



Floodplain Management Program

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New Hampshire Department of
BUSINESS AND
ECONOMIC AFFAIRS

Why Floodplain Management

Like every disaster, flooding occurs in phases

- Preparation: gather resources and develop a community plan
- Response: provide emergency assistance as needed
- Recovery: file claims, rebuild
- Mitigation: planning, purchase insurance, HMPs, construction/terrain alteration

Many industries are involved in disaster relief efforts: emergency management, planning, insurance, construction, forecasting, healthcare, etc.

Smart planning and zoning decisions are some of the most effective mitigation strategies against flooding.

Why Floodplain Management

Water doesn't stop at the town line, it doesn't even stay in the floodplains.

Anywhere it rains, it can flood.

Did you know... 25%-30% of claims come from low-to-moderate risk areas?

Development anywhere should be conscious of the flood risk and maintain effective water management infrastructure.

Types of Flooding

River / Inland Flooding

Water levels rise over the top of riverbanks due to excessive rainfall, persistent thunderstorms, snow melt, etc.

- Long duration (days)
- Large area of impact
- Usually spreads out along the mapped floodplain
- More predictable



Storm Surge / Coastal Flooding

Inundation of land areas along the coast caused by an abnormal rise in water level. Higher than average high tide, heavy rain, and onshore winds can coincide to exacerbate flooding.

- ▶ Long duration (hours to days)
- ▶ Large area of impact
- ▶ Stays along the coast and in mapped floodplain areas
- ▶ More predictable



Flash Flood

Excessive rainfall in a short period of time – generally less than 6 hours. High velocity torrents after heavy rains that rip through river beds, urban streets, or mountain canyons.

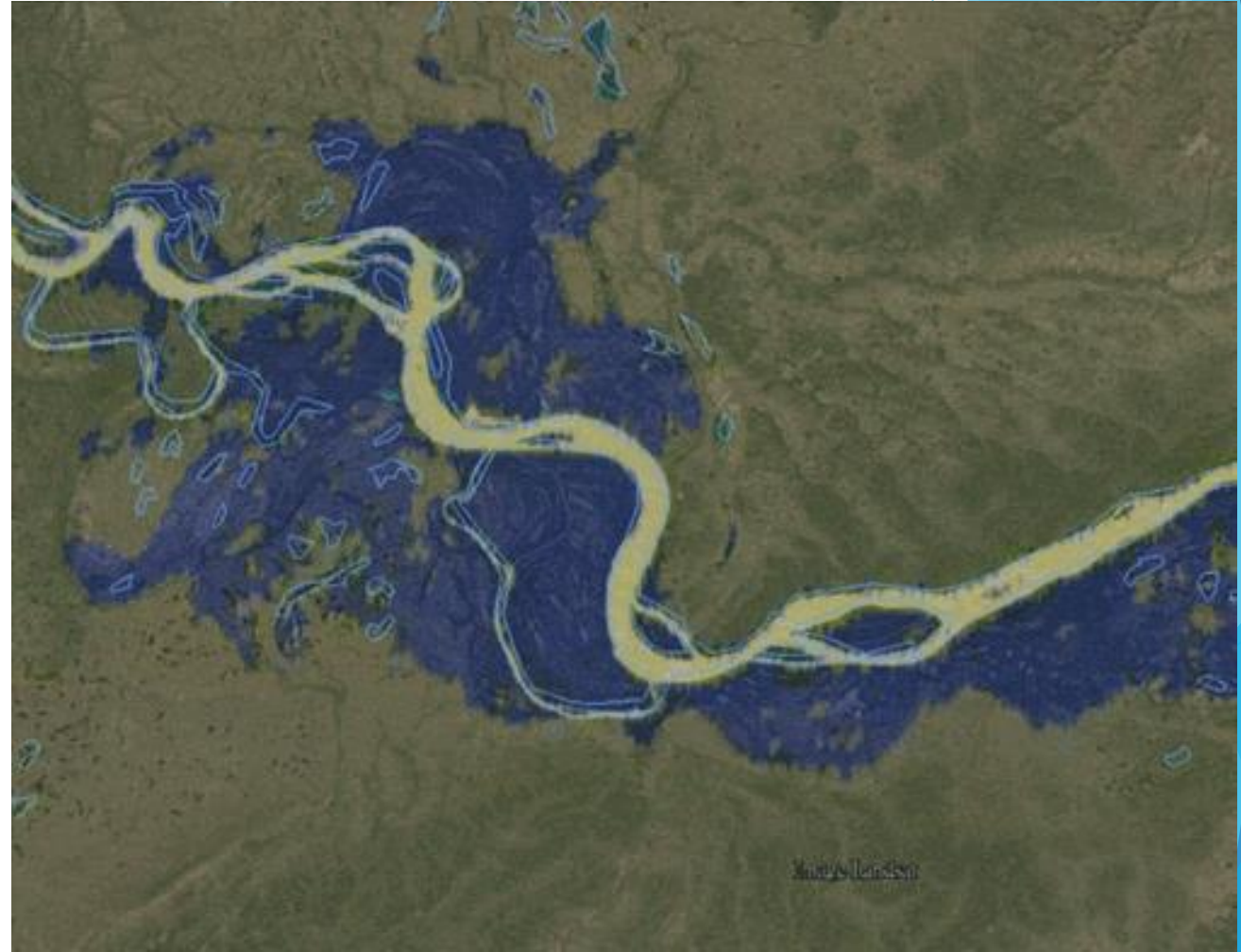
- ▶ Short duration (minutes to hours)
- ▶ Small area of impact
- ▶ Waters will eventually drain into the floodplain, but can originate from anywhere
- ▶ Low predictability



