Falmouth Flood of 1997 and Beyond...

Then and Now

March 3, 1997

September 13, 2019

Presented by Mike Moore and Brian Thompson
Historic River Crests

(1) 51.80 ft on 03/02/1997
(2) 47.10 ft on 03/10/1964
(3) 41.60 ft on 04/14/1948
(4) 41.40 ft on 01/23/1937
- 5 people killed
- 1000 people lost their homes
- $50 Million in damage
- The City received a $3 million grant through FEMA’s Hazard Mitigation Grant Program (HMGP) to acquire 83 lots.
- Licking River drains an area of 3,600 square miles...10% of the entire state.

- Cave Run Lake controls about 826 sq mi of the watershed...just 23% of the total.

- Vast majority of water runoff making its way to our county in uncontrolled.
Tremendous amount of runoff made its way into Licking River quickly inundating Falmouth.

River rose 49 feet in two days...Raging river upon people before they even realized it.
“The Great Flood of ’97” Video
Heroic actions on the part of many...difficult recovery.

Still no flood control measures...must remain vigilant, prepared and focused on mitigation.

Various updates and changes have occurred...better warn, respond, mitigate and hopefully prevent people from suffering such tremendous loss.
- Wealth of river data allows us to see where and how fast the river is rising all along its length.

- Helps National Weather Service (NWS) forecast River Levels at some of these gauge locations...we can see predicted crests gauge locations.
Flood Inundation Mapping project recently completed for the City of Falmouth.
● Cincinnati Bell’s main telephone switch for Falmouth succumbed to the flood waters. Caused widespread loss of telephone service and making it nearly impossible for citizens to communicate.

● Switch has since been moved to higher ground and equipped with a back-up generator.

● Cell towers, cell phone use and wireless technology have expanded and upgraded since ’97.
Internet service and all the information it brings to our fingertips is much improved, including a wireless internet capability throughout the county.
- 911 Dispatch Center was located in the Falmouth Police Department... moved to new location.

- Radio communications equipment, including HAM Radios, have been upgraded and installed in buildings and towers far removed from the floodplain.
We have a telephone emergency notification system that wasn’t in place in ‘97.

Utilize social media quite extensively to get information out to the public. We have Facebook and Twitter accounts along with websites, mobile apps, and text messaging.
Utilize a mobile app called Active 911...provides information (Incident details, maps, directions, etc) immediately to each first responders’ telephone.

The world of wireless communications was nearly non-existent in 1997.
Communicate, coordinate and collaborate with other agencies to build relationships that are critical to any disaster response and recovery.

### Responding Organizations

- **RJ Corman and CSX Railroad and Contractors**
- Falmouth Police Department
- Falmouth Fire Department
- Falmouth Maintenance Department
- Falmouth Mayor and Staff
- Northern Pendleton Fire District
- Pendleton County Judge Executive and Staff
- Pendleton County CERT
- Pendleton County Search and Rescue
- Pendleton County Sheriff’s Office
- Pendleton County School Bus Drivers
- Pendleton County Red Cross
- Pendleton County Constables
- Pendleton County School System
- Pendleton County Emergency Management
- Pendleton County Dispatch
- Pendleton County Road Department
- Pendleton County Ambulance

### Responding Organizations

- Alexandria EMS
- Northern KY HazMat Team
- Boone County EMA
- Kenton County EMA
- Campbell County EMA
- Kentucky State Police
- Southern Campbell Fire Department
- State Fire Marshall
- Williamstown Fire Department
- Walton Fire Department
- State EPA
- Federal EPA
- Three Rivers District Health Department
- Kentucky Emergency Management
- State Road Department
- Department of Transportation / Federal Railroad Administration
As emergency response facilities went under water:

- Responders were going from place to place escaping the rising waters
- Command and Control became extremely difficult.
We have an assortment of mobile assets...much better equipped now than in 1997 to respond to and recover from a flood..
Conduct training and annual exercises for various disaster scenarios.
- New Emergency Operations Center / 911 Dispatch Center built out of the floodplain.

