

S12., I: Discussing the Evaluation of the Commonwealth's Hazard Management Policies, Programs, Capabilities, and Funding Sources to Mitigate the Hazards Identified in the Risk Assessment

A list of Kentucky Revised Statutes (KRS) applicable to hazard mitigation is provided in the Enhanced Plan. Each KRS can be assumed to be accompanied by one or more Kentucky Administrative Regulations (KARs) that implement the KRS. A list of KARs is not provided in this hazard mitigation plan given the sheer number of KARs that can accompany legislation and the marginal or superfluous benefit such a list would offer in illustrating Kentucky's mitigation capability.

As far as evaluating this list of legislation (and the implied accompanying regulations), it is relevant to emphasize that Kentucky's mitigation capability is supported and anchored in formal codification and the administrative, political, and budgetary support such codification implies.

Rather, this section of the Commonwealth's hazard mitigation plan will emphasize two (2) sets of capabilities instrumental to mitigating the effects from hazards and also instrumental in implementing the National Flood Insurance Program (NFIP); the Community Rating System (CRS); and Risk Mapping, Assessment, and Planning (RiskMAP).

Area Development Districts (ADDs) and the Department for Local Government (DLG)

Kentucky maintains Area Development Districts (ADDs). ADDs are regional entities that provide professional services to counties and cities. There are fifteen ADDs serving the following counties (and the incorporated cities within each county):

Barren River ADD: Allen; Barren; Butler; Edmonson; Hart; Logan; Metcalfe; Monroe; Simpson; Warren

Big Sandy ADD: Floyd; Johnson; Magoffin; Martin; Pike

Bluegrass ADD: Anderson; Bourbon; Boyle; Clark; Estill; Fayette; Franklin; Garrard; Harrison; Jessamine; Lincoln; Madison; Mercer; Nicholas; Powell; Scott; Woodford

Buffalo Trace ADD: Bracken; Fleming; Lewis; Mason; Robertson

Cumberland Valley ADD: Bell; Clay; Harlan; Jackson; Knox; Laurel; Rockcastle; Whitley

FIVCO: Boyd; Carter; Elliott; Greenup; Lawrence

Gateway ADD: Bath; Menifee; Montgomery; Morgan; Rowan

Green River ADD: Daviess; Hancock; Henderson; McLean; Ohio; Union; Webster

Kentucky River ADD: Breathitt; Knott; Lee; Leslie; Letcher; Owsley; Perry; Wolfe

KIPDA¹: Bullitt; Henry; Jefferson; Oldham; Shelby; Spencer; Trimble

Lake Cumberland ADD: Adair; Casey; Clinton; Cumberland; Green; McCreary; Pulaski; Russell; Taylor; Wayne

Lincoln Trail ADD: Breckinridge; Grayson; Hardin; Larue; Marion; Meade; Nelson; Washington

Northern Kentucky ADD: Boone; Campbell; Carroll; Gallatin; Grant; Kenton; Owen; Pendleton

Pennyrile ADD: Caldwell; Christian; Crittenden; Hopkins; Livingston; Lyon; Muhlenberg; Todd; Trigg

Purchase ADD: Ballard; Calloway; Carlisle; Fulton; Graves; Hickman; Marshall; McCracken

Following a strategic mission “to foster regional strategies, solutions, and partnerships that improve the overall quality of life for the citizens of Kentucky²”, Area Development Districts are regional entities that perform three (3) categories of services for the counties and cities that are its clients: 1. ADDs perform economic development services, 2. social services, and 3. regional planning services. Towards economic development, Kentucky’s ADDs combined have secured over \$300 million in federal Economic Development Administration assistance targeted at job creation and retention initiatives. Toward social services, the ADDs have developed and maintained programs and policies dealing with aging services, access to broadband and technology, emergency preparedness, environmental stewardship, and workforce development. Using only the above brief listing of their economic development and social service functions, it should be clear that the ADDs are pivotal and essential in integrating the state hazard mitigation plan with the myriad policy arenas expressed as relevant to hazard mitigation, e.g., economic development, land-use and development, housing, and health and social services.

However, it is the ADDs’ role in regional planning services that manifests their primacy to ensure that the Commonwealth is capable of mitigating the effects from hazards using efficient and maximal combinations of FEMA, other federal agency, state, and local funding sources. The regional planning services function is considered the ADDs’ “traditional” service where ADDs expend considerable resources on strategic planning

¹ KIPDA also includes Clark County, Indiana and Floyd County, Indiana. KIPDA is an acronym for Kentuckiana (Regional) Planning and Development Agency.

² See the Kentucky Council of Area Development Districts (KCADD) website and its overview of the ADDs: <http://www.kcadd.org/overview>. [Last accessed 9/7/2018].

and project funding toward clean and safe drinking water systems, healthcare facilities, affordable housing, small business development, transportation improvements, etc., i.e., those areas within which FEMA desires integration.

Relevant for this section of the Commonwealth's hazard mitigation plan, the mechanisms by which each of Kentucky's ADDs performs their regional planning services derive from their "primary role" as grant sub-recipients: "The primary role of ADDs is to serve as the required pass-through, or grant sub-recipients..., for billions of dollars in federal money for the various programs and services it supports (Zunker, 2016³)." The Commonwealth's capability to mitigate hazards throughout it necessarily requires significant if not disproportionate cooperation and partnership with federal agencies toward local governments. Thus, that the ADDs' stated primary purpose is to facilitate the Commonwealth's federal partnerships by acting as the sub-applicant and subsequent pass-through/sub-recipient for many federal programs that have primary and secondary mitigation effects counts as a prominent commonwealth capability for mitigation.

However, the importance of the ADDs in determining the capability of the Commonwealth to perform mitigation activity (through implementation of federal partnerships) is further bolstered by this fact: The ADDs and their activities toward mitigation are anchored in legislation and contracts that solidify their roles in managing the federal partnerships that govern much of the Commonwealth's mitigation activity. Kentucky's ADDs are not mere regional agencies; they are de facto local governments and their statuses are anchored in Kentucky legislation (i.e., Kentucky Revised Statute, Chapter 147A, Section 050).

Following that the ADDs are legally-recognized local governments with a primary purpose of facilitating the federal partnerships that allow much of the mitigation activity across the Commonwealth to be implemented, Kentucky legislation also created the Joint Funding Administration (JFA) that is administered by Kentucky's executive-level agency the Department for Local Government (DLG).

The Joint Funding Administration (JFA) was created as a way to unify funding to the Area Development Districts (ADDs) from multiple sources (both state and federal). It includes federal agencies such as the Economic Development Administration (EDA), Community Development Block Grant (CDBG), the Appalachian Regional Commission (ARC) and state agencies including the Department for Local Government (DLG), the Cabinet for Health and Family Services, and the Justice Cabinet.

The Joint Funding Administration receives an allocation from the General Fund of Kentucky's General Assembly (its legislature). This General Fund allocation to the JFA is administered and distributed to the ADDs by DLG. Similarly, federal agencies participating in the JFA set aside from their general funds (or unrestricted accounts) allocations that then are designated for Kentucky. That federal agencies set aside these unrestricted funds does, of course, result from application. Historically, DLG applies for this money from all federal agencies in the spring of the year. Upon approval of the federal

³ Zunker, Esther. (January 13, 2016). "Communities' Do-It-All Partner." *The Lane Report*. Website: <https://www.lanereport.com/58916/2016/01/communities-do-it-all-partner/>. [Last accessed 9/7/2018].

grants, DLG submits quarterly requests for disbursement and then distributes the money each quarter to the ADDs. The Joint Funding Administration, its purpose and how it is funded and administered means that Area Development Districts are contracting (adopting a Memorandum of Agreement) with the Department for Local Government to conduct planning, application, and grant work on behalf of the counties and cities each ADD represents and for the federal agencies and entities participating in the JFA. DLG then disburses funds from the JFA to compensate the ADDs for this work.