Ice Jam Flooding









Chunks of ice pile up at narrow river channels and restrict the flow of water. Water quickly rises upstream of the jam flooding the surrounding area.

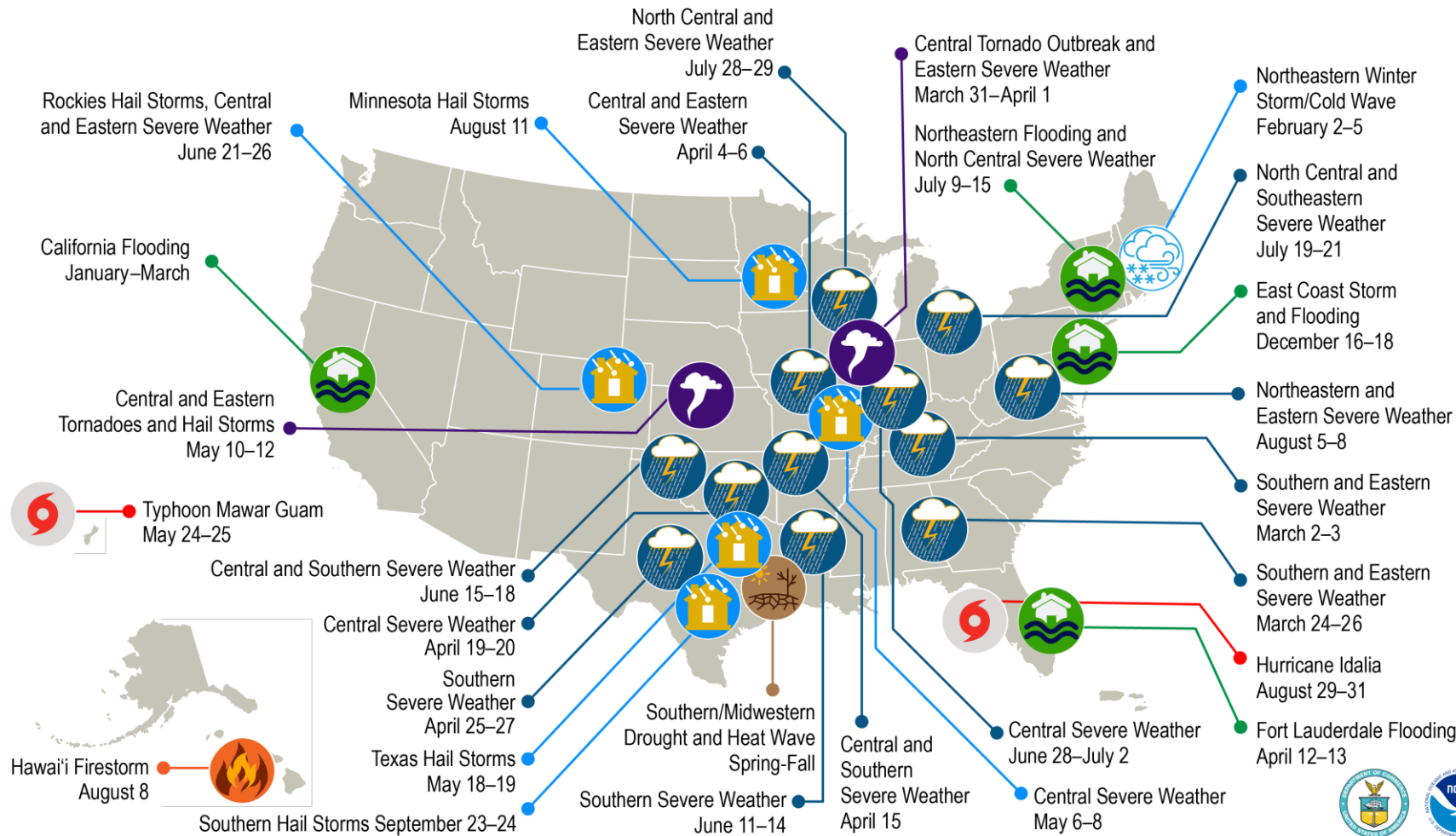
- Variable duration
- Large area of impact
- Usually spreads out along the mapped floodplain
- Low predictability



