

Illinois Floodplains Work Program Feasibility Study

For IAFSM, March 7, 2022



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CLEAN WATER

Olivia Dorothy (she/her), Restoration Director
East Moline, IL - Homelands of the Kickapoo, Peoria, Sauk and
Meskwaki, Potawatomi, Myaamia, Ho-Chunk, Očhéthi Šakówinj
tribal nations



WHAT IS A FLOODPLAIN?

- Land & Hazard Planning = area of land adjacent to a river with a 1% annual chance of flooding
- Hydrology = Low-lying lands likely to be influenced by moving water
- Ecology = Transitional habitat located between the aquatic and terrestrial areas
- For the purposes of this study = **The floodplain is the low-lying land that may be adjacent to a river that becomes covered in water during flood**

Just like rivers, floodplains can be big or small.
The same hydraulic and geologic forces apply to
rivers, creeks, streams, ditches, and storm sewers.



Illinois River, IL by Chris Young



Urban Ditch by Illinois DNR

ILLINOIS FLOODPLAINS WORK PROGRAM FEASIBILITY STUDY

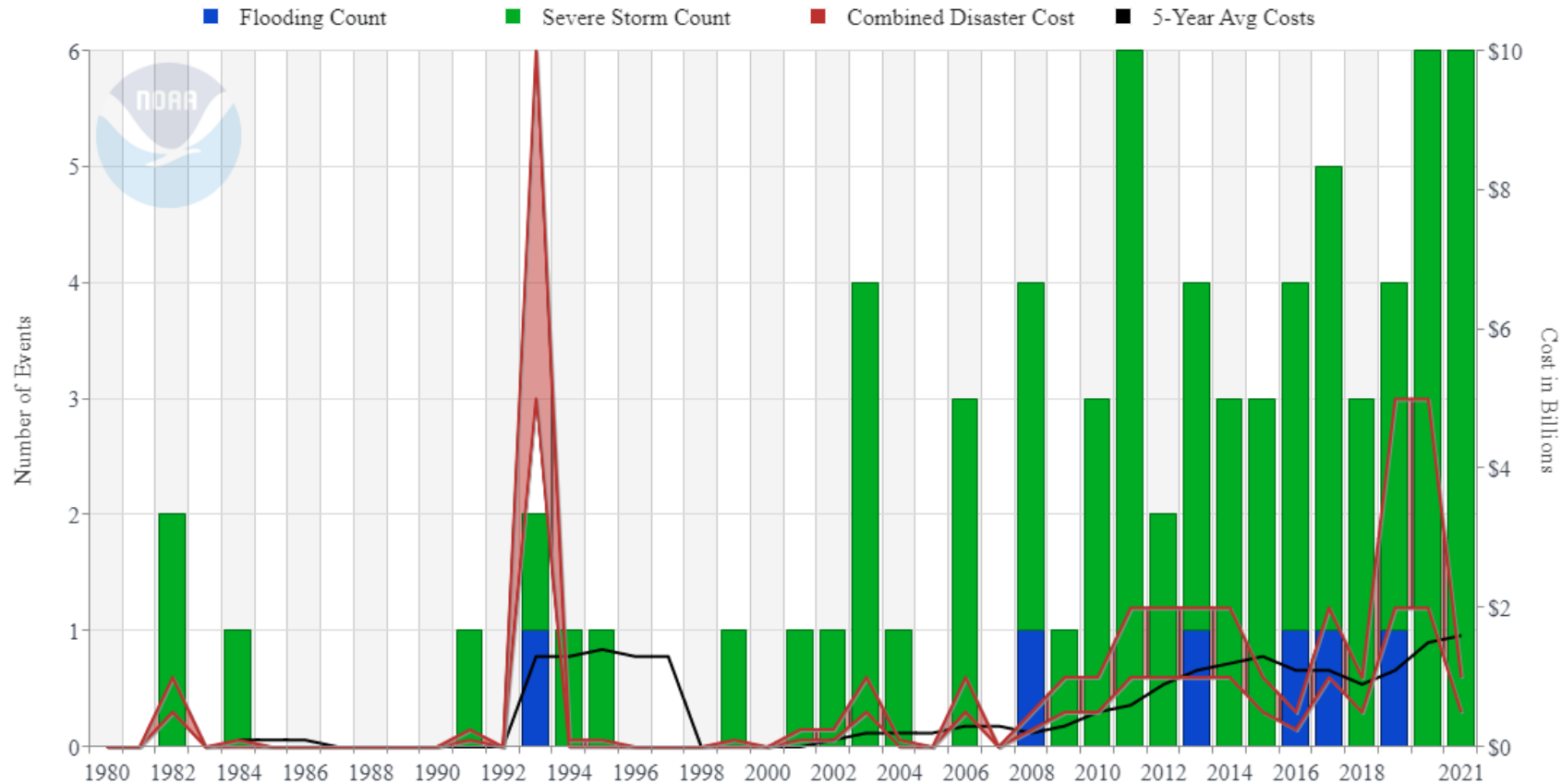
“How can we do more multi-benefit floodplain development projects in Illinois?”

