APPENDIX C

Notes from Stakeholder Meetings

STAKEHOLDER MEETING PARTICIPANTS

American Rivers

Antero Group

Association of Illinois Soil and Water Conservation Districts

Black Chicago Water Council

Blacks in Green

California Department of Water Resources

Chicago Metropolitan Agency for Planning

Friends of the Chicago River

Illinois Association for Floodplain and Stormwater Management

Illinois Conservation Foundation

Illinois Department of Natural Resources, Office of Water Resources

Illinois Department of Transportation

Illinois Environmental Council

Illinois Environmental Protection Agency

Illinois Farm Bureau

Illinois Silver Jackets

Illinois State Water Survey

Land Conservation Foundation

Metropolitan Planning Council

Metropolitan Water Reclamation District of Greater Chicago

National Association for the Advancement of Colored People:

- Cairo Branch
- Danville Branch
- East St. Louis Branch
- Freeport Branch
- Illinois State Conference
- Kankakee Branch
- Rockford Branch

National Great Rivers Research and Education Center

Natural Resources Defense Council

The Nature Conservancy

Prairie Rivers Network

PLACE Alliance

Residents of Centreville

Southern Illinois University

SWCA Environmental Consultants

United Congregations of Metro East

Village of Ford Heights

The Wetlands Initiative

Illinois Floodplains Work

Stakeholder Engagement Meeting #1

September 15, 2020

Download Participant List Contact Information

1 MORNING SESSION, EDUCATIONAL PANEL NOTES

Morning Session Recording

1.1 WHY ARE WE HERE? - OLIVIA DOROTHY, AMERICAN RIVERS

Download Slides

Purpose of stakeholder meetings: We need your help doing a feasibility study on creating a new program in Illinois that supports multi-benefit floodplain development projects.

Multi-Benefit Floodplain Development 101

- Floodplains are areas of land that do or could become inundated with water.
- Floodplains can be big and small.
- Flood Control, which seeks to move water away from people, is how we've dealt with flooding historically, but it is not working.
- Flood Risk Reduction, which seeks to move people away from the water, is the new national focus for dealing with flood problems.
- However, with flood risk reduction, communities are often left with "undevelopable" land.
- Multi-benefit floodplain development projects seek to develop these areas in ways that improve community resilience while also improving river and floodplain ecosystems.
- Healthy floodplain ecosystems have many benefits including
 - Flood water conveyance
 - Fish and wildlife habitat
 - Aquifer recharge
 - Economic growth
 - Quality of life improvements
- Several states and communities are promoting multi-benefit floodplain development projects, but few are in Illinois.
- These stakeholder meetings will explore examples from other states, look at some communities with known flood issues in Illinois, and make recommendations for an Illinois program that meets the needs of our citizens.

1.2 WASHINGTON FLOODPLAINS BY DESIGN – BOB CAREY, THE NATURE CONSERVANCY

Download Slides

• Floodplains: cradle of civilization. Super valuable and haven't managed them well.

- Pilot projects put together a suite of 9 multi-benefit floodplain development projects at \$33 million, legislature gave them 44 million.
- Reason they were so successful: it was a large collection of interest. Large stakeholder group.
- It has grown to many projects over the years \$165 million in new funding for this new project work.
- Integrated floodplain management get out of silos work in a collaborative, holistic way.
- Reduce the cost to people, remove barriers, support agriculture, recreation, and clean water. Not a floodplain restoration program and not a flood risk reduction program it's really a holistic and integrated program involving both.
- Partnership and grant program! Both!
- Public/private partnership. State level (top down), Local level (bottom up)
- Rethinking grant making what gets awarded:
 - Highly flexible, locally-driven for the types of project work an priorities
 - Reach/watershed scale
 - Multi- benefit (clear, written support from these different jurisdictions).
- Projects range from traditional floodplain restoration, to new levees/dikes (grey infrastructure), biodigester (dairy waste), levee setbacks
- Puyallup Watershed Floodplain Reconnection Plan holistic management at a river system scale.
- Social Justice:
 - Tribal fisheries, 20% match requirement waived for low income communities. Not just buyouts, but relocations (note: this does not necessarily address affordable housing).
- The secret sauce:
 - Focus on collaborative, locally-driven action: multi-benefit, flexible, system scale
 - Public-private partnership that leverages resources and capacity of the state, abilities to collaborate and innovate with the private sector
- A comprehensive, learning approach:
 - Top down incentives and policy change, bottom up empowerment, capacity building, and innovation, constant learning and adapting.

