-Income Populations Summary (ACS 5-Year 2011-2015)			
Name	LOW	LOWMOD	LOWMOD_PCT
Bedford County	10,380	18,325	37.38
Bucks County	95,100	185,895	30.13
Chester County	78,020	144,170	29.12
Delaware County	119,515	209,655	38.85
Montgomery County	124,255	232,620	29.38
York County	91,360	162,705	37.76

Table 19: County-Level LMI Average, MID Counties

According to the CDC/ATSDR's Social Vulnerability Index (SVI), there are several areas of Bedford, Bucks, Chester, Montgomery, Delaware, and York counties that are socially vulnerable or have a high concentration of residents that identify as disabled, persons of color, or as single parents. The SVI ranks counties and tracts on 15 social factors, including unemployment, minority status, and disability, and further groups them into four related themes. The CDC SVI ranking variables for the four themes are Socioeconomic Status, Household Composition and Disability, Minority Status and Language, and Housing Type and Transportation. These indicators help support analysis on the relative vulnerability of a given census tract and help identify communities that will need continued support to recover following an emergency or natural disaster. The overall ranking is a percentile ranking calculation that represents the proportion of tracts that are equal to or lower than a tract of interest in terms of social vulnerability. For example, a CDC/ATSDR SVI ranking of 0.60 signifies that 60% of tracts in the State or Nation are less vulnerable than the tract of interest and 40% of tracts in the State or Nation are more vulnerable.

County	SVI Score	Rank
Bedford	0.1364	Low
Bucks	0.0758	Low

¹⁵ Ibid

Chester	0.2121	Low
Delaware	0.8182	High
Montgomery	0.2424	Low
York	0.4697	Low to Medium

Table 20, SVI Ranking¹⁵

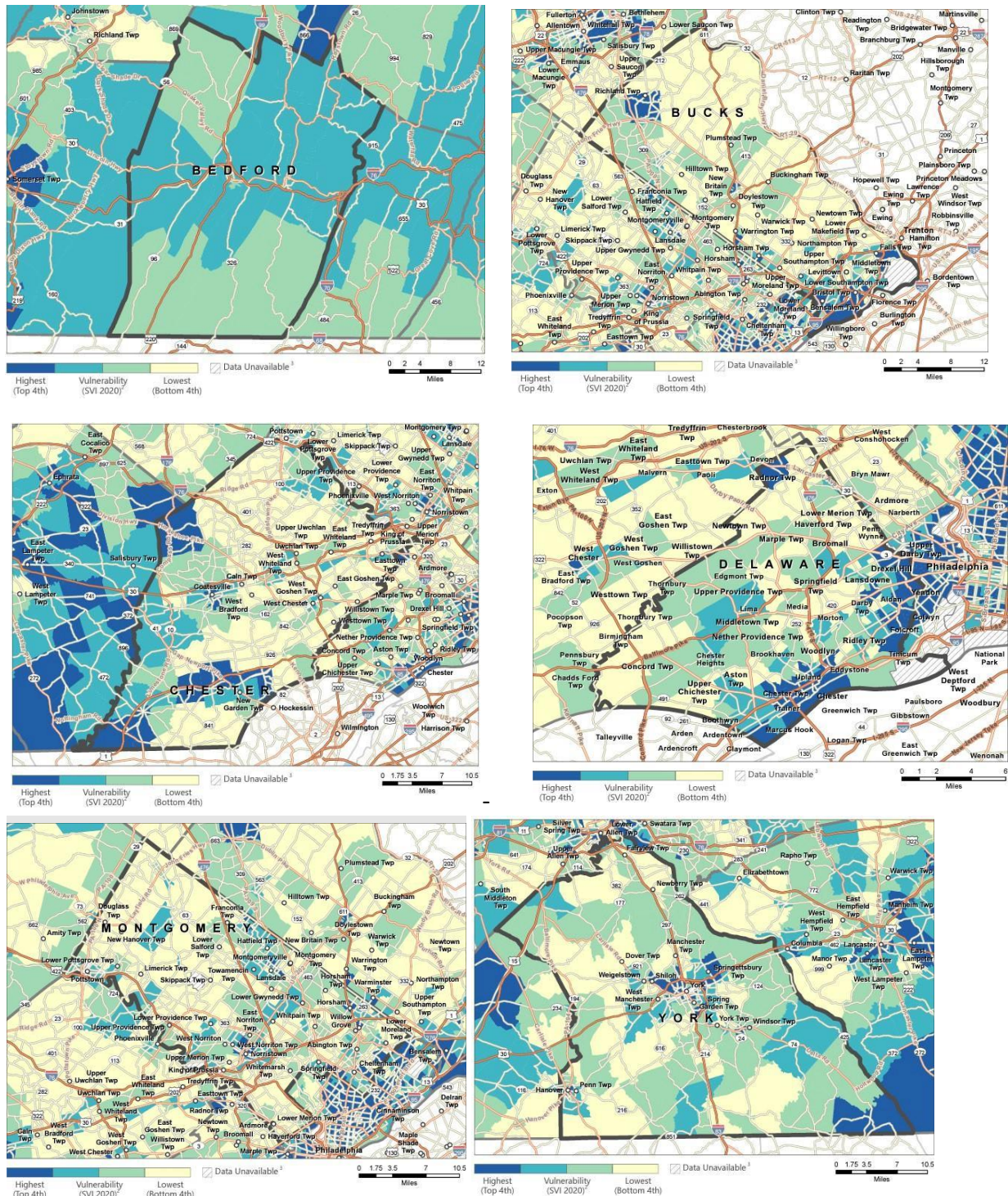


Figure 24: SVI Distribution by County

While the SVI ranking for four out of the six counties is considered low overall, each area contains pockets of inequity that shouldn't detract from the overall risks associated with hazard reduction. The more investment in mitigation activities, the more resilient the area and surrounding municipalities.

Limited English Proficiency Breakdown of Disaster-Related Areas

Limited English Proficiency (LEP), meaning difficulty reading, writing or speaking English, should not be an obstacle to anyone's opportunities to obtain housing, financial assistance, recreation, community activities or other important life benefits. DCED maintains a full Language Access Plan and a library of "Translated Vital Documents" in Spanish, West Germanic/Dutch, Korean and Chinese on their website that includes such essential documents as Fair Housing Act notices for local governments.¹⁶

County/ Municipality	Estimate Speak English Less than 'Very Well'	Percent Speak English Less than 'Very Well'
Bedford	382	0.8
Bucks	26286	3.8
Chester	18832	4.7
Delaware	24723	4.2
Montgomery	35806	4.5
York	11755	2.7

Table 21: Limited English Proficiency Breakdown

Access and Functional Needs

People with Access and Functional Needs (AFN) related to vision, hearing, speech, mobility, or cognitive issues may require supportive housing or services. 1,237 disaster-affected people identified themselves as members of the AFN population as part of FEMA registration. The greatest number (445) live in Montgomery County, and the fewest in Bedford (39).

Point-In-Time Counts

According to Point-In-Time counts, the total incidence of homelessness in the state has remained steady but the number of homeless families has declined. There are fewer shelter beds today than there were in 2007, according to the Pennsylvania Housing Finance Agency's Comprehensive Housing Study 2020. The number of people displaced by disaster often

¹⁶ <https://dcled.pa.gov/lep-lap/>

¹⁷ <https://www.delcopa.gov/hcd/pdfs/AssessmentFairHousing2018-2022.pdf>

overwhelm the emergency housing and transitional housing systems that receive people on an everyday basis. A benchmark for potentially available housing inventory for persons displaced due to disaster, is HUD’s Point-In-Time count, conducted annually by its Continuums of Care (CoC) providers.

The tables below give a sense of scale for government-provided options for those who cannot return home after a disaster. The tables provide a snapshot of available housing, including Emergency, Safe Haven and Transitional Shelter from one night in January 2021, as presented in the “HUD 2021 Continuum of Care Homeless Assistance Programs Housing Inventory Count Report.”

The Continuum of Care Program (CoC) is designed to assist individuals (including unaccompanied youth) and families experiencing homelessness and to provide the services needed to help such individuals move into transitional and permanent housing, with the goal of long-term stability. The reports tally the number of beds and units available on the night designated for the count by program type, and include beds dedicated to serve persons who are homeless as well as persons in Permanent Supportive Housing. Including the FEMA post-Ida demand for shelter as the right-hand column in Table 22 provides a point of comparison to understand the additional housing pressure triggered by Ida damage. Table 23 takes this data step further and demonstrates the post-Ida housing shortfall.

	Emergency, Safe Haven and Transitional Housing Year-round Beds	Permanent Supportive Housing, Rapid Re-Housing, Other Permanent Housing	Total	<i>FEMA IA Applicants self-reported needs for shelter (including family)</i>
Statewide	11,842	19,471	31,313	-
Bedford	7	N/A	N/A	142
Bucks	195	355	550	1314
Chester	364	410	774	1464
Delaware	387	604	991	4039
Montgomery	198	637	835	3221
York	319	539	858	1233

Table 22: Point-In-Time Capacity of Housing System (January 2021) and post-Ida FEMA Data

	FEMA IA Applicants self-reported needs for shelter (including family)	Available Housing through Emergency and Permanent Affordable Housing	Unmet need for Shelter
HUD MID	7620	1826	5794
Delaware	4039	991	3048
Montgomery	3221	835	2386
Grantee MID	4153	2182	1971
Bedford	142	NA	142
Bucks	1314	550	764
Chester	1464	774	690
York	1233	858	375

Table 23: Sheltering Demand and Shortfall after Hurricane Ida

While there is not an official count of displaced residents at this point, it is notable that the FEMA Hazus models conducted for Delaware County's Hazard Mitigation Plan in the process of its 2022 update predict that 3,230 people would seek short-term shelter after a 1-Percent Annual Chance Flood Event; after Hurricane Ida, 4,039 FEMA Individual Applicants indicated that they and their household members needed temporary shelter. The Hazus model also predicts that 14,647 people would be displaced during the same event, so that estimate may be low.

While the Commonwealth will continue to seek comprehensive data on displacement due to Ida, Montgomery County stated in a press release December 14, 2021, that hundreds of families remained displaced due to Hurricane Ida. One factor is that available rentals are priced above fair market rent, making it very difficult for displaced residents to find apartments.

Services

Disaster Recovery Centers in impacted areas connected survivors with much needed resources, such as emergency food services and mental health counseling. These centers have been closed since November of 2021. A year after the disaster, survivors need many types of support. The Legal Aid Society of Southeastern Pennsylvania (LASP) currently provides free civil legal aid for low-income, vulnerable people in Bucks, Chester, Delaware, and Montgomery counties. It currently operates a phone where people can address challenges with FEMA assistance, food programs, utility shutoffs, landlord-tenant issues, flood insurance disputes, civil and disability rights cases, connection to mental health services and much more. FEMA's Disaster Case Management Program (DCMP) also connects people with services working with nonprofit organizations but is scheduled to end in September of 2023.

Repair Programs

There are many programs that provide some level of home repairs after a disaster, but the allowable expense limits are generally too low to cover the full cost of repairs. Some of these programs, such as those in Chester County, include programs such as the Housing Rehabilitation Program which helps low-to-moderate income homeowners correct code violations.

Under the county's program, eligible applicants must be the owner of the home and the household's annual gross income must not exceed the HUD LMI level of 80 percent of area median income (AMI) adjusted for household size. The maximum amount of funding per single family dwelling is \$25,000. Other programs include the Senior Citizen Home Maintenance Program, which assists those aged 65 and older with moderate home repairs such as roof, minor plumbing, flooring, and accessibility for elderly individual(s). It is limited to those whose income is less than 50 percent AMI. The program cap is \$4,500. The Home Repair Program is for homeowners under 150-175 percent of the poverty level, and the Weatherization Assistance Program funds some weatherization improvement projects for those with incomes up to 200 percent of poverty level. The average expenditure per household is \$7,669.

The programs in this action plan build upon the recovery framework from Tropical Storm Lee and Hurricane Irene in 2011 and follow best practices for a resilient recovery. DCED will continue working through partnerships with municipalities, citizens and, state agencies, e.g.: Pennsylvania Housing Finance Agency, local CDBG offices, Area Agency on Aging, and the Pennsylvania Emergency Management Agency to address the effects of the severe weather that impacted Pennsylvania communities. As DCED continues to revise its priorities by evaluating unmet needs, the department and its partners will focus on incorporating resiliency efforts in disaster recovery funded projects.

Infrastructure Unmet Need

Disaster Damage and Impacts – Infrastructure

FEMA, SBA, Pennsylvania agencies, and local communities have identified significant impacts on public facilities and infrastructure from Hurricane Ida. The six counties discussed in this Action Plan suffered just under \$73 million in estimated damages to infrastructure. This damage was considerable both in scale and breadth, impacting a wide range of facilities, including public buildings, roads and bridges, utilities, and parks. While FEMA has obligated approximately \$13 million to be eligible for permanent repairs under its Public Assistance (PA) Program, there is still a considerable amount of infrastructure in need of repair within the six counties. This section addresses the details of this damage, the total unmet need, and what the state of Pennsylvania has done and is doing to ensure enhanced resiliency moving forward.

Flooding, resulting from rivers cresting beyond their banks had wide-spread impacts. Five deaths were recorded in Pennsylvania, three in Montgomery County, from drowning in the severe flooding. River levels continued to rise in the days after the rainfall ended, creating additional dangers and disruptions to communities and infrastructure. The Schuylkill River rose to 16.4 feet in Philadelphia, a level not reached in more than 150 years ¹⁴. The Delaware Canal State Park, a 60-mile-long canal, home to trails and parks, saw already existing infrastructure issues worsened by the effects of Ida. Severe flooding of a nearby creek tore through the canal leaving it damaged and creating the need to undertake a significant amount of debris removal at an estimated cost of \$5 to \$10 million. ¹⁵

In addition to flooding, multiple tornadoes touched down in Pennsylvania causing additional damage to infrastructure and killing one resident. Significant wind damage occurred to various

public facilities and buildings in Upper Dublin Township in Montgomery County, as well as Temple University's Ambler campus. Public utilities were impacted by the disaster in areas of high winds and heavy rainfall, and damage to public utilities resulted in power outages affecting 73,000 residents across the state.¹⁶

FEMA Public Assistance Program

FEMA's Public Assistance Program (PA) provides grants to State, tribal, territorial, and local governments, and certain types of private nonprofits so that communities can respond to and recover from major disasters quickly. Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act also allows FEMA to fund the hardening of these damaged facilities against future events by providing funding for hazard mitigation measures during the recovery process, known as Section 406 Mitigation.

To access FEMA PA funds, eligible applicants must submit a request for grant funds to the State. In Pennsylvania, the Pennsylvania Emergency Management Agency (PEMA) manages Public Assistance. Together with FEMA, PEMA evaluates eligibility for PA. For DR-4618, FEMA is authorized to reimburse 90 percent of the eligible costs of specific types of disaster response and recovery work undertaken by eligible applicants.⁵

FEMA PA-eligible activities include short-term emergency work and long-term permanent work. Emergency work is divided into two categories: Debris Removal (Category A) and Emergency Protective Measures (Category B). CDBG-DR funds are not to be used for short-term activities or activities reimbursable for which funds are made available by FEMA or the US Army Corps of Engineers, consistent with the provisions in Public Laws 117-43 and 117-180 and the [HUD Notices](#).

Permanent work is broken down into five categories: Roads and Bridges (Category C); Water Control Facilities (Category D); Buildings and Equipment (Category E); Utilities (Category F); and Park, Recreational, Railway, Beaches, Piers, Ports, and Harbors (Category G). Permanent work may only be authorized under a major disaster declaration. CDBG-DR funds are utilized to address the unmet needs of 'permanent work' categories.

The total damages for infrastructure categories C through G, according to FEMA data, amount to approximately \$72,913,716.18. The table below illustrates the amount in damages in each category by county. Regarding damages by category, Category E (Buildings & Equipment), saw the highest amount of damage across all counties, with Category D (Water Control Facilities) seeing the least. Montgomery County recorded the highest amount of infrastructure damage at just under \$43 million. Of this \$43 million, \$31.8 million was attributed to buildings and equipment damage. The county recording the least amount of total damage was Bedford County, with damages of \$1.6 million.

⁵ The Consolidated Appropriations Act, 2022 (Public Law 117-103) included a provision that increased the Federal share of various programs authorized under the Stafford Act (including PA and HMGP) to not less than 90 percent of total eligible project costs.

The total calculated infrastructure unmet need is \$18,228,429.05. This amount was calculated as a 25 percent state share of the “Best Available Cost” from FEMA PA loss estimates. As more funds are obligated, the unmet need amount will be reduced.

Total FEMA PA Damages by Category	
PA Category	Damages
C- Roads and Bridges	\$24,826,204.33
Bedford County	\$952,763.33
Bucks County	\$3,586,884.77
Chester County	\$12,505,177.27
Delaware County	\$144,729.22
Montgomery County	\$6,749,595.89
York County	\$887,053.85
D - Water Control Facilities	\$1,713,240.25
Bedford County	\$64,422.48
Bucks County	\$21,868.72
Chester County	\$335,334.45
Delaware County	\$50,000.00
Montgomery County	\$631,772.31
York County	\$609,842.29
E - Buildings and Equipment	\$38,931,412.65
Bedford County	\$7,906.99
Bucks County	\$95,148.99
Chester County	\$1,548,311.50
Delaware County	\$5,491,636.19
Montgomery County	\$31,776,840.18
York County	\$11,568.80
F - Utilities	\$4,081,473.58
Bedford County	\$64,076.18
Bucks County	\$252,610.23
Chester County	\$1,515,042.23
Delaware County	*
Montgomery County	\$1,929,890.78
York County	\$319,854.16
G - Parks, Recreational Facilities, and Other Items	\$3,361,385.37
Bedford County	\$555,128.20
Bucks County	\$287,056.43
Chester County	\$652,277.41
Delaware County	\$105,054.19
Montgomery County	\$1,702,530.94

York County	\$59,338.20
Total Damages	\$72,913,716.18

*No data for Category F damages in Delaware County has been provided
Table 24: Total Damages by PA Category (C-G), by County

Total FEMA PA Damages by County	
County	Total Damages
Bedford County	\$1,644,297.18
Bucks County	\$4,243,569.14
Chester County	\$16,556,142.86
Delaware County	\$5,791,419.60
Montgomery County	\$42,790,630.10
York County	\$1,887,657.30

Table 25: Total FEMA PA Estimated Damages by County

DCED, in support of the efforts of the local governments and communities in the MID, understands that the repair and enhancements to build resilience into local infrastructure must be undertaken as vital to not only the restoration of housing but also for the protection and viability of the entire MID. One of the MID areas, Montgomery County, will promote community and/or regional post-disaster recovery and mitigation planning by ensuring that infrastructural repair and improvements remain in line with the goals outlined in their comprehensive plan. Many of these goals include building back more sustainable communities by modernizing infrastructure networks, improving stormwater management, and protecting natural resources.