Cost Of Flooding

U.S. 2023 Billion-Dollar Weather and Climate Disasters

-  Drought/Heat Wave
-  Flooding
-  Hail
-  Hurricane
-  Severe Weather
-  Tornado Outbreak
-  Wildfire
-  Winter Storm/Cold Wave

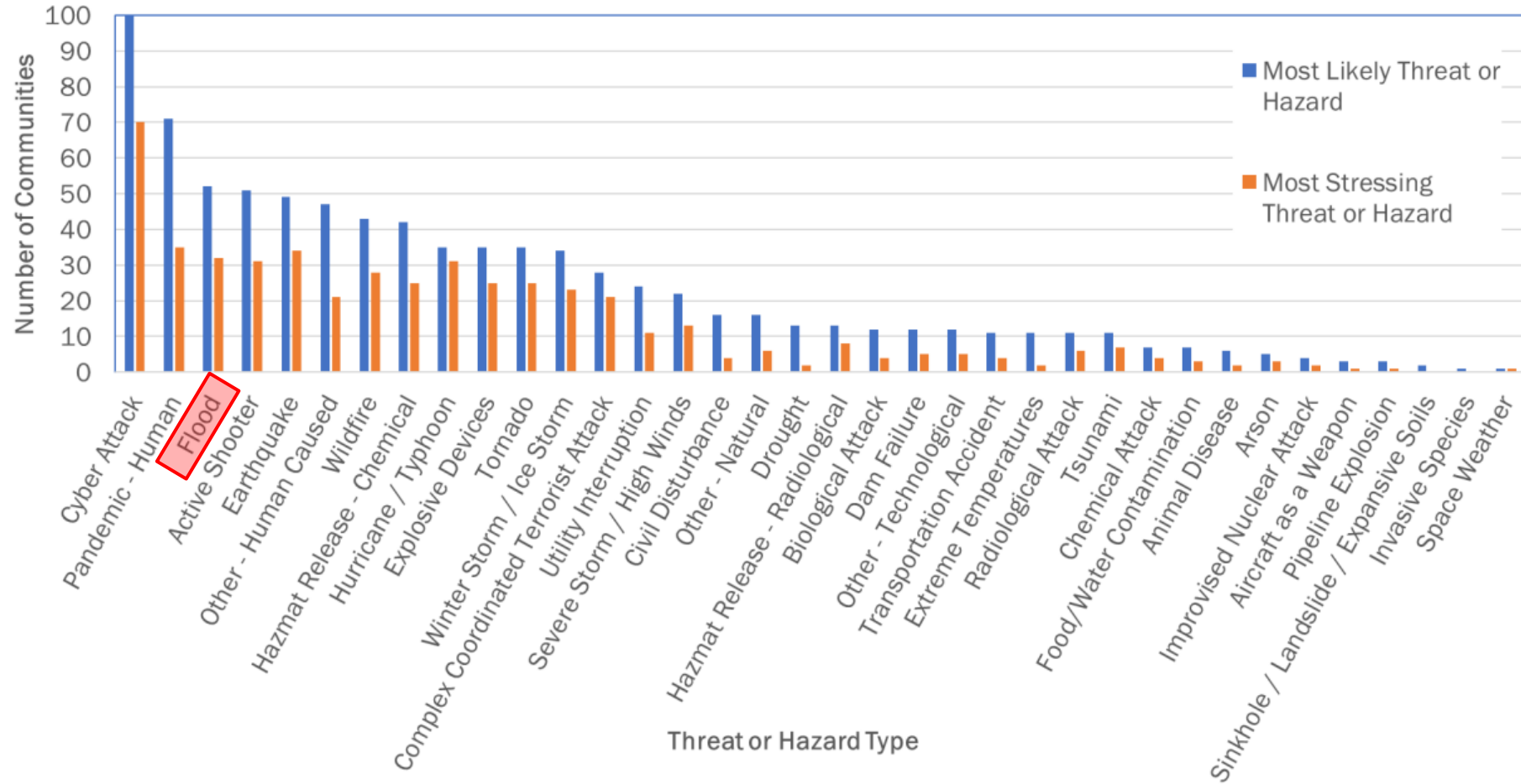


This map denotes the approximate location for each of the 28 separate billion-dollar weather and climate disasters that impacted the United States in 2023.



