



ABSTRACT

The U.S. Department of Housing and Urban Development (HUD) announced that the Commonwealth of Kentucky will receive \$74,953,000 in funding to support long-term recovery and mitigation efforts following the 2021 severe storms, flooding, landslides, and mudslides (DR-4595)1 and the 2021 severe storms, straight-line winds, flooding, and tornadoes (DR-4630)2 through the Kentucky Department of Local Government (DLG). This plan details how funds will be allocated to address the remaining unmet needs in Kentucky.

AMENDMENTS

Initial 02/04/2023

This is the initial submission for the Commonwealth of Kentucky's CDBG-DR Action Plan for the 2021 disasters.

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1. Executive Summary

Overview.

In February 2022, the U.S. Department of Housing and Urban Development (HUD) announced that the Commonwealth of Kentucky would receive \$74,953,000 in funding to support long-term recovery and mitigation efforts following the 2021 severe storms, flooding, landslides, and mudslides (DR-4595)[1] and the 2021 severe storms, straight-line winds, flooding, and tornadoes (DR-4630)[2] through the Kentucky Department of Local Government (DLG). Community Development Block Grant – Disaster Recovery (CDBG-DR) funding is designed to address the needs that remain after all other assistance has been exhausted. This plan details how funds will be allocated to address the remaining unmet needs in Kentucky.

To meet disaster recovery needs, enhance flexibility, and allow for quicker recovery, the statutes that make CDBG-DR funds available now have additional requirements and authorize HUD to modify the rules that apply to the annual CDBG program. HUD has allocated \$74,953,000 in CDBG-DR funds to the Commonwealth of Kentucky in response to the 2021 severe storms (DR-4595 and DR-4630) through publication in the Federal Register, Vol. 87, No. 100, May 24, 2022 (87 FR 6326).[3] This allocation was made available through the Disaster Relief Supplemental Appropriations Act of 2022 (Pub. L. 117-43)[4] and approved on September 30, 2021 (the Appropriations Act).

[1] United States. Federal Emergency Management Agency. (2021). *DR-4595: Kentucky Severe, Storms, Flooding, Landslides, and Mudslides*. Retrieved from <https://www.fema.gov/disaster/4595>

[2] United States. Federal Emergency Management Agency. (2021). *DR-4630: Kentucky Severe Storms, Straight-line Winds, Flooding, and Tornadoes*. Retrieved from <https://www.fema.gov/disaster/4630>

[3] United States. Department of Housing and Urban Development. (May 24, 2022). Federal Register / Vol. 87, No. 100: Allocations for Community Development Block Grant Disaster Recovery and Implementation of the CDBG-DR Consolidated Waivers and Alternative Requirements Notice. Retrieved from <https://www.govinfo.gov/content/pkg/FR-2022-05-24/pdf/2022-10969.pdf>

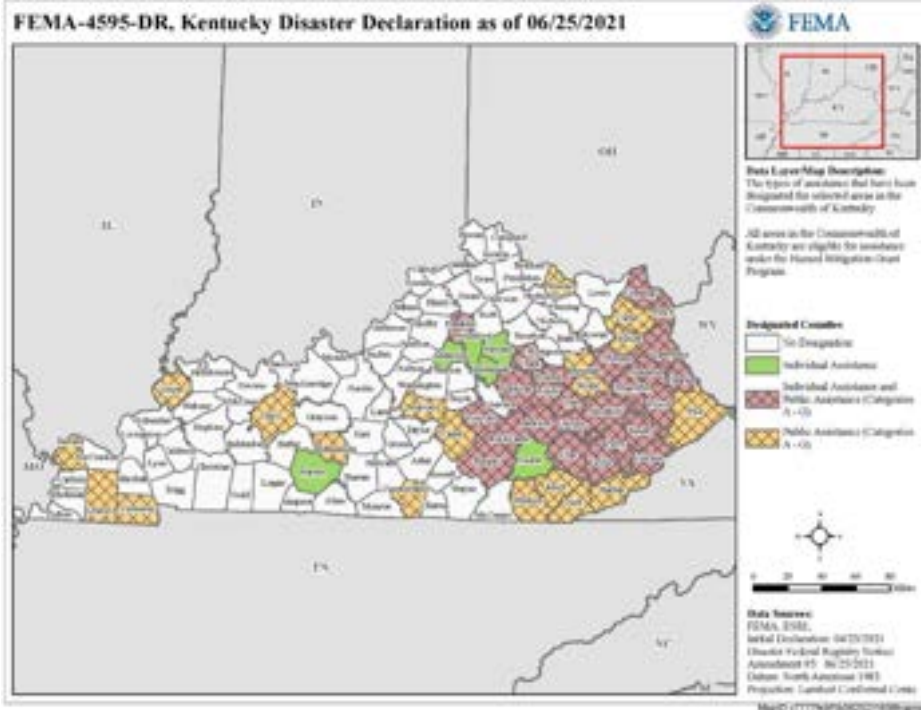
[4] United States. 117th Congress. (September 30, 2021). *Public Law 117-43: Extending Government Funding and Delivering Emergency Assistance Act*. Retrieved from <https://www.congress.gov/117/plaws/publ43/PLAW-117publ43.pdf>

Disaster Specific Overview.

1.2.1 2021 Severe Storms, Flooding, Landslides, and Mudslides (DR-4595)

A disaster was presidentially declared on April 23, 2021, (DR-4595), but the 2021 severe storms, flooding, landslides, and mudslides impacted the Commonwealth from February 27, 2021, through March 14, 2021. In total, 50 out of Kentucky's 120 counties were included in the disaster declaration under DR-4595. These counties were eligible for different Federal Emergency Management Agency (FEMA) programs based on the impacts of the disaster, as demonstrated in Figure 1.

Figure 1. FEMA DR-4595 Presidentialy Declared Disasters, by County

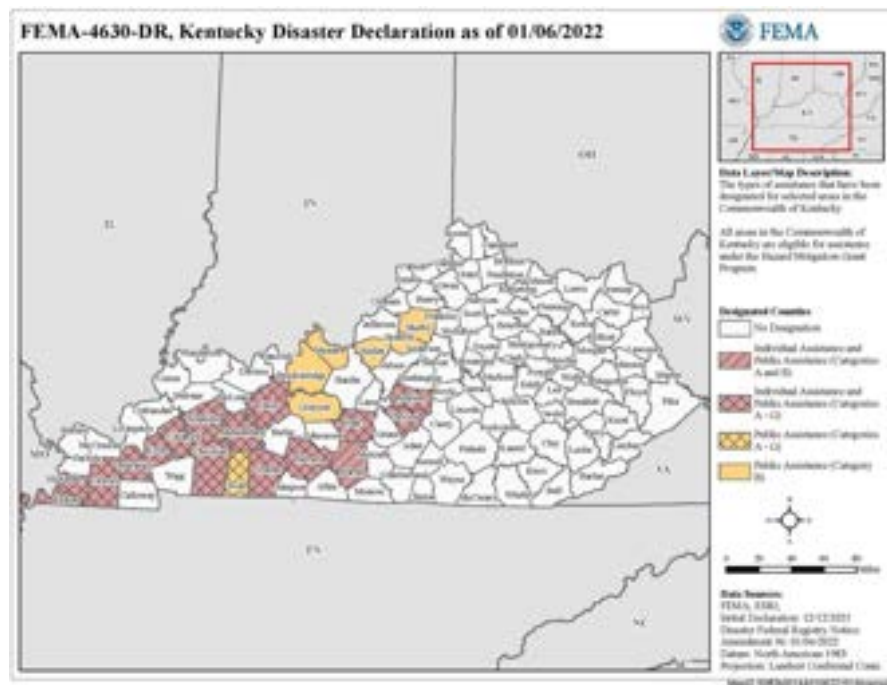


Heavy rain moved across eastern Kentucky from February 26 through March 1.^[5] The heavy rainfall led to significant flooding across central and eastern Kentucky. For some counties, this was the most significant flooding in the last 60 years or more. FEMA estimates that this event cost \$350–400 million in damages, including both individual and public infrastructure. The periods of heavy rain and flooding led to mudslides and rockslides. Many areas were cut off or blocked due to the flooding, with major roadways across the Commonwealth becoming inaccessible. Officials, including the Kentucky National Guard, conducted water rescues across disaster-declared counties.^[6] Power outages were also noted. As many as 12,000 customers were impacted during the peak of the flash flooding on February 28. Initial FEMA damage assessments indicated that 74 homes were destroyed, and 548 residential structures suffered major damage.

1.2.2 2021 Severe Storms, Straight-Line Winds, Flooding, and Tornadoes (DR-4630)

A disaster was presidentially declared on December 12, 2021, (DR-4630) for the 2021 severe storms, straight-line winds, flooding, and tornadoes that impacted the Commonwealth from December 10, 2021, through December 11, 2021. In total, 23 out of Kentucky's 120 counties were included in the disaster declaration under DR-4630. These counties were eligible^[7] for different FEMA programs based on the impacts of the disaster, as shown in Figure 2.

Figure 2. FEMA DR-4630 Presidentialy Declared Disasters, by County



On the evening of Friday, December 10, 2021, a potent storm system moved across the central United States, resulting in significant long-track tornadoes. A violent EF4 tornado moved across western Kentucky,^[8] resulting in dozens of lost lives and a swath of destruction. The tornado was on the ground for 128 miles within the NWS Paducah forecast area, and the total path length was about 165 miles from Obion County, Tennessee, to Breckinridge County, Kentucky. Another long-track EF3 tornado started in Dyer County, Tennessee, and traveled about 125 miles through northwest Tennessee and into Christian and Todd Counties in western Kentucky. Record high temperatures were recorded, including a high of 73 degrees in Paducah, Kentucky. The combination of very strong winds, unseasonably warm conditions, and a strong low-pressure system were ideal for this tornado outbreak.

In total, central Kentucky saw 18 tornadoes that injured 617 and killed 80.[9] [10] The tornadoes destroyed more than 15,000 structures and caused \$3.5 billion in damage.[11] The EF4 tornado alone damaged more than 3,000 structures and destroyed more than 2,100 structures.[12]

Figure 3. December 10 EF4 Tornado Track[13]



Figure 4. December 10–11 Tornadoes in Central Kentucky[1]



Table 1. December 10–11 Tornadoes in Kentucky[1]

County	City	EF Rating	Wind Speed (mph)	Path Length (Miles)
Fulton to Breckinridge	Mayfield, Dawson Springs	EF4	190	165.7
Warren to Edmonson	Bowling Green	EF3	165	-
Logan, Warren	Gordonsville, Hadley	EF3	140	28
Marion, Taylor	Saloma, Bradfordsville	EF3	145	14.7
Edmonson, Barren, Hart	Rock Hill, Horse Cave	EF2	130	16.6
Hart, Green	Horse Cave, Summersville	EF2	125	24
Boyle	Junction City	EF2	135	0.63
Warren	South Bowling Green	EF2	115	-
Spencer	Mt. Washington	EF1	95	1.5
Boyle	Danville	EF1	110	3.63
Eastern Marion	Bradfordsville	EF1	100	1.9
Boyle	Chrisman Lane	EF1	93	0.61
Boyle, Gerrard	Bryantsville	EF1	94	2.93
Boyle, Gerrard	Hedgeville	EF1	110	1.93
Madison	Richmond	EF1	90	-

County	City	EF Rating	Wind Speed (mph)	Path Length (Miles)
Madison	Kirksville	EF1	-	-
Hardin		EF1	-	-
Garrard		EF1	-	-

[5] United States. National Oceanic and Atmosphere Administration. (March 1, 2021). *Storm Events Database*. Retrieved from <https://www.ncdc.noaa.gov/stormevents/eventdetails.jsp?id=938492>

[6] U.S. News. (March 1, 2021). *Images show flooded Kentucky communities as storms trigger state of emergency*. Retrieved from <https://www.nbcnews.com/news/us-news/images-show-flooded-kentucky-communities-storms-trigger-state-emergency-n1259219>

[7] <https://www.census.gov/data.html>

[8] United States. National Oceanic and Atmosphere Administration. (March 1, 2021). *Violent Tornadoes in Kentucky*. Retrieved from https://www.weather.gov/lmk/violent_tornadoes_kentucky

[9] ABC, WHAS11. (January 10, 2022). *80 killed, 160+ miles of terror and destruction | It's been one month since the deadly western Kentucky tornadoes*. Retrieved from <https://www.whas11.com/article/news/kentucky/western-kentucky-tornadoes-one-month-later-mayfield-dawson-springs-bowling-green/417-747e25ae-1dc3-41f8-9e5b-2ca0d0098921>

[10] United States. National Oceanic and Atmosphere Administration. (December 10–11, 2021). *NWS Storm Damage Summaries: Tornado Outbreak*. Retrieved from <https://www.weather.gov/crh/dec112021>

[11] <https://www.theguardian.com/us-news/2021/dec/26/tornadoes-mayfield-kentucky-caused-profound-losses>

[12] <https://www.weather.gov/pah/December-10th-11th-2021-Tornado>

[13] <https://www.weather.gov/pah/December-10th-11th-2021-Tornado>

[14] <https://www.weather.gov/lmk/December112021Tornadoes>

[15] <https://www.weather.gov/crh/dec112021>

Summary.

1.3 Summary

To develop the CDBG-DR Action Plan, the Kentucky Department for Local Government (DLG) engaged State and federal agencies, local governments, nonprofit organizations, community-based organizations, and other ad hoc work groups focused on recovery. Coordinated efforts from some of these organizations resulted in the development of a housing assessment that has been valuable to better understand the impacts of the 2021 storms and assess the remaining needs. The assessment includes data collected immediately after the disaster from FEMA, U.S. Small Business Administration (SBA), the American Red Cross, and other agencies. When applicable, this Action Plan makes use of this assessment to ensure that housing recovery efforts advance equity and support underserved and marginalized communities.

The Commonwealth of Kentucky has been gathering data for the unmet needs assessment and engaging local communities since the disasters. To fulfill the requirements of this allocation, the Commonwealth must submit to HUD an Action Plan for Disaster Recovery that identifies its unmet recovery and resilience needs. This Action Plan outlines the proposed use of the CDBG-DR funds and eligible activities available to assist impacted counties meet unmet housing, infrastructure, planning, and other needs that have resulted from the February and December 2021 storms. Specifically, this plan aims to promote and ensure fair access to housing for all residents, expand sustainable home ownership opportunities for low- to moderate-income (LMI) persons, and strengthen neighborhoods impacted by the disaster by investing in infrastructure.

As part of the development of the Action Plan, there are opportunities for communities to review and provide feedback on program design and comment on how the Commonwealth and municipalities implement the CDBG-DR funds.

The Commonwealth will convene at least one public hearing in the HUD-identified most impacted and distressed (MID) areas on the draft CDBG-DR Action Plan after being posted on its website for public comment and prior to submission to HUD. Notice of all hearings will be posted a minimum of 10 business days prior to public hearings. The Commonwealth has published this draft CDBG-DR Action Plan in a manner that affords citizens, units of general local governments (UGLGs), public agencies, and other interested parties a reasonable opportunity to examine its contents and to submit comments. The plan will remain available on the DLG website throughout the 30-day comment period.

1.4 Unmet Needs and Proposed Allocation

The Federal Register Notice requires grantees to demonstrate a reasonably proportionate allocation of resources relative to areas and categories (e.g., housing, economic revitalization, and infrastructure) of greatest need as identified in the impact and unmet needs assessment or provide an acceptable justification for a disproportionate allocation.

DLG worked with multiple agencies to collect the best available data to calculate the remaining needs from both disasters. However, the data collected may not represent the entire impact and need across the HUD-identified MID and other presidentially declared disaster areas. To address this gap, DLG will continue to work with the public to refine program policies and procedures to ensure that CDBG-DR programs are accessible to and benefit households and individuals who have not yet been included in the needs assessment and who may be marginalized from accessing resources.

Based on the unmet needs assessment presented in this document, the Commonwealth has calculated total unmet needs of \$202,335,054 attributable to the 2021 December tornadoes. The Commonwealth used available data sources to perform the analyses of demographic characteristics of the areas of impact, the losses sustained, and the available resources in response to housing, infrastructure, and economic revitalization. To adequately distribute CDBG-DR funding, the Commonwealth will manage a competitive process for municipalities to submit applications for funding. The Commonwealth will allocate 80% to the HUD-designated MID areas and the remaining 20% to the Commonwealth's identified MID counties.

The notice also includes the following expenditure requirements:

- Program administration costs: Limited to 5%—or \$3,747,650—of the total allocation.
- HUD-identified Most Impacted and Distressed (MID) areas: At least 80%—or \$59,962,400—of the total allocation must benefit the HUD-identified areas. This includes 80% of expenditures for program administration.

- Benefit to Low to Moderate Income (LMI) persons: At least 70%—or \$48,793,745—of the allocation (less planning and administration costs) must be used for activities that benefit LMI persons.

The table below summarizes how the Commonwealth estimates it will meet or exceed HUD’s expenditure requirements. Actual expenditures will be tracked and reported publicly on the CDBG-DR website. Descriptions of how these funding decisions reflect the unmet and mitigation needs assessments are included within each of the program descriptions further below in the Action Plan. The table below considers losses across all categories (housing, planning, economic revitalization, and infrastructure) before and after adjusting for identified funding sources. The unmet needs are calculated by subtracting the resources available from the value of the total damages. The housing unmet needs number represents the impact on housing that requires rehabilitation, reconstruction, or a new build. This Action Plan includes new housing initiatives for both rental properties and owner-occupied properties. To increase the housing stock of the disaster-affected areas, DLG intends to initiate programs that will result in building new homes and rental properties that will address the unmet housing needs of the public. These new housing programs, along with the existing home rehabilitation and reconstruction programs, will address the entirety of the housing unmet needs.

DLG is allocating funds to programs to align with the need. The discrepancies between the need and the funding are the result of the increased need for affordable housing. DLG has identified existing programs and resources for mitigation and economic revitalization to supplement the recovery. For example, DLG will work with its partner agencies that conduct mitigation activities to determine which projects should be pursued and what funding is available for those projects.

Unmet Need and Proposed Allocation

Category	Remaining Unmet Need	% of Unmet Need	Program Allocation Amount	% of Program Allocation
Administration	\$0.00	0.00%	\$3,747,650.00	5.00%
Planning	\$0.00	0.00%	\$1,500,000.00	2.00%
Housing	\$110,156,908.00	54.44%	\$46,905,350.00	62.58%
Infrastructure	\$21,844,475.00	10.80%	\$18,000,000.00	24.02%
Economic Revitalization	\$69,533,671.00	34.37%	\$4,000,000.00	5.34%
Public Services	\$800,000.00	0.40%	\$800,000.00	1.07%
Mitigation	\$0.00	0.00%	\$0.00	0.00%
Total	\$202,335,054.00	100.00%	\$74,953,000.00	100.00%

Data Source(s): U.S. Department of Housing and Urban Development (HUD) Federal Emergency Management Agency (FEMA) U.S. Small Business Administration (SBA) U.S. Department of Agriculture (USDA)

* Allocation Amount includes project delivery costs and does not include administration and planning costs.

2. Unmet Needs Assessment

Overview.

2.1 Overview

HUD requires the Commonwealth to detail the losses and needs resulting from the impacts of the two 2021 severe storms. The unmet needs categories that HUD will review include housing, infrastructure, economic revitalization, public services, and mitigation needs. Data were collected from multiple sources and used to assess unmet recovery and mitigation needs; this information will assist the Commonwealth to design and fund impactful CDBG-DR programs.

To prepare the unmet needs assessment, Kentucky consulted with the following agencies:

- U.S. Department of Housing and Urban Development (HUD)
- Federal Emergency Management Agency (FEMA)
- U.S. Small Business Administration (SBA)
- U.S. Department of Agriculture
- Economic Development Administration
- Kentucky Housing Corporation (KHC)
- Kentucky Division of Emergency Management
- Kentucky Public Protection Cabinet
- Kentucky Department of Insurance
- Kentucky Cabinet for Health and Family Services
- Kentucky Division of Water
- Local Public Housing Authorities
- Local Section 8 Housing Programs
- Local Area Development Districts

2.1.1 HUD-Identified Most Impacted and Distressed Areas (MIDs)

HUD requires funds to be used for costs related to unmet needs in the MID areas resulting from qualifying disasters. Kentucky is required to spend at least 80% of all CDBG-DR funds, or \$59,962,400, to benefit the HUD-identified MID areas. HUD provided Kentucky with the following HUD-identified MID areas in the Allocation Announcement Notice:

- Graves County
- Hopkins County
- Breathitt County (41339)

- Warren County (42101)

Kentucky has decided to expand the HUD-identified MID areas in ZIP codes 41339 and 42101 to include the entire counties of Breathitt and Warren.

2.1.2 Grantee-Identified MIDs

The Consolidated Notice allows Kentucky to determine where to use up to 20% of the remaining amount of the CDBG-DR grant. The funds must be used to address unmet needs within areas that received a presidential disaster declaration. In addition to HUD’s identified MIDs, Kentucky has identified the following counties that will receive CDBG-DR funding:

Boyd County	Hart County	Letcher County	Morgan County
Caldwell County	Hickman County	Lincoln County	Muhlenburg County
Christian County	Jackson County	Logan County	Ohio County
Clark County	Johnson County	Lyon County	Owsley County
Clay County	Knott County	Madison County	Perry County
Estill County	Laurel County	Magoffin County	Powell County
Floyd County	Lawrence County	Marion County	Pulaski County
Fulton County	Lee County	Marshall County	Rockcastle County
Greenup County	Leslie County	Martin County	Taylor County

a. Housing Unmet Need

Disaster Damage and Impacts.

2.2.1 Disaster Damage and Impacts

Pre-disaster housing conditions: The disasters took place in a Commonwealth that was already suffering from an outdated and shrinking housing stock. Many Kentuckians were already facing health and economic difficulties from the ongoing COVID-19 pandemic. Illness and lost jobs have severely impacted many families’ ability to pay rent and mortgages. While the Centers for Disease Control and Prevention (CDC) did issue an order to temporarily prevent evictions, renters have still struggled more than homeowners to cover rising housing costs. [16] Additionally, the pandemic imposed significant strains on the supply chain for housing construction. This has made it difficult for the Commonwealth to replenish its diminished housing stock.

Prior to the 2021 disasters, Kentucky’s housing stock was primarily concentrated in the Commonwealth’s western counties. Low levels or pre-disaster stock in rural areas are particularly relevant to survivors displaced from rural counties who need to be rehoused within a reasonable commuting distance to maintain a connection to employment, healthcare, and school networks. This stands in contrast to survivors displaced from counties located within the metropolitan areas who would be in closer proximity to a larger housing market and may have greater access to permanent rehousing options. In 2018, the Kentucky Housing Corporation conducted a statewide housing needs assessment. The assessment found that only 2.44% of Kentucky’s housing stock was built after 2010, with 45% of the housing being constructed between 1980 and 2009, and 52% being constructed before 1979. Statewide, there was only a 0.82% increase in total housing units in the Commonwealth from 2010 to 2020. An older housing stock is typically associated with issues related to energy efficiency, deferred maintenance and required repairs, health violations, and the preservation of affordable housing. This also means that no recent construction has taken place to meet increasing national demands for new affordable housing options.

In 2021, the Commonwealth created the Healthy at Home Eviction Relief Fund. The purpose of these funds was to follow similar efforts to keep Kentuckians safe and housed during the pandemic, with an emphasis on protecting renters from possible eviction. This program helped renters by covering rent and offering utility assistance via direct payments to landlords and utility providers. More recently, the Commonwealth launched the Team Kentucky Homeowner Assistance Fund in partnership with the Kentucky Housing Corporation. This program aims to help homeowners impacted by the pandemic avoid foreclosure of their homes.

The table below shows homeowner and renter vacancy rates for impacted communities. Statewide, census data indicate that there is a total housing stock of 1,994,554, with an average 2016–2020 rental vacancy rate of approximately 5.6% and an owner-occupied vacancy rate of approximately 1.4%. This is compared with national averages of 6.7% and 1.4%, respectively.

Table 3. Pre-Disaster Residential Percentages

- Pre-Disaster Vacancy Rates of Renter and Owner-Occupied Housing, by County

County	Renter-Occupied Vacancy Rate (%)	Owner-Occupied Vacancy Rate (%)
HUD and Grantee MIDs	4.4	1.6
Breathitt	3.9	1.4
Graves	1.1	1.4
Hopkins	7.3	2.4
Warren	5.3	1.0
Impacted Counties	5.6	1.6

County	Renter-Occupied Vacancy Rate (%)	Owner-Occupied Vacancy Rate (%)
Anderson	4.1	0.3
Barren	6.5	0.9
Boyd	5.6	2.8
Caldwell	5.6	1.6
Christian	9.9	0.8
Clark	1.1	1.6
Clay	6.9	1.4
Estill	6.5	0.6
Fayette	1.1	4.8
Floyd	2.7	1.3
Franklin	3	1.5
Fulton	5.1	4.2
Greenup	6.3	2.8
Hart	6.2	0.2
Jackson	7.8	0.7
Jessamine	4.1	0.3
Johnson	6.4	3.8
Knott	2.4	1.7
Laurel	9.3	0.7
Lawrence	10.2	1.3
Lee	5.0	0.6
Leslie	3.3	0.7
Letcher	7.0	1.5
Lincoln	11.4	1.4
Logan	6.0	2.2
Lyon	5.5	4.8
Madison	3.2	1.6
Magoffin	6.7	0.6
Marion	0.7	0.8
Marshall	0	0.3
Martin	11.1	1.4
Morgan	7.4	1.2
Muhlenberg	11.5	1.9
Ohio	2.9	0.2
Perry	11.2	2.8
Powell	6.0	4.4
Pulaski	8.5	1.5
Rockcastle	3.2	1.8
Taylor	1.7	1.1
Woodford	2.5	1.1

Source: U.S. Census Bureau's 2020 American Community Survey 5-Year Estimates

The table below shows the distribution of housing units across the impacted counties. In total, there are approximately 1,983,949 housing units across the Commonwealth. Of these units, 88% are occupied by either renters or owners. Thirty-three percent of occupied housing units are occupied by renters. The majority of impacted counties consist of owner-occupied housing units, with Graves County having the highest percentage of owner-occupied units (74.23%) among HUD MIDs. Warren County is the MID with the highest percentage of renter-occupied units (42.35%).

- Pre-Disaster Renter and Owner-Occupied Housing, by County

County	Owner Occupied (#)	Owner Occupied (%)	Renter Occupied (#)	Renter Occupied (%)
HUD and Grantee MIDs	55,192	63.41%	32,270	36.59%
Breathitt	3,789	71.75%	1,492	28.25%
Graves	10,690	74.23%	3,712	25.77%
Hopkins	12,679	68.10%	5,940	31.90%
Warren	28,754	57.65%	21,126	42.35%
Impacted Counties	372,073	66.15%	190,387	33.85%
Anderson	6,610	75.48%	2,147	24.52%
Barren	11,403	65.56%	5,989	34.44%
Boyd	12,319	67.64%	5,894	32.36%
Caldwell	3,876	74.32%	1,339	25.68%
Christian	12,240	46.90%	13,857	53.10%
Clark	10,057	69.00%	4,519	31.00%
Clay	5,122	68.92%	2,310	31.08%
Estill	3,926	69.61%	1,714	30.39%
Fayette	71,547	54.65%	59,379	45.35%
Floyd	10,497	71.41%	4,203	28.59%
Franklin	13,270	62.36%	8,008	37.64%
Fulton	1,680	65.88%	870	34.12%
Greenup	11,172	78.05%	3,142	21.95%
Hart	5,378	74.12%	1,878	25.88%
Hickman	1,383	80.22%	341	19.78%
Jackson	4,198	77.50%	1,219	22.50%
Jessamine	12,704	67.26%	6,184	32.74%
Johnson	6,044	70.87%	2,484	29.13%
Knott	4,623	73.16%	1,696	26.84%
Laurel	15,976	70.49%	6,689	29.51%
Lawrence	4,206	75.34%	1,377	24.66%
Lee	1,981	68.69%	903	31.31%
Leslie	3,544	85.27%	612	14.73%
Letcher	7,096	73.92%	2,503	26.08%
Lincoln	7,573	78.26%	2,104	21.74%
Logan	7,423	70.97%	3,036	29.03%
Lyon	2,732	83.65%	534	16.35%
Madison	20,518	60.57%	13,358	39.43%
Magoffin	3,706	74.28%	1,283	25.72%
Marion	5,446	73.27%	1,987	26.73%
Marshall	10,926	83.28%	2,193	16.72%

County	Owner Occupied (#)	Owner Occupied (%)	Renter Occupied (#)	Renter Occupied (%)
Martin	3,121	77.16%	924	22.84%
Morgan	3,677	76.67%	1,119	23.33%
Muhlenberg	9,360	81.12%	2,179	18.88%
Ohio	7,177	77.79%	2,049	22.21%
Owsley	1,051	63.50%	604	36.50%
Perry	8,783	77.49%	2,551	22.51%
Powell	3,292	70.07%	1,406	29.93%
Pulaski	18,015	70.45%	7,557	29.55%
Rockcastle	5,059	76.55%	1,550	23.45%
Taylor	6,139	63.56%	3,520	36.44%
Woodford	7,223	69.46%	3,176	30.54%

Source: U.S. Census Bureau's 2020 American Community Survey 5-Year Estimates

The median home value for homeowners in Kentucky is \$147,100.^[17] Across Kentucky, there is a shortage of rental homes that are affordable and available to extremely low-income households whose incomes are at or below the poverty guideline or 30% of their area median income (AMI). Many of these households (62%) are severely cost-burdened, spending more than half of their income on housing. Severely cost-burdened households are more likely than other renters to sacrifice other necessities such as healthy food and healthcare to pay the rent, and they are more likely to experience unstable housing situations and eviction. According to Kentucky's 2020–2024 consolidated plan, the high cost of housing is the “most frequently documented housing problem reported by all Kentucky households.”^[18] The data from the plan show that renter households are “disproportionately severely cost-burdened,”^[19] with about 60% of all severely cost-burdened households being renters. A study conducted by Surgo Ventures, a nonprofit based in Washington, D.C., analyzed U.S. Census Bureau Household Pulse Survey data and found that roughly 48,325 households owed more than \$110 million in rent.^[20] According to Kentucky's most recent Asset Limited, Income Constrained, Employed (ALICE) report, 24.5% of Kentuckians are in households that do not earn enough to afford basic necessities.

In 2020, Kentucky published the 2019 Analysis of Impediments to Fair Housing Choice. The report found that the poverty rate in Kentucky was 18.3% in 2017—up from 17.7% in 2010—and six percentage points higher than the national rate. The only racial groups with below-average poverty rates were White and Asian. In 2017, the poverty rates among Black and Hispanic persons were 29.2% and 29.5%, respectively. A lack of income severely restricts housing choices. Kentucky's consolidated plan finds that African American and American Indian/Alaskan Native households are disproportionately affected by housing costs that exceed 30% of their income. Data from Kentucky's consolidated plan show that “very low-income elderly households are more affected by high housing costs” due to fixed incomes^[21]. These circumstances increase the risk of housing instability.

The table below shows the median home value, median gross rent, and building permits issued in the various impacted counties. While the median home values in impacted counties are significantly lower than the average U.S. home value (\$229,800), the average income for those living in counties impacted by the 2021 tornado disaster is significantly lower than the rest of the nation.

Table 4. Evidence of Cost Burden by County

County	Median Home Value	Median Gross Rent (in \$ per month)	Building Permits Issued (2021)
HUD MIDs			
Breathitt	\$53,000	\$473	0
Graves	\$109,000	\$660	7
Hopkins	\$107,100	\$745	62
Warren	\$180,000	\$822	1,128
Grantee MIDs			
Anderson	\$158,100	\$729	178
Barren	\$127,100	\$681	302
Boyd	\$110,000	\$694	0
Caldwell	\$89,600	\$340	9
Christian	\$121,000	\$858	91
Clark	\$151,300	\$453	165
Clay	\$61,300	\$285	0
Estill	\$78,200	\$610	0
Fayette	\$200,900	\$920	1,655
Floyd	\$74,000	\$644	7

County	Median Home Value	Median Gross Rent (in \$ per month)	Building Permits Issued (2021)
Franklin	\$149,900	\$792	114
Fulton	\$63,800	\$593	0
Greenup	\$114,900	\$731	21
Hart	\$93,000	\$559	63
Hickman	\$85,000	\$572	-
Jackson	\$83,100	\$526	0
Jessamine	\$186,400	\$812	367
Johnson	\$115,800	\$623	0
Knott	\$52,300	\$509	-
Laurel	\$116,300	\$680	11
Lawrence	\$91,800	\$632	-
Lee	\$65,800	\$504	-
Leslie	\$69,000	\$491	-
Letcher	\$54,700	\$529	0
Lincoln	\$106,100	\$604	71
Logan	\$108,900	\$622	12
Lyon	\$149,100	\$602	14
Madison	\$161,400	\$728	455
Magoffin	\$71,100	\$604	-
Marion	\$112,900	\$656	39
Marshall	\$138,000	\$724	93
Martin	\$78,100	\$611	-
Morgan	\$79,900	\$581	3
Muhlenberg	\$96,000	\$610	6
Ohio	\$90,400	\$633	5
Owsley	\$67,400	\$325	-
Perry	\$78,900	\$703	0
Powell	\$105,000	\$693	2
Pulaski	\$113,900	\$706	0
Rockcastle	\$88,500	\$573	-
Taylor	\$122,800	\$650	10
Woodford	\$212,100	\$800	124

Source: U.S. Census Bureau's 2020 American Community Survey 5-Year Estimates

Prior to the 2021 disasters, rural areas in the Commonwealth suffered from pandemic-related impacts that greatly affected economic and health conditions. Both renters and homeowners experienced severe levels of cost-burden that has now worsened following the most recent series of disasters. For impacted counties to fully recover, further assistance is needed to reconstruct, replace, and build affordable housing that is stronger and more resilient against future disasters.

2.2.2 Single Family vs. Multifamily Needs; Owner-Occupied vs. Tenant

Of all the housing units in Kentucky, 88% are occupied by either renters or owners. Of the occupied housing, 67% of occupied housing units are occupied by homeowners, and 33% are occupied by renters.^[22] Post-disaster, the availability of adequate rental units has been reduced due to the number impacted individuals and families needing units and the number of available rentals not being livable.

More rental housing units are needed to support potential growth in impacted counties and to assist individuals and families who need stable housing. As such, the CDBG-DR program is allocating nearly a quarter of the funding to rental rehabilitation, reconstruction, or new construction. More housing is also needed to increase the stock of owner-occupied housing lost during the disasters. Single family homes, duplexes, and mobile homes accounted for the higher percentage of residences destroyed.

DLG will work with other State agencies to ensure that these programs address needs and can provide residents with access to housing opportunities.

The following tables outline information related FEMA Individual Assistance (IA) for owner-occupied housing units and tenant occupied housing units for each disaster in the counties eligible to receive the assistance. The number of applications and unit inspections including those with damage is tabulated along with the number of households that received assistance. The total FEMA verified loss is also calculated. The information is further broken down into types of housing and type of damage per unit.

2.2.2.1 FEMA Individual Assistance (IA) Owner-Occupied Units

Table 5. Owner-Occupied Unit Applications, DR-4595

County	Applicants	Inspected Inspections	Inspected With Damage	Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Loss
Anderson	9	7	7	5	\$101,860	\$11,318
Boyd	35	15	11	8	\$110,570	\$3,159
Breathitt	456	312	279	241	\$2,975,456	\$6,525
Clark	35	17	17	16	\$970,712	\$27,735
Clay	250	130	115	96	\$439,768	\$1,759
Estill	166	113	94	84	\$2,066,317	\$12,448
Fayette	26	12	7	6	\$294,483	\$11,326
Floyd	313	181	148	123	\$1,263,962	\$4,038
Franklin	21	14	13	12	\$309,015	\$14,715
Greenup	49	26	22	20	\$80,711	\$1,647
Jackson	57	29	25	23	\$112,422	\$1,972
Jessamine	10	7	6	6	\$55,353	\$5,535
Johnson	232	114	91	78	\$631,642	\$2,723
Knott	36	25	22	20	\$85,128	\$2,365
Laurel	42	14	12	10	\$74,361	\$1,771
Lawrence	61	34	29	26	\$145,376	\$2,383
Lee	103	74	39	37	\$382,953	\$3,718
Leslie	39	16	15	13	\$16,126	\$413
Letcher	21	10	8	6	\$207,877	\$9,899
Lincoln	5	3	3	2	\$27,277	\$5,455
Madison	29	15	13	11	\$109,623	\$3,780
Magoffin	150	82	70	58	\$388,961	\$2,593
Martin	243	136	124	110	\$838,182	\$3,449
Morgan	35	14	13	12	\$157,750	\$4,507
Owsley	50	30	28	24	\$133,084	\$2,662
Perry	79	51	42	36	\$621,582	\$7,868
Powell	84	59	48	38	\$712,354	\$8,480
Pulaski	47	27	24	22	\$339,576	\$7,225
Rockcastle	56	37	33	32	\$181,786	\$3,246
Warren	63	22	19	16	\$198,905	\$3,157
Woodford	16	11	7	4	\$113,637	\$7,102

Source: FEMA data for owners impacted by DR-4595

Table 6. Owner-Occupied Unit Applications, DR-4630

County	Applicants	Inspected Inspections	Inspected With Damage	Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Loss
Barren	81	48	25	21	\$452,914	\$5,592
Caldwell	468	229	102	63	\$24,040,911	\$51,369

County	Applicants	Inspections	Inspected With Damage	Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Loss
Christian	355	221	39	27	\$1,579,834	\$4,450
Fulton	172	97	33	30	\$2,753,246	\$16,007
Graves	1,602	847	312	245	\$10,398,514	\$6,491
Hart	83	42	23	17	\$620,846	\$7,480
Hickman	74	41	24	22	\$194,954	\$2,635
Hopkins	924	499	251	199	\$27,286,406	\$29,531
Logan	173	96	46	29	\$1,898,897	\$10,976
Lyon	125	48	18	12	\$3,252,048	\$26,016
Marion	52	22	12	11	\$525,181	\$10,100
Marshall	669	331	152	81	\$25,039,032	\$37,428
Muhlenberg	376	202	63	44	\$8,774,204	\$23,336
Ohio	159	90	45	39	\$3,159,463	\$19,871
Taylor	199	94	21	15	\$2,116,018	\$10,633
Warren	1,712	744	244	123	\$2,924,417	\$1,708

Source: FEMA data for owners impacted by DR-4630

2.2.2.2 FEMA IA Tenant Applications

Table 7. Tenant Applications, DR-4595

County	Applicants	Inspections	Inspected With Damage	Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Loss
Anderson	2	2	1	2	\$260	\$130
Boyd	4	2	1	4	\$735	\$184
Breathitt	76	49	40	76	\$169,709	\$2,233
Clark	9	5	3	9	\$16,860	\$1,873
Clay	30	16	4	30	\$9,571	\$319
Estill	33	18	12	33	\$62,682	\$1,899
Fayette	25	18	5	25	\$20,963	\$839
Floyd	63	33	23	63	\$84,199	\$1,336
Franklin	5	2	-	5	-	-
Greenup	7	5	1	7	\$4,883	\$698
Jackson	8	2	1	8	\$456	\$57
Jessamine	6	3	1	6	\$2,763	\$461
Johnson	46	30	11	46	\$20,045	\$436
Knott	5	3	-	5	-	-
Laurel	7	4	-	7	-	-
Lawrence	2	-	-	2	-	-
Lee	33	18	15	33	\$93,856	\$2,844
Leslie	3	2	1	3	\$46	\$15
Letcher	3	2	1	3	\$90	\$30
Lincoln	1	-	-	1	-	-
Madison	13	8	1	13	\$5,455	\$420
Magoffin	21	10	5	21	\$7,061	\$336

County	Applicants	Inspections	Inspected With Damage	Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Loss
Martin	18	7	5	18	\$16,186	\$899
Morgan	2	1	1	2	\$262	\$131
Owsley	3	2	2	3	\$11,043	\$3,681
Perry	15	9	4	15	\$6,977	\$465
Powell	15	8	7	15	\$22,476	\$1,498
Pulaski	8	4	-	8	-	-
Rockcastle	4	2	-	4	-	-
Warren	12	6	3	12	\$1,941	\$162
Woodford	3	1	-	3	-	-

Source: FEMA data for renters impacted by DR-4595

Table 8. Tenant Applications, DR-4630

County	Applicants	Inspections	Inspected With Damage	Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Loss
Barren	79	61	11	79	\$17,309	\$219
Caldwell	227	183	14	227	\$55,865	\$246
Christian	459	344	22	459	\$47,060	\$103
Fulton	185	148	7	185	\$40,482	\$219
Graves	2,370	1,885	537	2,370	\$1,588,538	\$670
Hart	46	28	6	46	\$13,632	\$296
Hickman	34	27	-	34	-	-
Hopkins	814	648	196	814	\$911,570	\$1,120
Logan	136	104	13	136	\$43,777	\$322
Lyon	48	33	1	48	\$240	\$5
Marion	18	12	4	18	\$10,553	\$586
Marshall	368	275	19	368	\$84,228	\$229
Muhlenberg	387	306	19	387	\$69,297	\$179
Ohio	100	74	10	100	\$47,849	\$478
Taylor	193	166	8	193	\$48,653	\$252
Warren	2,241	1,595	399	2,241	\$883,668	\$394

Source: FEMA data for renters impacted by DR-4630

2.2.2.3 FEMA IA Applications by Housing Type

Table 9. Applications by Housing Type

Residence Type	Applicants	Owner			
		Occupied	Tenants	Unknown	Type
Apartment	1,640	0.10%	19.84%	8.82%	8.96%
Assisted Living Facility	254	0.00%	3.10%	0.00%	1.39%
Boat	10	0.04%	0.07%	0.00%	0.05%
College Dorm	3	0.00%	0.04%	0.00%	0.02%
Condominium	113	0.63%	0.61%	0.00%	0.62%

Residence Type	Applicants	Owner			
		Occupied	Tenants	Unknown	Type
Correctional Facility	3	0.00%	0.04%	0.00%	0.02%
House/Duplex	12,856	76.83%	62.37%	51.47%	70.26%
Military Housing	2	0.00%	0.02%	0.00%	0.01%
Mobile Home	1,805	14.27%	4.41%	16.18%	9.87%
Other	1,082	5.59%	6.24%	14.71%	5.91%
Townhouse	386	1.42%	2.92%	5.88%	2.11%
Travel Trailer	143	1.13%	0.34%	2.94%	0.78%

Source: FEMA IA data for DR-4595 and DR-4630

2.2.2.4 FEMA Real Property Damage Owner-Occupied Units

Table 10. Owner-Occupied Units Real Property Damage, DR-4595

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Anderson	2	1	2	4	-
Boyd	28	2	2	3	-
Breathitt	240	84	53	72	7
Clark	19	2	3		11
Clay	207	27	12	4	
Estill	85	17	24	27	13
Fayette	21	1	1	1	2
Floyd	206	49	35	20	3
Franklin	9	2	1	4	5
Greenup	42	3	3	1	-
Jackson	49	2		3	3
Jessamine	6	2	1	1	-
Johnson	183	21	19	9	-
Knott	30	3	1	2	-
Laurel	33	6	1	1	1
Lawrence	49	6	2	3	1
Lee	78	4	5	15	1
Leslie	38	1	-	-	-
Letcher	14	3	1	1	2
Lincoln	3		1	1	-
Madison	24	1	-	3	1
Magoffin	109	25	11	3	2
Martin	167	50	12	10	4
Morgan	27	2	2	2	2
Owsley	38	6	4	2	-

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Perry	55	9	12	1	2
Powell	47	8	18	8	3
Pulaski	31	3	4	5	4
Rockcastle	43	2		11	-
Warren	52	3	5	1	2
Woodford	10	1	4		1

Source: FEMA data for owners impacted by DR-4595

Table 11. Owner-Occupied Units Real Property Damage, DR-4630

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Barren	62	4	11	1	3
Caldwell	380	3	11	15	59
Christian	323	1	8	6	17
Fulton	145	5	1	4	17
Graves	1,381	73	50	37	61
Hart	73	3	2		5
Hickman	67	2		2	3
Hopkins	709	29	26	38	122
Logan	139	11	11	5	7
Lyon	109	1	3	1	11
Marion	42	2	6	1	1
Marshall	526	6	19	22	96
Muhlenberg	320	4	7	11	34
Ohio	124	4	8	5	18
Taylor	183		5	2	9
Warren	1,579	66	31	24	12

Source: FEMA data for owners impacted by DR-4630

2.2.2.5 FEMA Real Property Damage Rental Units

Table 12. Rental Units Real Property Damage, DR-4595

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Anderson	2				
Boyd	4				
Breathitt	43	2	10	16	5
Clark	6		1	2	
Clay	29			1	
Estill	22	2		8	1
Fayette	22		1	1	1
Floyd	44	4	4	11	
Franklin	5				
Greenup	6			1	

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Jackson	8				
Jessamine	5		1		
Johnson	38	3	4	1	
Knott	5				
Laurel	7				
Lawrence	2				
Lee	19			9	5
Leslie	3				
Letcher	3				
Lincoln	1				
Madison	12			1	
Magoffin	19	1		1	
Martin	15	1		1	1
Morgan	2				
Owsley	1			2	
Perry	12	2		1	
Powell	9	2	1	2	1
Pulaski	8				
Rockcastle	4				
Warren	11	1			
Woodford	3				

Source: FEMA data for renters impacted by DR-4595

Table 13. Rental Units Real Property Damage, DR-4630

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Barren	76	1		2	
Caldwell	219	1	1	2	4
Christian	451	2	2	2	2
Fulton	180			2	3
Graves	1,999	112	84	135	40
Hart	42	2	1	1	
Hickman	34				
Hopkins	655	23	27	68	41
Logan	128	2	1	2	3
Lyon	48				
Marion	15	1	1	1	
Marshall	351	5	2	6	4
Muhlenberg	374	4	2	3	4
Ohio	94	2		1	3
Taylor	185		2	3	3
Warren	2,022	72	62	69	16

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
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Source: FEMA data for renters impacted by DR-4630

1.1.3 Public Housing and Affordable Housing

DLG was able to collect limited data on multifamily HUD-assisted housing. The table below shows the number of properties, number of units assisted, and unmet needs as related to disaster DR-4630 (2021 severe storms, straight-line winds, flooding and tornadoes). DLG made use of the best available data through the Kentucky Housing Corporation. DLG attempted to get more information by reaching out to the HUD local office, but additional data were not available.

2.2.3.1 Multifamily HUD-Assisted Housing

Table 14. Multifamily HUD-Assisted Housing, DR-4630

Type of Damage	Properties	Units	Units Assisted	Units Awaiting Assistance	Remaining Unmet Need
No Damage	76	3,779	2,893	-	-
Minor Damage	2	80	40	-	-
Severe Damage – Red Tagged	1	46	0	0	46 residents

Source: Kentucky Housing Corporation

2.2.3.2 Public Housing Authorities Damaged

Data for damaged Public Housing Authorities (PHAs) came directly from impacted housing authorities in the HUD-designated MID areas. Again, DLG reached out to the HUD local office, but better data were not available. If the Commonwealth can access better data on PHAs, the table below will be updated.

Table 15. Public Housing Authorities Damaged

County/ Municipality	Total PHAs	Total PHAs Damaged	Units Damaged	Remaining Unmet Need
Graves County (Mayfield)	1	1	141	\$2,000
Warren County (Bowling Green)	1	0	0	0

Source: Kentucky Public Housing Authorities (Mayfield and Bowling Green)

2.2.3.3 Owners With Unmet Need in a Floodplain

Below is a table with information about participants in the National Flood Insurance Program. The table includes counties that were impacted by the disasters.

Table 16. Owners With Unmet Need in a Floodplain

Income Category	Count	Without Flood Insurance (#)	Without Flood Insurance (%)
Less than \$15,000	1,260	1,201	16.91%
\$15,000–\$30,000	1,632	1,582	22.27%
\$30,001–\$60,000	2,381	2,243	31.57%
\$60,001–\$120,000	1,909	1,631	22.96%
\$120,001–\$175,000	348	298	4.19%
More than \$175,000	179	149	2.10%
TOTAL	7,709	7,104	100.00%

Source: FEMA IA data for DR-4595 and DR-4630

2.2.3.4 Insurance Claims and Losses in Disaster-Impacted Areas

The following tables show the number of individuals whose property was damaged by disasters DR-4595 and DR-4630 and were eligible to apply for insurance claims. Insurance companies typically categorize claims differently and/or do not report them to a central database. The Commonwealth worked with the Kentucky Public Protection Cabinet to collect information on insurance claims (individual homeowners, renters, commercial, and farm claims) through a data call to insurance providers.

Insurance Claims and Losses DR-4595

Table 17. Insurance Claims and Losses, DR-4595

County	Claims (#)	Claims Resulting in Loss (#)	Direct Incurred Losses (\$)	Disaster #
Anderson	25	11	\$108,337	DR- 4595
Boyd	51	29	\$150,816	DR- 4595
Breathitt	103	66	\$1,436,188	DR- 4595
Clark	27	10	\$92,778	DR- 4595
Clay	21	8	\$172,007	DR- 4595
Estill	51	19	\$124,470	DR- 4595
Fayette	170	122	\$863,127	DR- 4595
Floyd	38	14	\$55,802	DR- 4595
Franklin	51	34	\$316,178	DR- 4595
Greenup	27	15	\$672,253	DR- 4595
Jackson	25	19	\$141,401	DR- 4595
Jessamine	30	18	\$117,973	DR- 4595
Johnson	35	12	\$108,298	DR- 4595
Knott	10	4	\$166,861	DR- 4595
Laurel	98	64	\$600,511	DR- 4595
Lawrence	19	5	\$23,881	DR- 4595
Lee	15	5	\$66,800	DR- 4595
Leslie	8	3	\$20,362	DR- 4595
Letcher	9	4	\$25,153	DR- 4595
Lincoln	45	27	\$204,308	DR- 4595
Madison	83	50	\$705,032	DR- 4595
Magoffin	22	14	\$130,527	DR- 4595
Martin	49	24	\$275,978	DR- 4595
Morgan	11	5	\$31,317	DR- 4595
Owsley	13	7	\$46,709	DR- 4595
Perry	28	15	\$128,180	DR- 4595
Powell	23	9	\$100,670	DR- 4595
Pulaski	140	100	\$992,674	DR- 4595
Rockcastle	27	15	\$335,984	DR- 4595
Warren	208	110	\$967,793	DR- 4595
Woodford	21	12	\$97,356	DR- 4595
TOTAL	1,483	850	\$9,279,739	DR- 4595

Source: FEMA data on insurance claims for DR-4595

Insurance Claims and Losses DR-4630

Table 18. Insurance Claims and Losses, DR-4630

County	Claims (#)	Direct Incurred Losses (\$)	Disaster #
Barren	2	\$3,500	DR - 4630
Caldwell	252	\$322,619	DR - 4630
Calloway	1	\$1,500	DR - 4630
Carlisle	2	\$2,000	DR - 4630
Christian	51	\$108,500	DR - 4630

County	Claims (#)	Direct Incurred Losses (\$)	Disaster #
Daviess	7	\$5,264	DR - 4630
Edmonson	1	\$2,500	DR - 4630
Fulton	202	\$233,171	DR - 4630
Graves	929	\$1,112,812	DR - 4630
Hancock	2	\$2,496	DR - 4630
Hart	2	\$5,000	DR - 4630
Hickman	68	\$76,988	DR - 4630
Hopkins	689	\$772,614	DR - 4630
Logan	4	\$8,000	DR - 4630
Lyon	158	\$236,874	DR - 4630
Marion	1	\$1,000	DR - 4630
Marshall	37	\$74,959	DR - 4630
McCracken	1	\$1,000	DR - 4630
Mclean	33	\$36,997	DR - 4630
Monroe	1	\$1,000	DR - 4630
Muhlenberg	177	\$203,413	DR - 4630
Ohio	139	\$147,828	DR - 4630
Taylor	2	\$3,760	DR - 4630
Warren	2,346	\$2,852,074	DR - 4630
Webster	2	\$2,500	DR - 4630
TOTAL	5,109	\$6,218,369	DR - 4630

Source: FEMA data on insurance claims for DR-4630

2.2.3.5 Total Home Loans Approved by SBA

The SBA provides low-interest, long-term disaster loans to homeowners and renters to repair or replace uninsured or underinsured disaster-damaged property. As part of the loan process, SBA conducts a credit review. For home loans, SBA regulations limit home loans to \$200,000 for the repair or replacement of real estate and \$40,000 to repair or replace personal property. Subject to these maximums, loan amounts cannot exceed the verified uninsured disaster loss. Interest rates for the term of the loan are determined by formulas set by law and vary from disaster to disaster. Interest rates will not exceed 4%, and the maximum term is 30 years.