Over the last 30 years, flooding has proven to be the number one hazard in the county, resulting in several fatalities and more than \$120 million in property damage. Montgomery's Comprehensive Plan identifies 2,600 structures including important infrastructure located within a floodplain. By implementing required stormwater improvements and completing watershed stormwater management plans, Montgomery County hopes to successfully ensure not only repair of infrastructure, but the mitigation of future flood damage from the next disaster.

Montgomery County, as outlined in their Comprehensive Plan, also aims to support more modern, resilient, green and energy-efficient infrastructure. This will be accomplished by improving roads and bridges, implementing green streets and sidewalks, and working with others to develop water retention and detention areas, sanitary sewer improvements, and suitable areas for community expansion.¹⁸ Delaware County prioritizes sustainable development and growth through the implementation of green stormwater infrastructure projects. Many of these projects focus on the utilization of landscaped areas to redirect stormwater runoff into vegetation. These include raingardens, permeable pavement, green roofing, and stormwater wetlands. Additionally, their comprehensive plan outlines methods including retrofitting buildings, and promoting energy-efficient construction.⁶ By incorporating goals outlined in county comprehensive plans, DCED will be able to align CDBG

⁶ Delaware County Comprehensive Plan

infrastructure investments with other planned state, local, or regional improvements, as well as be able to address the construction or rehabilitation of disaster-related systems.

¹⁸ [Montgomery County Comprehensive Plan](#)

The Pennsylvania State Mitigation Plan outlines similar goals and objectives that will help to guide DCED in implementation of enhanced infrastructure and ensure that mitigation measures are thoroughly addressed. Examples of these objectives are:¹⁹

- Utilize state agency funding to identify and prioritize critical government facilities and infrastructure that require redundant systems
- Conduct outreach to privately owned businesses and infrastructure that provide critical services in post-disaster situations.
- Continue to implement protection projects such as those of severe repetitive loss properties, dam remediation, and the acquisition and demolition of residential structures
- Provide classroom courses on building code and regulations and implementation.

Economic Revitalization Unmet Need

Disaster Damage and Impacts

Before Hurricane Ida passed through Pennsylvania in September 2021, the Commonwealth's economy was beginning to emerge from the slowdown attributable to the COVID-19 pandemic. While the impact of Ida upon various economic sectors was not substantial in comparison to that of housing and infrastructure, of primary concern is the recovery of the small businesses located in the affected counties. Many of these businesses comprise the downtown core of many of the Commonwealth's cities and small communities and play a huge role in supporting local economies. In the immediate aftermath of Ida, downtown shopping districts saw a decline in commercial traffic, as the physical impediments of the storm, including flooded streets, damaged buildings, and power outages, prevented businesses from operating for days to weeks.

Agriculture is also a vital sector to Pennsylvania's economy, and the US Department of Agriculture (USDA) disaster recovery programs efforts were quickly implemented. USDA provided both technical and financial assistance to help farmers and livestock producers recover from losses from the storm. Examples of programs that were made available include the Livestock Indemnity Program, the Emergency Assistance for Livestock, Honeybees, and

¹⁹ <https://www.pema.pa.gov/Mitigation/Planning/State-Hazard-Mitigation-Plan/2018/Documents/Pennsylvania-2018-State-Hazard-Mitigation-Plan.pdf>

Farm-Raised Fish Program, the Tree Assistance Program, and the Noninsured Crop Disaster Assistance Program.²⁰

SBA Assistance

The Small Business Administration provides low-interest loans to businesses that suffer losses because of damage from major declared disasters. These low-interest disaster loans have been made available to businesses in Pennsylvania following the announcement of a major disaster declaration in September 2021. Businesses and private nonprofit organizations irrespective of size were able to borrow up to \$2 million for the repair or replacement of real estate, machinery and equipment, inventory, and other business assets destroyed in the wake of the storm. Small businesses, agricultural cooperatives and most private non-profit organizations were offered 'Economic Injury Disaster Loans' through SBA to meet working capital needs.²¹

According to SBA business loan figures dated September 30, 2021, a total of 132 loans were approved for business real estate damage repair and revitalization, totaling approximately \$9.4 million, in comparison to a total verified loss of \$19.7 million for those applicants. A table illustrating the number of damaged business properties, verified loss, and approved loan amount by county is provided below. It is worth noting that a total of 81 loans for small business were denied by the SBA, totaling approximately \$10.7 million in losses.

County	# Of Damaged Business Properties	Total Verified Loss	Total Approved SBA Loan Amount
Bedford	3	\$36,742.00	\$0.00
Bucks	23	\$4,003,551.76	\$1,985,400.00
Chester	11	\$4,779,026.05	\$2,925,700.00
Delaware	24	\$2,487,056.61	\$1,166,100.00
Montgomery	37	\$7,766,483.58	\$3,089,600.00
York	9	\$629,788.90	\$271,500.00
Total	107	\$19,702,648.90	\$9,438,300.00

Table 26: Damaged Business Properties and SBA Assistance by County

²⁰ <https://www.fsa.usda.gov/state-offices/Pennsylvania/news-releases/2021/usda-offers-disaster-assistance-to-farmers-and-livestock-producers-in-pennsylvania-impacted-by-hurricane-ida>

²¹ [SBA Offers Disaster Assistance to Pennsylvania Businesses and Residents Affected by Remnants of Hurricane Ida](#)

However, HUD uses the declined SBA disaster business loan data to inform its allocation of funds for economic revitalization purposes as reflected in the May 24th Notice. The table below provides a county-level break out of SBA declined loans.

County	Frequency Denied	Calculated Loss
Bedford	6	\$442,800.00
Bucks	10	\$1,140,034.48
Chester	6	\$1,088,788.24
Delaware	27	\$2,020,410.00
Montgomery	20	\$4,660,826.09
York	12	\$1,357,200.00
Total	81	\$10,710,058.81

Table 27: SBA Denial and Calculated Loss by County

In evaluating economic revitalization unmet need, DCED has considered the \$10.7 million in declined SBA loans and the gap between \$10.3 million gap between the approved SBA loan values and the verified loss amounts associated with those loans. Based on data and additional research conducted around all unmet needs, and taking into consideration the amount of available funding, DCED has determined that it will seek other funding to address economic revitalization needs. Feedback from county and state officials, as well as the public, identified infrastructure and housing repair and reconstruction as higher priorities in the six counties. Further, based on recent experience in attempting to use CDBG-CARES Act funding for economic development purposes yielded low demand but high transactional costs.

DCED has and will continue to implement many economic revitalization programs to address ongoing needs of the local communities. Many of these include workforce training and development, expansion and relocation assistance, and tax incentive programs, to name a few.²² Through these programs, DCED can continue to improve the health of the economy by

²² <https://dced.pa.gov/business-assistance/>

meeting needs that CDBG-DR funded infrastructure and housing programs are not able to meet. It is the assumption that through the proposed infrastructure and housing programs, local businesses will gradually begin to see an increase in traffic and revenue as residents of impacted communities again have the disposable income to spend on consumer goods and services.

Mitigation-Only Activities

HUD defines mitigation as “activities that increase resilience to disasters and reduce or eliminate the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship, by lessening the impact of future disasters.” The goal of mitigation is to support impacted communities by implementing programs that will reduce risk and harm by encouraging housing and infrastructure programs to accomplish activities such as exceeding building code standards, expanding stormwater infrastructure, and fortifying public facilities to prepare for future disasters. In part, this will be accomplished through the strengthening of FEMA’s Community Lifelines, which play an essential role in the overall resilience of disaster impacted areas.

The state will build in resilience initiatives in recovery activities undertaken through the CDBG-DR programs. As outlined in the following risk assessment, an emphasis on resilience to flooding and high winds is a main priority supported by the State Hazard Mitigation Plan (SHMP) and local Hazard Mitigation Plans (HMPs). A holistic approach to disasters will enhance resilience and speed up recovery times in the future. In coordination with community members, local officials, and regional housing authorities, low- and moderate-income persons will benefit most from the long-term risk reduction outlined in this mitigation risk assessment. An emphasis on prioritizing vulnerable communities is essential to ensuring benefit for all.

The mitigation needs assessment is a risk-based assessment that summarizes the major natural threats and hazards in Delaware and Montgomery, counties—the two MID counties, as well as Bedford, Bucks, Chester, and York counties, the four state-identified target counties. The assessment was undertaken to inform the use of the State’s 15% CDBG-DR Mitigation set aside to build resilience and mitigation measures into recovery programs and projects. This mitigation needs assessment analyzes statewide risks with specific sections detailing hazards in the most impacted areas.

Since 1953, sixty presidential disasters have been declared in the Commonwealth of Pennsylvania. This includes 27 flooding events, 16 severe storms, 8 hurricanes, 5 snowstorms, 2 tornados, 1 drought, and 1 severe ice storm. Past occurrences show that flooding related hazards remain Pennsylvania’s highest risk. This assessment not only looks at hurricane and tropical storm risk, but rather the risk of high impact natural hazards likely to threaten Bedford, Bucks, Chester, Delaware, Montgomery, and York counties, including floods (riverine, coastal, and local flooding); nor’easters, severe weather, severe winter storms, and tornados and windstorms. These hazards were identified in the state’s FEMA-approved Hazard Mitigation

Plan, as well as the individual plans of Bedford, Bucks, Chester, Delaware, Montgomery, and York counties.

In addition to current hazards faced by the counties most impacted by Hurricane Ida, the mitigation needs assessment considers future threats, particularly as severe weather events become more frequent and extreme. In addressing these hazards and assessing the risks that come with the most prevalent of these, the State can ensure that it minimizes vulnerabilities to the impacts of future extreme events through its recovery and mitigation projects and programs.

This assessment will provide a basis upon which to propose programs and projects as part of the Action Plan that will mitigate current and future hazards. While not all hazards will be mitigated with the CDBG-DR funds, it will inform all projects undertaken through CDBG-DR such that, at a minimum, they do not exacerbate natural hazard threats and make use of scarce resources for recovery and mitigation. The state will leverage other federal and non-federal funding sources related to mitigation efforts, as well as incorporate best practices from projects, data collection, modeling, and policy measures associated with CDBG-DR funds.

Flood-Related Vulnerabilities

Across the MID areas, flooding caused the most substantial damage. While Ida's flooding was record-breaking, the age of the housing stock and history of repeated flooding contributed to the severity of the damage. For many property owners, insurance was insufficient to cover repair costs, and this creates a major barrier to recovery efforts. The map below shows concentrated areas of inundation in densely populated areas and along major rivers.

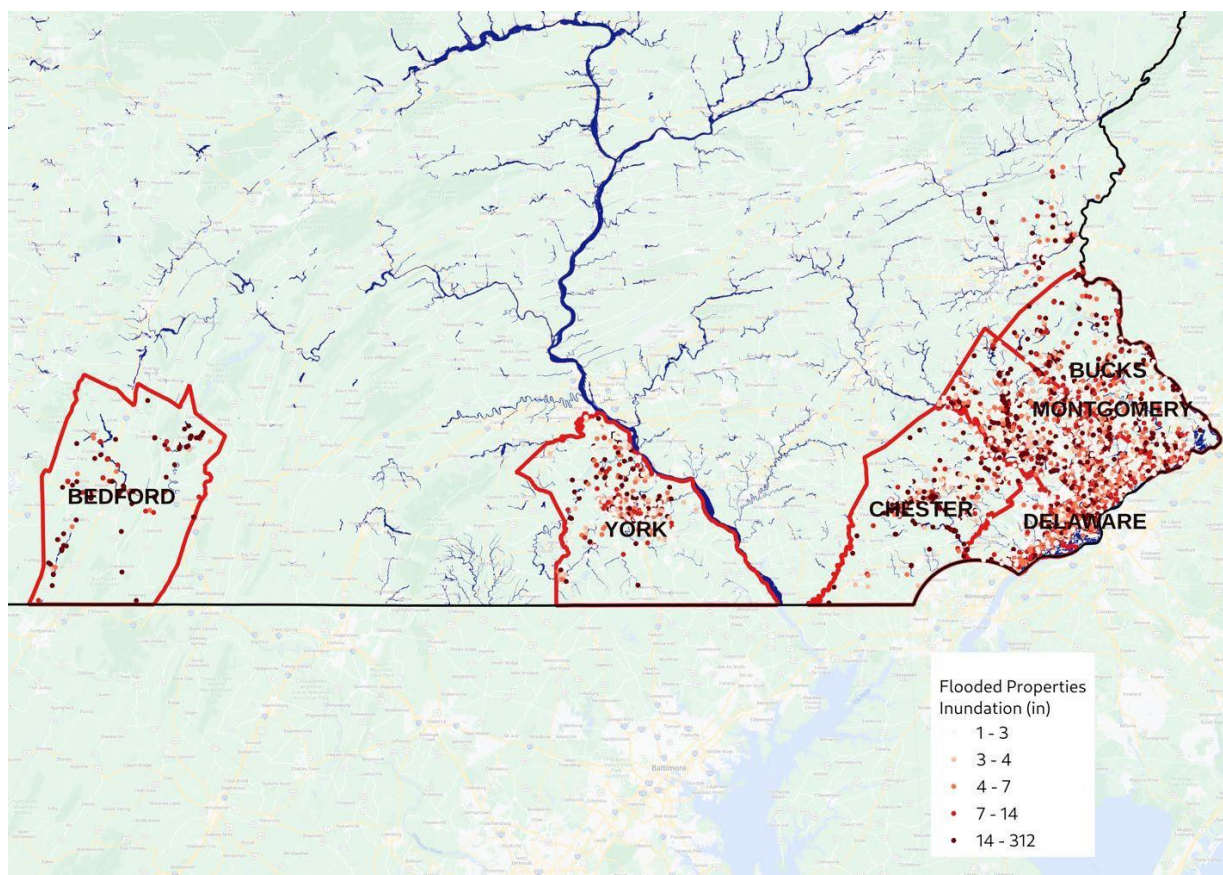


Figure 19: Flooded Properties Inundation by County

Flood History

Flooding is Pennsylvania's most common type of disaster. An introduction to the flood history of the counties and brief explanation of common terms associated with managing repeated flood events is presented here as background for understanding much of Ida's impact. More detailed information on various types of flooding hazards can be found in the mitigation-only section of this document.

Historic and Future Flooding Occurrences by County

Bedford County

There have been a total of 60 recorded flooding events in Bedford County between 1936 and 2021, and seven flood-related FEMA disaster declarations for the county since 1954. According to the county's Hazard Mitigation Plan, there are 2,462 structures located in the Special Flood Hazard Area (SFHA). Additionally, there are a total of 336 critical facilities in the SFHA, with 295 bridges making up 88 percent of this total.

Bucks County

Flooding in Bucks County has been mainly caused by heavy rainfall, and the county itself has a long history of flooding problems. This can be attributed to the topography of the county,

specifically the Delaware River watershed, which borders the southeast edge of the county, including the contributing streams, creeks, and tributaries in the region.

The most recent flooding event identified in the county's Hazard Mitigation Plan (HMP) occurred in 2020, though no damage was reported. In terms of flood vulnerability in Bucks County, there are numerous structures and infrastructure situated in locations where flooding can reasonably be anticipated. Approximately two percent of structures in Bucks County are in the SFHA and are therefore most vulnerable to flood loss. Bristol Township and Quakertown Borough are the two municipalities with the most structures located in the SFHA. There are approximately 912 repetitive loss properties, both severe and non-severe were recorded in Bucks County as of March 2021, most are single family homes.

Chester County

Many municipalities in Chester County are in flood-prone areas - along streams, creeks, or lakes – but the county's greatest flooding threat is along the Schuylkill River and Brandywine Creek. Damage from flooding events has been exacerbated due to homes being constructed in the FEMA-designated floodplains as permitted by past zoning practices or where construction pre-dates FEMA flood mapping efforts.

According to a HMP Risk Assessment conducted by Chester County, 1 percent of the county's population is situated in the SFHA, while an additional 1.3 percent are in the 500-year flood hazard area.

Chester County's HMP does not identify specific repetitive loss properties, only the areas where policies, claims and repetitive loss properties exist. Since 1978, there have been 1,660 claims under the National Flood Insurance Program (NFIP), and 781 repetitive loss properties, with total loss payments of \$22,117,846. The HMP describes past and ongoing mitigation efforts to improve areas that contain repetitive and severe repetitive loss properties. This includes the acquisition, relocation, elevation, and/or retrofitting of existing structures located in hazard areas including those repetitive loss properties.⁷

Delaware County

Delaware County is in the lower Delaware River Basin and major waterways within the county include the Brandywine, Chester, Ridley, Crum, Darby, Cobbs, Naamans, and Marcus Hook creeks. Delaware County is flood-prone because of the generally flat topography adjacent to the Delaware River, where communities have developed historically along its tributaries and valleys and excess water from snowmelt or rainfall accumulates and overflows onto stream banks and adjacent floodplains. As a result of these factors, the county has a long history of flooding events, with flash flooding the most common as the waterways often crest over their banks and a recent vulnerability assessment conducted for Delaware County, it was determined that future floods in Delaware County are "highly likely."

As of 2016, Delaware County recorded a total of 78 repetitive loss properties, both severe and non-severe. Thirty-six (36) of these properties were single-family homes, and thirty (30) were non-residential properties. The municipality containing the highest number of repetitive loss

properties was that of Darby Borough, with Upland Borough seeing the highest number of severe repetitive loss properties.⁸

Montgomery County

Approximately 2.5 percent of the area of Montgomery County is considered flood-prone, with an estimated 2,648 buildings located in the SFHA. The county contains approximately 999 miles of rivers, streams and creeks including a 42-mile stretch of the Schuylkill River. It is estimated that 5,497 structures are either entirely or partially in a floodplain.