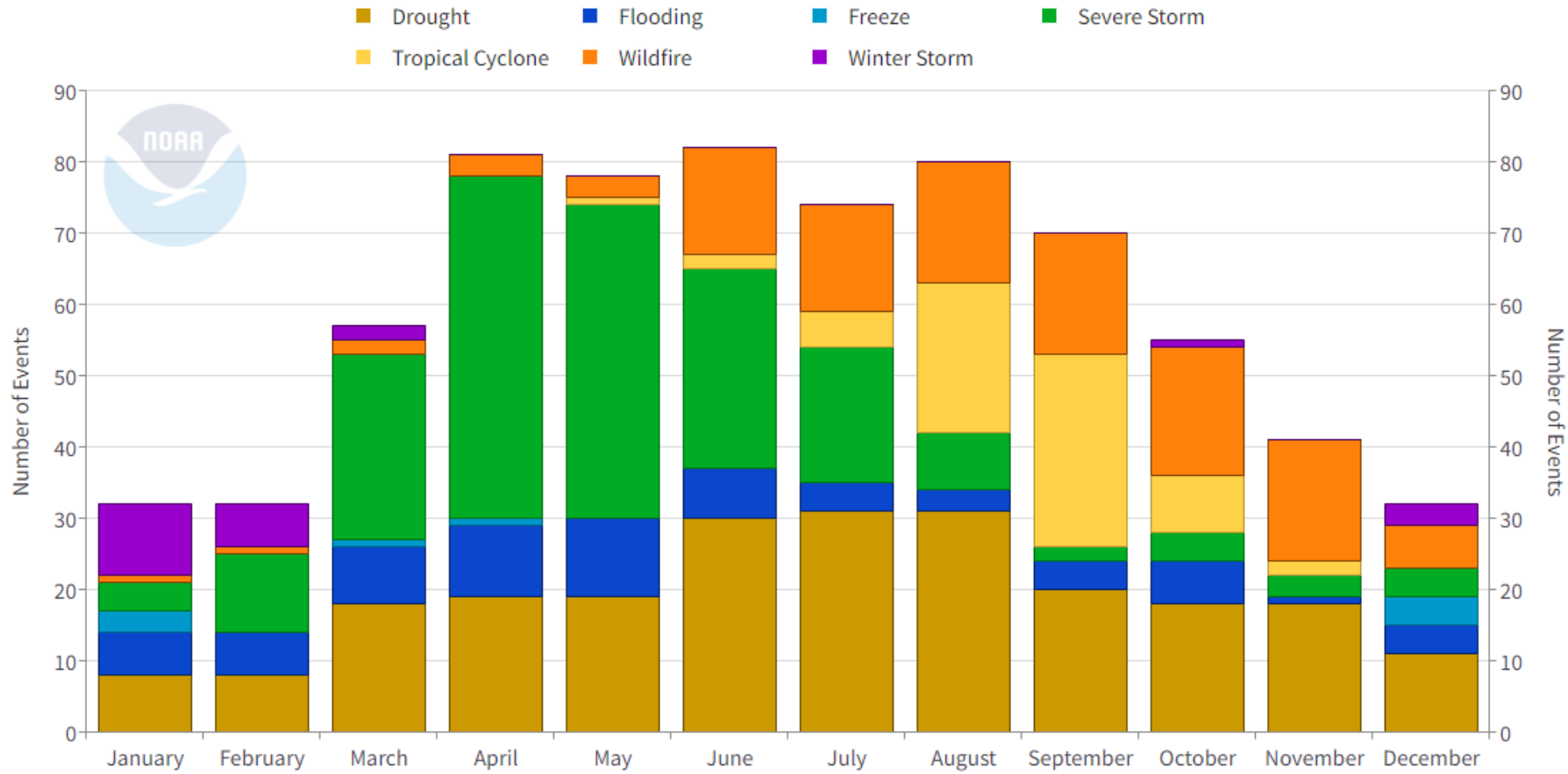
Cost Of Flooding

Most Challenging Threats and Hazards for Communities



Cost Of Flooding

United States Billion-Dollar Disaster Type Counts By Month 1980-2023 (CPI-Adjusted)