The table below shows how many home loans were applied for and approved by SBA for both 2021 severe storms. The data show that of the HUD MIDs, Hopkins and Warren Counties had the highest number of home loans approved.

Table 19. Total Home Loans Approved by SBA

County	Home Loans	County	Home Loan
Barren	5	Lawrence	3
Boyd	2	Lee	4
Breathitt	24	Leslie	2
Caldwell	68	Letcher	2
Christian	15	Logan	15
Clark	7	Lyon	9
Clay	3	Madison	1
Estill	21	Magoffin	4
Fayette	6	Marion	6
Floyd	12	Marshall	78
Franklin	5	Martin	6
Fulton	9	Morgan	3

County	Home Loans	County	Home Loan
Graves	74	Muhlenberg	31
Greenup	1	Ohio	9
Hart	3	Owsley	1
Hickman	1	Perry	7
Hopkins	114	Powell	4
Jackson	1	Pulaski	3
Jessamine	2	Rockcastle	4
Johnson	14	Taylor	8
Knott	3	Warren	142
Laurel	2	Woodford	1
		TOTAL	735

Source: SBA Statistics for KY Declarations #16932 (KY-00084/FEMA 4595) and #17286 (KY-00087/FEMA 4630)

[16] University of Kentucky Center for Business and Economic Research. *Impact of the Coronavirus Pandemic on Housing*. Retrieved from https://cber.uky.edu/sites/cber/files/publications/COVID%20Housing_Final.pdf

[17] U.S. Census Bureau. *QuickFacts, Kentucky*. Retrieved from <https://www.census.gov/quickfacts/fact/table/KY,US/PST045221>

[18] Kentucky Housing Corporation. Kentucky Consolidated Plan 2020–2024. Retrieved from <https://www.kyhousing.org/Planning-Documents/Documents/Updated%202020%20Consolidated%20Plan%20Needs%20Assessment.pdf>

[19] Kentucky Housing Corporation. Kentucky Consolidated Plan 2020–2024. Retrieved from <https://www.kyhousing.org/Planning-Documents/Documents/Updated%202020%20Consolidated%20Plan%20Needs%20Assessment.pdf>

[20] Surgo Ventures, *U.S. County-Level Rental Arrears Estimates – Kentucky*. Retrieved from https://precisionforcovid.org/rental_arrears

[21] Same as #18

[22] DR-4630 Draft Housing Impact Assessment 05-31-2022

(1) Single Family v. Multi-Family Needs; Owner Occupied v. Tenant.

2.2.2 Single Family vs. Multifamily Needs; Owner-Occupied vs. Tenant

Of all the housing units in Kentucky, 88% are occupied by either renters or owners. Of the occupied housing, 67% of occupied housing units are occupied by homeowners, and 33% are occupied by renters.[22] Post-disaster, the availability of adequate rental units has been reduced due to the number impacted individuals and families needing units and the number of available rentals not being livable.

More rental housing units are needed to support potential growth in impacted counties and to assist individuals and families who need stable housing. As such, the CDBG-DR program is allocating nearly a quarter of the funding to rental rehabilitation, reconstruction, or new construction. More housing is also needed to increase the stock of owner-occupied housing lost during the disasters. Single family homes, duplexes, and mobile homes accounted for the higher percentage of residences destroyed.

DLG will work with other State agencies to ensure that these programs address needs and can provide residents with access to housing opportunities.

The following tables outline information related FEMA Individual Assistance (IA) for owner-occupied housing units and tenant occupied housing units for each disaster in the counties eligible to receive the assistance. The number of applications and unit inspections including those with damage is tabulated along with the number of households that received assistance. The total FEMA verified loss is also calculated. The information is further broken down into types of housing and type of damage per unit.

2.2.2.1 FEMA Individual Assistance (IA) Owner-Occupied Units

Table 5. Owner-Occupied Unit Applications, DR-4595

County	Applicants	Inspected Inspections	Inspected With Damage	Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Loss
Anderson	9	7	7	5	\$101,860	\$11,318
Boyd	35	15	11	8	\$110,570	\$3,159
Breathitt	456	312	279	241	\$2,975,456	\$6,525
Clark	35	17	17	16	\$970,712	\$27,735
Clay	250	130	115	96	\$439,768	\$1,759
Estill	166	113	94	84	\$2,066,317	\$12,448

County	Applicants	Inspected Inspections	Inspected With Damage	Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Loss
Fayette	26	12	7	6	\$294,483	\$11,326
Floyd	313	181	148	123	\$1,263,962	\$4,038
Franklin	21	14	13	12	\$309,015	\$14,715
Greenup	49	26	22	20	\$80,711	\$1,647
Jackson	57	29	25	23	\$112,422	\$1,972
Jessamine	10	7	6	6	\$55,353	\$5,535
Johnson	232	114	91	78	\$631,642	\$2,723
Knott	36	25	22	20	\$85,128	\$2,365
Laurel	42	14	12	10	\$74,361	\$1,771
Lawrence	61	34	29	26	\$145,376	\$2,383
Lee	103	74	39	37	\$382,953	\$3,718
Leslie	39	16	15	13	\$16,126	\$413
Letcher	21	10	8	6	\$207,877	\$9,899
Lincoln	5	3	3	2	\$27,277	\$5,455
Madison	29	15	13	11	\$109,623	\$3,780
Magoffin	150	82	70	58	\$388,961	\$2,593
Martin	243	136	124	110	\$838,182	\$3,449
Morgan	35	14	13	12	\$157,750	\$4,507
Owsley	50	30	28	24	\$133,084	\$2,662
Perry	79	51	42	36	\$621,582	\$7,868
Powell	84	59	48	38	\$712,354	\$8,480
Pulaski	47	27	24	22	\$339,576	\$7,225
Rockcastle	56	37	33	32	\$181,786	\$3,246
Warren	63	22	19	16	\$198,905	\$3,157
Woodford	16	11	7	4	\$113,637	\$7,102

Source: FEMA data for owners impacted by DR-4595

Table 6. Owner-Occupied Unit Applications, DR-4630

County	Applicants	Inspected Inspections	Inspected With Damage	Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Loss
Barren	81	48	25	21	\$452,914	\$5,592
Caldwell	468	229	102	63	\$24,040,911	\$51,369
Christian	355	221	39	27	\$1,579,834	\$4,450
Fulton	172	97	33	30	\$2,753,246	\$16,007
Graves	1,602	847	312	245	\$10,398,514	\$6,491
Hart	83	42	23	17	\$620,846	\$7,480
Hickman	74	41	24	22	\$194,954	\$2,635
Hopkins	924	499	251	199	\$27,286,406	\$29,531
Logan	173	96	46	29	\$1,898,897	\$10,976
Lyon	125	48	18	12	\$3,252,048	\$26,016
Marion	52	22	12	11	\$525,181	\$10,100
Marshall	669	331	152	81	\$25,039,032	\$37,428

County	Applicants	Inspections	Inspected With Damage	Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Loss
Muhlenberg	376	202	63	44	\$8,774,204	\$23,336
Ohio	159	90	45	39	\$3,159,463	\$19,871
Taylor	199	94	21	15	\$2,116,018	\$10,633
Warren	1,712	744	244	123	\$2,924,417	\$1,708

Source: FEMA data for owners impacted by DR-4630

2.2.2.2 FEMA IA Tenant Applications

Table 7. Tenant Applications, DR-4595

County	Applicants	Inspections	Inspected With Damage	Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Loss
Anderson	2	2	1	2	\$260	\$130
Boyd	4	2	1	4	\$735	\$184
Breathitt	76	49	40	76	\$169,709	\$2,233
Clark	9	5	3	9	\$16,860	\$1,873
Clay	30	16	4	30	\$9,571	\$319
Estill	33	18	12	33	\$62,682	\$1,899
Fayette	25	18	5	25	\$20,963	\$839
Floyd	63	33	23	63	\$84,199	\$1,336
Franklin	5	2	-	5	-	-
Greenup	7	5	1	7	\$4,883	\$698
Jackson	8	2	1	8	\$456	\$57
Jessamine	6	3	1	6	\$2,763	\$461
Johnson	46	30	11	46	\$20,045	\$436
Knott	5	3	-	5	-	-
Laurel	7	4	-	7	-	-
Lawrence	2	-	-	2	-	-
Lee	33	18	15	33	\$93,856	\$2,844
Leslie	3	2	1	3	\$46	\$15
Letcher	3	2	1	3	\$90	\$30
Lincoln	1	-	-	1	-	-
Madison	13	8	1	13	\$5,455	\$420
Magoffin	21	10	5	21	\$7,061	\$336
Martin	18	7	5	18	\$16,186	\$899
Morgan	2	1	1	2	\$262	\$131
Owsley	3	2	2	3	\$11,043	\$3,681
Perry	15	9	4	15	\$6,977	\$465
Powell	15	8	7	15	\$22,476	\$1,498
Pulaski	8	4	-	8	-	-
Rockcastle	4	2	-	4	-	-
Warren	12	6	3	12	\$1,941	\$162
Woodford	3	1	-	3	-	-

Source: FEMA data for renters impacted by DR-4595

Table 8. Tenant Applications, DR-4630

County	Applicants	Inspections	Inspected With Damage	Received Assistance	Total FEMA Verified Loss	Average FEMA Verified Loss
Barren	79	61	11	79	\$17,309	\$219
Caldwell	227	183	14	227	\$55,865	\$246
Christian	459	344	22	459	\$47,060	\$103
Fulton	185	148	7	185	\$40,482	\$219
Graves	2,370	1,885	537	2,370	\$1,588,538	\$670
Hart	46	28	6	46	\$13,632	\$296
Hickman	34	27	-	34	-	-
Hopkins	814	648	196	814	\$911,570	\$1,120
Logan	136	104	13	136	\$43,777	\$322
Lyon	48	33	1	48	\$240	\$5
Marion	18	12	4	18	\$10,553	\$586
Marshall	368	275	19	368	\$84,228	\$229
Muhlenberg	387	306	19	387	\$69,297	\$179
Ohio	100	74	10	100	\$47,849	\$478
Taylor	193	166	8	193	\$48,653	\$252
Warren	2,241	1,595	399	2,241	\$883,668	\$394

Source: FEMA data for renters impacted by DR-4630

2.2.2.3 FEMA IA Applications by Housing Type

Table 9. Applications by Housing Type

Residence Type	Applicants	Owner			Type
		Occupied	Tenants	Unknown	
Apartment	1,640	0.10%	19.84%	8.82%	8.96%
Assisted Living Facility	254	0.00%	3.10%	0.00%	1.39%
Boat	10	0.04%	0.07%	0.00%	0.05%
College Dorm	3	0.00%	0.04%	0.00%	0.02%
Condominium	113	0.63%	0.61%	0.00%	0.62%
Correctional Facility	3	0.00%	0.04%	0.00%	0.02%
House/Duplex	12,856	76.83%	62.37%	51.47%	70.26%
Military Housing	2	0.00%	0.02%	0.00%	0.01%
Mobile Home	1,805	14.27%	4.41%	16.18%	9.87%
Other	1,082	5.59%	6.24%	14.71%	5.91%
Townhouse	386	1.42%	2.92%	5.88%	2.11%
Travel Trailer	143	1.13%	0.34%	2.94%	0.78%

Source: FEMA IA data for DR-4595 and DR-4630

2.2.2.4 FEMA Real Property Damage Owner-Occupied Units

Table 10. Owner-Occupied Units Real Property Damage, DR-4595

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Anderson	2	1	2	4	-
Boyd	28	2	2	3	-
Breathitt	240	84	53	72	7

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Clark	19	2	3		11
Clay	207	27	12	4	
Estill	85	17	24	27	13
Fayette	21	1	1	1	2
Floyd	206	49	35	20	3
Franklin	9	2	1	4	5
Greenup	42	3	3	1	-
Jackson	49	2		3	3
Jessamine	6	2	1	1	-
Johnson	183	21	19	9	-
Knott	30	3	1	2	-
Laurel	33	6	1	1	1
Lawrence	49	6	2	3	1
Lee	78	4	5	15	1
Leslie	38	1	-	-	-
Letcher	14	3	1	1	2
Lincoln	3		1	1	-
Madison	24	1	-	3	1
Magoffin	109	25	11	3	2
Martin	167	50	12	10	4
Morgan	27	2	2	2	2
Owsley	38	6	4	2	-
Perry	55	9	12	1	2
Powell	47	8	18	8	3
Pulaski	31	3	4	5	4
Rockcastle	43	2		11	-
Warren	52	3	5	1	2
Woodford	10	1	4		1

Source: FEMA data for owners impacted by DR-4595

Table 11. Owner-Occupied Units Real Property Damage, DR-4630

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Barren	62	4	11	1	3
Caldwell	380	3	11	15	59
Christian	323	1	8	6	17
Fulton	145	5	1	4	17
Graves	1,381	73	50	37	61
Hart	73	3	2		5
Hickman	67	2		2	3
Hopkins	709	29	26	38	122
Logan	139	11	11	5	7

County	Units with	Units with	Units with	Units with	Units with
	Minor-Low	Minor-High	Major-Low	Major-High	Severe
Lyon	109	1	3	1	11
Marion	42	2	6	1	1
Marshall	526	6	19	22	96
Muhlenberg	320	4	7	11	34
Ohio	124	4	8	5	18
Taylor	183		5	2	9
Warren	1,579	66	31	24	12

Source: FEMA data for owners impacted by DR-4630

2.2.2.5 FEMA Real Property Damage Rental Units

Table 12. Rental Units Real Property Damage, DR-4595

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Anderson	2				
Boyd	4				
Breathitt	43	2	10	16	5
Clark	6		1	2	
Clay	29			1	
Estill	22	2		8	1
Fayette	22		1	1	1
Floyd	44	4	4	11	
Franklin	5				
Greenup	6			1	
Jackson	8				
Jessamine	5		1		
Johnson	38	3	4	1	
Knott	5				
Laurel	7				
Lawrence	2				
Lee	19			9	5
Leslie	3				
Letcher	3				
Lincoln	1				
Madison	12			1	
Magoffin	19	1		1	
Martin	15	1		1	1
Morgan	2				
Owsley	1			2	
Perry	12	2		1	
Powell	9	2	1	2	1
Pulaski	8				
Rockcastle	4				

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Warren	11	1			
Woodford	3				

Source: FEMA data for renters impacted by DR-4595

Table 13. Rental Units Real Property Damage, DR-4630

County	Units with Minor-Low	Units with Minor-High	Units with Major-Low	Units with Major-High	Units with Severe
Barren	76	1		2	
Caldwell	219	1	1	2	4
Christian	451	2	2	2	2
Fulton	180			2	3
Graves	1,999	112	84	135	40
Hart	42	2	1	1	
Hickman	34				
Hopkins	655	23	27	68	41
Logan	128	2	1	2	3
Lyon	48				
Marion	15	1	1	1	
Marshall	351	5	2	6	4
Muhlenberg	374	4	2	3	4
Ohio	94	2		1	3
Taylor	185		2	3	3
Warren	2,022	72	62	69	16

Source: FEMA data for renters impacted by DR-4630

[22] DR-4630 Draft Housing Impact Assessment 05-31-2022

(2) Public Housing and Affordable Housing.

2.2.3 Public Housing and Affordable Housing

DLG was able to collect limited data on multifamily HUD-assisted housing. The table below shows the number of properties, number of units assisted, and unmet needs as related to disaster DR-4630 (2021 severe storms, straight-line winds, flooding and tornadoes). DLG made use of the best available data through the Kentucky Housing Corporation. DLG attempted to get more information by reaching out to the HUD local office, but additional data were not available.

2.2.3.1 Multifamily HUD-Assisted Housing

Table 14. Multifamily HUD-Assisted Housing, DR-4630

Type of Damage	Properties	Units	Units Assisted	Units Awaiting Assistance	Remaining Unmet Need
No Damage	76	3,779	2,893	-	-
Minor Damage	2	80	40	-	-
Severe Damage – Red Tagged	1	46	0	0	46 residents

Source: Kentucky Housing Corporation

2.2.3.2 Public Housing Authorities Damaged

Data for damaged Public Housing Authorities (PHAs) came directly from impacted housing authorities in the HUD-designated MID areas. Again, DLG reached out to the HUD local office, but better data were not available. If the Commonwealth can access better data on PHAs, the table below will be updated.

Table 15. Public Housing Authorities Damaged

County/ Municipality	Total PHAs	Total PHAs Damaged	Units Damaged	Remaining Unmet Need
Graves County (Mayfield)	1	1	141	\$2,000
Warren County (Bowling Green)	1	0	0	0

Source: Kentucky Public Housing Authorities (Mayfield and Bowling Green)

2.2.3.3 Owners With Unmet Need in a Floodplain

Below is a table with information about participants in the National Flood Insurance Program. The table includes counties that were impacted by the disasters.

Table 16. Owners With Unmet Need in a Floodplain

Income Category	Count	Without Flood Insurance (#)	Without Flood Insurance (%)
Less than \$15,000	1,260	1,201	16.91%
\$15,000–\$30,000	1,632	1,582	22.27%
\$30,001–\$60,000	2,381	2,243	31.57%
\$60,001–\$120,000	1,909	1,631	22.96%
\$120,001–\$175,000	348	298	4.19%
More than \$175,000	179	149	2.10%
TOTAL	7,709	7,104	100.00%

Source: FEMA IA data for DR-4595 and DR-4630

2.2.3.4 Insurance Claims and Losses in Disaster-Impacted Areas

The following tables show the number of individuals whose property was damaged by disasters DR-4595 and DR-4630 and were eligible to apply for insurance claims. Insurance companies typically categorize claims differently and/or do not report them to a central database. The Commonwealth worked with the Kentucky Public Protection Cabinet to collect information on insurance claims (individual homeowners, renters, commercial, and farm claims) through a data call to insurance providers.

Insurance Claims and Losses DR-4595

Table 17. Insurance Claims and Losses, DR-4595

County	Claims (#)	Claims Resulting in Loss (#)	Direct Incurred Losses (\$)	Disaster #
Anderson	25	11	\$108,337	DR- 4595
Boyd	51	29	\$150,816	DR- 4595
Breathitt	103	66	\$1,436,188	DR- 4595
Clark	27	10	\$92,778	DR- 4595
Clay	21	8	\$172,007	DR- 4595
Estill	51	19	\$124,470	DR- 4595
Fayette	170	122	\$863,127	DR- 4595
Floyd	38	14	\$55,802	DR- 4595
Franklin	51	34	\$316,178	DR- 4595
Greenup	27	15	\$672,253	DR- 4595
Jackson	25	19	\$141,401	DR- 4595
Jessamine	30	18	\$117,973	DR- 4595
Johnson	35	12	\$108,298	DR- 4595
Knott	10	4	\$166,861	DR- 4595
Laurel	98	64	\$600,511	DR- 4595
Lawrence	19	5	\$23,881	DR- 4595

County	Claims (#)	Claims Resulting in Loss (#)	Direct Incurred Losses (\$)	Disaster #
Lee	15	5	\$66,800	DR- 4595
Leslie	8	3	\$20,362	DR- 4595
Letcher	9	4	\$25,153	DR- 4595
Lincoln	45	27	\$204,308	DR- 4595
Madison	83	50	\$705,032	DR- 4595
Magoffin	22	14	\$130,527	DR- 4595
Martin	49	24	\$275,978	DR- 4595
Morgan	11	5	\$31,317	DR- 4595
Owsley	13	7	\$46,709	DR- 4595
Perry	28	15	\$128,180	DR- 4595
Powell	23	9	\$100,670	DR- 4595
Pulaski	140	100	\$992,674	DR- 4595
Rockcastle	27	15	\$335,984	DR- 4595
Warren	208	110	\$967,793	DR- 4595
Woodford	21	12	\$97,356	DR- 4595
TOTAL	1,483	850	\$9,279,739	DR- 4595

Source: FEMA data on insurance claims for DR-4595

Insurance Claims and Losses DR-4630

Table 18. Insurance Claims and Losses, DR-4630

County	Claims (#)	Direct Incurred Losses (\$)	Disaster #
Barren	2	\$3,500	DR - 4630
Caldwell	252	\$322,619	DR - 4630
Calloway	1	\$1,500	DR - 4630
Carlisle	2	\$2,000	DR - 4630
Christian	51	\$108,500	DR - 4630
Daviess	7	\$5,264	DR - 4630
Edmonson	1	\$2,500	DR - 4630
Fulton	202	\$233,171	DR - 4630
Graves	929	\$1,112,812	DR - 4630
Hancock	2	\$2,496	DR - 4630
Hart	2	\$5,000	DR - 4630
Hickman	68	\$76,988	DR - 4630
Hopkins	689	\$772,614	DR - 4630
Logan	4	\$8,000	DR - 4630
Lyon	158	\$236,874	DR - 4630
Marion	1	\$1,000	DR - 4630
Marshall	37	\$74,959	DR - 4630
McCracken	1	\$1,000	DR - 4630
McLean	33	\$36,997	DR - 4630
Monroe	1	\$1,000	DR - 4630
Muhlenberg	177	\$203,413	DR - 4630

County	Claims (#)	Direct Incurred Losses (\$)	Disaster #
Ohio	139	\$147,828	DR - 4630
Taylor	2	\$3,760	DR - 4630
Warren	2,346	\$2,852,074	DR - 4630
Webster	2	\$2,500	DR - 4630
TOTAL	5,109	\$6,218,369	DR - 4630

Source: FEMA data on insurance claims for DR-4630

2.2.3.5 Total Home Loans Approved by SBA

The SBA provides low-interest, long-term disaster loans to homeowners and renters to repair or replace uninsured or underinsured disaster-damaged property. As part of the loan process, SBA conducts a credit review. For home loans, SBA regulations limit home loans to \$200,000 for the repair or replacement of real estate and \$40,000 to repair or replace personal property. Subject to these maximums, loan amounts cannot exceed the verified uninsured disaster loss. Interest rates for the term of the loan are determined by formulas set by law and vary from disaster to disaster. Interest rates will not exceed 4%, and the maximum term is 30 years.

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Clay	3	Madison	1
Estill	21	Magoffin	4
Fayette	6	Marion	6
Floyd	12	Marshall	78
Franklin	5	Martin	6
Fulton	9	Morgan	3
Graves	74	Muhlenberg	31
Greenup	1	Ohio	9
Hart	3	Owsley	1
Hickman	1	Perry	7
Hopkins	114	Powell	4
Jackson	1	Pulaski	3
Jessamine	2	Rockcastle	4
Johnson	14	Taylor	8
Knott	3	Warren	142
Laurel	2	Woodford	1
		TOTAL	735

Source: SBA Statistics for KY Declarations #16932 (KY-00084/FEMA 4595) and #17286 (KY-00087/FEMA 4630)

Type Of Damage	# of Properties	# of Units	# of Units Assisted	# of Units Waiting Assistance	Remaining Unmet Need
Minor-Low	76.00	3,779.00	2,893.00	0.00	\$0.00
Minor-High	2.00	80.00	40.00	0.00	\$0.00
Major-Low	0.00	0.00	0.00	0.00	\$0.00
Major-High	0.00	0.00	0.00	0.00	\$0.00
Severe	1.00	46.00	0.00	0.00	\$0.00
Total	79.00	3,905.00	2,933.00		

Data Source(s): Kentucky Housing Corporation

* FEMA does not inspect rental units for real property damage so personal property damage is used as a proxy for unit damage. The monetary thresholds are defined in Appendix D.

Public Housing Authorities Damaged

County/Municipality	Total # PHAs	Total PHAs Damaged	# of Units Damaged	Remaining Unmet Need
Graves County	1.00	1.00	141.00	\$2,000.00
Warren County	1.00	0.00	0.00	\$0.00
Total	2.00	1.00	141.00	\$2,000.00

Data Source(s): Kentucky Public Housing Authorities (Mayfield and Bowling Green)

Fair Housing, Civil Rights Data and Advancing Equity.

2.2.3.6 Social Equity, Fair Housing, and Civil Rights

2.2.3.6.1 Addressing Impediments to Accessible Housing

An impediment to fair housing choice is defined by HUD as any action, omission, or decision that restricts or has the effect of restricting the availability of housing choices to members of the protected classes. Discriminatory housing practices essentially deny equal access to or benefit of a housing opportunity. Section 109 of Title I of the Housing and Community Development Act of 1974 prohibits discrimination on the basis of race, color, national origin, sex, or religion in programs and activities receiving financial assistance from HUD's CDBG program. In addition, the affirmatively furthering fair housing (AFFH) goals include analyzing and eliminating housing discrimination, promoting fair housing choice for all persons, providing opportunities for inclusive patterns of housing occupancy, promoting housing that is structurally accessible, and fostering compliance with the nondiscrimination provisions of the Fair Housing Act.

The Commonwealth of Kentucky understands that access to fair housing correlates to access to affordable housing. DLG and the Kentucky Housing Corporation conducted a 2019 Analysis of Impediments to Fair Housing Choice that examined how a jurisdiction's laws, regulations, and administrative policies, procedures, and practices affect the location, availability, and accessibility of housing.^[23] The study was also an assessment of conditions, both public and private, that affect fair housing choice.

The data utilized were primarily from the U.S. Census Bureau's American Community Survey for 2013–2017. Some of the study's results concluded that:

- Kentucky's rate of new housing (2%) has not kept pace with the national average (5%).
- Between 2010 and 2017, incomes have declined or stagnated for all racial/ethnic groups except those selecting multiracial and Other Race identities.
- By 2017, the State homeownership rate decreased slightly by 1.7 percentage points.
- Non-White households tend to be larger than White households and are in the rental market at higher rates.
- Even in the absence of discrimination, persons with disabilities often experience greater obstacles in securing affordable housing that is accessible due to the potential for lower wages and rates of employment.

Some of the barriers identified in the study that still exist and can prevent impacted communities from obtaining housing include:

- Inadequate or inaccessible housing exists for families with children, the elderly, refugees and immigrants, and individuals with disabilities.
- Emphasis on credit scores that negatively impacts minorities and protected classes.
- Appraisal processes that contribute to increased devaluation of minority neighborhoods.
- Education on homeownership and renters' rights often remains available only in English, such that persons with limited English proficiency (LEP) may encounter obstacles to fair housing by virtue of language and cultural barriers. Providing language access, mainly in western Kentucky, will be essential to ensure that grantee-identified MID areas see higher participation rates due to having a higher percentage of LEP persons and a foreign-born population.

Figure 5. Percent of LEP Residents, HUD and Grantee MID Areas

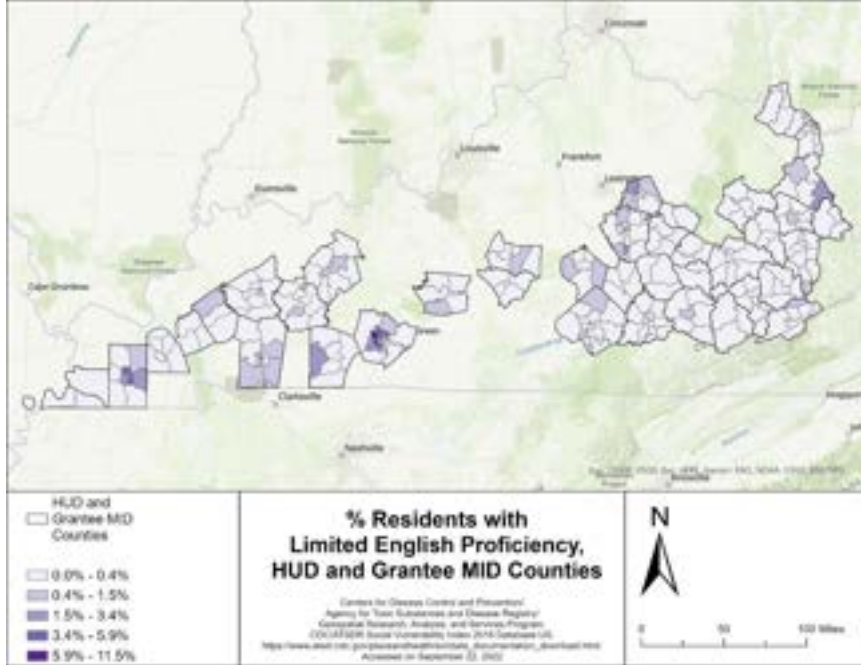


Figure 6. Foreign-Born Population, HUD and Grantee MID Areas

In accordance with federal and State laws, Kentucky defines the following characteristics as federally protected against housing discrimination: race, color, religion, sex, gender, national origin, familial status, and disability status. Through this funding, the Commonwealth will respond to the needs of impacted residents and communities, with a particular emphasis on vulnerable populations. Vulnerable populations are defined as a group or community whose circumstances present barriers to obtaining or understanding information or accessing resources. Vulnerable populations can include LEP persons, persons experiencing homelessness, elderly, persons with disabilities, victims of domestic violence, and public housing residents.

From the study results, DLG and its subrecipients will increase efforts in outreach and fair housing education to municipalities and institutions across Kentucky, focusing on the expansion and preservation of affordable housing across Kentucky, enforcement of design and construction standards, and updates to the Language Access Plan to ensure that LEP populations are made aware of housing opportunities. The combination of these efforts should address unmet recovery needs in impacted communities, reduce any unjustified discriminatory effects on vulnerable populations, and increase participation in Kentucky's housing and infrastructure programs.

DLG will ensure that the proposed housing programs not only address the disaster recovery needs of the community but are also consistent with the goals of AFFH and remove barriers to building inclusive communities. The Commonwealth will implement the following strategies to reduce barriers that individuals may face when enrolling in and accessing CDBG-DR assistance. These strategies will also prevent the CDBG-DR housing programs from having an unjust discriminatory effect on individuals with disabilities and racial and ethnic minorities in proportion to their communities' needs. The Commonwealth will:

- Provide a Housing Counseling and Legal Aid program. The program will provide funds to subrecipients to help guide housing applicants through the program implementation and complement the proposed housing activities. With outreach and promotion, DLG and subrecipients will ensure access for individuals with disabilities including but not limited to mobility, sensory, developmental, emotional, cognitive, and other impairments.
- Coordinate with the Kentucky Commission on Human Rights, Lexington Fair Housing Council, and other organizations (e.g., Bowling Green Human Rights Commission, Kentucky Housing Corporation) to address or eliminate any discriminatory practices against persons based on race, skin color, national origin, religion, sex, gender, gender identity, sexual orientation, disability, and familial status.
- Develop a network of points of contact for organizations and programs that serve minority, elderly, women, disabled persons and ethnic groups and make sure that program information is given to these groups for dissemination beyond standard newspaper and public notice channels.
- Maximize choice within the community's total housing supply by ensuring that administrative practices do not have a discriminatory effect.
- Lessen racial, ethnic, and economic concentrations of housing by developing a nondiscrimination checklist to review policies, plans and actions, and documented reviews.
- Provide regular technical assistance to subrecipients who need support related to adhering to AFFH regulations and provide support to subrecipients who are struggling with a lack of outreach to their community.

As part of its ongoing effort to monitor subrecipients, DLG will determine if additional steps are needed to address fair housing requirements. DLG will evaluate whether subrecipients have (1) designated a fair housing and equal opportunity coordinator to be the prime liaison with DLG, (2) passed a fair housing resolution prior to release of grant funds, and (3) conducted one or more AFFH activities, depending on local conditions and needs to ensure that all citizens in the community are aware that AFFH is a priority (e.g., launched counseling services, provided assistance to fair housing groups).

If substantial efforts are not being made to support AFFH, DLG may determine that additional technical assistance to subrecipients is necessary or may provide more outreach to all residents in a community to ensure that housing needs are being addressed.

Program homeowners and renters will be informed that if they believe their rights may have been violated, they can [file a complaint with FHEO](#) by online submission, email, phone, or mail.

HUD Form 903 [Online Complaint](#)

Atlanta Regional Office of FHEO

U.S. Department of Housing and Urban Development

Five Points Plaza

40 Marietta Street, 16th Floor

Atlanta, GA 30303-2806

2.2.3.6.2 The Use of Data to Make Funding Decisions to Advance Equity and Reduce Barriers

DLG is committed to using data, performance metrics, and qualitative and quantitative information to ensure programs help advance equity and reduce barriers. This section outlines DLG's analysis of impacts to vulnerable populations,^[24] including analysis of members of protected classes under fair housing and civil rights laws, racially and ethnically concentrated areas of poverty, socially vulnerable areas, and historically underserved communities.^[25]

This information provides a foundation for understanding the additional needs of survivors and for ensuring programs are implemented equitably or in a manner that understands and addresses disparities and additional needs across race, ability, class, age, ethnicity, gender, and other characteristics.

2.2.3.6.3 Underserved Communities

The Commonwealth has mapped the MID areas with the geographic boundaries of Opportunity Zones . These maps delineate areas that HUD has identified as underserved communities at the census tract level ("Opportunity Zones"). DLG has researched the diverse impacts from the two declared disasters across the Commonwealth, identifying disparate challenges both across communities and stemming from different hazards. DLG will use a more refined and focused method of data analysis, mapping, and examination of community data gathered through the Action Plan and the program-designed stakeholder consultation process to understand which neighborhoods and communities have been historically underserved. In this way, DLG can better identify and target unmet needs in underserved communities. The Commonwealth will also review other information that may indicate whether a community is underserved, including reviewing census tracts that were eligible for Opportunity Zone designation and areas eligible for New Market Tax Credits.

Figure 7. Opportunity Zones

2.2.3.6.4 Opportunity Zones

Opportunity Zones were created under the Tax Cuts and Jobs Act of 2017. They are low-income communities and certain neighboring areas that are first defined by population census tract, then nominated by states for the Opportunity Zone designation and certified by the U.S. Department of the Treasury. Their purpose is to spur economic growth and job creation in low-income communities while providing tax benefits to investors.^[26]

As demonstrated in the map above, the 2021 disaster-impacted areas that are either within or border Opportunity Zones fall in the following counties:

- Breathitt County
- Graves County
- Hopkins County
- Warren County

2.2.3.6.5 Tribal Areas

Tribal lands representing seven American Indian Tribes are located within the impacted areas. They are the Cherokee Nation, the Chickasaw Nation, the Delaware Nation (Oklahoma), the Eastern Band of Cherokee Indians, the Eastern Shawnee Tribe of Oklahoma, the Osage Nation, and the Quapaw Tribe of Indians.^[27]

None of these seven tribes that are in or near the severe storm, flooding, landslides, or mudslide disaster areas have large reservations or tracts of native-owned lands or housing that sustained damage by the 2021 severe weather disasters. Rather, their enrolled tribal members live throughout the Commonwealth and nationally. The figure below, from the U.S. Geological Survey (USGS), shows that there are no defined tribal areas for the American Indian population in Kentucky.

Figure 8. Native Lands

2.2.3.6.6 R/ECAPs

Racially/ethnically concentrated areas of poverty (R/ECAPs) are census tracts determined by HUD to have a non-White population of 50% or more and where more than 40% of the population live in poverty. One HUD MID, Warren County, contains census tracts that are identified as R/ECAP areas.

2.2.3.6.7 Social Vulnerability Index and Disadvantaged Communities

In 2021, President Joe Biden signed Executive Order 14008 "Tackling the Climate Crisis at Home and Abroad." The executive order states that "40 percent of the overall benefits" of federal investments from covered programs should flow to disadvantaged communities.^[28] This ensures that any federal funds directed toward climate mitigation and adaptation largely benefit historically underserved communities. One way that agencies and covered programs benefit disadvantaged communities is by identifying target populations with the CDC's Social Vulnerability Index (SVI).

The CDC's Agency for Toxic Substances and Disease Registry's (ATSDR) SVI ranks counties and census tracts on 15 social factors, including unemployment, minority status, and disability, and then further groups them into four related themes. The SVI ranking variables for the four themes include socioeconomic status, household composition and disability, minority status and language, and housing type and transportation. These indicators help support analysis of 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. Table 21 Census Tracts in MID Areas with SVI Percentil >0.90 shows the overall ranking, which is a percentile ranking 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 Commonwealth or nation are more vulnerable.

The overall SVI percentile for census tracts in the MID areas is 0.56, indicating that 56% of tracts in the Commonwealth or nation are less vulnerable. The 10 census tracts with the highest SVI percentiles (above 0.90) are included in the table below; four of the 10 census tracts are in Warren County. The county with census tracts having the highest overall SVI percentile is Breathitt County, with an overall SVI percentile of 0.76 (see figure 6 for further details).

Table 20. Census Tracts in HUD MID Areas with SVI Percentile >0.90

Census Tract	County	Overall SVI Percentile
Census Tract 102	Warren	0.9973
Census Tract 203	Graves	0.9828
Census Tract 201	Graves	0.9819
Census Tract 112	Warren	0.9719
Census Tract 110.01	Warren	0.9683
Census Tract 9704	Hopkins	0.9655
Census Tract 9706	Hopkins	0.9383
Census Tract 9206	Breathitt	0.9193
Census Tract 202	Graves	0.9093
Census Tract 103	Warren	0.9030

Figure 9. Overall SVI Percentile in HUD MID Areas

Figure 10. Overall SVI Percentile in Grantee MID Areas

2.2.3.6.8 Race and Ethnicity

2.2.3.6.8.1 Black or African American Residents

The largest minority population group in the MID areas are residents who identify as Black or African American. The 2020 Decennial Census redistricting data, from the U.S. Census Bureau, indicates that 6.74% of residents in the MID areas identify as Black or African American. The MID area containing census tracts with the highest percentage of residents who identify as Black or African American is the 42101 ZIP code in Warren County. Census tract 112 in Warren County has the highest concentration of Black or African American residents within the MID area, with 1,685 residents (34.73%) identifying as Black or African American.

Using data with mapping, DLG can start to address the disproportionate impact of poverty on housing ownership and maintenance. Knowing which areas are impacted and have greater proportions of Black or African American residents will allow DLG and its subrecipients to target outreach for the CDBG-DR programs to ensure that residents in those areas are able to participate and receive the help they need. This will be a step forward in making sure that the programs do not have an unjustified discriminatory effect on or failure to benefit racial and ethnic minorities in proportion to their communities' needs.

Figure 11. Percentage of Population That is Black or African American, 41339 ZIP Code

Figure 12. Percentage of Population That is Black or African American, 42101 ZIP Code

Figure 13. Percentage of Population That is Black or African American, Hopkins County

Figure 14. Percentage of Population That is Black or African American, Graves County

Figure 15. Percentage of Black or African American Population, Grantee MID Areas

Table 21. Percentage of Population That is Black or African American, HUD MID Areas

County	Census Tract Number	Total Population (#)	White Alone (#)	White Alone (%)	Black or African American Alone (#)	Black or African American Alone (%)
Breathitt	9202	2,048	1,934	94.43%	114	5.57%
Breathitt	9203.01	2,112	2,089	98.91%	0	0.00%
Breathitt	9203.02	1,096	1,043	95.16%	30	2.74%
Breathitt	9205	1,547	1,523	98.45%	0	0.00%
Breathitt	9206	1,616	1,562	96.66%	26	1.61%
Breathitt	9207	1,869	1,864	99.73%	0	0.00%
Breathitt	9208	2,514	2,441	97.10%	15	0.60%
Graves	201	4,039	3,329	82.42%	476	11.79%
Graves	202	4,721	3,784	80.15%	417	8.83%

County	Census Tract Number	Total Population (#)	White Alone (#)	White Alone (%)	Black or	Black or
					African American Alone (#)	African American Alone (%)
Graves	203.01	4,149	3,495	84.24%	308	7.42%
Graves	203.02	1,878	1,613	85.89%	78	4.15%
Graves	204	2,978	2,663	89.42%	0	0.00%
Graves	205	3,878	3,583	92.39%	74	1.91%
Graves	206	2,568	2,542	98.99%	0	0.00%
Graves	207	4,957	4,742	95.66%	58	1.17%
Graves	208	4,668	4,259	91.24%	0	0.00%
Graves	209	3,289	3,014	91.64%	61	1.85%
Hopkins	9701	2,995	2,920	97.50%	9	0.30%
Hopkins	9702	3,378	3,246	96.09%	48	1.42%
Hopkins	9703.01	1,733	1,566	90.36%	126	7.27%
Hopkins	9703.02	5,311	4,548	85.63%	514	9.68%
Hopkins	9704	2,108	1,839	87.24%	153	7.26%
Hopkins	9705	4,601	3,999	86.92%	396	8.61%
Hopkins	9706	2,714	1,804	66.47%	544	20.04%
Hopkins	9707	4,801	4,190	87.27%	452	9.41%
Hopkins	9708	2,772	2,284	82.40%	364	13.13%
Hopkins	9709	3,548	3,293	92.81%	205	5.78%
Hopkins	9710	2,950	2,930	99.32%	0	0.00%
Hopkins	9711	3,302	3,128	94.73%	41	1.24%
Hopkins	9713	4,831	4,665	96.56%	113	2.34%
Warren	101	3,002	1,950	64.96%	318	10.59%
Warren	102	3,480	1,636	47.01%	1,308	37.59%
Warren	103	4,503	2,888	64.14%	939	20.85%
Warren	104	5,824	4,903	84.19%	501	8.60%
Warren	105	2,666	2,291	85.93%	162	6.08%
Warren	106	4,493	3,970	88.36%	164	3.65%
Warren	107.01	5,589	4,529	81.03%	342	6.12%
Warren	107.02	6,607	4,829	73.09%	320	4.84%
Warren	108.01	2,935	2,563	87.33%	213	7.26%
Warren	108.02	8,642	7,691	89.00%	158	1.83%
Warren	108.04	3,156	2,290	72.56%	462	14.64%
Warren	108.05	3,278	2,822	86.09%	136	4.15%
Warren	109	4,625	4,261	92.13%	111	2.40%
Warren	110.01	4,391	2,092	47.64%	724	16.49%
Warren	110.02	7,607	5,289	69.53%	1,323	17.39%
Warren	111	6,752	5,837	86.45%	349	5.17%
Warren	112	4,852	2,368	48.80%	1,685	34.73%
Warren	113	4,994	3,299	66.06%	805	16.12%
Warren	114.01	6,939	6,445	92.88%	306	4.41%

County	Census Tract Number	Total Population (#)	White Alone (#)	White Alone (%)	Black or African American Alone (#)	Black or African American Alone (%)
Warren	114.02	3,653	3,359	91.95%	178	4.87%
Warren	115	7,358	6,677	90.74%	133	1.81%
Warren	116	5,327	4,684	87.93%	287	5.39%
Warren	117.01	4,462	3,646	81.71%	503	11.27%
Warren	117.02	3,919	3,713	94.74%	51	1.30%
Warren	118.01	2,968	2,941	99.09%	0	0.00%
Warren	118.02	2,844	2,844	100.00%	0	0.00%
Warren	119	5,970	5,724	95.88%	12	0.20%

Source: U.S. Census Bureau's 2020 American Community Survey 5-Year Estimates

2.2.3.6.8.2 Some Other Race

The second-largest minority population group in the MID areas are residents who identify as "Some Other Race" according to the 2020 Decennial Census, from the U.S. Census Bureau. The 2020 Decennial Census redistricting data indicate that 4.62% of residents in the MID areas identify as Some Other Race. The MID area containing census tracts with the highest percentage of residents who identify as Some Other Race is the 42101 ZIP code in Warren County. Census tract 103 in Warren County has the highest concentration of residents identifying as Some Other Race (926 residents or 20.6%) within the MID area.

Using mapping data, DLG will ensure that outreach occurs in these areas and that programs do not have an unjustified discriminatory effect on or failure to benefit racial and ethnic minorities in proportion to their communities' needs.

Figure 16. Percent of Population Identifying as Some Other Race, 41339 ZIP Code

Figure 17. Percent of Population Identifying as Some Other Race, 42101 ZIP Code

Figure 18. Percent of Population Identifying as Some Other Race, Hopkins County

Figure 19. Percent of Population Identifying as Some Other Race, Graves County

Table 22. Some Other Race, HUD MID Areas

County	Census Tract Number	Some Other Race (#)	Some Other Race (%)
Breathitt	9202	0	0.00%
Breathitt	9203.01	0	0.00%
Breathitt	9203.02	0	0.00%
Breathitt	9205	24	1.55%
Breathitt	9206	0	0.00%
Breathitt	9207	0	0.00%
Breathitt	9208	36	1.43%
Graves	201	7	0.17%
Graves	202	90	1.91%
Graves	203.01	307	7.40%
Graves	203.02	179	9.53%
Graves	204	19	0.64%
Graves	205	3	0.08%
Graves	206	0	0.00%
Graves	207	116	2.34%
Graves	208	152	3.26%
Graves	209	0	0.00%
Hopkins	9701	0	0.00%
Hopkins	9702	0	0.00%
Hopkins	9703.01	0	0.00%
Hopkins	9703.02	17	0.32%
Hopkins	9704	0	0.00%
Hopkins	9705	0	0.00%
Hopkins	9706	77	2.84%
Hopkins	9707	0	0.00%
Hopkins	9708	0	0.00%

County	Census Tract Number	Some Other Race (#)	Some Other Race (%)
Hopkins	9709	3	0.08%
Hopkins	9710	0	0.00%
Hopkins	9711	0	0.00%
Hopkins	9713	0	0.00%
Warren	101	16	0.53%
Warren	102	329	9.45%
Warren	103	372	8.26%
Warren	104	8	0.14%
Warren	105	47	1.76%
Warren	106	0	0.00%
Warren	107.01	0	0.00%
Warren	107.02	0	0.00%
Warren	108.01	52	1.77%
Warren	108.02	11	0.13%
Warren	108.04	0	0.00%
Warren	108.05	10	0.31%
Warren	109	127	2.75%
Warren	110.01	654	14.89%
Warren	110.02	37	0.49%
Warren	111	71	1.05%
Warren	112	300	6.18%
Warren	113	286	5.73%
Warren	114.01	27	0.39%
Warren	114.02	0	0.00%
Warren	115	0	0.00%
Warren	116	2	0.04%
Warren	117.01	102	2.29%
Warren	117.02	0	0.00%
Warren	118.01	0	0.00%
Warren	118.02	0	0.00%
Warren	119	0	0.00%

Source: U.S. Census Bureau's 2020 American Community Survey 5-Year Estimates

Figure 20. Percentage of Population Identifying as Some Other Race, Grantee MID Areas

2.2.3.6.8.3 Hispanic or Latino

The U.S. Census Bureau's 2020 Decennial Census redistricting data indicate that 4.53% of residents in the MID areas identify as Hispanic or Latino. The MID area containing census tracts with the highest percentage of residents who identify as Hispanic or Latino is the 42101 ZIP code in Warren County. Census tract 103 in Warren County has the highest concentration of residents identifying as Hispanic or Latino (1,070 residents or 23.8%) within the MID area.

Using mapping data, DLG will ensure that outreach occurs in these areas and that programs do not have an unjustified discriminatory effect on or failure to benefit racial and ethnic minorities in proportion to their communities' needs.