1.3 VERMONT RIVERS PROGRAM – REBECCA PFIFFER, PROGRAM MANAGER

Download Slides

- Stable rivers doesn't mean static balancing act between water and sediment & debris
- Give it room to let processes occur <u>https://floodtraining.vermont.gov</u>
- Statewide river corridor map <u>Tinyurl.com/floodreadyatlas</u>
- They have a training about managing rivers and development
- Land & Easement program Vermont Land Trust and Vermont River Conservancy buy development rights on certain properties. Many times it's farms.
- They are adjusting management practices for the river to move. Farmers can still farm.
- Ag easements flood chute that moved into their property river coordinator easements and FEMA buy-outs with some of the landowners.
- Restoration opportunities reconnecting lowering the rail bed (recreation trail) to have floodplain reconnection.

- Northfield, VT FEMA home buy-outs, and floodplain reconnection with a park bought out homes and created a recreation park.
- Emergency funds FEMA disaster declaration 75% payment and state helps the local groups pay for the rest.
- Incentivize restoration work/floodplain management work and the state will pay for more, or they get a bigger cost share from the state after the flood happens. And preferential ratings in a variety of state grants (community development grants, transportation grants, etc.).

1.4 FARMING IN THE FLOODPLAIN - BILL BODINE, IL FARM BUREAU

Download Slides

- Involved in flooding issues since the inception of their org (100 yrs ago) not a new issue for them.
- Farming in the floodplain and issues and challenges that the farmers see
- Crops/farming practices are not that different that are grown outside the floodplain, and one of the biggest differences is the levee districts and flood control.
- First constructed between 1880 and 1920 function of state law and funded by local landowners within the district.
- Ag is a HUGE economic engine in the counties bordering rivers (\$8.2 billion with 89,000 jobs)
- Thousands of acres of productive farmland is protected by levees. Critical infrastructure is protected and maintained by these levees (roads, rail, and navigation systems \$90 Billion in freight is moving on the navigation system much of that is farm goods).
- Water quantity having too much of it is a major issue for farmers.
 - Many of the farmers may serve on their levee districts as commissioners.
 - Work closely with USACE, emergency agencies, local governments to provide the protection they need
- Water Quality big investment for farmers
 - Last 5 years 1.5 million in grants in county farm bureaus to research BMPs for water quality – education/awareness, and research, implementation efforts with farmers.
 - Completed as an org a series of field days around the state (9 virtually) to learn about these practices. Continue to find ways to interact with the farmers to improve water quality within the state.
- IL corn growers, soybean association, great deal of effort occurring.
- Challenges:
 - Lack of systematic plan for flood control on river systems to address needed flood storage and flood protection.
 - Complicated and burdensome regulations- USACE, FEMA, IL DNR advocating for state level regulations and permitting process for improving levees and they haven't been changed. This puts levee improvements at risk.

1.5 Environmental Justice Issues – Teresa Haley, State President NAACP <u>Download Slides</u>

- Floodplains are very important
- Minority communities are not receiving those funds to address their issues in the floodplains
- Minority communities often don't own land or property, but are still getting impacted from floodplains in their communities.
- Historically, low income communities and communities of color live in flood prone areas.
- East St. Louis, Alton, Chicago land area, Rock Island, or in Danville, a lot of the community members are at a disadvantage with floodplains
- No insurance, they are renters, not owners when floods occur they lose everything.
- These areas also tend to be highly polluted. Raised gardens are necessary because water/soil is contaminated. East St. Louis raised concerns with family members losing lives, cancer, health concerns with plants such as Monsanto.
- Housing and transportation landlords receive the benefits and not the residences. They go to the NAACP for help. How do they start again?
- Underlying problems
 - Redlining, or systematic denial of various services by federal government
 - Minorities don't receive the funding from the feds in the same way as other groups.
 - Communities divided along racial and socioeconomic lines throughout Illinois.
- We want to participate and have a voice. Appreciate the diversity of this program's stakeholder groups.
- NAACP wants to make sure that people are safe, and that people are taken care of!