Updated: January 9, 2024

Powered by ZingChart

National Flood Insurance Program

National Flood Insurance Program

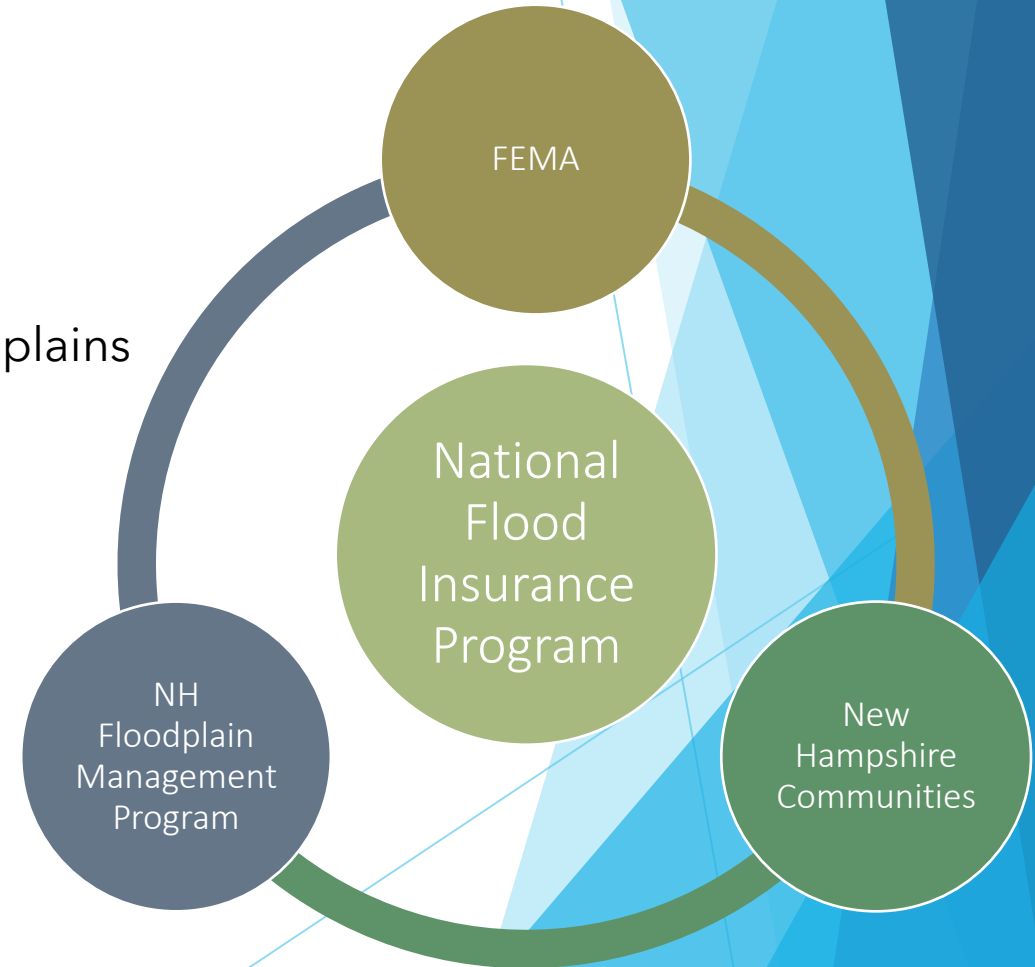
A voluntary partnership between FEMA and participating communities

- ▶ Reduce loss of life and property
- ▶ Reduce rising disaster relief costs
- ▶ Increase importance of hazard mitigation
- ▶ Restore and protect natural resources and functions of floodplains
- ▶ Make Federally backed insurance coverage available