Evaluations have been performed to assess all Montgomery County properties located within the floodplain. Digital building footprints based on 2015 digital orthophotography and FEMA Federal Insurance Rate Maps identify buildings located within the flood hazard areas. The assessed building value may be substantially lower than the current replacement value. Some subjective analysis was employed in determining the flood prone potential since first floor elevations and detailed contour information was not available.⁹

York County

According to the most recent Hazard Mitigation Plan for York County, a total of 16 disaster/emergency declarations that involved flooding have been recorded since 1954. In its hazard mitigation plan, York County estimates approximately five reportable flooding events per year on average. A total of 26 repetitive loss properties have been documented for York County as of December 31, 2015, with 16 of those categorized as severe. Most of the total repetitive loss properties, and all the severe repetitive loss properties are single-family properties.¹⁰

National Flood Insurance Program (NFIP)

In 1968, the US Congress established the National Flood Insurance Program (NFIP) to provide flood insurance to individuals and businesses. The NFIP publishes Digital Flood Insurance Rate Maps (DFIRM) that identify the 1 percent- annual-chance flood, which is used to delineate the Special Flood Hazard Area and identify Base Flood Elevations (BFE). These were previously referred to as 100-year floodplains. The table below illustrates historic flood insurance claims in Pennsylvania, by county, beginning for the period 1978-2018.

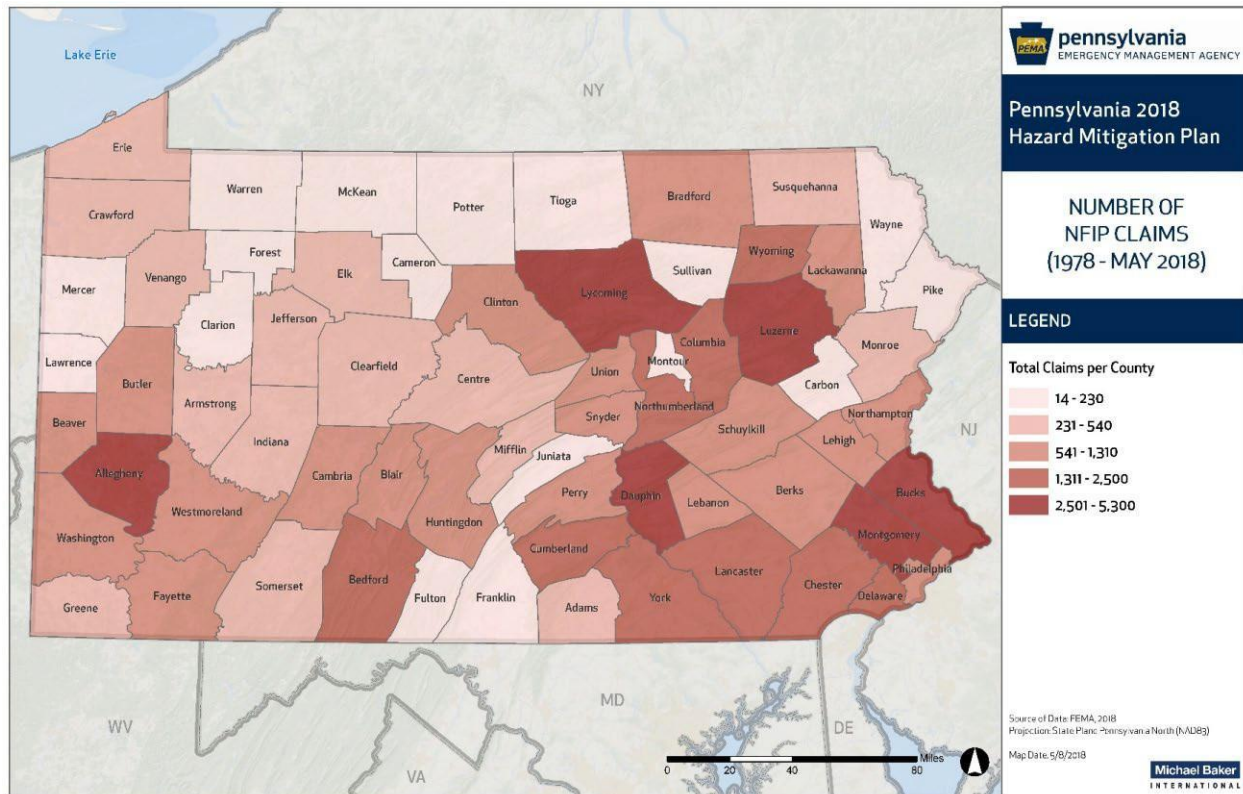


Figure 20: Total NFIP Claims by County 1978-2018 (FEMA, 2018)

Historic Flood Insurance Claims and Loss Payments (FEMA, 2018)		
County	Total Claims Since 1978 (State Total 70,129)	Total Paid Since 1978 (State Total \$1,182,657,552)
Bedford	1,434	\$12,752,691
Bucks	4,698	\$128,997,252
Chester	1,586	\$20,418,569
Delaware	2,486	\$40,013,226
Montgomery	5,041	\$117,662,901
York	1,522	\$15,114,848
Total	16,767	\$334,959,487

Table 11: Historic Flood Insurance Claims and Loss Payments

Owners with Unmet Needs in Floodplain: Insurance Claims and Losses

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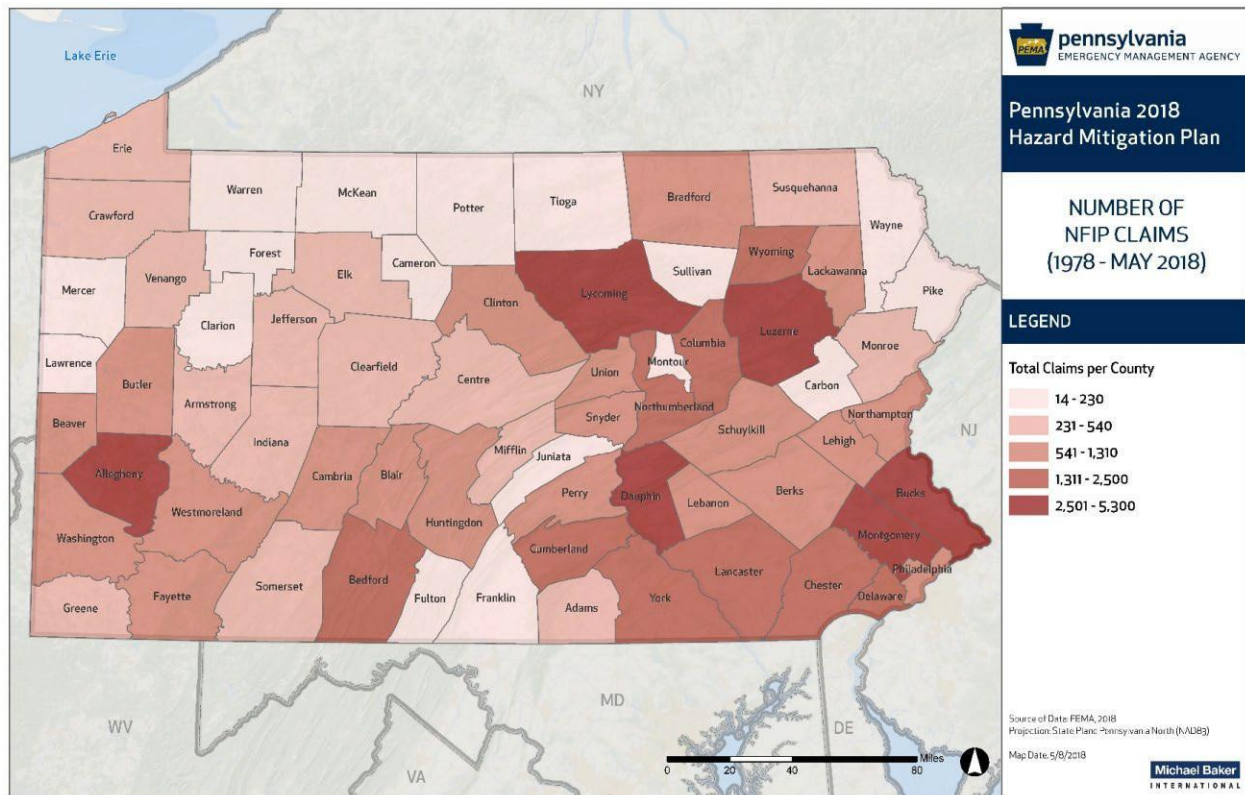


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Table 11: Historic Flood Insurance Claims and Loss Payments

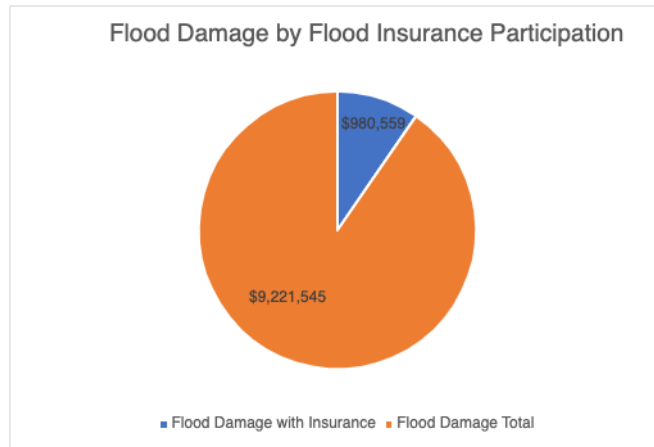


Figure 21: Flood Damage by Flood Insurance Participation

Of all Pennsylvania counties, Montgomery and Bucks are among those having the highest number of NFIP claims, at 5,041 and 4,698 claims respectively. Delaware County recorded the third highest with a total of 2,486 claims. Most of the individuals that were impacted by flood damage were uninsured as shown in the pie chart above, and it is likely that insurance coverage for those that did have it does not meet their needs.

Repetitive Loss and Severe Repetitive Loss

The NFIP identifies Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties. Repetitive Loss structures are those insured under the NFIP which have had at least two paid flood losses of more than \$1,000 over any 10-year period since 1978.

FEMA's Hazard Mitigation Assistance (HMA) grant programs define Repetitive Loss as a structure covered by a contract for flood insurance made available under the NFIP that:

- Has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value at the time of each such flood event;
- At the time of the second incidence of flood-related damage, the contract for flood insurance contains increased cost of compliance coverage.

A property is considered a Severe Repetitive Loss property when either:

- Flood related damages have been incurred on four or more separate occasions with the amount of each claim exceeding \$5,000 and the cumulative amount of the total claims paid exceeding \$20,000, or:
- The cumulative amount of claims exceeds the value of the property, when at least two separate claim payments have been made.

In either case, at least two losses must have occurred within a ten-year time span; and claims must be more than ten days apart. The table below uses data from the county hazard mitigation plans and summarizes the number of both RL and SLR properties by county and home type where possible (Bedford and Chester does not support this approach).

Historically, Bucks County has the highest recorded RL and SRL properties, at a total of 912. Chester County has the second highest number of SRL properties at 781.

County	Non-Residential	Single-Family	2-4 Family	Condominium	Other Residential	Total
Bedford	-	-	-	-	-	111*
Bucks	101	724	43	20	24	912
Chester	-	-	-	-	-	781*
Delaware	30	36	10	0	2	78
Montgomery	41	167	8	2	14	232
York	2	31	1	0	2	36
Total	174	958	62	22	42	

Table 12: Total Historic Repetitive Loss and Severe Repetitive Loss claims by County

*These counties did not have an available breakdown of SRL properties by housing type

Sourced from County Hazard Mitigation Plans

Based on the NFIP and repetitive loss data provided above, it can be concluded that flooding has historically and repeatedly affected housing within each of the six counties. Many of these counties have seen repeat flooding damage based on histories and, as storms worsen, the intensity of flooding and damage will also increase.

Implementing buyout and acquisition programs, specifically for single-family homes, could significantly benefit the counties where repetitive loss properties are abundant and NFIP claims have been historically higher; these counties include Montgomery, Bucks, Chester and Delaware. When assessing damage to properties resulting from Ida, these counties saw the highest amount of damaged properties and total verified loss, as illustrated in the table titled Real Property Damage above.

Buyouts are a strategy of managed retreat, where government entities acquire frequently flooded properties and return them to open space. Montgomery County has had success with several buyout programs, such as the Hemlock Road project in 2013, which removed 12 homes in a frequently inundated area along Sunnybrook Creek and transformed the area into a riparian buffer zone. Other programs included the Whitemarsh Township flood property acquisition of 6 properties, and the Hatboro Borough flood property acquisition, acquiring 24 townhouses adjacent to a tributary of Pennypack Creek.

The greatest *overall* impacts of flooding appear to take place in Bucks County, as historically they have recorded the highest number of Repetitive Loss properties and have submitted the

second highest number of flood insurance claims.

As part of this assessment, the Commonwealth also sought to identify and address risks to 'FEMA Community Lifelines'. A Community Lifeline enables the continuous operation of critical government and business functions and is essential to health and safety or economic security. The seven community lifelines are:

- Safety and Security
- Food, Water, and Shelter
- Health and Medical
- Energy
- Communications
- Transportation
- Hazardous Materials

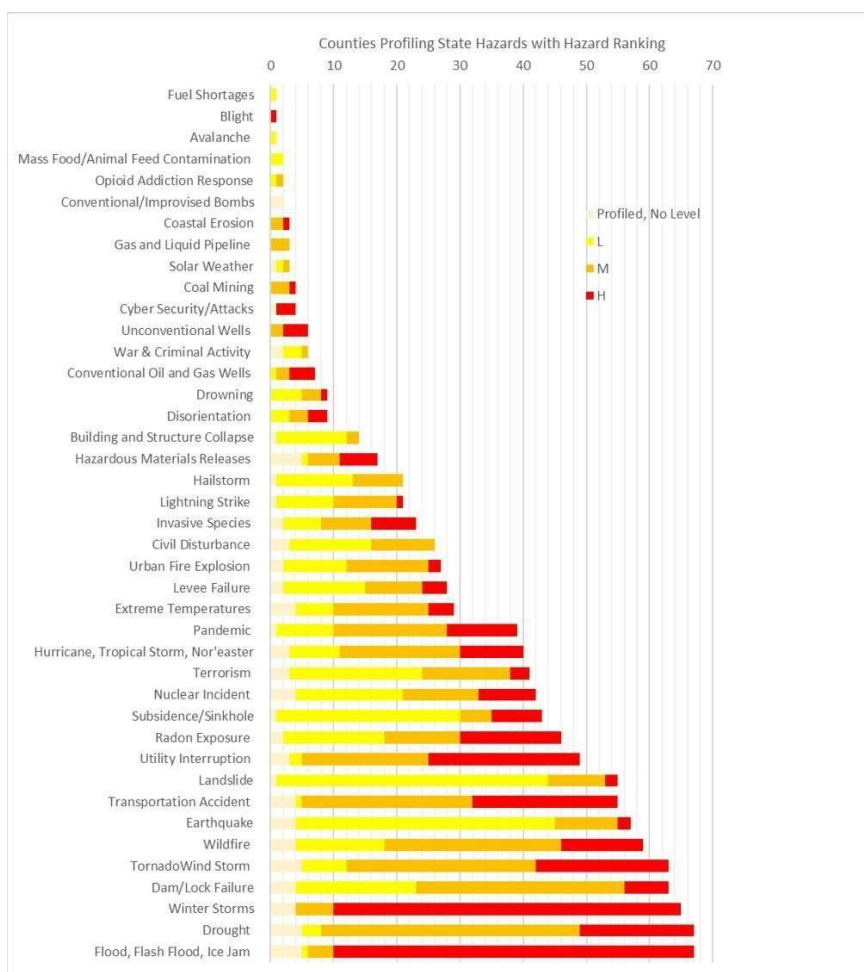


Figure 25: Counties Profiling State Hazards with Hazard Ranking

State Hazard Mitigation Plan

Pennsylvania's State Hazard Mitigation Plan (SHMP) is one of the keys to reducing the Commonwealth's vulnerability to disasters and it serves as a framework for policymakers as they act to reduce the effects of hazards. The risk assessment conducted as part of the SHMP provides the factual basis for developing this needs assessment, as well as the strategy that will inform the use of Pennsylvania CDBG-DR allocations, especially the mitigation set aside.

Pennsylvania's foundation for hazard mitigation is based on a hazard analysis and risk assessment that is comprehensive and multi-hazard. The risk assessment identifies 33 hazards of concern based on an analysis of federal risk assessment guidance, past disasters, and other resources.

Each natural hazard profile includes a general description of the hazard; the location of the hazard; the extent of the hazard; previous occurrences and losses; the probability of future occurrences; an impact analysis, including severity and warning time, secondary hazards,

environmental impacts, and a vulnerability assessment. These hazards include drought, earthquake, extreme temperature, flooding and flash flooding, hurricanes and tropical storms, landslides, pandemics, and many more. It is important to note that these hazards do not exist in a vacuum and are typically very interrelated. For example, utility interruption, a highly ranked hazard in the state of Pennsylvania, usually occurs in conjunction with or because of a winter storm, tornado, or hurricane.

The SHMP also provides a risk assessment associated with each hazard. This involves a quantitative analysis of vulnerable assets and damage estimates per hazard. Flooding and Flash Flooding for example was associated with a \$22 billion exposed building value, i.e. the estimated cost to repair or replace the damage caused to buildings and their contents if flooding or flash flooding were to occur. As previously mentioned, floods are one of the most common natural hazards in the United States and are the most prevalent type of natural disaster occurring in Pennsylvania. Over 94 percent of the Commonwealth's municipalities have been designated as flood-prone areas, and historically, both seasonal and flash floods have caused millions of dollars in annual property damage, loss of lives, and disruption to economic activities in the state of Pennsylvania.

