



AMERICAN FLOOD COALITION

American Flood Coalition

Kentucky Task Force on Disaster Prevention and Resiliency
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AMERICAN FLOOD COALITION

A nonpartisan coalition advancing solutions to flooding



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Our 4 Pillars for Flood Solutions



Fix federal data:

Updated and forward-looking data helps drive smarter infrastructure investments.



Protect communities:

Untangle federal programs to ensure taxpayer dollars get out the door faster and go further.



Empower state leadership:

Unlock proactive strategies to tackle flooding statewide.



Defend national security:

Ensure military readiness for flooding so service members can train and deploy 365 days a year.





In Kentucky, floods can be grouped into two major categories



- **Overbank River Flood**

Source:

<https://www.pbs.org/newshour/nation/rivers-flood-towns-in-kentucky-after-a-prolonged-deluge-of-rain>



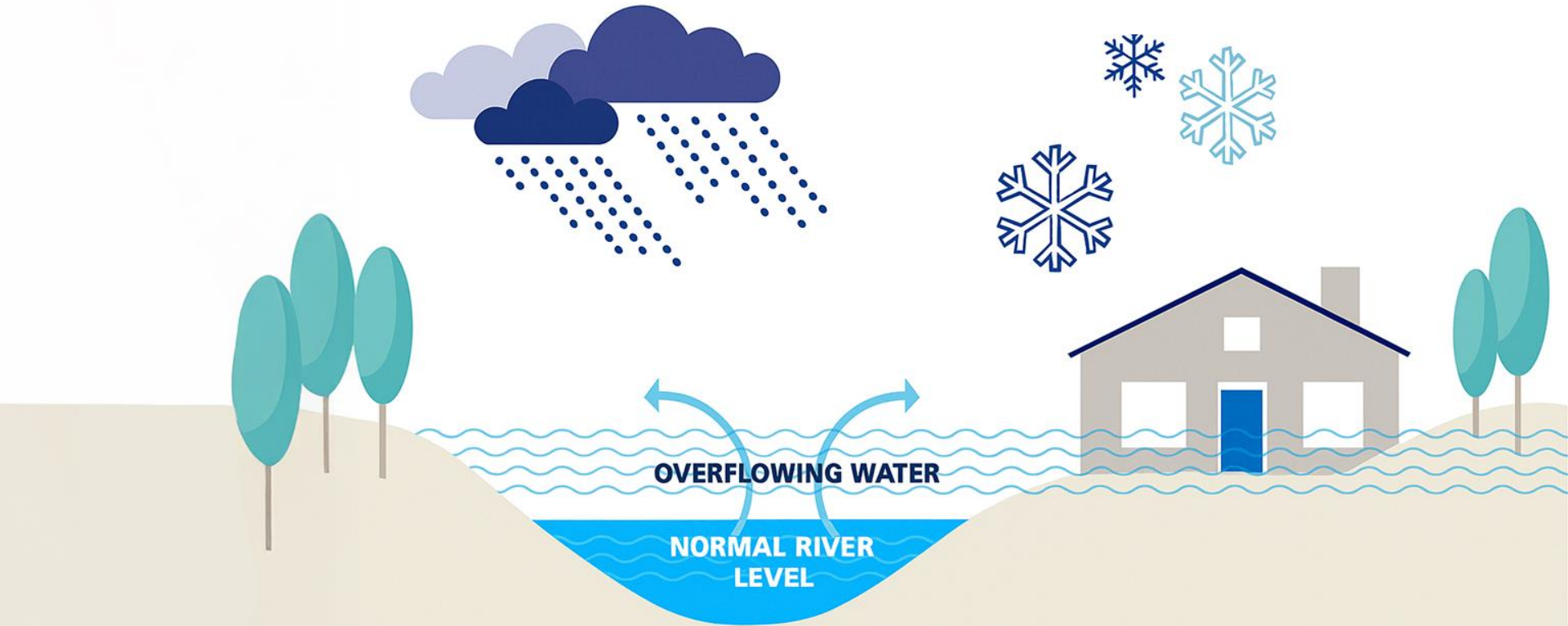
- **Flash Floods**

Source: <https://abcnews.go.com/US/scientists-explain-deadly-flooding-kentucky-bad-bound-catastrophic/story?id=87832020>





Overbank River Floods or Fluvial Floods



These floods occur when water rises overflows over the edges of a river or stream

In KY, often caused by extended periods of rain, snow melt, or ice floes/jams



Flash Flood or Pluvial Floods

These floods involve fast, powerful water triggered by heavy rain falling on sloped terrain.

Surface water floods happen when drainage systems are overwhelmed, causing water to spill into streets and/or backup into buildings.



Water follows watershed dynamics, not jurisdictional boundaries

A regional approach helps:

- Fairly pursue flood resilience strategies **between upstream and downstream communities**.
- **Save money**, as watershed-based approaches may support cost sharing; foster coordination; and reduce duplicative projects, studies, and other activities.
- Improve **flood prediction**, with updated, localized flood models, monitoring, and maps.
- Increase coordination between **communities and federal and state partners**.