- Why do we need a new floodplain development model?
- What is a “multi-benefit floodplain development project”?
- What do we need to do in Illinois to get these projects on the ground?

An aerial photograph showing a vast area of flooding in a rural landscape. The water is a deep blue-grey color, covering large sections of the land. In the foreground and middle ground, there are several small islands of land, some with clusters of trees and a few small buildings. The background shows a mix of green fields and dense forests. The overall scene conveys a sense of environmental impact and the need for change.

The Problem: Why we need to
start working differently.

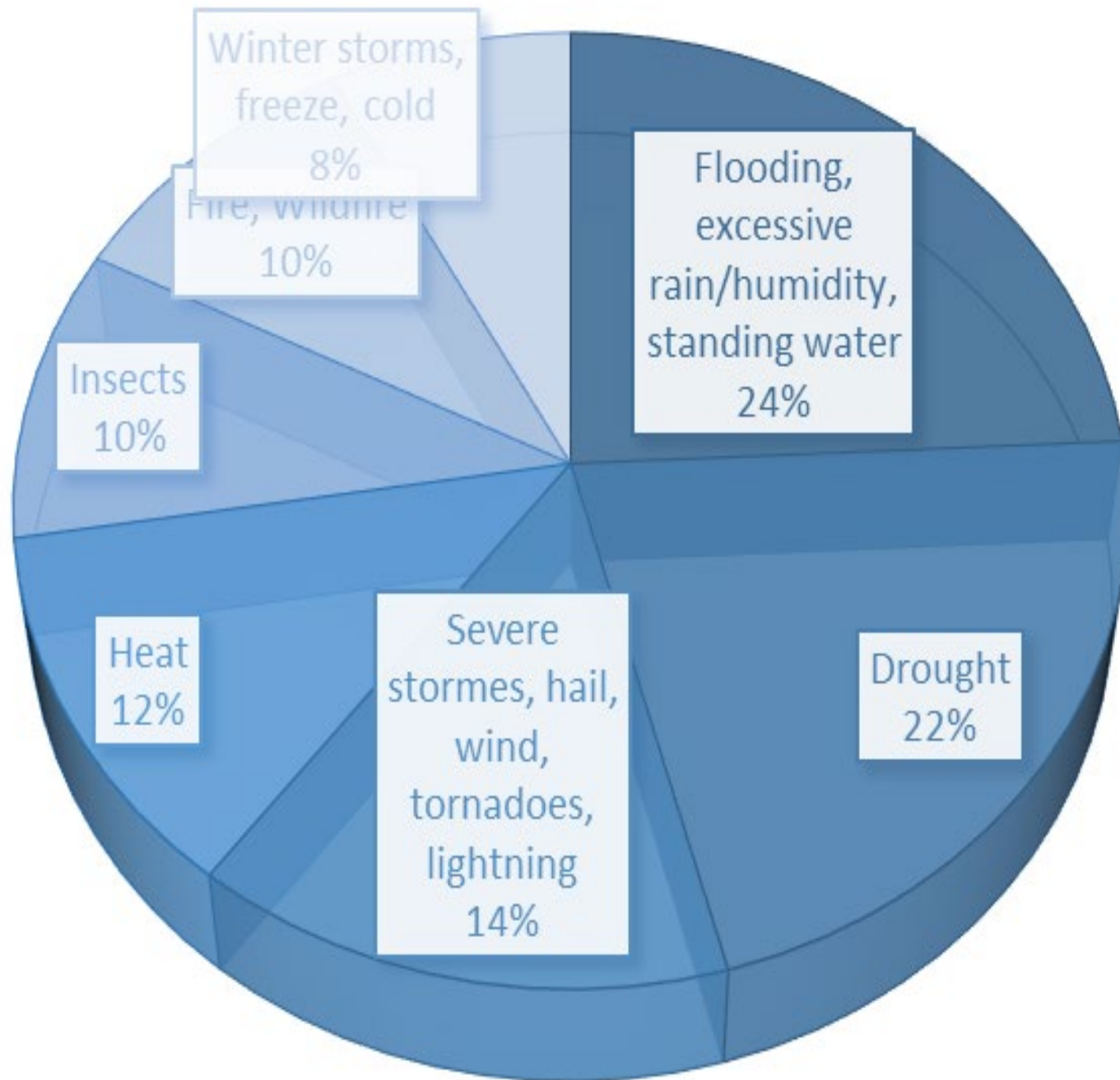
Illinois Billion-Dollar Disaster Events 1980-2021 (CPI-Adjusted)



Updated: January 10, 2022

Ninety percent of all natural disasters in the United States involve flooding (FEMA).

