

CRS Activity 510

Progress Report on Implementation of Credited Plan

Date this Report was Prepared:	April 3, 2020
Name of Community:	City of Hopkinsville, Kentucky (CID 210055)
Name of Plan:	Pennyriple Regional Hazard Mitigation Plan
Date of Adoption of Plan:	June 7, 2016
5 Year CRS Expiration Date:	The Pennyriple Regional Hazard Mitigation Plan Expires July 29, 2021

The City of Hopkinsville participates in the National Flood Insurance Program's Community Rating System (CRS). This program provides incentives to communities that have proactive programs and enhanced regulatory standards to address flooding. As part of the city's participation in this program, flood insurance policy holders receive a reduction in premium costs.

Each year, the city is required to recertify its participation in the CRS program. As part of the city's continued participation in the CRS program, an annual progress report is required. This report highlights activities undertaken by the city in the preceding program year to accomplish action items identified in the flood mitigation plan. This progress report provides an overview of the city's programs to address flooding and provides a summary of activities undertaken in the past program year. This report is a summary. Additional project or activity specific information can be obtained by contacting Community and Development Services (CDS) at 270-887-4285, on the web at www.hopkinsville-stormwater.com, or by visiting our offices located at 710 South Main Street, Hopkinsville, Kentucky.

1. How can a copy of the original plan be obtained:

On June 7, 2016, the City of Hopkinsville adopted the *Pennyriple Regional Hazard Mitigation Plan* by Resolution 2-2016. A copy of the multi-jurisdiction plan can be reviewed or obtained at the Community and Development Services offices located 710 South Main Street, Hopkinsville, Kentucky. A copy may also be obtained at the Pennyriple Area Development District offices located at 300 Hammond Drive, Hopkinsville, Kentucky or online at www.peadd.org/hazard-mitigation.

2. Describe how this evaluation report was prepared and how it was submitted to the governing body, released to the media, and made available to the public:

Although the *Pennyriple Regional Hazard Mitigation Plan* is multi-jurisdictional and addresses several natural hazards, the plan identifies prioritized flood mitigation activities specific to Hopkinsville and Christian County. The Hopkinsville Surface and Stormwater Utility (HSSU), established by the City Council in 2006, and Community and Development Services are charged, in concert with other city departments, with the implementation of many of these mitigation activities; specifically, the HSSU is responsible for the implementation of activities that mitigate or reduce the impacts of flooding and stormwater runoff. CDS is charged with providing staff support to the HSSU and enforcing the city's stormwater, erosion control, and flood damage prevention ordinances.

This report was prepared for the City of Hopkinsville, through the HSSU Board of Directors, for the period May 2019 to April 2020. Copies of this report were provided to the Hopkinsville City Council and disseminated to the media. In addition, a copy of this report is posted on the HSSU's website www.hopkinsville-stormwater.com.

3. Provide a description of the implementation of each recommendation or action item in the action plan, including a statement on how the project was implemented or not implemented during the previous year:

The *Pennyryle Regional Hazard Mitigation Plan* identifies six mitigation activities specific to flood hazards. A listing of these activities and actions taken by the City of Hopkinsville include:

A. Flood Priority 1: Develop a debris removal plan for streams and ditches.

The City of Hopkinsville conducts an annual and ongoing assessment of the North Fork and South Fork of the Little River to identify log jams and other debris that could potentially impact river flow. CDS conducted river flyovers on March 6, 2019 and March 27, 2020 to identify stream obstructions. In addition, CDS staff provide routine monitoring of bridges and other segments of the rivers that are commonly obstructed. Obstructions identified by the city's public works department and residents are also recorded and scheduled for removal.

Since April of 2019, a total of nine major log jams have been removed from both forks of the Little River. Locations of recent log jam removals include:

- Hunting Creek area
- Skyline Park area
- Larrimore Bridge
- Eagle Way Bypass (high flow structure)
- Millbrooke Bridge
- 9th Street Bridge

For the fiscal year ending June 30, 2020, the HSSU has budgeted \$70,000 for log jam removals. As of this report, approximately \$13,000 has been expended. The March 27, 2020 flyover identified an additional sixty log jams in the Little River. Removal of these obstructions are currently being prioritized and it is anticipated that additional expenditures will occur in this fiscal year.

B. Flood Priority 2: Move or develop critical facilities and other structures out of flood prone areas.

Following the flood of 1997, the City of Hopkinsville acquired and removed several structures within the Special Flood Hazard Area (SFHA). Initially, these acquisitions occurred within two of the city's most significantly impacted areas, the Cherokee Park and Givens Addition subdivisions. In recent years, buyouts have expanded to include other flood prone areas. As a result of the city's proactive measures, over 100 properties have been acquired and their flood impacted structures removed. Properties obtained through these acquisitions are permanently restricted to open space.