Figure 21. Percentage of Population That is Hispanic or Latino, Graves County

Figure 22. Percentage of Population That is Hispanic or Latino, Hopkins County

Figure 23. Percentage of Population That is Hispanic or Latino, 42101 ZIP Code

Figure 24. Percentage of Population That is Hispanic or Latino, 41339 ZIP Code

Table 23. Percentage of Population That is Hispanic or Latino, HUD MID Areas

County	Census Tract Number	Total (#)	Hispanic or Latino (#)	Hispanic or Latino (%)	Not Hispanic or Latino (#)	Not Hispanic or Latino (%)
Breathitt	9202	2,170	18	0.83%	2,152	99.17%
Breathitt	9203.01	1,893	10	0.53%	1,883	99.47%
Breathitt	9203.02	1,668	8	0.48%	1,660	99.52%
Breathitt	9205	1,692	6	0.35%	1,686	99.65%
Breathitt	9206	1,950	11	0.56%	1,939	99.44%
Breathitt	9207	1,986	24	1.21%	1,962	98.79%
Breathitt	9208	2,359	16	0.68%	2,343	99.32%
Graves	201	4,050	500	12.35%	3,550	87.65%
Graves	202	4,391	409	9.31%	3,982	90.69%
Graves	203.01	4,721	720	15.25%	4,001	84.75%
Graves	203.02	1,857	409	22.02%	1,448	77.98%
Graves	204	2,709	102	3.77%	2,607	96.23%
Graves	205	3,708	106	2.86%	3,602	97.14%
Graves	206	2,307	36	1.56%	2,271	98.44%
Graves	207	4,969	267	5.37%	4,702	94.63%
Graves	208	4,915	113	2.30%	4,802	97.70%
Graves	209	3,022	111	3.67%	2,911	96.33%
Hopkins	9701	3,008	47	1.56%	2,961	98.44%
Hopkins	9702	3,455	57	1.65%	3,398	98.35%
Hopkins	9703.01	1,885	50	2.65%	1,835	97.35%
Hopkins	9703.02	5,226	114	2.18%	5,112	97.82%
Hopkins	9704	2,062	69	3.35%	1,993	96.65%
Hopkins	9705	5,071	189	3.73%	4,882	96.27%
Hopkins	9706	3,205	189	5.90%	3,016	94.10%
Hopkins	9707	4,798	79	1.65%	4,719	98.35%

County	Census Tract Number	Total (#)	Hispanic or Latino (#)	Hispanic or Latino (%)	Not Hispanic or Latino (#)	Not Hispanic or Latino (%)
Hopkins	9708	2,949	111	3.76%	2,838	96.24%
Hopkins	9709	3,205	75	2.34%	3,130	97.66%
Hopkins	9710	2,674	38	1.42%	2,636	98.58%
Hopkins	9711	3,068	53	1.73%	3,015	98.27%
Hopkins	9713	4,817	55	1.14%	4,762	98.86%
Warren	101	2,755	157	5.70%	2,598	94.30%
Warren	102	3,524	417	11.83%	3,107	88.17%
Warren	103	4,503	1,070	23.76%	3,433	76.24%
Warren	104	4,168	157	3.77%	4,011	96.23%
Warren	105	2,271	95	4.18%	2,176	95.82%
Warren	106	4,302	292	6.79%	4,010	93.21%
Warren	107.01	5,422	384	7.08%	5,038	92.92%
Warren	107.02	6,647	355	5.34%	6,292	94.66%
Warren	108.01	3,984	268	6.73%	3,716	93.27%
Warren	108.02	8,708	307	3.53%	8,401	96.47%
Warren	108.04	2,882	86	2.98%	2,796	97.02%
Warren	108.05	3,998	239	5.98%	3,759	94.02%
Warren	109	4,703	246	5.23%	4,457	94.77%
Warren	110.01	4,305	914	21.23%	3,391	78.77%
Warren	110.02	7,852	1,063	13.54%	6,789	86.46%
Warren	111	7,759	418	5.39%	7,341	94.61%
Warren	112	5,369	911	16.97%	4,458	83.03%
Warren	113	4,733	359	7.59%	4,374	92.41%
Warren	114.01	7,233	245	3.39%	6,988	96.61%
Warren	114.02	3,501	150	4.28%	3,351	95.72%
Warren	115	7,550	192	2.54%	7,358	97.46%
Warren	116	5,964	150	2.52%	5,814	97.48%
Warren	117.01	5,749	513	8.92%	5,236	91.08%
Warren	117.02	3,705	98	2.65%	3,607	97.35%
Warren	118.01	3,187	99	3.11%	3,088	96.89%
Warren	118.02	2,721	67	2.46%	2,654	97.54%
Warren	119	7,059	189	2.68%	6,870	97.32%

Source: 2020 Decennial Census, U.S. Census Bureau

Figure 25. Percentage of Hispanic or Latino Population, Grantee MID Areas

2.2.3.6.9 Poverty and LMI Status

2.2.3.6.9.1 Poverty

Data from the U.S. Census Bureau's 2020 American Community Survey indicate that 19% of residents in the HUD MID areas are below the federal poverty level. The county within the MID area with the highest percentage of residents living in poverty is Breathitt County, where 4,367 residents (44.2%) have incomes below the federal poverty level. The county with the greatest number of residents living in poverty is Warren County, with 20,285 residents (16.8% of the county's population) living in poverty.

DLG is required to meet LMI requirements, meaning that programs need to serve primarily persons who are classified as LMI. The maps below are helpful in determining how DLG and subrecipients can address remaining unmet needs and target funds to ensure that people who lack resources are provided the opportunity to recover.

Figure 26. Percentage of Population Living in Poverty, 41339 ZIP Code

Figure 27. Percentage of Population Living in Poverty, 42101 ZIP Code

Figure 28. Percentage of Population Living in Poverty, Hopkins County

Figure 29. Percentage of Population Living in Poverty, Graves County

Table 24. Percentage of Population Living in Poverty

County	Census Tract Number	Total (#)	Below Poverty Level (#)	Below Poverty Level (%)
Breathitt	9202	2,032	582	28.60%
Breathitt	9203.01	2,012	513	25.50%
Breathitt	9203.02	1,040	421	40.50%
Breathitt	9205	1,547	454	29.30%
Breathitt	9206	1,585	728	45.90%
Breathitt	9207	1,863	717	38.50%
Breathitt	9208	2,438	765	31.40%
Graves	201	3,791	1,070	28.20%
Graves	202	4,526	1,117	24.70%
Graves	203.01	4,149	1,606	38.70%
Graves	203.02	1,795	330	18.40%
Graves	204	2,978	471	15.80%
Graves	205	3,870	839	21.70%
Graves	206	2,542	261	10.30%
Graves	207	4,742	599	12.60%
Graves	208	4,668	430	9.20%
Graves	209	3,278	653	19.90%
Hopkins	9701	2,881	367	12.70%
Hopkins	9702	3,378	324	9.60%
Hopkins	9703.01	1,522	300	19.70%
Hopkins	9703.02	4,895	1,581	32.30%
Hopkins	9704	2,012	698	34.70%
Hopkins	9705	4,570	391	8.60%
Hopkins	9706	2,714	1,072	39.50%
Hopkins	9707	4,690	901	19.20%
Hopkins	9708	2,743	619	22.60%
Hopkins	9709	3,538	801	22.60%
Hopkins	9710	2,931	203	6.90%
Hopkins	9711	3,183	606	19.00%
Hopkins	9713	4,718	757	16.00%
Warren	101	2,233	1,356	60.70%
Warren	102	3,298	1,366	41.40%
Warren	103	4,423	2,161	48.90%
Warren	104	230	152	66.10%
Warren	105	2,504	1,088	43.50%
Warren	106	4,392	411	9.40%
Warren	107.01	5,525	906	16.40%
Warren	107.02	6,607	1,153	17.50%
Warren	108.01	2,794	626	22.40%
Warren	108.02	8,626	261	3.00%
Warren	108.04	3,156	1,092	34.60%

County	Census Tract Number	Total (#)	Below Poverty Level (#)	Below Poverty Level (%)
Warren	108.05	3,278	377	11.50%
Warren	109	4,544	1,319	29.00%
Warren	110.01	4,340	1,362	31.40%
Warren	110.02	7,592	1,534	20.20%
Warren	111	6,695	488	7.30%
Warren	112	4,819	1,632	33.90%
Warren	113	4,956	1,001	20.20%
Warren	114.01	6,931	243	3.50%
Warren	114.02	3,653	112	3.10%
Warren	115	7,284	274	3.80%
Warren	116	5,293	628	11.90%
Warren	117.01	4,407	548	12.40%
Warren	117.02	3,831	740	19.30%
Warren	118.01	2,928	246	8.40%
Warren	118.02	2,844	138	4.90%
Warren	119	5,917	210	3.50%

Source: U.S. Census Bureau's 2020 American Community Survey 5-Year Estimates

Figure 30. Percentage of Population Living in Poverty, Grantee MID Areas

2.2.3.6.10 Familial Status

2.2.3.6.10.1 Household Composition

Families need an income equal to about twice the federal poverty threshold to meet the most basic needs, and many households are one financial emergency away from taking on costly credit card debt. The more children in a family, the more income is needed. Looking at data on households with children can be a proxy for highlighting areas of potential economic insecurity if there is an economic downturn and median household incomes fall. Using available data from the U.S. Census Bureau's 2020 American Community Survey, the number of households with one or more children is dispersed across Kentucky but slightly overrepresented in eastern Kentucky (see Figure 31).

Figure 31. Households With One or More People Under 18, HUD and Grantee MID Areas

Table 25. Same- and Opposite Sex Partners in MID Areas

Same- and opposite-sex partners	Christian County	Madison County	Pulaski County	Warren County
Opposite-sex spouse	10,660	17,486	11,938	23,539
Same-sex spouse	144	196	-	451
Opposite-sex unmarried partner	2,131	2,661	975	3,956
Same-sex unmarried partner	62	317	52	88

Source: U.S. Census Bureau's 2021 American Community Survey 5-Year Estimates

Table 26. Religious Diversity in Kentucky

MID Areas	% of White Christians	% of Hispanic Protestants	% of Black Protestants	% of Religiously Unaffiliated
Boyd County	69%	0%	1%	24%
Breathitt County	73%	0%	2%	22%
Caldwell County	74%	1%	4%	17%
Christian County	56%	2%	9%	23%

MID Areas **% of White Christians** **% of Hispanic Protestants** **% of Black Protestants** **% of Religiously Unaffiliated**

Clark County	71%	2%	1%	23%
Clay County	76%	0%	4%	18%
Estill County	74%	0%	2%	19%
Floyd County	75%	0%	2%	20%
Fulton County	63%	1%	15%	16%
Graves County	73%	2%	2%	18%
Greenup County	72%	1%	1%	23%
Hart County	75%	0%	2%	19%
Hickman County	73%	1%	4%	16%
Hopkins County	75%	0%	3%	19%
Jackson County	82%	0%	1%	14%
Johnson County	74%	1%	2%	21%
Knott County	74%	0%	1%	24%
Laurel County	75%	0%	2%	20%
Lawrence County	72%	1%	2%	22%
Lee County	74%	0%	2%	20%
Leslie County	78%	0%	1%	18%
Letcher County	77%	1%	1%	18%
Lincoln County	77%	0%	3%	17%
Logan County	72%	0%	1%	22%
Lyon County	72%	0%	1%	23%
Madison County	68%	2%	3%	23%
Magoffin County	75%	0%	2%	22%
Marion County	71%	1%	3%	20%
Marshall County	74%	0%	2%	19%
Martin County	75%	0%	4%	19%
Morgan County	73%	0%	1%	23%
Muhlenberg County	74%	1%	3%	19%
Ohio County	74%	1%	1%	19%
Owsley County	78%	0%	4%	14%
Perry County	74%	0%	2%	28%
Powell County	73%	0%	1%	22%
Pulaski County	76%	1%	0%	17%
Rockcastle County	79%	1%	1%	17%
Taylor County	74%	2%	2%	18%
Warren County	62%	2%	3%	20%

Source: PRRI 2020 Census of American Religion

2.2.3.6.11 Environmental Justice

EPA’s environmental justice screening and mapping tool provides EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators. The EJScreen evaluates 12 environmental and seven demographic indicators and consolidates the two indicators into 12 environmental justice (EJ) indicators. Each EJ index combines demographic indicators with a single environmental indicator.

Figure 32 shows where the superfund, brownfield, and toxic release sites are in the Commonwealth. Eastern Kentucky has primarily superfund and brownfield sites, and western Kentucky has mostly sites that release toxic chemicals.

- Superfunds: Contaminated sites due to hazardous waste being dumped, left out in the open, or otherwise improperly managed. These sites include manufacturing facilities, processing plants, landfills, and mining sites.
- Brownfields: Properties for which expansion, redevelopment, or reuse may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.
- Toxic Releases: Sites that release toxic chemicals into the environment or sites otherwise managed as waste by certain industrial and federal facilities.

Using the scoring criteria, DLG will evaluate scope in the applications to consider the specific location of projects and plan accordingly for the specific hazards and natural features that would affect impacted and vulnerable populations. For the housing programs in particular, DLG will aim to mitigate the negative impact of sites by limiting the proximity of new housing to these sites and informing homeowners or renters about proximity to sites. DLG may also work with the Superfund Branch of the [Kentucky Energy and Environmental Cabinet](#) to assist with the management of specific sites, providing oversight and working with contractors on remediation of properties.

Figure 32. EPA’s EJ Concerns (Superfunds, Brownfields, Toxic Releases) for MID Areas

2.2.3.7 Statewide Demographics and Disaster-Impacted Populations

The table below demonstrates that in the MID areas, Black or African American individuals represent 7% of the total population, Hispanic or Latino individuals represent 6% of the total population, and minorities represent 15% of the population. This information allows Kentucky to design programs that help minority populations overcome barriers that may exclude them from housing opportunities.

Table 25. Race and Ethnicity

Demographic	State Estimates	State Percentage	Disaster Declaration Estimates	Disaster Declaration Percentage	MID Estimates	MID Percentage
Total Population	4,461,952	100.00%	1,432,689	100.00%	225,807	100.00%
Single Race	4,337,236	97.20%	1,394,572	97.34%	218,368	96.71%
White or Caucasian	3,848,305	86.25%	1,258,537	87.84%	191,433	84.78%
Minority	613,647	13.75%	174,152	12.16%	34,374	15.22%
Black or African American	361,230	8.10%	94,795	6.62%	16,112	7.14%
American Indian and/or Alaska Native	8,364	0.19%	2,913	0.20%	534	0.24%
Asian	68,139	1.53%	20,701	1.44%	6,144	2.72%
Native Hawaiian and Other Pacific Islander	3,033	0.07%	835	0.06%	664	0.29%
Some Other Race	48,164	1.08%	16,791	1.17%	3,481	1.54%
Two or More Races	124,716	2.80%	38,117	2.66%	7,439	3.29%
Hispanic or Latino	207,854	4.66%	61,577	4.30%	13,433	5.95%

Source: 2020 Decennial Census redistricting data

Table 26. Age and Sex

The table below shows the number of children and seniors living in the disaster-impacted counties. There are more than 50,000 children under the age of 18 and more than 30,000 seniors living in MID areas.

Demographic	State Estimates	State Percentage	Disaster Declaration Estimates	Disaster Declaration Percentage	MID Estimates	MID Percentage
Total Population	4,461,952	100.00%	1,432,689	100.00%	225,807	100.00%
Under Age 5	273,575	6.13%	72,160	5.04%	14,221	6.30%
Under Age 18	1,007,619	22.58%	316,104	22.06%	51,633	22.87%
Over Age 65	729,928	16.36%	235,922	16.47%	34,064	15.09%
Male	2,196,522	49.23%	706,645	49.32%	110,719	49.03%
Female	2,265,430	50.77%	726,044	50.68%	115,088	50.97%

Demographic	State Estimates	State Percentage	Disaster Declaration Estimates	Disaster Declaration Percentage	MID Estimates	MID Percentage
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Source: U.S. Census Bureau's American Community Survey 5-Year Estimates (2015–2019)

Table 27. Social Vulnerability and Protected Classes

Demographic	State Estimates	State Percentage	Disaster Declaration Estimates	Disaster Declaration Percentage	MID Estimates	MID Percentage
Total Households	1,734,618	100.00%	599,630	100.00%	86,486	100.00%
Persons with Disabilities	768,194	17.22%	267,832	18.69%	38,227	16.93%
Single-Parent Households	116,812	6.73%	38,502	6.42%	6,187	7.15%
Foreign-Born	176,323	3.95%	52,583	3.67%	13,645	6.04%

Source: U.S. Census Bureau's American Community Survey 5-Year Estimates (2019 and 2020)

The table below illustrates the number and percentages of socially vulnerable persons living in MID areas within the disaster-declared counties. People with disabilities represent 16% of the population, single-parent households represent 7% of the population, and foreign-born residents represent 6% of the population. The data inform the design of programs to make communities more resilient for any future disasters.

2.2.3.8 Education Demographics

The table below illustrates the educational levels for individuals aged 25 and older in the disaster-declared counties. In these counties, roughly 26% of individuals 25 and older have a high school graduate or equivalent education, and approximately 16% have some college education but no degree. More than 35% have an associate's degree or higher living in MID areas compared to 29% of individuals with a bachelor's degree or higher within the State.

Table 28. Education Demographics

Education (population age 25 and older)	State Estimates	State Percentage	Disaster Declaration Estimates	Disaster Declaration Percentage	MID Estimates	MID Percentage
High School Graduate or Equivalent	3,034,491	100.00%	793,913	26.16%	155,725	5.13%
Some College, No Degree	389,642	12.84%	127,229	16.03%	20,913	13.43%
Associate's Degree	990,196	32.63%	284,651	35.85%	51,122	32.83%
Bachelor's Degree or Higher	895,321	29.50%	230,378	29.02%	45,703	29.35%

Source: U.S. Census Bureau's American Community Survey 5-Year Estimates (2015–2019)

2.2.3.9 Income Demographics

The table below shows a comparison of the median household income and the per capita income (mean income calculated for all individuals in a specific area), demonstrating that more than 200,000 persons living in the disaster-declared counties have incomes below the poverty level. Persons living in poverty have a difficult time finding affordable housing that meets the needs of their families and tend to live on meager means. The proposed programs prioritize low-income persons to improve their access to affordable housing.

Table 29. Income

Income/Economic Demographics	Statewide	Counties Impacted by Disaster	MID Areas
Median Household Income	\$52,238	\$45,456	\$48,715
Per Capita Income	\$29,123	\$25,099	\$27,214
Persons With Income Below the Poverty Level in the Past 12 Months	717,895	227,143	46,031

Source: U.S. Census Bureau's American Community Survey 5-Year Estimates (2015–2019)

2.2.3.10 LMI Analysis – Statewide

Table 30 and Table 31 below illustrate the number of LMI persons living in disaster- and nondisaster-impacted counties. The information will inform how funds are used to benefit LMI households through the housing, infrastructure, and planning programs.

Table 30. Statewide LMI

	Total LMI Persons	Total Population	Percentage of LMI
Statewide	1,813,568	4,268,483	42.50%
Breathitt County	7,405	13,250	55.90%
Graves County	13,800	36,860	37.40%
Hopkins County	17,605	45,535	38.70%
Warren County	46,970	112,345	41.80%

Source: U.S. Census Bureau's American Community Survey 5-Year Estimates (2015–2019)

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2.2.3.11 LMI Analysis – Federally Declared Disaster Areas

Table 31. LMI by County (HUD and Grantee MID Areas)

County	Non-MID Total LMI Persons	Non-MID Total Population	Non-MID Percentage LMI	MID Total LMI Persons	MID Total Population	MID Percentage LMI
HUD and Grantee MIDs						
Breathitt	-	-	-	7,405	13,250	55.90%
Graves	-	-	-	13,800	36,860	37.40%
Hopkins	-	-	-	17,605	45,535	38.70%
Warren	-	-	-	46,970	112,345	41.80%
Other Impacted Counties						
Boyd	17,975	46,700	38.50%	-	-	-
Caldwell	4,500	12,670	35.50%	-	-	-
Christian	30,115	68,060	44.20%	-	-	-
Clark	15,515	35,230	44.00%	-	-	-
Clay	11,395	19,535	58.30%	-	-	-
Estill	6,865	14,345	47.90%	-	-	-
Floyd	18,645	37,785	49.30%	-	-	-
Fulton	2,820	5,990	47.10%	-	-	-
Greenup	12,840	36,055	35.60%	-	-	-
Hart	8,175	18,180	45.00%	-	-	-
Hickman	1,925	4,520	42.60%	-	-	-
Jackson	7,025	13,245	53.00%	-	-	-
Johnson	9,905	22,830	43.40%	-	-	-
Knott	-	-	-	7,375	15,350	48.00%
Laurel	24,995	58,590	42.66%	-	-	-
Lawrence	6,745	15,710	42.90%	-	-	-
Lee	3,515	6,275	56.00%	-	-	-
Leslie	5,265	10,750	49.00%	-	-	-
Letcher	10,730	23,420	45.80%	-	-	-
Lincoln	10,674	24,275	44.00%	-	-	-
Logan	10,250	26,560	38.60%	-	-	-
Lyon	2,720	7,065	38.50%	-	-	-
Madison	35,235	79,835	44.10%	-	-	-
Magoffin	6,715	12,830	52.30%	-	-	-

County	Non-MID	Non-MID	Non-MID	MID Total	MID Total	MID
	Total LMI Persons	Total Population	Percentage LMI	LMI Persons	Population	Percentage LMI
Marion	7,435	18,565	40.00%	-	-	-
Marshall	11,060	30,640	36.10%	-	-	-
Martin	5,725	11,115	51.50%	-	-	-
Morgan	5,940	11,775	50.40%	-	-	-
Muhlenburg	11,685	30,005	38.90%	-	-	-
Ohio	9,065	23,710	38.20%	-	-	-
Owsley	2,290	4,530	50.60%	-	-	-
Perry	12,145	27,345	44.40%	-	-	-
Powell	5,680	12,225	46.50%	-	-	-
Pulaski	26,845	62,610	42.90%	-	-	-
Rockcastle	7,490	16,610	45.10%	-	-	-
Taylor	11,075	23,885	46.40%	-	-	-

Source: U.S. Census Bureau's American Community Survey 5-Year Estimates (2011–2015)

2.2.3.12 Manufactured Housing Units Impacted by Disaster

The table below shows the manufactured home inventory for the disaster-impacted HUD and grantee-identified MID counties. Several of the MID counties, such as Breathitt, Floyd, Graves, and Hopkins, have more than 100 manufactured homes units and have substantial remaining unmet needs.

Table 32. Manufactured Housing Units Impacted

Disaster	County/ Municipality	Number of Units	Percent of Total Units in County/Municipality	Remaining Unmet Need
DR-4595	Boyd	10	0.57%	\$45,005
DR-4595	Breathitt	239	10.86%	\$343,017
DR-4595	Clark	5	0.44%	\$2,788
DR-4595	Clay	97	4.30%	\$56,051
DR-4595	Estill	39	3.45%	\$129,670
DR-4595	Floyd	109	2.49%	\$236,364
DR-4595	Greenup	19	0.98%	-
DR-4595	Jackson	22	1.58%	-
DR-4595	Johnson	72	3.48%	\$4,834
DR-4595	Knott	16	0.70%	-
DR-4595	Laurel	10	0.18%	-
DR-4595	Lawrence	21	1.00%	-
DR-4595	Lee	35	4.64%	-
DR-4595	Leslie	18	1.21%	-
DR-4595	Letcher	6	0.22%	\$118,120
DR-4595	Madison	5	0.21%	\$4,105
DR-4595	Magoffin	71	2.87%	\$51,693
DR-4595	Martin	98	6.70%	\$60,470
DR-4595	Morgan	16	0.93%	\$73,246
DR-4595	Owsley	18	4.36%	-
DR-4595	Perry	34	1.02%	\$93,797
DR-4595	Powell	17	1.80%	\$149,940

Disaster	County/ Municipality	Number of Units	Percent of Total Units in County/Municipality	Remaining Unmet Need
DR-4595	Pulaski	7	0.16%	\$2,987
DR-4595	Rockcastle	18	0.92%	-
DR-4595	Warren	6	0.20%	\$5,202
DR-4630	Caldwell	51	7.14%	\$3,258,927
DR-4630	Christian	24	1.25%	\$398,823
DR-4630	Fulton	16	8.04%	\$515,986
DR-4630	Graves	115	5.84%	\$349,534
DR-4630	Hart	23	1.67%	\$162,562
DR-4630	Hickman	10	4.20%	-
DR-4630	Hopkins	197	7.70%	\$5,539,618
DR-4630	Logan	36	3.51%	\$346,815
DR-4630	Lyon	22	5.67%	\$754,892
DR-4630	Marion	12	1.35%	\$17,818
DR-4630	Marshall	77	4.82%	\$3,874,151
DR-4630	Muhlenberg	67	2.89%	\$2,178,997
DR-4630	Ohio	40	2.15%	\$253,061
DR-4630	Taylor	23	2.65%	\$673,080
DR-4630	Warren	59	2.00%	-

Source: FEMA IA data, ACS data (S2504) – Physical Housing Characteristics For Occupied Housing Units

2.2.3.13 SNAP and D-SNAP Applicants Impacted by the Disaster

The SNAP program offers food benefits to low-income individuals and families. When a disaster occurs, individuals and families may be eligible for additional nutrition assistance through the Disaster Supplemental Nutrition Assistance Program (D-SNAP). The table below shows that in the disaster-declared counties, more than 1,000 households received additional food benefits.

Table 33. SNAP and D-SNAP Applicants Impacted

County	SNAP Households Impacted	SNAP Individuals Impacted	Households Issued D-SNAP Benefits	Individuals Issued D-SNAP Benefits
Anderson	821	2,110	0	0
Ballard	343	875	0	0
Barren	2,778	6,917	3	10
Bell	2,735	6,646	0	0
Boyd	3,193	7,983	0	0
Breathitt	1,767	4,170	0	0
Breckenridge	1,167	3,011	0	0
Bullitt	1,968	5,294	0	0
Caldwell	810	1,944	79	220
Calloway	1,505	3,431	0	0
Carter	1,981	5,408	0	0
Casey	1,205	3,085	0	0
Christian	3,704	9,186	121	294
Clark	2,168	5,312	0	0
Clay	2,548	6,421	0	0

County	SNAP Households Impacted	SNAP Individuals Impacted	Households Issued D-SNAP Benefits	Individuals Issued D-SNAP Benefits
Cumberland	410	1,021	0	0
Edmonson	580	1,369	0	0
Elliot	712	1,759	0	0
Estill	1,490	3,710	0	0
Fayette	12,357	29,163	0	0
Floyd	3,729	8,875	0	0
Franklin	2,164	4,956	0	0
Fulton	533	1,178	29	80
Graves	1,740	4,402	468	1,118
Grayson	1,767	4,718	0	0
Greenup	1,964	4,792	0	0
Harlan	2,993	7,123	0	0
Hart	1,197	3,064	2	9
Hickman	161	404	24	78
Hopkins	2,717	6,439	217	564
Jackson	1,596	3,910	0	0
Jessamine	2,218	6,077	0	0
Johnson	1,914	4,881	0	0
Knott	1,884	4,277	0	0
Knox	3,756	9,503	0	0
Laurel	4,168	10,962	0	0
Lawrence	1,292	3,592	0	0
Lee	1,098	2,525	0	0
Leslie	1,023	2,404	0	0
Letcher	2,853	6,448	0	0
Lincoln	1,682	4,205	0	0
Logan	1,212	3,091	14	50
Lyon	529	1,127	3	7
Madison	4,461	11,286	0	0
Magoffin	1,643	4,025	0	0
Marion	1,339	3,281	0	0
Marshall	1,072	2,498	50	167
Martin	780	1,966	0	0
Mason	1,228	3,168	0	0
Meade	1,669	4,389	0	0
Menifee	651	1,680	0	0
Morgan	1,123	2,729	0	0
Mulhenberg	1,472	3,827	40	110
Ohio	995	2,567	9	32
Owsley	604	1,582	0	0

County	SNAP Households Impacted	SNAP Individuals Impacted	Households Issued D-SNAP Benefits	Individuals Issued D-SNAP Benefits
Perry	2,709	6,122	0	0
Pike	6,684	15,039	0	0
Powell	1,095	2,803	0	0
Pulaski	4,198	10,495	0	0
Rockcastle	1,420	3,536	0	0
Shelby	1,425	3,947	0	0
Spencer	427	1,166	0	0
Taylor	1,366	3,442	13	33
Todd	850	2,219	0	0
Union	595	1,499	0	0
Warren	6,164	15,287	233	602
Whitley	2,353	6,377	0	0
Wolfe	1,087	2,554	0	0
Woodford	970	2,435	0	0
TOTAL	136,812	337,685	1,305	3,374

Source: U.S. Census Bureau's 2020 American Community Survey 5-Year Estimates

2.2.3.14 Limited English Proficiency Breakdown

Tables 34 and 35 show the languages spoken by LEP persons who are living in the disaster-declared HUD MID counties; Spanish-speaking persons represent the highest percentage. The State uses this information for its Citizen Participation Plan and will consider it in the implementation of its recovery programs to ensure that any language barrier is removed. Public information is translated into Spanish, and interpreters are available to assist with communication. For all other languages, translation and interpreters will be made available as needed.

Table 34. Breakdown of LEP Persons

County	Estimate of Persons Who Speak English Less Than "Very Well"	Percentage of Persons Who Speak English Less Than "Very Well"
Breathitt	37	0.30%
Graves	1,111	3.20%
Hopkins	137	0.30%
Warren	7,388	6.00%

Source: U.S. Census Bureau's American Community Survey 5-Year Estimates (2014–2018)

2.2.3.15 Languages Spoken Within the State

Table 35. Languages Spoken Within the State

County	Languages Spoken	Estimate Number	Population Percentage of Population
Boyd County	Speak only English	44,696	98.51%
Boyd County	Speak Spanish	528	1.16%
Boyd County	Speak other Indo-European languages	7	0.02%
Boyd County	Speak Asian and Pacific Island languages	142	0.31%
Boyd County	Speak other languages	0	0.00%
Breathitt County	Speak only English	12,707	99.42%
Breathitt County	Speak Spanish	34	0.27%
Breathitt County	Speak other Indo-European languages	3	0.02%
Breathitt County	Speak Asian and Pacific Island languages	37	0.29%

County	Languages Spoken	Estimate Number	Population Percentage of Population
Breathitt County	Speak other languages	0	0.00%
Caldwell County	Speak only English	11,604	98.57%
Caldwell County	Speak Spanish	166	1.41%
Caldwell County	Speak other Indo-European languages	0	0.00%
Caldwell County	Speak Asian and Pacific Island languages	2	0.02%
Caldwell County	Speak other languages	0	0.00%
Christian County	Speak only English	58,679	92.48%
Christian County	Speak Spanish	3521	5.55%
Christian County	Speak other Indo-European languages	489	0.77%
Christian County	Speak Asian and Pacific Island languages	476	0.75%
Christian County	Speak other languages	286	0.45%
Clark County	Speak only English	33,281	97.38%
Clark County	Speak Spanish	772	2.26%
Clark County	Speak other Indo-European languages	117	0.34%
Clark County	Speak Asian and Pacific Island languages	6	0.02%
Clark County	Speak other languages	0	0.00%
Clay County	Speak only English	19,125	99.36%
Clay County	Speak Spanish	123	0.64%
Clay County	Speak other Indo-European languages	0	0.00%
Clay County	Speak Asian and Pacific Island languages	0	0.00%
Clay County	Speak other languages	0	0.00%
Estill County	Speak only English	13,292	99.28%
Estill County	Speak Spanish	95	0.71%
Estill County	Speak other Indo-European languages	0	0.00%
Estill County	Speak Asian and Pacific Island languages	0	0.00%
Estill County	Speak other languages	1	0.01%
Floyd County	Speak only English	33,808	99.50%
Floyd County	Speak Spanish	34	0.10%
Floyd County	Speak other Indo-European languages	61	0.18%
Floyd County	Speak Asian and Pacific Island languages	75	0.22%
Floyd County	Speak other languages	0	0.00%
Fulton County	Speak only English	6,014	99.09%
Fulton County	Speak Spanish	20	0.33%
Fulton County	Speak other Indo-European languages	26	0.43%

County	Languages Spoken	Estimate Number	Population Percentage of Population
Fulton County	Speak Asian and Pacific Island languages	0	0.00%
Fulton County	Speak other languages	9	0.15%
Graves County	Speak only English	32,891	96.20%
Graves County	Speak Spanish	1238	3.62%
Graves County	Speak other Indo-European languages	41	0.12%
Graves County	Speak Asian and Pacific Island languages	19	0.06%
Graves County	Speak other languages	0	0.00%
Greenup County	Speak only English	33,777	99.02%
Greenup County	Speak Spanish	226	0.66%
Greenup County	Speak other Indo-European languages	82	0.24%
Greenup County	Speak Asian and Pacific Island languages	25	0.07%
Greenup County	Speak other languages	0	0.00%
Hart County	Speak only English	16,713	99.42%
Hart County	Speak Spanish	53	0.32%
Hart County	Speak other Indo-European languages	0	0.00%
Hart County	Speak Asian and Pacific Island languages	45	0.27%
Hart County	Speak other languages	0	0.00%
Hickman County	Speak only English	4,221	98.62%
Hickman County	Speak Spanish	55	1.29%
Hickman County	Speak other Indo-European languages	2	0.05%
Hickman County	Speak Asian and Pacific Island languages	2	0.05%
Hickman County	Speak other languages	0	0.00%
Hopkins County	Speak only English	42,027	99.26%
Hopkins County	Speak Spanish	283	0.67%
Hopkins County	Speak other Indo-European languages	1	0.00%
Hopkins County	Speak Asian and Pacific Island languages	0	0.00%
Hopkins County	Speak other languages	29	0.07%
Jackson County	Speak only English	11,685	99.91%
Jackson County	Speak Spanish	11	0.09%
Jackson County	Speak other Indo-European languages	0	0.00%
Jackson County	Speak Asian and Pacific Island languages	0	0.00%
Jackson County	Speak other languages	0	0.00%
Johnson County	Speak only English	21,160	98.93%
Johnson County	Speak Spanish	130	0.61%

County	Languages Spoken	Estimate Number	Population Percentage of Population
Johnson County	Speak other Indo-European languages	98	0.46%
Johnson County	Speak Asian and Pacific Island languages	0	0.00%
Johnson County	Speak other languages	0	0.00%
Knott County	Speak only English	13,626	99.24%
Knott County	Speak Spanish	79	0.58%
Knott County	Speak other Indo-European languages	0	0.00%
Knott County	Speak Asian and Pacific Island languages	17	0.12%
Knott County	Speak other languages	9	0.07%
Laurel County	Speak only English	57,274	99.14%
Laurel County	Speak Spanish	397	0.69%
Laurel County	Speak other Indo-European languages	47	0.08%
Laurel County	Speak Asian and Pacific Island languages	55	0.10%
Laurel County	Speak other languages	0	0.00%
Lawrence County	Speak only English	14,851	99.64%
Lawrence County	Speak Spanish	21	0.14%
Lawrence County	Speak other Indo-European languages	22	0.15%
Lawrence County	Speak Asian and Pacific Island languages	11	0.07%
Lawrence County	Speak other languages	0	0.00%
Lee County	Speak only English	6,816	99.45%
Lee County	Speak Spanish	38	0.55%
Lee County	Speak other Indo-European languages	0	0.00%
Lee County	Speak Asian and Pacific Island languages	0	0.00%
Lee County	Speak other languages	0	0.00%
Leslie County	Speak only English	9,954	99.52%
Leslie County	Speak Spanish	48	0.48%
Leslie County	Speak other Indo-European languages	0	0.00%
Leslie County	Speak Asian and Pacific Island languages	0	0.00%
Leslie County	Speak other languages	0	0.00%
Letcher County	Speak only English	20,302	99.12%
Letcher County	Speak Spanish	168	0.82%
Letcher County	Speak other Indo-European languages	0	0.00%
Letcher County	Speak Asian and Pacific Island languages	12	0.06%
Letcher County	Speak other languages	0	0.00%

County	Languages Spoken	Estimate Number	Population Percentage of Population
Lincoln County	Speak only English	21,977	98.60%
Lincoln County	Speak Spanish	237	1.06%
Lincoln County	Speak other Indo-European languages	76	0.34%
Lincoln County	Speak Asian and Pacific Island languages	0	0.00%
Lincoln County	Speak other languages	0	0.00%
Lyon County	Speak only English	8,251	98.66%
Lyon County	Speak Spanish	102	1.22%
Lyon County	Speak other Indo-European languages	0	0.00%
Lyon County	Speak Asian and Pacific Island languages	0	0.00%
Lyon County	Speak other languages	10	0.12%
Madison County	Speak only English	83,787	96.99%
Madison County	Speak Spanish	1697	1.96%
Madison County	Speak other Indo-European languages	356	0.41%
Madison County	Speak Asian and Pacific Island languages	374	0.43%
Madison County	Speak other languages	175	0.20%
Magoffin County	Speak only English	10,947	99.21%
Magoffin County	Speak Spanish	87	0.79%
Magoffin County	Speak other Indo-European languages	0	0.00%
Magoffin County	Speak Asian and Pacific Island languages	0	0.00%
Magoffin County	Speak other languages	0	0.00%
Marion County	Speak only English	17,888	97.64%
Marion County	Speak Spanish	389	2.12%
Marion County	Speak other Indo-European languages	0	0.00%
Marion County	Speak Asian and Pacific Island languages	43	0.23%
Marion County	Speak other languages	0	0.00%
Marshall County	Speak only English	29,596	98.81%
Marshall County	Speak Spanish	351	1.17%
Marshall County	Speak other Indo-European languages	0	0.00%
Marshall County	Speak Asian and Pacific Island languages	4	0.01%
Marshall County	Speak other languages	0	0.00%
Martin County	Speak only English	10,633	98.39%
Martin County	Speak Spanish	154	1.43%
Martin County	Speak other Indo-European languages	0	0.00%

County	Languages Spoken	Estimate Number	Population Percentage of Population
Martin County	Speak Asian and Pacific Island languages	0	0.00%
Martin County	Speak other languages	20	0.19%
Morgan County	Speak only English	12,973	99.25%
Morgan County	Speak Spanish	78	0.60%
Morgan County	Speak other Indo-European languages	0	0.00%
Morgan County	Speak Asian and Pacific Island languages	0	0.00%
Morgan County	Speak other languages	20	0.15%
Muhlenberg County	Speak only English	28,711	98.55%
Muhlenberg County	Speak Spanish	402	1.38%
Muhlenberg County	Speak other Indo-European languages	9	0.03%
Muhlenberg County	Speak Asian and Pacific Island languages	10	0.03%
Muhlenberg County	Speak other languages	0	0.00%
Ohio County	Speak only English	21,583	96.05%
Ohio County	Speak Spanish	868	3.86%
Ohio County	Speak other Indo-European languages	4	0.02%
Ohio County	Speak Asian and Pacific Island languages	9	0.04%
Ohio County	Speak other languages	7	0.03%
Owsley County	Speak only English	3,826	100.00%
Owsley County	Speak Spanish	0	0.00%
Owsley County	Speak other Indo-European languages	0	0.00%
Owsley County	Speak Asian and Pacific Island languages	0	0.00%
Owsley County	Speak other languages	0	0.00%
Perry County	Speak only English	25,802	97.87%
Perry County	Speak Spanish	316	1.20%
Perry County	Speak other Indo-European languages	0	0.00%
Perry County	Speak Asian and Pacific Island languages	48	0.18%
Perry County	Speak other languages	198	0.75%
Powell County	Speak only English	11,866	97.94%
Powell County	Speak Spanish	184	1.52%
Powell County	Speak other Indo-European languages	0	0.00%
Powell County	Speak Asian and Pacific Island languages	31	0.26%
Powell County	Speak other languages	35	0.29%
Pulaski County	Speak only English	59,425	97.84%
Pulaski County	Speak Spanish	899	1.48%

County	Languages Spoken	Estimate Number	Population Percentage of Population
Pulaski County	Speak other Indo-European languages	180	0.30%
Pulaski County	Speak Asian and Pacific Island languages	232	0.38%
Pulaski County	Speak other languages	0	0.00%
Rockcastle County	Speak only English	15,191	99.60%
Rockcastle County	Speak Spanish	51	0.33%
Rockcastle County	Speak other Indo-European languages	0	0.00%
Rockcastle County	Speak Asian and Pacific Island languages	0	0.00%
Rockcastle County	Speak other languages	10	0.07%
Taylor County	Speak only English	23,678	99.20%
Taylor County	Speak Spanish	133	0.56%
Taylor County	Speak other Indo-European languages	21	0.09%
Taylor County	Speak Asian and Pacific Island languages	3	0.01%
Taylor County	Speak other languages	33	0.14%
Warren County	Speak only English	110,105	91.25%
Warren County	Speak Spanish	4705	3.90%
Warren County	Speak other Indo-European languages	814	0.67%
Warren County	Speak Asian and Pacific Island languages	4142	3.43%
Warren County	Speak other languages	893	0.74%

Source: U.S. Census Bureau's 2021 American Community Survey 5-Year Estimates

2.2.3.16 Affected Continuum of Care Entities

Tables 36, 37, and 38 illustrate the number of persons experiencing homelessness by Continuum of Care regions and county. This information is used to effectively target nontraditional outreach methods to ensure persons experiencing homelessness are connected to the right resources for recovery.

Table 36. Affected Continuum of Care Entities

CoC Number	CoC Entity	Impacted County	Homeless Count
KY-500	KY-500 Kentucky Balance of State CoC	Anderson	0
KY-500	KY-500 Kentucky Balance of State CoC	Ballard	0
KY-500	KY-500 Kentucky Balance of State CoC	Bell	1
KY-500	KY-500 Kentucky Balance of State CoC	Boyd	108
KY-500	KY-500 Kentucky Balance of State CoC	Breathitt	13
KY-500	KY-500 Kentucky Balance of State CoC	Caldwell	1
KY-500	KY-500 Kentucky Balance of State CoC	Calloway	1
KY-500	KY-500 Kentucky Balance of State CoC	Carter	0
KY-500	KY-500 Kentucky Balance of State CoC	Casey	0
KY-500	KY-500 Kentucky Balance of State CoC	Christian	92
KY-500	KY-500 Kentucky Balance of State CoC	Clark	80
KY-500	KY-500 Kentucky Balance of State CoC	Clay	4

CoC Number	CoC Entity	Impacted County	Homeless Count
KY-500	KY-500 Kentucky Balance of State CoC	Cumberland	0
KY-500	KY-500 Kentucky Balance of State CoC	Edmonson	0
KY-500	KY-500 Kentucky Balance of State CoC	Elliott	0
KY-500	KY-500 Kentucky Balance of State CoC	Estill	0
KY-500	KY-500 Kentucky Balance of State CoC	Floyd	21
KY-500	KY-500 Kentucky Balance of State CoC	Franklin	57
KY-500	KY-500 Kentucky Balance of State CoC	Fulton	0
KY-500	KY-500 Kentucky Balance of State CoC	Graves	0
KY-500	KY-500 Kentucky Balance of State CoC	Greenup	0
KY-500	KY-500 Kentucky Balance of State CoC	Harlan	71
KY-500	KY-500 Kentucky Balance of State CoC	Hart	0
KY-500	KY-500 Kentucky Balance of State CoC	Hickman	0
KY-500	KY-500 Kentucky Balance of State CoC	Hopkins	20
KY-500	KY-500 Kentucky Balance of State CoC	Jackson	1
KY-500	KY-500 Kentucky Balance of State CoC	Jessamine	31
KY-500	KY-500 Kentucky Balance of State CoC	Johnson	21
KY-500	KY-500 Kentucky Balance of State CoC	Knott	0
KY-500	KY-500 Kentucky Balance of State CoC	Knox	98
KY-500	KY-500 Kentucky Balance of State CoC	Laurel	33
KY-500	KY-500 Kentucky Balance of State CoC	Lawrence	1
KY-500	KY-500 Kentucky Balance of State CoC	Lee	3
KY-500	KY-500 Kentucky Balance of State CoC	Leslie	0
KY-500	KY-500 Kentucky Balance of State CoC	Letcher	4
KY-500	KY-500 Kentucky Balance of State CoC	Lincoln	0
KY-500	KY-500 Kentucky Balance of State CoC	Logan	12
KY-500	KY-500 Kentucky Balance of State CoC	Lyon	0
KY-500	KY-500 Kentucky Balance of State CoC	Madison	67
KY-500	KY-500 Kentucky Balance of State CoC	Magoffin	0
KY-500	KY-500 Kentucky Balance of State CoC	Marion	0
KY-500	KY-500 Kentucky Balance of State CoC	Marshall	2
KY-500	KY-500 Kentucky Balance of State CoC	Martin	68
KY-500	KY-500 Kentucky Balance of State CoC	Mason	41
KY-500	KY-500 Kentucky Balance of State CoC	Menifee	0
KY-500	KY-500 Kentucky Balance of State CoC	Morgan	0
KY-500	KY-500 Kentucky Balance of State CoC	Muhlenberg	2
KY-500	KY-500 Kentucky Balance of State CoC	Ohio	0
KY-500	KY-500 Kentucky Balance of State CoC	Owsley	0
KY-500	KY-500 Kentucky Balance of State CoC	Perry	30
KY-500	KY-500 Kentucky Balance of State CoC	Pike	33
KY-500	KY-500 Kentucky Balance of State CoC	Powell	29
KY-500	KY-500 Kentucky Balance of State CoC	Pulaski	36

CoC Number	CoC Entity	Impacted County	Homeless Count
KY-500	KY-500 Kentucky Balance of State CoC	Rockcastle	8
KY-500	KY-500 Kentucky Balance of State CoC	Taylor	11
KY-500	KY-500 Kentucky Balance of State CoC	Todd	0
KY-500	KY-500 Kentucky Balance of State CoC	Union	0
KY-500	KY-500 Kentucky Balance of State CoC	Warren	130
KY-500	KY-500 Kentucky Balance of State CoC	Whitley	9
KY-500	KY-500 Kentucky Balance of State CoC	Wolfe	0
KY-500	KY-500 Kentucky Balance of State CoC	Woodford	0
KY-502	KY-502 Lexington-Fayette County CoC	Fayette	715

Source: HUD Exchange, Kentucky COCs for 2020 (updated July 2021)

2.2.3.17 Point-in-Time Count – Type of Shelter

Table 37. Point-in-Time Count – Type of Shelter (HUD and Grantee MID Areas)

2021 Disaster Counties	Emergency Shelter	Transitional Housing	Unsheltered	Total Known Homeless
Boyd	55	15	38	70
Breathitt	13	0	0	13
Caldwell	0	0	1	1
Christian	46	35	11	81
Clark	40	8	32	48
Clay	0	0	4	4
Estill	0	0	0	0
Floyd	11	0	10	11
Fulton	0	0	0	0
Greenup	0	0	0	0
Hart	0	0	0	0
Hickman	0	0	0	0
Hopkins	18	0	2	18
Jackson	0	0	1	1
Johnson	0	0	21	21
Knott	0	0	0	0
Laurel	29	0	4	29
Lawrence	0	0	1	1
Lee	0	0	3	3
Leslie	0	0	0	0
Letcher	0	4	0	4
Lincoln	0	0	0	0
Logan	12	0	0	12
Lyon	0	0	0	0
Madison	56	0	11	56
Magoffin	0	0	0	0
Marion	0	0	0	0
Marshall	0	0	2	0

2021 Disaster Counties	Emergency Shelter	Transitional Housing	Unsheltered	Total Known Homeless
Martin	0	0	68	0
Morgan	0	0	0	0
Muhlenberg	0	0	2	0
Ohio	0	0	0	0
Owsley	0	0	0	0
Perry	20	0	10	20
Powell	0	17	12	17
Pulaski	10	0	26	10
Rockcastle	0	0	8	0
Taylor	11	0	0	11
Warren	84	4	42	88

Source: Kentucky Balance of State Continuum of Care

2.2.3.18 Point-in-Time Count – Impacted by Disaster

Table 38. Point-in-Time Count – Impacted by Disaster

Geography	Emergency Shelter	Transitional Housing	Unsheltered Homeless	Total Known Homeless
Areawide	1170	141	543	1854
FEMA-Declared	1125	116	359	1600
MIDs	115	4	44	163

Source: HUD 2021 CoC Homeless Populations and Subpopulations Reports

2.2.3.19 HUD Assisted Housing Impacted by Disaster

The table below shows the number of public housing units, the number of impacted Low-Income Housing Tax Credit (LIHTC) program, and the number of Housing Choice Voucher units impacted by the disaster.

Table 39. HUD Assisted Housing Impacted by Disaster (HUD and Grantee MID Areas)

County	Total Housing Choice Vouchers	Total Impacted Housing Choice Voucher Units	Total LIHTC Units	Total Impacted LIHTC Units	Total Public Housing Dwelling Units	Total Impacted Public Housing Dwelling Units
Caldwell	-	-	-	-	2	58
Christian	-	-	-	-	1	0
Graves	-	-	188	188	-	-
Hopkins	-	-	24	24	-	58
Lee	-	-	-	-	1	0
Warren	-	13	-	-	-	0

Source: Kentucky Housing Corporation

[23] [2019 Analysis of Impediments to Fair Housing Choice, April 2020](#)

[24] HUD defined vulnerable populations as: "A group or community whose circumstances present barriers to obtaining or understanding information or accessing resources."