The State HMP has identified a total of 2,004 vulnerable critical facilities, and 164 vulnerable state facilities associated with flood damage. It is worth noting that these values have been estimated based on location within high-risk areas. For example, when referring to the flood hazard, high risk areas were defined as those in the FEMA 1% annual chance floodplain.

Local and Regional Hazard Mitigation Plans

In addition to the SHMP, local hazard mitigation plans provide the factual basis for developing this needs assessment, as well as the strategy that will inform the use of the CDBG-DR allocation, especially the mitigation set aside. The HMPs are required in order to access FEMA Hazard Mitigation Assistance grants. They also provide a more localized view of the hazards facing Pennsylvania. The Hazard Mitigation plans across the MID areas are consistent in identifying primarily flooding, but also hurricanes, and severe winter storms as key concerns.

Each county has produced a Hazard Mitigation Plan (HMP) that profiles natural and human-caused hazards. Bedford and Delaware completed theirs in 2022. Each HMP profile includes a description of the hazard, the location of the hazard, the extent of the hazard, previous occurrences and losses, the probability of future occurrences, the potential effects of climate change, and a vulnerability assessment. Each County HMP also includes a risk assessment identifying between 10-15 natural hazards based on an analysis by the Commonwealth of Pennsylvania 2019 Hazard Mitigation Plan, and online research. The hazards identified include: drought, earthquakes, extreme temperature, floods and flash floods, hailstorms, hurricanes and tropical storms, invasive species, landslides, pandemic, radon exposure, sinkholes, tornados, wildfires and winter storms. The majority of recent disaster declarations were due to severe winter storms; however, flooding and flash flooding is experienced across all counties and is the prevalent hazard historically.

Greatest Risk Hazards

Flooding (Riverine, Coastal/Storm Surge, and Local/Urban)

Flooding refers to the general or temporary conditions of partial or complete inundation of normally dry land areas from the overflow of inland or tidal water and surface water runoff from any source. A large amount of rainfall over a short time span can result in flash flood conditions. Floodplains are defined as any land area susceptible to being inundated by water from any flooding source.

FEMA has identified and mapped areas of flood risk on Flood Insurance Rate Maps, with the highest risk zones called Special Flood Hazard Areas.²³ The 100-year floodplain is considered a high-risk area and is denoted as Zone A. The 500-year floodplain is shown by the notation Zone C or Zone X. The areas between the 100- and 500-year floodplains are shown using Zone B and Zone X. In addition, high-risk coastal areas are denoted as Zone V. This information is shown in Table 29 below.

Zone	Description
Low- to Moderate-Risk Areas	
C and X (Unshaded)	An area of minimal flood hazard is usually depicted on Flood Insurance Rate Maps as above the 500-year flood level. Zone C may have ponding and local drainage problems that do not warrant a detailed study or designation as a base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by a levee from the 100-year flood.
B and X (Unshaded)	An area of moderate flood hazard, usually the area between the limits of the 100- year and 500-year floods. Zone B is also used to designate the base floodplains of lesser hazards, such as areas protected by levees from 100-year floods, or shallow flooding areas with average depths of less than 1 foot or drainage areas less than 1 square mile.
High-Risk Areas	
A	An area with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas, no depths or base flood elevations are shown within these zones.
AE	The base floodplain where base flood elevations are provided.

²³ FEMA, Flood Zones, <https://www.fema.gov/glossary/flood-zones>

AH	An area with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
AO	
High-Risk Coastal Areas	
V	Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. No base flood elevations are shown within these zones.
Undetermined Risk Areas	
D	Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted. Flood insurance rates are commensurate with the uncertainty of the flood risk.

Table 28: FEMA-Designated Flood Zones

The flood zones in HUD MID counties Delaware and Montgomery can be found in Figure 26.

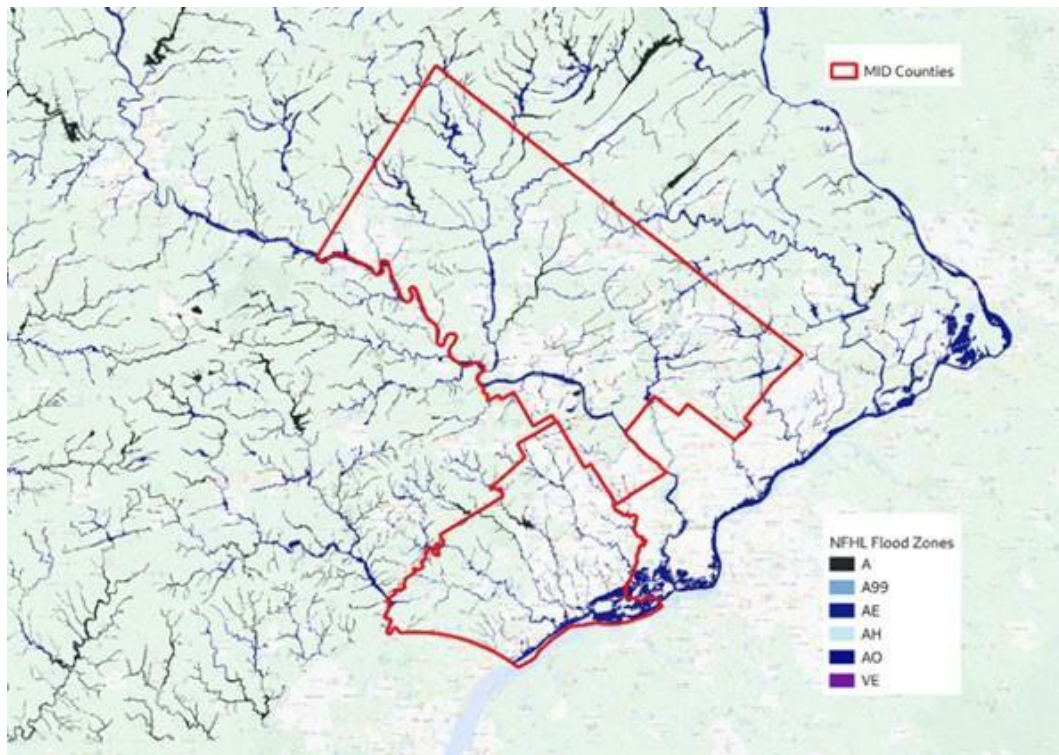


Figure 26: Flood Zones in HUD MID Counties

In Pennsylvania, 27 of 60 Presidential Disaster and Emergency Declarations since 1953 have been in response to flooding. The State Hazard Mitigation Plan identifies 164 State facilities,

2,004 critical facilities, and displacement of 110,336 households as vulnerable to future flood risk due to Flood, Flash Flood, and Ice Jam events. Vulnerable facilities were identified based on location within areas of relatively high risk. High risk areas were defined as those in the SFHA. Vulnerable populations and building value were estimated using FEMA Hazus v4.0. A Level II analysis was conducted to estimate the 1%-annual chance losses in each census block.

²⁴ Pennsylvania State Hazard Mitigation Plan, p. 220

Riverine (Inland) Flooding

Riverine floods are the most common flood type. They occur along a channel and include overbank and flash flooding. Channels are defined as ground features that carry water through and out of a watershed. They may be called rivers, creeks, streams, or ditches. When a channel receives too much water, the excess water flows over its banks and inundates low-lying areas.²⁵ Riverine, as opposed to coastal, flood mechanisms cause most flooding in the Commonwealth. However, portions of southeastern Pennsylvania along the Delaware River are subject to tidal or storm surge flooding as well.

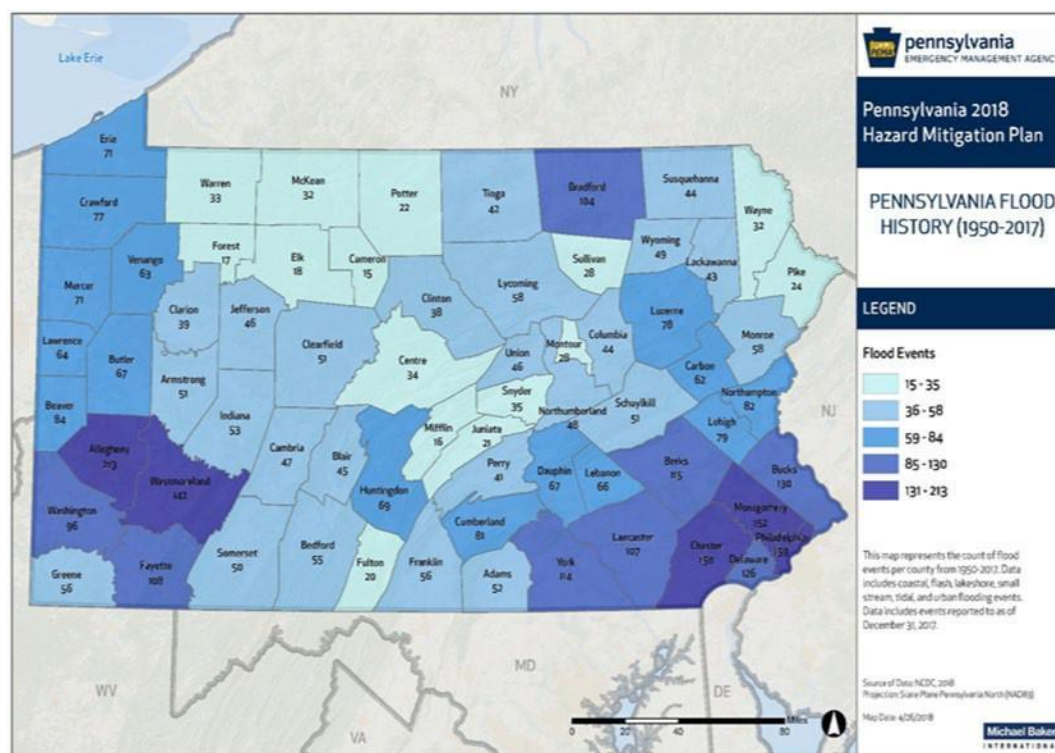


Figure 27: Pennsylvania Flood History (1950-2017)

Coastal and Storm Surge Flooding

Coastal flooding occurs along the coasts of oceans, bays, estuaries, coastal rivers, and large lakes. Coastal floods are the submersion of land areas along the ocean coast and other inland waters caused by seawater over and above normal tide action. Coastal flooding is a result of a storm surge where local sea levels rise, often resulting in weakened or destroyed coastal structures. Coastal structures can include sea walls, piers, bulkheads, bridges, or buildings.

²⁵ IllinoisFloods.org, Flooding and Flood Plain Management, <https://www.illinoisfloods.org/content/documents/desktop-reference/1%20Natural%20Aspects%20of%20Flooding.pdf>

Hurricanes and tropical storms, severe storms, and nor'easters cause most of the coastal flooding in Pennsylvania.

Pennsylvania has two coastal zones that are subject to potential coastal erosion hazards: the coastlines along Lake Erie and the Delaware River. There are 112 miles of coastline along the Delaware Estuary. The Delaware Estuary coastal zone lies within Bucks, Philadelphia, and Delaware Counties and contains islands, marshes and shore lands of tributary streams that are tidally influenced (PA DEP CRM, 2018).²⁶

While it is subject to coastal or wetland erosion, the high degree of urbanization along the southeastern Pennsylvania Delaware River shoreline has resulted in a significant amount of shoreline hardening with structures such as bulkheads, piers, and marginal wharves. Although detailed structure inventories have not been performed, these structures greatly reduce erosion hazards along most of the Delaware River shoreline. Coastal flooding has many of the same problems as identified for riverine flooding but also has additional problems such as beach erosion; loss or submergence of wetlands and other coastal ecosystems; saltwater intrusion; high water tables; loss of coastal recreation areas, beaches, protective sand dunes, parks, and open space; and loss of coastal structures.²⁷

Local/Urban Flooding

The National Oceanic and Atmospheric Administration (NOAA) defines urban flooding as the flooding of streets, underpasses, low-lying areas, or storm drains.²⁸

Urban drainage flooding is caused by increased water runoff due to urban development and drainage systems. Drainage systems are designed to remove surface water from developed areas as quickly as possible to prevent localized flooding on streets and other urban areas. Such systems make use of a closed conveyance system that channels water away from an urban area to surrounding streams, bypassing the natural processes of water filtration through the ground, containment, and evaporation of excess water. Since drainage systems reduce the amount of time the surface water takes to reach surrounding streams, flooding in those streams can occur more quickly and reach greater depths than before development in that area.

In Pennsylvania, flooding occurs commonly and can take place during any season of the year. Every two to three years, serious flooding occurs along one or more of Pennsylvania's major rivers or streams and it is not unusual for such events to happen several years in succession.

S.

Hurricane, Tropical Storm, Nor'easter

Pennsylvania does not have any open-ocean coastline. However, the impacts of coastal storm systems such as hurricanes, tropical storms, and nor'easters can extend well inland. Historical data show that several tropical storms and hurricanes have impacted Pennsylvania. In some cases, the center of circulation for these storm systems where wind and precipitation effects are often most intense can track inland and move directly through Pennsylvania.³⁶ Figure 28 depicts historical hurricane tracks impacting the MID counties.

³⁵ [York County Hazard Mitigation Plan, p.69](#)

³⁶ [Pennsylvania State Hazard Mitigation Plan, p. 254](#)

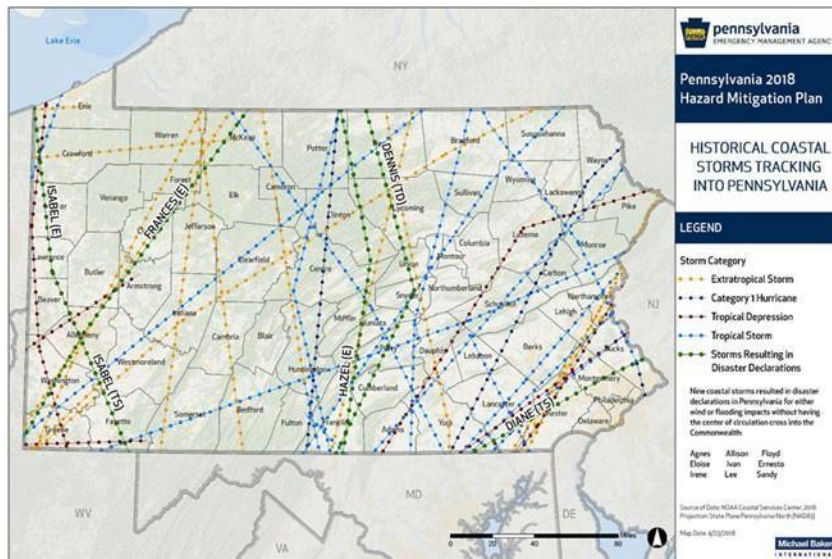


Figure 28: Historical Coastal Storms Tracking into Pennsylvania

Among the myriad threats posed by a tropical cyclone, including high winds, heavy rain, and tornadoes, storm surge is perhaps the most dangerous, causing 49 percent of deaths in the United States directly attributable to Atlantic tropical cyclones.³⁷

While not always as deadly as storm surges, tropical storm-force winds pose a threat to all counties, not only coastal areas. Depending on the population density of the impacted area, injury and death can result from wind-borne debris, structural collapse, falling limbs, and downed power lines, and can force local officials to close bridges that serve as vital evacuation routes for coastal communities.

In addition to storm surges and high winds, tropical cyclones can produce heavy rains that can result in damaging and life-threatening flooding. And while storm surges pose the greatest threat to coastal communities from tropical cyclones, heavy rains are especially dangerous for those who live inland, where swollen rivers and streams can cause flash flooding for several days after a tropical cyclone. While the Saffir-Simpson Scale measures a storm's severity based on surface wind speeds, oftentimes weaker, slower-moving systems can cause heavier rains and more severe flooding.

Extreme Temperatures

Extreme temperature includes both heat and cold events, which can have a significant impact on human health, commercial/agricultural businesses, and primary and secondary effects on infrastructure (e.g., burst pipes, power failures).

Extreme cold events are when temperatures drop well below normal in an area. Exposure to cold temperatures, whether indoors or outside, can lead to serious or life-threatening health

³⁷ American Meteorological Society, *Fatalities in the United States Indirectly Associated with Atlantic Tropical Cyclones*, <https://journals.ametsoc.org/view/journals/bams/97/7/bams-d-15-00042.1.xml>

problems such as hypothermia; cold stress; frostbite; or freezing of exposed extremities such as fingers, toes, nose, and ear lobes.

Conditions of extreme heat are defined as summertime temperatures that are substantially hotter and/or more humid than average for a location at that time of year. The heat index is a number in degrees Fahrenheit that indicates how hot it feels when relative humidity is factored into actual air temperature. Exposure to full sunshine can increase the heat index by at least 15 degrees. Figure 29 shows the heat index values when both humidity and temperature are considered. It also shows the likelihood of heat disorders with prolonged exposure to or strenuous activity in such conditions.

Excessive summer temperatures in Pennsylvania are often identified through counts of days with maximum temperatures greater than or equal to 90°F and greater than or equal to 100°F.

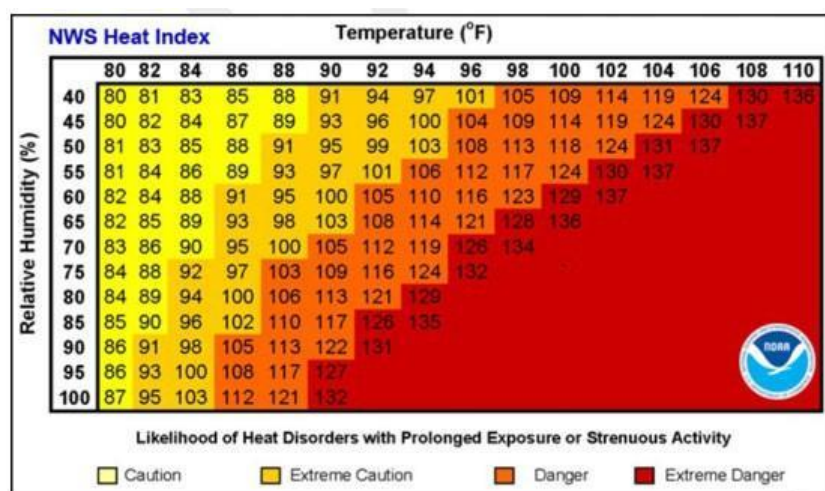


Figure 29: National Weather Service Heat Index

Certain demographic groups are particularly vulnerable to adverse health impacts from extreme heat events.³⁸ Very young children, seniors, and populations with physical and psychiatric medical conditions are more vulnerable to health impacts from heat events than the general population. In addition, persons of color and low-income residents are at greater risk from adverse extreme heat health impacts.