- Have designated back-up facilities ready to take on emergency operations should something happen at our primary location.
- It was a terrible time in our history, but lessons learned from the past have resulted in numerous updates, changes, and additions.

- We must remain constantly vigilant, continually working toward preparedness and planning for the future.

“`The more you know about the past, the better prepared you are for the future.”
~Theodore Roosevelt
Only 65 properties (83 lots) took the “buyout”

Citizens vowing to rebuild the city were met with increasing insurance rates and decreasing property values

Biggert–Waters Flood Insurance Reform Act of 2012

2013 LIDAR was used to update our Flood Insurance Rate maps resulting in a rise of over 3 ft of the BFE in Falmouth
Recent increase in foreclosures due to the combination of rising insurance rates and rising BFE

A recent small sample study conducted by my office and the Pendleton County PVA showed residential property values in the city and within the 1% floodplain decrease by as much as half since 1996.
- Falmouth has 1001 residential homes
- 875 occupied vs 126 vacant
- 478 or 48% are owner occupied
- 523 or 52% are either vacated or rental properties
Falmouth and Pendleton County have taken steps to create a sustainable economy

- Creation of the PCJPC, Comprehensive Plan
- Creation of a Zoning Ordinance and Subdivision Regulations
- In 2016 Falmouth adopted the State Model Floodplain Ordinance with higher recommended standards including a 1’ freeboard
- Planning Department has increased enforcement
Falmouth and Pendleton County have created plans for sustainable development incorporated in the Future Land Use Map of the Comprehensive Plan.

Future plans call for development to be out of the SFHA.
Future Commercial Area
Campground, Bait Shop and Fishing Lake
Flood Sustainable Development
Pendleton County Public Library moved into a new facility recently out of the floodplain.
Library Before/After
Pendleton County Ambulance Service moved into a new facility recently out of the floodplain.
Pendleton County Extension Office and the FSA Office

Before

After

RELOCATION OF FACILITIES
Pendleton County Justice Center

Old Justice Center

New Justice Center

RELOCATION OF FACILITIES
Justice Center Before/After
Critical Facilities in SFHA
Flood Sustainable Structures
Robbins Ave bridge replacement and sidewalk project

Flood Sustainable Structures
Historical structure renovated in a manner that is flood tolerable and promotes the classical aesthetics of the building.
Flood High Water Markers

MARCH 2, 1997
HIGH WATER MARK

51.80 ft.

ON THIS DAY, WATER FROM THE LICKING RIVER
ROSE TO THIS LEVEL AT THIS LOCATION
Flood High Water Markers
Floodplain Development meeting between state officials and community stakeholders was held on January 17, 2017.

Falmouth Outlook 20th Anniversary Edition of “Flood”.

A community flyer sent with utility bills to Falmouth residents explaining flood insurance.
Community Outreach

DID YOU KNOW

Standard homeowners insurance **doesn’t** cover flooding.

When floods threaten to damage your home, make sure they don’t damage your wallet too. Invest in flood insurance to keep your finances safe, even if the waters rise.

- Recent legislation phases out subsidies for some older buildings. As a result, rates for these buildings will rise until they reach full-risk insurance rates.
- Rates DO NOT differ from company to company.
- The contents of a building are insured separately.
- Renters are able to insure their belongings.

To see if your home is in the floodplain, visit: [http://watermaps.ky.gov/RiskPortal/](http://watermaps.ky.gov/RiskPortal/)

What affects Insurance Rates?
- Flood Risk (e.g. its flood zone)
- Age of the building
- Elevation of the Lowest Floor and building utilities
- Deductible & level of coverage
- Location of building contents

FOR MORE INFORMATION

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- Trying to balance growth with sustainability

- Issues with “infill” development
  - Regulations and NFIP create hurdles for redevelopment in floodplain
  - Existing infrastructure located within SFHA

- Balancing public perception with reality
  - Using education and outreach to help investors know the risks and stakeholders understand the importance of responsible floodplain development
Development Issues
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- Local floodplain development group addressing current economic and flood-related issues
- CRS Program
- Further planning to promote flood sustainable development
- Regional cooperation within watershed to address stormwater runoff issues