[25] HUD defines underserved communities as: "Refers to populations sharing a particular characteristic,

as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life. Underserved communities that were economically distressed before the disaster include, but are not limited to, those areas that were designated as a Promise Zone, Opportunity Zone, a Neighborhood Revitalization Strategy Area, a tribal area, or those areas that meet

at least one of the distress criteria established for the designation of an investment area of Community Development Financial Institution at 12 CFR 1805.201(b)(3)(i)(D)”

[26] <https://www.irs.gov/credits-deductions/businesses/opportunity-zones>

[27] [HUD's Tribal Directory Assessment Tool \(TDAT\)](#)

[28] <https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf>

Grantee Demographics and Disaster Impacted Populations

Demographic	Area-Wide Estimates	Area-Wide Percent	Disaster Declaration Estimate	Disaster Declaration Percent	MID Estimates	MID Percent
Total Population	4,461,952.00	100.00%	1,432,689.00	100.00%	225,807.00	100.00%
Under 5 years	273,575.00	6.13%	72,160.00	5.04%	14,221.00	6.30%
65 years and over	729,928.00	16.36%	235,922.00	16.47%	34,064.00	15.09%
Population with a Disability	768,194.00	17.22%	267,832.00	18.69%	38,227.00	16.93%
White or Caucasian	3,848,305.00	86.25%	1,258,537.00	87.84%	191,433.00	84.78%
Black or African American	361,230.00	8.10%	94,795.00	6.62%	16,112.00	7.14%
American Indian and Alaska Native	8,364.00	0.19%	2,913.00	0.20%	534.00	0.24%
Asian	68,139.00	1.53%	20,701.00	1.44%	6,144.00	2.72%
Native Hawaiian and Other Pacific Islander	3,033.00	0.07%	835.00	0.06%	664.00	0.29%
Other	48,164.00	1.08%	16,791.00	1.17%	3,481.00	1.54%

Data Source(s): 1. U.S. Census Bureau’s American Community Survey 5-Year Estimates (2015–2019) 2. 2020 Decennial Census redistricting data

Income Demographics

Income/Economic Demographics	Statewide	Areas Impacted by Disaster	HUD MIDs
Median Household Income	\$52,238.00	\$45,456.00	\$48,715.00
Per Capita Income	\$29,123.00	\$25,099.00	\$27,214.00

Data Source(s): U.S. Census Bureau’s American Community Survey 5-Year Estimates (2015–2019)

Income Demographics - Low Income

Income/Economic Demographics	Statewide	Areas Impacted by Disaster	HUD MIDs
Income in the past 12 months below poverty level	717,895.00	227,143.00	46,031.00

Data Source(s): U.S. Census Bureau’s American Community Survey 5-Year Estimates (2015–2019)

LMI Analysis - Overall

Category	Total LMI Persons	Total Population	Percent LMI
Area wide	1,813,568.00	4,268,483.00	42.50%

Data Source(s): U.S. Census Bureau’s American Community Survey 5-Year Estimates (2015–2019)

LMI Analysis - Federally Declared Disaster Areas

County/Municipality	Non-MID-Total LMI Persons	Non-MID-Total Population	Non-MID-Percentage LMI	MID-Total LMI Persons	MID-Total Population	MID-Percentage LMI
Breathitt	0.00	0.00	0.00%	7,405.00	13,250.00	55.89%
Graves	0.00	0.00	0.00%	13,800.00	36,860.00	37.44%
Hopkins	0.00	0.00	0.00%	17,605.00	45,535.00	38.66%
Warren	0.00	0.00	0.00%	46,970.00	112,345.00	41.81%
Boyd	17,975.00	46,700.00	38.49%	0.00	0.00	0.00%
Caldwell	4,500.00	12,670.00	35.52%	0.00	0.00	0.00%
Christian	30,115.00	68,060.00	44.25%	0.00	0.00	0.00%
Clark	15,515.00	35,230.00	44.04%	0.00	0.00	0.00%
Clay	11,395.00	19,535.00	58.33%	0.00	0.00	0.00%
Estill	6,865.00	14,345.00	47.86%	0.00	0.00	0.00%
Floyd	18,645.00	37,785.00	49.34%	0.00	0.00	0.00%
Fulton	2,820.00	5,990.00	47.08%	0.00	0.00	0.00%
Greenup	12,840.00	36,055.00	35.61%	0.00	0.00	0.00%
Hart	8,175.00	18,180.00	44.97%	0.00	0.00	0.00%
Hickman	1,925.00	4,520.00	42.59%	0.00	0.00	0.00%
Jackson	7,025.00	13,245.00	53.04%	0.00	0.00	0.00%
Johnson	9,905.00	22,830.00	43.39%	0.00	0.00	0.00%
Knott	7,375.00	15,350.00	48.05%	0.00	0.00	0.00%
Laurel	24,995.00	58,590.00	42.66%	0.00	0.00	0.00%
Lawrence	6,745.00	15,710.00	42.93%	0.00	0.00	0.00%
Lee	3,515.00	6,275.00	56.02%	0.00	0.00	0.00%
Leslie	5,265.00	10,750.00	48.98%	0.00	0.00	0.00%
Letcher	10,730.00	23,420.00	45.82%	0.00	0.00	0.00%
Lincoln	10,674.00	24,275.00	43.97%	0.00	0.00	0.00%
Logan	10,250.00	26,560.00	38.59%	0.00	0.00	0.00%
Lyon	2,720.00	7,065.00	38.50%	0.00	0.00	0.00%
Madison	35,235.00	79,835.00	44.13%	0.00	0.00	0.00%
Magoffin	6,715.00	12,830.00	52.34%	0.00	0.00	0.00%
Marion	7,435.00	18,565.00	40.05%	0.00	0.00	0.00%
Marshall	11,060.00	30,640.00	36.10%	0.00	0.00	0.00%
Martin	5,725.00	11,115.00	51.51%	0.00	0.00	0.00%
Morgan	5,940.00	11,775.00	50.45%	0.00	0.00	0.00%
Muhlenburg	11,685.00	30,005.00	38.94%	0.00	0.00	0.00%
Ohio	9,065.00	23,710.00	38.23%	0.00	0.00	0.00%
Owsley	2,290.00	4,530.00	50.55%	0.00	0.00	0.00%

County/Municipality	Non-MID-Total LMI Persons	Non-MID-Total Population	Non-MID-Percentage LMI	MID-Total LMI Persons	MID-Total Population	MID-Percentage LMI
Perry	12,145.00	27,345.00	44.41%	0.00	0.00	0.00%
Powell	5,680.00	12,225.00	46.46%	0.00	0.00	0.00%
Pulaski	26,845.00	62,610.00	42.88%	0.00	0.00	0.00%
Rockcastle	7,490.00	16,610.00	45.09%	0.00	0.00	0.00%
Taylor	11,075.00	23,885.00	46.37%	0.00	0.00	0.00%
Total	388,354.00	888,820.00	43.69%	85,780.00	207,990.00	41.24%

Data Source(s): U.S. Census Bureau's American Community Survey 5-Year Estimates (2011–2015)

Manufactured Housing Units Impacted by Disaster

County/Municipality	Number of Units	% of Total Units in County/Municipality	Remaining Unmet Need
Boyd	10.00	0.57%	\$45,005.00
Breathitt	239.00	10.86%	\$343,017.00
Caldwell	51.00	7.14%	\$3,258,927.00
Christian	24.00	1.25%	\$398,823.00
Clark	5.00	0.44%	\$2,788.00
Clay	97.00	4.30%	\$56,051.00
Estill	39.00	3.45%	\$129,670.00
Floyd	109.00	2.49%	\$236,364.00
Fulton	16.00	8.04%	\$515,986.00
Graves	115.00	5.84%	\$349,534.00
Greenup	19.00	0.98%	\$0.00
Hart	23.00	1.67%	\$162,562.00
Hickman	10.00	4.20%	\$0.00
Hopkins	197.00	7.70%	\$5,539,618.00
Jackson	22.00	1.58%	\$4,834.00
Johnson	72.00	3.48%	\$0.00
Knott	16.00	0.70%	\$0.00
Laurel	10.00	0.18%	\$0.00
Lawrence	21.00	1.00%	\$0.00
Lee	35.00	4.64%	\$0.00
Leslie	18.00	1.21%	\$0.00
Letcher	6.00	0.22%	\$118,120.00
Logan	36.00	3.51%	\$346,815.00
Lyon	22.00	5.67%	\$754,892.00
Madison	5.00	0.21%	\$4,105.00

County/Municipality	Number of Units	% of Total Units in County/Municipality	Remaining Unmet Need
Magoffin	71.00	2.87%	\$51,693.00
Marion	12.00	1.35%	\$17,818.00
Marshall	77.00	4.82%	\$3,874,151.00
Martin	98.00	6.70%	\$60,470.00
Morgan	16.00	0.93%	\$73,246.00
Muhlenberg	67.00	2.89%	\$2,178,997.00
Ohio	40.00	2.15%	\$253,061.00
Owsley	18.00	4.36%	\$0.00
Perry	34.00	1.02%	\$93,797.00
Powell	17.00	1.80%	\$149,940.00
Pulaski	7.00	0.16%	\$2,987.00
Rockcastle	18.00	0.92%	\$0.00
Taylor	23.00	2.65%	\$673,080.00
Warren	65.00	2.20%	\$5,202.00
Total	1,780.00	116.15%	\$19,701,553.00

Data Source(s): FEMA IA data, ACS data (S2504) – Physical Housing Characteristics For Occupied Housing Units

Limited English Proficiency Breakdown of Disaster-Related Areas

County/Municipality	Estimate Speak English Less than 'Very Well'	Percent Speak English Less than 'Very Well'
Breathitt	37.00	0.03%
Graves	1,111.00	3.20%
Hopkins	137.00	0.30%
Warren	7,388.00	6.00%
Total	8,673.00	

Data Source(s): U.S. Census Bureau's American Community Survey 5-Year Estimates (2014–2018)

Point-in-Time Count - Type of Shelter

Geography	Emergency Shelter	Transitional Housing	Unsheltered Homeless	Total Known Homeless
Area wide	1,170.00	141.00	543.00	1,854.00
FEMA Declared	1,125.00	116.00	359.00	1,600.00
MID	115.00	4.00	44.00	163.00

Data Source(s): HUD 2021 CoC Homeless Populations and Subpopulations Reports

Point-in-Time Count - Impacted by Disaster

Geography	Emergency Shelter	Transitional Housing	Unsheltered Homeless	Total Known Homeless
Area wide	1,170.00	141.00	543.00	1,854.00
FEMA Declared	1,125.00	116.00	359.00	1,600.00

Geography	Emergency Shelter	Transitional Housing	Unsheltered Homeless	Total Known Homeless
MID	115.00	4.00	44.00	163.00

Data Source(s): HUD 2021 CoC Homeless Populations and Subpopulations Reports

Assisted Housing Impacted by the Disaster

County/Municipality	Total Housing Choice Vouchers	Total Impacted Housing Choice Voucher Units	Total LIHTC Units	Total Impacted LIHTC units	Total Public Housing Dwelling Units	Total Impacted Public Housing Dwelling Units	Remaining Unmet Need
Caldwell	0.00	0.00	0.00	0.00	2.00	58.00	\$0.00
Christian	0.00	0.00	0.00	0.00	1.00	0.00	\$0.00
Graves	0.00	0.00	188.00	188.00	0.00	0.00	\$0.00
Hopkins	0.00	0.00	24.00	24.00	0.00	58.00	\$0.00
Lee	0.00	0.00	0.00	0.00	1.00	0.00	\$0.00
Warren	0.00	13.00	0.00	0.00	0.00	0.00	\$0.00
Total		13.00	212.00	212.00	4.00	116.00	

Data Source(s): Kentucky Housing Corporation

b. Infrastructure Unmet Need.

Disaster Damage and Impacts - Infrastructure.

2.3.1 Disaster Damage and Impacts

2.3.1.1 Impact on Flood Resiliency and Mitigation

The 2021 storms caused damage throughout the region. The flooding left much of the Commonwealth's infrastructure either inoperable or inaccessible to the public. Because of Kentucky's changing topography, there is an increased vulnerability to flooding. There is an opportunity to use the CDBG-DR funding to consider strategic flood management solutions.

2.3.1.2 Impact on Power Sources and Utilities

The impact of the tornado left many communities dealing with power outages and caused substantial damage to many public buildings. [29] To deal with low temperatures during the 2021 storm events, the Commonwealth opened centers to provide heat and shelter to residents seeking a safe place. Shelter became a critical part of protecting lives as people moved to quickly find a safe location during the storms. Many buildings could not withstand the storms and collapsed, and the debris was widespread. Though funding from FEMA is available, there is potentially more work that can be done to mitigate against future tornado events by building resilient shelters and facilities for residents to use during an emergency.

2.3.1.3 Impact on Roads and Bridges

With increased precipitation, the roads and critical infrastructure in various areas of Kentucky have a higher probability of flooding. [30]

2.3.1.4 Impact on Buildings, Equipment, Parks and Recreation Areas, and Other Facilities

Buildings and equipment had the highest dollar amount of damage across the affected counties.

Parks and recreation areas were damaged, but because these areas have fewer structures, recovery is often much quicker. Many of the State's parks are housing tornado survivors and serving as a temporary location for people to live until permanent housing is secured. [31]

2.3.2 FEMA Public Assistance Program (FEMA)

FEMA's Public Assistance (PA) program provides grants to state, tribal, territorial, and local governments, as well as certain types of private nonprofits so that communities can respond to and recover from major disasters quickly. Sections 403 and 407 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act allow FEMA to assist with debris removal and emergency response immediately following a disaster. Section 406 allows FEMA to fund the repair of damaged facilities and provide funding to mitigate damage from future events.

To access FEMA PA funds, eligible applicants must submit a request for grant funds to the Commonwealth. Together with FEMA, the Kentucky Division of Emergency Management (KYEM) manages the PA program on behalf of the Commonwealth. On [March 18, 2022](#), FEMA announced that additional disaster funding is available to all states, tribal nations, and territories that had presidential major disaster and emergency declarations in 2020 and 2021. Through the March 15, 2022, [H.R. 2471](#) Consolidated Appropriations Act 2022, Congress granted a minimum 90% federal cost share. For both DR-4595 and DR-4630, FEMA is authorized to reimburse up to 90% of the eligible costs for specific types of disaster response and recovery work undertaken by eligible applicants.

The following table shows FEMA PA categories under DR-4595 and DR-4630, the number of eligible project sites, and the amount of damage that FEMA recorded. Based on current analysis, FEMA has determined that more than \$500 million in damages is eligible under its PA program.

FEMA PA-Eligible Project Sites

Table 40. PA-Eligible Project Sites

PA Category	Damaged Sites	Sum of Approximate Cost	Sum of Federal Share	Sum of Nonfederal Share
A – Debris Removal	167	\$49,273,013.33	\$44,345,712.00	\$4,927,301
B – Emergency Protective Measures	409	\$54,487,093.43	\$49,038,384.09	\$5,448,709
C – Roads and Bridges	2,987	\$126,014,798.31	\$113,413,318.48	\$12,601,479
D – Water Control Facilities	9	\$8,185,260.00	\$7,366,734.00	\$818,526
E – Buildings and Equipment	482	\$178,294,794.93	\$160,465,315.44	\$17,829,479
F – Utilities	286	\$67,596,244.23	\$60,836,619.81	\$6,759,624
G – Parks, Recreational Facilities, and Other	142	\$16,648,444.44	\$14,983,600.00	\$1,664,844
TOTAL	4,482	\$500,499,648.67	\$450,449,683.80	\$50,049,964

Source: FEMA PA program data

Cost Estimates by Damage Category

Table 41. Cost Estimates by Damage Category

Declaration	Damage Category	Sum of Approximate Cost	Sum of Federal Share	Sum of Nonfederal Share
DR-4595	A – Debris Removal	\$3,795,219.40	\$3,415,697.46	\$379,521
DR-4595	B – Emergency Protective Measures	\$1,731,475.84	\$1,558,328.26	\$173,147
DR-4595	C – Roads and Bridges	\$112,753,786.40	\$101,478,407.76	\$11,275,378
DR-4595	D – Water Control Facilities	\$8,185,260.00	\$7,366,734.00	\$818,526
DR-4595	E – Buildings and Equipment	\$6,293,830.73	\$5,664,447.66	\$629,383
DR-4595	F – Utilities	\$25,959,061.38	\$23,363,155.24	\$2,595,906
DR-4595	G – Parks, Recreational Facilities, and Other	\$6,127,389.22	\$5,514,650.30	\$612,738
DR-4595	Z – Management Costs	\$1,992,731.46	\$1,793,458.31	\$199,273
DR-4595	TOTAL	\$166,838,754.43	\$150,154,878.99	\$16,683,875
DR-4630	A – Debris	\$45,477,793.93	\$40,930,014.54	\$4,547,779
DR-4630	B – Emergency Protective Measures	\$52,755,617.59	\$47,480,055.83	\$5,275,561
DR-4630	C – Roads and Bridges	\$13,261,011.91	\$11,934,910.72	\$1,326,101
DR-4630	D – Water Control Facilities	\$0.00	\$0.00	\$0.00
DR-4630	E – Buildings and Equipment	\$172,000,964.20	\$154,800,867.78	\$17,200,096
DR-4630	F – Utilities	\$41,637,182.85	\$37,473,464.57	\$4,163,718
DR-4630	G – Parks, Recreational Facilities, and Other	\$10,521,055.22	\$9,468,949.70	\$1,052,105
DR-4630	Z – Management Costs	\$543,888.34	\$489,499.51	\$54,388
DR-4630	TOTAL	\$336,197,514.04	\$302,577,762.64	\$33,619,751

Source: FEMA PA program data

2.3.3 Total Cost and Need by PA Category (FEMA)

Table 42. Total Cost and Need by PA Category

PA Category	Estimated PA Cost	Local Match	Resiliency	Total Need (Match + Resiliency)
A – Debris Removal	\$49,273,013.33	\$4,927,301.33	\$7,390,952.00	\$12,318,253
B – Emergency Protective Measures	\$54,487,093.43	\$5,448,709.34	\$8,173,064.01	\$13,621,773
C – Roads and Bridges	\$126,014,798.31	\$12,601,479.83	\$18,902,219.75	\$31,503,699
D – Water Control Facilities	\$8,185,260.00	\$818,526.00	\$1,227,789.00	\$2,046,315
E – Building and Equipment	\$178,294,794.93	\$17,829,479.49	\$26,744,219.24	\$44,573,698

PA Category	Estimated PA Cost	Local Match	Resiliency	Total Need (Match + Resiliency)
F – Utilities	\$67,596,244.23	\$6,759,624.42	\$10,139,436.63	\$16,899,061
G – Parks, Recreational Facilities, and Other	\$16,648,444.44	\$1,664,844.44	\$2,497,266.67	\$4,162,111
TOTAL	\$500,499,648.67	\$50,049,964.87	\$75,074,947.30	\$125,124,912

Source: FEMA PA program data

2.3.4 Approximate Recovery Cost per Agency (FEMA)

Table 43. Approximate Recovery Cost per Agency

Agency	Approximate Cost
Kentucky Department of Transportation	\$34,382,999.47
Kentucky Department of Parks	\$122,561.64
Kentucky Division of Emergency Management	\$4,210,934.28
University of Kentucky	\$29,105.78
Western Kentucky University	\$11,634.58
TOTAL	\$38,757,235.75

Source: FEMA PA program data

2.3.5 Hazard Mitigation Needs per County or Known Project (client, county)

Kentucky Division of Emergency Management also manages the Hazard Mitigation Assistance program. Currently, the Commonwealth is tracking more than \$174 million in costs that are tied to mitigation work. Work includes the construction of safe rooms, repair and hardening of utilities, dam restoration, elevation of buildings and roads, generator installation, and flood management.

Table 44. Hazard Mitigation Needs per County or Known Project

Project	Cost	FEMA Funding	Unmet Need
Allen	\$2,196,705	\$1,977,035	\$219,671
Barren	\$35,000	\$31,500	\$3,500
Bath	\$450,000	\$405,000	\$45,000
Boyd	\$591,256	\$532,130	\$59,126
Breathitt	\$186,990	\$168,291	\$18,699
Butler	\$316,000	\$284,400	\$31,600
Caldwell	\$1,500,677	\$1,350,609	\$150,068
Calloway	\$2,705,650	\$2,435,085	\$270,565
Campbell	\$89,688	\$80,719	\$8,969
Carlisle	\$202,550	\$182,295	\$20,255
Carroll	\$553,775	\$498,398	\$55,378
Carter	\$3,773,608	\$3,396,247	\$377,361
Christian	\$21,973,808	\$19,776,427	\$2,197,381
Crittenden	\$118,450	\$106,605	\$11,845
Daviess	\$1,168,946	\$1,052,051	\$116,895
Edmonson	\$83,000	\$74,700	\$8,300
Elliott	\$1,031,341	\$928,207	\$103,134
Fayette	\$150,000	\$135,000	\$15,000
Floyd	\$1,390,000	\$1,251,000	\$139,000
Franklin	\$375,000	\$337,500	\$37,500
Fulton	\$348,155	\$313,340	\$34,816

Project	Cost	FEMA Funding	Unmet Need
Graves	\$22,428,620	\$20,185,758	\$2,242,862
Green	\$18,000	\$16,200	\$1,800
Greenup	\$2,380,000	\$2,142,000	\$238,000
Hancock	\$1,439,607	\$1,295,646	\$143,961
Hardin	\$110,066	\$99,059	\$11,007
Harrison	\$2,190,800	\$1,971,720	\$219,080
Hart	\$864,903	\$778,413	\$86,490
Hopkins	\$17,021,391	\$15,319,252	\$1,702,139
Jefferson	\$1,394,683	\$1,255,215	\$139,468
Johnson	\$222,246	\$200,021	\$22,225
Kenton	\$5,790,000	\$5,211,000	\$579,000
Larue	\$1,114,177	\$1,002,759	\$111,418
Lee	\$91,859	\$82,673	\$9,186
Lincoln	\$130,000	\$117,000	\$13,000
Logan	\$1,541,100	\$1,386,990	\$154,110
Madison	\$559,803	\$503,823	\$55,980
Marion	\$7,103,210	\$6,392,889	\$710,321
Marshall	\$9,654,607	\$8,689,146	\$965,461
Mason	\$600,000	\$540,000	\$60,000
Menifee	\$140,000	\$126,000	\$14,000
Mercer	\$1,500,000	\$1,350,000	\$150,000
Metcalfe	\$2,068,000	\$1,861,200	\$206,800
Monroe	\$1,089,000	\$980,100	\$108,900
Morgan	\$85,000	\$76,500	\$8,500
Muhlenberg	\$2,406,603	\$2,165,943	\$240,660
Ohio	\$337,081	\$303,373	\$33,708
Owen	\$315,748	\$284,173	\$31,575
Pendleton	\$79,000	\$71,100	\$7,900
Perry	\$56,475	\$50,828	\$5,648
Pike	\$2,023,715	\$1,821,344	\$202,372
Rowan	\$100,000	\$90,000	\$10,000
Shelby	\$1,585,000	\$1,426,500	\$158,500
Simpson	\$1,400,000	\$1,260,000	\$140,000
Spencer	\$1,393,000	\$1,253,700	\$139,300
Taylor	\$1,250,000	\$1,125,000	\$125,000
Todd	\$1,302,146	\$1,171,931	\$130,215
Trigg	\$699,766	\$629,789	\$69,977
Trimble	\$40,000	\$36,000	\$4,000
Union	\$2,014,000	\$1,812,600	\$201,400
Warren	\$31,417,351	\$28,275,616	\$3,141,735
Washington	\$647,076	\$582,368	\$64,708

Project	Cost	FEMA Funding	Unmet Need
Webster	\$615,549	\$553,994	\$61,555
Woodford	\$7,969,297	\$7,172,367	\$796,930
TOTAL	\$174,429,478	\$156,986,530	\$17,442,948

Source: FEMA's Hazard Mitigation Grant Program data

[29] [NY Times Article - Tornadoes Leave Trail of Devastation Across Six States, 2021](#)

[30] [Risk Factor of Louisville, Kentucky to Flooding – 2022](#)

[31] [Kentucky state parks still figuring out next steps for tornado survivors | WKMS](#)

Total Cost and Need by PA Category

PA Category	Estimated PA Cost	Local Match	Resiliency	Total Need (Match + Resiliency)
A - Debris	\$49,273,013.33	\$4,927,301.33	\$7,390,952.00	\$12,318,253.00
B - Emergency Measures	\$54,487,093.43	\$5,448,709.34	\$8,173,064.01	\$13,621,773.00
C - Roads and Bridges	\$126,014,798.31	\$12,601,479.83	\$18,902,219.75	\$31,503,699.00
D - Water Control Facilities	\$8,185,260.00	\$818,526.00	\$1,227,789.00	\$2,046,315.00
E - Building and Equipment	\$178,294,794.93	\$17,829,479.49	\$26,744,219.24	\$44,573,698.00
F - Utilities	\$67,596,244.23	\$6,759,624.42	\$10,139,436.63	\$16,899,061.00
G - Other	\$16,648,444.44	\$1,664,844.44	\$2,497,266.67	\$4,162,111.00
Total	\$500,499,648.67	\$50,049,964.85	\$75,074,947.30	\$125,124,910.00

Data Source(s): FEMA PA program data

Hazard Mitigation Needs per County or Known Project

Project	Cost	Funding Source	Unmet Need
Allen	\$2,196,705.00	1977035	\$219,671.00
Barren	\$35,000.00	31500	\$3,500.00
Bath	\$450,000.00	405000	\$45,000.00
Boyd	\$591,256.00	532130	\$59,126.00
Breathitt	\$186,990.00	168291	\$18,699.00
Butler	\$316,000.00	284400	\$31,600.00
Caldwell	\$1,500,677.00	1350609	\$150,068.00
Calloway	\$2,705,650.00	2435085	\$270,565.00
Campbell	\$89,688.00	80719	\$8,969.00
Carlisle	\$202,550.00	182295	\$20,255.00
Carroll	\$553,775.00	498398	\$55,378.00
Carter	\$3,773,608.00	3396247	\$377,361.00
Christian	\$21,973,808.00	19776427	\$2,197,381.00
Crittenden	\$118,450.00	106605	\$11,845.00

Project	Cost	Funding Source	Unmet Need
Daviess	\$1,168,946.00	1052051	\$116,895.00
Edmonson	\$83,000.00	74700	\$8,300.00
Elliott	\$1,031,341.00	928207	\$103,134.00
Fayette	\$150,000.00	135000	\$15,000.00
Floyd	\$1,390,000.00	1251000	\$139,000.00
Franklin	\$375,000.00	337500	\$37,500.00
Fulton	\$348,155.00	313340	\$34,816.00
Graves	\$22,428,620.00	20185758	\$2,242,862.00
Green	\$18,000.00	16200	\$1,800.00
Greenup	\$2,380,000.00	2142000	\$238,000.00
Hancock	\$1,439,607.00	1295646	\$143,961.00
Hardin	\$110,066.00	99059	\$11,007.00
Harrison	\$2,190,800.00	1971720	\$219,080.00
Hart	\$864,903.00	778413	\$86,490.00
Hopkins	\$17,021,391.00	15319252	\$1,702,139.00
Jefferson	\$1,394,683.00	1255215	\$139,468.00
Johnson	\$222,246.00	200021	\$22,225.00
Kenton	\$5,790,000.00	5211000	\$579,000.00
Larue	\$1,114,177.00	1002759	\$111,418.00
Lee	\$91,859.00	82673	\$9,186.00
Lincoln	\$130,000.00	117000	\$13,000.00
Logan	\$1,541,100.00	1386990	\$154,110.00
Madison	\$559,803.00	503823	\$55,980.00
Marion	\$7,103,210.00	6392889	\$710,321.00
Marshall	\$9,654,607.00	8689146	\$965,461.00
Mason	\$600,000.00	540000	\$60,000.00
Menifee	\$140,000.00	126000	\$14,000.00
Mercer	\$1,500,000.00	1350000	\$150,000.00
Metcalfe	\$2,068,000.00	1861200	\$206,800.00
Monroe	\$1,089,000.00	980100	\$108,900.00
Morgan	\$85,000.00	76500	\$8,500.00
Muhlenberg	\$2,406,603.00	2165943	\$240,660.00
Ohio	\$337,081.00	303373	\$33,708.00
Owen	\$315,748.00	284173	\$31,575.00
Pendleton	\$79,000.00	71100	\$7,900.00

Project	Cost	Funding Source	Unmet Need
Perry	\$56,475.00	50828	\$5,648.00
Pike	\$2,023,715.00	1821344	\$202,372.00
Rowan	\$100,000.00	90000	\$10,000.00
Shelby	\$1,585,000.00	1426500	\$158,500.00
Simpson	\$1,400,000.00	1260000	\$140,000.00
Spencer	\$1,393,000.00	1253700	\$139,300.00
Taylor	\$1,250,000.00	1125000	\$125,000.00
Todd	\$1,302,146.00	1171931	\$130,215.00
Trigg	\$699,766.00	629789	\$69,977.00
Trimble	\$40,000.00	36000	\$4,000.00
Union	\$2,014,000.00	1812600	\$201,400.00
Warren	\$31,417,351.00	28275616	\$3,141,735.00
Washington	\$647,076.00	582368	\$64,708.00
Webster	\$615,549.00	553994	\$61,555.00
Woodford	\$7,969,297.00	7172367	\$796,930.00
Total	\$174,429,478.00		\$17,442,954.00

Data Source(s): FEMA's Hazard Mitigation Grant Program data

c. Economic Revitalization Unmet Need.

Disaster Damage and Impacts - Economic Revitalization.

2.4.1 Disaster Damage and Impacts

2.4.1.1 Impact on Businesses and Employment

Many businesses were impacted by the flooding and the tornado. Damages included external damage to building structures and/or loss of valuable inventory and equipment, and business owners suffered from loss of business for several weeks and/or lack of business insurance. Given the news of the tragic deaths occurring during the disasters, businesses have also helped start a conversation about detailed emergency action plans to keep workers safe during a disaster event and planning for unforeseen risks.

Following the severe storms, SBA made available low-interest disaster loans to businesses in Kentucky. Businesses and private nonprofit organizations of any size are able borrow up to \$2 million to repair or replace disaster-damaged or destroyed real estate, machinery and equipment, inventory, and other business assets. Applicants may be eligible for a loan amount increase of up to 20% of their physical damages, as verified by the SBA, for mitigation purposes. As reflected in the tables below, data show that Graves and Warren Counties—both HUD MID areas—had the highest number of applications for business loans and cumulative dollars approved by the SBA.

Despite the disasters and the effects of the pandemic, Kentucky is still experiencing a reduction in its unemployment rate and projecting substantial growth across many job sectors in the Commonwealth.^[32]

2.4.1.2 Impact on Agriculture

Following the 2021 storms, not only were towns and buildings affected but farms and livestock were also damaged or destroyed.^[33] Kentucky's agriculture industry was one of the hardest impacted. From collapsed grain centers and storage silos to destroyed poultry barns and downed fencing, the Commonwealth suffered the largest agricultural loss in its history. Nearly 200 producers and 30 chicken houses were reported affected.^[34] The storm events were devastating, and the aftermath of recovering and caring for livestock that survived was a major challenge. Kentucky Department of Agriculture and the Kentucky Farm Bureau Federation joined forces to create the Kentucky Agriculture Relief Fund.

2.4.2 Total Business Loans Approved by the SBA

Table 45. Business Loans Approved by SBA

Disaster	County	Business/EIDL Loan Amounts
DR-4595	Madison	\$25,000
DR-4630	Caldwell	\$141,000
DR-4630	Calloway	\$2,100

Disaster	County	Business/EIDL Loan Amounts
DR-4630	Graves	\$2,305,400
DR-4630	Hart	\$119,200
DR-4630	Henry	\$25,000
DR-4630	Hopkins	\$233,200
DR-4630	Logan	\$234,300
DR-4630	Lyon	\$3,500
DR-4630	Marshall	\$458,600
DR-4630	Mclean	\$30,200
DR-4630	Muhlenberg	\$178,000
DR-4630	Taylor	\$15,000
DR-4630	Warren	\$5,135,600
DR-4630	Weakley	47,000
TOTAL		\$8,913,100

Source: SBA Disaster Loan Statistics, 2022

2.4.3 Estimating Business Operations Losses

Table 46. Business Operations Losses Estimates

Disaster	County	Businesses With Verified Losses	Average Verified Loss	Estimated Additional Losses to Businesses
DR-4595	Anderson	2	-	-
DR-4595	Bell	1	-	-
DR-4595	Boyd	3	\$1,676	\$5,029
DR-4595	Breathitt	5	\$303,031	\$1,515,153
DR-4595	Clark	8	\$164,616	\$1,316,924
DR-4595	Clay	2	\$68,949	\$137,898
DR-4595	Estill	4	\$10,709	\$42,837
DR-4595	Fayette	7	\$67,263	\$470,838
DR-4595	Floyd	6	\$14,498	\$86,986
DR-4595	Franklin	1	-	-
DR-4595	Harlan	1	-	-
DR-4595	Harrison	1	-	-
DR-4595	Jackson	3	\$26,336	\$79,008
DR-4595	Jefferson	2	-	-
DR-4595	Johnson	5	\$28,938	\$144,691
DR-4595	Lee	10	\$77,300	\$772,999
DR-4595	Lincoln	1	-	-
DR-4595	Madison	2	\$17,751	\$35,502
DR-4595	Mercer	1	-	-
DR-4595	Morgan	1	-	-
DR-4595	Owsley	1	\$127,101	\$127,101
DR-4595	Powell	6	\$113,169	\$679,013
DR-4595	Pulaski	3	\$3,150	\$9,450

Disaster	County	Businesses With Verified Losses	Average Verified	Estimated Additional
			Loss	Losses to Businesses
DR-4595	Warren	1	\$2,385	\$2,385
DR-4595	Wolfe	1	-	-
DR-4595	Woodford	1	\$5,000	\$5,000
DR-4595 TOTAL		82	\$66,229	\$5,430,814
DR-4630	Allen	1	-	-
DR-4630	Barren	4	\$1,256	\$5,025
DR-4630	Boone	1	\$19,340	\$19,340
DR-4630	Butler	1	-	-
DR-4630	Caldwell	12	\$27,691	\$332,288
DR-4630	Calloway	4	-	-
DR-4630	Christian	18	\$64,811	\$1,166,602
DR-4630	Fulton	5	\$48,246	\$241,232
DR-4630	Graves	125	\$340,286	\$42,535,805
DR-4630	Hart	9	\$90,193	\$811,737
DR-4630	Henry	1	-	-
DR-4630	Hickman	2	\$40,283	\$80,566
DR-4630	Hopkins	33	\$67,096	\$2,214,152
DR-4630	Jefferson	1	-	-
DR-4630	Logan	8	\$106,487	\$851,899
DR-4630	Lyon	5	\$184,004	\$920,018
DR-4630	Marion	3	\$5,061	\$15,182
DR-4630	Marshall	19	\$100,979	\$1,918,598
DR-4630	Mclean	1	\$78,160	\$78,160
DR-4630	Montgomery	1	-	-
DR-4630	Muhlenberg	9	\$208,977	\$1,880,789
DR-4630	Ohio	4	\$50,461	\$201,842
DR-4630	Taylor	9	\$127,519	\$1,147,670
DR-4630	Warren	152	\$133,676	\$20,318,753
DR-4630 TOTAL		429	\$174,218	\$74,739,658
GRAND TOTAL		511	\$156,889	\$80,170,471

Source: SBA Disaster Loan Statistics, 2022

2.4.4 Increased Occupation Demands

Table 47. Increased Occupation Demands

Occupation Area	Currently	Projected	Projected	Projected	Total Job Openings
	Employed	Employment	Growth (#)	Growth (%)	
Architecture and Engineering	29,324	31,229	1,905	6.50%	22,455
Arts, Design, Entertainment, Sports, and Media	22,279	22,257	-22	-0.10%	21,513
Building and Grounds Cleaning and Maintenance	58,725	64,047	5,322	9.06%	78,573
Business and Financial Operations	78,721	83,221	4,500	5.72%	71,500
Community and Social Services	28,754	32,981	4,227	14.70%	32,128

Occupation Area	Currently	Projected	Projected	Projected	Total Job Openings
	Employed	Employment	Growth (#)	Growth (%)	
Computer and Mathematics	33,873	38,444	4,571	13.49%	27,415
Construction and Extraction	84,260	81,988	-2,272	-2.70%	76,291
Educational Instruction and Library Services	95,297	100,071	4,774	5.01%	81,161
Farming, Fishing, and Forestry	8,061	8,551	490	6.08%	12,373
Food Preparation and Serving	178,641	186,468	7,827	4.38%	306,058
Healthcare Practitioners and Related Technical Occupations	127,447	142,293	14,846	11.65%	84,723
Healthcare Support	73,951	89,649	15,698	21.23%	102,564
Installation, Maintenance, and Repair Services	91,841	96,766	4,925	5.36%	86,436
Legal Services	11,761	12,529	768	6.53%	8,048
Life, Physical, and Social Sciences	11,188	11,784	596	5.33%	9,333
Management Services	104,116	110,844	6,728	6.46%	83,515
Office and Administrative Support	263,265	257,543	-5,722	-2.17%	267,759
Personal Care and Services	53,143	57,140	3,997	7.52%	80,585
Production Services	200,264	201,596	1,332	0.67%	202,751
Protective Service	38,613	40,415	1,802	4.67%	40,186
Sales and Related Occupations	186,590	180,270	-6,320	-3.39%	224,333
Transportation and Material Moving	218,406	234,745	16,339	7.48%	268,545

Source: Kentucky Center for Statistics (KYSTATS) – Labor Market Data

[32] [Civilian Labor Force Report – Historical Comparison, 2022](#)

[33] [Kentucky Farmers Endure Epic Ruin And Worst Storm Damage In State History As Agriculture Rushes To Rebuild | AgWeb](#)

[34] [Tornados Across Kentucky Make a Devastating Impact on State's Agriculture Industry - \(producersvoice.net\)](#)

d. Mitigation Only Activities.

2.5.1 Introduction

The Mitigation Needs Assessment is a risk-based assessment that summarizes the natural threats and hazards in the HUD designated Most Impacted and Distressed (HUD-MID) counties (Breathitt, Graves, Hopkins, and Warren Counties) through DR-4595 (2021 severe storms, flooding, landslides, and mudslides) and DR-4630 (2021 severe storms, straight-line winds, flooding and tornadoes). The Mitigation Needs Assessment was undertaken to inform the use of the Commonwealth's 15% Community Development Block Grant-Mitigation (CDBG-MIT) set-aside and to help build resilience and mitigation measures into recovery programs and projects.

It is important to note that while this assessment looked at severe storms, straight-line winds, tornadoes, flooding, landslides, and mudslides, it also reviewed any natural hazard likely to threaten HUD- and grantee-identified MIDs, including drought, earthquakes, extreme temperatures, flood (riverine and flash), karst/sinkholes, landslides, severe weather (high winds, severe storms, and hailstorms), severe winter storms, tornadoes, and wildfires. These hazards were identified in Kentucky's FEMA-approved Hazard Mitigation Plan (HMP) as well as the plans for HUD- and grantee-identified MID counties.

In addition to current hazards posed to the MID counties, the Mitigation Needs Assessment considered future threats, particularly as severe weather events become more frequent and severe. In this way, the Commonwealth can ensure it minimizes vulnerabilities to the impacts of future extreme events through its recovery and mitigation projects and programs.

This assessment will inform the proposed programs and projects in this Action Plan that are designed to mitigate current and future hazards. In addition, it will inform all projects undertaken through CDBG-DR such that, at a minimum, they do not exacerbate natural hazard threats and make best use of scarce resources for recovery and mitigation. As part of this assessment, the Commonwealth also sought to identify and address risks to indispensable services; indispensable services are those which enable continuous operation of critical business and government functions and/or are critical to human health and safety and economic security.

2.5.2 State Hazard Mitigation Plan

The risk assessment for the HMP provides the factual basis for developing a mitigation strategy for the Commonwealth. Kentucky's approach to hazard mitigation is based on a hazard analysis and risk assessment that is comprehensive and multihazard. The risk assessment identifies nine 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, and environmental impacts; and a vulnerability assessment. The nine natural hazards are included in Table 48.

Table 48. HMP-Identified Natural Hazards

Hazard

Drought

Earthquake

Extreme Temperatures

Flooding

Karst/Sinkholes

Landslide

Severe Winter Storms

Tornadoes and Severe Thunderstorm Wind

Wildfires

2.5.3 Regional Hazard Mitigation Plans

2.5.3.1 Barren River Area Development District

Barren, Hart, Logan, and Warren Counties

Through the Barren River Area Development District (BRADD), Barren, Hart, Logan, and Warren Counties are included in the Barren River Regional Hazard Mitigation Plan, which profiles the natural and human-caused hazards that could impact counties within the Barren River Area Development District. Each natural hazard profile includes an identification of the hazard; the location of the hazard; the timing and duration of the hazard, the severity of the hazard; the frequency of the hazard, including previous regional occurrences and probability of future events; and vulnerability, including manmade, natural, and systems vulnerabilities as well as population risk.

The risk assessment identifies 10 applicable natural hazards based on an analysis from BRADD staff, public input, and the Barren River Regional Hazard Mitigation Council and subcommittees. The 10 hazards include dam failures, droughts, earthquakes, extreme temperatures, floods, landslides, severe storms, sinkholes/karst, tornadoes, and winter storms.

2.5.3.2 Big Sandy Area Development District

Floyd, Johnson, Magoffin, and Martin Counties

Through the Big Sandy Area Development District (BSADD), Floyd, Johnson, Magoffin, and Martin Counties are included in the Big Sandy Multi-Jurisdictional Hazard Mitigation Plan, which profiles the natural hazards that could impact counties within the BSADD.

The risk assessment identifies 10 applicable natural hazards based on an analysis from BSADD staff and Regional Mitigation Committee. The 10 hazards include dam failures, droughts, earthquakes, flooding, hail, landslides, thunderstorms/severe wind, tornadoes, severe winter storms, and wildfires.

2.5.3.3 Bluegrass Area Development District

Anderson, Clark, Estill, Fayette, Franklin, Jessamine, Lincoln, Madison, Powell, and Woodford Counties

Through the Bluegrass Area Development District (BADD), Anderson, Clark, Estill, Franklin, Jessamine, Lincoln, Madison, Powell, and Woodford Counties are included in the Bluegrass Regional Hazard Mitigation Plan, which profiles the natural hazards that could impact counties within the BADD. Fayette County has its own Lexington Fayette County Hazard Mitigation Plan, which profiles the natural hazards that could impact the county. Each natural hazard profile includes the period of occurrence, number of events to date, annualized probability, probability of event(s), potential impacts, potency of injury or death, potential duration of facility shutdown, past damages, warning time, and extent.

The Bluegrass Regional Hazard Mitigation Plan risk assessment identifies nine applicable natural hazards based on an analysis from local officials. The nine hazards include dam/levee failures, droughts, earthquakes, flooding, mudslides/landslides, severe storms and tornadoes, subsidence/karst, severe winter storms, and wildfires. The Lexington Fayette County Hazard Mitigation Plan identifies 13 natural hazards based on an analysis made by the Planning Team and public input. The hazards include dam failure, drought, extreme heat, extreme cold, earthquake, flooding, hail, karst/sinkhole, landslide, severe storm, severe winter storm, tornado, and wildfire.

2.5.3.4 Cumberland Valley Area Development District

Clay, Jackson, Laurel, and Rockcastle Counties

Through the Cumberland Valley Area Development District (CVADD), Clay, Jackson, Laurel, and Rockcastle Counties are included in the Cumberland Valley Regional Hazard Mitigation Plan, which profiles the natural hazards that could impact counties within the CVADD. Each natural hazard profile includes the definition of the hazard, an overview of the region, history of the hazard, and the frequency and probability of the hazard.

The Cumberland Valley Regional Hazard Mitigation Plan risk assessment identifies four applicable natural hazards based on an analysis by CVADD staff; planning committee members (comprising representatives from 8 counties and 17 cities, businesses, community groups, regional and local emergency management offices, and the Department of Transportation); and county workgroup subcommittees made up of local officials and residents. The four hazards include flooding, landslides, severe storms/hail/tornadoes, and winter storms.

2.5.3.5 Fivco Area Development District

Boyd, Greenup, and Lawrence Counties

Through the Fivco Area Development District (FADD), Boyd, Greenup, and Lawrence Counties are included in the Fivco ADD Multi-Jurisdictional Hazard Mitigation Plan, which profiles the natural hazards that could impact counties within the FADD.

The Fivco ADD Multi-Jurisdictional Hazard Mitigation Plan risk assessment identifies eight applicable natural hazards based on an analysis by a Hazard Mitigation Planning committee consisting of local officials from the county and city level, representatives from other organizations who offer expertise in specific areas, as well as members of the public. The eight hazards include dam failure, drought, earthquake, flooding, landslides, thunderstorms (severe wind and tornadoes), severe winter storms, and wildfire.

2.5.3.6 Gateway Area Development District

Morgan County

Through the Gateway Area Development District (GADD), Morgan County is included in the Gateway Area Development District Hazard Mitigation Plan, which profiles the natural hazards that could impact counties within the GADD.

The Gateway Area Development District Hazard Mitigation Plan risk assessment identifies 13 applicable natural hazards based on an analysis by GADD staff. The 13 hazards include dam failure, drought, extreme temperatures, earthquake, general floods/flash floods, forest fire, karst/sinkholes, landslides, land subsidence, severe thunderstorms, hailstorms, severe winter storms, and tornadoes.

2.5.3.7 Green River Area Development District

Ohio County

Through the Green River Area Development District (GRADD), Ohio County is included in the Green River Area Development District Hazard Mitigation Plan, which profiles the natural and human-made hazards that could impact counties within the GRADD.

The Green River Area Development District Hazard Mitigation Plan risk assessment identifies 11 applicable natural hazards based on an analysis by GRADD staff. The 11 hazards include dam/levee failure, drought, extreme temperatures, earthquake, flooding/flash flooding, landslide, land subsidence, thunderstorm wind/hail/lightning, severe winter storms, tornadoes, and wildfire.

2.5.3.8 Kentucky River Area Development District

Breathitt, Knott, Lee, Leslie, Letcher, Owsley, and Perry Counties

Through the Kentucky River Area Development District (KRADD), Breathitt, Knott, Lee, Leslie, Letcher, Owsley, and Perry Counties are included in the KRADD Regional Hazard Mitigation Plan: 2017 that profiles the natural and human-caused hazards that could impact each of the counties included in the planning area.

The risk assessment identifies 13 hazards and 7 priority hazards based on an analysis by the Regional Mitigation Planning Committee. Each natural hazard 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.

The seven priority hazards include flooding (flash floods and riverine), windstorms/snow and ice storms, tornadoes, severe thunderstorms/lightning/hailstorms, wildfires, landslides, and drought/extreme heat.

2.5.3.9 Lake Cumberland Area Development District

Pulaski and Taylor Counties

Through the Lake Cumberland Area Development District, Pulaski and Taylor Counties are included in the Lake Cumberland Area Development District Regional Multi-Hazard Mitigation Plan, which profiles the natural and human-caused hazards that could impact counties within the Lake Cumberland Area Development District.

The risk assessment identifies seven applicable natural hazards based on an analysis from Lake Cumberland Area Development District staff. The nine hazards include dam/levee failure, drought, expansive soil, extreme summer weather, floods, forest/wildfires, geologic hazards (including earthquakes, land subsidence/landslides, and sinkholes), tornadoes and thunderstorms, and winter storm events.

2.5.3.10 Lincoln Trail Area Development District

Marion County

Through the Lincoln Trail Area Development District (LTADD), Marion County is included in the Lincoln Trail Region Hazard Mitigation Plan, which profiles the natural and human-caused hazards that could impact counties within the LTADD.

The risk assessment identifies seven applicable natural hazards based on an analysis by LTADD staff. The seven hazards include floods, earthquake, hail, lightning, snow and ice, thunderstorm wind, and tornadoes.

2.5.3.11 Pennyrile Area Development District

Caldwell, Christian, Hopkins, Lyon, and Muhlenberg Counties

Through the Pennyrile Area Development District (PADD), Caldwell, Christian, Hopkins, Lyon, and Muhlenberg Counties are included in the Pennyrile Regional Hazard Mitigation Plan, which profiles the natural and human-caused hazards that could impact counties within the PADD. Each natural hazard profile includes a history of the hazard in the PADD, the hazard impact by county, significant historical events, probable future occurrence, and a hazard frequency summary.

The risk assessment identifies seven applicable natural hazards based on an analysis from PADD staff, public input, and the Pennyrile Regional Hazard Mitigation Council and subcommittees. The seven hazards include flooding, tornadoes, severe thunderstorms, earthquakes, severe winter storms, extreme heat/drought, and dam failure.

2.5.3.12 (Jackson) Purchase Area Development District

Fulton, Graves, Hickman, and Marshall Counties

Through the (Jackson) Purchase Area Development District (JPADD), Fulton, Graves, Hickman, and Marshall Counties produced the Jackson Purchase Hazard Mitigation Plan in 2018 that profiles the natural and human-caused hazards that could impact the county. The JPADD and Graves County Mitigation Planning Team's (MPT) risk assessment identifies eight hazards. Each natural hazard profile includes a description of the hazard, frequency and impact, previous occurrences and losses, and the probability and impact of future occurrences.

The eight hazards include tornadoes, floods (flash flood/river erosion), thunderstorm/wind/hail, earthquake, winter storm/ice storm, excessive heat/drought, dam failure, and wildfire.

2.5.3.13 MID Area Hazard Table

Table 49. MID Area Hazard

Hazard	Barren River Area Development District	Kentucky River Area Development District	Pennyrile Area Development District	(Jackson) Purchase Area Development District
Drought	X	X	X	X

Hazard	Barren River Area Development District	Kentucky River Area Development District	Pennyrile Area Development District	(Jackson) Purchase Area Development District
Earthquakes	X		X	X
Extreme Temperatures	X	X	X	X
Flooding	X	X	X	X
Karst/Sinkholes	X			
Landslides	X	X		
Severe Weather	X	X	X	X
Severe Winter Storms	X	X	X	X
Tornadoes	X	X	X	X
Wildfires		X		X

Table 49 lists the natural hazards from the Barren River Area Development District (BRADD), the Kentucky River Area Development District (KRADD), the Pennyrile Area Development District (PADD), and the (Jackson) Purchase Area Development District (JPADD). Hazards include drought, earthquakes, extreme temperatures, flooding, karst/sinkholes, landslides, severe weather, severe winter storms, tornadoes, and wildfires. BRADD faces drought, earthquakes, extreme temperatures, flooding, karst/sinkholes, landslides, severe weather, severe winter storms, and tornadoes. KRADD faces drought, extreme temperatures, flooding, landslides, severe weather, severe winter storms, tornadoes, and wildfires. PADD faces drought, earthquakes, extreme temperatures, flooding, severe weather, severe winter storms, and tornadoes. JPADD faces drought, earthquakes, extreme temperatures, flooding, severe weather, severe winter storms, tornadoes, and wildfires.

2.5.3.14 IA Only Area Hazard Table

Table 50. IA Only Area Hazard

Hazard	BSADD	BGADD	CVADD	FIVCO	GWADD	GRADD	LCADD	LTADD
Drought	X	X		X	X	X	X	
Earthquake	X	X		X	X	X	X	X
Extreme Temperatures		X			X	X	X	
Flood	X	X	X	X	X	X	X	X
Karst/Sinkholes		X			X		X	
Landslide	X	X	X	X	X	X	X	
Severe Weather	X	X	X	X	X	X	X	X
Severe Winter Storm	X	X	X	X	X	X	X	X
Tornado	X	X	X	X	X	X	X	X
Wildfires	X	X		X	X	X	X	

Table 50 lists the natural hazards from the Big Sandy Area Development District (BSADD), the Bluegrass Area Development District (BGADD), the Cumberland Valley Area Development District (CVADD), the Fivco Area Development District (FIVCO), the Gateway Area Development District (GWADD), the Green River Area Development District (GRADD), the Lake Cumberland Area Development District (LCADD), and Lincoln Trail Area Development District (LTADD). Hazards include drought, earthquakes, extreme temperatures, flooding, karst/sinkholes, landslides, severe weather, severe winter storms, tornadoes, and wildfires. BSADD faces drought, earthquakes, flooding, karst/sinkholes, landslides, severe weather, severe winter storms, and tornadoes. BGADD faces drought, earthquakes, extreme temperatures, flooding, karst/sinkholes, landslides, severe weather, severe winter storms, tornadoes, and wildfires. CVADD faces flooding, landslides, severe weather, severe winter storms, and tornadoes. FIVCO faces drought, earthquakes, flooding, landslides, severe weather, severe winter storms, tornadoes, and wildfires. GWADD faces drought, earthquakes, extreme temperatures, flooding, karst/sinkholes, landslides, severe weather, severe winter storms, tornadoes, and wildfires. GRADD faces drought, earthquakes, extreme temperatures, flooding, landslides, severe weather, severe winter storms, tornadoes, and wildfires. LCADD faces drought, earthquakes, extreme temperatures, flooding, karst/sinkholes, landslides, severe weather, severe winter storms, tornadoes, and wildfires. LTADD faces earthquakes, flooding, severe weather, severe winter storms, and tornadoes.

2.5.4 Greatest Risk Hazards

2.5.4.1 Drought

A drought is a prolonged period of lower-than-normal precipitation such that the lack of water causes a serious hydrologic imbalance. Relief from droughts depends on a variety of precipitation factors, including the timing and effectiveness of the rains, temperatures, wind, and low relative humidity, and the balance between precipitation and evapotranspiration, which is the sum of evaporation and transpiration. The release of water from plant leaves are also factors that can intensify a drought.

While droughts are often a normal climatic feature, human water demands and community response can hasten or mitigate droughts and their impact on communities. Common effects of drought include crop failure, water supply shortages, and fish and wildlife mortality. Drought conditions can also make an area more susceptible to wildfires. The agricultural industry is particularly vulnerable to the impacts of drought because the crops depend on stored soil water and surface water.

There are several methods of interpreting drought data and classifying a drought's severity, and no single index is the best in every situation. The Palmer Drought Severity Index (PDSI) is based on a water balance equation that weighs supply and demand, accounting for more than simply a location's precipitation deficits, while the Keetch-Byran Drought Index (KBDI) is merely a reference scale for estimating the dryness of the soil layers that increases for each day without rain. The U.S. Drought Monitor measures droughts and classifies their intensity from D0: Abnormally Dry to D4: Exceptional Drought, as seen in Table 51.