Urban areas are also particularly at risk because of air stagnation and large quantities of heat-absorbing materials such as streets and buildings. Extreme heat also can result in distortion and the failure of structures and surfaces such as roadways and railroad tracks.

³⁸ Ibid.

Data from the National Climatic Data Center reports that there have been 85 extreme temperature episodes in Pennsylvania between 2000 and 2017, resulting in a total of 94 deaths and 103 injuries. 50 of these events have been a result of extreme cold/wind chill, resulting in 4 deaths. The database reports one event in January 2000 and one in February 2007 which resulted in 2 deaths each. There have been 35 extreme heat episodes, resulting in 90 deaths and 103 injuries across the state.

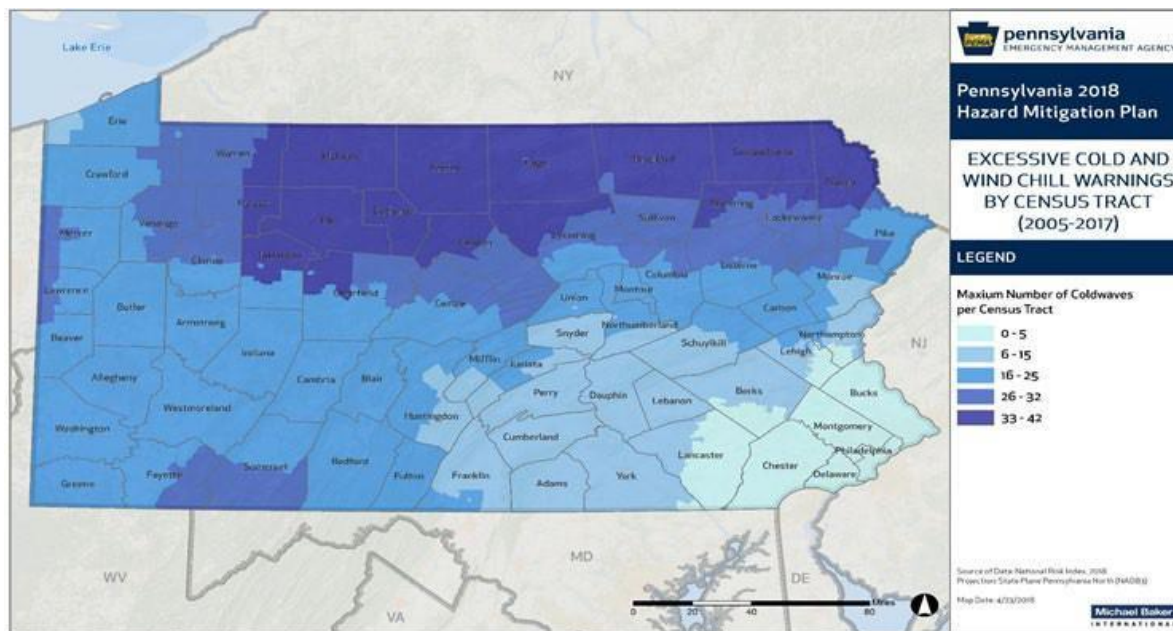


Figure 30: Predicted Temperature Change in Pennsylvania Under Different Emissions Scenarios

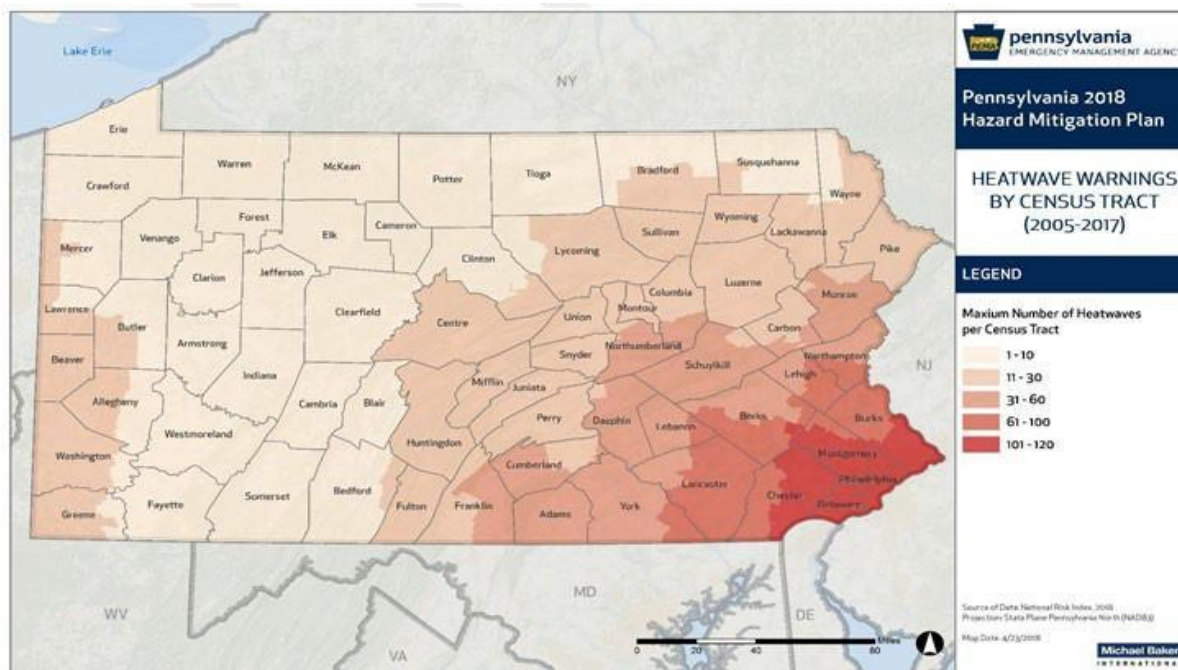


Figure 31: Heatwave Warnings by Census Tract (2005-2017)

Winter Storm

Winter storms usually occur when cold arctic air from Canada meets warmer, moist air from the Gulf of Mexico, producing heavy snow and sometimes blizzard conditions. Severe winter storms can be characterized by heavy snow and/or blowing snow, freezing rain, sleet, and extreme cold. Winter storms usually occur between October and April and can cause considerable damage, with heavy snow immobilizing transportation systems, downing trees and power lines, collapsing buildings, and resulting in crop and livestock losses.

Six of the 59 Presidential Disaster and Emergency Declarations issued in Pennsylvania have been in response to winter storm events.³⁹ Pennsylvania experienced several significant snowstorms in the winter of 2009-2010 which resulted in record season-total snowfalls in many areas and crippled many areas of Pennsylvania for several days. As an example, two of the top snowfall events were recorded in Philadelphia, including a snowfall of 23.2" on December 19- 20, 2009 and a snowfall of 28.5" on February 5-6, 2010.⁴⁰

Tornadoes

A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. Tornadoes are most often generated by thunderstorm activity but sometimes result from hurricanes and other tropical storms. Tornadoes occur when cool, dry air intersects and overrides a layer of warm, moist air, forcing the warm air to rise rapidly. Tornado wind speeds normally range from 65 mph to more than 200 mph but can reach more than 300 mph. Since 2012, Pennsylvania has experienced over 200 tornadoes.⁴¹

EF Number	Estimated 3-Second Gust (mph)	Typical Damage
0 (Gale)	65–85	Some damage to chimneys; branches broken off trees; shallow-rooted trees blown over; damaged signboards.
1 (Weak)	86–110	Surfaces peeled off roofs; mobile homes pushed off foundations or overturned; autos pushed off roads.
EF Number	Estimated 3-Second Gust (mph)	Typical Damage
2 (Strong)	111–135	Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated.

³⁹ Pennsylvania State Hazard Mitigation Plan, p.364

⁴⁰ Pennsylvania State Hazard Mitigation Plan, p.373

3 (Severe)	136–165	Roof and some walls torn off well-constructed houses; trains overturned; most trees in forests uprooted. Well-constructed houses leveled; structures with weak foundations blown off, sometimes to a distance; cars flung about and large missiles generated.
4 (Devastating)	166–200	Well-constructed houses leveled; structures with weak foundations blown off some distance; cars flung about and large missiles generated.
5 (Incredible)	200+	Strong frame houses lifted off foundations and carried considerable distances to disintegrate; automobile- sized missiles flying more than 100 meters; trees debarked; steel-reinforced concrete structures badly damaged.

Table 29: Enhanced Fujita Scale

FEMA Community Lifelines and Social Vulnerability

A Community Lifeline enables the continuous operation of critical government and business functions and is essential to health and safety or economic security. Critical facilities are defined as those structures from which essential services and functions for victim survival, continuation of public safety actions, and disaster recovery are performed or provided. The State and County Mitigation goals include ensuring resiliency for people, property, and other government assets to lessen impacts of disasters. A full list of State-identified critical facilities for all six MID counties can be found in the following table.

Agricultural	1	12	5	4	12	8
Banking	0	0	0	0	0	0
Commercial	0	1	3	0	4	0

⁴¹ NOAA, NCEI, <https://www.ncdc.noaa.gov/stormevents/>

⁴² Pennsylvania State Hazard Mitigation Plan, Appendix E

Communication	7	8	5	10	11	17
Dam	28	138	177	52	163	68
Education (College and Univ)	0	3	5	9	17	2
Education (Public School)	20	134	108	112	167	111
Emergency Operations Center	1	2	1	1	1	1
Energy	0	0	2	3	3	0
Fire Station	14	80	50	72	110	67
Government	0	0	0	0	0	0
Hospital	1	12	11	9	20	7
National Monument or Icon	0	0	0	0	1	0
Nuclear	0	0	0	0	1	1
Police Station	6	45	45	41	52	23
Transportation	0	0	0	1	2	0
Water	29	63	46	33	80	43
Total	107	498	458	347	644	348

Table 30: Critical Facilities in HUD and State MID Counties: Bedford, Bucks, Chester, Delaware, Montgomery, and York Counties⁴²

In Bedford County, PEMA identified 107 critical facilities, including 20 schools and 1 Emergency Operations Center(EOC). In Bucks County, PEMA identified 498 critical facilities, including 12 hospital locations, 80 fire stations, and 2 EOCs. PEMA identified 458 critical facilities in Chester County. Delaware County had 347 facilities identified, Montgomery County had 644 identified, and York County had 348 identified. Each of the respective counties Hazard Mitigation Plans conducted an analysis of critical structures in the area that would prove vital for communities before, during, and after disaster events.

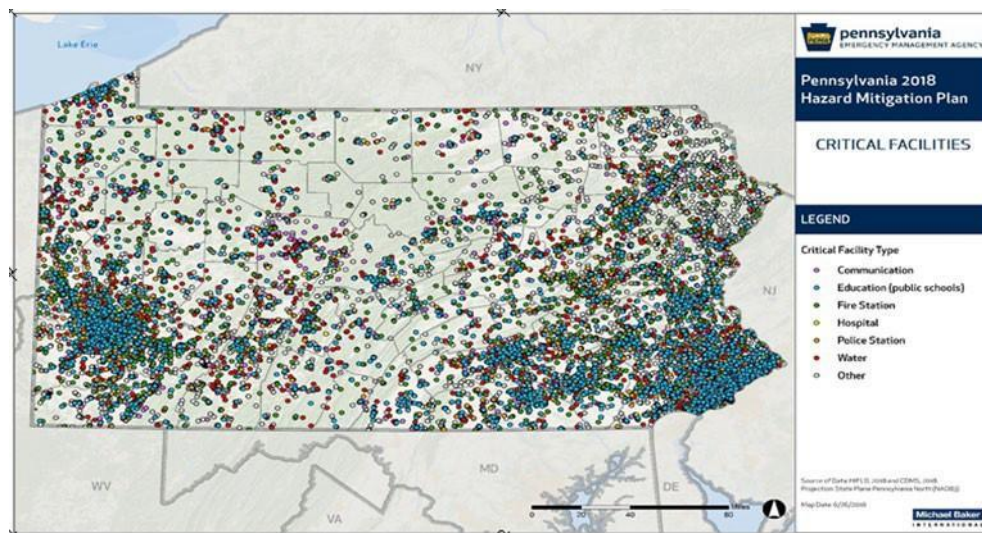


Figure 32: Critical Facilities in Pennsylvania⁴³

Conclusion

As this mitigation needs assessment makes clear, there are at least five natural hazards that pose a considerable risk to all six counties that have been identified as most impacted and distressed. By characterizing these hazards and existing vulnerabilities, DCED and its subrecipients can draw on this needs assessment to identify current and future hazards in their communities and target CDBG-DR funds toward cost-effective solutions to mitigate them over the long term. Ultimately, in accordance with each county's comprehensive and mitigation plans, promoting mitigation measures into infrastructure and housing activities will ensure the best use of mitigation dollars.

As illustrated in some of the state and local Comprehensive and Hazard Mitigation Plans, activities that would be eligible are projects that incorporate the following:

- Stormwater and/or Floodplain Management
- Green Infrastructure

Examples of mitigation projects that the impacted counties in Pennsylvania have implemented or are looking to implement include:

- Regional stream and wetland restoration projects that provide additional benefits and reductions
- Implementation of urban/suburban sector control for nutrient and sediment reductions
- Implementation of stormwater performance standards - runoff
- Implementation of stormwater control measures that incorporate Low Impact Development approaches

⁴³ [Pennsylvania State Hazard Mitigation Plan, p. 63](#)

Projects involving infrastructure mitigation techniques include activities such as improvements to curbs, sidewalks, streets, water mains, storm water facilities, community centers, group homes, and playgrounds. These types of projects focus on not only mitigating the existing infrastructure, but also assisting in enhancing community development and growth areas.³⁸

Many counties and municipalities will look to support infrastructure through mitigation within their municipalities by enhancing and providing high quality park facilities and open space that serve a multitude of purposes. This not only serves to mitigate from future damage but also improves the safety and livability of neighborhoods. Additionally, enhancement of historic structures and sites aids in addressing architectural and aesthetic mitigation.

While these examples are not exhaustive, the state hopes that future applicants and subrecipients will look to integrate these measures and submit these types of projects into their recovery efforts.

In addition, this assessment will inform all CDBG-DR programs and activities undertaken as part of this allocation such that, at a minimum, they do not exacerbate hazards but rather serve to lessen their impacts.

General Requirements

Citizen Participation

Outreach and Engagement

In the development of this disaster recovery action plan, DCED consulted with disaster-affected citizens, stakeholders, local governments, public housing authorities, and other affected parties in the surrounding geographic area to ensure consistency of disaster impacts identified in the plan, and that the plan and planning process was comprehensive and inclusive. DCED identified over 250 points of contact including: government officials, stakeholders, community and volunteer organizations, advocacy groups, media outlets, and houses of worship. This was done through the combined use of online research, direct phone calls, emails, and information shared by the state. While multiple department directors were contacted during outreach, each of the six counties had a designated POC that was contacted directly. Stakeholders and key organizations both governmental and nongovernmental that participated in the outreach effort are listed below:

- Pennsylvania Emergency Management Agency
- Delaware County Emergency Management Agency
- Montgomery County Emergency Management Agency
- Department of Human Services
- Department of Housing and Community Development

- Emergency Services Division
- Department of Workforce and Economic Development
- Department of Veterans Affairs
- Area Agency on Aging
- Housing Authorities
- Department of Public Safety
- Division of Emergency Management
- Recovery Offices
- Department of Commerce
- Department of Health and Human Services
- Veterans Affairs
- Department of Integrated Services
- Office of Housing and Community Development
- Montgomery County Housing Authority
- Women's' Commission

DCED recognizes that affected stakeholders are the center of, and partners in, the development and implementation of this plan. Opportunities for citizen input were provided throughout the planning process by way of public meetings and the dissemination of one all-encompassing survey and a public comment form via the state's website as well as some social media platforms. A total of 26 public meetings were held, 24 virtual and two in-person (also available virtually) in the MID counties. The two in-person meetings were held in Montgomery and Delaware Counties on October 12th and 13th, 2022, respectively.

In addition to the activities above, DCED published this Action Plan in English and Spanish versions to the website at <https://dced.pa.gov/housing-and-development/community-services/disaster-recovery/hurricane-ida-disaster-recovery-in-pa/> on November 12, 2022, with a sixty (60) day public comment period that ended on January 9, 2023. Comments regarding the proposed Action Plan could be mailed to:

Pennsylvania Department of Community and Economic Development
Commonwealth Keystone Building
400 North Street, 4th Floor
Harrisburg, PA 17120-0225

Comments could also be submitted online via the Public Comment Form linked in this document or emailed to DCED at ra-dccdbg-dr@pa.gov. For those who otherwise could not obtain a copy of the Action Plan, DCED made copies printed available upon request at the address above.

Citizens were notified through Public Service Announcements via email, local media outlets and at the public meetings. Information was distributed detailing the public meetings' schedule (both virtual and in-person), funding and allocation processes, the need for community participation, and survey links to all contacts numerous times during the outreach period. The public affairs departments of each of the six counties also received supplemental outreach

material to facilitate further local distribution utilizing their established social media platforms and county websites at their discretion. DCED has ensured that all citizens have equal access to information, including persons with disabilities (vision and hearing impaired) and limited English proficiency (LEP). In particular, DCED ensured that citizens representing the Spanish and Asian- speaking populations were notified of the postings appropriately.

A summary of citizen comments on this action plan, along with DCED responses, is in Appendix C of this document. For more information, citizens can refer to DCED's citizen participation plan that can be found at <https://dced.pa.gov/housing-and-development/consolidated-plan-annual-plans-reports/>.

Public Hearings

Per the requirements of HUD's Notices governing these funds, at least one public hearing was required during the 60-day comment period. The process below was followed for the public hearings regarding use of the CDBG-DR funds and would be the same for hearings on any substantial amendment. All public hearings have been held at a time and accessible location convenient to potential and actual beneficiaries, and with accommodations for persons with disabilities or limited English proficiency. The virtual hearings allowed for questions in real time.