States can reduce risk over time by adopting a complementary mix of mitigation strategies



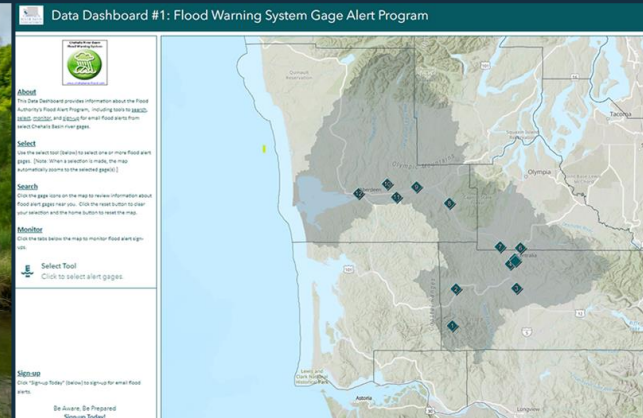
Remove the hazard

- Dikes/Levees
- Dams
- Floodgates/barriers
- Pumping systems



Limit exposure

- Freeboard elevation
- Buffers / setbacks
- Clustering / density bonuses
- Property acquisition
- Protected space
- Low impact development



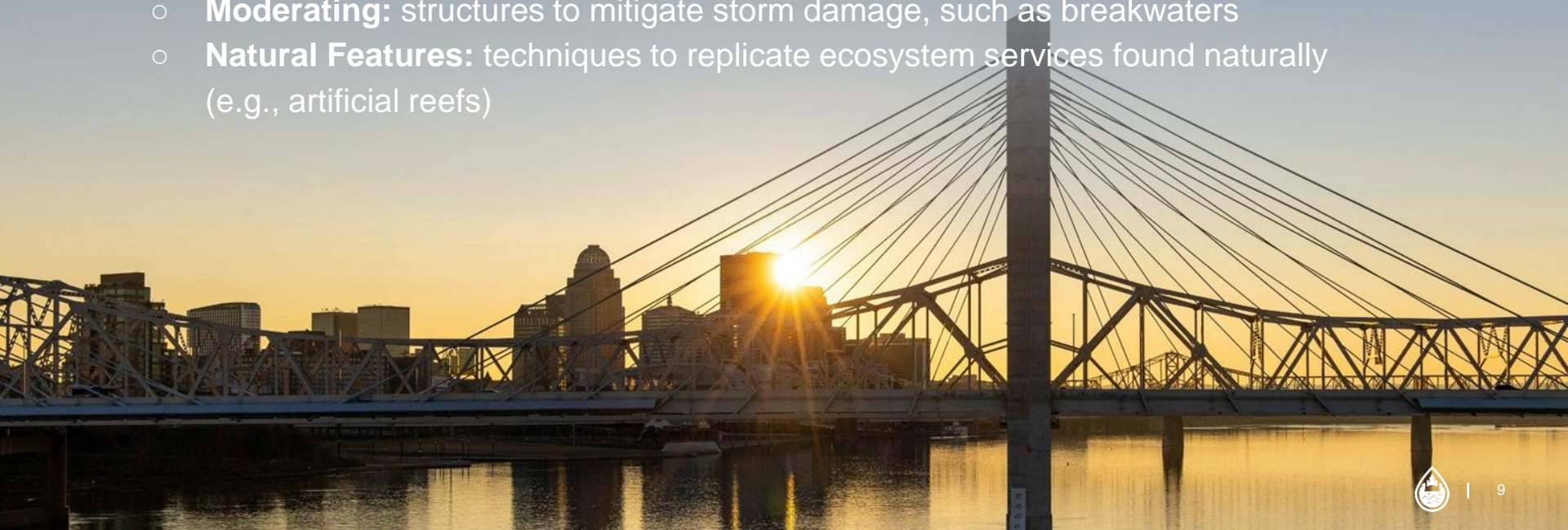
Communicate risk

- Flood-risk information
- Training/education
- Hazard disclosure
- Flood warning systems



Removing the hazard – Pushing water away from developed areas

- Most often involve structural measures meant to withstand the impact of floods
- Recognizes the importance of protecting development in flood-prone areas for commerce, industrial production, and recreation; however, can lead to an increase in risk
- Can take multiple forms:
 - **Armoring:** hardening waterfront where substantial human investments are at risk
 - **Moderating:** structures to mitigate storm damage, such as breakwaters
 - **Natural Features:** techniques to replicate ecosystem services found naturally (e.g., artificial reefs)