Know your risk - floodplain mapping

Reduce your risk - floodplain regulations

Insure your risk - flood insurance



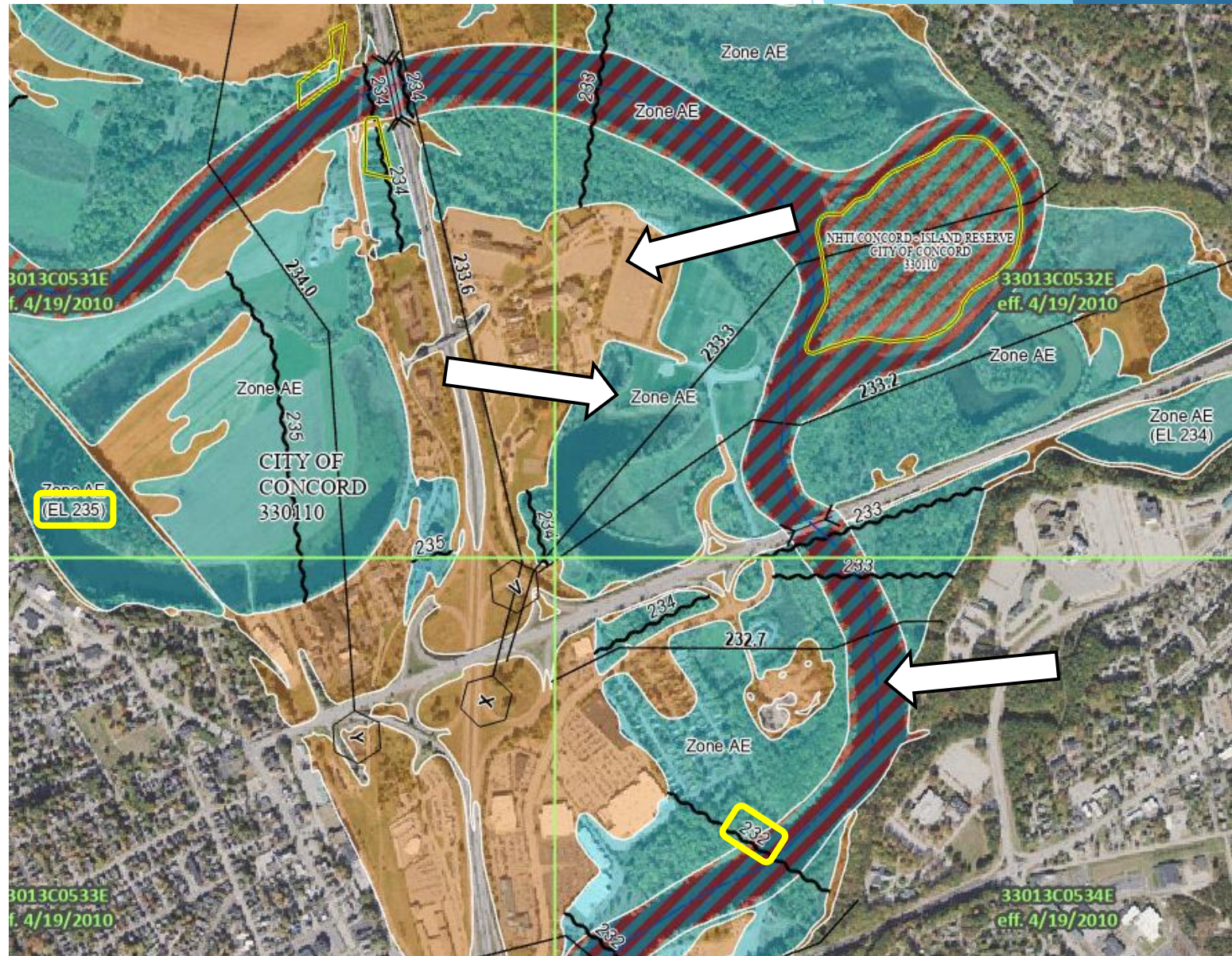
Flood Insurance Rate Map

- Special Flood Hazard Area (SFHA)
- Zone A, AE, AO, AH, A1-30 (inland)
 - Zone V, VE (coastal)

Floodway

500-year floodplain

Base Flood Elevation (BFE)



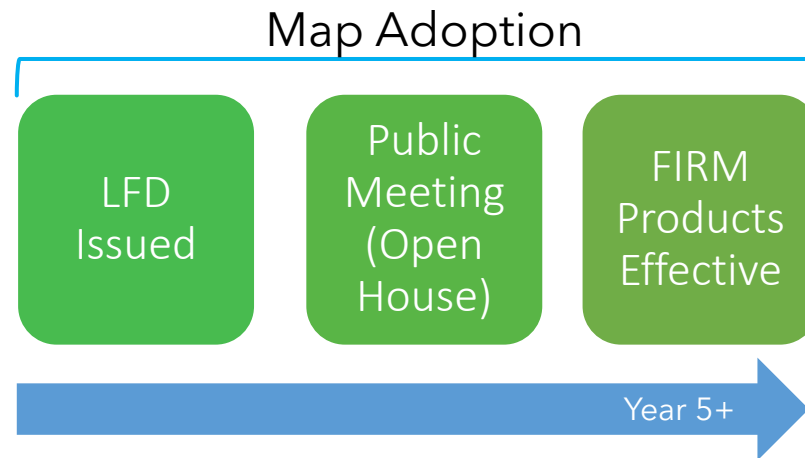
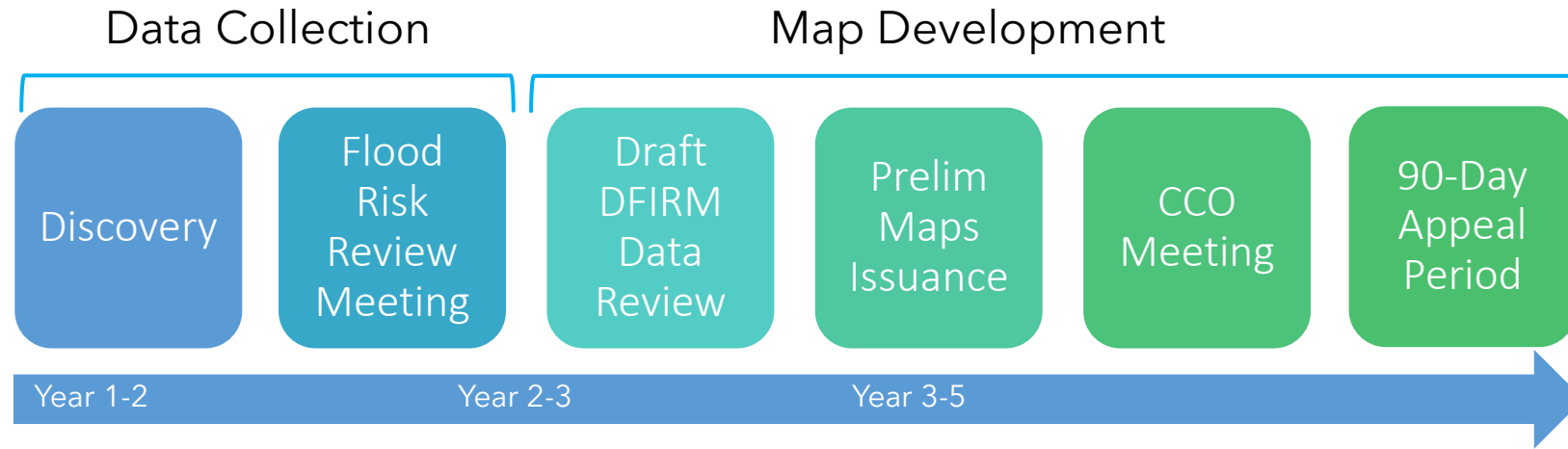
Flood Insurance Rate Map

Over time development and changes in weather patterns alter how water flows through the floodplain.