Both in-person and virtual hosted hearings were promoted for at least 10 business days prior to the hearing. The virtual hearings were held on November 15, 2022, November 17, 2022, and November 29, 2022. The two in-person hearings were held on December 14, 2022, and January 12th, 2023. All hearings were held to present the Action Plan to the community for public examination and accountability. All public comments that were made in real time during these public hearings have been transcribed and provided in Appendix C of this Action Plan.

Procedures for the virtual hearings were described to ensure effective communication as required by 24 CFR 8.6 and provided meaningful access for individuals with limited English proficiency. Notices of these hearings were published utilizing local media outlets and DCED's website. All comments from attendees at such hearings have been considered by DCED and revisions to the Action Plan made as necessary.

Complaints

Complaints alleging violation of fair housing laws will be directed to HUD for immediate review. Complaints regarding fraud, waste, or abuse of funds will be forwarded to the HUD OIG Fraud Hotline (phone: 1-800-347-3735 or email: hotline@hudoig.gov). DCED will make available to HUD detailed Fraud, Waste, and Abuse Policies and Procedures on www.dced.pa.gov to demonstrate adequate procedures are in place to prevent fraud, waste, and abuse.

Formal complaints are written statements of grievance, including handwritten complaints, and emails addressed to DCED staff. DCED shall detail the process and contact information for submitting complaints within program guidelines, application documents, and on the DCED website. DCED shall maintain a tracker for collecting and categorizing complaints through resolution. Responses will be provided within 15 working days of the receipt of the complaint. DCED will include a written appeals process within each set of program guidelines. The appeals processes will include, but are not limited to, the following:

- The process for submitting, tracking, and resolving a written appeal to the organization administering the program (or its subrecipient), to include whether an appeals committee will be established to review and/or rule on appeals.
- The documentation required when submitting an appeal.
- The timelines for reviewing and providing a response to the appeal.
- Clarification of what may or may not be appealed. Generally, policies that have been approved and adopted within program guidelines may not be appealed. DCED and its subrecipients do not have the authority to grant an appeal to a regulatory or statutory or HUD-specified CDBG-DR requirement. Documentation must be maintained at the local level to support compliance with these requirements.

The Commonwealth will accept written citizen complaints related to CDBG-DR funded programs, the Action Plan, substantial amendments, or quarterly performance reports. Written complaints should be submitted via email to: ra-dccdbg-dr@pa.gov or be mailed to:

Pennsylvania Department of Community and Economic Development
Commonwealth Keystone Building
400 North Street, 4th Floor
Harrisburg, PA 17120-0225

Verbal complaints are informal complaints. DCED and its subrecipients will attempt to resolve informal complaints; however, they are not subject to the written response process described above.

Public Website

DCED will maintain a public website that provides information accounting for how all grant funds are used, managed, and administered, including links to all disaster recovery action plans,

action plan amendments, program policies and procedures, performance reports, citizen participation requirements, and activity and program information described in this plan, and details of all contracts and ongoing procurement processes.

These items are made available through dced.pa.gov. Specifically, DCED will make the following items available: the Action Plan created using DRGR (including all amendments); each QPR (as created using the DRGR system); citizen participation plan; procurement policies and procedures; all executed contracts that will be paid with CDBG- DR funds as defined in 2 CFR 200.22 (including subrecipients' contracts); and a summary including the description and status of services or goods currently being procured by the grantee or the subrecipient (e.g., phase of the procurement, requirements for proposals, etc.). Contracts and procurement actions that do not exceed the micro-purchase threshold, as defined in 2 CFR 200.67, are not required to be posted to a grantee's website.

In addition, DCED will maintain a comprehensive website regarding all disaster recovery activities assisted with these funds. The website will be updated in a timely manner to reflect the most up-to-date information about the use of funds and any changes in policies and procedures, as necessary. At a minimum, updates will be made monthly.

The Commonwealth of Pennsylvania adheres to Americans with Disabilities Act (ADA) compliant standards for website accessibility and readability in accordance with 42 U.S.C. 12101 et seq. and 24 C.F.R. 8.6. Content and website layout will be designed with best practices for adaptive use in mind. DCED supports accommodations for citizens with limited English proficiency and will publish program documents in languages based on the need of non-English speaking communities, including members of protected classes, vulnerable populations, and individuals from underserved communities as described in HUD's Federal Register Notice.

DCED's Comprehensive Website Policy may be found in their Policies and Procedures Manual. This policy will also be available on DCED's website at <https://dced.pa.gov>.

Every amendment, substantial or not, shall be numbered sequentially and posted on PA DCED's Disaster Recovery Website, not replacing, but in addition to all previous versions of the Action Plan.

Amendments

Over time, recovery needs will change. Thus, DCED will amend the Disaster Recovery Action Plan as often as necessary to best address our long-term recovery needs and goals. This plan describes proposed programs and activities. As programs and activities develop, an amendment may not be triggered if the program or activity is consistent with the descriptions provided in this plan.

Substantial Amendment

A change to this action plan is a substantial amendment if it meets the following criteria:

- A change in program benefit or eligibility criteria,
- The addition or deletion of an activity, or
- The allocation or reallocation of \$2,000,000

When DCED pursues the substantial amendment process, the amendment will be posted here at <https://dced.pa.gov/housing-and-development/community-services/disaster-recovery/hurricane-ida-disaster-recovery-in-pa/> for a 30-day public comment period. The amendment will be posted in adherence with ADA and LEP requirements. DCED will review and respond to all public comments received and submit to HUD for approval.

DCED will engage citizens through the program lifecycle to maximize the opportunity for input on proposed program changes that result in a Substantial Amendment.

Non-Substantial Amendment

A non-substantial amendment is an amendment to the plan that includes technical corrections and clarifications and budget changes that do not meet the monetary threshold for substantial amendments to the plan and does not require posting for public comment. DCED will notify HUD five (5) business days before the change is effective. All amendments will be numbered sequentially and posted to the website into one final, consolidated plan.

Displacement of Persons and Other Entities

To minimize the displacement of persons and other entities that may be affected by the activities outlined in this Action Plan, DCED and subrecipients will coordinate with applicable agencies and entities as specified by subgrantees to minimize displacement. Should any proposed projects or activities cause the displacement of people, the following policy has been adopted to ensure the requirements of Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (URA), as amended are met.

These regulations and requirements apply to both property owners and tenants if proposed projects cause the displacement of persons or other entities. DCED will permit subrecipients to establish separate relocation policies as needed. Currently, it is not anticipated that proposed programs will cause displacement.

DCED will draw on existing Residential Anti-displacement and Relocation Assistance Plans (RARAPs) and will adapt them to meet URA Section 104(d) and related waivers, and the alternative requirements specified in the Consolidated Notices. The adapted RARAP also will be updated prior to implementing any activity with CDBG-DR funds. CDBG-DR funds may not be used to support any federal, state, or local projects that seek to use the power of eminent domain, unless eminent domain is employed for eligible public use. The proposed programs

in this Action Plan will look to address displacement due to the disaster by providing new housing opportunities.

Protection of People and Property

The Commonwealth of Pennsylvania will leverage CDBG-DR funds to build disaster resilience into all recovery programs and activities, such that people and property are better protected from harm in the future. The Action Plan, as written, intends to promote mitigation, rehabilitation, further reconstruction of affordable housing; and fund an Infrastructure Program and Buyout programs to implement green infrastructure. Future property damage will be minimized by requiring that any rebuilding be done according to the best available science for that area with respect to base flood elevations.

Elevation Standards

Although DCED does not include the elevation of structures as an activity to be funded utilizing CDBG-DR funds, if such activities are implemented the following will apply:

- For new construction, repair of substantially damaged, or substantial improvement structures principally for residential use and located in the one percent annual (or 100- year) floodplain must be elevated with the lowest flood, including the basement, at least two feet above the one percent annual floodplain elevation.
 - Mixed-use structures with no dwelling units and no residents must be elevated or floodproofed up to at least two feet above base flood elevation.
 - If a structure is in a 500-year floodplain, the structure must be elevated three feet above the 100-year floodplain.

Where other Commonwealth agencies, including the Department of Environmental Protection, impose more stringent elevation requirements (e.g., 3 feet of freeboard), DCED will adhere to the higher standard.

Flood Insurance Requirements

Assisted property owners must comply with all flood insurance requirements. HUD-assisted homeowners for a property located in a Special Flood Hazard Area must obtain and maintain flood insurance in the amount and duration prescribed by FEMA's National Flood Insurance Program (NFIP). DCED will not provide disaster assistance for the repair, replacement or restoration of a property to a person who has received Federal flood disaster assistance that was conditioned on obtaining flood insurance and then that person failed to obtain or allowed

their flood insurance to lapse for the property. DCED is prohibited by HUD from providing CDBG-DR assistance for the rehabilitation or reconstruction of a house if:

- The combined household income is greater than 120 percent AMI or the national median,
- The property was in an identified floodplain at the time of the disaster, and
- The property owner did not maintain flood insurance on the damaged property.

To ensure adequate recovery resources are available to LMI homeowners who reside in a floodplain but who are unlikely to be able to afford flood insurance may receive CDBG-DR assistance if:

- The homeowner had flood insurance at the time of the qualifying disaster and still has unmet recovery needs, or
- The household earns less than 120 percent AMI of the average median and has unmet recovery needs.

Construction Standards

DCED will require quality inspections and code compliance inspections on all projects, and places an emphasis on high-quality, durable, sustainable, and energy efficient construction methods and materials. Site inspections will be required on all projects to ensure quality and compliance with building codes.

All rehabilitation, reconstruction, or new construction must meet an industry-recognized standard that has achieved certification under at least one of the following programs:

- Energy STAR (Certified Homes or Multifamily High Risk)
- Enterprise Green Communities
 - LEED (New Construction, Homes, Midrise, Existing Building Operations and Maintenance or Neighborhood Development)
- ICC- 700 National Green Building Standards
- EPA Indoor AirPlus
- HUD Green Building Retrofit Checklist
 - Any other equivalent comprehensive green building standard program acceptable to HUD

DCED will use [DCED's Housing Rehabilitation Guidebook](#), adopted June 2022, for the proposed programs or activities. For rehabilitation of non-substantially damaged residential buildings, DCED will follow the guidelines to the extent applicable as specified in the HUD CPD Green Building Retrofit Checklist. When older or obsolete products are replaced as part of rehabilitation work, the rehabilitation is required to use ENERGY STAR-labeled, WaterSense-labeled, or Federal Energy Management Program (FEMP)-designed products and appliances.

For infrastructure projects, DCED will encourage, to the extent practicable, implementation of HUD Green Building standards.

Contractor Standards

Contractors selected under DCED must make every effort to provide opportunities to low and very low-income persons by providing resources and information to notify Section 3 individuals and businesses of opportunities in the community. DCED will report Section 3 accomplishments in the Disaster Recovery Grant Reporting (DRGR) system.

DCED will ensure that Section 3 requirements are outlined in all applicable contracts and subrecipient agreements and build the capacity of stakeholders, including subrecipients and contractors, to meet Section 3 standards through technical assistance, tools, and guidance.

As required in 2 CFR 200.321, DCED will take all necessary steps to ensure that minority owned businesses and women-owned business enterprises are used when possible. Those steps include the following:

- Placing qualified small and minority-owned businesses and women-owned business enterprises on solicitation lists.
- Ensuring that small and minority-owned businesses and women-owned business enterprises are solicited whenever they are potential sources.
- Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority-owned businesses and women-owned business enterprises.
- Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce.
- Requiring that the prime contractor, if subcontracts are to be let, take the affirmative steps listed above.
- All contractors must have a Pennsylvania business license. Construction contractors will be required to carry the required licenses and insurance coverage(s) for all work performed, and contractors will be required to provide a warranty period for all work performed.

Contractor standards, warranty periods, and warranty notification periods will be detailed in the respective policies and procedures documents and will pertain to the scale and type of work being performed, including the controls for ensuring that construction costs are reasonable and consistent with market costs at the time and place of construction.

While DCED does intend to abide by any contractor standards required by HUD, at this time the state does not intend to contract directly for the implementation of programs put forth by this Action Plan. At this time, the funds will be provided to the units of local government to undertake projects and utilize contractors as needed.

The processes for homeowners to submit appeals for rehabilitation work, as well as complaints such as contractor fraud, poor quality work, and associated issues, will be detailed within each respective set of program guidelines, expanding upon or following DCED's Housing Rehabilitation Guidebook.

Preparedness, Mitigation and Resiliency

Resilience is defined as a community's ability to minimize damage and recover quickly from extreme events and changing conditions, including natural hazard risks. As resilience relates to both built and social conditions, DCED's approach to resilience includes construction measures and policies and procedures that increase social equity. The overall strategy includes protecting people and property from harm; emphasizing high quality, durability, energy efficiency and sustainability in construction; enforcing resilient building codes; ensuring cost-reasonableness and conducting effective long-term recovery planning.

Protecting People and Property from Harm

The primary focus of the housing recovery program is to provide relief for those affected by disasters while complying with all CDBG-DR requirements and addressing recognized impediments to fair housing choice as required under the Fair Housing Act. Assistance may be provided to eligible applicants under a variety of housing option activities, including acquisition, rehabilitation, reconstruction, demolition, hazard mitigation, reimbursement, and storm hardening of homeowner and rental housing units, as allowable. All housing activities should consider the following objectives:

- Provide high-quality, durable, resilient, mold-resistant, energy-efficient, decent, safe, and sanitary housing that meets Green Building Standards and mitigates the impact from future disasters.
- Resilient measures may include breakaway ground floor walls, reinforced roofs, storm shutters, and so forth.
- Rental units also will follow safe, decent, and sanitary requirements in the impacted areas identified in the HUD-approved Action Plan.
- Prioritize households while affirmatively furthering fair housing for the following:
 - Families with children under age 18
 - Elderly households
 - Disabled households
 - Veteran populations
- Emphasize housing choices and designs to reduce maintenance and insurance costs, as well as provide independent living options.
- Make improvements to reduce the possibility of property damage, personal and commercial hardship, and long-lasting monetary burdens.

Emphasizing High Quality, Durability, Energy Efficiency, and Sustainability

For rehabilitation construction, to promote water and energy conservation and indoor air quality, the Commonwealth will follow the HUD CPD Green Building Retrofit Checklist to the extent applicable to the rehabilitation work undertaken, including the use of mold-resistant products when replacing surfaces such as drywall. When older or obsolete products are replaced as part of the rehabilitation work, rehabilitation is required to use ENERGY STAR-

labeled, Water Sense-labeled, or Federal Energy Management Program-designated products and appliances, or an equivalent.

Enforcing Resilient Building Codes

DCED will require both quality inspections and code compliance inspections on all projects per the Housing Rehabilitation Guidebook, June 2022. Site inspections will be required on all projects to ensure quality and compliance with building codes. DCED will encourage and support subrecipients' efforts to update and strengthen local compliance codes to mitigate hazard risks due to high winds, tornados, and flooding, where applicable. In the project application, subrecipients will submit an explanation of both current and future planned codes to mitigate hazard risks.

Ensuring Cost-Reasonableness

DCED will require that grantees demonstrate that projects address a problem that has been repetitive or a problem that poses a significant risk to public health and safety if left unsolved; cost less than the anticipated value of the reduction in both direct damages and subsequent negative impacts to the area if future disasters were to occur; have been determined to be the most practical, effective and environmentally sound alternative after consideration of a range of options; contribute, to the extent practicable, to a long-term solution to the problem it is intended to address; and/or consider long-term changes to the areas and entities it protects and have manageable future maintenance and modifications requirements.

Conducting Effective Long-term Recovery Planning

Sound, sustainable recovery planning, including land use decisions, building resilience and increased awareness of future natural hazards and climate-related risks will be generated by subgrantees to address specific goals in their long-term development plans and FEMA-approved hazard mitigation plans. DCED expects that coordination of CDBG-DR projects with goals for long-term mitigation and housing development at the local, State, and regional levels will draw upon planning efforts described in the Hazard Mitigation Plans and Consolidated Plans from all counties and the State, as well as other resources. These plans are linked below. Together they are a solid basis for a recovery that meets unmet needs for low- to moderate-income communities, promotes equality, enhances mitigation options and includes cross-cutting strategies for holistic social, environmental and economic resilience.

