

MEMORANDUM

DATE: February 18, 2021

TO: Steve Bergstresser, Assistant City Manager / City Engineer

FROM: John Sliemers, Assistant City Engineer

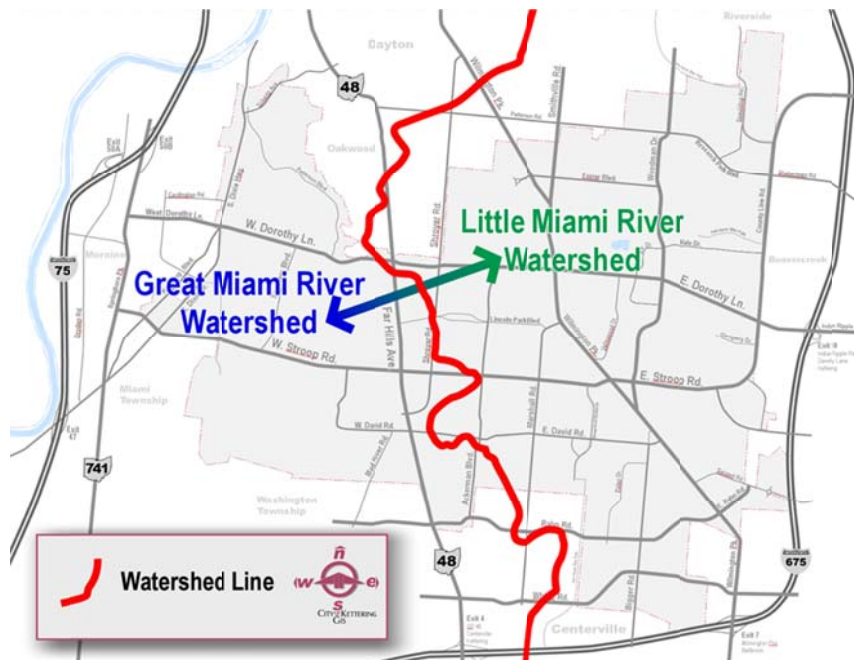
SUBJECT: FEMA Flood Mapping Updates

Summary

FEMA is updating flood mapping documents in our area. The maps and related information guide development to reduce flood impact, and to assign risk for insurance purposes. The primary impact to certain Kettering property owners will be potential development restrictions and potential requirement of costly flood insurance by mortgage companies. The specific documents being updated are the Flood Insurance Study and Flood Insurance Rate Maps (FIRMs).

Explanation

Kettering drains in two directions: to the Great Miami River on the west and to the Little Miami River on the east. The Great Miami Watershed is under study, and maps may be updated in the next several years. The Little Miami Watershed has been studied and draft maps are being reviewed, with the effective date of publication planned for Fall 2022.



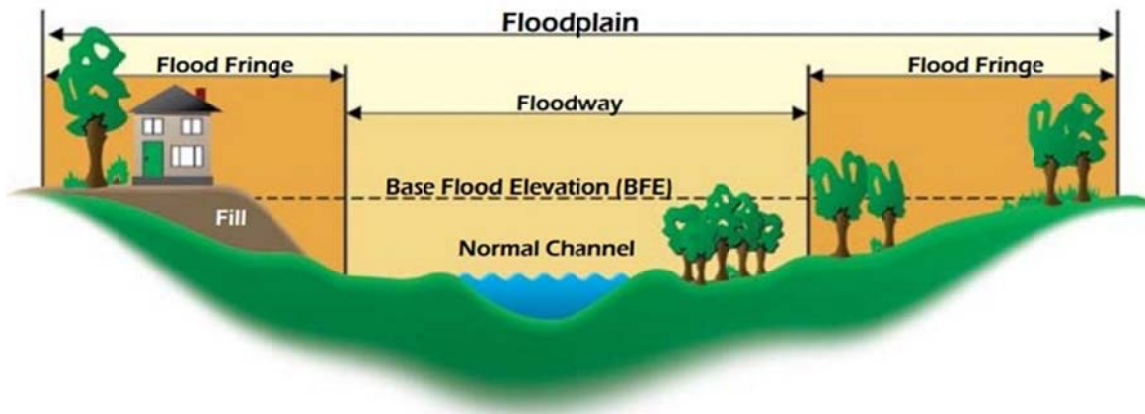
The new maps were created using more advanced and accurate technology to determine the land form. The analysis identifies water ways and projected elevations during flood events. The three key technical terms when evaluating flood maps are Floodway, Floodplain, and Base Flood Elevation.

The Floodway can be understood as a waterway swelling up to overflow the banks. Development in the Floodway is essentially prohibited.

The Floodplain can be understood as to where the water overtops the banks and floods the surrounding low lands. Though this may appear to be relatively insignificant, the flood fringe is an essential part of the waterway that stores substantial amounts of water until the flood waters recede. The Floodplain is determined by identifying a storm of certain magnitude (a severity of storm with a 1% chance of happening in any one year) and then calculating the anticipated height of flood waters – the Base Flood Elevation. To determine this storm event, historical storm information is applied with the intensity and duration of the precipitation. The term 100-year storm was previously used, but this nomenclature was abandoned due to confusion.

Development in the Floodplain is permitted with the restrictions that it will not cause a substantial negative impact to the flow of flood waters, nor cause probable damage to a structure.

Characteristics of a Floodplain



To protect their investment, mortgage companies typically require flood insurance for properties with structures in the Floodplain. The rates for flood insurance vary by risk. For structures in the Floodplain, and lower than the Base Flood Elevation, flood insurance is often quite expensive. To put this in perspective, the average cost for flood insurance in Ohio is \$1,099 per year. For properties in low risk areas, the cost can be as low as \$200 per year.

Kettering participates in the National Flood Insurance Program Community Rating System. This effort reduces risk for flood damage, and in return, qualifies property owners for discounts on flood insurance.

The map below shows the Floodway (diagonally hatched red), Floodplain (shaded light blue), and Base Flood Elevations (xxx FEET with squiggly lines denoting the extent).



The draft maps, which were created with more accurate information and modeling techniques, show modified Floodway and Floodplain areas. Some properties that were not previously shown in the Floodplain will be soon...and vice versa. If a property is newly classified in the Floodplain, the property owner may wish to hire a surveyor to determine the lowest adjacent grade at the structure and compare that to the Base Flood Elevation. If the lowest adjacent grade is higher than the Base Flood Elevation, the property owner would typically apply to FEMA for a Letter of Map Amendment (LOMA). Upon receiving the approved LOMA, a mortgage company is likely to waive its requirement for flood insurance. The property owner can still obtain flood insurance, but likely at a reduced rate.

FEMA has requested Kettering assist with communicating this map updating process to the community and particularly impacted property owners who may not be aware of the flood hazard to their structures. Therefore, Kettering will be mailing a postcard to properties thought to be most impacted by the map revisions. The postcard will include notification of potential changes, an invitation to attend a virtual open house to be held in March, and guidance on how to obtain additional information.

To research flood risk at a specific property, go to: <https://msc.fema.gov/portal/search>.