The Joint Funding Administration illustrates Kentucky's capability to mitigate its hazards in the following important way: Kentucky's Area Development Districts are the Commonwealth's capability. They are so in their reason for existence and in their day-to-day practice: ADDs perform planning and write plans and apply for grants from many commonwealth and federal agencies on behalf of the counties and cities they represent. Most federal agencies have some stake in mitigation. This is especially true if one interprets mitigation broadly to include the arenas into which the Standard and Enhanced mitigation plans seek coordination and integration, i.e., economic development, land-use and development, housing, health and social services, infrastructure, natural and cultural resources, and emergency management. It is also relevant to acknowledge the role that federal agencies play in commonwealth agencies in terms of mitigation grants: If an ADD applies to a commonwealth agency for a grant, that grant likely will have threads attached to the commonwealth agency's federal likeness as many commonwealth agencies also act as pass-throughs for their federal parallels' grant programs. For example, an application to the Kentucky Office of Homeland Security (KOHS) likely is a de facto application to the federal Department of Homeland Security (DHS) from which KOHS receives much of its mandated missions and to which its Grants and Finance section oversees the distribution and compliance with federal DHS grants to Kentucky. So, the ADDs planning and applying for or assisting in the application for grants and managing grants is a primary capability of Kentucky to mitigate its hazards. This capability is further anchored in permanence through the ADDs' designation as a local government by Kentucky Revised Statute (KRS 147A.050).

The Joint Funding Administration (JFA) provides even further capability to mitigate hazards in the Commonwealth by providing the ADDs a contract (through a Memorandum of Agreement with Department for Local Government that administers the JFA) to perform the planning and grant application and management services of those agencies participating in the JFA. These plans and grant application and management services all result either in direct mitigation activity or in affecting the capability to mitigate. The grants for which the ADDs are contracted through DLG to be reimbursed through the JFA also include grants aimed at contributing to a portion of a community's local share contribution to its mitigation and mitigation-contributing project grants.

National Flood Insurance Program: The Kentucky Division of Water (KDOW)

It is Kentucky's Division of Water (KDOW) that provides the Commonwealth's primary capability to administer FEMA's National Flood Insurance Program (NFIP); the Community Rating System (CRS); and the Risk Mapping, Assessment, and Planning (RiskMAP) program.

Again, that Kentucky's Division of Water illustrates the Commonwealth's capability to administer these programs derives from Kentucky legislation: Kentucky Revised Statute Chapter 151 (KRS 151) designates Kentucky's Division of Water as the Commonwealth's coordinating agency for the National Flood Insurance Program (NFIP). As such, KDOW establishes development and building standards, provides technical assistance to communities and agencies, and evaluates and documents community floodplain management activities.

Kentucky Revised Statute, Chapter 151 (KRS 151) outlines the requirements for obtaining a Stream Construction Permit for any development activities across or along any stream in Kentucky. Stream Construction Permits are issued pursuant to Kentucky Administrative Regulation, Title 401, Chapter 4, Section 060 (401 KAR 4:060). The Commonwealth's minimum criteria supersede federal NFIP standards in that the Commonwealth requires Stream Construction Permits for development in *all* areas across or along a stream (rather than limited only to Special Flood Hazard Areas) as indicated on Flood Insurance Rate Maps (FIRMs). The Commonwealth also requires that substantial improvements to structures be based on a five-year period in which the cumulative cost equals or exceeds fifty percent (50%) of the market value of the structure. Substantially improved structures must be mitigated to meet today's minimum standards.

Kentucky's Division of Water's NFIP coordinators provide technical assistance to all communities in Kentucky through outreach materials, training workshops, quarterly newsletters, NFIP presentations, and onsite visits. They have also developed a Kentucky Floodplain Managers Handbook and a Kentucky Quick Guide for guidance in floodplain management.

Commonwealth NFIP staff evaluates and documents communities participating in the NFIP floodplain management activities through a contract with the Federal Emergency Management Agency (FEMA). A community assistance contact is performed by a brief phone call or site visit with the local floodplain coordinator. A community assistance visit is an intense inspection of a community's Special Flood Hazard Areas (SFHAs) and flood prone areas to identify any deficiencies in the community's floodplain management program. It is followed by an in-depth meeting with local officials to discuss recommended improvements.

**Community Rating System:
Kentucky Division of Water (KDOW), ISO Verisk, and the
University of Kentucky Hazard Mitigation Grants Program Office (UK-HMGP)**

The Community Rating System (CRS) is an extension of the National Flood Insurance Program (NFIP). It is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS:

1. Reduce flood damage to insurable property;
2. Strengthen and support the insurance aspects of the NFIP, and
3. Encourage a comprehensive approach to floodplain management.

CRS is a “points-based” system toward “Classes”: The community floodplain management activities that are eligible for the program each have points associated with them. Five hundred (500) points achieves a new “Class.” There are ten⁴ (10) Classes total and Classes are awarded in descending order, i.e., Class 9 < Class 8 < Class 7 < Class 6 < Class 5 < Class 4 < Class 3 < Class 2 < Class 1. The objective of the Community Rating System (CRS) is to recognize and reward communities that are doing more than meeting the minimum NFIP requirements to help their citizens prevent or reduce flood losses. The CRS also provides an incentive for communities to initiate new flood protection activities.

As Kentucky’s coordinating agency for the NFIP (per Kentucky Revised Statute, Chapter 151), Kentucky Division of Water (KDOW) serves as the Commonwealth’s primary capability in administering CRS. Generally, the KDOW NFIP Coordinator is responsible for ensuring successful administration of the program by interested communities.

To begin the application process for a CRS classification, communities must submit a letter of interest to their FEMA Regional Office and document that they are implementing floodplain management activities that warrant at least 500 CRS credit points.

The application is submitted to the Insurance Services Office, Inc. (ISO Verisk) and its (ISO)/CRS Specialist. ISO Verisk works on behalf of FEMA and insurance companies to review CRS applications, verify communities’ credit points, and perform program improvement tasks.

Kentucky Division of Water’s NFIP Coordinator formally initiates the application process to CRS for a community by conducting a Community Assistance Visit (CAV). The NFIP Coordinator also provides outreach and technical assistance helping a community to recognize and document the activities it performs that are eligible for CRS points toward

⁴ The 10th Class is a community’s default status, i.e., a community with zero (0) points.

application into the program. Participation in CRS requires yearly reviews where points are recalculated. KDOW's NFIP Coordinator also provides support for these yearly reviews and toward potential increase in points-cum-Class. It is evidence of Kentucky's capability and of the work and talent of the NFIP Coordinator that Kentucky has seen a doubling of CRS participation (and a maintenance of already-participating communities) in the past five (5) years. Within that participation increase also are applications for participation that have a community begin as higher than a Class 9 and increases in Class category amidst already-participating communities.