Bedford County

Alleghenies Ahead: Comprehensive Plan for the Southern Alleghenies Region

https://cms7files.revize.com/bedfordcountypa/document_center/Planning/RegionalCountyLocalPlans/County%20Plans/County%20Comp%20Plan/Adopted/Alleghenies%20Ahead%20Executive%20Summary.pdf

Bedford County Hazard Mitigation Plan 2017 Update

https://cms7files.revize.com/bedfordcountypa/document_center/Planning/2017%20Hazard%20Mitigation%20Plan/00%20Cover%20Oct%202017.pdf

Bucks County

Bucks County, Pennsylvania 2020-2024 Consolidated Plan and 2020 Action Plan

<https://www.buckscounty.gov/DocumentCenter/View/2092/2020-to-2024-Consolidated-Plan-PDF>

Bucks County Hazard Mitigation Plan Update 2021

<https://www.buckscounty.gov/DocumentCenter/View/5328/1-Bucks-County-2021-HMP-Final-Master>

Bucks County Planning Commission Annual Report 2021

<https://www.buckscounty.gov/DocumentCenter/View/7418/2021-Annual-Report?bidId=>

Chester County

Chester County Hazard Mitigation Plan July 2021

<https://www.chesco.org/DocumentCenter/View/63888/Chester-County-HMP-July21>

Chester County, Pennsylvania Consolidated Plan (2018-2022):

<https://www.chesco.org/DocumentCenter/View/45342/Con-Plan-2018-2022-w-2018-Action-Plan>

Landscapes3: Chester County Comprehensive Plan November 2018:

<https://www.chescoplanning.org/Landscapes3/PDF/ExecutiveSummary.pdf>

Delaware County

Delaware County 2035: Comprehensive Plan for Delaware County, PA October 2020

<https://www.delcopa.gov/planning/delawarecounty2035.html>

Hazard Mitigation Plan, Delaware County, Pennsylvania 2022 (DRAFT)

<https://www.delcopahmp.com/wp-content/uploads/2022/08/Delaware-County-HMP-Cover-082322.pdf>

Montgomery County

Montco 2040: A Shared Vision The Comprehensive Plan for Montgomery County Revised 2021

https://www.montcopa.org/DocumentCenter/View/7719/Adopted-Montco-2040-Shared-Vision_07_15_2021?bidId=

Montgomery County Hazard Mitigation Plan 2017

<https://www.montcopa.org/DocumentCenter/View/33404/2017-Hazard-Mitigation-Plan>

York County

York County Hazard Mitigation Plan 2018

<https://www.ycpc.org/DocumentCenter/View/290/Hazard-Mitigation-Plan-PDF>

Housing Authority of the City of York Public Housing Authority 5-Year Plan 2021
<https://yorkhousingauthority.com/wp-content/uploads/2021/06/2021-Agency-Plan-Draft.pdf>

York County Housing and Community Development Plan Amended 2020
<https://www.ycpc.org/DocumentCenter/View/295/Housing-and-Community-Development-Plan-PDF?bidId=>

State of Pennsylvania

Commonwealth of Pennsylvania 2018 State Hazard Mitigation Plan Annual Update: 2019
<https://www.pema.pa.gov/Mitigation/Planning/State-Hazard-Mitigation-Plan/2018/Documents/Pennsylvania-2018-State-Hazard-Mitigation-Plan.pdf>

Pennsylvania Department of Community and Economic Development, 2019-2023 Consolidated Plan and 2019 Annual Action Plan with Amendment VII March 2022
<https://dced.pa.gov/download/final-2019-2023-consolidated-plan-2019-annual-action-plan/?wpdmdl=113684>

Pennsylvania Climate Action Plan 2021
<https://www.dep.pa.gov/Citizens/climate/Pages/PA-Climate-Action-Plan.aspx>

NOAA National Centers for Environmental Information National Climate Assessment, State Climate Summaries 2022: Pennsylvania
<https://statesummaries.ncics.org/chapter/pa/>

Broadband Infrastructure in Housing

Any substantial rehabilitation or new construction of a building with more than four (4) rental units will include installation of broadband infrastructure, except when:

- The location of the new construction or substantial rehabilitation makes the broadband infrastructure infeasible,
- The cost of installing broadband infrastructure would result in a fundamental alteration in the nature of its program or activity or in an undue financial burden, or
- The structure of the housing to be substantially rehabilitated makes installation of broadband infrastructure infeasible.

Cost-Effectiveness

The Commonwealth will establish policies and procedures to assess the cost-effectiveness of each proposed program or activity to assist a household under any residential rehabilitation or reconstruction program or activity funded with CDBG-DR funds. Policies and procedures also will establish the criteria for determining when the cost of the rehabilitation or reconstruction of the unit will not be cost-effective relative to other means of assisting the property owner, such as with buyouts and acquisitions.

DCED defines demonstrable hardship as experiencing conditions such as continued financial hardships, impacts from the COVID-19 pandemic on the affordability of the housing stock, or

residing in unsafe or unsanitary living conditions as a result of the 2021 remnants of Hurricane Ida.

DCED defines a residential property as “not suitable for rehabilitation” as:

- a. Substandard dwellings that cannot be brought into compliance with the Pennsylvania Buyout Program housing rehabilitation standards and/or applicable state and local code requirements. The determination may be established if the cost of rehabilitation exceeds 50% of the market value of the property or the property is deemed a blighted structure consistent with state or local ordinance, the property would be a candidate for demolition and/or reconstruction.

OR

- b. A blighted structure unfit for use, habitation, or dangerous to persons or other property. In addition, a structure is blighted when it exhibits objectively determinable signs of deterioration sufficient to constitute a threat to human health, safety, and public welfare. This includes structures showing evidence of physical decay or neglect, excessive use, or lack of maintenance.

OR

- c. Residential properties that have experienced repetitive losses under FEMA’s National Flood Insurance Program (NFIP) or be located within 50 feet of a FEMA identified special flood hazard area.

The Commonwealth may provide exceptions to any award maximums on a case-by-case basis and will include procedures within program guidelines on how the Commonwealth or its subrecipients will analyze the circumstances under which an exception is needed and the amount of assistance that is necessary and reasonable.

Duplication of Benefits

Section 312 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, generally prohibits any person, business concern, or other entity from receiving financial assistance with respect to any part of a loss resulting from a major disaster for which such person, business concern, or other entity has received financial assistance under any other program or from insurance or any other source.

To comply with Section 312, DCED shall ensure that each program and activity provides assistance to a person or entity only to the extent that the person or entity has a disaster recovery need that has not been fully met. As per the Duplication of Benefits Policy, DCED and its subrecipients are subject to the requirements in Federal Register (FR) notices explaining the duplication of benefit requirement (84 FR 28836 and 84 FR 28848, published June 20, 2019, or

other applicable notices).

4.0 Use of Funds

4.1 Overview

DCED is the lead agency and responsible entity for administering \$38,282,000 in CDBG-DR funds allocated for disaster recovery. These programs include the Single-family Homeowner Rehab/Reconstruction Program; the Multi-family Rental Rehab/Reconstruction/New Construction Program, the Buyout Program, and the Competitive Non-FEMA Match Program for infrastructure.

Table needs to include:

Overview. Insert grantee is the lead agency and responsible entity for administering insert award in CDBG-DR funds allocated for disaster recovery. These programs included insert programs.

a. Program Budget

Program Category	Program	Budget	HUD identified MID Budget	Grantee identified MID Budget	% of Allocation	Maximum Award	National Objective	Estimated Outcome
No data entered.								

Connection to Unmet Needs

NOTE: These presidentially impacted areas that are not HUD-Identified MIDs may be identified as "grantee-identified most impacted and distressed area".

- Will any planning activities benefit HUD MIDs? If so, describe.

4.2 Program Budget

Program	Allocation	Percentage of Total Funds
Housing	\$27,259,685	71%
Single-family Rehab and Reconstruction	9,086,561	
Multi-Family Rental Rehab/Reconstruction/New Construction	9,086,561	
Buyout	9,0986,561	
Infrastructure	\$4,115,315	11%
Mitigation	\$4,993,0000	13%
Administration (5%)	\$1,914,100	5%
Total	\$38,282,000	

4.3 Connection to Unmet Needs

As required by the May 24, 2022 (FR-6326-N-01) and Jan. 18, 2023 (FR-6368-N-01) notices, DCED will allocate at least 80 percent of the funds to address unmet needs with HUD-identified “most impacted and distressed” areas. The remaining 20 percent of the allocation may be used to address unmet needs that received a Hurricane Ida presidential major disaster declaration.

This action plan primarily considers and addresses unmet needs for housing and infrastructure and mitigation efforts, and less directly approaches public services, planning and economic revitalization. This direction has been chosen based primarily on: the unmet needs analysis conducted by the Commonwealth and discussed earlier in this action plan; data received from HUD and other sources; feedback received from impacted communities, and practices for efficient administration of funds. The Commonwealth will continue to monitor economic revitalization and public service needs and will amend this Action Plan in the future if warranted.

At least 70 percent of all program funds will be used for activities that benefit LMI persons or households. As the greatest unmet need is for affordable housing, approximately 70 percent of the CDBG-DR funds are dedicated to the three housing programs. These will provide assistance to single-family homeowners whose needs have not been met by other sources of funds; address the lack of affordable housing by repairing existing multi-family housing and creating new affordable rental housing, and enabling homeowners with property in high-risk areas to sell it. The remainder will be allocated to providing funds for infrastructure repair or reconstruction and mitigation activities, varying from planning activities to upgrading physical components of housing, institutional or public infrastructure. A point of clarification is necessary regarding the amount of funding available for mitigation purposes. The Federal appropriations statute which provided the CDBG-DR funds directed to HUD to determine grantee unmet recovery needs and to then provide fifteen (15) percent of that amount for mitigation purposes. The Notices defined the exact amounts provided for mitigation. Dividing the mitigation amount by the total grant amount indicates that the amount for mitigation is approximately thirteen percent but this approach uses an erroneous amount as the basis. To support execution of these programs, five percent of the funds are dedicated to administration.

4.4 Leveraging Funds

The Commonwealth anticipates leveraging CDBG-DR funds with a range of sources to promote long-term recovery from the impacts of Ida. This will include available federal, state and local government sources, insurance, nonprofit assistance and other potential sources of funding. The most likely sources of funding will be from Federal programs including FEMA Individual Assistance and Public Assistance, and SBA low-interest housing and business disaster recovery loans, the National Flood Insurance Program. While it is desirable for projects and activities to leverage other sources of assistance to maximize the impact of CDBG-DR funding, DCED will not establish a leverage requirement that might inhibit implementation of any recovery activity that addresses unmet needs.

In all instances where other sources of funding are used in conjunction with CDBG-DR funds, DCED and/or its subrecipients will undertake steps necessary to evaluate the project/activity for any potential duplication of benefit. This review will be conducted and documented consistent with policies and procedures per federal guidelines and implemented by DCED.

Pennsylvania is eligible for Hazard Mitigation Grant Program (HMGP) funds under Section 404 of the Stafford Act in response to Ida. The basic cost shares for the HMG program are 75 percent Federal, 25 percent non-Federal but for Ida, FEMA has increased the Federal share to 90 percent and concurrently reduced the non-Federal share to 10 percent. The final amount provided by FEMA for the HMGP was \$68,921,195 based on a 90 percent Federal share.

The Pennsylvania Emergency Management Agency (PEMA), the recipient for HMGP funds, is inviting applications from eligible sub-applicants, Commonwealth agencies, local governments, special districts, and federally recognized tribes. Eligible activities include, but are not limited to: property acquisition and demolition, dry floodproofing, purchase and installation of generators, and flood risk reduction projects. The Commonwealth and/or eligible sub-applicants may leverage FEMA HMGP funds with CDBG-DR for projects to the extent that projects also meet the requirements of one of the CDBG-DR programs being established by DCED.

4.5 Program Partners

DCED may engage program partners through formal agreements such as sub-recipient and interagency agreements. When engaging in formal agreements for the administration or implementation of programs, DCED will ensure that subrecipients have the capacity and expertise to carry out the program activities included in their scope of work. DCED may help expand sub-recipient capacity and provide technical assistance and training to sub-recipients on program requirements, applicable federal cross-cutting and State requirements, reporting, and performance requirements. The program descriptions include the types of sub-recipients or interagency partnerships that may support DCED in the administration or implementation of specific programs.

4.6 Distribution of Funds

DCED will implement these programs by providing funds to county and local government subrecipients and/or partnering with other State agencies. Further details are described in the Implementation Plan. All programs have been designed to comply with statutory and regulatory requirements applicable to the use of CDBG-DR funding, with particular focus on

HUD eligibility, activities to meet HUD National Objectives, and the requirements imposed by the HUD Notices. Along with expending 70 percent of the funds for activities that benefit low- and moderate-income persons, DCED will implement mechanisms, policies, and procedures to meet the matrix of expenditure requirements that overlay these funds, including but not limited to the following:

- At least 80 percent of funds are expended in the two HUD-defined MID counties (Delaware and Montgomery).
- An amount at least equal to the HUD requirement of 15 percent will be set aside for mitigation and will be expended for mitigation-qualifying activities.

DCED's primary role will be to monitor the funds and to make sure that the use of funds is in compliance with federal and state policies and regulations. The counties and local governments will be involved in determining the program beneficiaries (direct applicants) and executing activities consistent with DCED's action plan in terms of program implementation. They will also be responsible for ensuring that the use of funds complies with federal and state requirements.

4.7 Program Income

Program income is the gross income received by DCED or any of its subrecipients that is directly generated from the use of CDBG-DR funds. Information regarding how CDBG-DR program income may be generated and used is defined by the alternative requirements established in section III.E. of the Notices. DCED allows for the following uses of program income:

- Program income is maintained by the State agency administering the program (DCED or a subrecipient) to pay the agency's next CDBG-DR eligible expense.
- Program income is transferred from a subrecipient to DCED to pay the next CDBG-DR eligible expense.
- Program income is used as a revolving loan fund for CDBG-DR eligible purposes.
- Program income is transferred to the Commonwealth's annual CDBG program before or after the closeout of the grant to continue disaster-related activities.

Collectively, these options ensure rapid expenditure of program income and minimize any impact on the timely obligation and expenditure of CDBG-DR funds. DCED's program income policies are contained in its adopted policies and procedures.

4.8 Resale or Recapture

Resale and recapture provisions are most common for new construction of housing and when programs have affordability period requirements. Where applicable, the program descriptions below will indicate whether there are affordability periods, resale, and/or recapture requirements.

Program guidelines will provide additional details on the terms of resale or recapture and the specific circumstances under which resale or recapture will be used. Program guidelines will be made available on the DCED website. Where applicable, DCED will ensure that affordability restrictions are enforceable and imposed by recorded deed restrictions, covenants, property liens, personal guarantees, bylaws, and/or other similar mechanisms.

4.9 Program Details

Housing: Single-family Rehab/Reconstruction (HAP-RR)

The program provides grants to counties and local government which, in turn will make grants to eligible homeowners for activities necessary to restore their storm-damaged homes,

including rehabilitation, reconstruction, and/or other mitigation activities. These mitigation activities include, but are not limited to, structural and utility retrofits to make the building more resistant to floods, grading and slope stabilization, and drainage improvements.

Application for reimbursement of pre-award costs will not be eligible nor is assistance for non-primary residences. DCED anticipates capping individual award amounts under the program at \$200,000 but will consider a higher limit if eligible applicants demonstrate that local market and construction conditions require higher awards. DCED's concern and reason for a cap on individual awards is that high per-unit awards will limit the number of households that may be assisted.

Counties and local governments, as subrecipients, will design programs responsive to local needs, consistent with HUD and DCED requirements. In most cases, these subrecipients already administer housing rehabilitation programs with their annual CDBG funding and thus have an abundance of experience with the fundamental requirements. DCED will closely coordinate with these subrecipients to ensure that the programs encompass all CDBG-DR specific considerations such as duplication of benefit reviews, green retrofit, and the need to ensure all construction activities incorporate mitigation measures. DCED's applicable construction and contractor standards are outlined in the DCED Housing Rehabilitation Guidebook, published June 2022 and will be augmented by program policies and procedures.

Homeowners living in the Special Flood Hazard Area (SFHA) or other DEP-designated flood risk areas will be required to obtain and maintain flood insurance. DCED will require the placement of a permanent flood insurance covenant on the property to ensure that flood insurance is maintained when ownership transfers.

Homeowners who are required to relocate due to rehabilitation or reconstruction through this program may be eligible for temporary relocation assistance. Such assistance will be determined based upon local housing conditions and availability.

In cases where homes have been substantially damaged, the cost to rehabilitate is not reasonable, or the home cannot be rehabilitated in a manner to reasonably accommodate the impacted household, homeowners may be eligible for reconstruction or acquisition at pre-disaster fair market value and incentivized to relocate.

Funding Amount: \$9,091,975

National Objective: LMI Benefit

Eligible Activities:

- *Acquisition – HCDA Sec 105(a)1*
- *Reconstruction, rehabilitation of privately-owned properties – HCDA Sec 105(a)4*
- *Removal of architectural barriers – HCDA Sec 105(a)5*
- *Disposition – HCDA Sec 105(a)7*
- *Payment of non-Federal share - HCDA Sec 105(a) 9*
- *Payment of relocation costs - HCDA Sec 105(a)11*

- *Safe housing incentives as authorized by the Notices – Section II.B.8*

Eligible Applicants: Counties and units of general local, county governments

Eligible Areas: HUD identified MID counties: Delaware and Montgomery; Commonwealth identified Targeted Counties: Bedford, Bucks, Chester, and York

LMI Estimate: 70%

Housing: Homeowner Assistance Program – Buyout (HAP-B)

The voluntary buyout component of the Homeowner Assistance Program (HAP-B) will be administered by DCED and PEMA in collaboration with counties and local governments. Buyouts are acquisitions of properties located in a floodway, floodplain, or other Disaster Risk Reduction areas that reduce the risk from future flooding (per HUD's Notices). Buyout properties will be acquired by counties and local government for whichever is the higher fair market value, the pre- or post- storm value. The program also may provide assistance to eligible homeowners to help them afford the costs related to relocating to a lower risk area.

After properties are acquired, CDBG-DR funds also may be used to conduct demolition and debris removal activities; restore land as wetlands or floodplains; and serve a defined climate resilience purpose. The new use, where possible and documented, should provide a benefit to LMI populations.

Properties purchased under this program will be owned and managed by the counties or local government, or other eligible nonprofit organizations and will be maintained in a manner consistent with risk reduction and Commonwealth floodplain management goals. Property owners' participation in the program is entirely voluntary and DCED will not endorse use of CDBG-DR funds for acquisition via eminent domain actions.

The program will be overseen by PEMA on behalf of DCED. PEMA will be responsible for working with and entering into agreements with UGLGs who will administer the program.

Funding Amount: \$9,091,975

National Objective: LMI Benefit; Urgent Need

Eligible Activities:

- *Acquisition – HCDA Sec 105(a)1*
- *Acquisition, construction, reconstruction, or installation of public works, facilities, and other site improvements - HCDA Sec 105(a)2*
- *Reconstruction, rehabilitation of privately-owned properties – HCDA Sec 105(a)4*
- *Disposition – HCDA Sec 105(a)7*
- *Payment of non-Federal share - HCDA Sec 105(a) 9*
- *Payment of relocation costs - HCDA Sec 105(a)11*
- *Buyouts – Pursuant to section II.B.7 of the Notices*

Safe housing incentives as authorized by the Notices – Section II.B.8

Eligible Applicants: Counties and local governments

Eligible Areas: HUD identified MID counties: Delaware and Montgomery;
Commonwealth identified Targeted Counties: Bedford, Bucks, Chester
and York

LMI Estimate: 100%

Multi-Family Rental Assistance Program

The Multi-Family Rental Assistance Program will offer funding for applicants to rehabilitate existing housing units or construct new affordable housing units.

New construction to increase affordable housing as well as the incorporation of resilience measures to improve the mitigation against future

severe weather events is also permitted. These repaired or new units will provide affordable housing to vulnerable populations.

