

FLOOD PREPAREDNESS – EDUCATION & OUTREACH MATERIALS, WATERSHED STUDIES & MASTER PLANS, AND OTHER FLOOD PREPAREDNESS PLANS

5.1 INTRODUCTION



This chapter includes a description of education and outreach materials that are currently available for information about various levels of flood preparedness. Also included is a description of the watershed studies, watershed master plans, and flood preparedness plans that have been developed for the community.

5.2 EDUCATION AND OUTREACH MATERIALS

In each phase of the disaster cycle, there are questions on the part of homeowners, renters, businesses, local officials, and insurance professionals. A myriad of articles/publications to answer these questions have been developed and are available on the internet or through various agencies. A summary of helpful information that was located during a review of available information is provided in **Table 5-1**.

The table is divided into the 4 phases of the disaster cycle: response, recovery, mitigation, and preparedness. Each of these phases is then divided by the audience that the material is directed towards: homeowners and renters, business owners, City officials, or insurance professionals. Each of these categories is then broken down into a list of potential questions or issues of interest followed by the reference letter for the document if a copy is provided in **Appendix 10** and/or the Resource Number to link to the appropriate reference provided in **Table 5-2**. Those resource numbers that are a number plus text are the title of the article or section of the reference that is applicable to the issue. Most of the resources are web sites.



Because web sites are revised with varying degrees of frequency, an attempt has been made to provide titles of documents (if applicable) for use in searching for the document if the link changes or a copy of the information is provided in the Appendix 10.

Table 5-1 Summary of Educational Resources

Phase	Audience	Issue	Educational Resources Appendix Reference	Resource Number
RESPONSE	<i>homeowners & renters</i>	initial preparations if flood is likely	A	1*
		evacuation preparation	A	1*
		turning off utilities	A	1*
		additional information	O	2*,3
RECOVERY	<i>homeowners & renters</i>	hazards to be aware of	B,C	3- After the Flood*, 4*
		filing insurance claims	B,D	3- After the Flood*
		clean up	B, C, D	3- After the Flood*, 4*
		documenting damages	B, C, D	3- After the Flood*, 4*
		physical health protection precautions	C	4*
		mental health information	C	4*
		Rebuilding	E	3-Managing Your Flood Insurance Claim*
		appealing flood insurance claims	F	3- Appealing your Flood Insurance Claim*
		additional information	O, N	5,2*, 3 - Answers to Tough Questions*, 6
	<i>City Officials</i>	DNR's guide for officials		16
	<i>claims adjusters, insurance professionals</i>	claim guidance & forms, damage assessments, policy eligibility & extensions		7
additional information		O	2*	



Phase	Audience	Issue	Educational Resources Appendix Reference	Resource Number
MITIGATION	<i>homeowners & renters</i>	elevating floodprone structures		8, 9
		retrofitting residential structures		10
		local requirements for floodplain development		14
		additional information	O, N	11,12, 2*, 3 - Answers to Tough Questions*
	<i>business owners</i>	floodproofing nonresidential structures		13
		local requirements for floodplain development		14
	<i>City Officials</i>	Increased Cost of Compliance Option	H	3- Increased Cost of Compliance*
		grant programs for repetitive loss mitigation activities	G	3-Repetitive Loss*
PREPAREDNESS	<i>homeowners & renters</i>	identification of flood hazard areas		14
		National Flood Insurance Program	M	5*
		how to buy flood insurance	L, M	15*, 5*
		finding an insurance agent	L, M	15*, 5*
		understanding flood insurance policy coverage	J	3-Understanding Your Flood Insurance Policy*
		Protection of Building Utilities	I	5* "Preparation & Recovery"
		household inventory	I	5* "Preparation & Recovery"
		developing family emergency plan & kit	I	5* "Preparation & Recovery"
		how to be prepared before a flood	I, K, L	3- Flood Preparation and Safety*, 15*
		additional information	O, N	7, 2*, 3 - Answers to Tough Questions*
	<i>City Officials</i>	certification, workshops, & available training		7
		answering public questions about NFIP	N	3 - Answers to Tough Questions*
	<i>claims adjusters, insurance professionals</i>	understanding increased cost of compliance coverage	H	3- Increased Cost of Compliance*
		coverage summaries, forms, flood zone determination companies, summary of coverage		7
		certification, workshops, & available training		7
		additional information	O	2*