1.6 MORNING FULL GROUP Q&A

Will we hear from any insurance providers to discuss knowledge gaps on what's covered/not covered?

• Olivia - not today. It is an important question - we have not set agendas for future meetings, but will look at addressing in the future. Specific questions about how that works - we can answer, but may have as a future meeting topic.

Question for the Farm Bureau with regards to the Washington presentation - they had different approaches with Farm Land in the Floodplain. It was more or less all or nothing - the farmer agrees to or sells an easement so that they are still farming in the floodplain but that it's a middle ground. Under certain circumstances, not to take certain actions, or forego one season for other benefits on floodplain. Is this something that you're more open to, or engaged with?

• Farm Bureau: Open to that conversation. Deep southern IL has continued problems. Easements can be purchased for taking on floodwater. Some farmers are participating in some of these programs. It has to be a systemic approach - you can't do that in a single levee district - you will need cooperation between many farmers in that levee district in order to make it work. Willing to discuss, but we will encounter challenges unless it's a systemic approach.

It was nice to learn/hear about NAACPs Equitable Flooding Management Certification, is there more information available online?

- Since the NAACP has started this program, it's been delayed twice. It is something that was supposed to take place in August and September. Links will be sent to Olivia to distribute to the stakeholders. It is a 2 day certification program, and addresses systemic racism in the floodplain. It is a nationwide effort.
- NAACP is looking for grant writers monies being available for victims of flood but can't access them. They would be open to help with this work (grant work). They don't have the necessary tools in their toolbox to help their communities with applying for these grants.

In Washington's Floodplain by Design Program they are having issues with communities of color having the opportunities to engage. They recognize that communities of color or minorities are having issues getting their voices heard (time and bandwidth). Make sure that the people that need to be engaged, are engaged.

• NAACP - thank you for those comments. We are here to help support our state president and want to hear more about this nationwide environmental consulting firm.

2 AFTERNOON SESSION SUMMARY NOTES

After lunch, stakeholders were split into groups for more in depth discussions. Full Notes and Recordings are below.

2.1 MAIN TAKE-AWAYS FROM TOPIC AREAS DISCUSSION

Topic areas: Environment/Natural Resources, Social Justice/Equity, Farming/Agriculture

- 1. What appeals to you about the multi benefit approaches?
 - Holistic approach, acknowledges the diversity of the river and floodplain users.
 - Giving streams room to move without damaging people/property, responsive to climate change.
 - Focuses on listening to and learning from each other to meet multiple needs for the same resource.
 - Opportunities to improve flood protection and spend less money fighting floods.
- 2. What concerns you about multi-benefit approach?
 - How will this impact our neighbors? Illinois rivers are a state boundary.
 - Need to avoid one-off projects, focus on systemic changes.
 - Needs to be community driven. Communities should prioritize the needs: Public safety, health, recreation, water quality, drinking water, subsistence fishing & hunting. Don't assume levees are the only answer residual risk should be addressed.
 - Floodplain issues are already very complicated. Problems with regulations. Limited financial resources. Lack of trust among stakeholders
- 3. What are the most important Floodplain benefits to your community?
 - Highly productive farmland economic driver for local communities. Societal benefit at large for growing food.
 - Beautiful areas for outdoor recreation and wildlife habitat.
 - Public safety through flood conveyance.
 - Improving water quality for public consumption

- 4. What are the challenges to achieving Multiple Floodplain benefits?
 - Lack of community engagement and resources to educate communities equitably.
 - None of the existing programs help the most vulnerable communities living in floodplains, i.e. frequent flooding, mold, water contamination, displacement, etc.
 - Projects must be driven by willing participants. Regulatory challenges are needed. Need to make sure no one is negatively impacted if one part of the system is changed.
 - It's hard to quantify all the benefits of floodplain functions. Lots of technical, data and science challenges. Especially since rivers are dynamic and changes are continuous.
- 5. What Questions do you have about Implementation?
 - Who's in charge? How will we pay for it? How does it fit with existing programs? How will projects be prioritized?
 - If you don't own property, how can you be assisted?
 - How do we incorporate other environmental health issues like mold and clean drinking water?
 - How can local leaders (especially in EJ communities) be better engaged and access local decision-makers (i.e. levee districts)?