Table 51. U.S. Drought Monitor, Drought Classification

Category	Description	Possible Impacts	Palmer Drought Severity Index	CPC Soil Moisture Model (Percentiles)	USGS Weekly Streamflow (Percentiles)	Standardized Precipitation Index (SPI)
D0	Abnormally Dry	Going into drought: short-term dryness, slowing of planting, growth of crops or pastures. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered	-1.0 to -1.9	21–30	21–30	-0.5 to -0.7
D1	Moderate Drought	Some damage to crops, pastures; streams, reservoirs, or wells low; some water shortages developing or imminent; voluntary water-use restrictions requested	-2.0 to -2.9	11–20	11–20	-0.8 to -1.2
D2	Severe Drought	Crop or pasture losses likely; water shortages common; water restrictions imposed	-3.0 to -3.9	6–10	6–10	-1.3 to -1.5
D3	Extreme Drought	Major crop/pasture losses; widespread water shortages or restrictions	-4.0 to -4.9	3–5	3–5	-1.6 to -1.9
D4	Exceptional Drought	Exceptional and widespread crop/pasture losses; shortages of water in reservoirs, streams, and wells, creating water emergencies	-5.0 or less	0–2	0–2	-2.0 or less

Table 51 explains U.S. Drought Monitor drought classifications. Category D0: Abnormally Dry includes potential impacts such as going into drought and short-term dryness slowing planting, growth of crops, or pastures. Coming out of drought, D0 may include some lingering water deficits and pastures or crops may not be fully recovered. Category D1: Moderate Drought includes impacts such as damage to crops and pastures; streams, reservoirs, or wells are low; some water shortages are developing or imminent; and voluntary water-use restrictions are requested. Category D2: Severe Drought includes impacts such as crop or pasture losses, water shortages, and water restrictions. Category D3: Extreme Drought includes potential impacts such as major crop or pasture losses and widespread water shortages or restrictions. Category D4: Exceptional Drought includes impacts such as exceptional and widespread crop or pasture losses, and shortages of water in reservoirs, streams, and wells creating water emergencies.

Kentucky is perceived as a "water-rich" State with an average annual rainfall of 45–50 inches and abundant groundwater and surface water resources. However, Kentucky can experience extended periods of dry weather ranging from relatively short-duration, single-season events to multiyear events.

Kentucky has experienced five significant drought periods in the past 20 years: 1988, 1999–2000, 2007–2008, 2010, and 2012. Each of these droughts brought hardships and inflicted various types of damage to Kentuckians, especially within the agricultural sector. These droughts also had individual "personalities" in terms of where they struck, how intense they became, how long they lasted, and what damage was done. But these droughts also share common features that distinguish them from normal dry periods, as detailed in the table below.

Table 52. Drought Categories

Drought Distinguisher	Explanation
Intensity	Drought develops only after a significant length of time with abnormally low precipitation, often combined with abnormally high temperatures. This combination of climatic anomalies results in an environment that stresses plants and animals, makes the lives of people living with water shortages uncomfortable, and can sometimes cause structural damage such as shifting foundations and ruptured water lines.
Duration	Kentucky has had some level of dry spells in nearly every year. Dry spells are termed to reflect a short-duration event, most commonly noticed during the hot days of summer or the warming days of spring. Dry spells are not droughts, but they are always a precursor to droughts. Unfortunately, and this is especially true for agriculture, a persistent dry spell may cause substantial damage early on in drought development, long before water shortages and problems with public water supplies emerge. Thus, one of the most difficult aspects of dealing with the drought hazard is the ability to accurately distinguish when a dry spell transitions into drought.

Drought Distinguisher	Explanation
Timing	When a dry spell lingers and tends toward drought, the consequences are determined partly by the timing of drought emergence. Spring droughts can delay the refilling of water supply lakes, accelerate water loss from soils by rapidly growing plants, reduce hay production and storage, and in general make us more vulnerable to even mild summer drought. Summer drought development is most damaging to agricultural interests, reducing crop development and yields and often placing hardships on livestock producers when ponds dry up or pastures fail to keep up with animal grazing demands. Droughts that intensify into the fall generally begin to affect the dependability of drinking water sources, both surface and groundwater. Late fall and winter droughts can affect recharge of groundwater and delay or prevent the filling of lakes that typically draw down during summer, when evaporation and plant water use (evapotranspiration, or “ET”) rates exceed rainfall. Severe persistent winter droughts increase vulnerability to droughts that may develop the following spring or summer.

Table 52 outlines the features that distinguish a drought, including intensity, duration, and timing.

Since 2000, the four MID counties have experienced 53 documented drought events.[35] In September 2007, Graves and Hopkins Counties experienced \$2.2 million in documented crop damage, respectively, during a drought event. During the event, some parts of the Pennyriple region around Hopkinsville had rainfall 15 inches below normal. The governor of Kentucky sought a federal disaster declaration for agricultural losses incurred by the drought, which was granted the following month. Fire danger was moderate to high, and many counties in western Kentucky banned outdoor burning during the driest part of September 2007. See Figure 33 for a visual representation of the 2007 drought.

Figure 33. Kentucky October 2007 Drought[36]

Figure 33 includes a map of Kentucky with drought classifications during the October 2007 drought. The majority of the Commonwealth (99.52%) was in an extreme drought, while several counties in the southeast (14.69% of the Commonwealth) were in exceptional drought. In addition, across the top of the figure is a timeline depicting periods of drought, including drought spikes in 2007, 2008, 2010, 2012, and 2019.

As with other hazards, changes in precipitation and climate are likely to affect the frequency, duration, and severity of drought events. While annual precipitation in Kentucky has increased approximately 5% since the first half of the 20th century, rising temperatures increase evaporation, which dries the soil and decreases the amount of rain that runs off into rivers.[37] Although rainfall during spring is likely to increase during the next 40–50 years, the total amount of water running off into rivers or recharging groundwater each year is likely to decline 2.5%–5% as increased evaporation offsets the greater rainfall. Droughts are likely to be more severe because periods without rain will be longer and very hot days will be more frequent. The potential increase in the intensity of droughts will have implications for important sectors of the Commonwealth’s economy, including agriculture, industry, tourism, and natural resource management.[38]

2.5.4.2 Earthquake

An earthquake is a vibration or shaking of the Earth’s surface due to an underground release of energy. Earthquakes can be caused by various conditions, such as sudden movements along geological faults or volcanic activity. Earthquake magnitudes, or severity, are recorded on the Richter scale with seismographs. Some earthquakes may be so minor that they are virtually unnoticed, while others can destroy entire cities. Seismology, the study of earthquakes, helps scientists understand what areas are more prone to experiencing earthquakes, such as along active fault lines; however, earthquakes are generally unpredictable.

Most earthquakes occur where the Earth’s tectonic plates meet, also known as fault lines. Earthquakes that occur within the plate interiors are much rarer, accounting for less than 10% of total earthquakes. Although most earthquakes, especially large ones (magnitude equal to or greater than 8.0), have occurred along plate boundaries, a few strong earthquakes have occurred in plate interiors. Kentucky is affected by several seismic zones: the New Madrid and Wabash Valley Seismic Zones to the west and the Eastern Tennessee Seismic Zone to the east. The largest recorded earthquake inside Kentucky’s borders was the Sharpsburg earthquake on July 27, 1980, in Bath County. Its magnitude was 5.2, and it caused an estimated \$3 million in damage in Maysville. The 2003 Bardwell earthquake in western Kentucky (magnitude 4.0) caused some minor damage in Carlisle County, and the 2012 Perry County earthquake (magnitude 4.2) caused some minor damage in Letcher and Perry Counties in southeastern Kentucky, including at the Letcher County Courthouse. See a compilation of damage in Table 53.

Table 53. Earthquakes in Kentucky Since 1980

Year	Location	Magnitude	Notes
1980	Sharpsburg	5.2	Significant damage in Maysville

Year	Location	Magnitude	Notes
1988	Bath County	4.6	Shaking was felt in the area
2003	Bardwell	4.0	Some minor damage in Bardwell
2012	Perry County	4.2	Some minor damage in Letcher and Perry Counties

Table 53 shows earthquakes that have occurred in Kentucky since 1980. In 1980, a 5.2 magnitude earthquake hit Sharpsburg, causing significant damage in Maysville. In 1988, a 4.6 magnitude earthquake in Bath County caused shaking in the area. In 2003, a 4.0 magnitude earthquake caused some minor damage in Bardwell. In 2012, a 4.2 magnitude earthquake in Perry County caused some minor damage in Letcher and Perry counties.

2.5.4.2 Extreme Temperatures

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

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 34 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.

Figure 34. NWS Heat Index^[39]

Figure 34 shows a graph of the National Weather Service’s (NWS) heat index. The x-axis is temperature, and the y-axis is relative humidity. Based on relative humidity and temperature, the NWS calculated the likelihood of heat disorders with prolonged exposure or strenuous activity, divided into four categories: caution, extreme caution, danger, and extreme danger.

Under extreme heat conditions, the NWS can issue either a heat advisory or an excessive heat warning. A heat advisory is issued when a heat index of 100 degrees or higher is expected for 3 hours or more. An excessive heat warning is used when a heat index of 105 degrees or higher is expected for 3 hours or more.

Extreme heat can impose stress on humans and animals. Exposure to heat can lead to a variety of adverse health impacts, ranging from cramps to death.^[40] Heat exhaustion is a relatively common reaction to excessive heat and can include symptoms such as headaches, dizziness, and fainting. If exposure is prolonged, heatstroke can occur. This reaction is more severe and requires medical attention. Deaths from heat exposure typically occur in individuals with preexisting conditions, frequently those with heart conditions.

Certain demographic groups are particularly vulnerable to adverse health impacts from extreme heat events.^[41] 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. Additionally, people 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 can also result in distortion and failure of structures and surfaces such as roadways and railroad tracks.

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 problems such as hypothermia, cold stress, frostbite, or freezing of the exposed extremities such as fingers, toes, nose, and ear lobes. See Figure 35 for the NWS Wind Chill Chart.

Figure 35. NWS Wind Chill Chart^[42]

Figure 35 shows a graph of the NWS’s wind chill chart. The x-axis is temperature in degrees Fahrenheit and the y-axis is wind in miles per hour. Based on wind speed and temperature, the NWS calculated the time to incur frostbite, divided into 3 categories: 30 minutes, 10 minutes, and 5 minutes.

There were 65 heat events and 9 cold and extreme cold events in the 4 MID counties between 2012 and 2022.

Heatwaves in Kentucky are expected to impact larger areas with more frequency and longer duration by 2050. A higher emissions pathway could lead to unprecedented warming in the 21st century (see Figure 36). Kentucky can expect to experience an average annual temperature that is warmer than any to date (low emissions scenario) and future temperatures could be as much as 11 degrees warmer (high emissions scenario). While heatwaves are predicted to be more intense, extreme cold is predicted to be less intense.

Figure 36. Predicted Temperature Change in Kentucky Under Different Emissions Scenarios

Figure 36 is a graph demonstrating observed and projected temperature change in Kentucky under different emissions scenarios. The graph demonstrates that observed temperatures have risen overall from a baseline temperature since the early 20th century.

2.5.4.1 Flood (Riverine and Flash)

A flood or flooding refers to the general or temporary conditions of partial or complete inundation of normally dry land areas from the overflow of water and surface water runoff from any source. Floodplains are defined as any land areas susceptible to being inundated by water from any flooding source. There are several different types of flooding that impact the MID, PA, and IA counties, including riverine and flash flooding.

FEMA has identified and mapped areas of flood risk on Flood Insurance Rate Maps (FIRMs), with the highest risk zones called the Special Flood Hazard Areas (SFHA).^[43] The 100-year floodplain is considered a high-risk area and is denoted as Zone A. The 500-year floodplain is denoted as Zone C or Zone X. The areas between the 100- and 500-year floodplains are shown using Zone B and Zone X. Additionally, high-risk coastal areas are denoted as Zone V. This information is shown in Table 54 below.

Table 54. FEMA-Designated Flood Zones

Zone	Description
Low-to-Moderate Risk Areas	
C and X (Unshaded)	Area of minimal flood hazard is usually depicted on FIRMs 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)	Area of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods. B Zones are also used to designate 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	Areas 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.
AH	Areas with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1–3 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	River or stream flood hazard areas, and areas with a 1% or greater chance of shallow flooding each year, usually in the form of sheet flow, 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. Average flood depths derived from detailed analyses are shown within these zones.
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 54 contains FEMA-designated flood zones with descriptions and includes low-to-moderate risk areas (C and X unshaded, B and X unshaded), high-risk areas (A, AE, AH, and AO), high-risk coastal areas (V), and undetermined risk areas (D).

Flooding is the most frequent and costly natural hazard within the Commonwealth, with an average annual loss of greater than \$40,000,000. Flood events occur within the Commonwealth every year with several substantial floods occurring annually. Kentucky's topography contains 13 major drainage basins to accommodate 40–50 inches of average rainfall (maximum during winter and spring, minimum during late summer and fall). The Commonwealth contains 89,431 miles of rivers and streams, 637,000 acres of wetlands, 18 reservoirs greater than 1,000 acres in size, and 228,382 acres of publicly owned lakes and reservoirs.

The primary factors that determine the severity of a flood include:

- Rainfall intensity and duration
 - A large amount of rain over a short time can result in flash flooding.
 - Small amounts may cause flooding where the soil is already saturated.
- Topography
 - Water runoff is greater in areas with steep slopes and little vegetation.

Rainfall and topography vary considerably across the Commonwealth. Eastern Kentucky generally has steep slopes and narrow valleys throughout, making it susceptible to flash flooding events. The speed with which these events develop gives little time for warning and can potentially lead to loss of life. Central Kentucky has rolling hills and several medium-to-large river systems and associated small tributaries. These areas tend to have increased warning times, but the smaller tributaries are still susceptible to flash flooding events. Northern Kentucky

along the Ohio River and western Kentucky are generally flatter with larger, well-defined floodplains. These areas tend to have the greatest amount of warning time in the Commonwealth, providing communities and citizens the opportunity to get out of the way. These areas are less vulnerable to loss of life due to flooding but have a higher risk of economic losses.

Other factors that contribute to flood impacts include storm types, soil types, channel slope, karst areas, soil saturation, infrastructure development, impervious surfaces, and emergency response capabilities. Variations in local conditions can cause extreme variability in flood levels, duration, and impacts.

There are a multitude of factors that lead to a flooding event. These factors can lead to a variety of flooding types, with each type of flooding having different effects on communities. Two common types of flooding in Kentucky are described below.

2.5.4.2.1 Riverine Flooding

Riverine floods are the most common flood type. They occur along a channel and include overbank and flash flooding. Channels are defined ground features that carry water through and out of a watershed. These channels may be rivers, creeks, streams, or ditches. When a channel receives too much water, the excess water flows over its banks and inundates low-lying areas.^[44]

2.5.4.2.2 Urban Flooding

The National Oceanic and Atmospheric Administration (NOAA) defines urban flooding as the flooding of streets, underpasses, low-lying areas, or storm drains.^[45] This type of flooding is mainly an inconvenience and is generally not life-threatening.

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. These drainage 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.

There have been 156 flood events across the MID counties between 2012 and 2022. These floods caused more than \$402.3 million in property damage. One heavy rainfall event in Breathitt County and across central and east Kentucky on March 1, 2021, led to significant flooding across the Commonwealth. FEMA estimated that the event caused \$350–\$400 million in damage, including damage to both individual and public infrastructure. Major flood events between 2012 and 2022 can be found in Table 55.

Table 55. Major Flood Events With Deaths, Injuries, or Property Damage >\$10,000 in MID Counties, 2012–2022

County	Location	Date	Event Type	Amount of Property Damage
Breathitt	Wilhurst	3/1/2021	Flood	\$400,000,000
Graves	Symsonia	2/21/2018	Flood	\$1,000,000
Hopkins	Carbondale	6/24/2013	Flash Flood	\$500,000
Graves	Farmington	2/23/2018	Flood	\$250,000
Graves	Loves	6/4/2014	Flash Flood	\$80,000
Breathitt	War Creek	6/17/2013	Flash Flood	\$78,000
Breathitt	Whick	1/1/2022	Flash Flood	\$60,000
Hopkins	Hanson	7/6/2016	Flash Flood	\$50,000
Breathitt	Wilhurst	2/28/2021	Flash Flood	\$50,000
Graves	Symsonia	8/1/2016	Flash Flood	\$30,000
Graves	Symsonia	3/1/2018	Flood	\$25,000
Graves	Mayfield	3/14/2019	Flash Flood	\$25,000
Graves	Sedalia	2/28/2021	Flash Flood	\$25,000
Warren	Bowling Green	7/21/2020	Flood	\$20,000
Breathitt	Hardshell	1/1/2022	Flash Flood	\$20,000

Table 55 contains data on major flood events in the MID counties between 2012 and 2022 that resulted in property damage greater than \$20,000. There were five major events in Breathitt County resulting in just over \$4.2 million in property damage, seven in Graves County resulting in more than \$1.43 million in damage, two in Hopkins County resulting in more than \$550,000 in damage, and one in Warren County resulting in \$20,000 in damage.

Total annual precipitation in Kentucky exhibits an overall upward trend and has averaged 7.4 inches above the long-term (1895–2020) average since 2011. Winter and spring precipitation and extreme precipitation events are projected to increase during the 21st century (see Figure 37 for precipitation map).^[46] Continuing increases in the frequency and intensity of extreme precipitation events are also projected, potentially increasing the frequency and intensity of floods. The projections of increasing precipitation and heavy precipitation events are true for a large area of the Northern Hemisphere in the northern middle latitudes. Increased flood events will have significant impacts on Kentucky’s infrastructure and economy.

Figure 37. Projected Change in Spring Precipitation^[47]

Figure 37 presents a map of the United States showing project changes in spring precipitation. The map demonstrates that Kentucky will receive approximately 10% more spring precipitation.

2.5.4.5 Karst/Sinkholes

Karst is a type of landscape where the dissolving of the bedrock has created sinkholes, sinking streams, caves, springs, and other characteristic features.^[48] Karst is associated with soluble rock types such as limestone, marble, and gypsum. In general, a typical karst landscape forms when much of the water falling on the surface interacts with and enters the subsurface through cracks, fractures, and holes that have been dissolved into the bedrock. After traveling underground, sometimes for long distances, this water is then discharged from springs, many of which are cave entrances.

In Kentucky, approximately 50%–60% of the Commonwealth has karst or potential for karst, as indicated by maps showing areas where limestone crops out. About 38% of the Commonwealth has at least some karst development that can be recognized on topographic maps, and 25% of the Commonwealth is known to have well-developed karst features. Data obtained from the 2010 U.S. Census indicate that 2,894,115 people, or about 67% of the Commonwealth's population, live in a karst region.^[49] Some of the larger Kentucky cities and towns located on karst are Frankfort, Louisville, Lexington, Lawrenceburg, Georgetown, Winchester, Paris, Versailles, and Nicholasville (all located in the inner Bluegrass region); Fort Knox, Bowling Green, Elizabethtown, Munfordsville, Russellville, Hopkinsville, and Princeton (in the western Pennyroyal region); and Somerset, Monticello, and Mount Vernon (in the eastern Pennyroyal region).

Karst hazards that could have an impact on Kentucky's citizens and infrastructure include sinkholes, flooding, and groundwater and surface water contamination. Sinkholes are by far the largest and most frequently encountered karst hazards. Kentucky is ranked fifth nationally among states affected by sinkhole hazards.

Sinkholes are closed and internally drained topographic depressions of generally circular shape that develop where soil or other overburdened material subsides or collapses into subsurface voids. Sinkholes can form as a result of both natural (karst-related) processes and as a direct or indirect consequence of human activities. Human activities that can cause sinkholes include groundwater withdrawals, alteration, or diversion of surface runoff; subsurface mining; subsurface erosion, piping, or compaction of unconsolidated soils or sediments along buried pipelines or beneath highways and roads; and decaying buried organic debris (e.g., tree roots, buried trash, and other debris). Sinkholes also form in nonkarst areas where leaking water or sewer pipes and other human activities create or result in subsidence, compaction, or subsurface erosion (i.e., piping) of soil, gravel, or other fill materials.

Sinkholes may be grouped into two broad categories: subsidence and collapse. Subsidence and collapse sinkholes often occur together in the same karst area, and many sinkholes form as a combination of the two processes. Subsidence sinkholes form by the relatively slow and gradual subsurface dissolution of soluble bedrock and piping of unconsolidated cover materials (soil, alluvium) into fractures and conduits enlarged by solution in the epikarst, a zone of intensified weathering and dissolution at the soil-bedrock interface. Subsidence sinkholes in Kentucky are generally recognizable as broad, shallow, bowl-shaped depressions. These sinkholes are largely responsible for the rolling topography that characterizes much of the Bluegrass and western Pennyroyal regions. Diameters can range from several tens to hundreds of feet, and shapes can be circular, elongate, or irregular and complex.

Collapse sinkholes form suddenly by failure of the roof or arch of soil, bedrock, or other surface and subsurface materials located above subsurface karst voids and caves.^[50] Their seemingly unpredictable occurrence makes them a hazard of particular concern in karst areas. The Kentucky Geological Survey began developing a catalog of case histories of cover-collapse occurrences in 1997 and has documented 354 occurrences throughout the Commonwealth; an average of 24 new reports are received each year.

In the 2018 State Hazard Mitigation Plan, researchers looked at karst potential areas and sinkhole density and created a hazard map for the State (see Figure 38).

Figure 38. Karst/Sinkhole Hazard Score, Kentucky

Figure 38 depicts a map of karst and sinkhole hazards in Kentucky. The far eastern and western areas of the State have a low sinkhole hazard risk, while the south-central region of the Commonwealth has a high-to-severe karst/sinkhole hazard risk.

With gradual warming and its effects on summer highs and winter lows, increased precipitation, and increased variability of the weather, it is expected that the probability (or, rather, the frequency and/or severity) of sinkhole events, particularly sinkhole flooding events, will increase.

2.5.4.6 Landslide

A landslide is a general term for the downslope movement of rock, soil, or both under the influence of gravity. The style of movement and resulting landform or deposit are influenced by the rock and soil type, slope location, and how fast the rock or soil moves. Landslides occur when the strength of rocks or soil is exceeded by stress applied to those hillslope materials. Common stresses are gravity, increased pore-water pressure, earthquake shaking, and slope modification.

Figure 39. Types of Landslides (Source: Kentucky Division of Emergency Management)^[51]

Figure 39 presents a diagram with various types of landslides, including creep, translational landslides, rotational slides, earthflows, debris avalanche, rockfall, slump-earth flow, debris flow, lateral spread, and topple.

Landslide-triggering mechanisms work in conjunction with the causes. Triggers are the external stimuli that can initiate slides and include rainfall, earthquake shaking, volcanic eruptions, rapid groundwater change, and slope modification by humans. Landslides can occur on natural or engineered slopes. Most landslides in Kentucky occur within colluvial soils or along the soil-bedrock contact. Colluvial soils are formed by weathering and erosion of rock and soil accompanied by downslope movement by gravity. When disturbed or loaded, by heavy rainfall saturating a slope, for example, these soils are susceptible to landslides.

Figure 40. FEMA's Landslide Risk Index Score

Figure 40 depicts a map of the United States demonstrating regional landslide risk; the majority of the Commonwealth of Kentucky is either at relatively moderate, relatively high, or very high landslide risk. FEMA's landslide risk index score represents a community's relative risk for landslides compared to the rest of the United States.

No systematic catalog of landslide occurrence or impact is maintained in the United States. One complication is that landslides are often considered a secondary hazard associated with a primary extreme event, such as a tropical storm or an earthquake. This makes compiling statistics on landslides and their impact difficult; as such, their impacts are likely underestimated. However, according to the U.S. Geological Survey, landslides cause \$1–\$2 billion in damages and more than 25 deaths on average each year in the United States. Direct costs of landslides include repairs and maintenance of roads and other property. Indirect costs, including loss of tax revenue on devalued property, loss of real estate value in landslide-prone areas, and environmental effects (such as water quality), may even exceed direct costs.

Figure 41. USGS Landslide Inventory, 2022

Figure 41 shows a map of Kentucky from USGS with landslide events from 2022. Most landslides have occurred along the eastern border of the Commonwealth.

There are more than 76,000 landslides in the Kentucky Geological Survey landslide inventory database as of 2018. [52] Kentucky's landslides occur in all regions of the Commonwealth, mostly in the Eastern Kentucky Coal Field, Outer Bluegrass, the Knobs region, and along the Ohio River Valley. Areas generally prone to landslides include preexisting landslides, highly developed hillsides, poorly compacted artificial fill slopes, and steep drainage hollows or concave slopes with moderate-to-thick soils.

Evidence suggests that landslide costs rival or exceed flood and earthquake costs in Kentucky. Costs of landslides and rockfall repair exceed \$4 million annually, largely costs incurred by the Kentucky Transportation Cabinet. However, many slides unrelated to transportation go unreported and pose significant hazards to people and infrastructure. Landslide projects from 2003 to 2013 funded by a Kentucky Hazard Mitigation grant program that acquires landslide-damaged homes or stabilizes the area totaled approximately \$5 million. The most expensive landslide mitigation effort in the Commonwealth occurred in Hickman, when the federal government secured \$17 million to stabilize a large slide on the bluff of the Mississippi River.

Generally, more landslides occur when average statewide rainfall is higher than normal. There has been gradual warming since the late 1970s. This gradual warming will likely continue without much significant change until 2040. Further, part of the gradual warming since the late 1970s involves precipitation increases. Precipitation increases affect nearly every hazard identified in this hazard mitigation plan: landslides are triggered by precipitation; sinkholes flood with increased precipitation; flash flooding increases from severe storms; and winter storms either increase or become more severe. With gradual warming and its effects on summer highs and winter lows, increased precipitation, and increased variability of the weather, it is expected that the probability (or, rather, the frequency and/or severity) of landslide events will increase. Increasing urbanization and development on landslide-prone slopes will also increase the likelihood of slope failures. Finally, as the population increases, development of landslide-prone areas grows, and the hazard and risk will increase.

2.5.4.7 Severe Weather – High Winds, Thunderstorms, and Hailstorms

The Kentucky Hazard Mitigation Plan defines severe weather as an event that has at least one of the following: wind gusts of at least 58 mph or higher (i.e., 50 knots), tornado, or hail that is 1 inch or larger (i.e., the size of a quarter).

2.5.4.7.1 High Winds

High winds are defined as a rough horizontal movement of air caused by uneven heating of the earth's surface. Wind occurs at all scales, from local breezes lasting a few minutes to global winds resulting from solar heating of the earth. Effects from high winds can include downed trees and power lines and damage to roofs, windows, etc.

The Kentucky Hazard Mitigation Plan identifies three types of damaging wind associated with severe storms:

Downburst: A downburst refers to an area of strong, often damaging winds produced by air rapidly descending in a thunderstorm. Downbursts are sometimes described as a microburst when it covers an area of less than 2.5 square miles and lasts 3–7 minutes. Microbursts can be referred to as downbursts when they cover larger areas or last for more than 7 minutes. On rare occasions, downbursts can have wind speeds exceeding 150 mph.

Bow Echo: A bow echo is a bow-shaped line of convective cells, best seen on radar, and is often associated with swaths of damaging straight-line winds and small tornadoes.

Derecho: A derecho is a widespread and usually fast-moving convectively induced episode of damaging winds. Derechos can result from bow echoes, supercells, multicell clusters or lines, or a blend of any of these. They can produce damaging straight-line winds over areas hundreds of miles long and more than 100 miles across. Due to the large area extent, an episode is usually not classified as a derecho until it is complete.

As far as jurisdictional variations to severe events and tornadoes, the eastern, northeastern, and southeastern parts of the Commonwealth are going to be far less vulnerable to severe wind and tornadoes than the western end of the Commonwealth. Central Kentucky has moderate vulnerability to tornadic and severe wind activity compared to the western part of the Commonwealth. However, northwestern Kentucky can show high vulnerability to severe winds and tornadoes. Severe wind is a more troubling issue for Kentuckians than tornadoes. Straight-line winds are more frequent and often more damaging than tornadoes.

2.5.4.7.2 Severe Storms/Thunderstorms and Hailstorms

Severe storms, or thunderstorms, can be dangerous and can cause destructive, deadly flooding. When they contain strong winds, hail, or tornadoes, they can turn violent. NOAA classifies a storm as “severe” when it produces wind gusts of at least 58 mph and/or hail 1 inch in diameter (about the size of a quarter) or larger and/or a tornado.

Thunderstorms vary in type depending on size and organization. NOAA classifies thunderstorms by cells, or convection in the form of a single updraft, downdraft, or updraft/downdraft couplet, typically seen as a vertical dome or tower as in a towering cumulus cloud. [53]

- Ordinary cell thunderstorms only have one cell. These storms may also be referred to as single-cell thunderstorms or pulse thunderstorms.
- Multicell cluster thunderstorms are organized in clusters of two to four short-lived cells.
- Multicell line thunderstorms form in a line that extends—sometimes for hundreds of miles—and can persist for hours. These are called squall lines, and they can be continuous or include contiguous precipitation.
- Long-lived squall lines are called derechos and can cause severe damage with fast, straight-line winds.
- Supercell thunderstorms are very dangerous storms with long-lived strong tornadoes and damaging wind, hail, and flash floods.

Thunderstorms form due to three conditions: moisture, rising unstable air (air that keeps rising when given a “nudge”), and a lifting mechanism to provide the nudge. Thunderstorms have three stages in their lifecycle: the developing stage, the mature stage, and the dissipating stage. The developing stage of a thunderstorm is marked by a cumulus cloud that is pushed upward by a rising column of air (updraft). There is little to no rain during this stage but occasional lightning. The thunderstorm enters the mature stage when the updraft continues to feed the storm, but precipitation begins to fall out of the storm, creating a downdraft (a column of air pushing downward). When the downdraft and rain-cooled air spreads out along the ground it forms a gust front or a line of gusty winds. The mature stage is the most likely time for hail, heavy rain, frequent lightning, strong winds, and tornadoes. The production of a large amount of precipitation and a downdraft signifies the beginning of the dissipating stage.

Hail forms inside a thunderstorm where there are strong updrafts of warm air and downdrafts of cold water. If a water droplet is picked up by the updrafts, it can be carried well above the freezing level. Water droplets freeze when temperatures reach 32 degrees or colder. As the frozen droplet begins to fall, it may thaw as it moves into warmer air toward the bottom of the thunderstorm. However, the droplet may be picked up again by another updraft and carried back into the cold air and refreeze. With each trip above and below the freezing level, the frozen droplet adds another layer of ice. The frozen droplet, with many layers of ice, falls to the ground as hail. Most hail is small and typically less than 2 inches in diameter.

Severe storms can have significant impacts on infrastructure. Lightning strikes can cause infrastructure and tree damage, start fires, and pose a threat to human life. Damage from hail increases with the size of the hail and can cause damage to vehicles, aircraft, and homes, and can be fatal to people and livestock. Additionally, heavy rain from severe thunderstorms can often lead to flash flooding in low-lying areas and in urban areas where the prevalence of impermeable surfaces (such as roads, roofs, and parking lots) accelerates storm runoff to ditches and streams. From 2010 to 2020, FEMA granted 19 disaster declarations in Kentucky, mostly for severe storms, tornadoes, and flooding.

Thunderstorms will potentially become more intense and severe as climate change creates conditions that are conducive to thunderstorm formation, with warmer surface temperatures and more moisture in the air due to increased evaporation. A study led by Purdue University found that a doubling of greenhouse gases in the atmosphere would significantly increase the number of days that severe thunderstorm could occur in the southern and eastern United States. [54]

2.5.4.8 Severe Winter Storm

A severe winter storm consists of heavy snow, ice, strong winds, and/or cold temperatures. Heavy snow is considered 6 inches of snow or more in 12 hours; or 8 inches of snow or more in 24 hours. A severe winter storm is considered a blizzard if the storm has winds 35 mph or greater and significant snow or blowing snow with visibility less than 1/4 mile.

Snowfall is most likely from December to March, but it occasionally occurs as early as October or as late as April. Seasonal amounts average from close to 10 inches in the south to more than 20 inches in the north. Amounts are highly variable from year to year. In some years, a single heavy snowfall event may represent a large percentage of the seasonal total. Across southern Kentucky, seasonal totals of less than 5 inches are fairly common, while totals of more than 20 inches are infrequent. Northern areas rarely receive less than 10 inches of snow and occasionally receive as much as 40 inches or more. Snow cover seldom persists for more than 1 week in the south or more than 2 weeks in the north.

The number of extremely cold events has also been below average in recent winters. The top 10 coldest winters all occurred prior to 1980. Also, since 1990, the number of very cold nights has been below average, and winter average temperatures have generally been near to above average.

However, winter storms still afflict Kentucky. Heavy snow is normally associated with storm systems that originate in the southwest, are fueled by Gulf of Mexico moisture, and track toward the northeast. Instead of snow, a winter storm may bring freezing rain that produces significant icing, but such events are infrequent. Intense winter storms are sometimes followed by cold waves that bring temperatures of zero degrees or colder.

Of the top 25 weather events ever recorded from the NWS Louisville Field Office, seven events have been severe winter storms. Kentucky witnessed 45 winter storm events between 2013 and 2018, with an average annual occurrence of 7.5 (Table 56).

Table 56. Severe Winter Storm Events in Kentucky, Annual Frequency, 2013–2018

Table 56 contains the frequency of severe winter storm events between 2013 and 2018 in Kentucky. In 2013, Kentucky experienced 5 winter storm events, 3 ice storm events, 3 heavy snow events, and 11 total events. In 2014, Kentucky experienced 7 winter storm events, 2 ice storm events, 5 heavy snow events, and 14 total events. In 2015, Kentucky experienced three winter storm events, one ice storm event, three heavy snow events, and seven total events. In 2016, Kentucky experienced two winter storm events, zero ice storm events, three heavy snow events, and five total events. In 2017, Kentucky experienced zero winter storm events, zero ice storm events, one heavy snow event, and one total event. In 2018, Kentucky experienced four winter storm events, zero ice storm events, three heavy snow events, and seven total events.

With gradual warming and its effects on summer highs and winter lows, increased precipitation, and increased variability of the weather, it is expected that the probability (or, rather, the frequency and/or severity) of severe winter storms, heavy snow, and ice storms will increase.

2.5.4.9 Tornado

A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. 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 over 200 mph but can reach more than 300 mph. The maximum winds in tornadoes are often confined to extremely small areas and vary tremendously over short distances, even within the funnel itself. These storms typically travel around 10–20 mph but can move at more than 60 mph. Damage paths can vary from as narrow as 1 mile to as wide as 50 miles. Tornadoes can occur at any time of the year and at any time of day.

Tornadoes are measured by their intensity in terms of their area using the Enhanced Fujita (EF) scale. The scale ranges from EF0, with minor damages from winds ranging 65–85 mph, to EF5 with severe damages from winds more than 200 mph.

Table 57. Enhanced Fujita Scale

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.
2 (Strong)	111–135	Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated.
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; large missiles generated.
4 (Devastating)	166–200	Well-constructed houses leveled; structures with weak foundations blown off some distance; cars flung about; 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 57 explains the Enhanced Fujita scale. An EF0 (gale) storm has estimated 3-second gusts of 65–85 mph; an EF1 (weak) storm has estimated 3-second gusts of 86–110 mph; an EF2 (strong) storm has estimated 3-second gusts of 111–135 mph; an EF3 (severe) storm has estimated 3-second gusts of 136–165 mph; an EF4 (devastating) storm has estimated 3-second gusts of 166–200 mph; and an EF5 (incredible) storm has estimated 3-second gusts of 200+ mph.

Kentucky experiences a relatively high number of tornadoes each year, with an annual average of approximately 24 tornadoes between 1991 and 2019.^[55] On March 2, 2012, 18 tornadoes touched down in Kentucky, including one of EF4 and four of EF3 intensity, resulting in 22 fatalities. In April 2011, 41 tornadoes were reported, superseding an earlier April record of 29 tornadoes during the Super Outbreak of 1974. The December 10–11, 2021, tornado outbreak was one of the deadliest in Kentucky history, resulting in 76 fatalities. Twenty tornadoes touched down, including one of EF4 and three of EF3 intensity. The EF4 tornado path extended from near Woodland Mills, Tennessee (just across the border from Fulton County, Kentucky), to Breckinridge County (near Falls of Rough, Kentucky), a distance of 165.7 miles. The maximum estimated wind speed was 190 mph. A summary of impacts by county are summarized in Table X: Damage Estimates by County of a December 10, 2021 Tornado. National Weather Service.

Table 58. Damage Estimates by County From One of the December 10, 2021, Tornadoes

	Deaths	Structures Damaged	Structures Destroyed
Fulton County	1	40	21
Hickman County	0	40	12
Graves County	24	1,390	785
Marshall County	1	341	356
Lyon County	1	141	45
Caldwell County	4	-	300 (estimate)
Hopkins County	15	1,000 (estimate)	500 (estimate)
Muhlenberg County	11	81	84

Table 58 contains damage estimates by county from one of the December 20, 2021, tornadoes. In Fulton County, there was 1 death, 40 structures damaged, and 21 structures destroyed. In Hickman County, there were 40 structures damaged and 12 structures destroyed. In Graves County, there were 24 deaths, 1,390 structures damaged, and 785 structures destroyed. In Marshall County, there was 1 death, 341 structures damaged, and 356 structures destroyed. In Lyon County, there was 1 death, 141 structures damaged, and 45 structures destroyed. In Caldwell County, there were 4 deaths and 300 structures destroyed. In Hopkins County, there were 15 deaths, 1,000 structures damaged, and 500 structures destroyed. In Muhlenberg County, there were 11 deaths, 81 structures damaged, and 84 structures destroyed.

According to NOAA, there is no known way to predict whether or how climate change is affecting tornado frequency or severity. Some studies predict that climate change could produce more severe thunderstorms known as supercells. As global temperatures rise, the hotter atmosphere can hold more moisture. This increases atmospheric instability, an ingredient to supercell formation. On the other hand, as the planet warms, wind shear (another vital ingredient) is likely to decrease. These two forces work against each other, and it is difficult to anticipate which one might have a greater impact on tornado formation. Furthermore, more frequent or severe thunderstorms does not necessarily mean that more tornadoes will occur, especially since only about 20% of supercell thunderstorms produce tornadoes.^[56]

However, there is evidence to suggest that climate change has shifted tornado patterns geographically east due to its impact on the jet stream. The number of tornadoes in the states that make up Tornado Alley are falling, while tornado events have been on the rise in Mississippi, Alabama, Arkansas, Missouri, Illinois, Indiana, Tennessee, and Kentucky.

2.5.4.10 Wildfires

A wildfire is an uncontrolled burning of grasslands, brush, or woodlands. Wildfires can be divided into two categories: wildland and wildland-urban interface

A wildland fire is a wildfire in an area where development is essentially nonexistent, except for roads, railroads, power lines, and similar facilities. Wildland fires have been occurring in Kentucky for thousands of years. Unfortunately, these fires began to threaten homes and communities, prompting the need to suppress wildfires and establish forest protection laws.

An urban wildland interface fire is a wildfire in a geographic area where structures and other human development meet or intermingle with wildland or vegetative fuels. Areas that have experienced prolonged droughts or are excessively dry are at risk of wildfires. People start more than four out of every five wildfires, usually as debris burns, arson, or carelessness. Lightning strikes are the next leading cause of wildfires. Wildfire behavior is based on three primary factors: fuel, topography, and weather.

Table 59. Summary of Fire Occurrences, Extent, 2013–August 2018 (Source: Kentucky Division of Emergency Management)

Table 59 contains a summary, by class, of fire occurrences between 2013 and 2018 in Kentucky. Class A fires, burning less than 1/4 acre, accounted for 1.7% of wildfires, with 12.3 acres burned and 92 total fires. Class B fires, burning between 1/4 acre and 9 acres, accounted for 53.1% of wildfires, with 8,685.5 acres burned and 2,918 total fires. Class C fires, burning between 10 and 99 acres, accounted for 39.6% of wildfires, with 77,954.4 acres burned and 2,172 total fires. Class D fires, burning between 100 and 299 acres, accounted for 4.0% of wildfires, with 37,487 acres burned and 217 total fires. Class E fires, burning between 300 and 999 acres, accounted for 1.5% of wildfires, with 37,620 acres burned and 81 total fires. Class F fires, burning between 1,000 and 4,999 acres, accounted for 0.2% of wildfires, with 16,694 acres burned and 10 total fires. Class G fires, burning more than 5,000 acres, accounted for less than 0.01% of wildfires, with 7,400 acres burned and 1 fire.

According to Kentucky Division of Forestry, wildfires are categorized into classes. These classes represent types of wildfire as well as an illustration of the extent, which is a measurement of how bad a wildfire can get, in terms of scale. Shown in Table 3 most wildfires in Kentucky have been Class B fires, meaning they burn small areas less than 10 acres.

Most wildfires in Kentucky have occurred in eastern portions of the Commonwealth, which are largely covered by State and national forests. Figure 5 shows the geographical distribution of wildfires between 2013 and 2018. Between January 1, 2013, and August 13, 2018, the Commonwealth of Kentucky suffered 5,491 wildfire events. The immediate danger from wildfires is the destruction of property, timber, wildlife, and injury or loss of life to persons in the affected area. From the 5,491 wildfire events between 2013 and 2018, 185,853 acres were burned.

Figure 42. Wildfire Event Locations, 2013–2018 (Source: Kentucky Division of Emergency Management)

Figure 42 shows a map of fire locations between 2013 and 2018 in Kentucky. Most fires occurred in the eastern half of the Commonwealth, with a scattering across the south of the Commonwealth. There were also two other Kentucky Fire Management declarations made in November of 2016 the Eagles Nest fire declared on November 8, 2016 and the Southeastern Kentucky fire complex.

The following impacts resulted from these 5,491 wildfire events:

- Total suppression cost: \$4,766,014
- Average cost per fire: \$868
- Number of lost structures: 58
- Value of lost structures: \$370,150
- Improvements saved: \$2,346,085

Wildfires can cause widespread concern and disruptions even in cases where physical damages have been prevented. Smoke, closed roadways, and infrastructure disruptions may interfere with ordinary life and local economy. Wildfires are particularly damaging to the environment. Wildfires leave black soot, deposits of peat, smolder, and charcoal-like ground cover that can contaminate the soil and underground water table. These events also cause dramatic changes in vegetation, eliminating some species or causing others to appear where they were not present before the fire.

Figure 43. Relative Wildfire Risk to Kentucky Homes (Source: USGS Wildfire Risk to Communities)

Figure 43 represents a graph of wildfire likelihood and wildfire consequences in terms of risks to homes in the United States and population size. Kentucky has a high wildfire risk with mild wildfire consequences and a medium population size as compared to other states.

According to the USDA Forest Service, populated areas in Kentucky have, on average, greater risk than 72% of states in the United States (Figure 5) Counties in eastern Kentucky are particularly vulnerable to wildfires. Populated areas in Breathitt County have, on average, a greater wildfire likelihood than 93% of counties in Kentucky and 98% of the United States. Furthermore, individuals living in poverty have elevated fire risk and may require additional support recovering from a disaster. [57] As of 2021, 27.9% of Breathitt County residents live in poverty according to the U.S. Census Bureau, a ratio above the national and State average.

Over the last several decades, climate conditions have grown hotter and drier, which creates more fuel for fires to burn hotter and travel faster. Another aspect that warmer temperatures have on the landscape is they allow non-native creatures to travel to and survive in areas they previously found uninhabitable. One example of a problematic species is the invasive bark beetle. Climate change has eliminated the seasonal cold spells that would normally kill off the beetles. Bark beetles have killed 100,000 square miles of trees across western North America in the last 20 years. Dead trees serve as tinder for wildfires. With increased fire vulnerability, it is critical to protect the health of Kentucky's vast forest resources.

2.5.5 Indispensable Services

Indispensable services are those that enable the continuous operation of critical business and government functions and/or are critical to human health and safety and economic security. Area Development District (ADD) staff have identified critical facilities within each ADD's Hazard Mitigation Plan. Critical facilities that correspond with several of FEMA's community lifelines, including safety and security; food, water, and shelter; health and medical; communication; and hazardous materials are included in Table 60 for all identified counties.

Table 60. Critical Facilities, Identified and MID Counties

ADD	County	Fire Stations	Police Stations	Emergency Operations Center	Hospitals	Schools	Water and Wastewater Treatment Plants	Total # of Critical Facilities
BRADD	Barren	14	3	1	1	22	4	45
	Hart	7	3	1	1	15	2	29
	Logan	6	5	1	1	10	4	27
	Warren	24	7	0	5	47	1	84
BSADD	Floyd	18	4	0	3	16	10	51
	Johnson	15	2	0	1	14	3	35
	Magoffin	8	2	0	0	6	2	18
	Martin	5	2	0	0	7	2	16
BGADD	Anderson	7	1	1	0	13	0	22
	Clark	5	2	1	1	1	14	24
	Estill	5	2	1	1	7	0	16
	Fayette	1	2	0	11	92	3	0
	Jessamine	11	2	1	0	15	0	29
	Lincoln	13	6	0	2	11	0	32
	Madison	13	0	1	1	175	0	190
	Powell	2	1	1	0	6	0	10
CVADD	Woodford	10	2	0	2	8	13	35
	Clay	10	1	1	1	10	0	23
	Jackson	4	1	1	0	6	3	15
	Laurel	16	3	1	2	18	9	49
	Rockcastle	4	2	1	1	6	1	15
FIVCO	Boyd	9	3	1	1	4	3	21
	Greenup	15	7	1	1	3	9	36
GWADD	Lawrence	7	2	1	1	1	2	14
	Morgan	8	3	1	1	10	3	26
	Ohio	8	3	1	3	11	6	32
KRADD	Breathitt	5	2	1	1	12	0	21
	Knott	3	1	1	0	6	0	11
	Lee	4	2	1	0	5	0	12
	Leslie	6	2	1	1	7	0	17
	Letcher	7	4	1	2	12	0	26
LCADD	Owsley	2	2	1	0	3	0	8
	Perry	9	2	1	1	19	0	32
	Pulaski	19	2	1	1	14	2	39
	Taylor	2	2	1	1	5	1	12
LTADD	Marion	6	2	1	1	9	3	9
	Caldwell	3	2	1	1	7	2	16
Pennyrile ADD	Christian	18	6	1	3	29	6	63
	Hopkins	18	6	1	1	21	8	55
	Lyon	4	2	1	0	4	6	17
	Muhlenberg	8	5	1	1	12	5	32

ADD	County	Fire Stations	Police Stations	Emergency Operations Center	Hospitals	Schools	Water and Wastewater Treatment Plants	Total # of Critical Facilities
Purchase JADD	Fulton	3	3	1	0	6	4	17
	Graves	17	3	1	1	12	13	47
	Hickman	4	0	0	0	2	3	9
	Marshall	15	3	1	1	12	7	27

Table 60 outlines the number of critical facilities—including fire stations, police stations, EOCs, hospitals, schools, and water and wastewater treatment plants—in both MID and IA counties in Kentucky.

Breathitt County, through the KRADD, identifies 160 critical facilities within the county. These facilities include 1 water plant, 6 water tanks, 3 water pumps, 1 sewer plant, 25 sewer pumps, 121 bridges, and 3 electric substations.

Graves County, through the Jackson Purchase Hazard Mitigation Plan, identifies 272 critical facilities within the county. These facilities include 1 county EOC, 5 radio communication facilities, 17 fire stations, 3 public safety buildings, 2 government buildings, 1 hospital, 1 electric power plant, 5 sewage treatment plants, 5 package treatment plants, 8 water treatment plants, 2 flood control pump stations, 18 lift stations, 17 storage tanks, 21 wells, 12 schools, 1 airport, 31 dams, and 122 bridges. Eighty-four facilities, including 2 sewage plants, 7 lift stations, 8 dams, and 67 bridges are in an SFHA.

Hopkins County, through the Pennyryle Regional Hazard Mitigation Plan, identifies 200 critical facilities within the county. These facilities include 1 county EOC, 46 radio communication facilities, 18 fire stations, 6 police stations, 2 railways, 10 government buildings, 1 hospital, 3 sewage treatment plants, 5 water treatment plants, 24 pumping stations, 37 wells and storage tanks, 21 schools, 2 transportation facilities, 3 natural gas facilities, and 21 dams. Thirteen facilities, including two railways, one sewage treatment plant, three pumping stations, one transportation facility, and six dams are in an SFHA.

Warren County, through the Barren River Regional Hazard Mitigation Plan, identifies 395 critical facilities within the county. These facilities include 3 airports, 110 bridges, 1 potable water facility, 43 pumping stations, 30 storage tanks, 1 wastewater plant, 51 lift stations, 5 natural gas facilities, 5 hospitals, 8 clinics, 48 care facilities, 8 group living facilities, 7 law enforcement stations, 2 jails, 24 fire stations, 1 ambulance service, 1 senior citizen center, 47 schools, 3 newspapers, 152 repeater sites, 125 base stations, 5 television stations, and 14 radio stations.

2.5.6 Conclusion

As this Mitigation Needs Assessment makes clear, there are at least 10 natural hazards that pose a considerable risk to Breathitt, Graves, Hopkins, and Warren Counties. These counties were HUD-identified as most impacted and distressed by the 2021 flooding and tornado/straight-line winds events. By characterizing these hazards in terms of their frequency and each county's vulnerability, DLG and its subrecipients can draw on this needs assessment to identify current and future hazards in these communities and target CDBG-DR funds toward cost-effective solutions to mitigate them over the long term. 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.

[35] [NCEI – Storm Events Database](#)

[36] [NOAA – Historical Drought Information](#)

[37] [EPA Report – What Climate Change Means for Kentucky](#)

[38] [NOAA – State Climate Summaries: Kentucky](#)

[39] [NOAA – What is the Heat Index?](#)

[40] [Union of Concerned Scientists: Heat Waves and Climate Change](#)

[41] Ibid

[42] [NOAA – Wind Chill Chart](#)

[43] [FEMA Flood Zone - Glossary](#)

[44] [Natural Aspects of Flooding | The Illinois Association for Floodplain and Stormwater Management](#)

[45] [Urban Flooding \(NOAA\)](#)

[46] [NOAA – State Climate Summaries: Kentucky](#)

[47] [NOAA – State Climate Summaries: Kentucky](#)

[48] [NPS – Karst Landscapes](#)

[49] Cecil, M.C. (2015). *Population and land use in Kentucky karst regions: University of Kentucky Departments of Earth and Environmental Sciences and Geography, Kentucky Geological Survey*. Independent study final report, 15.

[50] Waltham T., Bell, F., and Culshaw, M. (2005). *Sinkholes and subsidence: Karst and cavernous rocks in engineering and construction: Berlin, Springer*.

[51] [United States Geological Survey Landslide Fact Sheet FS2004-3072](#)

[52] Kentucky Emergency Management, 2018

[53] [Severe Weather 101: NOAA National Severe Storms Laboratory](#)

[54] [Severe Thunderstorms and Climate Change: NASA](#)

[55] [NOAA – State Climate Summaries: Kentucky](#)

[56] [Tornadoes and Climate Change | National Geographic Society](#)

3. General Requirements

a. Citizen Participation.

Outreach and Engagement.

3.1.1 Outreach and Engagement

In the development of this disaster recovery Action Plan, DLG conducted a survey of communities, organizations, tribal authorities, and citizens to better understand the remaining unmet needs and recovery ideas. The survey was posted on DLG's website in June 2022 and is still available. The survey was discussed at disaster recovery meetings, sent to DLG field staff to share with communities and citizens, and discussed at the DLG Annual Governor's Conference in August 2022.