As a matter of informal program that provides commonwealth capability to mitigate hazards through the administration of CRS, it is relevant to note the role that Kentucky's CRS Specialist from ISO Verisk (a data analytics and risk assessment contractor) plays in communities' CRS application and subsequent participation. While KDOW's NFIP Coordinator is the commonwealth agency source for support and outreach toward CRS application and participation, ISO Verisk's CRS Specialist for Kentucky (and surrounding states) has been instrumental in Kentucky's laudable increase in CRS participation and maintenance over the past five (5) years. This position has kept the Commonwealth abreast of any internal and informal or formal policy changes or changes in expectations or interpretations from those reviewing CRS applications and submissions of activities for points. The ISO Verisk CRS Specialist has provided one-on-one consultation with communities interested in participating in the CRS and has provided extensive commonwealth-wide training in CRS, particularly toward the improvement of correctly completed Elevation Certificates (ECs) that are necessary for participation in CRS.

Related and also reflective of informal program exemplifying commonwealth capability to administer CRS, the CRS Specialist from ISO Verisk and Kentucky Division of Water (KDOW) devised and have implemented a strategy for the Commonwealth to increase CRS participation and maintain existing CRS participants: There are a significant number of CRS floodplain management activities intended to be performed by individual communities that are more efficiently conducted or can be conducted at the commonwealth level and distributed downward. Examples include certain activities under the Flood Hazard Mapping and Flood Data Maintenance categories (Section 410 and 440, respectively) that have been or are being performed for each county and city as a part of KDOW's contract with FEMA for the Risk Mapping, Assessment, and Planning (RiskMAP) program. The CRS Specialist from ISO Verisk and Kentucky Division of Water have successfully compiled and kept updated activities that could be universally applied for CRS points to any county or city interested in participating in CRS.

Also relevant, the University of Kentucky Hazard Mitigation Grants Program Office (UK-HMGP) (under the Martin School of Public Policy and Administration at the University of Kentucky) also provides limited additional capability in administering the Community Rating System (CRS) for the Commonwealth: UK-HMGP houses the Commonwealth's statewide mitigation planner and the individual responsible for reviewing, editing, and helping to write local hazard mitigation plans. There is one particular floodplain management activity eligible for a potentially significant number of CRS points toward which the UK-HMGP planner can and has helped and will continue to help individual

communities participating in CRS: The development of a Floodplain Management Plan as Section 510 (510 FMP) of the CRS Coordinator's Manual. The 510 FMP has significant (if not increasingly superficial) similarities in content to the local hazard mitigation plan. To the extent possible, UK-HMGP has steered hazard mitigation plan development toward integrating the 510 FMP for CRS so that if a community participating in Kentucky's multi-jurisdictional mitigation plan development decides it wants to participate in CRS, it can cite its contribution and subsequent adoption of its hazard mitigation plan for points toward the 510 Floodplain Management Plan. Conversely, UK-HMGP has offered its review of hazard mitigation plans for potential CRS points for submission to ISO Verisk for its official review.

UK-HMGP also houses the Commonwealth's specialist in FEMA's "non-disaster" Hazard Mitigation Assistance (HMA) grant programs, i.e., the Pre-Disaster Mitigation and Flood Mitigation Assistance grant programs. The Flood Mitigation Assistance (FMA) grant under the technical assistance and outreach of UK-HMGP's grant specialist has been instrumental in producing frequent and significant acquisition and demolition projects to remove flood-prone structures from the floodway and floodplain. FMA is also the most efficient source for ridding the Commonwealth of Severe Repetitive-Loss and Repetitive-Loss properties that unduly drain FEMA's National Flood Insurance Fund (NFIF) from which NFIP flood insurance claims are paid. Success in acquisition projects and subsequent success in producing open space both serve communities in earning points towards CRS activities within those categories (i.e., Section 520 and 420, respectively).

Finally, the Kentucky Association of Mitigation Managers (KAMM) houses a variety of sub-committees on which its members can participate. The longest-standing sub-committee is the CRS Users' Group. This Group meets regularly (generally over conference call) to discuss relevant issues pertaining to CRS, e.g., changes to formal or informal policy and/or interpretation of CRS activities, increases in participation, goals, etc. The CRS Users' Group acts as a commonwealth capability to administer CRS in that it acts as an easily accessible, well-advertised, formal networking tool for those participating in CRS and those interested in participating to share experiences and advice for entrance into the program and maintenance of Class designation year-to-year, to discuss changes and obstacles and successes, etc.

Risk Mapping, Assessment, and Planning (RiskMAP): Kentucky Division of Water (KDOW) as Cooperating Technical Partner (CTP)

FEMA's Risk Mapping, Assessment, and Planning (RiskMAP) program is supposed to deliver three (3) outcomes⁵:

- 1) High quality flood maps and information;
- 2) Tools to better assess the risk from flooding; and
- 3) Planning and outreach support to communities to help them take action to reduce or mitigate the flood risk.

Towards the first outcome of high quality flood maps and information, Kentucky's Division of Water (KDOW) contracts with FEMA as one of its Cooperating Technical Partners (CTPs). FEMA's Cooperating Technical Partners (CTP) program seeks to engage qualified partners to collaborate in maintaining timely flood hazard maps and flood hazard information. Thus, as a CTP, KDOW fulfills the terms of the Partnership by producing high quality flood maps and subsequent information.

Specifically as CTP, KDOW implements FEMA's Map Modernization Plan. The goal of FEMA's Map Modernization Plan is to upgrade flood maps nationwide by:

- Developing current flood hazard data for all flood prone areas nationwide to support sound floodplain management and prudent flood insurance decisions.
- Providing the maps and data in digital format to improve the efficiency and precision with which mapping-program customers can use this information.
- Fully integrating FEMA's community and state partners into the mapping process to build on local knowledge and efforts.
- Improving processes to make accelerate the creation and updating of the maps.
- Improving customer services to speed processing of flood map orders and raise public awareness of flood hazards.

FEMA has created a strategy called the Multi-Year Flood Hazard Identification Plan (MHIP) that details FEMA's five-year plan for providing updated digital flood hazard data and maps for areas with flood risk.

⁵ See FEMA's overview of the RiskMAP program: <https://www.fema.gov/risk-mapping-assessment-and-planning-risk-map>. [Last accessed 9/10/2018].

Toward the second outcome of RiskMAP (i.e., tools to better assess the risk from flooding), KDOW develops and updates “nonregulatory” flood hazard maps, applications, and services that are publicly available. It maintains these nonregulatory tools on the website: Kentucky Division of Water (KDOW) Water Maps Portal⁶. The purpose of the Water Maps Portal is to provide tools and additional analysis and insight regarding the flood hazard that complements the official Flood Insurance Rate Maps (FIRMs) that are modernized regularly as administered by KDOW as a FEMA CTP.

Finally, toward the third outcome of RiskMAP (i.e., planning and outreach) Kentucky Division of Water and its private firm contracting partners conduct regular RiskMAP Discovery Meetings throughout the Commonwealth each year. These meetings provide their audiences with updates to Map Modernization and nonregulatory tools and products that result from the Map Modernization and in identifying organically Areas of Mitigation Interest (AOMI). AOMIs refer simply to points on a map that identify locations that the Discovery Meeting audience of experts and stakeholders determine are of particular vulnerability to flooding or to the secondary effects from flooding. (As discussed later in this mitigation plan, AOMIs are beginning to be incorporated into local hazard mitigation plans.)

⁶ <https://watermaps.ky.gov>

S12., II: Discussion of Commonwealth Funding Capabilities for Hazard Mitigation Projects

General Description of How the Commonwealth Has Used Its Own Funds for Hazard Mitigation Projects

The Commonwealth of Kentucky uses its own funds for hazard mitigation projects directly in one way and indirectly in two (2) ways.