2.2 MAIN TAKE-AWAYS FROM CASE STUDY DISCUSSION

Southern Illinois (Alexander County & East St. Louis)

- 1. Good case study sites, but vastly different issues in these areas. There is more traditional flooding and the Mississippi River wanting to move versus groundwater intrusion and stormwater issues (no where for the water to go).
- 2. Infrastructure with lack of funding is something that can be improved. Access to funding and assistance from the federal government needs to be improved for all communities in S. Illinois.
- 3. Major contamination/environmental issues exist in these areas (particularly in the urban areas). Major flood events seriously risk public safety. This may cause challenges for project implementation.

Central Illinois (Effingham, Rockford & Freeport)

- 1. Get presentations from community leaders into next stakeholder meeting
- 2. Danville, Freeport & Rockford are good case study sites (Peoria & East Peoria might be a good community to swap out, they have water quality issues, levees, low income, combined sewer overflow issues). Quincy might also be considered levee district.
- 3. Scope should include upstream problems aren't alway in the community.
- 4. Data should include hazard mitigation plans. USACE has list of plans for mitigation

Chicago (Ford Heights)

- 1. Ford Heights is a small municipality surrounded by other municipalities, many of which have flooding issues
- 2. We did not have a representative from Ford Heights so it was difficult to understand issues/potential multi-use needs and issues.
- 3. Funding, limited tax base, decreasing population.

2.3 AFTERNOON FULL GROUP Q&A SESSION

Chicago Metropolitan Agency for Planning wants to know what the next steps are for the group. What resources can be shared? Is AR sticking with these case studies? What about extra representation?

• AR might need to revisit some of these case study areas. Suggested changes will be shared with the group.

Next steps discussed:

- Clean up notes from breakaway sessions.
- All links will be shared.
- Powerpoints will be made available to everyone.

The Nature Conservancy (TNC) thinks we should look at results from the USACE floodplain constituents meetings held last fall up and down the river. A TNC representative attended the Cape Girardeau meeting and there was certainly broad participation from many constituents.

• USACE is publishing the results this fall - so it will be available soon.

Chicago Metropolitan Agency for Planning had questions about the case studies: AR is looking at communities that have not done planning for these projects before, correct?

- Yes, these are potential opportunity areas where we can grow actual projects.
- Just because projects are already occurring, it doesn't mean that there cannot be more projects there.
- Opportunity areas to apply a multi-benefit approach.

NAACP states that this experience has been worthwhile and that they are very happy to be involved. It's not often that they are at the table. Decisions are frequently being made without them.

Chicago Metropolitan Agency for Planning asks if the list of participants will be shared.

• Yes, we will make it available with contact information. Part of this process is building relationships and we want to facilitate that.

AR wants to know if there is there a case study that you have in mind. If you know someone that we should involve, that maybe lives in these communities, please let us know, so we can include them in these discussions.

• NAACP will do our part to bring more people into the conversation.

3 AFTERNOON SESSIONS - DETAILED NOTES

3.1 BREAK OUT GROUP - ENVIRONMENTAL & NATURAL RESOURCES GROUP

3.1.1 "What appeals to you about the multi-benefit approaches you heard about this morning?"

- Inclusive
- Much more likely to last the long haul instead of swing with the pendulum of interest
- Acts more like "nature" complex but room for all when in balance
- Multi benefit will also help assure proper funding levels
- Allows for flexibility especially in a changing world: what may resonate in the past might not fly in the world of climate change
- Allows us all to learn from each other
- Possibility of getting past any sector's veto power in the floodplain, results in more needs met
- Collaboration
- Big picture, larger scale spatial and systemic
- Holistic!
- Innovative response to changing climate, haven't done projects on this scale
- This strategy has a better chance at long term sustainability.
- Policy proposal, sets up partnerships to allow people to go after money collaboratively.
- Multiple groups collaborating increases support for projects!
- Potential to access more funding opportunities
- Multibenefit approach encourages us to look at the problems/solutions as a system, rather than a piecemeal approach
- Established precedents in multiple-use natural resource management
- Everyone gets involved, better buy-in and support, better maintenance in the long term.
- Awareness is good also for emergency management.