To gather feedback from groups least likely to participate in the survey process, such as racial/ethnic minorities, people with special communication needs, and persons in other protected classes, the Commonwealth took various steps on outreach:

- DLG shared the survey questions with the Kentucky Area Development Districts (ADDs), counties, cities, and field offices. These entities are familiar with the impacted areas and were able to advertise the survey in impacted communities to specific vulnerable and distressed populations.
- DLG issued press releases notifying the public about the CDBG-DR award and the purpose of the funding. DLG requested community input from local governments, citizens, and organizations directly affected by the disasters. Press releases were posted on the website and disseminated through social media accounts.

The community survey generated more than 360 responses from the disaster-declared counties. Most respondents were from Warren or Hopkins Counties. The survey allowed respondents to select all answers that applied to them when asked how they were impacted. Some selected more than one answer. About half reported living in a community impacted by the storm, but that implies potentially and not directly impacted. More than one-quarter of responses included having significant property damage and loss of property and being permanently displaced from their home. Only 6% of respondents who were evacuated from their homes returned to little or no property damage. From the survey, the most severely impacted and having the hardest recovery were elderly and disabled individuals, renters, immigrants and refugees, low-income households, middle-income families who were underinsured or uninsured, those who were still unable to find housing, and small businesses.

Several recovery principles were presented, and the survey asked respondents to select whether they agreed or disagreed and why. The majority of respondents agreed with the following principles presented:

- Build back better: Rebuild homes and communities so they are better prepared to withstand future disasters.
- Housing and community recovery go together: A complete recovery means survivors of the storms in 2021 have appropriate housing and impacted communities have resources to address their needs.
- Advance equity and racial justice: Prioritize those who face the greatest challenges for recovery.

There were respondents who disagreed with the last principle about prioritizing those who face the greatest challenges for recovery. There were many comments about how people impacted by the storms should be treated equally and how assistance should be based on need versus a certain identity. Assisting small businesses, tree restoration, and ensuring affordable new housing were the top suggestions for other guiding principles. Eighty percent of respondents agreed that the biggest need for recovery from the 2021 storms is to rebuild housing. These themes of housing and business assistance were incorporated into the recovery programs as outlined in this Action Plan.

Respondents were also asked to prioritize programming on a scale of 1 to 5, with 5 being the highest rank or score a program could receive. Housing recovery assistance for LMI households ranked the highest, with an average score of 4.22. The next highest rank was for housing recovery assistance for residents of all incomes with a score of 4.14, followed by rehabilitation of existing homes with an average score of 4.1. Finally, new construction of housing and infrastructure investments with hazard mitigation scored 3.83 and 3.73, respectively. Affordable housing, business assistance, tree restoration, debris clean-up, intermediate assistance for food and personal items, rental assistance until permanent housing is secured, infrastructure and flood mitigation, and storm shelters were among the top priorities listed in the additional response section of the survey.

In the survey, DLG asked respondents to share their thoughts on how DLG can work with those impacted and local groups to help residents gain access to the resources and support they need to recover. Responses included good communication and an advertisement plan, making applications for funding straightforward and the process easy to understand, having oversight of contractors and creating protections for homeowners and tenants, help with insurance issues, and bringing the assistance down to the neighborhood level. DLG also asked about the top barriers to recovering fully; among the top responses were access to funds and information, issues with the FEMA process, contractors who are overwhelmed, insurance company issues, lack of affordable housing, not enough storm shelters, and predatory lenders.

People who took the survey were asked to imagine their community 5 years after the storm. Respondents envisioned that, if recovered well, their community's housing, businesses, and trees would be restored and replaced; everyone who needed jobs would have one; there would be an adequate number of tornado-safe zones; new housing would be built; and the community would come together and help each other.

A second survey targeting city and county officials was released at the same time and received 25 responses. Most respondents agreed with the recovery principles (build back better, housing and community recovery go together, and advance equity and racial justice). Additional comments for guiding principles included themes of resiliency and strengthening businesses, downtowns, and infrastructure as they are rebuilt. Respondents were also asked to rank recovery priorities. The highest ranked recovery priority was infrastructure investment with hazard mitigation, with an average score of 4.68 out of 5. The next highest was housing recovery assistance for LMI individuals, with a score of 4.48. Then the following received ascending scores: housing recovery assistance for residents of all incomes (4.24), new construction housing (4.08), and rehabilitation of existing homes (3.96). When asked how DLG can work with respondents and local groups to help residents gain access to resources and support that the community needs to recover, responses included additional technical assistance to local communities, advertising and being visible, and working with local organizations and recovery groups. Finally, some of the top responses when asked about the top barriers to recovering fully were funding needs and lacking the knowledge and skill to apply for State and federal grants; loss of housing; lack of local tools to prevent future risk, such as ordinances and flood protection; and low contractor capacity.

DLG also consulted with disaster-affected residents, stakeholders, local governments, public housing authorities, and other affected parties in the surrounding geographic area to ensure the consistency of disaster impacts identified in the plan and to confirm that the plan and planning process were comprehensive and inclusive.

Through these consultation meetings, DLG was able to gather data, experiences, and community insight to develop an initial unmet needs assessment. All engagements were either conducted virtually or in-person, and surveys were submitted by each city and community organization. Table 61 shows the consultation events held to date.

Table 61. Table of Engagements/Consultations

Date	Attendees
Weekly	HB5/SB150 SAFE Funds
Ongoing	KYEMT Tornado Recovery Call Housing RSF/Housing Impact Presentation Housing RSF/Housing Impact Assessment
August 1, 2022	Field Representative Alex Caudill: Mayfield and Hopkinsville site visits, meetings with officials and survivors
July 28, 2022	SBA KY DLG/COSDA CDBG/CDBG-DR Meeting
July 20, 2022	Mayfield
July 12, 2022	Field Representative Alex Caudill: Mayfield and Marshall County site visits, meetings with officials and survivors
July 11, 2022	KYEM
July 11, 2022	Field Representative Alex Caudill: Dawson Springs site visit, meetings with officials and survivors CDBG-DR preallocation ideas
July 6, 2022	CDBG-DR Award
July 5, 2022	DOW DR4630 Western KY SAFE information meeting CDBG-DR Briefing (HUD)
June 22, 2022	KY Disaster Housing
June 22, 2022	Kentucky River ADD
June 15, 2022	Kentucky Housing Corporation
June 10, 2022	Field Representative Alex Caudill: Site visits to Mayfield, Marshall County, and Dawson Springs with officials
June 7, June 21, July 5, 2022 and continuing	West KY Planning Group (regular meetings scheduled)
June 6, 2022	Meeting with Bowling Green
June 1 and 16, 2022	Field Representative Alex Caudill: EDA tornado recovery workshop with officials
April 28, 2022	Field Representative Alex Caudill: Marshall County site visit, meetings with officials
April 11, 2022	Field Representative Alex Caudill: Meetings with officials in Hopkinsville
April 5, 2022	West KY State Aid for Emergencies Fund (SAFE) information
April 4, 2022	Field Representative Alex Caudill: Ohio County site visit, meeting with officials
March 23; May 11, 2022	West KY Planning Workgroup to brief governor and governor's staff
March 15, 2022	West KY Planning Workgroup
March 15, 2022	HUD Region IV
March 7, 14, and 28; April 4, 2022	KY Emergency Management KY Counties Tornado 21
April 6; May 16; July 11 and 21, 2022	FAHE
February 23, 2022	Kentucky Chamber of Commerce
February 14, 2022	Field Representative Alex Caudill: Zoom meetings with officials

Date	Attendees
February 10, 2022	Field Representative Alex Caudill: Mayfield and Fulton site visits, meetings with officials
February 7, 2022	KY Emergency Management KY Tornado 21 Recovery and Sheltering call
January 28, 2022	Field Representative Alex Caudill: Dawson Springs and Mayfield site visits, meetings with officials and survivors
January 27; February 3, 2022	KY Disaster Housing Task Force Briefing conference call with county judges and mayors
January 26; July 8, 2022	Field Representative Alex Caudill: Bowling Green site visit, meetings with officials
January 24; March 11; April 25; May 10; and July 25, 2022	Field Representative Alex Caudill: Mayfield site visit, meetings with officials and survivors
January 19, 2022	Teams call with Graves County Economic Development, DLG and Economic Development Cabinet
January 19, 2022	Field Representative Alex Caudill: Mayfield zoning meeting
January 19, 2022	Disaster Housing Task Force call with KY Emergency Management, DLG, and KHC
January 11, 2022	KY Tornado 21 calls with commissioner and chief of staff
January 11, 2022	DLG Disaster Housing Task Force discussion
January 10; February 9; March 23; April 12, 2022	Field Representative Alex Caudill: Hopkinsville site visit, meetings with officials
January 5, 2022	DLG and KY Housing Task Force discussion with chief of staff
January 4, 10, 18, 24, and 31; February 7, 14, 21, and 28; March 7, 21, and 28, 2022	KYDHTF – KY Disaster Housing Task Force conference calls with chief of staff
January 24; February 17; March 23; July 5, 2022	KHC
December 29, 2021; January 4, 10, 11, 17, and 18; February 1, 14, 15, 21, and 22; March 1, 7, 8, and 14, 2022	KYTC Task Force meetings
January 6, 10, and 27; March 22 and 24; April 29; May 2 and 31; June 14 and 28; July 5 and 8; August 8, 2022	Purchase ADD – Hickman, Fulton, and Graves Counties
December 29, 2021; February 18, 2022; March 15, 2022	Pennyrile ADD
January 4 and 27; February 3, 21, 22, and 25; April 12; May 16, June 16; July 13 and 20, 2022	Meetings with Bowling Green
January 3, 2022	Field Representative Alex Caudill: Hopkinsville and Mayfield site visits, meetings with officials
December 28, 2021; January 4, 2022	Disaster Housing – KY Housing Task Force
December 28, 2021	Mayfield KY support – Meeting with CED and Commissioner Dennis Keene and Chief of Staff Eddie Jacobs
December 22, 2021	Field Representative Alex Caudill: Constituent calls and calls with officials

Date	Attendees
December 21 and 23, 2021	Field Representative Alex Caudill: Visits to KY State Parks housing tornado victims
December 20, 2021	Field Representative Alex Caudill: Site visits in Hart County and meetings with officials, Teams meeting with Frankfort
December 19, 2021	Field Representative Alex Caudill: Visits to KY State Parks housing tornado victims
December 18 and 27, 2021	Field Representative Alex Caudill: Constituent calls and calls with officials, Teams meeting with Frankfort
December 17, 28, and 29, 2021; February 2, 2022	Field Representative Alex Caudill: Constituent calls and calls with officials
December 16, 2021	Field Representative Alex Caudill: Constituent calls and calls with officials, Teams meeting with Frankfort
December 15, 2021	Field Representative Alex Caudill: Mayfield, Princeton/Caldwell County site visits, meetings with officials
December 14, 2021	Field Representative Alex Caudill: Bremen site visits, meetings with officials, and constituent calls, calls with officials
December 13, 2021	Field Representative Alex Caudill: Mayfield site visits and meetings with officials, candle factory, FEMA meetings
December 12, 2021	Field Representative Alex Caudill: Bremen, Ohio County, Mayfield, site visits, meetings with officials, calls to local officials
December 11, 2021	Feld Representative Alex Caudill: Dawson Springs and Caldwell County site visits, meetings with officials, calls to local officials

The Action Plan was posted on the DLG disaster recovery website https://kydlgweb.ky.gov/FederalGrants/16_DRP.cfm for the 30-day comment period. It was available in English and Spanish. DLG ensured that all residents had equal access to information, including persons with disabilities, elderly families, and those with limited English proficiency.

DLG advertised the availability of the Draft Action Plan and public hearings via public notice by publishing it in seven newspapers around the commonwealth:

- Louisville Courier Journal
- Lexington Herald
- Paducah Sun
- Mayfield Messenger
- Benton Tribune Courier
- Breathitt Advocate
- Hazard Herald

The notice was also available on the DLG CDBG-DR webpage. DLG also emailed the public notice to Cities, Counties, and Area Development Districts as well as State stakeholders. DLG also promoted availability of the Action Plan via press releases. As mentioned earlier, DLG also developed a survey to solicit input as well as a webform for community members to register to receive updates and important CDBG-DR programmatic information. DLG used contact information from the survey and the webform to send out notice of the Action Plan's availability and to share the CDBG-DR timeline. As a result, close to 500 people received an email. The public was encouraged to comment on the draft Action Plan by contacting DLG via email, letter, phone and in person.

For those who otherwise could not obtain a copy of the Action Plan, DLG made them copies available upon request by contacting the DLG offices. :

Department for Local Government

ATTN: Office of Federal Grants: DR Team

100 Airport Road 3rd Floor

Frankfort, KY 40601

Public hearings.

3.1.2 Public Hearings

Per the Federal Register's approach for CDBG-DR, at least 1 public hearing in 1 of the HUD-identified MID areas is required during the 30-day comment period to obtain citizens' views and to respond to proposals and questions. The process below will be followed for a public hearing regarding the use of CDBG-DR funds or a substantial amendment.

Both public hearings (whether in-person, virtual, or hybrid) were held at a time and accessible location convenient to potential and actual beneficiaries, and with accommodations for persons with disabilities and LEP persons.

DLG held two public hearings:

- One public hearing was held in Western Kentucky at the Purchase Area Development District office at 1002 Medical Drive, Mayfield KY 42066 on November 3, 2022 at 5 p.m. central time. Ten people attended in person with five people joining via Webex.

- One public hearing was held in Eastern Kentucky at the Kentucky River Area Development District office at 941 North Main Street, Hazard KY 41701 on November 1, 2022 at 5 p.m. eastern time. Eleven people attended in person with six people joining via Zoom.

The public was encouraged to attend. Along with the hearing, DLG has provided key information and recorded presentations on the Action Plan and the funded programs on its disaster recovery website.

A summary of citizen comments on this Action Plan, along with DLG responses, are included in Section 5.3 of this document .

Changes to program budgets were made as a result of the public comment process. DLG appreciated the responses to the Action Plan.

3.1.2.1 Effective Communication

DLG will ensure that all residents have equal access to information, including persons with various types of disabilities and LEP persons. As required, DLG shall make critical documents (e.g., the Action Plan, Citizen Participation Plan, Quarterly Progress Reports) available in a form accessible to LEP persons and persons with disabilities. DLG will take the following steps to identify the LEP persons who need language assistance and identify how language assistance will be provided:

1. Using a four-factor analysis to determine the appropriate level of language access for each of its CDBG-DR programs and ensure meaningful access by LEP individuals to critical services.
2. Translating vital documents based on a justified need to facilitate the participation of key populations of limited English speakers.
3. DLG will provide oral translation for LEP clients during public hearings to facilitate participation in those hearings.
4. Posting vital materials on the public website and ensuring documents are compliant with Section 508 regulations.
5. DLG's subrecipients must provide language assistance services that result in timely, accurate, and effective communication at no cost to LEP clients and/or their beneficiaries.

The published Language Access Plan will provide details on how DLG will conduct this work. By improving accessibility, DLG intends to increase participation in its programs and activities by LEP persons, individuals from underserved communities, and persons with disabilities.

Further details can be found in the [Public Website](#) and [Amendments](#) sections in this chapter.

There are multiple methods for the public to contact DLG. As programs are launch, applicants will be able to get information about the status of their application by contacting DLG. Those include:

- Website: (link to general information section on website) https://kydlgweb.ky.gov/FederalGrants/16_DRP.cfm
- Toll-free number: 1-800-346-5606
- TTY and relay services: TTY 711; TDD 1-800-648-6056
- Email: DR@ky.gov
- Fax: 502-227-8691
- Mail: Department for Local Government, ATTN: Office of Federal Grants: DR Team, 100 Airport Road 3rd Floor, Frankfort, KY 40601

Complaints.

DLG or its subrecipients will provide a written response to each formal complaint within 15 working days of receipt of the complaint or will document why additional time for a response is needed.

- Formal complaints are written statements of grievance and include email, comments posted on the DLG website, and handwritten complaints. DLG shall detail the process and contact information (through the website or email) for submitting complaints in its program guidelines, application documents, and on the DLG website. DLG shall maintain a tracker for collecting and categorizing complaints through resolution.
- Informal complaints are verbal complaints. DLG and its subrecipients will attempt to resolve informal complaints; however, they are not subject to the written response process.
- 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 Office of the Inspector General Fraud Hotline (phone: 1-800-347-3735 or email: hotline@hudoig.gov).

All citizen complaints relative to Fair Housing/Equal Opportunity violations involving discrimination will be forwarded to the Department of Law and Public Safety, Office of the Attorney General, Division on Civil Rights. To file a fair housing complaint in Kentucky, please contact:

- Name: Kentucky Commission on Human Rights
- Address: 332 W. Broadway, Suite 1400, Louisville, Kentucky 40202
- Main Line: (502) 595-4024
- Main Fax: (502) 696-5230
- Email: mail@ky.gov

DLG's fraud, waste, and abuse policy will be available on the CDBG-DR Recovery website.

DLG or its subrecipients will include a written appeals process within each set of program guidelines. The appeals processes will include but are not limited to:

- The process for submitting, tracking, and resolving a written appeal to the organization administering the program (DLG or its subrecipients), 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 on what may or may not be appealed.

Generally, policies that have been approved and adopted within program guidelines may not be appealed. DLG and its subrecipients do not have the authority to grant an appeal to a regulatory, statutory, or HUD-specified CDBG-DR requirement.

To contact DLG about a complaint follow the specific information available in the program policy and procedures or contact:

- Website: (link to complaint section on website)
- Toll-free number:
- TTY and relay services:
- Email: DR@ky.gov
- Fax: 502-227-8691
- Mail: Department for Local Government, ATTN: Office of Federal Grants: DR Team, 100 Airport Road 3rd Floor, Frankfort, KY 40601

b. Public Website.

3.2 Public Website

In accordance with [87 FR 31636](#) Section III.A.1.a, the Commonwealth of Kentucky will maintain a comprehensive, accessible website regarding all disaster recovery activities that utilize CDBG-DR funds. This website will serve as a central source of information for applicants and the public to ensure ease of access of information and overall transparency. To do this, the Commonwealth of Kentucky will ensure the website is accessible to persons with disabilities and LEP persons. Additionally, the Commonwealth of Kentucky will take all reasonable steps to ensure meaningful access to its programs and activities by LEP persons, including members of protected classes, vulnerable populations, and individuals from underserved communities, as described in Section III.D.1.d of the Consolidated Notice.

The lead agency to manage this website will be the DLG. Additionally, the website will be updated at a minimum on a quarterly basis. Information that will be available on the website will include:

- Action Plan and amendments
- Performance reports
- Citizen Participation Plan
- Procurement policies and procedures
- All executed contracts that will be paid with CDBG-DR funds
- A summary that includes the description and status of services or goods currently being procured by the grantee or the subrecipient (e.g., phase of procurement, requirements for proposals).
- Fraudulent Activity Notices that will include possible fraudulent activity, how the fraud can be avoided, and which local or State agencies to contact to take action.

The disaster recovery website can be found here: [Kentucky DLG - DRP Grants](#)

c. Amendments.

3.3 Amendments

Over time, recovery needs will change. Thus, DLG will amend the disaster recovery Action Plan as often as necessary to best address 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. When unmet needs and program descriptions or other sections rise to the level of requiring an Action Plan amendment, the Commonwealth will do the following:

- Ensure that the current version of the Action Plan is accessible for viewing as a single document, with all amendments, so that the public and HUD do not have to view and cross-reference changes among multiple amendments.
- Identify amendments by highlighting added or changed text and striking out deleted text.
- Include a table that clearly illustrates where the funds are coming from and where they are going. Include a revised budget allocation table that reflects the entirety of all funds, if applicable to the amendment.

Substantial Amendment.

A change to this Action Plan is considered substantial if it meets the following criteria:

- Addition or deletion of any allowable activity described in the approved application;
- Change in the planned beneficiaries; or overall benefit requirement
- Change in program benefit or eligibility criteria
- The allocation or reallocation of more than \$5,000,000

The amendment will be posted on the CDBG-DR Recovery website for a 30-day public comment period. The amendment will be posted in adherence with the Americans with Disabilities Act and LEP requirements.

A substantial Action Plan amendment shall require the following:

- The Commonwealth will revisit the impact and needs assessment when moving funds from one program to another through a substantial amendment.
- A 30-day public comment period will include the following:
 - The Commonwealth will prominently post the Action Plan amendment on the DLG Disaster Recovery website https://kydlgweb.ky.gov/FederalGrants/16_DRP.cfm
 - The Commonwealth will afford residents, affected local governments, and other interested parties a reasonable opportunity to review the plan or substantial amendment.
 - The Commonwealth will identify and consider potential barriers that limit or prohibit equitable participation and will undertake reasonable measures to increase coordination, communication, affirmative marketing, targeted outreach, and engagement with underserved communities and individuals, including persons with disabilities and LEP persons. This includes the following:
 - The Action Plan amendment will be translated according to the CDBG-DR
 - Language Access Plan
 - The Action Plan amendment will be posted in a way that meets all accessibility requirements
 - The Commonwealth will review and respond to all written and oral public comments received. Any updates or changes made to the Action Plan in response to public comments shall be clearly identified in the Action Plan and amendments. The public comments also will be submitted to HUD with the final Action Plan amendment.
- Submit to HUD for approval
- Receipt of approval from HUD

Non-Substantial Amendment.

A nonsubstantial 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. The amendment does not require posting for public comment. DLG will notify HUD 5 business days before the change is effective. All amendments will be numbered sequentially and posted to the website into one final, consolidated Action Plan.

d. Displacement of Persons and Other Entities.

3.4 Displacement of Persons and Other Entities

To minimize the displacement of persons and other entities who may be affected by the activities outlined in this Action Plan, DLG and subrecipients will coordinate with applicable agencies and entities to ensure that all programs are administered in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act (URA) of 1970, as amended (49 CFR Part 24), and Section 104(d) of the Housing and Community Development Act of 1974, as amended, and implementing regulations at 24 CFR Part 570.496(a).

These regulations and requirements apply to both property owners and tenants in the event that proposed projects cause the displacement of persons or other entities. DLG will include detailed policies and procedures for when proposed programs or projects could potentially cause the displacement of people or other entities. DLG also will budget to cover the costs involved in implementing those policies and procedures. Currently, it is not anticipated that the proposed programs will cause displacement.

DLG has drafted a disaster recovery Residential Antidisplacement and Relocation Assistance Plan (RARAP) that has been adapted to meet the URA, Section 104(d), and related waivers and the alternative requirements specified in the Consolidated Notice.

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 only for a public use.

The disaster displaced many residents, both tenants and homeowners, who are still looking for access to the housing market. Due to the limited stock of affordable housing, residents are finding it difficult to become first-time homebuyers or find suitable rental housing. The proposed programs in this Action Plan will address displacement due to the disaster by providing new housing opportunities.

e. Protection of People and Property.

3.5 Protection of People and Property

The Commonwealth of Kentucky will leverage CDBG-DR funds to build economic and disaster resilience into all recovery programs and activities. Some of the ways that the Commonwealth will do this are included in the sections below.

Elevation standards.

3.6 Elevation Standards

All structures, defined at 44 CFR 59.1, designed principally for residential use and located in the SFHA (1% annual chance [or 100-year] floodplain) or equivalent FEMA data source, that receive assistance for new construction, reconstruction, rehabilitation of substantial damage, or rehabilitation that results in substantial improvement, as defined at 24 CFR 55.2(b)(10), must be elevated with the lowest floor, including the basement, at least 2 feet above the 1% annual chance floodplain elevation (base flood elevation). Structures that are elevated will meet federal accessibility standards.

Mixed-use structures with no dwelling units and no residents below 2 feet above base flood elevation must be elevated or floodproofed in accordance with FEMA floodproofing standards at 44 CFR 60.3(c)(3)(ii) or a successor standard up to at least 2 feet above base flood elevation.

Nonresidential structures, including infrastructure, will also be elevated to the standards described above.

If a critical action structure is in a 500-year floodplain, the structure must be elevated or floodproofed (in accordance with FEMA floodproofing standards at 44 CFR 60.3(c)(2)-(3) or successor standard) to the higher of the 500-year floodplain elevation or 3 feet above the 100-year floodplain. Critical actions are described as any activity for which even a slight chance of flooding would be too great because such flooding might result in loss of life, injury to persons, or damage to property. Examples might include hospitals, nursing homes, emergency shelters, police stations, and fire stations. In addition to the elevation standards described in this section, DLG will comply with applicable State and local codes and standards for floodplain management, including elevation, setbacks, and cumulative substantial damage requirements.

If the 500-year floodplain or elevation is unavailable, and the Critical Action is in the 100-year floodplain, then the structure must be elevated or floodproofed at least three feet above the 100-year floodplain elevation. Activities subject to elevation requirements must comply with applicable federal accessibility mandates.

The cost of elevation will be included as part of the overall cost of rehabilitation or replacement of a property. It is estimated that the costs will depend on the location, the size of the unit, and the level to which the property must be elevated. For single-family residences, if a home is within a 100-year floodplain, DLG will ensure the reasonableness of elevation costs by analyzing multiple bids from contractors, cost estimating software, and/or examples of comparable costs to elevate in similar markets.

If a project is funded by FEMA and CDBG-DR funds as the non-Federal match and a structure needs to be elevated, the alignment of HUD's elevation standards with any alternative standard allowed by FEMA may not be feasible and may not be cost reasonable. HUD establishes an alternative requirement for the use of an alternative, FEMA-approved flood standard instead of the elevation requirements. This alternative requirement applies when CDBG-DR funds are used as match for FEMA assistance, the FEMA project commenced before HUD's obligation of CDBG-DR funds, and the grantee has demonstrated that implementation costs of the required CDBG-DR elevation or flood proofing requirements are not reasonable costs.

Flood Insurance Requirements.

3.7 Flood Insurance Requirements

Assisted property owners must comply with flood insurance requirements. HUD-assisted homeowners for a property located in an SFHA must obtain and maintain flood insurance in the amount and duration prescribed by FEMA's National Flood Insurance Program (NFIP). DLG may 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 but then that person failed to obtain it or allowed their flood insurance to lapse for the property. DLG is prohibited by HUD from providing CDBG-DR assistance for the rehabilitation or reconstruction of a house if the following conditions are met:

- The combined household income is greater than 120% AMI or the national median,
- The property was located in a 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, LMI homeowners 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% AMI or the national median and has unmet recovery needs.

DLG and its subrecipients will implement procedures and mechanisms to ensure that assisted property owners comply with all flood insurance requirements, including the purchase and notification requirements described below:

- Flood insurance purchase requirements for funds used to rehabilitate or reconstruct existing residential buildings in an SFHA (or 100-year floodplain).
- Federal assistance to owners remaining in a floodplain.
- Prohibition on flood disaster assistance for failure to obtain and maintain flood insurance.
- Prohibition on flood disaster assistance for households above 120% of AMI for failure to obtain flood insurance.
- Responsibility to inform property owners to obtain and maintain flood insurance.

Construction Standards.

3.8 Construction Standards

DLG will work with other State agencies including the Department of Housing, Building, and Construction within the Public Protection Cabinet and the Kentucky Housing Corporation to develop guidelines that will require quality inspections and code compliance inspections on all projects and places, with 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 Standard®
- S. Environmental Protection Agency (EPA) Indoor airPLUS
- Equivalent or higher Kentucky energy efficiency standards
- Any other equivalent comprehensive green building standard program acceptable to HUD

Additionally, all such covered construction must achieve a minimum energy efficiency standard, such as:

- ENERGY STAR (certified homes or multifamily high-risk)
- DOE Zero Energy Ready Home
- EarthCraft House/Multifamily
- Passive House Institute Passive Building or EnerPHit certification
- Greenpoint Rated New Home/Existing Home
- Earth Advantage New Homes
- Any other equivalent energy efficiency standard acceptable to HUD.

DLG will specify the standards that will be used within each set of program guidelines.

For the rehabilitation of nonsubstantially damaged residential buildings, DLG will follow the guidelines to the extent applicable as specified in the HUD Office of Community Planning and Development (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-designed products and appliances.

For infrastructure projects, DLG will encourage, to the extent practicable, the use of green infrastructure design and implementation, such as those issued by:

- EPA through their Green Infrastructure Design and Implementation guidance
- HUD through their Green Infrastructure and Sustainable Communities Initiative

The term "substantial damage" applies to a structure in an SFHA or floodplain for which the total cost of repairs is 50% or more of the structure's market value before the disaster occurred, regardless of the cause of the damage.

All projects will be subject to cost reasonableness standards as outlined in the policies and procedures of the applicable program specific to the applicable activity.

Contractors Standards.

3.9 Contractors Standards

Contractors selected to carry out recovery and resilient activities will make every effort to provide opportunities to LMI persons by providing resources and information to notify Section 3 individuals and businesses about opportunities in the community. Grantee or subrecipients may elaborate on specific steps to promote Section 3.

DLG will undertake the following efforts to help meet its Section 3 goals:

- Ensure that Section 3 accomplishments are outlined in all applicable contracts and subrecipient agreements.
- Build the capacity of stakeholders, including subrecipients and contractors, to meet Section 3 standards through technical assistance, tools, and guidance.
- Designate a Section 3 coordinator who will manage, support, and facilitate an effective Section 3 program, and who will be able to effectively communicate program requirements to stakeholders.

DLG will report Section 3 accomplishments in the Disaster Recovery Grant Reporting (DRGR) system.

The Commonwealth also has a Minority and Women Business Enterprise Certification Program. The program encourages growth among Kentucky businesses owned by women and minorities and assists those businesses with expanding their markets. The Minority and Women Business Enterprise Certification Program, along with Kentucky's [SMALL BUSINESS CONNECTION Database](#), helps facilitate the development of women- and minority-owned businesses in Kentucky. DLG will promote the Minority and Women Business Enterprise Certification Program.

Recovery programs implemented by DLG and its subrecipients will incorporate uniform best practices of construction standards for all construction contractors performing work in all relevant jurisdictions. All contractors are statutorily required to be licensed and registered with the Department of Housing, Building, and Construction within the Public Protection Cabinet. Construction contractors will be required to carry the required licenses and insurance coverage for all work performed, and contractors will be required to provide a warranty period for all work performed. DLG will outline contractor requirements in the respective program guidelines that address procurement, bonding, wage rates, Section 3 requirements, and any other requirements necessary to ensure the work is completed and in compliance with local, State, and federal regulations.

Contractors' 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.

Rehabilitation contract work provided through a program included in this Action Plan may be appealed by homeowners whose property was repaired by contractors under the Commonwealth's control.

In addition, DLG will provide information on reporting contractor fraud or illegal activities in their applicable program guidelines. The Attorney General of Kentucky has set up multiple ways to file a report:

- Citizens can call 502-696-5485 to report any suspected fraud
- Suspected price gouging can be reported to <https://secure.kentucky.gov/formservices/AttorneyGeneral/PriceGougingComplaintForm>
- Scams can be reported to <https://secure.kentucky.gov/formservices/AttorneyGeneral/ScamReport>
- The Attorney General's Consumer Protection hotline remains active and can be reached by calling 1-888-432-9257

The Attorney General's office has a list of natural disaster scams with tips on how to avoid these common scams.

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.

Preparedness, Mitigation and Resiliency.

3.10 Preparedness, Mitigation, and Resilience

3.10.1 Design Programs That Protect 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 rehabilitation, reconstruction, new construction, demolition, elevation, hazard mitigation, down payment assistance, 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 elevating the first floor of habitable area,
 - breakaway ground floor walls, reinforced roofs, storm shutters, and debris impact-resistant windows, as well as other measures.
 - 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.

3.10.2 Emphasize High Quality, Durability, Energy Efficiency, and Sustainability

For rehabilitation construction, the Commonwealth will follow [the Department of Housing and Urban Development's 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, WaterSense-labeled, or Federal Energy Management Program-designated products and appliances or other equivalent.

3.10.3 Enforce Resilient Building Codes

DLG will require both quality inspections and code compliance inspections on all projects. Site inspections will be required on all projects to ensure quality and compliance with building codes. DLG 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. DLG, as necessary, will coordinate with the KYEM to provide technical guidance on hazard mitigation code examples.

3.10.4 Fund Feasible, Cost-Effective Measures

DLG will require that applicants demonstrate that projects (1) address a problem that has been repetitive or a problem that poses a significant risk to public health and safety if left unsolved; (2) cost less than the anticipated value of the reduction in both direct damages and subsequent negative impacts on the area if future disasters were to occur; (3) have been determined to be the most practical, effective, and environmentally sound alternative after consideration of a range of options; (4) contribute, to the extent practicable, to a long-term solution to the problem it is intended to address; and/or (5) consider long-term changes to the areas and entities it protects and have manageable future maintenance and modification requirements.

3.10.5 Make Land Use Decisions to Reduce Future Risks

The legislature of the Commonwealth of Kentucky has in [Kentucky Revised Statute \(KRS\) Chapter 100](#) delegated to local government units the authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. While the elected body has the power to adopt the zoning ordinance, the responsibility for overseeing the preparation of the ordinance falls to the local planning commissions. The statute permits three types of local planning units with commissions: independent, joint, and regional.

The planning commission of each unit is required to prepare a comprehensive plan, which serves as a guide for public and private actions and decisions to assure the development of public and private property in the most appropriate relationships. The elements of the plan may be expressed in words, graphics, or other appropriate forms. They will be interrelated, and each element will describe how it relates to each of the other elements.

Additionally, the Commonwealth established 15 Area Development Districts (ADDs) through [KRS Chapter 147A](#) that guide local communities in conducting the necessary research and studies and coordinate and cooperate with all appropriate groups and agencies in order to develop, and adopt and revise when necessary, a district development plan or series of plans including but not limited to the following districtwide plan elements: goals and objectives; water and sewer; land use; and open space and recreation. The plans serve as a general guide for public and private actions and decisions to assure the development of public and private property in the most appropriate relationships. The districts are placed under the direction of regional planning councils.

One of an ADD's critical functions is to coordinate local hazard mitigation plans. ADDs will review and approve comprehensive plans from each local planning commission and will help develop regional hazard mitigation plans that incorporates local hazard mitigation plans for the Commonwealth's hazard mitigation plans. The plans use the best available data to identify risks and are used to inform land use decisions. At a minimum, hazard mitigation plans are updated every 5 years.

DLG will require local governments to demonstrate how their projects or activities fit into local or regional mitigation plans, the Commonwealth's mitigation plan, existing risk mapping, and connection to this Action Plan's mitigation assessment.

3.10.6 Increase Awareness of Hazards

Seeking input from stakeholders and communities around the Commonwealth is an important component of the planning process. DLG used a variety of methods to inform local officials and the public on the purpose and goals of mitigation; understanding risks, threats, and hazards in MID areas; and gathering feedback on how to craft programs that will meet the needs of communities as quickly as possible. In addition to gaining feedback, this process helped local stakeholders and members of the public understand what to expect from CDBG-DR funding and allowed them to play a key role in shaping the outcomes of this plan. The outreach methods, along with the feedback obtained, include webinars, a survey of community and citizens, and stakeholder meetings.

DLG is committed to ensuring environmental justice in minority, low-income, refugee, and immigrant populations. Members of these populations are encouraged to participate in DLG's outreach efforts and provide valuable input on the needs and priorities of their communities. To ensure adequate public participation and access to information as required by Executive Order 12898, DLG will solicit public recommendations in developing and implementing environmental justice strategies, use public documents that are concise and understandable, and translate appropriate public documents for LEP persons.

DLG also will provide meaningful opportunities for public participation throughout the environmental review process, as required by guidance from the Council on Environmental Quality.

DLG's subrecipients receiving CDBG-DR funds are considered responsible entities and must complete an environmental review of all project activities under 24 CFR Part 58 prior to obligating any project funds. After subrecipients complete environmental review(s) pursuant to 24 CFR part 58 and receive from HUD an approved Request for Release of Funds and certification (as applicable) or adopts another Federal agency's environmental review and receives from HUD (or the state) an approved Request for Release of Funds and certification (as applicable), subrecipients may draw down funds for an activity. Subrecipients will be required to post on their website the environmental reviews for public comment.

3.10.7 Develop the Risk Assessment

This Action Plan details how this funding will be allocated to reduce the effects of natural disasters and eliminate long-term risks to Kentuckians. The purpose of the mitigation risk assessment is to detail a strategy that (1) reduces the risks and vulnerabilities of people in hazard-prone areas through current technology; (2) reduces the potential impact of natural disasters on new and existing properties, infrastructure, and local economies; and (3) promotes education, outreach, and research and development programs to improve knowledge and awareness among citizens and industry about the hazards they may face and mitigation alternatives that can reduce vulnerabilities.

The focus on mitigation can result in cost savings that can be used to fund more resilient work in local communities. As per FEMA's analysis on mitigation, local communities can save \$6 on average for every \$1 spent on federal mitigation grants.^[58] This cost savings can be attributed to paying for risk-reduction practices or technologies that can prevent damage and increased costs from future disasters.

DLG has completed this risk-based Mitigation Needs Assessment to identify and analyze all significant current and future disaster risks that provide a substantive basis for the activities proposed in Section 4. The assessment utilized the findings of Kentucky's State Hazard Mitigation Plan; data and research acquired from essential data resources; and consultation with public, private, and nonprofit stakeholders to arrive at a thorough assessment of the hazards that pose substantial risk of loss of life, injury, damage, and loss of property, along with suffering and hardship.

3.10.8 Use the Hazard Mitigation Plan

The Commonwealth of Kentucky's 2018 Hazard Mitigation Plan (HMP) is the most recent risk assessment completed through the FEMA hazard mitigation planning process and is the starting point for the Action Plan's risk-based Mitigation Needs Assessment. The HMP was completed by the Kentucky Division of Emergency Management, which focuses on emergency management and the hazards faced by Kentuckians and provides a mitigation strategy for the Commonwealth. The purpose of the HMP is to reduce death, injuries, and property losses caused by natural hazards in Kentucky. The 2018 HMP identifies hazards based on the history of disasters within the Commonwealth and lists goals, objectives, strategies, and actions for reducing future losses.

This assessment utilizes the findings of Kentucky's HMP; data and research acquired from essential data resources; and consultation with public, private, and nonprofit stakeholders to arrive at a thorough assessment of the hazards that pose a substantial risk of loss of life, injury, damage, and loss of property, along with suffering and hardship.

3.10.9 Ensure Mitigation Efforts Are Cost-Reasonable

All rehabilitation, reconstruction, and new construction work will be designed to incorporate the principles of sustainability, including water and energy efficiency, resilience, and mitigation against the impact of future disasters. DLG will—and will encourage its applicants to—incorporate preparedness and mitigation measures for rebuilding activities. This helps to ensure that communities build back safer and stronger than before the disaster. Incorporation of these measures also reduces costs in recovering from future disasters. Mitigation measures that are not incorporated into those rebuilding activities must be a necessary expense related to disaster relief, long-term recovery, and the restoration of infrastructure.

3.10.10 Support Long-Term Recovery Planning

DLG has an excellent relationship with local governments and will coordinate with the local governments to promote sound, sustainable, long-term recovery planning that has been informed through the evaluation of natural hazards. In preparing this Action Plan, DLG met with local governments, regional districts, nonprofits, and agencies.

Through these consultation meetings, DLG was able to gather data, experiences, and community insight to develop an initial unmet needs assessment. All engagements were either conducted virtually or in-person, and surveys were submitted by each city and community organization. Table 61 shows the consultation events held to date.

[58] FEMA: [Natural Hazard Mitigation Saves Interim Report](#)

Broadband Infrastructure in Housing.

3.11 Broadband Infrastructure in Housing

Per 24 CFR 570.202, any substantial rehabilitation or new construction of a building with more than four rental units will include the 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 of its program or activity or an undue financial burden, or
- The structure of the housing to be substantially rehabilitated makes installation of broadband infrastructure infeasible.

Cost-Effectiveness.

3.12 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 rehabilitation or reconstruction of the unit will not be cost-effective relative to other means of assisting the property owner.

As mentioned above, the existing housing stock is not affordable for the residents who need housing the most. Rehabilitating old and damaged housing may not be the most cost-effective way to resolve this problem. Reconstruction and constructing new housing using updated technologies and better energy-efficient materials will ensure that residents can own a home that is resilient and addresses the risks faced by the community.

DLG will define “demonstrable hardship” as experiencing conditions such as continued financial hardships, impacts from COVID-19 on the affordability of the housing stock, or residing in unsafe or unsanitary living conditions as a result of the 2021 disasters.

DLG defines a residential property as “not suitable for rehabilitation” if any of these conditions apply:

- The property is declared a total loss.
- Repairs would exceed 50% of the cost of reconstruction.
- Homes cannot be rehabilitated under existing agency policies and award caps due to legal, engineering, or environmental constraints such as permitting, extraordinary site conditions, or historic preservation.

The Commonwealth may provide exceptions to 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 necessary and reasonable.

Further, DLG and its sub-recipients will adhere to the uniform administrative requirements (2 CFR 200), that costs will be determined to be necessary and reasonable as defined by 2 CFR 200.404.

Duplication of Benefits.

3.13 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, DLG 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.

Additionally, DLG will require that all sources (federal, state, local, and private) and amounts of funding received or estimated to be received will be documented prior to awarding CDBG-DR funds to the applicant.

Program policies will outline a process for preventing duplication. Further, any additional funds paid to applicant awardees for the same purpose as the assistance awarded after the CDBG-DR funded project is completed must be returned to DLG.

As per the Duplication of Benefits Policy, DLG and its subrecipients are subject to the requirements in Federal Register Notices explaining the duplication of benefits requirement (84 FR 28836 and 84 FR 28848, published June 20, 2019, or other applicable notices).

4. Grantee Proposed Use of Funds

4.1 Overview

DLG is the lead agency and responsible entity for administering \$74,953,000 in CDBG-DR funds for recovery from the storm events in 2021. DLG will implement many of these programs through a unit of general local government (UGLG) or tribal authority as well as in partnership with subrecipients. All programs have been designed in accordance with HUD-eligible activities to meet HUD National Objectives and the requirements of the Consolidated Notice. These programs, along with the funding allocated to each, are outlined below.

Owner-Occupied Housing Assistance

- Single-Family New Housing Construction with Homebuyer Assistance
- Owner-Occupied Rehabilitation/Reconstruction

Rental Housing Assistance

- Multifamily Rental New Construction
- Rental Rehabilitation/Reconstruction

Public Services

- Housing Counseling and Legal Aid Assistance

Economic Revitalization

- Small Business Grant Program

Infrastructure

- Public Infrastructure and Stormwater Management

Planning and Administration

- Resilience Planning
- Administration

a. Program Budget

Program Category	Program	Budget	HUD identified MID Budget	Grantee identified MID Budget	% of Allocation	Maximum Award	National Objective	Estimated Outcome
Housing	Rehab	\$32,905,350.00	\$26,324,280.00	\$6,581,070.00	43.90%	\$100,000.00	LMI	0
	Buyout	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	0	0
	New Construction	\$14,000,000.00	\$11,200,000.00	\$2,800,000.00	18.68%	\$200,000.00	LMI	0
	Other	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	0	0
Economic Revitalization	Workforce Training	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	0	0
	Business Grants	\$4,000,000.00	\$3,200,000.00	\$800,000.00	5.34%	\$200,000.00	LMI	0
	Other	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	0	0
Infrastructure	Water/sewer Improvements	\$18,000,000.00	\$14,400,000.00	\$3,600,000.00	24.02%	\$3,000,000.00	LMI	0
	Health Facilities	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	0	0
	Other	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	0	0
Public Services	Legal Services	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	0	0
	Housing Counseling	\$800,000.00	\$640,000.00	\$160,000.00	1.07%	\$0.00	LMI	0
	Other	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	0	0
Mitigation	Mitigation	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	0	0
Admin	Admin	\$3,747,650.00	\$2,998,120.00	\$749,530.00	5.00%	\$0.00	N/A	0

Program Category	Program	Budget	HUD identified MID Budget	Grantee identified MID Budget	% of Allocation	Maximum Award	National Objective	Estimated Outcome
Planning	Planning	\$1,500,000.00	\$1,200,000.00	\$300,000.00	2.00%	\$100,000.00	N/A	0
Total		\$74,953,000.00	\$59,962,400.00	\$14,990,600.00	100.00%			

Data Source(s): Action Plan Programs Table

Connection to Unmet Needs.

4.3 Connection to Unmet Needs

As required by [Federal Register, Vol. 87, No. 100](#), May 24, 2022 (87 FR 6326), the Kentucky DLG will allocate at least 80% of the funds to address unmet needs in the HUD-identified MID areas. The remaining 20% of the allocation may be used to address unmet needs in a grantee-identified MID area that received a presidential major disaster declaration from severe storms, flooding, landslides, and mudslides (DR-4595) and the 2021 severe storms, straight-line winds, flooding, and tornadoes (DR-4630). Currently, the Commonwealth anticipates putting 80% of funding in Graves County, Hopkins County, Breathitt County (41339), and Warren County (42101), and the remaining 20% will be focused on supporting recovery efforts in the counties the DLG identified and outlined in this document.

This Action Plan primarily considers and addresses housing and infrastructure unmet needs and incorporates mitigation activities into all programs.

The Federal Register Notice also requires that at least 70% of all program funds benefit LMI persons or households. Based on data and the current priorities to encourage LMI persons to participate in the program, the Commonwealth anticipates meeting the LMI requirement. In addition, the Commonwealth also will be assessing the status of eligible unmet needs of LMI persons and non-LMI persons and determining, at an appropriate stage, whether to request a modification of the requirement.

Leveraging Funds.

4.4 Leveraging Funds

The Commonwealth of Kentucky understands the importance of leveraging all available funds and resources to increase its ability to address and mitigate major disasters. As a component of this Action Plan, DLG has coordinated across federal, State, and local organizations to gather information about other resources available for recovering from the 2021 designated disasters. The Commonwealth anticipates leveraging CDBG-DR funds with other funding sources, such as FEMA grants, SBA loans, and other State and local funds. CDBG-DR funds will be used to address critical unmet needs that remain after all other federal sources have been committed and exhausted to prevent any duplication of benefits.

In addition, to ensure coordination in funding and activities, the Commonwealth will utilize its strong interagency partnerships to ensure that information, program updates, and data are shared when necessary and utilize methods to reach vulnerable populations, protected classes, persons experiencing homelessness, and those who are historically underserved.

DLG is committed to using CDBG-DR funds to address critical unmet needs that remain following the infusion of funding from other funding sources detailed below. Existing State resources and other funds from the disaster appropriation will be further examined to ensure that all available and viable funding is used where it is most needed and will be leveraged appropriately.

4.4.1 Interchangeability of Disaster Funds

HUD has authorized grantees that receive an award in this Allocation Announcement Notice and under prior appropriations to use those funds interchangeably and without limitation for the same activities related to unmet recovery needs in the MID areas resulting from a major disaster in a prior or future appropriation acts when the MID areas overlap and when the use of the funds will address unmet recovery needs of prior or future major disasters. The Commonwealth has not received funding prior to the Consolidated Notice.

4.4.2 Commonwealth Funding

After the 2021 disasters, the Commonwealth of Kentucky moved quickly to set up relief funds and a centralized [resource website](#) to help those affected. Resources include but are not limited to sheltering, food sources, financial, insurance, and mental health assistance.

State Aid Funding for Emergencies (SAFE) Fund from Kentucky Senate Bill 150

The Senate passed a bill that created a fund that allocated \$155 million to cities, counties, and nonprofits to offset the cost of recovery. Costs incurred for debris clean-up, infrastructure replacement, relief for businesses, and temporary housing are eligible.

Team Western Kentucky Tornado Relief Fund

Governor Beshear has established the Team Western Kentucky Tornado Relief Fund to assist those impacted by the tornados and the severe weather system overnight on December 10, 2021. As of July 6, 2022, 150,205 donations have been received, totaling \$59,953,085. The funds that have been raised have gone to funeral assistance payments (\$810,000) and uninsured (\$2,121,001) and underinsured (\$7,354,694) homeowners and renters. The remainder of the funding is committed as follows; \$16,000,000 to build 300 homes in cooperation with nonprofits, \$3,250,000 to the Graves County Grain Assistance Program, and \$12,000,000 to help impacted individuals with unmet needs, in coordination with long-term recovery groups. Donations are still being collected.

Kentucky Housing Corporation (KHC)

Kentucky Housing Corporation invests in affordable housing solutions by offering programs and services designed to develop, preserve, and sustain affordable housing throughout the Commonwealth. The disaster recovery resources page on KHC's website: <https://www.kyhousing.org/Programs/Pages/Kentuckians-In-Need.aspx> is where residents recovering from the disaster can access housing-specific resources, such as finding immediate shelter for rent, contacting FEMA, and connecting with SBA. The Kentucky Housing Corporation also helps with foreclosure relief and FHA insurance for mortgages and home rehabilitation.

Kentucky Chamber of Commerce

Kentucky Sports Radio (KSR) and the Kentucky Chamber Foundation partnered to build a relief fund for Kentuckians to ensure they can rebuild.

With the money raised in this fund, the two groups will be working with local communities, local chambers, as well as Commonwealth and local elected officials to ensure the needs of these areas are met in the wake of tragedy.

4.4.3 Federal Assistance and Private Insurance

Additional funding sources that are important to document for the purposes of leveraging disaster recovery funds and ensuring compliance regarding duplication of benefits include FEMA, SBA, and private insurance. Data specific to these sources were provided above in the unmet needs assessments. Summary information is provided here to document Kentucky DLG's research as it relates to leveraging available funding sources.

Table 64. FEMA IA, PA, and HMGP Assistance

FEMA Program	Approved FEMA Assistance	Total Approved Applications
Individual Assistance (IA)	\$23,428,031	3,680
Public Assistance (PA)	\$82,684,104	961
Hazard Mitigation Grant Program (HMGP)	\$156,986,530	255

Table 65. SBA Residential and Business Loans

SBA Loan Type	Loan Amount Issued
Residential Loans Executed and Awarded	\$56,592,975
Business Loans Executed	\$10,636,800

Program Partners.

4.5 Program Partners

DLG will engage program partners through formal agreements, interagency agreements, and informal partnerships. It is critical for DLG to engage a spectrum of program partners so that programs are more accessible, understandable, and tailored to equitably meet the unmet needs of disaster-impacted residents and communities. When engaging in formal agreements for the administration or implementation of programs, DLG will ensure that recipients of CDBG-DR funds have the capacity and expertise to carry out the program activities included in their scope of work. DLG may help expand recipient capacity and will provide technical assistance and training to recipients on program requirements, applicable federal cross-cutting requirements and Commonwealth overlays, and reporting and performance requirements, and may allocate administrative funding, as appropriate, to do so.