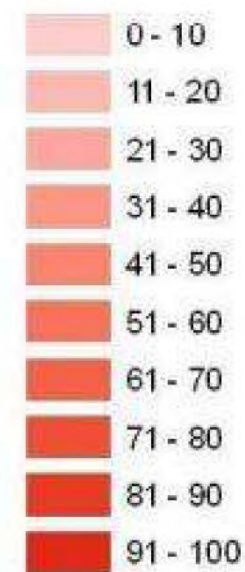
Flood risk reduction projects are not keeping pace as damages continue to escalate (NOAA).



Flooding is the most prevalent and widespread agricultural disaster in the Midwest. 24% of all county disasters declared by the USDA between 2012 and 2021 included flood or excessive water damages.

**The area of land with an
1% ACE will expand an average of 45%
by 2100 due to climate change.**

Legend
Percent Change



Lambert Conformal Conic Projection
North American Datum of 1983

0 100 200 400 600 800 Miles

AECOM, 2013. *The Impact of Climate Change and Population Growth
on the National Flood Insurance Program Through 2100.*

The results reflect national averages only

AS A RESULT,

domestic refugees and open space

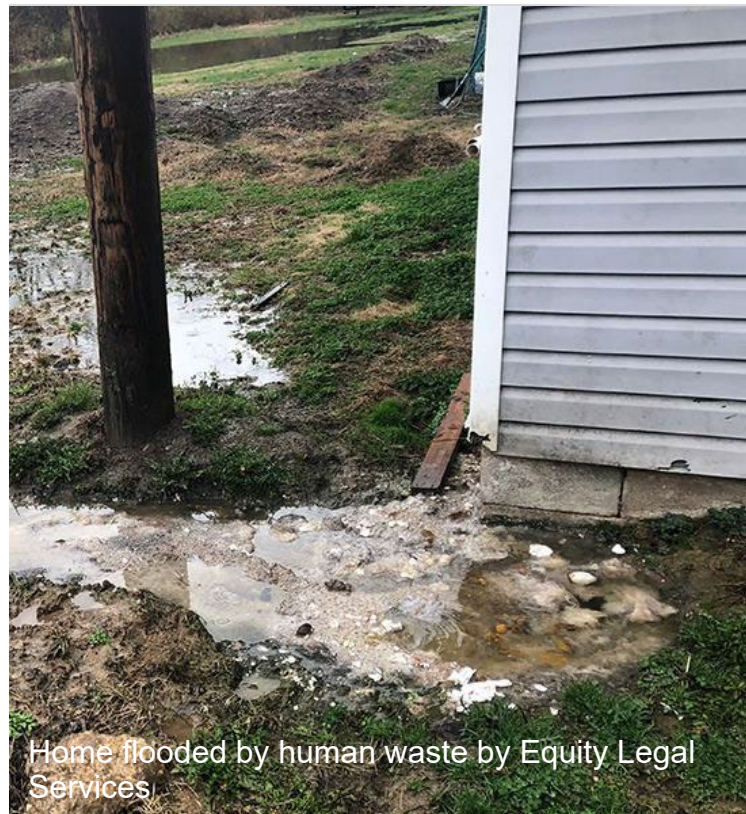


Abandoned Home in Cahokia Heights, IL by Olivia Dorothy



Mississippi River at Moline, IL

Floodplains are places with long-standing public safety, racial equity, and biodiversity issues that need to be addressed through integrated projects.



Floodplains are often environmental justice areas due to redlining that forced Black families to live in floodplains and other places with environmental hazards.

d. Percentage of land improved 95 %; e. Trend of desirability next 10-15 yrs. Down