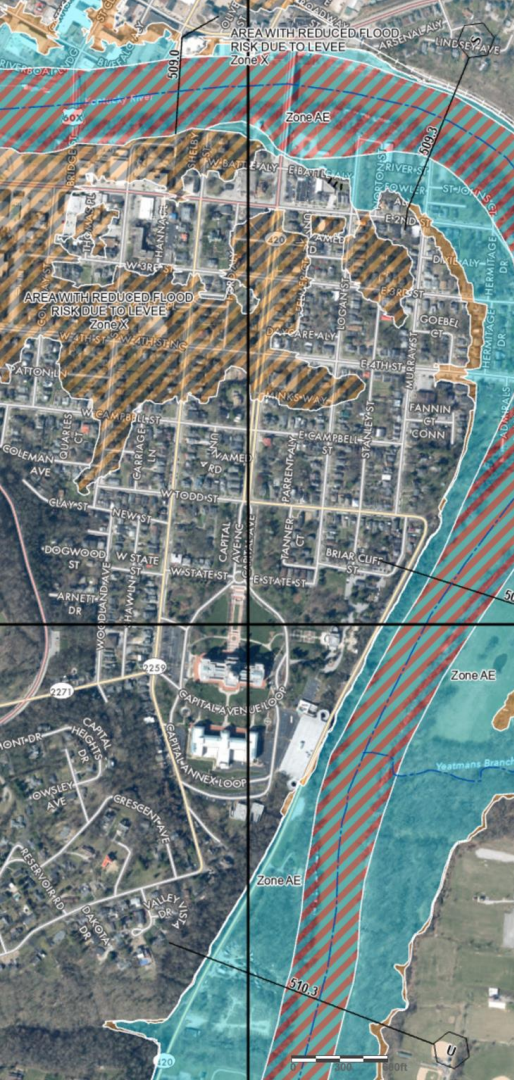


Limiting exposure

Getting development out of the way of water

- Entails removing and preventing development in the most vulnerable areas
- Up or out mentality
 - **Vertical strategies**: structures are lifted above the base flood elevation
 - **Horizontal strategies**: assets are pulled back or prevented from being placed in a flood-prone area
 - Can either be **incentive-based “pull” strategies** or **regulatory “push” strategies**
- Third strategy involves measures to make the water avoid structures, like drainage maintenance and protected wetlands





Communicating risk

Providing public and targeted information on flood risk

- Extremely important to communicate risk with the public to inform decision making.
- Stream and rain gages, flood modeling, and real time mapping help predict where water will flow and what will be at risk.
- Risk communication techniques include:
 - **Flood-risk information:** providing regular information about flood risk through media outlets and public outreach
 - **Hazard disclosure:** disclosing a property's potential flood hazard to prospective buyers before lenders notify them of the need for flood insurance
 - **Alert networks:** sirens, mobile phone alerts, and other means to warn people of imminent flooding

States are critical to protect communities from flooding

- State government action is critical **to protect local communities** that have a limited ability to manage flooding on their own
- States can more effectively manage water across **watersheds that span jurisdictional boundaries**
- States with strong strategies **win an outsized share of federal dollars**
- State involvement is critical to **prevent damages and responsibly steward taxpayer resources**



Working with state leaders around the country, AFC has developed our State Flood Resilience Framework

+ Leadership & Accountability

Who is in charge?

+ Data Management & Risk Assessment

What's at risk?

+ Strategic Planning

What should we prioritize?

+ Funding & Financing

How do we pay for it?

+ Statewide Standards

How can we institutionalize change?



Policy Area

Legislative Solutions

| | |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Leadership & Accountability | <ul style="list-style-type: none">● Codify resilience office(r) with budget, permanent staff, and authority to break down agency silos (note: either create a new office or designate an existing office).● Fund watershed coordinators to plan across jurisdictions and reduce technical burden on local communities.● Designate watershed-based regional entities to build flood resilience. |
| Data Management & Risk Assessment | <ul style="list-style-type: none">● Establish or designate a statewide data and modeling coordination hub to:<ul style="list-style-type: none">○ Complete a statewide flood risk assessment (e.g., state-owned properties, dams and levees, critical infrastructure).○ Collect flood data/inputs, identify gaps in the data and close them.○ Act as home for statewide flood data and conduct modeling that identifies risk scenarios and options to reduce risk. |
| Strategic Planning | <ul style="list-style-type: none">● Require a statewide flood resilience strategy that includes measurable goals, a prioritized list of flood projects, and metrics to measure progress.● Use state programs to empower farmers to adopt flood resilience practices on working lands.● Establish a technical assistance program to support resilience planning at the watershed level.● Incorporate flood risk reduction into local/regional transportation and comprehensive plans. |
| Funding & Financing | <ul style="list-style-type: none">● Develop a statewide investment framework to allocate funds towards the highest priority projects and responsibly steward taxpayer money.● Establish consistent funding to invest in flood protection infrastructure and solutions.● Establish a recurring state funding source for local match requirements to ensure the maximum amount of federal dollars come to the state.● Create a common application for state-administered flood resilience grant programs. |
| Statewide Standards | <ul style="list-style-type: none">● Adopt the latest building codes, including all flood-related provisions.● Ensure flood risk disclosure to protect prospective homebuyers and renters.● Enable local governments to establish stormwater utilities or similar functions to fund flood protection infrastructure. |



A scenic photograph of a waterfall in a forest. The waterfall is in the center, cascading over dark rocks. The surrounding trees have autumn-colored leaves in shades of yellow, orange, and green. The sun is shining from the upper right, creating a lens flare effect. In the foreground on the left, there is a rustic wooden fence made of horizontal logs.

**Building a stronger,
more economically
prosperous Kentucky**