Modeling techniques and data collection are always improving as well so FEMA routinely updates the FIRMs to reflect new hydrologic conditions.





FEMA is currently in the process of remapping the floodplains across NH through the Risk Map process.

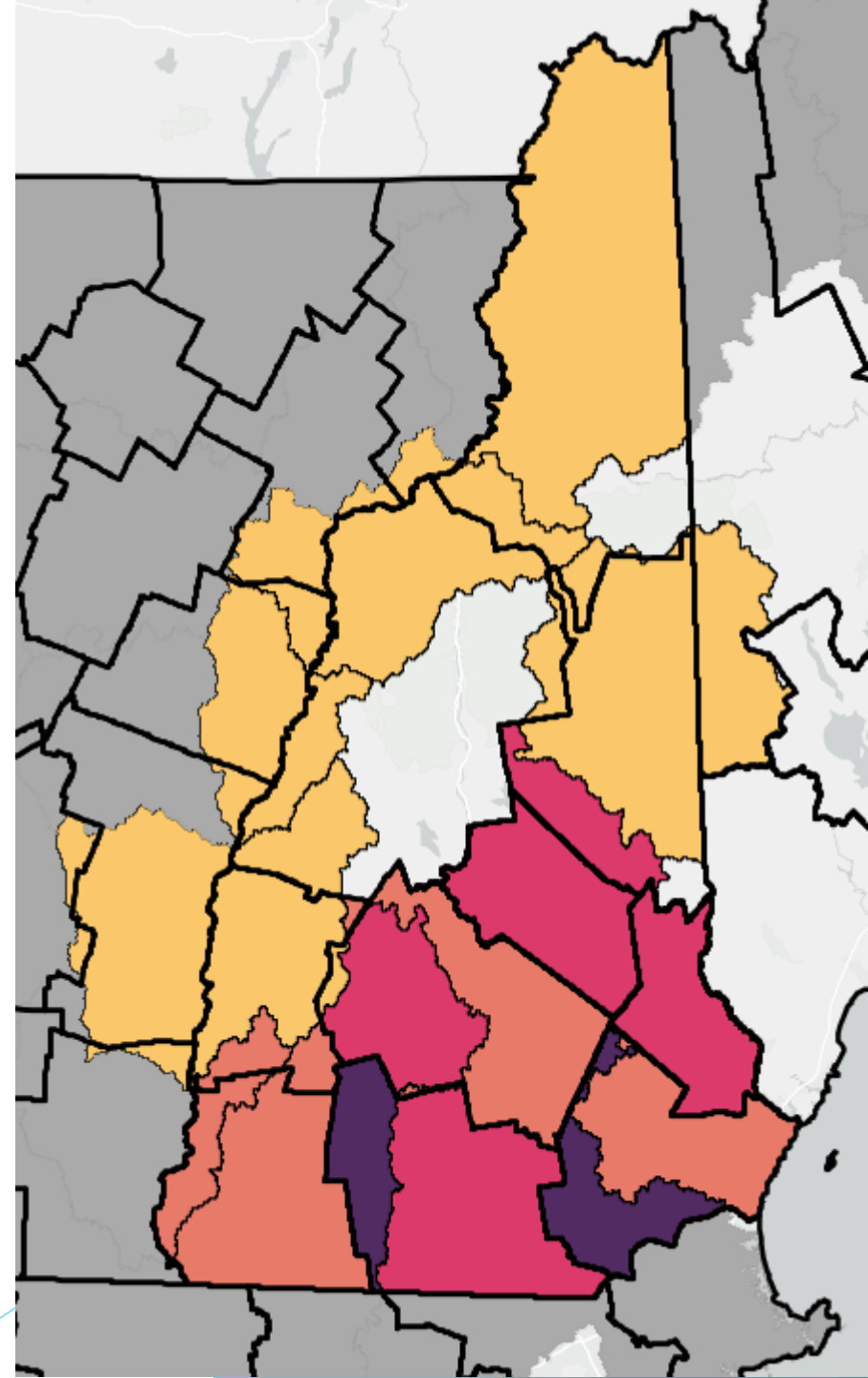
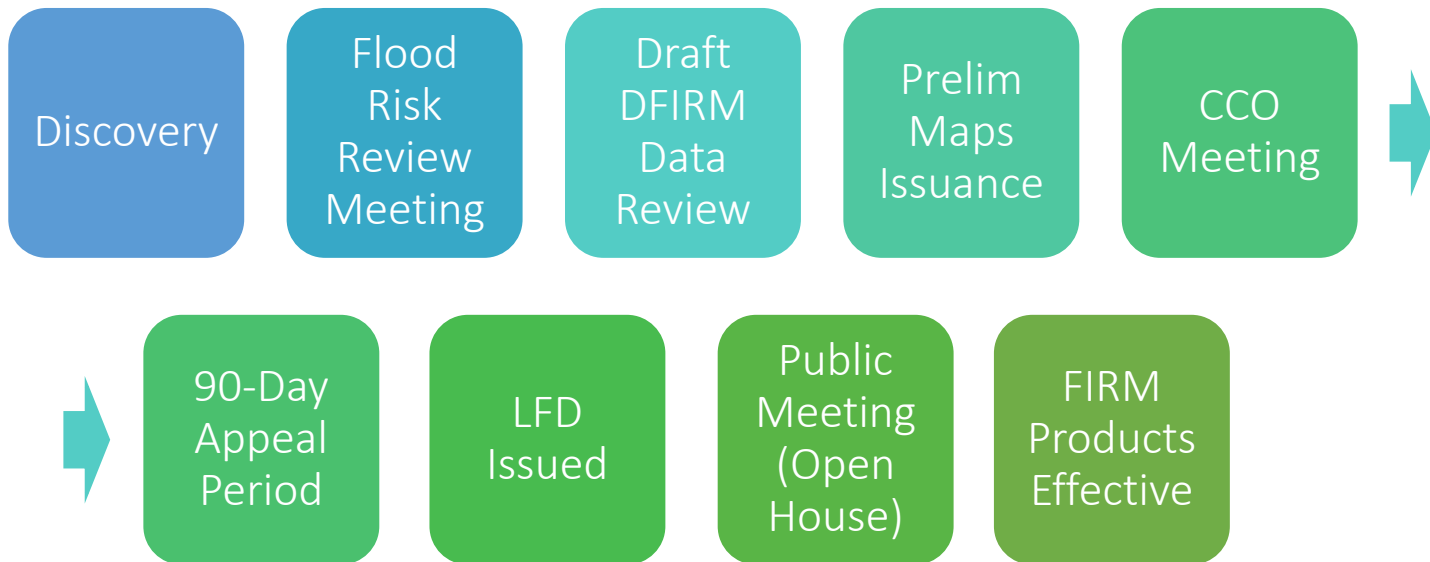
Risk Map Process