2. INHABITANTS:

a. Occupation Mixed; b. Estimated annual family income \$ 500-1200

c. Foreign-born families 10 %; Swedish & Italian predom Negro 2 %

e. Infiltration of Above; f. Relief families Many

g. Population is increasing Yes; decreasing -; static -

3. BUILDINGS:

PREDOMINATING 100 % OTHER TYPE - % OTHER TYPE - %

a. Type Singles-2 story north of 12th avenue and bungalows on south

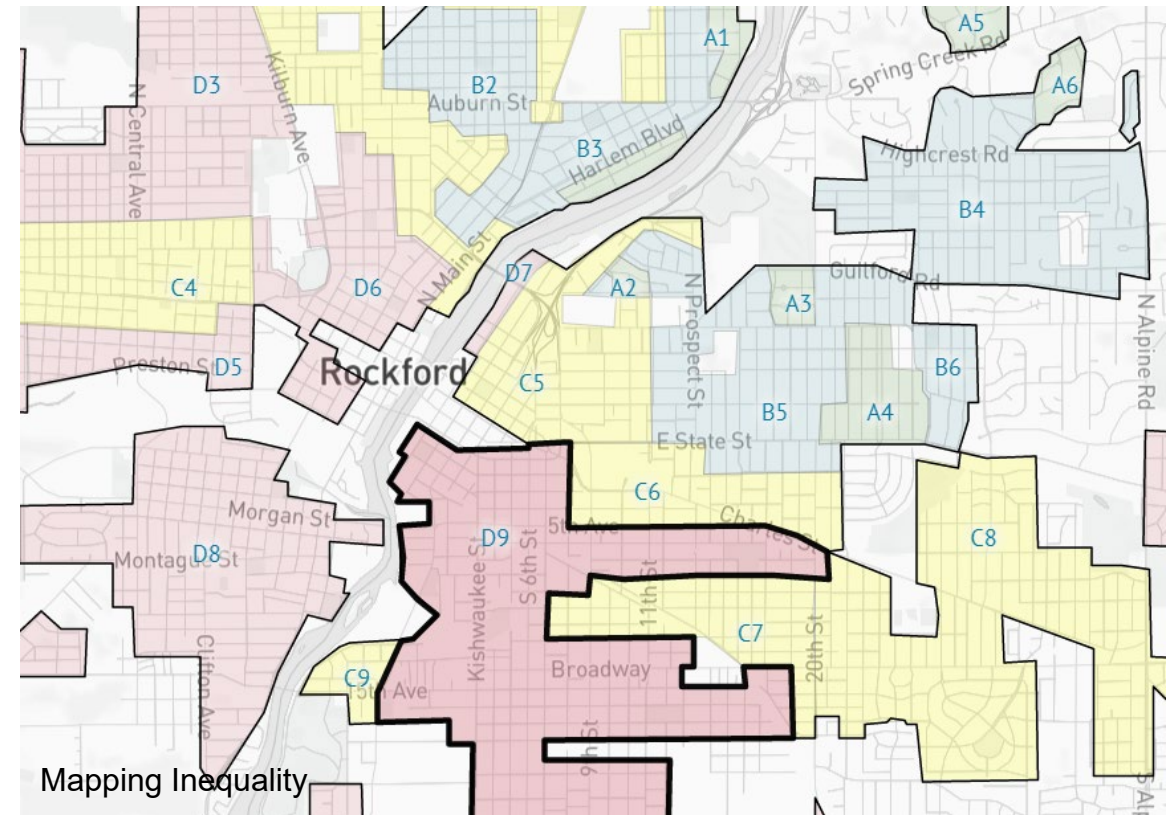
q. Activity Good

4. AVAILABILITY OF MORTGAGE FUNDS: a. Home purchase None; b. Home building None

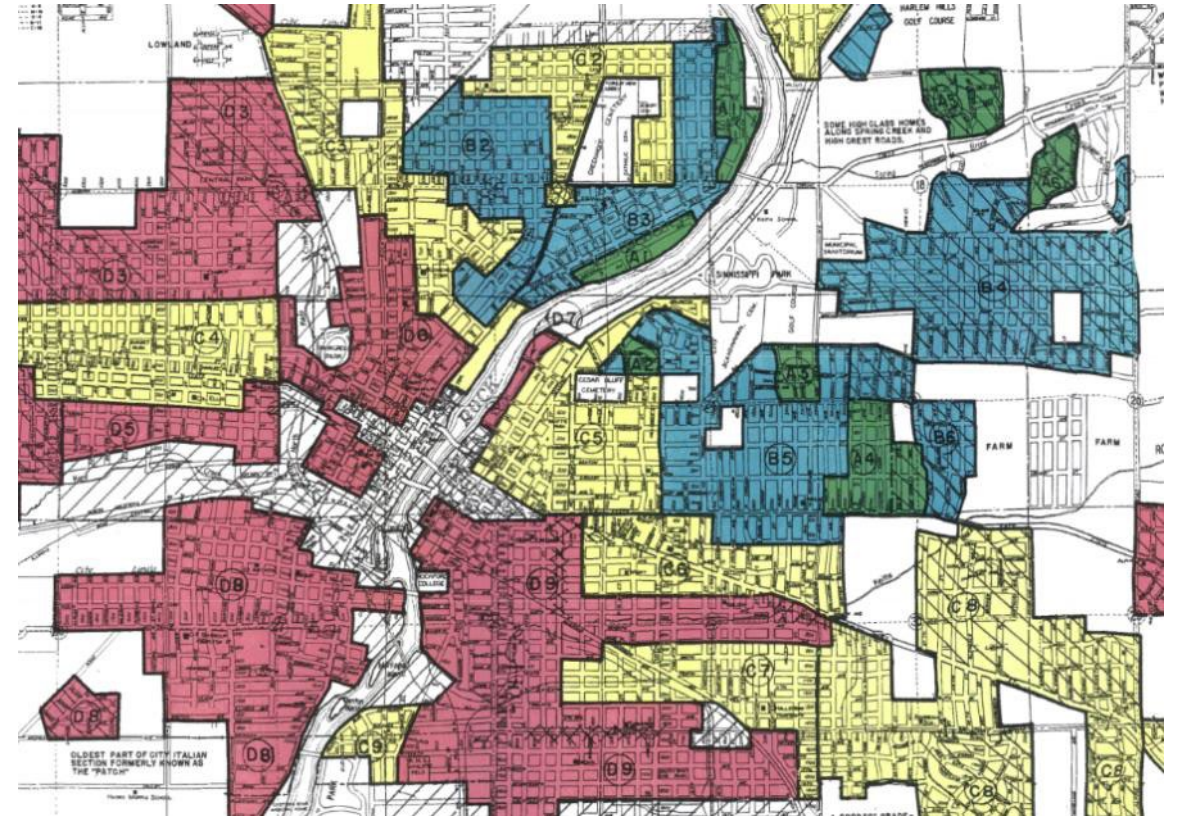