The ability of the city to accomplish acquisitions has been facilitated by the availability of federal grants, specifically Hazard Mitigation Grant Program (HMGP) and Flood Mitigation Assistance (FMA) funds. Since May of 2019, CDS staff has worked to complete and close out grants (awarded in previous program years) that resulted in the removal of nine flood-prone structures. These projects include:

- South Fork Acquisitions (HMGP) (Total Costs \$4,291,777) (Closeout Requested);
- Repetitive Loss Acquisitions (Total Costs \$687,804) (Closeout Requested); and
- HMGP Acquisitions (Total Costs \$139,817) (Closed 11/15/2019).

During this program year, CDS and HSSU have pursued, on behalf of the city, additional HMGP, FMA, and Pre-Disaster Mitigation (PDM) grant funds. Applications under these grant programs are pending. If awarded in full, funds will allow for the acquisition and demolition of twelve additional structures (eleven residential acquisition/demolitions and one commercial demolition). Total estimated project costs are approximately \$2 million.

The placement of new structures in the SFHA is regulated by the city's flood damage prevention ordinance. Critical facilities are specifically addressed by the ordinance with the expectation that these facilities will be located outside of the SFHA. In cases where SFHA placement is unavoidable, the ordinance requires that structures and access drives be elevated, areas containing toxic substances be sealed, and flood waters displaced by development be offset with no impact to up or downstream properties. The city strictly enforces these requirements. In this program year, no permits were issued for critical facilities placements within the SFHA.

C. Flood Priority 3: Develop or enforce a storm water management plan to reduce flash flooding, erosion, and damage.

CDS and the HSSU, on behalf of the city, are involved in several activities designed to reduce flash flooding, erosion, and property damage. These include: 1) the removal of debris from the rivers that impedes flow (discussed in item A); 2) the acquisition and removal of structures from the SFHA (discussed in item B); 3) the identification and implementation of large scale and remedial drainage projects/improvements; 4) the maintenance and upkeep of significant drainage infrastructure including city owned basins and the watershed lakes; 5) the enforcement of the city's flood damage prevention ordinance, storm water management and control ordinance, and erosion prevention and sediment control ordinance.

The identification and implementation of large scale and remedial drainage projects: The HSSU maintains a *Master Drainage Plan* which is periodically updated as new projects are identified. Major stormwater projects undertaken or completed during the past program year include:

- Howell Street Drainage Project (completed but awaiting closeout);
- Sanderson/UHA Drainage Project (completed and closed 8/12/2019);
- 7th Street Drainage Project (completed and closed 8/13/2019);
- South Main Street Drainage Project (completed and closed 9/23/2019);
- 9th Street Drainage Project (completed and closed 10/24/2019); and
- W. 7th Street Drainage Project (under construction).

The above projects were completed/undertaken with a combination of federal grants and state and local funds. Costs for the above projects exceeded \$1.5 million.

In addition to larger engineered projects, CDS and the Hopkinsville Public Works Department undertake smaller remedial projects throughout the year. Many of these projects are identified by residents and property owners. Resident calls/contacts are logged and smaller projects are evaluated (and performed) based on the area impacted, complexity, access and easements, and the availability of funding. Larger or more complex projects (i.e. non-remedial) are further evaluated for funding

consideration as larger engineered projects. During this program year, 52 remedial projects were addressed.

The maintenance and upkeep of significant drainage infrastructure: The HSSU actively maintains four watershed lakes. These include lakes Boxley, Blythe, Morris, and Tandy. In addition, HSSU maintains eight regional/area stormwater basins. These include the Esch, McCargo, Henson, Tanglewood, Springmont, Woodmont, Pardue Lane, and Morningside basins.

The watershed lakes and area basins are critical infrastructure in reducing flooding and mitigating the adverse impacts of stormwater runoff. Annually, the HSSU allocates funding to maintain these facilities.

The enforcement of city ordinances: The city, through CDS and the HSSU, actively enforces three ordinances designed to mitigate the effects of flooding, stormwater, and erosion. These include:

- The Flood Damage Prevention Ordinance (Chapter 151);
- The Storm Water Management and Control Ordinance (Chapter 155); and
- The Erosion Prevention and Sediment Control Ordinance (Chapter 56).

The city has employed a “one-stop-shop” concept for permitting and enforcement. In addition to the above ordinances, the city’s zoning, subdivision, and building codes are enforced through CDS. All proposed developments submitted to CDS for review are evaluated for compliance with the city’s flood damage prevention, stormwater, and erosion control ordinances.

D. Flood Priority 4: Enforce or adopt NFIP flood ordinances.

The city has adopted a flood damage prevention ordinance. This ordinance, codified as Chapter 151 of the City of Hopkinsville, Kentucky Code of Ordinances, exceeds the minimum requirements of the National Flood Insurance Program (NFIP). The city has updated the ordinance as changes have occurred in the FEMA/NFIP requirements or as additional measures have been deemed necessary to mitigate the impacts of flooding. No changes to the ordinance have occurred within this program year.