Kentucky DLG plans to fund UGLGs such as cities and counties as well as tribal authorities who will then award grant funds to citizens and projects within their communities. DLG will provide extensive CDBG-DR training as well as descriptive guidelines that each UGLG and tribe will need to follow as they administer and award funding in their communities. Understanding that for many UGLGs the burden of administering a CDBG-DR grant might be too much for existing staff, DLG plans to award administrative funding in the form of project delivery funds for them to hire qualified grant administrators. There is a long tradition in Kentucky through the regular CDBG program of communities hiring ADDs or other certified administrators. Proper administration of the CDBG-DR funds is critical to Kentucky's recovery, and DLG will work with their partners to ensure that all regulatory rules are followed in the implementation of the CDBG-DR funds.

4.5.1 Area Development Districts

The concept of ADDs originated in Kentucky in the early 1960s with the establishment of Area Development Councils. These councils were organized in all counties and ultimately served as the precursor for Area Development authorization. Landmark federal acts, such as the Appalachian Regional Development Act, a product of visionary Kentuckian John Whisman, and the Public Works and Economic Development Act of 1965, were passed with the intention of utilizing the Area Development network to administer and deliver needed federal resources to communities across the United States. These acts resulted in the creation of two new federal agencies: The Appalachian Regional Commission and the Economic Development Administration. In the period between 1966 and 1972, Kentucky formally created 15 ADDs to serve every county and municipality in the Commonwealth.

As mentioned in the previous section, the ADDs will assist the UGLG administer their awarded CDBG-DR funds. They will not only assist with regulatory compliance but will also be available to facilitate conversations with other partners, such as nonprofit community organizations that can assist communities implement CDBG-DR programs.

Further, the ADDs are designed to be essential in a necessary federal-State-local partnership, "the three-legged stool," which provides for the optimum synergy to advance real improvement in the quality of life for Kentucky citizens. This concept has effectively eliminated debilitating parochialism and serves as a model for public/private collaboration, convening public officials to discuss common public service challenges, and to cost-effectively deliver competent public administration assistance to State and local governments. This service legacy has now operated for more than 5 decades.

Programs and activities conducted by ADDs include:

- Workforce development
- Economic development
- Water/wastewater planning
- Transportation and infrastructure planning
- Healthcare and aging services
- GIS mapping
- Agriculture planning
- Tourism
- Broadband planning
- Hazard mitigation and disaster preparedness planning

4.5.2 Kentucky Housing Corporation

Kentucky Housing Corporation (KHC) invests in affordable housing solutions by offering programs and services designed to develop, preserve, and sustain affordable housing throughout the Commonwealth.

Created by the 1972 General Assembly, KHC is a self-supporting, public corporation of the Commonwealth of Kentucky and is governed by a 15-member board of directors. KHC is a quasi-government agency, which is administratively attached to the Kentucky Finance and Administration Cabinet, and a portion of KHC's funds are derived from the interest earned through the sale of tax-exempt mortgage revenue bonds. From these proceeds, KHC has made homeownership possible for more than 76,000 Kentucky families.

KHC also receives fee income for administering federal programs, including rental assistance that makes quality housing available to more than 27,500 low-income Kentuckians. Other programs offered by KHC include rental housing financing, including administering LIHTCs, homeownership education/counseling, housing rehabilitation, homeless programs, home energy and repair initiatives, and loan servicing. KHC's skills and focus areas make the organization a valuable resource for the CDBG-DR housing programs. DLG plans to partner with KHC on their housing programs, specifically in implementing their new construction multifamily program.

KHC works with many partners across the Commonwealth to invest in and create affordable housing opportunities.

4.5.3 Kentucky Energy and Environment Cabinet

The Kentucky Energy and Environment Cabinet (EEC) serves the public by enforcing laws relating to natural resources and the environment. It keeps citizens safe and healthy while supporting a positive business climate. Within the EEC, there are two main departments and several offices, including:

- The Department for Environmental Protection protects and enhances Kentucky's environment through its Divisions of Air Quality, Waste Management, Water, Enforcement and Compliance Assistance.
- The Department for Natural Resources provides technical assistance, education, and funding to sustain Kentucky's natural resources. It is home to the Divisions of Abandoned Mine Lands, Forestry, Mine Permits, Conservation, Oil and Gas, Mine Safety, and Mine Reclamation.
- The Office of Energy Policy brings a common-sense approach that ensures the Commonwealth thrives amid rapid changes occurring in the production, delivery, and use of energy.
- The Office of Kentucky Nature Preserves works to protect the Commonwealth's natural heritage and educate Kentuckians about its importance.

Division of Water

The Division of Water is part of the EEC, and its mission is to manage, protect, and enhance the quality and quantity of the Commonwealth's water resources for present and future generations through voluntary, regulatory, and educational programs. It also assists in watershed management. Kentucky is divided into seven major river basins, each of which is staffed by a basin coordinator. The basin coordinators serve as facilitators for agency activities and as a point of contact for local organizations interested in addressing clean water issues and watershed planning.

DLG and the Division of Water are committed to partnering in the design and implementation of the infrastructure and planning CDBG-DR funds. The two agencies have had several meetings to discuss the most advantageous infrastructure project that will help mitigate future disasters. The Watershed Management Plans for the seven watershed basins are also in need of updating. Through this partnership, these plans can be updated to include the most recent flooding data as well as outline innovative future projects to mitigate flooding events.

4.5.4 Kentucky Association of Mitigation Managers

The Kentucky Association of Mitigation Managers (KAMM) was formed to promote natural hazard mitigation and management in Kentucky. Current members represent local, State, and federal officials; floodplain coordinators; planning and zoning officials; engineers; surveyors; GIS specialists; hydrologists; and public safety and emergency managers. The purpose of KAMM is to:

- Provide a forum for floodplain coordinators, emergency and mitigation managers, engineers, code enforcement officials, and surveyors.
- Gain knowledge and network on issues pertinent to floodplain management, mitigation, and disaster recovery.
- Promote public awareness of floodplain and stormwater management and mitigation.
- Promote the professional status of floodplain, stormwater, and emergency management and mitigation and secure all resulting benefits.
- Enhance cooperation and exchange information among various private and nonprofit organizations, individuals, and local, State, and federal agencies.
- Inform individuals concerned with floodplain, stormwater, and emergency management and mitigation through educational and professional seminars and provide a method for dissemination of both general and technical information.
- Inform concerned individuals of pending floodplain, stormwater, and emergency management and mitigation legislation and other hazard-related matters.
- Study and support legislation pertinent and necessary to the effective implementation of floodplain and stormwater management and mitigation regulations.

DLG will coordinate with KAMM in association with the Division of Water to plan for and implement CDBG-DR infrastructure and planning projects.

Distribution of Funds.

4.6 Distribution of Funds

Each of the program descriptions below include information on how DLG will distribute CDBG-DR funds, including the eligible applicant, beneficiary, and partners. As stated previously, DLG plans to award funds to the UGLG or tribal authorities for most funds. They will administer the CDBG-DR funds to complete infrastructure and planning projects and provide direct assistance to homeowners, landlords, and businesses. DLG anticipates an extensive training program for UGLGs and tribal authorities that will include the fundamentals in managing CDBG-DR funds. DLG will also hold informational application workshops in the disaster-affected regions for UGLGs and tribal authorities to advertise the availability of the CDBG-DR funds. DLG will mandate that each entity hire a DLG-certified grant administrator. Partnerships between local communities and community partners are strongly encouraged, and DLG will work with the ADDs to facilitate those conversations. These partnerships will not only assist in reaching potential direct beneficiaries in the communities for housing and business projects, but they can also assist in the implementation of the housing and business development programs.

Each program section includes the following subsections, as applicable for the different types of programs:

- Program Budget and Amount for LMI and HUD MIDs
- Program Description
- Program Tieback to Disaster/Unmet Needs
- How the Program Will Promote Housing for Vulnerable Populations
- Program Affordability Period (if applicable)
- Program Definition of Second Home/Eligibility (if applicable)
- Program National Objective(s)
- Program Eligibility
- Program Responsible Entity
- Program Maximum Assistance
- Program Estimated Begin and End Dates
- Other Program Details

- Program Competitive Application Overview (if applicable)
- Program Method of Distribution Description/Overview
- How Mitigation Set-Aside Activities Will Meet the Definition of Mitigation
- How Mitigation Set-Aside Activities Will Address Current and Future Risks
- How the Program Will Advance Long-Term Resilience (Infrastructure and Planning)
- How the Program Will Address Disaster-Related Storm Water Management/Other Systems (Infrastructure and Planning)

Program Income.

4.7 Program Income

The Commonwealth understands that certain activities funded with CDBG-DR funds could result in the generation of program income. DLG shall develop and adopt specific policies and procedures for each program that generates program income and will specify in those policies whether program income may be retained by local governments, if applicable. Up to 5% of the program income generated by CDBG-DR funds may be used for administrative costs by DLG, Units of General Local Government, or other subrecipients.

During the grant period: Should program income be generated by DLG, Units of General Local Government, or other subrecipients, program grant funds are not allowed to be drawn until all program income has been expended. Program income will be treated as additional CDBG-DR funds subject to the requirements of the applicable Federal Register Notice and must be used in accordance with the disaster recovery Action Plan.

Once grant is closed: Should program income be generated by Units of General Local Government or other subrecipients, they will mail the program income payment to DLG with the contract and activity number in the memo line. The funds will be deposited by DLG and recorded as program income to be applied to the Commonwealth's annual CDBG program. Program income funds will be expended first for eligible annual CDBG claims. Any remaining balance in CDBG-DR activities resulting from the use of program income will be deobligated by DLG at activity closeout.

Unless otherwise specified, all program income shall be remitted to the Commonwealth. DLG shall treat program income as additional CDBG-DR funds subject to the requirements of the Consolidated Notice and shall use it in accordance with the Commonwealth's CDBG-DR Action Plan.

To the maximum extent feasible, program income shall be used or distributed before additional withdrawals from the U.S. Department of the Treasury are made.

Resale or Recapture.

4.8 Resale or Recapture

Resale or recapture requirements will vary by program and may not be applicable to all CDBG-DR programs. If applicable, the resale or recapture requirements are described within each of the program guidelines and will provide additional details on the terms of resale or recapture and the specific circumstances under which resale or recapture will be used. The resale and recapture provisions must clearly describe the terms of the resale and recapture provisions, the specific circumstances under which these provisions will be used, and how the provisions will be enforced (whether by recorded deed restrictions, covenants, or other similar mechanisms). The affordability restrictions, including the affordability period requirements, do not apply to housing units newly constructed or reconstructed for an owner-occupant to replace the owner-occupant's home that was damaged by the disaster.

b. Program Details.

5. Appendix

Certifications.

- The grantee 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 grantee certifies its compliance with restrictions on lobbying required by 24 CFR part 87, together with disclosure forms, if required by part 87.
- The grantee certifies that the action plan for disaster recovery is authorized under state and local law (as applicable) and that the grantee, and any entity or entities designated by the grantee, 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.
- d. The grantee certifies that activities to be undertaken with CDBG–DR funds are consistent with its action plan.
 - e. The grantee 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.
 - f. The grantee 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.
 - g. The grantee 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 a state grantee 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).
 - h. State grantee 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.
 - i. The grantee 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 grantee 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 grantee certifies to the Secretary that it lacks sufficient CDBG funds (in any form) to comply with the requirements of clause (a).
 - j. State 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.
 - k. The grantee certifies that it has adopted and is enforcing the following policies, and, in addition, state grantees must certify that they 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.
 - l. The grantee 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 grantee has reviewed the requirements applicable to the use of grant funds.
 - m. The grantee 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 grantee’s implementation plan and related submissions to HUD as provided in section III.A.2. of the Consolidated Notice.
 - n. The grantee 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.
 - o. The grantee 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.
 - p. The grantee certifies that it will comply with environmental requirements at 24 CFR part 58.
 - q. The grantee certifies that it will comply with the provisions of title I of the HCDA and with other applicable laws.

Warning: Any person who knowingly makes a false claim or statement to HUD may be subject to civil or criminal penalties under 18 U.S.C. 287, 1001, and 31 U.S.C. 3729.

b. Waivers (if applicable).

New housing construction waiver and alternative requirement. 42 U.S.C. 5305(a) and 24 CFR 570.207(b)(3) are waived to the extent necessary to permit new housing construction, subject to the following alternative requirement. When a CDBG-DR grantee carries out a new housing construction activity, 24 CFR 570.202 shall apply and shall be read to extend to new construction in addition to rehabilitation assistance. Private individuals and entities must remain compliant with federal accessibility requirements as well as with the applicable site selection requirements of 24 CFR 1.4(b)(3) and 8.4(b)(5).

Homeownership assistance waiver and alternative requirement. 42 U.S.C. 5305(a)(24) is waived and replaced with the following alternative requirement: “Provision of direct assistance to facilitate and expand homeownership among persons at or below 120 percent of area median income (except that such assistance shall not be considered a public service for purposes of 42 U.S.C. 5305(a)(8)) by using such assistance to—(A) subsidize interest rates and mortgage principal amounts for homebuyers with incomes at or below 120 percent of area median income; (B) finance the acquisition of housing by homebuyers with incomes at or below 120 percent of area median income that is occupied by the homebuyers; (C) acquire guarantees for mortgage financing obtained by homebuyers with incomes at or below 120 percent of area median income from private lenders, meaning that if a private lender selected by the homebuyer offers a guarantee of the mortgage financing, the grantee may purchase the guarantee to ensure repayment in case of default by the homebuyer. This subparagraph allows the purchase of mortgage insurance by the household but not the direct issuance of mortgage insurance by the grantee; (D) provide up to 100 percent of any down payment required from homebuyers with incomes at or below 120 percent of area median income; or (E) pay reasonable closing costs (normally associated with the purchase of a home) incurred

by homeowners with incomes at or below 120 percent of area median income." While home ownership assistance, as described above, may be provided to households with incomes at or below 120% of the area median income, HUD will only consider those funds used for households with incomes at or below 80% of the area median income to qualify as meeting the LMI person benefit national objective.

HUD is waiving the requirements at 24 CFR 570.483(b)(5) and (c)(3), which limit the circumstances under which the planning activity can meet an LMI or slum-and-bligh national objective. Instead, as an alternative requirement, 24 CFR 570.208(d)(4) applies to states when funding disaster recovery-assisted, planning-only grants, or when directly administering planning activities that guide disaster recovery. In addition, 42 U.S.C. 5305(a)(12) is waived to the extent necessary so the types of planning activities that states may fund or undertake are expanded to be consistent with those of CDBG entitlement grantees identified at 24 CFR 570.205.

Prioritizing economic revitalization assistance and alternative requirement. When funding activities outlined in 24 CFR 570.203 and 570.204 and sections 105(a)(14), (15), and (17) of the HCDA, HUD is instituting an alternative requirement in addition to the other requirements in these provisions to require grantees to prioritize assistance to disaster-impacted businesses that serve underserved communities and spur economic opportunity for underserved communities that were economically distressed before the disaster.

National objective documentation for activities that support economic revitalization. 24 CFR 570.208(a)(4)(i)&(ii), 24 CFR 570.483(b)(4)(i)&(ii), 24 CFR 570.506(b)(5)&(6), and 24 CFR 1003.208(d) are waived to allow the grantees under the Consolidated Notice to identify the LMI jobs benefit by documenting, for each person employed, the name of the business, type of job, and the annual wages or salary of the job. HUD will consider the person income-qualified if the annual wages or salary of the job is at or under the HUD-established income limit for a one-person family. This method replaces the standard CDBG requirement in which grantees must review the annual wages or salary of a job in comparison to the person's total household income and size (i.e., the number of persons). Thus, this method streamlines the documentation process by allowing the collection of wage data for each position created or retained from the assisted businesses, rather than from each individual household.

Waiver and modification of the job relocation clause to permit assistance to help a business return. CDBG requirements prevent program participants from providing assistance to a business to relocate from one labor market area to another if the relocation is likely to result in a significant loss of jobs in the labor market from which the business moved. This prohibition can be a critical barrier to reestablishing and rebuilding a displaced employment base after a major disaster. Therefore, 42 U.S.C. 5305(h), 24 CFR 570.210, 24 CFR 570.482(h), and 24 CFR 1003.209 are waived to allow a grantee to provide assistance to any business that was operating in the disaster-declared labor market area before the incident date of the applicable disaster and has since moved, in whole or in part, from the affected area to another state or to another labor market area within the same state to continue business.

Waiver of Section 414 of the Stafford Act. Section 414 of the Stafford Act (42 U.S.C. 5181) provides that, "Notwithstanding any other provision of law, no person otherwise eligible for any kind of replacement housing payment under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Pub. L. 91-646) [42 U.S.C. 4601 et seq.] ["URA"] shall be denied such eligibility as a result of his being unable, because of a major disaster as determined by the President, to meet the occupancy requirements set by [the URA]." Accordingly, homeowner occupants and tenants displaced from their homes as a result of the identified disasters and who would have otherwise been displaced as a direct result of any acquisition, rehabilitation, or demolition of real property for a federally funded program or project may become eligible for a replacement housing payment notwithstanding their inability to meet occupancy requirements prescribed in the URA. Section 414 of the Stafford Act and its implementing regulation at 49 CFR 24.403(d)(1) are waived to the extent that they would apply to real property acquisition, rehabilitation, or demolition of real property for a CDBG-DR-funded project commencing more than 1 year after the date of the latest applicable presidentially declared disaster undertaken by the grantees, or subrecipients, provided that the project was not planned, approved, or otherwise underway before the disaster. For purposes of this waiver, a CDBG-DR funded project shall be determined to have commenced on the earliest of: (1) the date of an approved Request for Release of Funds and certification; (2) the date of completion of the site-specific review when a program utilizes tiering; or (3) the date of sign-off by the approving official when a project converts to exempt under 24 CFR 58.34(a)(12). The waiver will simplify the administration of the disaster recovery process and reduce the administrative burden associated with the implementation of Stafford Act Section 414 requirements for projects commencing more than 1 year after the date of the presidentially declared disaster, considering most of such persons displaced by the disaster will have returned to their dwellings or found another place of permanent residence. This waiver does not apply with respect to persons who meet the occupancy requirements to receive a replacement housing payment under the URA nor does it apply to persons displaced or relocated temporarily by other HUD-funded programs or projects. Such persons' eligibility for relocation assistance and payments under the URA is not impacted by this waiver.

c. Summary and Response of Public Comments. The following provides a summary of public comments received for the *CDBG- Disaster Recovery Action Plan* in response to *2021 Severe Storms* during the public comment period of October, 20, 2022 through November 21, 2022. Kentucky received a total of 37 comments during the 30 calendar days.

Attachment of full public comment

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

1. **Public Comment:** Section 2 comment - On page 25, the rent listed for Clark County appears to be incorrect. I work with housing vouchers for the homeless and there are no units in Clark County that have had a rent of \$453 in the last three years. Average rents for a one bedroom are at least \$750.

DCA Response: Thank you for taking the time to review and comment on the Commonwealth of Kentucky Action Plan for Disaster Recovery. We appreciate your feedback regarding rental rates in Clark County. The data in the draft Action Plan, was determined by engaging with State and federal agencies, local governments, nonprofit organizations, community-based organizations to assess housing unmet needs. The assessment includes data collected immediately after the disaster from FEMA and the U.S. Census Bureau. Kentucky acknowledges that renter households are "disproportionately severely cost-burdened" and is committed to responding to the needs of impacted residents and communities, with a particular emphasis on vulnerable populations such as persons experiencing homelessness. As described in the draft Action Plan, new housing initiatives include options for rental properties that will address the unmet housing needs of low to moderate income populations with priority given to HUD and State-identified "most impacted and distressed" areas.

2. **Public Comment:** Section 1 comment - In Section 1.2.1, It states that these counties were eligible for different FEMA programs based on the impacts of the disaster. After application and denial, we were advised of no other FEMA programs and were referred to Kentucky Small Business Development Center (SBDC) alone.

DCA Response: Thank you for taking the time to review the Commonwealth of Kentucky Draft Action Plan for Disaster Recovery and to comment about your experience with the FEMA application process. Disaster recovery is a whole community effort. Federal, state, and local partners and non-governmental organizations are working together to support Kentucky, the disaster-impacted communities and the survivors. FEMA's priorities are to support lifesaving and life-sustaining actions. We encourage you to contact the FEMA Helpline at 1-800-621-3362 or visit a FEMA Disaster Recovery Centers (DRCs) to ask questions about your case or request a copy of your file to help you understand the decision you received. The hours, services, and locations of DRCs near you can be found by visiting <https://egateway.fema.gov/ESF6/DRCLocator>

3. **Public Comment:** Section 2 comment - I applied for assistance for a residence that was a vacation rental as well as a restaurant business. I was told that I was ineligible for any benefits because the vacation rental was not owner occupied and that there was no assistance to businesses other than a small business development Center loan. Since I was an applicant why was that not listed as a category in one of the charts?

DCA Response: The tables in Section 2 that reference homeowner assistance outline information related to FEMA Individual Assistance for owner-occupied housing units and tenant occupied housing units. Per Federal requirements, properties that served as second homes at the time of or following the disaster are not eligible for assistance and therefore were not include in Section 2 tables. A "second home" is defined as a home that was not the primary residence of the owner, a tenant, or any occupant at the time of the disaster or at the time of application for CDBG-DR assistance.

4. **Public Comment:** Section 3 comment - I was unaware of any survey that had been posted. In future, a letter or email to folks living directly on the Kentucky River regarding the survey would have been helpful.

DCA Response: Thank you for your suggestion regarding mailing surveys. As described in the draft Action Plan, the Commonwealth utilized several outreach approaches to share the survey with communities and citizens. The survey is still open, and we would value your input. Please visit this link: https://kydlgweb.ky.gov/Articles/16_articleView.cfm?NewsID=805 if you would like to respond. If you would like to stay up to date on future information from the Kentucky Department of Local Government on CDBG-DR funds and recovery programs, we encourage you to sign up for our emails by visiting this website: <https://app.smartsheet.com/b/form/8014f16a90aa49f3ba0afb424918460c>

5. **Public Comment:** Section 4 comment - Would recommend suggestions of possible other resources given to affected people who do not appear to qualify.

DCA Response: As a component of the draft Action Plan, the State has coordinated across federal, State, and local organizations to gather information about other resources available for recovering from the 2021 designated disasters. In addition to what is listed in the Action Plan, residents can check out the Disaster Relief Resources page here: <https://www.mcconnell.senate.gov/public//index.cfm?p=disaster-relief-resources>. In addition, residents can check out the Disaster Response page on the Governor's website (<https://governor.ky.gov/>) for both the tornado and flood events. The Commonwealth understands there is a need for assistance for residents that are not eligible for the current offered programs. If funds are available after addressing the critical unmet housing needs in HUD and State-identified MID areas, the state may re-evaluate programs to expand funding options.

6. **Public Comment:** The limit per applicant of \$500K may create an unintended obstacle. With \$17.9M for this activity, this limit necessitates 36 applicants to DLG proposing to do home rehab/reconstruction—and those applicants must be concentrated in just a few target areas. With limited developer and contractor capacity in WKY, it may make more sense to allow for a higher funding amount per applicant.

DCA Response: Thank you for your feedback. The per limit caps for the Owner-Occupied Rehabilitation and Reconstruction program will remain in place. If additional funds are necessary to complete more housing rehabilitation in the jurisdiction the CDBG-DR policy will create procedures that will be followed to allow for the limit to be raised or additional funding to be allocated to the contract.

7. **Public Comment:** The \$1 million per project limit and \$3M total limit on new construction reduces the ability of CDBG-DR to be leveraged with the 4% Low Income Housing Tax Credit (and Tax-Exempt Bonds). A single project would likely need up to \$10M in gap financing, including CDBG-DR, to create approx. 250 new units. Assuming a hypothetical project were to be awarded \$1 million of CDBG-DR, KHC does not have enough resources to make up the rest of the \$9 million gap on its own, making the proposed program incompatible for leveraging with Tax-Exempt Bonds.

DCA Response: As a result of your comment and others the \$3 million budget for the Multifamily New Construction has been raised to \$10 million. The \$1 million maximum award listed in the Action Plan is an estimate of how much CDBG-DR could be leveraged to get these projects launched based on the overall budget. DLG welcomes the opportunity to discuss further about unmet needs, available resources for gap financing, and how much CDBG-DR funding is appropriate for ensuring that these projects are successful.

8. **Public Comment:** The language at the top of page 191 appears to allow an uncapped number of units for developers who apply directly to DLG if they "partner with the Kentucky Housing Corporation." Is this language intended to allow a joint NOFA between DLG and KHC for CDBG-DR funds to combine with tax-exempt bonds? If so, it would be helpful to allow for flexibility between using such funds for either new construction or rental rehab, rather than just rental rehab, without any per-project cap. As noted above, a tax-exempt bond project would likely need at least \$10 million in CDBG-DR. Flexibility would allow combining both existing properties in need of rehab and new multifamily units in the same tax-exempt bond project, depending on market needs and the projects submitted. In the event there are no large-scale rental rehab/reconstruction projects that need a combination of tax-exempt bonds and CDBG-DR funds, flexibility would allow DLG and KHC to use the rental rehab funds for a new construction project.

DCA Response: DLG understands the need for flexibility and incorporated as much when drafting the Action Plan. Regarding new construction and rental rehab, HUD has specific CDBG-DR regulations that govern both new construction and rental rehabilitation activities.

9. **Public Comment:** My wife and I filled out the survey request and noted the loss of breast milk for our daughter during the tornado. I've reviewed the document online and there is no mention of monetary reimbursement for families who lost breast milk for their children. Should we expect that this will not be covered? If so, is there a justification from the state as to why this was not covered? Thank you for your time. Best, Kyle.

DCA Response: As you may know, CDBG-DR funds are appropriated by Congress to the Department of Housing and Urban Development (HUD) when there are significant unmet needs for long-term recovery, restoration of infrastructure, housing, and economic revitalization. To develop the Draft Action Plan, the Kentucky Department for Local Government (DLG) engaged State and federal agencies, local governments, nonprofit organizations, community-based organizations, and other ad hoc work groups focused on recovery. Based on the collected data and as required by Federal Guidelines, the primary focus addresses housing and infrastructure unmet needs and incorporates mitigation activities. As such, reimbursement for lost personal items is not eligible under the Draft Action Plan. The Commonwealth understands there is a need for assistance for residents that are not eligible for the currently offered programs. If funds are available after addressing the critical unmet housing needs in HUD and State-identified MID areas, the state may re-evaluate programs to expand funding options.

10. **Public Comment:** Thank you for the opportunity to express comment. We had minor tornado damage, my sister is a disabled high functioning adult, living independently as a high functioning autistic individual. Her area was hit hard, and she was without electricity for a long-extended time. She had to be housed in a motel. She has not fully recovered financially or mentally. My husband a disabled veteran, his health was a barrier to get home repairs done. We are still recovering financially and mentally and still have repairs needing done. Trees are a concern for us. We have large, healthy trees and saw the damage trees can cause. I wish there was grants for tree removal would be available. This would be preventative for many older homeowners. The cost of tree trimming, and removal is terribly expensive. Many of us are over income guidelines for assistance. Our community in Warren County is blessed with strong leaders and individuals that worked together. I cannot praise them enough. Thank you, Debbie Harwood. Retired CHFS DCBS P&P (Ky State Government).

DCA Response: Thank you for taking the time to review the Commonwealth of Kentucky Draft Action Plan for Disaster Recovery and to comment about your and your family's experiences. The Commonwealth of Kentucky aims to lead an equitable recovery from the storms of 2021, which will require an examination of systemic policies and practices that may marginalize some populations and perpetuate disparities. While reimbursement of pre-award costs is not allowed, if you have remaining housing recovery needs, Owner-Occupied Rehabilitation and Reconstruction program, which is intended to assist homeowners repair their homes, support rehabilitation of older and existing housing stock, and provide safe and decent housing opportunities for residents, may be an option for your needs. The Commonwealth understands there is a need for assistance for residents that are not eligible for the current offered programs, such as reimbursement for hotel stays. If funds are available after addressing the critical unmet housing needs in HUD and State-identified MID areas, the state may re-evaluate programs to expand funding options. Additionally, the U.S. Department of Health and Human Services Substance Abuse and Mental Health Services Administration (SAMHSA) activated its Disaster Distress Helpline. This free crisis support service is available 24/7 by telephone or text at 800-985-5990 for disaster survivors in Kentucky experiencing emotional distress.

11. **Public Comment:** My family was affected and continue to be affected by the Dec 11th tornado in Bowling green KY. We were forced to leave our tornado damaged 12-year rental home and are now in another rental home that is twice the price of our previous 12-year rental house. We've had to dive into our down payment savings for our first house we had planned to purchase, to be able to move into the current house. We continue to have to dive into these savings until they are non-existent. What can be done for people like us? Thanks for any information you can provide. - Andrea B Lawrence

DCA Response: Thank you for taking the time to review the Commonwealth of Kentucky Draft Action Plan for Disaster Recovery and to comment about your and your family's experiences. The Rental Rehabilitation/Reconstruction Program, as described in the Draft Action Plan, will help impacted residents, vulnerable populations, and members of underserved communities expedite their recovery by providing affordable rental units that must be rented to persons of verified Low to Moderate Income. Programs will open for applications in early 2023. Eligible activities will be further detailed in the program guidelines, which will be available on the Kentucky Disaster Recovery Program website: https://kydlgweb.ky.gov/FederalGrants/16_DRP.cfm Additionally, if you would like to stay up to date on future information from the Kentucky Department of Local Government on CDBG-DR funds and recovery programs, we encourage you to sign up for our emails by visiting this website: <https://app.smartsheet.com/b/form/8014f16a90aa49f3ba0afb424918460c>

12. **Public Comment:** I'm Pete Dalpith and I am working with the Breathitt County Long Term Recovery Group. I'm also the medical director of UK North folk Valley Clinic here in Hazard, and a lot of the flood relief efforts for the 2022 flood. I have a few comments. One, Breathitt County was the mid-county for this project, so, while this building is great and a wonderful public comment venue, this probably would've made more sense to have been done in Breathitt County since that's where most of us drove from. The second thing is, when we look at single family new construction, the 4 million is not a very big piece of the pie because especially here in Eastern Kentucky, which means we're probably seeing around 800,000 when it's all said and done, which is four new homes. I really think that the proportion of the money that was set aside for infrastructure and the proportion that was set for rehab of multifamily and rental housing, we don't have any multifamily and rental housing that needs rehabbing, because any that got damaged in the last flood got damaged again in the most recent flood. Do we really want to keep building back in, because basically the rental housing is trailer courts and they're all by the riverbank and they're going to flood again. If we keep investing more money and more resources into those same areas, we really need to get out of the flood plain, if we're going to build this area back in a way that's going to be more resilient, moving to the future. My official comment is that we need money for infrastructure. There's been recent infrastructure stuff passed to the state that sort of helped with some of that infrastructure that we need now. We still need some infrastructure, but the percentage compared to what the needs are of the people, they need housing, and they need homes. Any money that can be moved from infrastructure or from rehab of multifamily and rental housing to single family new construction. This would really benefit and help build wealth for these LMI people rather than build back in the same location that is bound to flood again.

DCA Response: Thank you for taking the time to attend the Public Hearing and comment on the Commonwealth of Kentucky Action Plan for Disaster Recovery and or sharing your suggestions. As outlined in the draft Action Plan, the primary focus of the program is to provide assistance to eligible applicants under a variety of housing option activities, including rehabilitation, reconstruction, new construction, demolition, elevation, hazard mitigation, down payment assistance, and storm hardening of homeowner and rental housing units, as allowable. The Commonwealth acknowledges that there is a need for more single-family housing and is committed to responding to the needs of impacted residents and communities, with a particular emphasis on vulnerable populations. HUD has issued new funding that will be pivotal to providing more assistance to communities. With the new funding, DLG will consider adding funds to the single-family new construction program. Disaster recovery is a whole community effort. Federal, state and local partners and non-governmental organizations are working together to support Kentucky, the disaster-impacted communities and the survivors.

13. **Public Comment:** I'm Scott McReynolds with the Housing Development Alliance. I would echo a frustration that you chose to have the meeting not in the MID, and at five o'clock when folks who work have a difficulty to get here. I will acknowledge that you had disasters in two very different communities with different topographies. This plan to me reads a lot like a Western Kentucky tornado disaster relief plan with a flood kind of shoehorn in. I would urge you to shift as much as you possibly can since Breathitt County is one of those mid-counties. A couple of things show up. This is a flood we cannot rebuild in the same place we did. We're going to have to have more new construction dollars for home ownership. The rental housing that was impacted was primarily trailer parks in quicksand and some other places, and they've been flooded twice. Not necessarily where we want to

rehab. We do desperately need rental. It needs to be rebuilt though, we need more new construction dollars for Breathitt County and less rental. I mean less of the rehab, and I do understand the reconstruction fits under the rehab, but we don't want to rebuild in the same place, so we need more in the new construction. I think even the breakdown between rental and new con and uh, single family again reflects more that Western Kentucky reality. We're a 70% home ownership, so if we're going to serve this area, we need more dollars in the single-family side than the multifamily. I appreciate the opportunity as a non-profit to apply directly in a competitive process for the home ownership new construction. I am concerned that Breathitt County folks are going to be disadvantaged. Some of your things, we're going to have more expense because we have to relocate sites. We're a smaller poor county, so it's going to be harder for us to match and leverage so I would encourage you to consider us in that competitive process, doing a set aside with the pool. Breathitt County, we should set aside x number of dollars for residents in Breathitt County to compete for, then if after a year or two that money isn't moving, open it up and redirect it to Western Kentucky. Otherwise, I fear that most of the new construction home ownership money will go to where it's easy to spend. Their incomes are significantly higher than ours, almost double. In some cases, it's going to be easier to move the money out there. I'm also still confused about the \$500,000 limit unless somebody can apply a couple of times for the money because with the money, the amount you have, you would need something around 34 applicants. I'm not sure, in order to spend 17 million, if you capped at 500,000, you need 30. I don't know where those are coming from, there's probably two or three in Breathitt County. If you could apply multiple times, that may be okay, but short of that, I think you've got an issue.

DCA Response: Thank you for taking the time to attend the Public Hearing and comment on the Commonwealth of Kentucky Action Plan for Disaster Recovery. We appreciate your concerns regarding the time and location of this hearing. DLG followed the Federal Register's approach for CDBG-DR public hearings so that all public hearings were held at a time and accessible location convenient to potential and actual beneficiaries. The public was also able to attend virtually, and recordings of each hearing are available to the public. With regard to housing, the Single-Family New Housing Construction program will provide resilient and affordable housing to impacted Kentucky residents by funding developer-constructed new housing units. Additionally, funding for infrastructure projects that will help impacted communities recover from the 2021 storm events and become more resilient to current and future natural hazards. Programs will open for applications in early 2023. Eligible activities will be further detailed in the program guidelines, which will be available on the Kentucky Disaster Recovery Program website: https://kydlgweb.ky.gov/FederalGrants/16_DRP.cfm

14. **Public Comment:** My name is Virginia Meagher I'm just here as a citizen and I would say what we need in Breathitt County is more multi-family housing units, like apartment units together in one building. I'm just saying that we need more new construction. I know a lot of times people that have lived out in the country, and they've had their house and land and they're very attached to land and they don't want to live in an apartment. I think it's much more economical for us to be building apartment buildings than single houses with land around it.

DCA Response: Thank you for taking the time to attend the Public Hearing and comment on the Commonwealth of Kentucky Action Plan for Disaster Recovery. As described in the draft Action Plan, new housing initiatives include options for rental properties that will address the unmet housing needs of low to moderate income populations with priority given to HUD and State-identified "most impacted and distressed" areas. The Multifamily New Construction program will offer funding subsidies for the construction of multifamily structures (five or more units) on vacant lots within existing neighborhoods. The program will offer incentives to encourage builders and developers to build new rental units in the disaster-impacted areas. The new units will incorporate green and resilient building practices to mitigate future risks of hazards. Programs will open for applications in early 2023. Eligible activities will be further detailed in the program guidelines, which will be available on the Kentucky Disaster Recovery Program website: https://kydlgweb.ky.gov/FederalGrants/16_DRP.cfm

15. **Public Comment:** I'm Jeff Marble, Breathitt County Judge Executive. My biggest worry is we're going to have to come up with some places to build and fast. I didn't see where there was a penny talked about being able to purchase some trip job and reclaim property that's suitable for housing, but then, you're going to have to have a lot of infrastructure to run water and sewer to these places. I know it's 14 million, but when you start dealing with purchasing property and building infrastructure. That's not going to go far at all, we have a completely different circumstance versus what they got in Western Kentucky. We have the same damage they have with wind, but the water is just devastated. We got a tornado made with water and it's double the problem. Our income area is lower, and I think a lot of this money may end up getting shifted out Western. If we could do a pool of money and cities aside, it wasn't used, which I think that's a big plus for us too.

DCA Response: Thank you for taking the time to attend the Public Hearing and comment on the Commonwealth of Kentucky Action Plan for Disaster Recovery. Currently, there is no provision in the draft Action Plan for the Commonwealth to purchase property. However, the Commonwealth understands there is a need for assistance for residents that are not eligible for the currently offered programs. If funds are available after addressing the critical unmet housing needs in HUD and State-identified MID areas, the Commonwealth may re-evaluate programs to expand funding options. As for the distribution of funding between Western and Eastern Kentucky, DLG will evaluate the needs and ensure that funding is allocated fairly to the regions as per the application process.

16. **Public Comment:** Hi, this is Michelle StanNet. I'm the Resilience and recovery Fellow's program Director for SBP. Echoing off those who have already spoke. While it's not an issue in western Kentucky, it likely is going to be a giant issue in eastern Kentucky for homeowners being able to afford flood insurance after they have received assistance. Has DLG considered it as an eligible activity providing up to a year's worth of flood insurance premiums for those low to moderate income homeowners that they end up being beneficiaries of this funding? Also, a FEMA employee told me that compared to Western Kentucky, the flood victims in eastern Kentucky were much less likely to have any insurance to cover these damages whatsoever. Therefore, FEMAs having to put a lot more money out and you said the private insurance would be the basic building block on top of that, FEMA and then this program. A lot of times there is no insurance involved, so we may need more money for that reason.

DCA Response: Thank you for taking the time to attend the Public Hearing and comment on the Commonwealth of Kentucky Action Plan for Disaster Recovery. As mentioned, Kentucky has not, at this time, included an insurance benefit. However, the 4.10.4 Rental Rehabilitation/Reconstruction program includes housing counseling support to navigate insurance requirements, State programs, application submittal, and any technology gaps. Finally, the Commonwealth understands there is a need for assistance for residents that are not eligible for the currently offered programs. If funds are available after addressing the critical unmet housing needs in HUD and State-identified MID areas, the state may re-evaluate programs to expand funding options.

17. **Public Comment:** I'm Mayor Laura Thomas from Jackson, Kentucky. I had a question about the 80% that had to be spent in the four counties with the most damages. Will that money be split equally in those four counties or for ones that is it not the plan at this time. I think money's going to flow easier to Western Kentucky because they have insurance to begin with 4% of our population that had insurance. We're starting off behind, we have to relocate people out of the flood plain. There's lots of things that are going to slow the flow of money to East Kentucky. If we don't have a mechanism, I understand you have to spend it in six years, so I'm not asking to set aside for five and a half years, but if it's all first come first served, my fear is we won't get our share. It's going to be more challenging to spend the money here. Some sort of set aside that allows East Kentucky to kind of

catch up and to get a chunk of the money would be great. How I see this, they've got injured, no doubt and better jobs, but a million dollar to go farther in Western Kentucky. The way I see it than probably 3 million here in eastern Kentucky. Not having insurance, if you're going to split it fairly, it was said if 40,000 was to build that home back, there's probably going to be a hundred to build that same home here in eastern Kentucky because of no insurance. It has not been very suitable to me at all so far.

DCA Response: Thank you for taking the time to attend the Public Hearing and comment on the Commonwealth of Kentucky Action Plan for Disaster Recovery. To adequately distribute CDBG-DR funding, the Commonwealth will manage a competitive process for municipalities to submit applications for funding. The Commonwealth will allocate 80% to the HUD-designated MID areas and the remaining 20% to the Commonwealth's identified MID counties. Currently, the Commonwealth anticipates putting 80% of funding in Graves County, Hopkins County, Breathitt County (41339), and Warren County (42101), and the remaining 20% will be focused on supporting recovery efforts in the counties the DLG identified and outlined in this document. The Federal Register Notice also requires that at least 70% of all program funds benefit LMI persons or households. Based on data and the current priorities to encourage LMI persons to participate in the program, the Commonwealth anticipates meeting the LMI requirement. In addition, the Commonwealth also will be assessing the status of eligible unmet needs of LMI persons and non-LMI persons and determining, at an appropriate stage, whether to request a modification of the requirement. Finally, there will be an open application window with deadlines and a competitive review process. DLG will receive the applications and make funding decisions based on the competitiveness and completeness of the application, justification for funding, and feasibility of the program. DLG will encourage applicants to consider leveraging other funds or look for financing options to fully fund the projects.

18. **Public Comment:** I'm Adrian Bush, the Executive Director of the Homeless and Housing Coalition of Kentucky. I have two questions; can you confirm how nonprofits will be able to apply for CDBG-DR housing dollars? I want to compliment you for the program guidelines. I think that's important because of the many counties and smaller cities. Typically, the housing isn't in their framework or their capacity. I think it is really important in areas where we have high-capacity housing developers who are nonprofits, but they have that option to apply directly. Secondly, I have not gone through the 200 plus pages so I plan to do that before submitting a written comment, but can you talk about how this plan addresses the specific needs of people experiencing homelessness? One of the ways CDBG-DR differs from traditional FEMA assistance is that it can support activities to address the needs of people experiencing homelessness, as you all have said, we want to better the build back process. I think it is important to recognize the impact that these disasters have on extremely vulnerable individuals and try to make sure that there's housing and that they do get access to housing, we were just not maintaining the status quo.

DCA Response: Thank you for taking the time to attend the Public Hearing and comment on the Commonwealth of Kentucky Action Plan for Disaster Recovery and for your work with the Homeless Coalition. The Commonwealth acknowledges that renter households are "disproportionately severely cost-burdened" and is committed to responding to the needs of impacted residents and communities, with a particular emphasis on vulnerable populations such as persons experiencing homelessness. As described in the draft Action Plan, new housing initiatives include options for rental properties that will address the unmet housing needs of low to moderate income populations with priority given to HUD and State-identified "most impacted and distressed" areas. As described in the draft Action Plan, the Single-Family New Housing Construction includes the option for approved nonprofit entities to apply. Additionally, the State plans to coordinate with local nonprofit organizations that provide services to people with disabilities and historically underserved populations to ensure the promotion of the program and help remove barriers to assistance. Disaster recovery is a whole community effort. Federal, state and local partners and non-governmental organizations are working together to support Kentucky, the disaster-impacted communities and the survivors.

19. **Public Comment:** My comment is we need housing, and we need housing, and we need housing. Including the infrastructure to support the housing. Thank you.

DCA Response: Thank you for taking the time to attend the Public Hearing and comment on the Commonwealth of Kentucky Action Plan for Disaster Recovery. As outlined in the draft Action Plan, the Single-Family New Housing Construction program will provide resilient and affordable housing to impacted Kentucky residents by funding developer-constructed new housing units. New housing is on the way!

20. **Public Comment:** I have one very quick question. After reading the program description of the owner occupied rebuild in the action plan, it says that it can fund additional costs for some things such as replacing onsite residential infrastructure. I just wanted to clarify if that would make private access bridges technically eligible under that program? Is this correct?

DCA Response: Thank you for your question regarding the Owner-Occupied Rehabilitation and Reconstruction program. While the Commonwealth Of Kentucky Draft Action Plan For Disaster Recovery does include costs to comply with federal, State, and local construction standards, such as replacing onsite residential infrastructure, the final eligible activities will be further detailed on the program guidelines, which will be available in early 2023 on the Kentucky Disaster Recovery Program website: https://kydlgweb.ky.gov/FederalGrants/16_DRP.cfm Once homeowners apply, properties and structures will be individually considered. Please note that programs will open for applications in early 2023.

21. **Public Comment:** What's the owner amount for the 14's? Will there be a cap or is it not specific? What about if it's a property that's been flooded and they want to move higher on the hillside? Would that fall under a single-family new construction, or does it depend?

DCA Response: The Owner-Occupied Rehabilitation and Reconstruction program will fund rehabilitation and reconstruction including additional costs to comply with federal, State, and local construction standards, such as replacing onsite residential infrastructure. Eligible costs also include elevation, flood- and wind-resistant structures, and other program-required mitigation costs that will help protect homes from natural hazards. We encourage you to apply when programs open for applications in early 2023. Eligible activities, which may include construction on an elevated property area, will be further detailed in the program guidelines, which will be available on the Kentucky Disaster Recovery Program website: https://kydlgweb.ky.gov/FederalGrants/16_DRP.cfm

22. **Public Comment:** Do you only expect five to ten rehabs per local government if it's a \$100,000 per property, or are you expecting much lower awards than that? In terms of the number of applicants and the number of actual beneficiaries. Breathitt County applies and they have twenty people that need to do rehabs and all of them were total losses, but they can only do up to \$500,000 for that county.

DCA Response: Thank you for taking the time to attend the Public Hearing and comment on the Commonwealth of Kentucky Action Plan for Disaster Recovery. Currently, the Commonwealth anticipates putting 80% of funding in Graves County, Hopkins County, Breathitt County (41339), and Warren County (42101), and the remaining 20% will be focused on supporting recovery efforts in the counties the DLG identified and outlined in this document. DLG expects applicants from different areas to request funding for their program. The maximum award was set in order to provide an opportunity to access the funding for recovery needs. If needed, DLG will consider raising the maximum award to provide more funding to each applicant.

23. **Public Comment:** Has DLG created any policy that counts as damage? What is going to be used for documenting that damage and how are you going to tell between 2021, 2022, and where? Could you talk us through that? This one, \$75,000 per unit. Is there going to be a unit maximum? If one landlord's a beneficiary, has 35 units, is that okay? Is there something that precludes from being a beneficiary? For people that are maybe looking up to higher land; what about grading, clearing, and getting water to that side? Does that fall under housing infrastructure? How does that piece work?

DCA Response: As described in the draft Kentucky Action Plan for Disaster Recovery, program guidelines will be developed to document how DLG will work with applicants to ensure sufficient documentation of ownership and damage. Eligible activities, including storm tieback, will be further detailed in the program guidelines, which will be available on the Kentucky Disaster Recovery Program website https://kydlgweb.ky.gov/FederalGrants/16_DRP.cfm

24. **Public Comment:** My name is Jill Solea and I'm representing Mayfield Rebuilds. We're the community-based planning group here in Mayfield. We've been working for months now to come up with a way to come out of this disaster and hopefully you guys are going to be a big part of that. I thank you very much for your information. You've mentioned a lot of things that we did have some concerns about. I just want to say a couple of things to clarify so that we all understand exactly how the housing money is going to work. I just want to state that in Mayfield, we have over 400 homes that were pretty much completely destroyed. There were some that were just damaged, but for the most part, we are dealing with homes that don't exist any longer. We did have some concerns about understanding fully about which ones will qualify for the rehab. If you don't mind, can you address that particular need for our community. Referring to doing the rehab on the existing lot. Would you also explain one more time, as we discussed about landlords that probably don't want to rebuild and don't want to be in that business any longer? What are some of our options there?

DCA Response: Thank you for taking the time to attend the Public Hearing and comment on the Commonwealth of Kentucky Action Plan for Disaster Recovery and for the work you do representing Mayfield Rebuilds. By developing a variety of housing programs, the correct strategy can be utilized in the appropriate part of the state. Also, within the owner-occupied housing rehabilitation program there will be different housing solutions that can be chosen based on damage and the cost to rehabilitate. If a structure is deemed too expensive or uninhabitable, a new structure can be reconstructed on the site. If the lot is not suitable, the lot can be acquired, and the owner compensated to enable them to move to a safer area. Concurrently, DLG will be offering a new housing construction program. The program will be set up to favor displaced households from the disasters. There will be a variety of incentives to keep the home affordable including loan buy down as well as down-payment and closing costs assistance. The incentives might also encourage renters to become first time home buyers. Every attempt will be made to keep households in the area that they were displaced from. The rental rehabilitation program will feature similar construction solutions to the owner-occupied housing program, but also requires affordable rents to be charged. Single family rental homes are also eligible to receive rehabilitation/reconstruction funding. Current renters that are displaced during rehabilitation or reconstruction will be assisted. It is anticipated that manufactured housing will be an allowable investment. After consideration, the new combined total for new housing investment has doubled to \$14 million with the majority of the funding in New Multifamily construction. We will encourage participation and rebuilding and work to do all possible to within federal guidelines to help communities like Mayfield recover.

25. **Public Comment:** I'm John Russell, a FEMA employee, and I've worked closely with Jill and Mayfield Rebuild. One of the things the city is pursuing is rebuilding a new downtown, but not exactly in the same location of the old historic downtown. The area they are moving into had more single-family homes. They want to convert that to mixed use, including ground floor, commercial and perhaps upstairs housing. That would not be reconstruction the way I understand, so I think that concern will still be present for Mayfield needing new construction funding rather than reconstruction everywhere. In some cases, certainly reconstruction will be great, but in other cases, they're shifting their land use plan and still have a significant shortage of housing.

DCA Response: Thank you for taking the time to attend the Public Hearing and comment on the Commonwealth of Kentucky Action Plan for Disaster Recovery and for the work you do with FEMA and Mayfield Rebuilds. As described in the draft Action Plan, the Single-Family New Housing Construction program will provide affordable housing to impacted Kentucky residents by funding developer-constructed new housing units. The program will offer developer incentives to construct new single-family houses on vacant lots within existing neighborhoods or the development of new neighborhoods for residential purposes. The Commonwealth believes this program will help address the needs of communities like Mayfield as we work together to rebuild and recovery. With the additional money coming from HUD, DLG will look to increase the level of assistance for new construction and address the shortage of housing.

26. **Public Comment:** I had a few questions. Thanks for answering the one about the single-family ownership. Let me introduce myself, I am Ryan Drain. I'm the executive director of the Mayfield/Graves Long Term Recovery Group and in Mayfield Rebuilds as well. I have a couple of questions on the multifamily rental housing with the rental rehabilitation and reconstruction. Does that require the same ownership, or could it be different ownership? If they were rebuilding rental housing on a parcel where rental house low to modern income or rental housing had previously existed, it does not have to be the same ownership. For the public infrastructure and the stormwater management; I know that this was highlighted in a couple of sections, and I know there's a lot of funding sources for infrastructure that's out there. Will this be the last portion of money coming in, as well for infrastructure projects? Would the legislative approved state funds have to be utilized first prior to coming to this fund to utilize for infrastructure? Is the state money in the form of a loan? I have one last question on the resiliency planning. I'd like to ask that DLG also include potential funding for municipalities to conduct studies on housing resilience as well.

