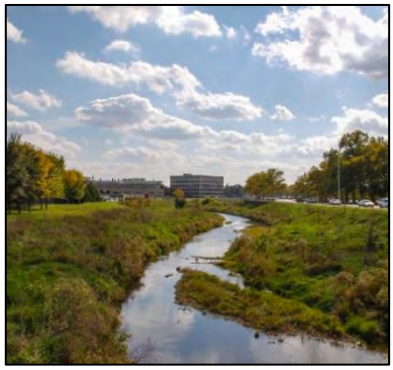
Columbus, Indiana
Flood Risk Management Plan

Completed: Month Date, 2013



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City of Columbus – Bartholomew County Planning Department

Columbus City Engineer's Office

Columbus Fire Department

ACKNOWLEDGMENTS

Mayor:	Kristen Brown
Planning Director:	Jeffrey R. Bergman, AICP
Floodplain Manager:	Thomas A. Weintraut, Jr., AICP
City Engineer:	David L. Hayward, PE, CPESC
Fire Chief:	L. David Allmon
Christopher B. Burke Engineering LLC:	Siavash Beik, PE, CFM, D.WRE Peggy Shepherd, PE, CFM Sheila McKinley, AICP, CFM

Christopher B. Burke Engineering, LLC
115 West Washington St, Suite 1368 South
Indianapolis, IN 46204
CBBEL Project No. 12-0028

With contributions from:

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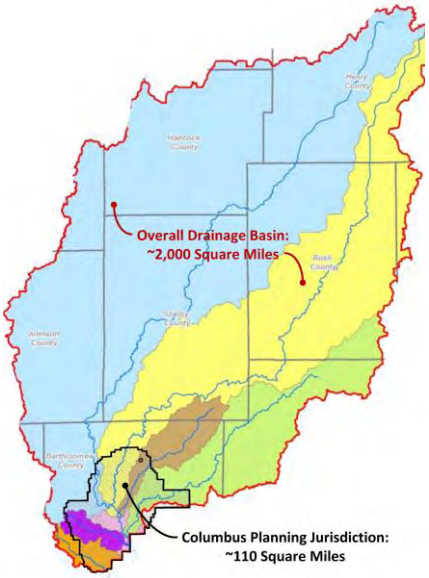
Trudi M. Smith - photos

EXECUTIVE SUMMARY



While the City of Columbus covers 28 square miles and the extended Columbus planning jurisdiction includes approximately 110 square miles, rainfall from an area of over 2,000 square miles flows through Columbus. This overall drainage area is 18 times the size of the Columbus planning jurisdiction. As a result, 36 square miles of land along streams within the Columbus planning jurisdiction (about 1/3 of the 110 square miles) have a 1% chance of flooding in any given year as identified by the National Flood Insurance Program. Because of this extent of potential flooding, this document was developed to provide the City with a road map to manage flood risks.

A respected planning model that guides communities through emergency planning is the “Emergency Life Cycle”, which consists of “Respond”, “Recover”, “Mitigate” and “Prepare” phases. This process is grounded in the belief that emergency planning in a community can and should constantly improve. Protocols can be established such that after each emergency event, real-time data is captured and the data is analyzed to determine how to reduce risk for the next emergency.

“Emergency Life Cycle”

The City of Columbus Flood Risk Management Plan is organized around the Respond-Recover-Mitigate-Prepare framework. Organized within this framework, the Plan describes current flood risks, identifies flood forecasting resources, presents a Flood Response and Evacuation Plan, establishes protocols for post flood damage assessment and data collection, notes information sources for educating the public about flood safety, and uses multiple-component screening criteria to screen over 350 Considered Solutions for mitigation of identified existing floodprone areas down to almost 100 Possible Solutions, then 52 Promising Solutions and finally several Most Promising Solutions.

These Most Promising solutions include levees along select reaches of Haw Creek, Clifty Creek, Flatrock River, and Sloan Branch. Floodproofing and/or voluntary buyouts of structures in other areas were also among the Most Promising Solutions.

The report also provides a road map of action steps for all phases of the Respond-Recover-Mitigate-Prepare Emergency Life Cycle including road replacements for the creation of flood-free routes, enhancement of flood forecasting tools, updating of hydrologic

and hydraulic computer modeling, policy revisions to address future condition flood potential, and updates of the Plan. A summary listing of all recommendations from the Plan is included in Chapter 6 along with implementation steps when applicable.

While all of the plan recommendations should be considered for implementation, the following is a list of the overall top recommended actions to be taken by the City in the order listed:

1. Identify responsible party within the City for implementing each of the Plan recommendations.
2. Take immediate steps to prevent escalation of the existing extent of flooding problems and/or creation of additional flooding problems by addressing policy recommendations.
3. Identify appropriate funding source(s) for each recommendation using the funding considerations listed in Section 6.3. (Creation of a Stormwater Utility appears to be the most versatile and reliable funding source to implement or cost-share the implementation of this Plan's recommendations.)
4. Take the necessary steps to ensure preservation of current forecast tools (NWS tools, USGS gages).
5. Start the process of updating/expanding hydrologic and hydraulic studies to better identify risks and needs.
6. Prioritize buyout areas and work with Indiana Department of Homeland Security to secure available funding.
7. Prioritize levee projects and fund the Preliminary Engineering for the selected projects to evaluate the feasibility at each site. Proceed with funding, design, and construction of levee segments found feasible and preferable as compared to other options.
8. Set up systems for tracking Plan changes and update needs.

Implementation of these recommended actions will lead to a reduction in flood risk and constantly improving preparedness for the next emergency.

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