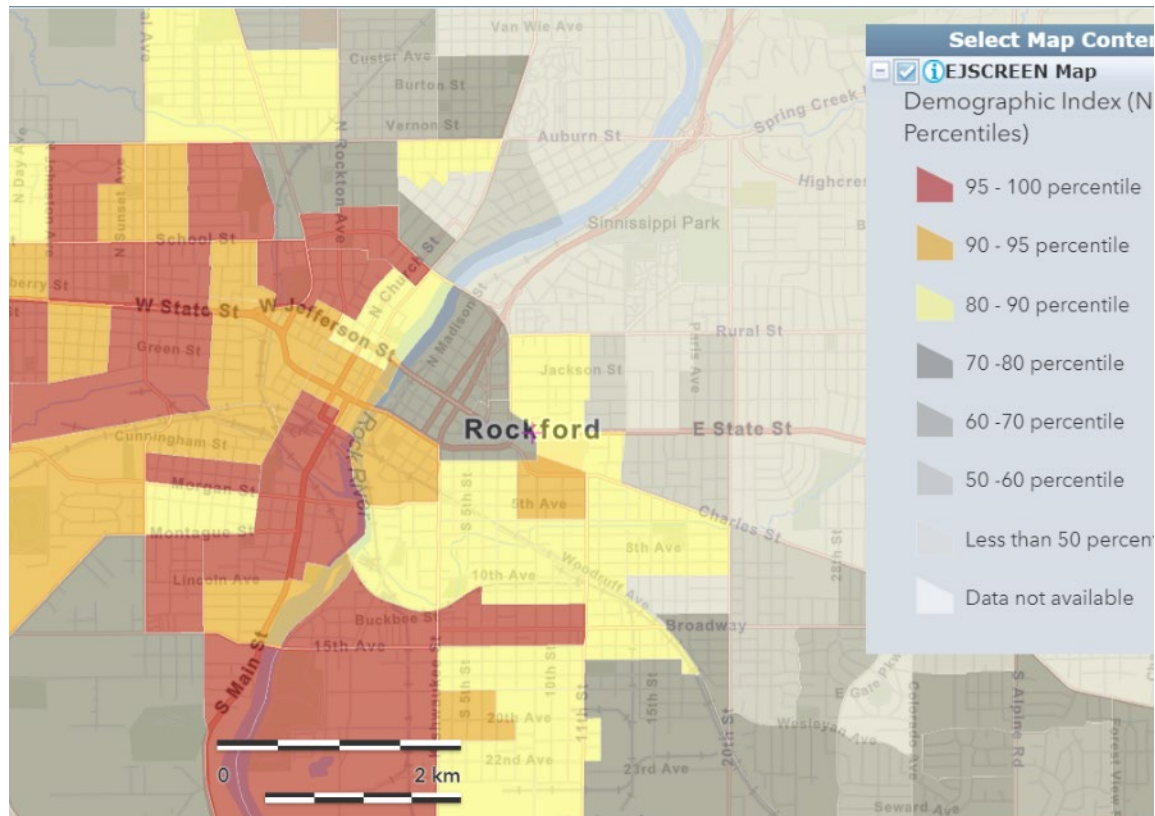
5. CLARIFYING REMARKS:

Property north of Broadway better class and commands higher rental - property south is mostly 1 story bungalow type and cheaper rentals and property value. Keith Creek at times overflows its banks and floods adjacent areas, however, there are improvements in process to correct this. Upkeep poor - very spotted. An old area with poor income group.

6. NAME AND LOCATION - SECURITY GRADE D AREA NO. 9



Ongoing racist lending practices, segregation policies and other factors keep communities of color and low-wealth in these high hazard areas.