DCA Response: Thank you for taking the time to attend the Public Hearing and comment on the Commonwealth of Kentucky Action Plan for Disaster Recovery and for the work you do with FEMA and Mayfield Rebuilds. Regarding the Rental Rehabilitation/Reconstruction program, current property owners of rental units are eligible to apply to the local jurisdiction for funding. They must be in good standing with the Commonwealth. The property owners may be individuals, for-profit entities, or nonprofit entities and does not have to be the same ownership. Additional eligibility requirements will be described in the program guidelines. In terms of additional funding for infrastructure projects, if funds are available after addressing the critical unmet housing needs in HUD and State-identified MID areas, the state may re-evaluate programs to expand funding options. Finally, thank you for the suggestion regarding housing resilience. The proposed programs are designed to promote sound, sustainable long-term recovery and projects that account for the unique hazards, opportunities, land use restrictions, underserved communities, and disaster impacts within Kentucky's impacted communities. DLG looks forward to working with communities as we recover together.

27. **Public Comment:** My name is Kathy Onan, I'm the Mayor of Mayfield. I know that the city will be partnering with long-term recovery and in all of these projects. Is there any place in these pots of money for the rebuilding of our police and fire facilities? Protest for the support of supporting the fire facilities, thank you.

DCA Response: As outlined in the draft Action Plan, the infrastructure program provides funding for impacted communities to recover from the 2021 storm events and become more resilient to current and future natural hazards. Examples like the rebuilding of the police facility cannot be funded as they are considered a general use of government which isn't eligible under CDBG. With the additional funding coming from HUD, DLG may consider expanding the program to fund other eligible infrastructure projects through this program. We encourage your city to apply when programs open for applications in early 2023. Eligible activities, will be further detailed in the program guidelines, which will be available on the Kentucky Disaster Recovery Program website: https://kydlgweb.ky.gov/FederalGrants/16_DRP.cfm

28. **Public Comment:** If the city is a developer approved by the city of Mayfield, acquired multiple former single-family lots, and proposes to build a large multi-family project. Would this hypothetical example be considered reconstruction?

DCA Response: Thank you for taking the time to attend the Public Hearing and comment on the Commonwealth of Kentucky Action Plan for Disaster Recovery. As outlined in the draft Action Plan, the Multifamily New Construction program will offer funding subsidies for the construction of multifamily structures (five or more units) on vacant lots within existing neighborhoods. There is also a single-family new construction program. To apply, developers will need to follow all current zoning laws within communities. If the existing lots are zoned for single family development, you would need to speak with the city.

29. **Public Comment:** 1) In the Executive Summary - 1.2 - The Disaster was declared on April 23, 2021, (DR-4595). 2) In section 1.2.2, The Disaster was declared on December 12, 2021, *DR-4630. 3) On Page 10, Agency should be listed as Kentucky Division of Emergency Management (Not sure who was consulted at KYEM – August 11, 2022??). 4) On Page 87, the Amount cited of \$174 Million does not seem accurate. 5) On Page 129 – Wildfires - Failed to take note of two (2) Kentucky Fire Management declarations made in November 2016: FM-5158: Eagles Nest Fire declared November 8, 2016. FM-5166: Southeastern Kentucky Fire Complex. 6) On Page 153 - 3.10.6 - I'm curious as to what methods DLG is using to inform local officials and the public regarding Mitigation. KYEM would love to participate. 7) In section 4.2.2, the Mitigation data seems off.

DCA Response: Thank you for taking the time to review and comment on the Commonwealth of Kentucky Action Plan for Disaster Recovery draft. We have revised the document with the latest data and updated details. The Kentucky Department of Local Government (DLG) uses several methods to share Disaster Recovery information and inform the public and officials of events and timelines. If you would like to stay up to date on future information from DLG regarding CDBG-DR funds and recovery programs, we encourage you to sign up for our emails by visiting this website: <https://app.smartsheet.com/b/form/8014f16a90aa49f3ba0afb424918460c> Additionally, please note that the programs will open for applications in early 2023. Eligible activities will be further detailed in the program guidelines, which will be available on the Kentucky Disaster Recovery Program website: https://kydlgweb.ky.gov/FederalGrants/16_DRP.cfm

30. **Public Comment:** Due to having homeowners' insurance, I was denied any funds from FEMA, and also denied an SBA loan. My house just got torn down 3 weeks ago and am waiting on approval from the city to begin my rebuild. Even with insurance money, I am going to be out-of-pocket between \$50,000 and \$80,000. I am a single 62-year-old female with a full-time job. My biweekly take home pay is \$1265.

DCA Response: Thank you for taking the time to review the Commonwealth of Kentucky Draft Action Plan for Disaster Recovery and to share some of the details of your home reconstruction experiences. As described in the Draft Action plan, the Owner-Occupied Rehabilitation and Reconstruction program, which is intended to assist homeowners as they repair, rehabilitate, or reconstruction their homes, may provide assistance for your situation. The program intends to provide assistance in the form of grants up to \$50,000 and forgivable loans if costs run over \$50,000 for each home rehabilitated or reconstructed. The program beneficiaries will be eligible homeowners who experienced damage to their homes from the 2021 storm events and have remaining recovery needs after accounting for other benefits received. We encourage you to apply when programs open for applications in early 2023. Eligible activities, will be further detailed in the program guidelines, which will be available on the Kentucky Disaster Recovery Program website: https://kydlgweb.ky.gov/FederalGrants/16_DRP.cfm Finally, the Commonwealth understands there is a need for assistance for residents that are not eligible for the current offered programs. If funds are available after addressing the critical unmet housing needs in HUD and State-identified MID areas, the state may re-evaluate programs to expand funding options.

31. **Public Comment:** This Action Plan addresses the needs of several most impacted and distressed counties and specific zip codes across the geographical expanse of the state in accordance with the HUD notice in the Federal Register. Since the inception of the latest HUD notice in the Federal Register, Eastern Kentucky has experienced traumatic flooding centered on Breathitt, Perry, Knott, and Letcher Counties. HUD has the option of either providing a new CDBG-DR grant for the eastern Kentucky flood disasters or simply adding grant funding to this specific disaster and forcing DLG into a series of substantial amendments to this Action Plan which would most certainly include a new unmet needs assessment. Given this potential circumstance, this Action Plan is precedent-setting. Overall, the Kentucky Department of Local Government has produced an Action Plan that meets the HUD criteria for the grant approval and subsequent disbursement of funds. The Action Plan is very light on details regarding 'how' the program will be administered. This is especially relevant given the capability and capacity of several most impacted and distressed counties named in the Action Plan. The current Action Plan is weak on 'how' low-capacity counties will recover as well as the overall recovery process. SBP strongly recommends and encourages DLG to clearly define the process of recovery with specific emphasis on assisting low-capacity counties. While the assessment of the unmet needs is detailed and thorough, it indicates dedicating a substantial amount of these funds to rental rehabilitation, reconstruction, and new construction. While permissible, this action may have the unintended consequence of rewarding landlords for poor business practices and lack of insurance for disaster damage. The Action Plan does not place limits or restrictions on landlords other than the DLG scoring criteria. In theory, landlords could greatly profit from this Action Plan. SBP recommends that DLG implement a unit maximum in addition to the maximum dollar amount per unit. As with the rest of the Action Plan, as well as the comments made publicly by DLG during the public hearing held on November 1, 2022, at the KRADD office in Hazard, KY, Section 1 makes clear that DLG never had the intention to provide relief to Eastern KY for the late February through early March severe storms and flooding. DR-4595 affected 50 counties, while DR-4630 only affected 23 counties. Section 1.4 Unmet Needs and Proposed Allocation states "Based on the unmet needs assessment presented in this document, the Commonwealth has calculated total unmet needs of \$202,335,054 attributable to the 2021 December tornadoes." It is unclear if DLG identified that the unmet need for DR-4630 was \$202 Million, or if DLG identified an aggregate unmet need for both DR-4595 and DR-4630 of \$202 Million. SBP would like DLG to clarify if the \$202 Million was an aggregate number, or if not, why the department seemingly left most of the state out of the analysis. As noted by several individuals at the public hearing, the counties in Eastern KY have much less capacity than those in Western KY. Section 1 does not calculate unmet needs separately for the two disasters, and as such, DLG will not have the ability to spend these disaster funds equitably across the commonwealth. SBP would encourage DLG to utilize a set-aside methodology to provide Breathitt County, one of the HUD-identified MID counties, with a set portion of the

allocated funds. This set-aside should be based on the proportion of unmet needs identified in Breathitt County compared to Graves, Hopkins, and Warren counties. (Cont. from Section 1) Section 1.4 Unmet Needs and Proposed Allocation also does not include the CDBG-DR mitigation set-aside amount FR-6326-N-01 of \$9,777,000, the planning cap, or the public service cap in the expenditure requirements portion of Section 1.4. Instead, this section only includes the Overall Benefit requirement of 70% to benefit LMI, the administration cap of 5%, and the requirement to spend 80% in the MID. SBP would encourage DLG to include the remainder of the expenditure requirements in this section. Finally, immediately preceding Table 2. Unmet Need and Program Allocation, the plan states "DLG is allocating funds to programs to align with the need. The discrepancies between the need and the funding are the result of the increased need for affordable housing." While this would normally be considered a reasonable justification, the discrepancy in the table shows a larger proportion of the funding being allocated to Infrastructure when compared to the unmet need. SBP would encourage DLG to further clarify this statement to ensure that the public has a clear view of the reasoning behind the disproportionate allocation of funding. Section 2: 2.2 Housing Unmet Need. 2.2.1 Disaster Damage and Impacts - "Statewide, there was only a 0.82% increase in total housing units in the Commonwealth from 2010 to 2020." It is also important to note that during that same time period, the population of Kentucky increased by ~2.97%. The description of the cost burden table once again only references the tornadoes in Western Kentucky. This systematic erasure of DR-4595 in this plan is cause for concern, especially since DR-4595 was more widespread. DLG must take steps to correct this error. "The table below shows the median home value, median gross rent, and building permits issued in the various impacted counties. While the median home values in impacted counties are significantly lower than the average U.S. home value (\$229,800), the average income for those living in counties impacted by the 2021 tornado disaster is significantly lower than the rest of the nation." Table 4. Evidence of Cost Burden by County - This table shows that the median home value in Graves, Hopkins, and Warren counties is more than double that of Breathitt County, but the Median Gross Rent is still 75% of the average for the impacted counties. Table 30. Statewide LMI is confusing, as it shows Breathitt, Graves, Hopkins, and Warren as the only counties identified as "HUD and Grantee MID's." Under "Other Impacted Counties," Knott County only has data in the MID columns instead of the non-MID columns. DLG should correct discrepancies in this table for clarity. 2.3 Infrastructure Unmet Need. 2.3.1.1 Impact on Flood Resiliency and Mitigation - "There is an opportunity to use the CDBG-DR funding to consider strategic flood management solutions." This statement is correct, but there is no evidence in the plan to suggest that DLG intends to utilize CDBG-DR funding for strategic flood management. 2.5 Mitigation-Only Activities, "The Mitigation Needs Assessment was undertaken to inform the use of the Commonwealth's 15% Community Development Block Grant-Mitigation (CDBG-MIT) set-aside and to help build resilience and mitigation measures into recovery programs and projects." This is not an accurate statement. The Commonwealth received a CDBG-DR Mitigation set aside allocation of \$9.777 Million, which is ~13% of the total \$74.953 allocation. For accuracy, DLG should correct this statement to include the exact dollar amount (which was 15% of the \$65.176 allocation for unmet needs, rounded up to the nearest thousand), and to use the correct terminology (CDBG-DR mitigation set aside, not CDBG-MIT allocation). The common theme appears to be an application-based system with a combination of local governments and 'known' developers who will bid out each home in the process. SBP strongly recommends local procurements and subsequently assigning homes to builders rather than conducting the individual bidding process for each home. Applicant-based systems require tremendous outreach and intake to achieve targeted goals. While DLG acknowledges this in their scoring criteria, the concern is the outreach and intake required to find eligible applicants. DLG places this requirement on the unit of local government without resources. While Kentucky has successfully used the sub-recipient model in the past with other federal funding sources, our concern is the capability and capacity of the HUD-designated Most-Impacted and Distressed Counties in executing this plan. The risk of deeming applicants eligible for service is on the county-level applicants. Should a Duplication of Benefits issue arise, the counties would be responsible. SBP recommends DLG address this specific issue. DLG has determined that it will establish a grading criterion to determine which projects it will and will not fund. While this is an acceptable methodology, it also places DLG in the unenviable position of picking winners and losers with government funding. This places a considerable administrative burden on DLG which it must assess and determine if it has the capacity and capability to meet its internal expectations. SBP strongly recommends that DLG develop an Implementation Plan with specific duties and responsibilities within its own organization to ensure it can meet the demand it is placing on itself. DLG does not adequately address the requirement for a state-wide Information Technology System of Record. Given the amount of federal funding involved and the plethora of federal cross-cutting requirements, it will be difficult for many MID Designated counties to conduct disaster recovery operations transparently without such a system. This is especially true in low-capacity counties with high or extremely high Social Vulnerability. The Action Plan lacks specificity with the roles played by the Area Development Districts and other key enablers (Kentucky Housing Corporation) other than to say they have a role, but that role is not clearly defined. The Action Plan does not have specific criteria for a 'developer'. The Action Plan does not provide enough detail on how counties may incorporate the 15% resiliency funding into the housing programs other than the standard green energy checklist. SBP recommends DLG provide specifics on the roles and functions of these critical partners as well as clearly define how they are going to execute the mitigation requirement. 4.6 Distribution of Funds states that DLG intends to award most CDBG-DR funding to UGLs (municipal or county governments) based on a competitive application process. This process puts the low-capacity municipalities and counties at a greater disadvantage. Instead, DLG should prioritize funding to benefit the most vulnerable citizens. DLG has already completed an unmet needs assessment which accurately identifies where the most vulnerable Kentuckians are, and DLG has an obligation to assist those who are least likely to be able to recover themselves. This section also states that "DLG will mandate that each entity hire a DLG certified grant administrator." If DLG is going to impose this requirement, SBP would encourage DLG to schedule training to certify new individuals and provide capacity-building funds to local governments to have the means to hire administrators.

DCA Response: Thank you for taking the time to review and provide comments on the Commonwealth of Kentucky Draft Action Plan for Disaster Recovery. The Commonwealth is committed to leading an equitable recovery from the storms of 2021 and to responding to the needs of impacted residents and communities, with a particular emphasis on vulnerable populations. The Kentucky Department of Local Government (DLG) worked with multiple agencies to collect the best available data to calculate the unmet needs of communities impacted by recent disasters and will continue to refine program policies and procedures to ensure that CDBG-DR programs are accessible to and benefit households and individuals who have not yet been included in the needs assessment and who may be marginalized from accessing resources. The Commonwealth trusts that the Kentucky Department of Local Government (DLG) has provided an Action Plan that thoroughly outlines the proposed use of the CDBG-DR funds and eligible activities available to assist impacted counties. Additionally, each Action Plan program will have a documented set of guidelines describing eligible activities, processes, and procedures. DLG will provide extensive CDBG-DR training to accompany the guidelines so that local governments are empowered to assist their communities thus ensuring that recipients of these funds have the capacity and expertise to carry out the program activities. Programs will open for applications in early 2023. The program guidelines will soon be available on the Kentucky Disaster Recovery Program website https://kydlgweb.ky.gov/FederalGrants/16_DRP.cfm

32. Public Comment: It appears as if Section 1.4 only addresses the unmet needs related to the tornadoes. The section also reflections infrastructure receiving more funding than the amount listed as the unmet needs. 10 New construction of single-family homes is only allocation \$4million while rehabilitation/reconstruction is allocation almost \$18million. This particular split seems more suited to the western Kentucky tornadoes than to the eastern Kentucky floods. New Construction is needed to relocate people out of the flood plain. Therefore, to best meet the unmet need in Breathitt County, more funding should be directed to new construction. Especially given that in Breathitt County, most of homes flood in 2021 were flooded again in 2022. The funding allocation for rental housing similarly skewed toward the needs of western Kentucky with only \$3 million allocated to new construction while \$15 million is allocation to rehabilitation. Most of the rental housing impacted in Breathitt County were trailer parks where the landlord rented the lot and the trailer. These units not worth reconstructing (many were hauled to the dump after the 2021 floods). Therefore, to best meet the unmet rental needs in Breathitt County, more funding needs to allocate to new construction of rental units. The program description indicates that HOME rents and other HOME limits will be used. Because the AMI in Breathitt County is significantly lower than that of the western Kentucky counties, this makes it much more difficult to develop rental units that cash flow in Breathitt County. DLG should allow Breathitt County rental developments to use CDBG-DR income and rent limits when those are higher than HOME limits. The primary mechanism for distributing funds amongst the MIDs is a competitive process. Breathitt County has significantly lower Area Median Incomes. Furthermore, much of the work in Breathitt will require developing new sites to relocate people out of the flood plain which will slow the process and increase the cost. The combination of these factors will mean Breathitt County is at a distinct competitive disadvantage. Therefore, DLG should create a set aside for Breathitt County to ensure that is able to access this funding despite these challenges.

DCA Response: Thank you for taking the time to review the Commonwealth of Kentucky Draft Action Plan for Disaster Recovery and to share your comments and questions. We have revised the section referenced to make the language clearer. The Kentucky Department of Local Government (DLG) worked with multiple agencies to collect the best available data to calculate the remaining needs from both disasters. Based on these comments and others received, DLG has increased the budget for the Multifamily New Construction program. DLG may use additional funding from HUD to increase the overall budget for the new construction programs. Regarding your suggestions for allocation distribution and Affordable Rental income limits, know that DLG will continue to refine program policies and procedures to ensure that CDBG-DR programs are accessible to and benefit households and individuals who have not yet been included in the needs assessment and who may be marginalized from accessing resources.

33. **Public Comment:** Comment #1: Section 4.2 Program Allocations (Page 159). The current program allocation limits flexibility and slows recovery in Bowling green. The City of Bowling Green requests an increase in new construction program allocations and a reduction in rehabilitation and reconstruction allocations. Specifically, reduce the Economic Revitalization, Public Services, and Planning program budget allocations to allow for an increase in Multifamily Rental New Construction. Comment #2: Section 4.2 Program Allocations (Page 159). The City of Bowling Green requests the budget for Multifamily Rental New Construction to be increased to a minimum of \$15 million and the maximum award of \$1 million per project for Multifamily Rental New Construction be increased to a maximum of \$2 million. Comment #3: Section 4.10.7 Infrastructure (Page 200). The City of Bowling Green requests the infrastructure program be expanded to include new single-family and multifamily infrastructure, parks, and tornado shelter/community centers. Comment #4: Direct Allocation Request. The City of Bowling Green requests to receive a direct allocation of CDBG-DR funds and be excluded from an open application window and review process.

DCA Response: Thank you for taking time to comment on the Action Plan.

Response #1: As a response to this comment and others received, DLG will be increasing the Multifamily Rental New Construction program to \$10 million. At the moment, there is a justifiable need for the level of funding in the Economic Revitalization, Public Services, and Planning programs. If the unmet need turns out to be lower than projected, then DLG will reallocate funding from those programs.

Response #2: As a response to this comment and others received, DLG will be increasing the Multifamily Rental New Construction program to \$10 million. While this may not be enough, Kentucky has received an additional allocation for the 2021 disasters, so there will be an opportunity to add additional funding to the Multifamily Rental New Construction program. Regarding the maximum award, DLG will leave the cap at \$1 million to be able to assist with more projects. With the additional funding from HUD, DLG may add more to the budget and subsequently decide to increase the award cap.

Response #3: Details about the Public Infrastructure and Stormwater Management program will be written in the program guidelines. HUD is providing Kentucky with additional allocation which will allow DLG to consider and expand on what infrastructure projects are eligible under this program. We appreciate that the City of Bowling Green has a history of partnering with local entities utilizing CDBG funds. As stated in the Action Plan, applicants must work with a certified grant administrator to assist with application development, grant administration, and activity delivery.

Response #4: DLG understands that the City of Bowling Green is still dealing with the impacts of the 2021 disasters and an affordable housing crisis. Unfortunately, DLG would like to consider all applications to ensure that the recovery is being addressed holistically. To address your concerns, DLG will be evaluating the vulnerability of neighborhoods and damages to ensure that funding goes to the most impacted areas.

34. **Public Comment:** The City of Mayfield experienced catastrophic damage from the tornado of December 10, 2021. 24 people lost their lives in this storm. Mayfield's downtown was destroyed, including its National Historic Register District, and over 400 homes. Most of the lost housing was from the city's rental housing supply, and most of that was rented by low/moderate income families (at rents of approximately \$400-600 monthly). Mayfield had a severe shortage of affordable rental housing before the storm. That shortage is much greater now. Mayfield has also been deeply involved in planning a new downtown and core area to help lead recovery for the city. Hundreds of Mayfield citizens have been working tirelessly since March to create a new future for Mayfield. Progress to date has been creation of a new mixed-use zone with design guidelines/standards for the core area, identification of the need for multifamily units to replace the old single-family rentals, identification of other key community-led projects to promote redevelopment, such as a Farmer's Market, a Community Center, new programs in the schools to keep Mayfield students' home and a new "Maker's Center" to promote local economic development. All of these projects, and more, will support a new mixed-use core for Mayfield that is pedestrian friendly and sustainable. The Draft Action Plan appropriately identifies Graves County as among the four "Most Impacted and Distressed" (MID) counties. This designation allocates 80% of the federal allocation (\$123,936,000) of CDBG-DR funding to be spent among these MID counties. At the Action Plan public hearing in Mayfield on November 3, 2022, the City of Mayfield expressed concern about the allocation of housing funds, with the bulk of funding in the draft allocated to Owner-Occupied Rehabilitation/Reconstruction (\$17,905,000) and allocated for Rental Rehabilitation/Reconstruction (\$15,000,000). \$4,000,000 was allocated for new single-family construction and \$3,000,000 was allocated for new multifamily construction. These allocations add to \$32,905,000 for rehabilitation/reconstruction and \$7,000,000 for new construction. Presumably these Draft Action Plan allocations will be proportionately increased with the new award of \$48,983,000. At the hearing, DLG staff explained that "reconstruction" was new housing construction in a location where housing had been destroyed. It was also clarified that multifamily units could be built as "reconstruction" in a formerly single-family area. However, DLG staff could not definitively say that new construction of multifamily units at a higher density than the previous single-family area would be allowed. This raises an area of significant concern for the City of Mayfield. Mayfield's concern is that the need for greater density to support the new mixed use core area will not be compatible with the definition of "reconstruction". Thus, the City is requesting the following: 1) That the Action Plan includes a specific interpretation that "reconstruction" includes creating higher multifamily density where single family housing existed before the tornado; or 2) That significant levels of additional funds be allocated (or reallocated) that will support the identified housing needs of Mayfield that have been identified through extensive local planning and input and will serve to create a new sustainable mixed use core area.

DCA Response: Mayor Stewart, thank you for taking time to comment on the Action Plan. DLG needed to consider all the affected areas of the Commonwealth when developing programs. By developing a variety of housing programs, the correct strategy can be utilized in the appropriate part of the state. Within the owner-occupied housing rehabilitation program there will be different housing solutions that can be chosen based on damage and the cost to rehabilitate. If a structure is deemed too expensive or uninhabitable, a new structure can be reconstructed on the site. If the lot is not suitable, the lot can be acquired, and the owner compensated to enable them to move to a safer area. DLG will also offer a new housing construction program. The program will be set up to favor displaced households from the disasters. There will be a variety of incentives to keep the home affordable including loan buy

down as well as down-payment and closing costs assistance. The rental housing construction solutions to the owner-occupied housing program, but also requires affordable rents to be charged. As DLG develops the policies for these housing programs we would welcome any input you have to ensure that these programs are successful.

35. **Public Comment:** Before we turn to the substance of our feedback, we do want to note that we are slightly disappointed by the limited feedback opportunities. As well-known leaders in community development in the state of Kentucky, we were only made aware of the plan's release on 10.26.22. That left us 5 days to contact our members and partners and encourage them to read a lengthy and dense document, distill feedback and then deliver that feedback at the 2 public hearings. This truncated timeline inhibits thoughtful engagement on the proposed action plan. The in-person sessions in EKY and WKY were welcome; however, there were many citizens that could have provided personal feedback if widespread public hearings or outreach were done in each county impacted in the 2021 flooding in EKY or tornados in WKY. As DLG considers the planning and development of the state plan for the flash floods in 2022 we would be happy to work with you to ensure robust public engagement. Comment #1: There are other, new, funding sources that could be used to support infrastructure: The plan proposes using CDBG-DR funding for infrastructure, and actually proposes providing more funding than the current estimated gap. The state recently allocated \$212 million in recovery for these weather events; and there was a heavy infrastructure focus in these funds. Similarly, KY is poised to receive substantial infrastructure investments via the IJA Federal Recovery Package. Rather than using highly flexible CDBG Funds infrastructure, we recommend drawing down these OTHER funding sources; and then reallocating a large chunk of the infrastructure dollars from CDBG-DR into housing. As a final note, moving forward, we should strive for a better balance the investment of traditional CDBG dollars. Historically most of these funds have gone to support infrastructure, often to the detriment of housing. If there were a better balance of investments in infrastructure and housing repair, rehab and building our housing stock will be better equipped to withstand natural disasters moving forward. Comment #2: We are concerned that there is missing info in the damage estimates. We know of at least one long term recovery team that has 700 individuals they cannot find. We have no contact info, but we are hearing anecdotal reports that folks are either planning to return or are seeking residency in neighboring counties. Bottomline, at the state level, we need to know what these households plan to do so we can plan effectively. It is our understanding that HDI is going to do a housing need market analysis to try and identify where these folks went. We anticipate that HDI will be working with the EPA and KHC and FEMA to get this report done by December. This information should be considered as we think about where to invest in housing, so these 700 individuals are not left unaccounted for. Comment #3: We have concerns about the breakdown of proposed investments – repair vs. new builds: As proposed in this plan, the breakdown between repair and new builds is not accurate and will not adequately respond to needs. The majority of the rental units that were impacted were trailer parks. It is not sound planning to repair already old trailers on a flood plain. In the eastern part of the state where the flooding occurred – some of these sites have been hit twice now. Meaning, there is very little- if anything – to repair. An additional complicating factor is that the households who would return to rentals will not be able to afford them unless there is project based rental assistance (or any long-term support) attached to the unit. Folks in the trailer parks that were most heavily impacted are living on highly limited income. Developers cannot cobble together financing in a way that will ensure these units remain affordable. Bottomline: either there is NOTHING to rehab; or once rehabbed they're going to be too expensive for displaced residents to afford. Therefore, instead of using resources to rehab, we should invest the bulk of this rental repair line item into single family and multi-family builds. This also helps address the under investment in the new build line items. As of this writing, the combined new build investment is only \$7 million, which will barely scratch the surface of what is needed. We are also concerned that the plan fails to account for single family rentals. Has that been a consideration? Equally important as we consider new builds/rebuilding; will manufactured housing be an allowable investment? Comment #4: Administrative Concerns & the Need for Housing Development Expertise Cities and Counties are not experts in housing development. While they're equipped to manage infrastructure repairs; they're going to struggle to navigate the housing development side of this work. To simplify this, we encourage KY to consider strategic partnerships with intermediaries who are experts in this work. These intermediaries will be more efficient and proficient in this work. If DGL opts to continue to partner directly with counties or cities vs. incentivizing or requiring the use of intermediaries, what happens if these entities are unable to spend down the funding due to their inexperience in housing? Will it be recaptured, or can communities make the choice to engage an intermediary or other entity to help speed up the spend down? Comment #5: How to prioritize the 20% of remaining funding over 36 counties: 20% of funding spread over 36 counties simply won't go that far. Therefore, we need to be hyper targeted in how we deploy the remaining funding. Rather than having an open call for applications, we should use FEMA impact data to create a second tier of high need counties and cities. The majority of this remaining funds should then flow to those communities first. Further, we remain concerned that there will be some counties or cities that need this funding- but will be reluctant to apply for a relatively small amount of capital with high reporting requirements. To mitigate this, we suggest DGL encourage partnerships with Community Ventures or Fahe. As certified CDBG administrators CV and Fahe can apply on behalf of impacted cities and counties and disperse the funding according to the need at the local level. This would help ensure counties with needs, but limited capacity can still obtain funding, while not putting a burdensome administrative requirement on them. Comment #6: Cost Estimates: The spending caps for repair are very high. With \$100,000 most families could completely rebuild their home in a safer area out of the flood plain. Given the restrictions put on rehabs (having to be in the original footprint) perhaps reallocating this funding to new builds is a wiser course of action. This would allow families to stay on the same land but move their residence to a higher elevation. Comment #7: Supporting community led work: We appreciate that the ADDs will work in partnership with cities and counties to help guide decision making on the use of these funds. However, we are concerned that the ADDs lack housing development expertise. Could HUD/DLG require that each ADD have at least 2 housing development experts help to do this work? There are a number of local nonprofit developers in impacted communities that are well suited to provide this type of expertise to ensure housing investments are sound. Comment #8: How are we going to cover the remaining gap of \$127 million? What is the state's plan to fill this gap? A group of nonprofit housing and community development entities across the state have drafted and are circulating a proposal entitled "AHEART". AHEART has two important features: First, it proposes the creation of a disaster specific affordable housing trust fund. Funded initially at \$5 million over 2 years, this fund will provide the immediate, state level foundation of funding needed to meet immediate needs following a disaster. Further, over time, this funding pool can provide flexible dollars to fill gaps in other funding sources. Second, this plan lays out a long-term funding strategy to make annual investments in the Commonwealth's affordable housing stock. By getting ahead of housing shortages, and proactively funding repair and rehabilitation with a focus on disaster resiliency- we will be better prepared to manage future challenges. The bottom line is fairly simple: Our historic disinvestment in housing has made us more vulnerable and less able to withstand disasters when they do happen. By getting ahead of this and ensuring we have resilient housing stock across the Commonwealth, we shouldn't see the degree of housing displacement we've witnessed from both the 2021 and now the 2022 disasters. Comment #9: Labor Shortages to do the work: We greatly appreciate the recognition that these disasters and the resulting recovery work will create shifting labor demands. We agree that we can't let the lack of qualified skilled labor in construction and skilled trades inhibit the speed in which we can recover. But, it's important to note this isn't a new challenge. Lack of labor in these categories has been a major barrier to development across KY. The recognition of these labor shortages in the DLG plan is therefore important and leaves us with two key questions. First, how does DLG propose filling these gaps today to ensure access to necessary labor and skilled trades? Has KY considered opportunities to streamline labor entry for skills that require multiple certifications or extended apprenticeships? Second: how will the Commonwealth use this occupation demand data to inform future social service, workforce, or education funding? Comment #10: The additional allocation of \$49 million in KY CDBG-DR Funding: On November 2, 2022, Senator Mitch McConnell announced that the Commonwealth would receive an additional \$49 million in disaster recovery funds. We strongly encourage DLG to use this additional funding to support new multi and single-family construction in impacted communities. Again, as proposed the current plan already makes substantial infrastructure investments; investments that are complimented by both state funding and incoming COVID-19 Recovery funds. What is needed at this juncture is robust investments in sustainable, resilient housing.

DCA Response:

Response #1: It is understood that the Commonwealth received other infrastructure funding. Part of the CDBG-DR allocation must be used for mitigation against future events. DLG considers infrastructure the most effective projects to invest the majority of the mitigation dollars because of the strategic flood management solutions and other hardening of infrastructure that can be funded. A requirement of the infrastructure projects will be to include elements that will protect against future natural disaster events. However, DLG recognizes

through yours and other comments on the Action Plan for more funding as needed for housing projects and more allocated \$7,000,000 in infrastructure to multi-family new construction. The new budget for multi-family new construction will be \$10,000,000. There is also the opportunity to reallocate funding as programs sunset. Housing programs can also be funded using a portion of the additional \$49 million recently announced.

Response #2: DLG appreciates receiving all information on displaced individuals and families. We have a strong partnership with KHC and will request a copy of the housing market analysis that will be completed in December.

Response #3: DLG needed to consider all the affected areas of the Commonwealth when developing programs. It is understood that rehabilitation may not be an effective housing strategy for all areas of the Commonwealth. By developing a variety of housing programs, the correct strategy can be utilized in the appropriate part of the state. Also, within the owner-occupied housing rehabilitation program there will be different housing solutions that can be chosen based on damage and the cost to rehabilitate. If a structure is deemed too expensive or uninhabitable, a new structure can be reconstructed on the site. If the lot is not suitable, the lot can be acquired, and the owner compensated to enable them to move to a safer area. Concurrently, DLG will be offering a new housing construction program. The program will be set up to favor displaced households from the disasters. There will be a variety of incentives to keep the home affordable including loan buy down as well as down-payment and closing costs assistance. The incentives might also encourage renters to become first time home buyers. Every attempt will be made to keep households in the area that they were displaced from. The rental rehabilitation program will feature similar construction solutions to the owner-occupied housing program, but also requires affordable rents to be charged. Single family rental homes are also eligible to receive rehabilitation/reconstruction funding. Current renters that are displaced during rehabilitation or reconstruction will be assisted. As DLG develops the policies for these housing programs we would welcome Fahe's input. It is anticipated that manufactured housing will be an allowable investment. After consideration and discussed above, the new combined total for new housing investment has doubled to \$14 million.

Response #4: DLG understands your concern with capacity for housing redevelopment with Cities and Counties. Therefore, in the Action Plan DLG detailed that although CDBG-DR funds will flow through Cities and Counties for administrative purposes, all housing programs allow for qualified organizations or partners to help implement projects. These qualified organizations will go through a capacity review to determine if they are knowledgeable entities familiar with the housing market in their area of the Commonwealth.

Response #5: DLG intends to disperse the remaining CDBG-DR funding over 36 counties in an equitable manner. We intend to work with community partners on application development to ensure that the CDBG-DR funding reaches the most vulnerable communities that need the most assistance.

Response #6: DLG understands that the funding caps seem high for rehabilitation. However, that cap also pertains to reconstruction. The cap does not represent the average award per home. For CDBG-DR reconstruction does not need to occur on the exact footprint, but instead must be roughly the same size and bedroom count and can be placed elsewhere on the suitable lot. The final award for each home will be based on the actual cost to rehabilitate/reconstruct less any duplication of benefit.

Response #7: DLG is in support of allowing the ADDs to have housing experts assist in developing and implementing housing strategies. The Action Plan already provides for this by encouraging qualified organizations or partners to help implement housing projects.

Response #8: DLG looks forward to reading the AHEART proposal and working with the nonprofit housing and community development entities working in the CDBG-DR HUD-MIDs and State designated MID's. The goal of DLG in implementing the housing portion of the CDBG-DR grant is to create a resilient housing stock to withstand future disasters.

Response #9: Unfortunately, the labor shortage in Kentucky will take partnerships with various agencies, training institutions, and industries to solve. DLG appreciates your comments and will pass them along to the Cabinet for Economic Development and the Kentucky Education and Workforce Cabinet.

Response #10: DLG is in the beginning stages of planning the use of the additional \$49 million. The Department of Housing and Urban Development (HUD) will be publishing a federal register notice that will detail how DLG can incorporate the new funding into the existing CDBG-DR award. We agree that housing is a major priority for the Commonwealth with single and multi-family housing programs under considerations as one of the activities funded with the new allocation.

36. **Public Comment:** Comment #1: Section 1.4 Unmet Needs and Proposed Allocations Table 2: the numbers of unmet need do not match the proposed program allocation. The estimated unmet housing need is 54.44% of the overall unmet need; the proposed program allocation for housing is 53.25%. Conversely, the estimated infrastructure need is 10.8% of the overall unmet need while the proposed program allocation for infrastructure is 33.35% of the funding. DLG should transparently explain its method for determining proposed program allocations that do not match estimated percentages of its own unmet need determination. Comment #2: Section 2.2.2.4 FEMA Real Property Damage Owner-Occupied Units and Section 2.2.2.5 FEMA Real Property Damage Rental Units. The total damaged owner-occupied units appear to be 4757 in the Most Impacted and Distressed areas. The total damaged rental units is 5513 in the MID areas. DLG proposes 30% of the total program allocation to support single family construction and repair and 24% for rental construction and repair, while 54% of the housing damage in the MID areas were rental and 46% were owner-occupied. The proposed single family program allocation is heavily weighted toward home repair (25%) as opposed to 5% for new home construction, when repairs made to experiencing now-recurring flood damage may not be the most effective use of CDBG-DR funds. Similarly, repairing rental units that are mobile homes now experiencing recurrent flooding may not be the most effective use of CDBG-DR funds. Again, DLG should transparently explain its method for determining proposed program allocations that do not match estimated percentages of its own unmet need determination and ensure that housing resources are equitably allocated based on determined needs of homeowners, renters, and people experiencing homelessness. Comment #3: Section 2.2.3.17 Point-in-Time Count - Type of Shelter. Table 37 appears to exclude Warren County. The total for Hopkins County appears to be incorrect; if 18 people were in emergency shelters and 2 were unsheltered, the total should be 20. Comment #4: Section 4.10 Single Family New Housing Construction. We commend DLG for expanding the eligible applicants to include approved developers with housing development expertise. In certain parts of the disaster areas, there exist high-capacity nonprofit developers with experience using federal funds to construct housing. Most small cities and counties in Kentucky do not have that in-house capacity and would look to local Community Housing Development Organizations to do the work. Allowing them to apply directly is more efficient than traditional methods of application and subcontracting. Comment #5: Section 4.10.2 Owner-Occupied Rehabilitation and Reconstruction. Conversely, it is not clear from p. 178 that eligible applicants will include developers. We do not understand this program policy, as most Community Housing Development Organizations who build new homes also repair and rehabilitate owner-occupied homes. The same expertise and experience with federal funding applies. DLG should expand the eligible applicants for this activity to mirror the same language for Single Family New Housing Construction. DLG

should consider lowering the cap of maximum subsidy from \$100,000 for consistency and to ensure maximum effectiveness of funds. If more than \$50,000 is needed to make a home habitable, would that household not be better served with new construction? Currently, Kentucky Housing Corporation limits per unit subsidy to \$20,000 in the Affordable Housing Trust Fund. Comment #6: Section 4.10.3 Multifamily New Construction. We commend DLG for expanding the eligible applicants to include developers. However, the maximum award of \$3M with a maximum of \$1M for projects seems artificially low. Under this program design, it is likely that developers will forgo applying for this funding altogether. Comment #7: Section 4.10.5 Housing Counseling and Legal Aid. With such a limited amount of funding available for this activity, HHCK encourages DLG to consult with the 4 Legal Services Corporation organizations across the affected area, especially AppalReD and Kentucky Legal Aid for input into program design and budgets. Comment #8: General Comments: Addressing Needs of People Experiencing Homelessness and Public Housing Residents. On p. 33-34, the Action Plan states "the Commonwealth will respond to the needs of impacted residents and communities, with a particular emphasis on vulnerable populations.... Vulnerable populations can include... persons experiencing homelessness... and public housing residents." we would like to see the following activities incorporated into the state's CDBG-DR Plan: 1) Tenant-Based Rental Assistance/Rapid Re-Housing to bridge the gap between incomes and housing costs. 2) Funding for emergency/disaster shelter infrastructure to prepare for future disasters. 3) Set asides for Permanent Supportive Housing development within the Multifamily Rental Activities.

DCA Response: Thank you for taking time to comment on the Action Plan.

Response #1: The unmet needs assessment in the Action Plan gives point in time data and is used in association with other factors to assist DLG in making funding allocation decisions. However, in response to this comment and others received, DLG will be increasing the Multifamily Rental New Construction program to \$10 million and reducing the infrastructure program to \$18 million. While this reallocation to housing may not be enough, Kentucky has received an additional allocation for the 2021 disasters, so there will be an opportunity to add additional funding to housing programs. The infrastructure program will not only fund existing unmet needs, but also fund projects that will help protect against future natural disaster events. Part of the CDBG-DR allocation must be used for mitigation against future events. DLG considers infrastructure the most effective projects to invest the majority of the mitigation dollars because of the strategic flood management solutions and other hardening of infrastructure that can be funded.

Response #2: As explained above, other factors in addition to the unmet needs assessment were used to determine program allocations. It is understood that rehabilitation may not be an effective housing strategy for all areas of the Commonwealth. By developing a variety of housing programs, the correct strategy can be utilized in the appropriate part of the state. Also, within the owner-occupied housing rehabilitation program there will be different housing solutions that can be chosen based on damage and the cost to rehabilitate. If a structure is deemed too expensive or uninhabitable, a new structure can be reconstructed on the site. If the lot is not suitable, the lot can be acquired, and the owner compensated to enable them to move to a safer area. Concurrently, DLG will be offering a new housing construction program. The program will be set up to favor displaced households from the disasters. There will be a variety of incentives to keep the home affordable including loan buy down as well as down-payment and closing costs assistance. The incentives might also encourage renters to become first time home buyers. Every attempt will be made to keep households in the area that they were displaced from. The rental rehabilitation program will feature similar construction solutions to the owner-occupied housing program, but also requires affordable rents to be charged. Single family rental homes are also eligible to receive rehabilitation/reconstruction funding. Current renters that are displaced during rehabilitation or reconstruction will be assisted. As DLG develops the policies for these housing programs we would welcome your organization's input. After consideration and discussed above, the new combined total for new housing investment has doubled to \$14 million with the majority of that going toward new rental housing construction.

Response #3: Thank you for catching our error. We will make sure Warren County data is included in the plan. The table is not meant to be added across the rows. Each column is independent of the others.

Response #4: We appreciate your comment.

Response #5: Although developers are not eligible to apply directly, City, County and Tribal governments are encouraged to work with qualified organizations or partners to implement their owner-occupied rehabilitation projects. The \$500,000 maximum is per applicant with the understanding that one City, County or Tribal government would have multiple houses within their jurisdiction that would be rehabilitated. DLG feels that a \$20,000 cap per home would be too low and not result in resilient repairs. The final award for each home will be based on the actual cost to rehabilitate/reconstruct less any duplication of benefit.

Response #6: As stated earlier, DLG has responded to your and other comments and raised the amount allocated to the multi-family new construction program to \$10 million. The per project cap will remain. It is anticipated that the CDBG-DR funding will be just one of the many sources developers will use to fund projects.

Response #7: Thank you. DLG appreciates the suggestion.

Response #8: DLG is in the beginning stages of planning the use of the additional \$49 million in CDBG-DR funding announced earlier this month. One of the programs under discussion is Tenant-Based Rental Assistance. DLG is also considering making permanent supportive housing development a priority for its Multifamily Rental Activities. If DLG makes this decision, it will do it through application selection criteria giving additional points for these types of projects.

37. **Public Comment:** Efforts to help rebuild Mayfield need to concentrate on new construction. Mayfield had over 400 housing units destroyed in the tornado; most of which were single-family homes occupied by renters. The loss of over 400 units that shortage has become a crisis, leading to homelessness, people leaving town, and greatly increasing the ability of the city to attract new investment for economic development, due to the lack of housing. Renovating houses sounds great but we have lost hundreds of houses that are no longer available for renovation. We would ask that the priority be for new housing be expanded and the priority for renovating existing housing to be revised. The \$33 million for rehabilitation vs. \$7 million for new construction does not adequately address Mayfield's tornado-related housing needs.¿

DCA Response: Thank you for taking time to comment on the Action Plan. The Commonwealth recognizes that the storms of 2021 had a devastating effect on households, individuals, and communities. The Department for Local Government (DLG) is committed to developing and implementing programs that meet the recovery needs in the most vulnerable communities and fortify Kentucky's resilience to future storms. Based on FEMA data on unmet needs throughout the counties, DLG made the decision to allocate more funding to rental units. The decision was also supported by comments from various community members regarding the need for more rental units. However, DLG is also receiving comments for more money for new construction. Kentucky has received an additional allocation for the 2021 disasters, so there will be an opportunity to add additional funding to the New Construction programs. When DLG is able to access this funding, new construction will likely be expanded to provide more resources to area like Mayfield.

d. Data Sources/Methodologies.

Owner Occupied Households:

- Minor-Low:
 - Less than \$3,000 of FEMA inspected real property damage
- Minor-High:
 - \$3,000 to \$7,999 of FEMA inspected real property damage
- Major-Low:
 - \$8,000 to \$14,999 of FEMA inspected real property damage
- Major-High:
 - \$15,000 to \$28,800 of FEMA inspected real property damage
- 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:
 - \$3,500 to \$4,999 of FEMA inspected personal property damage
- Major-High:
 - \$5,000 to \$8,999 of FEMA inspected personal property damage
- Severe:
 - Greater than \$9,000 of FEMA inspected personal property damage

U.S. Department of Housing and Urban Development (HUD)

Federal Emergency Management Agency (FEMA)

U.S. Small Business Administration (SBA)

U.S. Department of Agriculture (USDA)

Barren River Area Development District. "Barren River Area Development District Hazard Mitigation Plan," 2016. <https://www.bradd.org/index.php/bradd-hazard-mitigation-plan/category/1-hazard-mitigation?download=477:hazard-mitigation-plan>.

Big Sandy Area Development District. "Big Sandy ADD Multi-Jurisdictional Hazard Mitigation Plan," 2016. <https://img1.wsimg.com/blobby/go/d1a68165-9a0b-4cc8-bcbc-1e7a38f4397b/downloads/2016%20Big%20Sandy%20ADD%20Hazard%20Mitigation%20Plan%20Update.pdf?ver=1656609514248>.

Bluegrass Area Development District. "Bluegrass Area Development District Regional Hazard Mitigation Plan," 2016. <https://www.dropbox.com/s/dv4yi6suix6ause/Hazard%20Mitigation%20Plan%202016%20Final%20Draft%20022717.pdf?dl=0>.

Cumberland Valley Area Development District. "Cumberland Valley Area Development District Regional Hazard Mitigation Plan," 2012. <https://app.box.com/s/gb57bmrfa0v7xvolkc3i60men3hwan>.

Environmental Protection Agency. "What Climate Change Means for Kentucky." EPA 430-F-16-019, August 2016. <https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-ky.pdf>.

FEMA. 2020. "Flood Zones | FEMA.Gov." <https://www.fema.gov/glossary/flood-zones>

Fivco Area Development District. "Fivco ADD Multi-Jurisdictional Hazard Mitigation Plan," 2016. <https://www.dropbox.com/s/qloog6f6mp5z0mg/2016-FIVCO-Regional-Hazard-Mitigation-Plan.pdf?dl=0>.

Gateway Area Development District. "Gateway Area Development District Hazard Mitigation Plan," 2019. http://gwadd.org/wp-content/uploads/2019/04/GatewayAreaDevelopmentDistrictHazardMitigationPlanUpdate_Final.pdf.

Green River Area Development District. "Green River Area Development District Hazard Mitigation Plan," 2021. https://gradd.com/wp-content/uploads/dlm_uploads/2021/09/GRADD-Hazard-Mitigation-Plan-Revised_07062021-1.pdf.

Illinois Association for Floodplain and Stormwater Management. 2006. "Natural Aspects of Flooding" <https://www.illinoisfloods.org/content/documents/desk-reference/1%20Natural%20Aspects%20of%20Flooding.pdf>

Kentucky Emergency Management. "2018 Kentucky Hazard Mitigation Plan," 2018. <https://kyem.ky.gov/recovery/Pages/2018-Kentucky-Hazard-Mitigation-Plan-.aspx>.

Kentucky River Area Development District. "Kentucky River Area Development District Regional Hazard Mitigation Plan," 2017. <https://www.kradd.org/wp-content/uploads/KRADD%20HMP%202017.pdf>.

Lake Cumberland Area Development District. "Lake Cumberland Area Development District Regional Multi-Hazard Mitigation Plan," 2016. https://www.lcadd.com/images/WEB_FINAL_2016_HAZARD_MITIGATION_PLAN.pdf.

Lincoln Trail Area Development District. "Lincoln Trail Region Hazard Mitigation Plan," 2015. <https://ltadd.org/wp-content/uploads/2020/05/Lincoln-Trail-Region-HMP-2015.pdf>.

NASA Global Climate Change. 2013. "Severe Thunderstorms and Climate Change." [Severe thunderstorms and climate change – Climate Change: Vital Signs of the Planet \(nasa.gov\)](https://climate.nasa.gov/evidence/).

National Centers for Environmental Information. "Storm Events Database." Accessed July 11, 2022. <https://www.ncdc.noaa.gov/stormevents/listevents.jsp?sort=CD&statefips=21%2CKENTUCKY&county=BREATHITT%3A25&county=GRAVES%3A83&county=HOPKINS%3A107&county=WARREN%3A227&eventType=%28Z%29+Drought&beginDate>

National Park Service. "Karst Landscapes – Caves and Karst." Accessed July 11, 2022. <https://www.nps.gov/subjects/caves/karst-landscapes.htm>.

NOAA: National Centers for Environmental Information. "Storm Events Database." <https://www.ncdc.noaa.gov/stormevents/>

NOAA: National Severe Storm Laboratory. "Severe Weather 101 – Thunderstorms." <https://www.nssl.noaa.gov/education/svrwx101/thunderstorms/>

NOAA. "NOAA's National Weather Service - Glossary." Accessed May 6, 2022. <https://forecast.weather.gov/glossary.php?word=urban%20flooding>.

NOAA: National Weather Service. "Wind Chill Chart." <https://www.weather.gov/safety/cold-wind-chill-chart>

NOAA. "What Is the Heat Index?" Accessed July 11, 2022. <https://www.weather.gov/ama/heatindex>.

NOAA and National Integrated Drought Information System. "Historical Data and Conditions." *Drought.Gov*. Accessed July 11, 2022. <https://www.drought.gov/historical-information>.

Pennyrile Area Development District. "Pennyrile Regional Hazard Mitigation Plan," 2016. <https://www.dropbox.com/s/2fgg1e1iru6kx7w/2016%20Pennyrile%20Hazard%20Mitigation%20Plan2.pdf?dl=0>.

Jackson Purchase Area Development District. "Jackson Purchase Region Natural Hazard Mitigation Plan," 2018. <https://www.purchaseadd.org/download/jackson-purchase-region-natural-hazard-mitigation-plan/>.

Runkle, Jennifer, Kenneth Kunkel, Sarah Champion, Rebekah Frankson, and Brooke Stewart. "Kentucky – State Climate Summaries 2022." Silver Spring, MD: NOAA/NESDIS, 2022. <https://statesummaries.ncics.org/chapter/ky/>.

Stantec Consulting Services, Division of Emergency Management, and Lexington Fayette County Government. "Lexington Fayette County Hazard Mitigation Plan," 2018. https://bereadylexington.com/wp-content/uploads/2019/04/LFUCG_HMP_Draft_4-1-19_V2_Condensed.pdf.

Union of Concerned Scientists. 2018. "Heat Waves and Climate Change: What the Science Tells Us about Extreme Heat Events." <https://www.ucsusa.org/resources/heat-waves-and-climate-change>

e. Important Definitions and Terms.

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: Participation

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

LIHTC: Low-Income Housing Tax Credit

LMI: Low and moderate-income

NFIP: National Flood Insurance Program

PA: (FEMA) Public Assistance

RE: Responsible Entity

RFP: Request for Proposals

SBA: U.S. Small Business Administration

SFHA: Special Flood Hazard Area

UGLG: Unit of general local government

URA: Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended

USACE: U.S. Army Corps of Engineers

f. Standard Form 424.

Uploaded to DRGR.