DCED will conduct this program and make competitive awards to non-profit owners, private and public developers and for-profit owners for the repair of damaged structures or new construction of affordable housing for low-income families. Specific scoring criteria will be outlined by DCED in the program guidelines but DCED will reserve the right to award in order ensure compliance with the requirement that 80 percent of the funds be expended in the HUD-defined MID counties. DCED anticipates structuring the assistance in the form of forgivable loans for eligible rehabilitation, reconstruction and/or new construction costs, as defined in the program policies and procedures.

Program policies and procedures will also define CDBG-DR specific requirements that must be incorporated into each project including, but not limited to, applicable energy efficiency, green building and mitigation measures. A period of affordability will be applied for developments containing five units or greater in accordance with HOME program standards of 24 CFR 92.252(e), and for developments of four units or less, those will be governed by periods set in the program policies.

Reimbursement for properties already renovated or newly constructed will not be eligible for this program and all assisted properties must be located outside of the Special Flood Hazard Area (SFHA).

Funding Amount: \$9,091,975

National Objective: LMI Benefit

Eligible Activities:

- *Acquisition – HCDA Section 105(a)1*
- *Clearance, demolition, reconstruction, rehabilitation of privately-owned properties – HCDA Section 105(a)4*
- *Removal of architectural barriers – HCDA Section 105(a)5*
- *Disposition – HCDA Section 105(a)7*
- *Payment of non-Federal share - HCDA Section 105(a) 9*
- *Payment of relocation costs - HCDA Section 105(a)11*
- *New Housing Construction pursuant to Section II.B.1. of the Notices*

Eligible Applicants: Any public, private, for-profit or non-profit entity

Eligible Areas: HUD identified MID counties: Delaware and Montgomery;
Commonwealth identified Targeted Counties: Bedford, Bucks, Chester
and York

LMI Estimate: 70%

This competitive program provides funding for infrastructure projects that will help impacted communities become more resilient to current and future natural hazards. DCED will, where possible, model this program on FEMA's Building Resilient Infrastructure in Communities (BRIC) program but will not impose the need for a benefit-cost analysis for project applications. Application and rating criteria will be defined in the program policies and procedures and DCED will reserve the right to award in order ensure compliance with the requirement that 80 percent of the funds be expended in the HUD-defined MID counties. This approach will help the Commonwealth invest in activities within the HUD- and State-identified MIDs and achieve the following goals:

- Reduce or eliminate the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship by lessening the impact of future disasters.
- Recover from Hurricane Ida's disaster impacts.

- Protect publicly funded recovery investments in impacted communities.

Eligible applicants will be counties and local government via a competitive process, with DCED reserving the right to award in order to ensure compliance with the requirement that 80 percent of the funds be expended in the HUD-defined MID counties. Local governments will be responsible for the implementation of approved projects. DCED will review projects for CDBG-DR and program eligibility and will select projects based on scoring and ranking approaches that are in alignment with the BRIC application and selection processes. DCED will monitor approved projects and will provide oversight to ensure their completion. DCED also will provide technical assistance on program requirements and ways to make applications competitive for lower capacity applicants, as needed.

Funding Amount: \$4,818,975

National Objective: LMI Benefit; Urgent Need

Eligible Activities:

- *Acquisition of real property - HCDA Sec 105(a)1*
- *Acquisition, construction, reconstruction, or installation of public works, facilities, and other site improvements - HCDA Sec 105(a)2*
- *Clearance, demolition, removal - HCDA Sec 105(a)4*
- *Payment of non-Federal share - HCDA Sec 105(a)9*
- *Planning and Capacity Building - HCDA Sec 105(a)12*
- *Buyouts – Pursuant to section II.B.7 of the Notices*

Eligible Applicants: Counties and local governments

Eligible Areas: HUD identified MID counties: Delaware and Montgomery; State identified Targeted Counties: Bedford, Bucks, Chester and York

LMI Estimate: 70%

Mitigation

The CDBG-DR appropriations language in Public Laws 117-43 and 117-180 directed HUD to allocate funds to grantees specifically for mitigation activities. The amount for each grantee is established as fifteen (15) percent of unmet recovery needs as determined by HUD and is added to the amount allocated for unmet needs. In the context of the overall CDBG-DR grant amount, the mitigation set aside is approximately 13 percent. To use these funds, DCED intends to ~~only~~ fund hazard mitigation projects which are intended to strengthen facilities, structures, and communities, making them less vulnerable to future disaster impacts.

Examples of typical mitigation activities are listed below:

- Acquisition of flood-prone properties including “buyout” of structures and converting land to green space in perpetuity;
- Localized drainage improvements – reduce localized flooding by increasing or improving drainage capacity;
- Wind retrofit of structures – hardening the envelope of a structure to protect against high wind loads;
- Elevation of critical building components – HVAC, electrical, etc. – away from basement and ground level areas known to be vulnerable to flooding
- The development of plans, planning and zoning, efforts which identify and implement codes or actions resulting in decreasing the community's exposure to future severe weather events.

The funds may be expended in conjunction with any of the other programs identified in the Action Plan or as a stand-alone project. In partnership with the Pennsylvania Emergency Management Agency,

DCED will develop funding applications utilizing the basic criteria of the PEMA HMGP process. In awarding funds, DCED will reserve the right to award funds to projects to achieve compliance with HUD's directive that at least 80 percent of funds be expended in the two MID counties.

Funding Amount: \$4,993,000

National Objective: LMI Benefit; Urgent Need

Eligible Activities:

- *Acquisition of real property - HCDA Sec 105(a)1*
- *Acquisition, construction, reconstruction, or installation of public works, facilities, and other site improvements - HCDA Sec 105(a)2*
- *Clearance, demolition, removal - HCDA Sec 105(a)4*
- *Payment of non-Federal share - HCDA Sec 105(a)9*
- *Planning and Capacity Building - HCDA Sec 105(a)12*
- *Buyouts – Pursuant to section II.B.7 of the Notices*

Eligible Applicants: Counties and units of general local government

Eligible Areas: HUD-identified MID counties: Delaware and Montgomery; State identified Targeted Counties: Bedford, Bucks, Chester and York

LMI Estimate: 70%

Administration

Costs necessary for the general administration of the CDBG-DR grant include, but are not limited to, time spent administering programs by DCED and partner Commonwealth agencies; DCED compliance and monitoring of the Commonwealth's subrecipients, vendors, and other recipients of funding; technical assistance, and other costs specified as eligible administrative expenses in 24 CFR 570.489 as modified by the Notices. Up to five (5) percent of the overall grant plus program income may be used for these costs.

Up to one percent of the five percent allowable for general administrative cost may be passed through to counties and other local government subrecipients at the discretion of DCED. DCED will evaluate the need for the pass through as part of subrecipient agreement negotiations.

Funding Amount: \$1,914,100

National Objective: Not Applicable

Eligible Activity: Program administrative costs.

Eligible Applicants: Commonwealth of Pennsylvania

Eligible Areas: N/A

LMI Estimate: N/A

5.0 Appendix

Certifications

For purposes of these certifications, the “grantee” and “state” is the Commonwealth of Pennsylvania working through its Department of Community and Economic Development.

- The Commonwealth certifies that it has in effect and is following a residential anti-displacement and relocation assistance plan (RARAP) in connection with any activity assisted with CDBG-DR grant funds that fulfills the requirements of Section 104(d), 24 CFR part 42, and 24 CFR part 570, as amended by waivers and alternative requirements.
 - The Commonwealth certifies its compliance with restrictions on lobbying required by 24 CFR part 87, together with disclosure forms, if required by part 87.
 - The Commonwealth certifies that the action plan for disaster recovery is authorized under state and local law (as applicable) and that the Commonwealth, and any entity or entities designated by the Commonwealth, and any contractor, subrecipient, or designated public agency carrying out an activity with CDBG-DR funds, possess(es) the legal authority to carry out the program for which it is seeking funding, in accordance with applicable HUD regulations as modified by waivers and alternative requirements.
 - The Commonwealth certifies that activities to be undertaken with CDBG-DR funds are consistent with its action plan.
 - The Commonwealth certifies that it will comply with the acquisition and relocation requirements of the URA, as amended, and implementing regulations at 49 CFR part 24, as such requirements may be modified by waivers or alternative requirements.
 - The Commonwealth certifies that it will comply with section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u) and implementing regulations at 24 CFR part 75,
 - The Commonwealth certifies that it is following a detailed citizen participation plan that satisfies the requirements of 24 CFR 91.115 or 91.105 (except as provided for in waivers and alternative requirements). Also, each local government receiving assistance from the Commonwealth must follow a detailed citizen participation plan that satisfies the requirements of 24 CFR 570.486 (except as provided for in waivers and alternative requirements).
 - The Commonwealth certifies that it has consulted with all disaster-affected local governments (including any CDBG-entitlement grantees), Indian tribes, and any local

public housing authorities in determining the use of funds, including the method of distribution of funding, or activities carried out directly by the state.

- The Commonwealth certifies that it is complying with each of the following criteria:
 - (1) Funds will be used solely for necessary expenses related to disaster relief, long-term recovery, restoration of infrastructure and housing, economic revitalization, and mitigation in the most impacted and distressed areas for which the President declared a major disaster pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974 (42 U.S.C. 5121 et seq.).
 - (2) With respect to activities expected to be assisted with CDBG-DR funds, the action plan has been developed so as to give the maximum feasible priority to activities that will benefit low- and moderate-income families.
 - (3) The aggregate use of CDBG-DR funds shall principally benefit low- and moderate-income families in a manner that ensures that at least 70 percent (or another percentage permitted by HUD in a waiver) of the grant amount is expended for activities that benefit such persons.
 - (4) The Commonwealth will not attempt to recover any capital costs of public improvements assisted with CDBG-DR grant funds, by assessing any amount against properties owned and occupied by persons of low- and moderate-income, including any fee charged or assessment made as a condition of obtaining access to such public improvements, unless: (a) disaster recovery grant funds are used to pay the proportion of such fee or assessment that relates to the capital costs of such public improvements that are financed from revenue sources other than under this title; or (b) for purposes of assessing any amount against properties owned and occupied by persons of moderate income, the Commonwealth certifies to the Secretary that it lacks sufficient CDBG funds (in any form) to comply with the requirements of clause (a).
- The Commonwealth and local government grantees certify that the grant will be conducted and administered in conformity with title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d), the Fair Housing Act (42 U.S.C. 3601-3619), and implementing regulations, and that it will affirmatively further fair housing. An Indian tribe grantee certifies that the grant will be conducted and administered in conformity with the Indian Civil Rights Act.
- The Commonwealth certifies that it has adopted and is enforcing the following policies, and, in addition, the Commonwealth certifies that it will require local governments that receive their grant funds to certify that they have adopted and are enforcing:
 - (1) A policy prohibiting the use of excessive force by law enforcement agencies within its jurisdiction against any individuals engaged in nonviolent civil rights demonstrations; and
 - (2) A policy of enforcing applicable state and local laws against physically barring entrance to or exit from a facility or location that is the subject of such nonviolent civil rights demonstrations within its jurisdiction.
- The Commonwealth certifies that it (and any subrecipient or administering entity) currently has or will develop and maintain the capacity to carry out disaster recovery activities in a timely manner and that the Commonwealth has reviewed the requirements applicable to the use of grant funds.

- The Commonwealth certifies to the accuracy of its Financial Management and Grant Compliance Certification Requirements, or other recent certification submission, if approved by HUD, and related supporting documentation as provided in section III.A.1. of the Consolidated Notice and the Commonwealth's implementation plan and related submissions to HUD as provided in section III.A.2. of the Consolidated Notice.
- The Commonwealth certifies that it will not use CDBG-DR funds for any activity in an area identified as flood prone for land use or hazard mitigation planning purposes by the state, local, or tribal government or delineated as a Special Flood Hazard Area (or 100-year floodplain) in FEMA's most current flood advisory maps, unless it also ensures that the action is designed or modified to minimize harm to or within the floodplain, in accordance with Executive Order 11988 and 24 CFR part 55. The relevant data source for this provision is the state, local, and tribal government land use regulations and hazard mitigation plans and the latest-issued FEMA data or guidance, which includes advisory data (such as Advisory Base Flood Elevations) or preliminary and final Flood Insurance Rate Maps.
- The Commonwealth certifies that its activities concerning lead-based paint will comply with the requirements of 24 CFR part 35, subparts A, B, J, K, and R.
- The Commonwealth certifies that it will comply with environmental requirements at 24 CFR part 58.
- The Commonwealth certifies that it will comply with the provisions of title I of the HCDA and with other applicable laws.

5.2 Summary and Response of Public Comments

Public Comments and responses will be summarized after the public comment period, prior to final Action Plan submission to HUD.

5.3 Important Terms and Definitions

Term	Definition
AMI	Area Median Income
CBDO	Community-Based Development Organization
CDBG	Community Development Block Grant
CDBG-DR	Community Development Block Grant-Disaster Recovery
CFR	Code of Federal Regulations
CO	Certifying Officer
CP	Citizen Participation
DCED	Department of Community and Economic Development
DOB	Duplication of Benefits
DRGR	Disaster Recovery and Grant Reporting System
FEMA	Federal Emergency Management Agency
HCD Act	Housing and Community Development Act of 1974, as amended
HMGP	Hazard Mitigation Grant Program
IA	FEMA Individual Assistance Program
LIHTC	Low-Income Housing Tax Credit
LMC	Low-to-Moderate Income Clientele
LMI	Low – to Moderate-Income (Person or Household)
NFIP	National Flood Insurance Program
PA	FEMA Public Assistance Program
PEMA	Pennsylvania Emergency Management Agency

RE	Responsible Entity
RFP	Request for Proposal
SBA	U.S. Small Business Administration
SFHA	Special Flood Hazard Area
UGLG	Unite of General Local Government
URA	Uniform Relocation Assistance and Real Property Act of 1970
USACE	U.S. Army Corps of Engineers

5.4 Data Sources and Methodologies

State and County Hazard Mitigation Plans

State Hazard Mitigation Plan

Pennsylvania State Hazard Mitigation Plan. (n.d.). Retrieved October 2022, from <https://www.pema.pa.gov/Mitigation/Planning/Pages/default.aspx>

Montgomery County Hazard Mitigation Plan

Montgomery County Hazard Mitigation Plan. (2017). Retrieved November 29, 2022, from <https://www.montcopa.org/DocumentCenter/View/19172/2017-Hazard-Mitigation-Plan?bidId=>

Chester County Hazard Mitigation Plan

Chester County Hazard Mitigation Plan. (2021). Retrieved October 2022, from <https://www.chesco.org/DocumentCenter/View/63888/Chester-County-HMP-July21>

Bucks County Hazard Mitigation Plan

Michael Baker International. (2019). *Bucks County Hazard Mitigation Plan*. Bucks County Hazard Mitigation Plan (2021) | Bucks County, PA. Retrieved November 28, 2022, from

<https://www.buckscounty.gov/1391/Bucks-County-Hazard-Mitigation-Plan-2021>

Delaware County Hazard Mitigation Plan

“Delaware County Hazard Mitigation Plan.” *Delaware County Hazard Mitigation Plan Update*, 27 Oct. 2022, <https://www.delcopahmp.com/draft-plans/>.

York County Hazard Mitigation Plan

“York County Hazard Mitigation Plan.” *Hazard Mitigation | York County Planning Commission PA*, <https://www.ycpc.org/309/Hazard-Mitigation>.

Bedford County Hazard Mitigation Plan

“Bedford County Hazard Mitigation Plan.” *Bedford County Hazard Mitigation Plan (HMP) Update*, 25 Sept. 2022, <https://www.bedfordcountypahmp.com/draft-plans/>.

Ncei. (n.d.). *Storm events database*. National Centers for Environmental Information. Retrieved November 28, 2022, from <https://www.ncdc.noaa.gov/stormevents>

Rappaport, E. N., & Blanchard, B. W. (2016, July 1). *Fatalities in the United States indirectly associated with Atlantic tropical cyclones*. AMETSOC. Retrieved November 28, 2022, from <https://journals.ametsoc.org/view/journals/bams/97/7/bams-d-15-00042.1.xml>

FEMA Coastal Construction Manual. (n.d.). Retrieved October 2022, from https://www.fema.gov/sites/default/files/2020-08/fema55_voli_combined.pdf

Illinois Association for Floodplain and Stormwater Management. (n.d.). Illinois Association for Floodplain and Stormwater Management. Retrieved November 28, 2022, from <https://www.illinoisfloods.org/>

USDA offers disaster assistance to farmers and livestock producers in Pennsylvania impacted by Hurricane Ida. (n.d.). Retrieved November 28, 2022, from <https://www.fsa.usda.gov/state-offices/Pennsylvania/news-releases/2021/usda-offers-disaster-assistance-to-farmers-and-livestock-producers-in-pennsylvania-impacted-by-hurricane-ida>

SBA offers Disaster Assistance to Pennsylvania businesses and residents affected by remnants of Hurricane Ida. (n.d.). Retrieved October 2022, from <https://www.sba.gov/article/2021/sep/16/sba-offers-disaster-assistance-pennsylvania-businesses-residents-affected-remnants-hurricane-ida>

[Owner Occupied Households:

5 Minor-Low:

5.2 Less than \$3,000 of FEMA inspected real property damage

6 Minor-High:

1.0 \$3,000 to \$7,999 of FEMA inspected real property damage

7 Major-Low:

1.1 \$8,000 to \$14,999 of FEMA inspected real property damage

8 Major-High:

- \$15,000 to \$28,800 of FEMA inspected real property damage

9 Severe:

- Greater than \$28,800 of FEMA inspected real property damage

Renter Occupied Households:

- Minor-Low:
 - Less than \$1,000 of FEMA inspected personal property damage

- Minor-High:
 - \$1,000 to \$1,999 of FEMA inspected personal property damage
- Major-Low:

5.0 \$3,500 to \$4,999 of FEMA inspected personal property damage

- Major-High:
 - 4.3.** \$5,000 to \$8,999 of FEMA inspected personal property damage

- Severe:
 - 3.0 Greater than \$9,000 of FEMA inspected personal property damage

5.5 Standard Form 424