Directly, the Commonwealth of Kentucky provides a portion of the local contribution requirement to approved hazard mitigation projects funded under FEMA's Hazard Mitigation Grant Program (HMGP). Ordinarily, a mitigation project selected by the Commonwealth for application to FEMA's Hazard Mitigation Grants Program (HMGP) would face a 25% contribution (paid as cash, in-kind, as donation, and/or as volunteer services/labor) to the completion of the mitigation project, if approved for said HMGP grant. The Commonwealth of Kentucky, then, directly uses its own funds for hazard mitigation projects by contributing 12% of this 25% contribution to the mitigation project approved for an HMGP grant.

Indirectly, Kentucky uses its own funds for hazard mitigation projects as described above in the discussion about Area Development Districts: Area Development Districts are an unequivocally instrumental capability for the Commonwealth in producing mitigation projects. Communities that otherwise would have neither the resources nor the experience to pursue mitigation projects can instead rely on their respective Area Development Districts to provide technical assistance and planning toward mitigation projects or (quite frequently) directly apply on behalf of the community to various federal and federal-cum-commonwealth programs that fund mitigation projects. Further, ADDs consistently provide management and compliance support for funded mitigation projects. The Commonwealth of Kentucky, then, uses its own funds for hazard mitigation projects by using its own funds to support Kentucky's fundamental capability to pursue regularly, distribute widely and equitably, and subsequently expand demand for mitigation projects, i.e., the Area Development Districts.

Specifically, the Commonwealth of Kentucky uses its own funds toward the Area Development Districts in two (2) ways. One was described above: Kentucky's General Assembly allocates from the General Fund monies to fund the Joint Funding Administration (JFA) that is administered by Department for Local Government and operates a Memorandum of Agreement (MOA) with the Area Development Districts contracting them in exchange for reimbursement from the JFA to perform various planning, application, and management services toward projects for their respective counties and cities, many of which are mitigation projects or projects that secondarily provide mitigation.

Secondly, Kentucky's General Assembly established in 1976 the Area Development Fund (ADF). The ADF exists to fund capital projects, again, a significant portion of which are

hazard mitigation projects. That the ADF is intended for capital projects is codified as Kentucky Revised Statute, Chapter 42, Section 350, Parts 2 and 3 (KRS 42.350 (2) and KRS 42.350 (3)).

Area Development Funds are distributed through Area Development Districts (ADDs) and applications for the Fund's use toward capital (e.g., hazard mitigation) projects must be approved by the local ADD Board of Directors before being submitted to the Department for Local Government (DLG) for final approval.

ADF allocations are calculated on the basis of the following formula:

- Sixty percent (60%) of the ADF is distributed according to the percent of commonwealth population in the Area Development District.
- Twenty percent (20%) of the ADF is distributed according to an inverse ratio of the percent of total commonwealth manufacturing employment in the Area Development District.
- Twenty percent (20%) of the ADF is distributed according to an inverse ratio of the percent of the Commonwealth's average per capita income in the Area Development District.

Since the Commonwealth's population centers also have the higher levels of manufacturing and per capita income, the formula achieves incentive for economic diversification to those districts now lacking it, as measured by indices both of relative wealth or financial resources, and of current industrial employment (as opposed to farm, service, or extractive economic activity, i.e., mining coal, minerals, oil, natural gas). The population factor acts as the counterbalance to provide equity for those areas of the Commonwealth with more significant levels of diversification and, consequently, greater financial resources.

Any balance remaining in the fund at the close of any fiscal year will not lapse; but, will continue into and be available for expenditure during the next succeeding fiscal year.

**General Discussion of How the Commonwealth
Has Used FEMA's Mitigation Programs and Funding Sources
(i.e., HMGP, PDM, FMA, and PA C-G)**

FEMA offers grants toward mitigation activity from the following four (4) sources:

1. Hazard Mitigation Grant Program (HMGP)
2. Flood Mitigation Assistance (FMA)
3. Pre-Disaster Mitigation (PDM)
4. Public Assistance C-G (PA C-G)

The Hazard Mitigation Grant Program (HMGP), the Flood Mitigation Assistance (FMA) program, and the Pre-Disaster Mitigation (PDM) program comprise FEMA's Hazard Mitigation Assistance (HMA) initiatives. Of these, the HMGP is a grant made available after a Presidential disaster declaration. The FMA and PDM programs are competitive nationally and, traditionally, have been offered yearly.

The HMA initiative grants (i.e., HMGP, FMA, and PDM) reimburse 75% of the cost of an approved mitigation project or plan. The community implementing the mitigation action is responsible for the remaining 25%. For HMGP, Kentucky assumes some of the burden of the local responsibility for its 25% contribution: The Commonwealth of Kentucky will further reimburse an approved mitigation action up to 12%. This means that, ultimately, the local jurisdiction implementing the mitigation action only is responsible for 13% of the funding of that action.

Each of the previously mentioned grants has a different Congressional authorization and, thus, slightly different rules. These are summarized in the following table:

Table SC-1. FEMA Hazard Mitigation Assistance (HMA) Programs and for What They Are Eligible

<i>Types of Projects Eligible for Funding</i>	<i>HMGP</i>	<i>FMA</i>	<i>PDM</i>
Acquisition of an Entire Property by a Government Agency	✓	✓	✓
Relocation of a Building to a Flood-Free Site	✓	✓	✓
Demolition of a Structure	✓	✓	✓
Elevation of a Structure Above Flood Levels	✓	✓	✓
Replacement of an Old Building with a New Elevated Building	✓	✓	
Local Drainage and Small Flood-Control Projects	✓	✓	
Dry Flood-Proofing (to Non-Residential Buildings Only)		✓	✓
Dry Flood-Proofing (to Historic Residential Structures)	✓	✓	✓
Minor Localized Flood-Reduction Projects	✓	✓	✓
Structural Retrofitting of Existing Buildings	✓		✓
Non-Structural Retrofitting of Existing Buildings and Facilities	✓		✓
Safe Room Construction	✓		✓
Infrastructure Retrofit	✓		✓
Soil Stabilization	✓		✓
Wildfire Mitigation	✓		✓
Post-Disaster Code Enforcement/Building Code Enhancement	✓		
5% Initiative Projects	✓		
Mitigation Planning	✓	✓	✓

Regarding relevant information specific to each grant and how the Commonwealth of Kentucky has used these grants from 2013 – 2018:

Hazard Mitigation Grant Program (HMGP)

Following a Presidential disaster declaration, the FEMA Hazard Mitigation Grant Program (HMGP) provides the affected state with funding for projects to reduce damages, losses, and suffering in future disasters. The intent of HMGP is to create a federal, state, and local partnership to develop and fund mitigation projects. Funding associated with a specific disaster requires Kentucky Emergency Management (KYEM) to provide FEMA with an Administrative Plan which details how the funds will be managed and protected from fraud.

Eligible applicants for the Hazard Mitigation Grant Program include local governments, state agencies, and certain nonprofit organizations. If applications for HMGP projects are approved and a grant is awarded, the recipient of the grant is termed a “sub-recipient.”