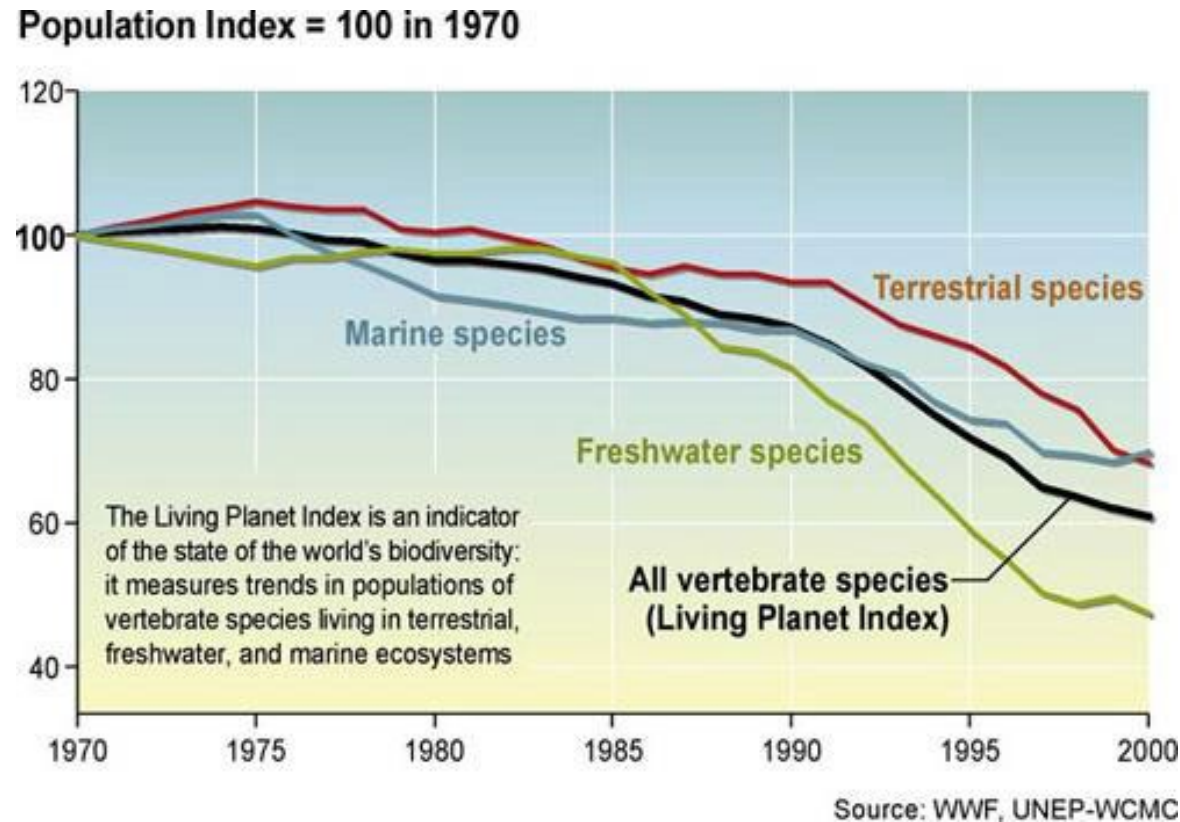


Floodplains are among the most biodiverse and productive ecosystems in the world.

Though they represent less than 2% of Earth's terrestrial land surface, "floodplains provide approximately 25% of all terrestrial ecosystem service benefits."



“The most vulnerable habitats of all, with the highest extinction rate per unit area, are rivers, streams, and lakes in both tropical and temperate regions.” – E.O. Wilson



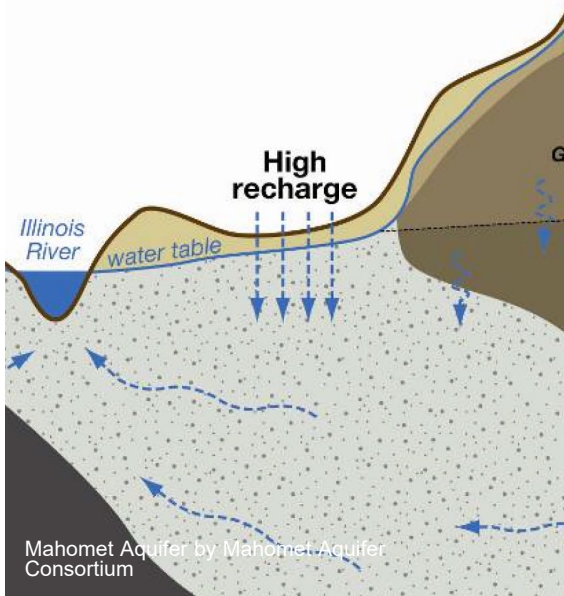


All these issues are happening in the same
physical space...

Can we address these issues at the same time?

“Multi-benefit floodplain development” or “integrated floodplain management” provides a framework for getting these projects on the ground.