3.1.2 "What concerns you about a multi-benefit approach?"

- Complex and will take time; not always smooth conversation but well worth the investment in my opinion.
- It's hard to make federal and state programs play nicely together. Each agency has different requirements and it can be overwhelming.
- Barriers at regulator level, funding, etc. so many barriers!
- A lot of outreach and education is needed to get the public to understand and support. Need technical resources.
- Timing with all the grant programs can undermine projects multiple grants require a lot of coordination for timing.
- No coordination in the state of Illinois for mitigation. It's kind of a free for all. No one is thinking about how we can optimize all the federal and state grant programs. Need more coordination.
- Tension between reality and desire it's not free! Relationship building takes investment.
- Outcomes for an individual player can be very resource dependent. Whoever has the most money gets to make the decisions.
- Quantification of benefits it's easy to calculate costs but it's hard to calculate the benefits. The science isn't perfect. This can drive issues of trust among stakeholders.
- Too many potential benefits can water down the true purpose and top needs. We have to stay disciplined about what we can specifically promise, otherwise we risk making skeptics' eyes roll.
- Money is in short supply and it can get very competitive.

- State fiscal crisis limited state resources available
- Collaboration takes a lot of time important to invest in relationships before moving too quickly into policy
- Archaic state water laws
- Need bipartisan political support to create a lasting program
- Lack of trust among stakeholders
- Knowledge needed to quantify multi-benefits of floodplains
- Reaching consensus can be difficult and time-consuming

3.1.3 "What are the most important benefits of floodplains to you and your community?"

Responses:

- Safety keep the water in the floodplains and out of people's basements
- Recreation
- Flood storage
- Mosquito farms! (not a benefit, the thing is that folks want to know that we're __not__ creating bonus mosquitos for their neighborhood)
- TWI is involved in a project in Gary IN on a multi-benefit project. Once a community trusts that safety will be achieved, there isn't a firm hierarchy of needs. Recreation, habitat, scenic, etc.
- Groundwater recharge, ecosystem diversity, need to understand how sensitive changes in development and climate enlarge the floodplain. Mapping floodplain is really hard to do and can change with somewhat minor encroachments.
- Provision of wildlife habitat
- Provision of regulating services nutrient sequestration
- Reduction of flood risk for the community and its neighbors
- Water quality and quantity
- Carbon mitigation and storage
- Biodiversity
- Letting rivers be rivers
- Preservation of open space and access to rivers for recreational purposes
- Resilience of infrastructure

3.1.4 "What are the flood and floodplain related challenges to

generating/enhancing/protecting the benefits identified in Question 3?"

- Landowners ownership issues
- Floodplain work can be very expensive, finding the \$\$\$ do everything.
- Mapping of the floodplain is very difficult. Small changes in the floodplain can have significant impacts on flood stage.
- There are very significant changes that have happened over the landscape lots of impervious pavement changing the way water moves.
- Public trust! Climate is changing can't promise the water will go here and not there.
- Flood insurance rate maps and regulations are not responsive to dynamic river systems and floodplain changes. Community pushback if the floodplain expands.
- Overcoming the status the status quo set by current flood policy putting it back the way it was

- All work within floodplains are super slow whether it is getting money to impacted residents, aligning mis-aligned government programs, land ownership micro-rights v. community rights, and so on
- Floodplain funding and resources can be distributed unequally
- Risk and unpredictability
- Different jurisdictional responsibilities: levee managers, state/fed partners (USACE, IDNR, etc.); public vs private ownership in floodplains;
- Public understanding of the science and physics of flooding and floodplains
- Development pressure- developers don't have long-term investments
- Not only are many benefits not easily quantified, there aren't currently markets for many, so even though they are important, they don't seem to have as much clout as they should.
- Short-term memory after a flood event!
- Zoning and inappropriate land use
- Not recognizing that what "happens on my land" actually affects others down the line...
- Archaic state laws
- Need a Rivers/Freshwater compact to protect the quantity of water and natural regimes so the water isn't diverted

3.1.5 "What questions do you have about implementing multi-benefit projects in Illinois?"