HMGP may fund up to 75% of the mitigation expenditures for projects such as:

- Voluntary acquisitions and demolition or elevations of flood-prone structures to conversion to open space in perpetuity,
- Voluntary acquisitions and demolitions of landslide-prone structures for conversion to open space in perpetuity,
- Infrastructure protection measures against windstorms or earthquakes,
- Dry flood-proofing of commercial property,
- Minor structural flood control projects,
- Tornado safe rooms and community shelters, and
- Utility protection measures.

As aforementioned, the remaining 25% of funds must come from non-federal sources. In Kentucky, the state provides up to 12% of the project costs and the sub-recipient must provide the remaining 13%.

The local cost share may be cash or provided through in-kind donations of labor, services, or materials related to the project. The sub-recipient’s community may also apply to other agencies for funds which can be used as “local match.” These funds, in some cases, may also be money originating from the federal government but which loses its federal identity at the state level.

With two notable exceptions, eligible projects must meet a FEMA-approved Benefit-Cost Analysis (BCA), in which the applicant must demonstrate for every dollar spent on a project at least a dollar’s worth of future damage protection will be realized. (For HMGP, these project types are termed “Regular Projects.” The distinction is made because HMGP allows two (2) other categories of mitigation actions that uniquely do not require a Benefit-Cost Analysis: Initiative Projects and Planning Projects. These are discussed below.)

Projects must also meet other criteria. The Kentucky State Clearinghouse, comprised of a group of state regulatory agencies, must review projects to identify any adverse impact on environmental, archeological, and historic resources. These agencies may provide guidance on permits which must be obtained before the project may proceed or actions the applicant's community must take to reduce the effects on such resources.

Up to five percent (5%) of the HMGP funds allocated to the state after a disaster declaration may be spent on projects in which a Benefit-Cost Analysis is difficult or impossible to perform. These mitigation action types are termed "Initiative Projects." Applications for this subset of the HMGP often involve mitigation actions such as:

- Outdoor or indoor warning systems,
- Hazard mitigation education programs,
- NOAA weather radios, and
- Generators⁷

An additional five percent (5%) of HMGP funds allocated can be authorized for use toward one specific type of Initiative Project: Actions addressing enhancement of building codes and building code enforcement. At the time of this writing, this is a relatively recent change to the rules governing eligible HMGP action types. Examples offered of such initiatives include projects that implement the Building Code Effectiveness Grading Schedule (BCEGS), a program administered by ISO-Verisk that mimics the Community Rating System (CRS) in its assignment of points based upon, in this case, building code enhancement and/or enforcement activities toward (potentially) decreasing insurance rates on local government buildings and infrastructure. It should be noted that one of the Commonwealth's mitigation actions for this 2018 – 2023 planning cycle is to pursue aggressively local building code enhancement/enforcement mitigation actions funded by HMGP and its potential allowance to use an extra 5% of the allocation toward such projects.

Finally, up to seven percent (7%) of the HMGP funds allocated to the state after a declared disaster may be used for local or state mitigation planning activities. Mitigation planning is mandated by the Disaster Mitigation Act of 2000 as a condition for receiving mitigation grants. During the 2013 – 2018 planning cycle, HMGP planning was used for single- and multi-jurisdictional, multi-hazard mitigation plan projects. HMGP uniquely allows for "Risk Assessment Add-On" projects, as well. Such projects' intent is to enhance the risk assessment of a current multi-hazard mitigation plan or to develop supplementary planning documents that integrate into a multi-hazard mitigation plan. "Risk Assessment Add-On" projects do compete with the traditional multi-hazard mitigation plan project and with Regular Projects⁸ in Kentucky: Traditional multi-hazard mitigation plan projects funded under HMGP do receive the Commonwealth's aforementioned 12% contribution

⁷ During the 2013-2018 planning cycle, FEMA policy allowed generator project potentially be included as a "Regular Project" (i.e., a project that must pass a Benefit-Cost Analysis).

⁸ Regular Projects can use Planning Projects 7% allocation, but not the other way around.

to the 25% local share required of FEMA's HMA programs. HMGP is the only HMA program to receive this 12% Commonwealth contribution. If available, it is difficult to prioritize a "Risk Assessment Add-On" over a local, multi-hazard mitigation plan that is partially funded by the Commonwealth. Related to Regular Projects, from 2013-2018, Kentucky received eight (8) HMGP allocations. Two (2) of the eight (8) currently are "open," i.e., applications for, in this case, plan projects still are being developed. So, of the six (6) HMGP allocations for which planning projects have been submitted, the maximum allocation available for all projects submitted was \$4,326,215⁹. HMGP only allows seven percent (7%) of the allocation to be devoted to planning. This meant that planning projects could not exceed \$302,835.05 federal share (\$403,780.07 total project cost). With such small HMGP allocations and such far-reaching demand for mitigation activity throughout the Commonwealth (i.e., see the Enhanced Section of this plan), it is similarly difficult to prioritize "Risk Assessment Add-On" plan projects over being able to finance an additional Regular Project.

A community receiving an HMGP grant for any project assumes responsibility to maintain, at its own expense, any equipment or property acquired with the grant.

Below is a table summarizing the project types for which the Commonwealth of Kentucky has used the HMGP grant from 2013 – 2018¹⁰:

⁹ This amount is referred to as the "lock-in amount": An HMGP allocation is based upon the FEMA's expenses toward Public Assistance (PA) and Individual Assistance (IA) upon a presidential disaster declaration. As an enhanced state, Kentucky's HMGP allocation is valued 20% of PA and IA receipts. Thus, the "lock-in amount" can change throughout an HMGP application process: HMGP typically is implemented as PA and IA projects are wrapping up. As PA and IA project amounts become finalized, that HMGP is a function of that finalization means that its value fluctuates accordingly. The \$4,326,215 "lock-in" amount refers to Kentucky's DR-4239 HMGP grant.

¹⁰ This list will include project types spanning the presidential disaster declarations DR-4057, DR-4196, DR-4216, DR-4217, DR-4218, DR-4239, and DR-4278. Kentucky's most recent (i.e., 2018) disaster declarations – DR-4358 and DR-4361 – are not included: At the time of this writing, project applications obviously have not been finalized and, technically, are subject to change. Further, the inclusion of DR-4057 (a disaster declared in 2012) in the table partially is to supplement the exclusion of DR-4358 and DR-4361. This supplement is justified acknowledging that despite its 2012 declaration, projects would not have been approved under HMGP until at least 2013.

Table SC-2. HMGP Usage by Kentucky, 2013-2018

Project Type	# Project Type per Declaration	Declaration Referenced
Acquisition of Private Real Property: Riverine	2	DR-4057
	1	DR-4196
	3	DR-4217
	3	DR-4239
	2	DR-4278
Acquisition of Private Real Property: Landslide	1	DR-4057
	1	DR-4217
	2	DR-4218
Elevation of Private Structures	1	DR-4217
Wet Floodproofing of Private Structures	1	DR-4196
Retrofitting Public Structures: Wind	1	DR-4057
Safe Room (Tornado and Severe Wind Shelter), Public Structures	4	DR-4057
	2	DR-4196
	3	DR-4216
	3	DR-4217
	1	DR-4218
	6	DR-4239
Mitigation Reconstruction	1	DR-4196
	1	DR-4218
Landslide Stabilization: Structural	1	DR-4196
	1	DR-4217
Water and Sanitary Sewer System Protective Measures	1	DR-4196
	1	DR-4216
	2	DR-4239
Infrastructure Protective Measures (Roads and Bridges)	1	DR-4196
Stormwater Management: Culverts	2	DR-4216
	1	DR-4218
Stormwater Management: Diversions	2	DR-4216
	1	DR-4218
	1	DR-4239
Stormwater Management: Detention/Retention Basins	2	DR-4239
Floodwater Storage and Diversion	1	DR-4239
Flood Control: Dam	1	DR-4218
Warning Systems (Initiative Project)	3	DR-4217
	2	DR-4218
	1	DR-4239
Generators (Initiative Project)	3	DR-4057
	4	DR-4196
	3	DR-4216
	2	DR-4217
	1	DR-4218
	2	DR-4239
Generators (Regular Project)	3	DR-4278
	2	DR-4057
Other Equipment Purchases and Installation (Initiative Project)	2	DR-4239
	1	DR-4216
	1	DR-4217