✓ Economy ✓ Aquifer Recharge ✓ Flood Risk Reduction ✓ Recreation ✓ Fish & Wildlife ✓ Water Quality ✓ Justice

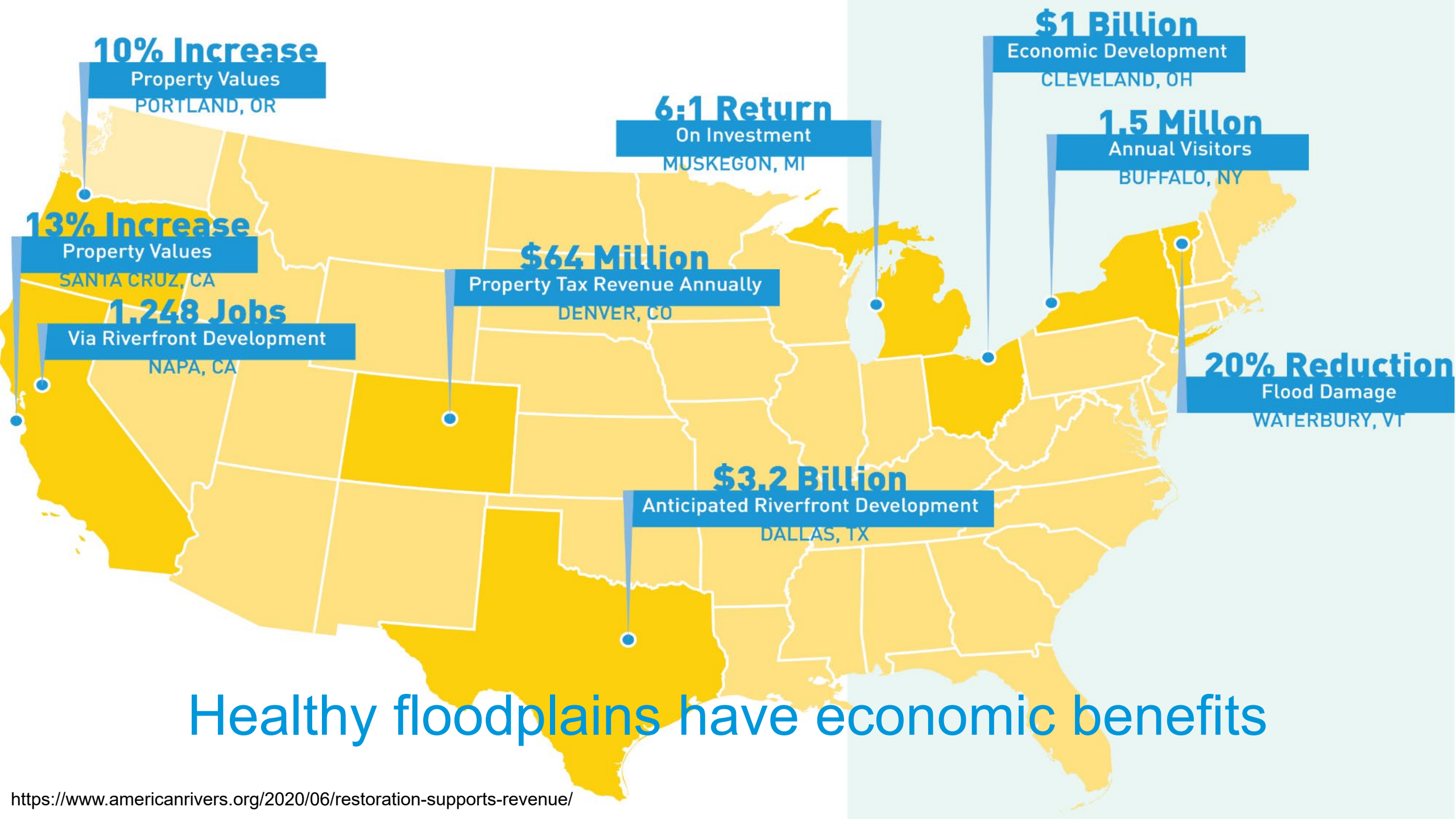


OTHER STATES ARE USING FRAMEWORK

- Washington Floodplains by Design is a public-private partnership approach to create projects that reduce flood risk and improve aquatic habitat.
- California Department of Water Resources Offices of Multi-Benefit Initiatives coordinates inter-agency projects to meet multiple goals in floodplains.
- Vermont Rivers Program Functioning Floodplains Initiative offers financing to projects that improve water quality, flood residence and ecological integrity.
- New York Rising Communities Reconstruction Program offers funding for planning and implementation of climate resilience projects.