E. Flood Priority 5: Educate the public of flood prone areas by providing maps and information.

Flood related resources, including links to other agencies and FEMA’s Map Service Center, are provided on the HSSU website. Flood maps can also be viewed at the CDS offices. During the program year, CDS staff produced 43 maps for property owners. In addition, city TV has been used to provide information on flood hazards and required permitting. CDS staff also participated in two educational events during the program year.

F. Flood Priority 6: Educate residents on the availability and importance of flood insurance.

Flood related resources, including links to other agencies and FEMA’s Map Service Center, are provided on the HSSU website. In addition, letters are sent annually to property owners within the city’s repetitive loss areas.

The *Pennyrile Regional Hazard Mitigation Plan* identifies several “all hazards” action items. Many of these actions have been completed or work toward completing these activities was undertaken in previous years. A copy of the city’s prioritized action items is attached to this report.

4. *Discuss why any objectives were not reached or why implementation is behind schedule:*

Progress has been made to implement identified action items. Several of these activities, such as debris removal, enforcement, and public education, are ongoing and will continue to be reported in subsequent program years.

Substantial progress has been made in the removal of structures from flood prone areas. It is anticipated that this activity will continue in future program years; however, this task is dependent upon the availability of funding (specifically HMGP and FMA grants) and property owners who are willing/interested in selling their property.

5. *What are the recommendations for new projects or revised recommendations?*

The recommendation and action items identified in the plan are still relevant and it is anticipated that the activities identified will continue to be pursued by the city in future program years.

The next update of the *Pennyrile Regional Hazard Mitigation Plan* will occur in 2021. A hazard which is related, directly and in some case indirectly, to flooding is subsidence. The city is noted for its Karst topographic and hydrogeologic conditions. The city contains several sinkholes and in many locations water is conveyed through underground channels. Flooding and drought events can cause the expansion and contraction of the subsurface strata, resulting in subsidence and damage to buildings and infrastructure. Subsidence tends to occur at a higher frequency within or immediately adjacent to the SFHA. For the 2021 plan update, the city will work to include subsidence as an identified hazard with accompanying recommendations/action items.

End of Report

Attachment - Excerpt from Plan

Christian County Mitigation Actions Prioritization and Benefit Includes the cities of Crofton, Hopkinsville, Lafayette, Oak Grove, and Pembroke					
Hazard	Action	Priority	Implementation Timeline	Responsible Entity	Potential Funding Source
Flood	Develop a debris removal plan for streams and ditches	High	1-5 years	County/City	County/City
Tornado, Severe T-storm, Severe Winter Storm	Work with utility companies to trim trees and debris away from overhead power lines	High	As needed	Utilities	Utilities
All identified hazards	Provide generators to critical facilities that provide emergency services	High	Complete	Critical Facilities	Self-funded
All identified hazards	Encourage homeowners to have a backup power source or alternate heat source	Medium	1-5 years	Utilities	Private
Flood	Move or develop critical facilities and other structures out of flood prone areas	High	1-5 years; completed for many SRL structures within Hopkinsville	Planning & Zoning	FMA, HMGP, PDM
Flood	Develop or enforce a storm water management plan to reduce flash flooding, erosion, and damage	Medium	Complete	City	local funds
Flood	Enforce or adopt NFIP flood ordinances	Medium	Complete	City/County	City/County
All identified hazards	Develop zoning and land use ordinances to regulate development	Medium	Complete	City/County	City/County
Flood	Educate the public of flood prone areas by providing maps and information	High	1-5 years	EMA/Planning/Insurance	Industry/EMA
All identified hazards	Promote the use of NOAA weather radios for warning purposes	High	1-5 years	Emergency Management	HMGP. PDM
All identified hazards	Develop evacuation plans and procedures for hazards that affect the area	High	Complete	Emergency Management	EMA Grants
Flood, Earthquake	Educate residents on the availability and importance of flood and earthquake insurance	High	1-5 years	City/County/EMA	HMGP/Private Sector/DHS
All identified hazards	Upgrade emergency services communication equipment	High	1-5 years	EMA/City/County	HMGP, DHS

All identified hazards	Develop and implement a protection program for critical information systems	Medium	1-2 years	EMA/City/County	local funds
All identified hazards	Adopt and enforce building codes that will help implement mitigation strategies	Medium	Complete	City/County	local funds
All identified hazards	Continue data collection for use in the hazard mitigation planning process	High	1-5 years	EMA/PeADD	local funds, HMGP, PDM
All identified hazards	Update or install early warning sirens	Medium	As needed; county has reverse 911 system in place	City/County	HMGP, PDM

*These projects may be implemented at the county level or by individual jurisdiction as they relate to the city. Hopkinsville has and is currently implementing acquisition projects within the city for structures located in the 100-year floodplains and repetitive loss structures.