Project Type	# Project Type per Declaration	Declaration Referenced
Local Multi-Hazard Mitigation Plans	1	DR-4057
	1	DR-4196
	1	DR-4217
	2	DR-4218
	1	DR-4239
Planning-Related Activities (e.g., Risk Assessment Add-On)	1	DR-4217
	1	DR-4278

HMGP, of course, drew many successful applications for generators and other “initiative” projects. This is natural given that HMGP is the only one of the three FEMA Hazard Mitigation Assistance (HMA) grants to allow such projects. Community safe rooms frequently submitted applications that were funded: They are incredibly cost-effective projects toward mitigation, largely due to the primarily small, rural, and vulnerably populated nature of the Commonwealth. They also are projects that can fit within small grant allocations. And this is a connection to the Commonwealth’s use of the HMGP vis-à-vis the Pre-Disaster Mitigation (PDM) grant program discussed below: Given FEMA’s rules toward the calculation of damages toward disaster declaration, Kentucky frequently is declared multiple times within a year with each declaration arriving with comparatively small HMGP allocations. The Enhanced Plan will show that none of the HMGP allocations for Kentucky within the past five (5) years topped roughly \$4.5 million. And some were less than \$1 million. Such comparatively small grant allocations do not allow either for many mitigation projects or for larger-scale capital projects. Thus, the PDM discussion below will show that Kentucky has used PDM for larger-scale capital mitigation (and planning) projects.

Flood Mitigation Assistance Program (FMA)

The Flood Mitigation Assistance (FMA) grant program provides funding to the Commonwealth of Kentucky for cost-effective measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the National Flood Insurance Program (NFIP).

The FMA program is funded on an annual cycle. Each year the state gets a target allocation of funding for which local communities can apply. The FEMA program is split with up to 75% of the project funded by federal funds. The remaining 25% must be paid by the local community.

Before this 2013-2018 planning cycle, the FMA program used to exist separately from what was then termed the Repetitive Flood Claims (RFC) program and the Severe-Repetitive Loss (SRL) program. During the 2013-2018 planning cycle, FEMA policy combined the RFC and SRL into sub-parts of the FMA program.

Currently, then, the FMA program offers significant financial incentives for projects that reduce the number of Repetitive-Loss¹¹ (RL) and Severe Repetitive-Loss¹² (SRL) properties: An approved project that targets RL properties potentially can receive 90% of its funding from FEMA through the FMA grant. An approved project that targets SRL properties potentially can receive 100% of its funding from FEMA through the FMA grant. In other words, in dealing with RL properties, FEMA only requires a 10% local contribution to the FMA grant. In dealing with SRL properties, FEMA does not require a local contribution to the FMA grant.

The Commonwealth of Kentucky's priority for this fund and, consequently, how it has used this program during the 2013 - 2018 cycle, is to reduce the number of properties located on the National Flood Insurance Program's Repetitive Loss (RL) and Severe Repetitive Loss (SRL) Lists. Other eligible projects include:

- Voluntary acquisition of insured real property to conversion to open space in perpetuity,
- Elevation of insured public or private structures to avoid flooding,
- Dry flood-proofing of insured non-residential structures, and/or
- Structural retrofitting and non-structural retrofitting of existing public or private structures to meet or exceed applicable building codes relative to floodplain management

¹¹ A Repetitive-Loss (RL) property is any insurable building for which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year period, since 1978.

¹² Severe Repetitive-Loss (SRL) properties are residential properties which have at least four (4) NFIP claim payments over \$5,000 each, when at least two (2) such claims have occurred within any ten-year period, and the cumulative amount of such claims payments exceeds \$20,000; or for which at least two (2) separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the value of the property, when two (2) such claims have occurred within any ten-year period.

Outside of targeting RL and SRL properties, the FMA grant has been used to finance acquisition-and-demolition, elevation, and drainage projects that require total outlays that exceed the amounts typically offered through FEMA's HMGP grant.

To be eligible for FMA grant funding, both the community and individual properties addressed in the project must have flood insurance.

The FMA program typically allows for and encourages applications for planning projects. Despite the encouragement, currently, FMA is difficult to use for planning projects: The FMA program is limited to flooding-specific projects and, thus, flooding-specific mitigation planning. Separate mitigation plans targeting flooding is redundant for Kentucky: Kentucky (not uniquely) suffers from flooding disproportionately from its other hazard types¹³. Consequently, Kentucky's local jurisdictions' multi-hazard mitigation plans elaborate on the flooding risk for communities extensively. This makes applying for a plan project detailing flooding specifically a bit unnecessary. Further, FMA planning seems to refer to a historic precedent that required a separate flood hazard plan in order to be eligible for FMA grants. This requirement for a community to possess both a multi-hazard mitigation plan and a flood mitigation plan is no longer required. Rather, Kentucky has attempted to apply on behalf of relevant communities for Floodplain Management Plans as described by the Community Rating System (CRS) as its Section 510 activity toward reducing a community's Class and subsequently reducing the community's NFIP flood insurance premiums. Despite CRS's dependence on NFIP for its reason for existence (and that FMA is dependent upon NFIP), so far Kentucky has been advised that CRS 510 Floodplain Management Plans are not eligible for FMA funding.

Still, during the 2013 – 2018 plan cycle, Kentucky did use the Fiscal Year 2013 and 2014 FMA allocations to finance flood hazard *sections* in otherwise multi-hazard mitigation plans. Four (4) FY 2013 FMA and four (4) FY 2014 FMA grants were awarded to Kentucky regional Area Development Districts (ADDs) to finance the flood hazard sections of multi-jurisdictional, multi-hazard mitigation plans currently in development by those ADDs. However, this practice of using the FMA planning priority in this manner is not intended to be pursued regularly by the Commonwealth: The FMA grant's preference to finance the flood hazard portion of multi-hazard plans was primarily a function of external funding circumstances at the time, i.e., Fiscal Years 2013 and 2014 were uncharacteristically lacking in FEMA Pre-Disaster Mitigation (PDM) financing and Kentucky required that multiple multi-jurisdictional, multi-hazard mitigation plans be updated during those fiscal years.

¹³ This should be qualified thusly: It is not controversial to say that Kentucky similarly suffers, in this case uniquely, disproportionately also from landslide hazard events. In other words, flooding and landslides fairly compete for most deleterious in impacts. However, for the purposes of this section, many landslides are the result of flooding; so, flooding still is Kentucky disproportionately deleterious hazard type.

Pre-Disaster Mitigation Grant Program (PDM)

The Pre-Disaster Mitigation Program (PDM) provides funds to the State for pre-disaster mitigation planning and the implementation of cost-effective mitigation projects prior to a disaster event.