Mapping Project Status

Southern NH is further along in the mapping process. Maps are estimated to be published in 2026 and 2027.

-  Workmaps in development
-  Preliminary maps coming soon
-  Appeal period starting soon
-  LFD coming soon



Community Role

- ▶ Work with FEMA during data collection
 - ▶ Inform FEMA of known flooding issues in your community
- ▶ Update the community's floodplain ordinance to ensure compliance with latest NFIP requirements
 - ▶ OPD will contact your local floodplain or zoning administrator to review the community's ordinance and recommend changes before new maps are published
- ▶ Notify residents of the new map changes
- ▶ Adopt new FIRMs when published
- ▶ Enforce floodplain ordinance

Map Adoption

- Communities must adopt the updated FIRM before the map becomes effective, failure to do so may result in probation or suspension from the NFIP.
- RSA 674:57 allows NH Municipalities to adopt the new FIRMs and FIS report through a resolution by the local governing body.
 - ▶ **674:57 Flood Insurance Rate Maps.** – In a municipality which has enrolled in the National Flood Insurance Program (NFIP), special flood hazard areas shall be as designated on flood insurance rate maps issued by the Federal Emergency Management Agency. **Amendments to the flood insurance rate maps** shall apply to local floodplain ordinances upon their adoption by resolution of the local governing body of a municipality and **shall require no further action by the local legislative body**. Map amendments are subject to appeal by owners and lessees of affected real property under 44 C.F.R. 67.5.
- Can only amend the FIRM and FIS date.
- Any other amendments must follow community's zoning amendment procedures.

ARTICLE VII FLOODPLAIN DEVELOPMENT DISTRICT

Section 165-50 Applicability

The following regulations in this section shall apply to all lands designated as special flood hazard areas by the Federal Emergency Management Agency (FEMA) in its Flood Insurance Study of the County of Rockingham, NH dated **May 17, 2005** or as amended, together with the associated Flood Insurance Rate Maps (FIRM) dated **May 17, 2005** or as amended, which are declared to be a part of this chapter and are hereby incorporated by reference. (Effective 5/17/05)

Resources

[Floodplain Management Program - NH Economy](#)

[Flood Map Changes Viewer \(arcgis.com\)](#)

[FEMA's National Flood Hazard Layer \(NFHL\) Viewer \(arcgis.com\)](#)

[Flood Insurance | FEMA.gov](#)

[Adoption of Flood Insurance Rate Maps by Participating Communities \(fema.gov\)](#)