FEDERAL INCENTIVES FOR FRAMEWORK

- FEMA's Building Resilient Infrastructure and Communities Program prioritizes applications with a multi-benefit approach
- FEMA's National Flood Insurance Program offers rate discounts in eligible communities that implement multi-benefit projects
- USDA Floodplain Easement Program encourages floodplain restoration and reconnection where flood conveyance is needed

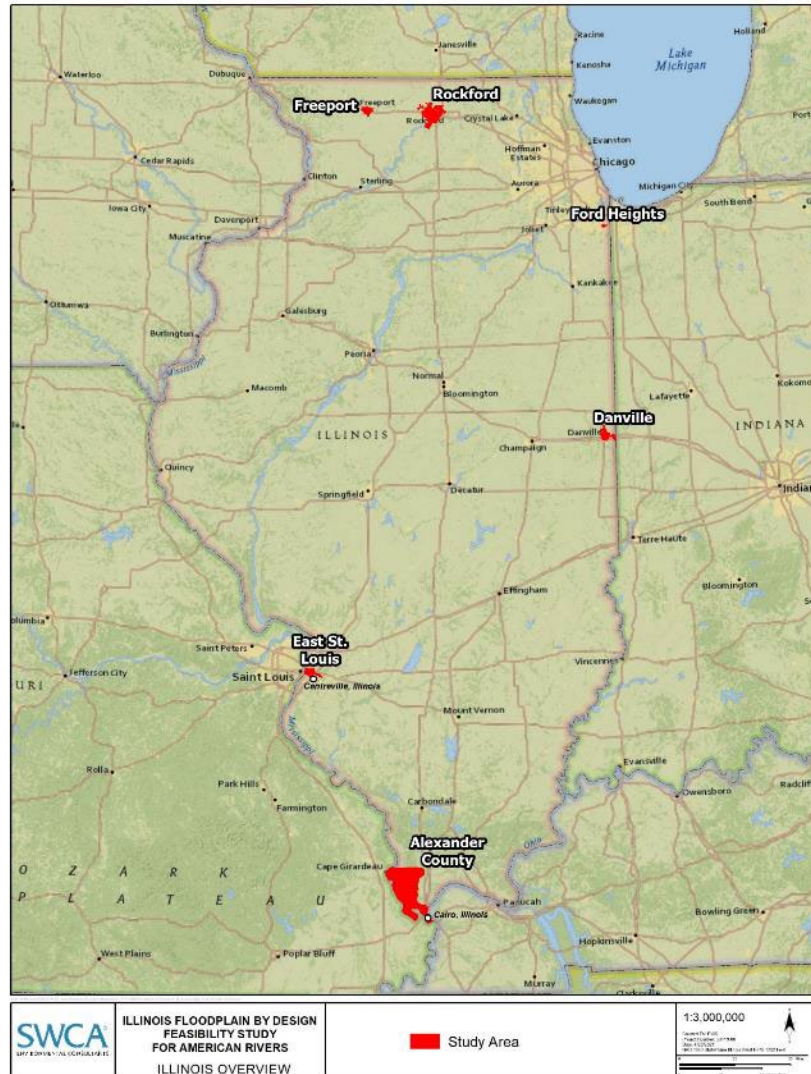


Healthy floodplains have economic benefits

CAN WE DO IT IN ILLINOIS?

Meetings with Interested Parties

- Ecosystem restoration practitioners, racial justice organizations, and floodplain managers
- Baseline education on floodplain concepts and reviewed other state programs
- Case studies in Alexander County, Centreville, Danville, Freeport, Rockford and Ford Heights



THEMES

- Lack of community education and community-led public engagement
- Clear need for gray and green infrastructure combinations
- Affordable housing and relocation assistance needed with buyout programs
- Climate resiliency planning needs to be supported
- Rampant false information persists about the National Flood Insurance Program



FINDING: TECHNICAL SOLUTIONS EXIST

Other Types of Support are Needed

- Support community-led problem solving
- Get more flood hazard mitigation projects on the ground
- Ensure equitable economic growth

COMMUNITY-LED PROBLEM SOLVING

- Re-establish the IL DNR “Office of Community Assistance” with specific goals around racial equity
- Establish a community advisory panel for the IL DNR Office of Community Outreach to set goals and metrics for assistance programs
- Fund community-led visioning for climate change adaptation (what project components need to be developed to maintain the community)
- Establish an IL Floodplain Community Justice Network for community organizers to learn and network

GET MORE PROJECTS ON THE GROUND

- Increase state and federal funding for multi-benefit floodplain development projects.
- Host business round-tables with flood hazard mitigation sector, labor unions, racial justice groups, and trade schools to develop recommendations to incentivize job growth.
- Require National Flood Insurance training for all homeowner's insurance agents.
- Conduct a flood-compatible farming study and make recommendations to incentivize flood conveyance on farmland.

ENSURE EQUITABLE ECONOMIC GROWTH

- Make space in Illinois for racial justice organizations to lead and drive solutions for flood damage reduction.
- Develop policy recommendations to better integrate economic development funding with flood hazard mitigation projects.
- Create guardrails for flood hazard mitigation projects that prevent “gentrification”
- Improve data collection to track social outcomes of projects and make sure programs are more accountable.

ILLINOIS' NEXT STEPS

- Pass legislation proposed here, possibly with an expanded climate adaptation package with more goals aligned with 30x30.
- Develop more specific recommendations for flood compatible farming.
- Follow up with case study areas to advance specific goals.
- Initiate new conversations with additional sites.

Questions?

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