The PDM program is a nationally competitive program. The PDM program traditionally has been funded on an annual cycle. During the 2013-2018 commonwealth planning cycle, the PDM program has offered states a federal share “set-aside” that encourages states to submit applications for projects requiring at least the amount of federal funding offered for each fiscal year’s “set-aside.” This “set-aside” amount changes: For Fiscal Year 2013, the PDM “set-aside” was \$250,000 federal share. For Fiscal Year 2018, the PDM “set-aside” was \$575,000 federal share. The state prioritizes and thusly chooses the project(s) to receive the “set-aside” and, designated as such, this (these) project(s) is (are) guaranteed¹⁴ the “set-aside.”

The PDM program is funded by FEMA with a funding split of up to 75% of the project funded by federal funds. The remaining 25% must be paid by the local community.

Eligible applicants include local governments, state agencies, and public universities. Types of eligible projects include:

- Voluntary acquisitions and demolition or elevations of flood-prone structures to conversion to open space in perpetuity;
- Structural retrofitting and non-structural retrofitting of existing public or private structures to meet or exceed applicable building codes;
- Construction of tornado safe rooms and community shelters;
- Protective measures for utilities, water, and sanitary sewer systems and/or infrastructure;
- Storm-water management projects to reduce or eliminate long-term risk from flood hazards;
- Localized flood control projects, such as certain ring levees, bank stabilization, and floodwall systems which are designed specifically to protect critical facilities; and/or
- Planning

If a community is identified as located in a Special Flood Hazard Area, it must be a participant in good standing in the National Flood Insurance Program (NFIP). Also, the applicant must have a FEMA-approved local hazard mitigation plan.

Eligible projects must achieve a FEMA benefit-cost analysis which demonstrates for every dollar spent on a project; at least a dollar’s worth of future damage protection will be realized.

¹⁴ Assuming the project is eligible for Hazard Mitigation Assistance (HMA) funding, of course.

During the Commonwealth's 2013-2018 planning cycle, Kentucky witnessed that each PDM grant cycle is accompanied by federal priorities for its use to incentivize application for certain types of projects, specific to each grant cycle. For example, the PDM cycle for Fiscal Year 2017 saw FEMA prioritize planning projects and projects involving public/private partnerships. Meanwhile, the PDM cycle for Fiscal Year 2018 saw FEMA prioritize "Advance Assistance" (to fund development of mitigation strategies and obtain data to prioritize, select, and develop community mitigation projects for future funding) and community-level capital projects (under its Resilient Infrastructure Competitive Funding project initiative).

Generally speaking, each (generally annual) PDM allocation is accompanied by specifications regarding the limit of federal funding for which a project can request and on the number of project (sub-)applications allowed to be submitted by a state. Again, generally, even with such limits in the amount that can be requested or the number of project applications that can be submitted, PDM has been highly beneficial for (and thusly used by) Kentucky for capital and planning projects that require significantly more federal support than what would be eligible under an HMGP grant whose value is determined as function of a disaster declarations that, due to FEMA rules in how declarations are determined, are increasing in number but decreasing in damages reflected.

Below lists the PDM project number, the type of project for which the program received an application, and the amount of the application. This is to demonstrate that the Commonwealth used the PDM program during the 2013-2018 planning cycle primarily for large capital projects that would strain a given HMGP allocation and for planning projects (especially during Fiscal Year 2017 where planning was emphasized):

Table SC-3. PDM Application Types and Their Amounts, 2013-2017¹⁵

Grant Number	Project Application Type	Federal Share Requested
PDM-2013-001	Acquisition of Private Real Property: Riverine	\$ 871,537.50
PDM-2013-002	Acquisition of Private Real Property: Riverine	\$ 233,887.50
PDM-2013-003	Landslide Stabilization: Structural	\$ 148,146.75
PDM-2013-005	Local Multi-Hazard Mitigation Planning: UPDATE	\$ 250,000.00
PDM-2014-001	Landslide Stabilization: Structural	\$ 148,146.75
PDM-2014-002	Local Multi-Hazard Mitigation Planning: UPDATE	\$ 73,168.00
PDM-2014-003	Acquisition of Private Real Property: Riverine	\$ 867,600.00
PDM-2014-004	Local Multi-Hazard Mitigation Planning: UPDATE	\$ 106,526.24
PDM-2014-005	Local Multi-Hazard Mitigation Planning: UPDATE	\$ 250,000.00
PDM-2015-001	Landslide Stabilization: Structural	\$ 716,401.20
PDM-2015-002	Acquisition of Private Real Property: Landslide	\$1,980,108.00
PDM-2016-001	Safe Room (Tornado and Severe Wind Shelter), Public Structure	\$ 375,000.00
PDM-2016-002	Local Multi-Hazard Mitigation Planning: NEW	\$ 212,740.67
PDM-2016-003	Local Multi-Hazard Mitigation Planning: NEW	\$ 65,000.01
PDM-2016-004	Local Multi-Hazard Mitigation Planning: NEW	\$ 72,878.25
PDM-2016-005	Local Multi-Hazard Mitigation Planning: NEW	\$ 73,477.92
PDM-2016-006	Safe Room (Tornado and Severe Wind Shelter), Public Structure	\$ 375,000.00
PDM-2016-007	Safe Room (Tornado and Severe Wind Shelter), Public Structure	\$ 375,000.00
PDM-2016-008	Generator (Regular Project)	\$ 975,000.00
PDM-2016-009	State Multi-Hazard Mitigation Planning: UPDATE	\$ 300,000.00
PDM-2017-001	Local Multi-Hazard Mitigation Planning: UPDATE	\$ 75,000.00
PDM-2017-002	Local Multi-Hazard Mitigation Planning: NEW	\$ 300,212.00
PDM-2017-003	Acquisition of Private Real Property: Riverine	\$ 46,785.00
PDM-2017-004	Local Multi-Hazard Mitigation Planning: UPDATE	\$ 56,250.00
PDM-2017-005	Local Multi-Hazard Mitigation Planning: UPDATE	\$ 86,167.50
PDM-2017-006	Local Multi-Hazard Mitigation Planning: UPDATE	\$ 89,744.00
PDM-2017-007	Local Multi-Hazard Mitigation Planning: UPDATE	\$ 300,000.00
PDM-2017-009	Local Multi-Hazard Mitigation Planning: NEW	\$ 150,000.00

¹⁵ Fiscal Year 2018 applications are not included in this table: At the time of this writing, Fiscal Year 2018 PDM was in its open application phase.

Further Funding Sources for Repetitive-Loss and Severe Repetitive-Loss Properties

In addition to the Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM) program, and especially the Flood Mitigation Assistance (FMA) grants, there are a couple of other funding sources to consider that can specifically target Repetitive-Loss and Severe Repetitive-Loss properties:

The Increased Cost of Compliance (ICC) is an extra flood insurance claim payment that can be provided if an insured building was flooded and afterward declared “substantially damaged” by the local permit office. ICC coverage is a part of most standard flood insurance policies available under FEMA’s National Flood Insurance Program (NFIP). It provides up to \$30,000 to help cover the costs of mitigation measures that will reduce flood risk.

ICC payments can be used to pay 100% (up to \$30,000) of the following mitigation project types:

- Relocation of a building to a flood-free site,
- Demolition of a structure,
- Elevation of a structure above flood levels,
- Replacement of an old building with a new elevated building, and/or
- The dry flood-proofing (of nonresidential buildings).

Further, the federal Small Business Administration (SBA) also provides low-interest loans that can be used to fund repairs and mitigation projects after a Presidential disaster declaration.

