FLOOD HAZARD AREAS

Over half of the "downtown" area is comprised of two 100-year floodplains. The eastern part of downtown is in the <u>Mississippi River</u> floodplain, while the south eastern part of downtown and a portion of the southwestern part of the city is in the <u>Bear Creek</u> floodplain.

Two types of flooding occur in the <u>Bear Creek</u> floodplain. Backwater from flooding on the Mississippi River and flash-flooding from heavy rain. During a normal flood event, 2-4 inches of rain in a 3-4 hour time period jeopardizes the creek's banks in the Oakwood area and in places along Warren Barrett Drive and Market St. causing fast and short lived flooding.

Flooding on the <u>Mississippi River</u> is normally a much slower event, and can be caused by rain and snow melt north of us as it makes its way down the river for eventual discharge into the Gulf of Mexico.

Various floods from both water bodies have hit Hannibal in the past.

Historical Crests

- (1) 31.80 ft on 07/15/1993
- (2) 29.54 ft on 06/18/2008
- (3) 28.59 ft on 04/25/1973
- (4) 27.63 ft on 04/21/2013
- (5) 26.91 ft on 05/16/2001
- (6) 25.53 ft on 06/01/2013
- (7) 25.30 ft on 10/04/1986
- (8) 24.59 ft on 05/01/1965
- (9) 24.41 ft on 05/29/1996
- (10) 23.90 ft on 04/05/1983
- Information on whether your property is in the 100-year floodplain can be obtained by coming into City Hall and having the Building Inspector help you. Maps are available to look at as well as other flood-related information. The City also has Elevation Certificates for new development available back to the 1980s. Contact the Building Inspector's office at (573) 221-0111 ext. 6 for further assistance.

Hannibal FLOOD INFORMATION

FLOOD SAFETY

The following common sense guidelines can help you from the dangers of flooding:

- <u>Do not drive through a flooded area</u>. More people drown in cars than any where else. Do not drive around barriers.
- <u>Do not walk through flowing water</u>. Currents can be deceptive. Six inches of water can knock you off your feet.
- Stay away from power lines and electrical wires. If your house is about to be flooded, turn off the power at the service box. Electrical current can travel through water. Electrocution is the 2nd leading cause of death during floods.
- <u>Be alert to gas leaks</u>. Turn off the gas to your house before it floods. If you smell gas, report it to a City official or your gas company. Do not use candles, lanterns or open flames if you smell gas or are unsure if your gas has been shut off.
- <u>Keep children away from the flood waters, ditches, culverts and storm drains</u>. Flood waters can carry unimaginable items that have dislodged themselves. Culverts may suck smaller people into them rendering them helpless.
- <u>Clean everything that has been wet</u>. Flood water will be contaminated with sewage and other chemicals which pose severe health threats.
- <u>Look out for animals, especially snakes</u>. Small animals that have been flooded out of their home may seek shelter in yours.
- <u>Do not use gas engines, such as generators, or charcoal fires **indoors** during power outages. Carbon monoxide exhaust can pose serious health hazards.</u>

PROPERTY PROTECTION MEASURES

If your property is susceptible to flooding, there are many flood damage reduction measures you can employ.

- Watertight seals can be applied to brick and block walls to protect against low-level flooding.
- Utilities such as heating and air conditioning systems, water heaters and other major appliances can be elevated to higher floors in the structure or on raised platforms.
- Temporary measures such as moving furniture and other valuables to higher floors or sandbagging exterior openings will also help.
- Elevating or relocating the entire structure may also be a feasible option.

FLOODPLAIN PERMIT REQUIREMENTS

All development within the 1%. floodplain (not just construction of buildings, but filling, excavation, fences, etc.) is required to obtain a Floodplain Development Permit. Applications must be made prior to doing any work in a floodplain area. Please contact the City Building Inspector to receive all the information you will need in order to properly develop in the floodplain at (573) 221-0111. You may report any illegal development activities to the above number as well.

SUBSTANTIAL IMPROVEMENT/DAMAGE

The NFIP requires that if the cost of improvements to a building or the cost to repair damages (from any cause) to a building exceeds 50% of the market value of the building (excluding land value), the entire building must be brought up to current floodplain management standards. Building improvement projects include exterior and interior remodeling, rehabilitation, additions and repair and reconstruction projects. Additionally, the cost of currently planned improvements will be added to the cost of previously made improvements and compared to the existing market value to determine if the improvements exceed 50% of the structure's value. Please contact the City Building Inspector at (573) 221-0111 for further information.

FLOOD INSURANCE

If you do not have flood insurance, talk to your insurance agent. Most homeowner's insurance policies do not cover damage from floods. Flood insurance is only available to those participating communities in the National Flood Insurance Program (NFIP). Because of our floodplain management programs that attempt to protect us from the multiple flooding hazards, Hannibal is part of the NFIP and thus, residents are able to obtain flood insurance. Additionally, because the City participates in FEMA's CRS program, flood insurance premiums are discounted.

Be sure to check your policy to ensure you have adequate coverage. Usually these policies cover the building structure, but not the contents. Contents coverage can also be obtained by asking. There is a 30-day waiting period before flood insurance coverage becomes effective. Plan ahead; do not wait until a flood is predicted before purchasing flood insurance.

If you are building inside the floodplain, the purchase of flood insurance is mandatory if using a federally regulated/insured bank for a loan.

NATURAL & BENEFICIAL FUNCTIONS

Floodplains play a valuable role in providing natural and beneficial functions to the area around, and including, Hannibal. Floodplains that are relatively undisturbed provide a wide range of benefits to both human and natural systems. These benefits provide aesthetic pleasure as well as function to provide active processes such as filtering nutrients. Parts of both the Mississippi River and Bear Creek floodplain are used as a means to filter farm chemical run-off so that these areas can maintain bio-diversity and ecosystem sustainability. Both floodplains contain historic and archeological sites that provide opportunity for education and study. Both enhance waterfowl, fish and other wildlife habitats and provide feeding/breeding grounds. And lastly, both floodplains provide natural erosion control and open space so further flooding damage does not occur.

DRAINAGE SYSTEM MAINTENANCE

As simple as it may sound, simply keeping smaller ditches and streams free of debris can dramatically improve the runoff capacity of low-lying areas, as well as greatly reduce the occurrence blockage that significantly contributes to flooding. It is illegal to dump materials into a required waterway and violators may be fined. If you see someone in the act of dumping or see debris in one of our watercourses, please contact the Building Inspector's Office at (573) 221-0111.

ADDITIONAL INFORMATION

If you should require further or more detailed information regarding flood-related issues in Hannibal here are some additional sources:

Floodsmart.gov

FEMA.gov website

City of Hannibal Building Inspector's Office (573) 221-0111 320 Broadway Hannibal, MO 63401

Hannibal Public Library