*hard copy provided in Appendix 10



Table 5-2 Education Resource References

Resource Number	Resource Reference
1	www.ready.gov/floods - "during" tab
2	www.fema.gov/frequently-asked-questions-0
3	www.floodsmart.gov/toolkits/flood
4	www.ready.gov/floods - "after" tab
5	www.floodsmart.gov
6	"Repairing Your Flooded Home", Red Cross
7	www.fema.gov/national-flood-insurance-program
8	FEMA Publication # 347 Above the Flood: Elevating your Floodprone House (fema.gov/library - search by pub #)
9	FEMA Publication 54 Elevated Residential Structures (fema.gov/library - search by pub # FEMA 54)
10	FEMA Publication 312 Homeowner's Guide to Retrofit (fema.gov/library - search by pub #)
11	FEMA Publication # 114 Design Manual for Retrofitting Flood-prone Residential Structures(fema.gov/library - search by pub #)
12	FEMA Publication # 259 Engineering Principles and Practices for Retrofitting Flood Prone Residential Buildings(fema.gov/library - search by pub #)
13	FEMA Publication # 102 Floodproofing for Non-Residential Structures (fema.gov/library - search by pub #)
14	www.columbus.in.gov/planning/flood
15	www.ready.gov/floods - "before" tab
16	http://www.in.gov/dnr/water/files/FloodAdmGuide.pdf , "Local Floodplain Administrator's Guide"

Additional resources could be developed to answer questions that would be specific to the City of Columbus. A recommended resource would be one that describes the permit process that must be followed in order to rebuild after a flood. Portions of the post flood damage assessment protocol developed as part of the FREP could be used for that purpose.

5.3 WATERSHED STUDIES AND MASTER PLANS

The community has benefitted by additional watershed studies that have been completed. After the June 2008 flood new hydrologic and hydraulic modeling of Haw Creek went beyond the



normal scope of the FIS studies to account for actual observed flow paths beyond the main channel floodplain. As a result, decisions makers were provided with crucial data to better understand the extent of vulnerabilities and evaluate specific mitigation recommendations within the watershed.

In the process of preparing this Plan, additional areas were noted that may also benefit from analysis beyond the normal FIS level study modeling. For example, depth mapping shows that Opossum Creek, Denios Creek, and Airport Tributary may exchange water between them via paths that are not currently understood or included in floodway regulations. Development in these areas may impact flood elevations on each of the streams.

Driftwood River, Flatrock River, and Clifty Creek each have a considerable amount of their watershed that is outside of the Columbus planning jurisdiction. Development is occurring in not only the Columbus area, but other areas of these watersheds which Columbus does not have control of. Cumulative losses of floodplain storage or flow area inside or outside of the Columbus area will impact Columbus. The City should consider coordinating with the other jurisdictions in the watersheds to establish regulations that will reduce the potential impacts or to at least be prepared for the results of the policies and actions of other jurisdictions in the watersheds. Additional detailed hydrologic and hydraulic studies would provide additional insight into making these decisions for these watersheds.

Watershed studies and plans also provide modeling that can more accurately allow the investigation of what-if scenarios in the watershed as well as be a guide to the selection of maximum allowable release rates so that detention facilities are sized based more closely on actual watershed conditions.

5.4 FLOOD PREPAREDNESS PLANS

As part of the development of this Flood Risk Management Plan, a comprehensive Flood Response and Evacuation Plan (FREP) was developed and presented as a stand-alone document. The FREP is a very significant and crucial step to reduce the impacts of flooding on lives and properties when floods occur.

The development of this Flood Risk Management Plan and FREP is in itself the City's most important step in preparation for a flood



event. A summary of the recommendations identified in this Plan and FREP for improving flood preparedness along with a prioritized list of implementation steps to carry out community efforts to reduce the current and future vulnerability to flood risks is provided in Chapter 6 of this report.

5.5 RECOMMENDATIONS – EDUCATIONAL MATERIALS, WATERSHED STUDIES, AND MASTER PLANS

Based on the discussions above regarding educational materials, watershed studies, and Master Plans, the following recommendations are made:

- a) The City should develop a resource to describe the City permit process for rebuilding after a flood. Portions of the post flood damage assessment protocol developed as part of the FREP could be used for that purpose.
- b) The City should pursue a more detailed study of Opossum Creek, Denios Creek, and Airport Tributary to determine the interaction of flood waters between the streams in order to understand the potential impacts of development in the area and regulations that may be needed to prevent adverse impacts.
- c) The City should coordinate with other jurisdictions in the watersheds of Driftwood River, Flatrock River, and Clifty Creek to establish regulations that will reduce the potential impacts or to allow the City to be aware of and prepare for the results of the policies and actions of other jurisdictions in the watersheds. Decisions on regulations may require additional hydraulic and hydrologic modeling to allow the investigation of what-if scenarios or to be the guide in establishing maximum allowable release rates for sizing detention facilities.