Public Assistance (PA) C – G (“Permanent Work”)

Public Assistance (PA) is FEMA’s largest grant program providing funds to assist communities responding to and recovering from major disasters or emergencies declared by the President. The program provides emergency assistance to save lives and protect property and assists with permanently restoring community infrastructure affected by a federally declared incident.

Eligible applicants include states, federally recognized tribal governments (including Alaska Native villages and organizations so long as they are not privately owned), U.S. territories, local governments, and certain private non-profit (PNP) organizations.

FEMA processes PA grant funding according to the type of work the applicant undertakes. Eligible work must be required as a result of the declared incident, be located in the designated area, be the legal responsibility of the applicant, and be undertaken at a reasonable cost.

Eligible work first is classified into “Emergency Work” and “Permanent Work” and then into the following categories:

Emergency Work:

- Category A: Debris Removal
- Category B: Emergency Protective Measures

Permanent Work:

- Category C: Roads and Bridges
- Category D: Water Control Facilities
- Category E: Public Buildings and Contents
- Category F: Public Utilities
- Category G: Parks, Recreational, and Other Facilities

The Permanent Work categories (PA C-G) have been used by the Commonwealth traditionally for infrastructure projects and especially toward those dealing with Category C (Roads and Bridges), Category E (Public Buildings and Contents), and Category F (Public Utilities). Categories C, E, and F are especially important for Kentucky given the timely nature of Public Assistance when compared to review of applications for such infrastructure projects under FEMA’s Hazard Mitigation Assistance (HMA) grants: Projects dealing with roads and with infrastructure cannot generally await the deliberation required for an HMA project.

S12., III: General Summary of Obstacles and Challenges and Changes Since the Previous Plan Approval

Obstacles and Challenges

Looking to the next five (5) years, obstacles and challenges to the Commonwealth of Kentucky's capability to implement mitigation are seemingly predictable: They involve resources.

That said, Kentucky is not pessimistic about its capability to administer federal mitigation programs and leverage federal support for mitigation activity. The partnerships, relationships, and networks fostered in the past five years and over the decades between and amidst agencies like Kentucky Emergency Management (KYEM), the University of Kentucky Hazard Mitigation Grants Program Office (UK-HMGP), Kentucky Division of Water (KDOW), ISO Verisk, Kentucky Division of Forestry (KDF), Department for Local Government (DLG), and Kentucky Geological Survey and amongst entities like the Area Development Districts (ADDs) and the Kentucky Association of Mitigation Managers (KAMM) will ensure that mitigation activity continues to increase, become increasingly quotidian, and, thus, become increasingly efficient.

Rather, Kentucky did experience between 2013 and this current commonwealth plan cycle hints and overtures that FEMA (and other federal agencies) will want to place additional (unfunded) burden on states and commonwealths as the federal environment has to respond to its own increasing burdens and external shocks.

Any additional burden toward mitigation, whether it be administrative or budgetary, in order to participate in federal programs will create a negative impact on the program's capabilities. Additional costs of doing business, e.g., increasing data collection and research toward eligibility toward federal assistance or increasing budgetary contribution to federal assistance will present significant obstacles and challenges.

Before FEMA or other federal agencies whimsically or flippantly suggest that Kentucky should increase its contribution to disaster relief and/or hazard mitigation or should devote more of its time to reporting or data collection or expanding or broadening the scope of its mission toward mitigation activity, the following realities should be acknowledged:

- 1) Regardless how obvious they are as line-items in a state budget, virtually all states have at least de facto Rainy Day Funds (i.e., Budget Stabilization Funds). Kentucky's Rainy Day Fund is designated as "necessary" expenditures line-items. "Necessary" expenditures act similarly to the federal government's "mandatory" expenditures in that these expenditures come first or must be spent. "Necessary" expenditures are line-items in Kentucky's budget not designated for allocation to specific agencies. "Necessary" expenditures are used to finance state match for capital projects, for disaster preparedness, and for payment on the Commonwealth's debt.
 - a. Related, local governments have de facto Budget Stabilization Funds, too: Local governments will have "slack resources" whose value will vary based upon a local government's credit rating. But, "slack resources" are resources in local budgets that are reserved for unpredictable events such as disasters.
- 2) The size of a state's budget or the amount of its revenue from taxation is secondary to a state's control over its expenditures. And the fact is that regardless the size of a states budget or how much tax revenue it takes in, all states spend about 80% of their budgets on the following five (5) categories: 1. Education, including elementary and secondary and higher education; 2. public protection, including police, fire, and corrections; 3. social services, including public welfare, public assistance, and Medicaid; 4. community development, including libraries, natural resources, parks and recreation, housing, and community development; and 5. infrastructure, including highways, water, sewers, utilities, and solid waste. For a state like Kentucky, education and social services comprise disproportionate percentages of that roughly 80% of state expenditures. Most of the remaining 20% of a state's budget is spent on items like interest paid on debt, government administration, and insurance.
- 3) Related, then, Kentucky indebtedness is considerable: Kentucky is one of the top states with debt outstanding. Using 2015 figures, per capital debt is \$10,200 per person. Compare this with the national average of \$9,444 per person. And compare this with the well-known severity of debt burden that is Illinois whose per capita debt burden is just under \$12,000 per person. Thirty-four percent (34%) of this outstanding debt is held by the Commonwealth. (Sixty-six percent, then, is held by local governments.)
- 4) Based on 2016 actuarial assumptions, Kentucky is estimated to have \$32.8 billion in unfunded liability toward its eight (8) separate public pension programs. Kentucky must somehow find a way to pay the pensions of public employees under the County Employees' Retirement System (Hazardous and Non-Hazardous), the Kentucky Employees' Retirement System (Hazardous and Non-Hazardous), the State Police Retirement System, the Judicial Retirement Fund, the Legislators' Retirement Fund, and the Teachers' Retirement System. Combined, these public pension systems were funded at around 38% of the level that was needed to be considered fully funded, according to 2015 figures.

Changes Since the Previous Plan Approval

The most noticeable change to this capabilities section of the Standard Plan for the Commonwealth of Kentucky is the deliberate omission of a table of presumed programs run by various executive-level and regional agencies and organizations throughout Kentucky. The previous Commonwealth mitigation plan (2013) was written under FEMA's 2008 "Crosswalk" tool for plan review. This 2018 Commonwealth mitigation plan has been written under the Plan Review Tool for the Commonwealth that took effect in 2016 and superseded the 2008 "Crosswalk."

The writing of this plan interprets a greater emphasis on *evaluation* and *summary* of the Commonwealth's capability to mitigate hazards, administer programs, and finance mitigation. And in evaluating and summarizing the Commonwealth's capabilities, it is more relevant and accurate to stress the primacy of the Area Development Districts, of the Department for Local Government (DLG), of Kentucky Division of Water (KDOW), of Kentucky Emergency Management (KYEM), and of the University of Kentucky Hazard Mitigation Grants Program Office (UK-HMGP). In articulating a snapshot of the capability of Kentucky to mitigate its hazard, it is Kentucky's ADDs and DLG that advertise, apply for, and manage the many federal and state programs that affect mitigation activity. It is Kentucky Division of Water (KDOW) that primarily implements NFIP, CRS, and RiskMAP. KYEM and UK-HMGP defines the capability of the Commonwealth to fund mitigation activity through HMGP, PDM, FMA, PA C-G, and to develop local hazard mitigation plans and related planning.