Responses:

- Primary source of funding
- Who is going to organize and keep this effort going?
- Will it be one organizing entity or a collaborative effort?
- What is the political strategy? Who will lead the charge at the political level?
- How would we get information out? Who is the driving force to make sure resources get into communities (especially BLack and Brown) to move forward?
- Will there be a designation of areas? Which area goes first? Location, project? How do we rank these?
- Who's in charge of implementation?
- How will we define activities and projects that can be funded?
- Local ordinances how rectify differences/barriers to implementation?
- If there is a public-private partnership- where will the non-state funding come from?
- Are all partners in agreement on the issues and possible solutions/goals moving forward? Are there still differences we need to hash out? Are differences okay? Is there a process for resolving them if not?
- How can we best define damages? FEMA databases for damages is held internally and needs to be more shared with project managers. Not just recent flooding, but a history of flooding is important. (See openFEMA.gov)
- How can we ensure that all communities in Illinois have equitable opportunities to tap into a program like this?

3.1.6 "Other Questions, Comments or Concerns?"

Responses:

• Areas that are being flooded - it becomes an environmental and health issue - MOLD! How do we address those issues?

- How can we get engineers et al to recognize the value of nature-based green
- infrastructure
- Seems flood insurance premiums should not be a driver as much as it is...How can we lower flood insurance premiums? Some folks cannot afford to pay for flood insurance, can they be subsidized?
- How can we support the real estate movement that is stating how many times a home has been flooded! Good stuff! Consumer driven.

3.2 BREAK OUT GROUPS - FARMING AND AGRICULTURE

3.2.1 "What appeals to you about the multi-benefit approaches you heard about this morning?"

- Confusion expressed from the Farm Bureau on why we are having this breakout group and what the purpose of the group is.
- The National Great Rivers Research & Education Center (NGRREC) discussed the metro east area and how they are working with watershed groups to work with those communities.
 - The NGRREC representative picked this session because they would like to see more of heartland conservancy series of open houses where AR meets different communities, finds out where the flooding is and maps it out.
 - NGRREC is looking for good participation from both the urban and the farming communities.
 - NGRREC would like to see more connection between the farming groups and the watershed groups.
 - NGRREC is also interested in soil health the representative is a soil scientist as a background. There is a greater connection in the way the agricultural lands are managed and the flooding. Anticipates seeing a benefit to soil health which should be great for farmers.
- IL Farm Bureau would like to see opportunities to get better flood protection. Flood fighting requires a lot of money and the Farm Bureau wants to raise levees so that flood fighting is less of an issue and costs less money.
 - Farm Bureau representative also wanted to point out that there are regulatory issues with the state of IL for levee improvements to occur. These regulatory issues have made levee improvements largely unsuccessful.
 - The IL Farm Bureau is still unclear on what the benefits of floodplain restoration could be. Need to flesh out the program more to get a better idea of what that looks like.
- The NGRREC representative has driven through farmlands that haven't recovered from flooding over a year ago and is curious if farmers could use that land differently? Maybe this program could create more programs for farmers that could help benefit them as well allowing them to gain income from this program.
- The NRCS has various different programs and they are active in the community (i.e., their wetland easement program). They are involved in the Len Small Levee project through an easement on the property.

- Farm Bureau says that the program is getting rolling currently at Len Small Levee. 4-5 year issue at Len Small levee. The restoration didn't work and they have encountered lots of issues with USACE. With these factors combined, they have run out of options and are always running into flooding.
- The representative from the Association of Illinois Soil and Water Conservation Districts (AISWCD) has a really good resource at Dog Tooth Bend through the Alexander Soil and Water Conservation District. They are one of the groups spearheading the efforts there. Plans on introducing us to that person.

3.2.2 "What concerns you about a multi-benefit approach?"

Responses:

- A representative from the IL Farm Bureau is concerned about a comprehensive plan. As we talk about the flooding and economical impacts, a majority happens in the Mississippi river we have neighbors on the other side. (Missouri, Iowa.) If we affect these river systems, we should talk with those users.
- Another rep. from the IL Farm Bureau recommends a systematic plan. Says that we should address these issues as a holistic approach and avoid implementing one-off situations that will change what is going to work.
- IL Farm Bureau reiterates that we should avoid negative impacts from not looking holistically.
- Willing participation is key don't try and force this on people. We should only work with willing participants in other states and we have to think about what the impacts are on those working within the levee district.
- AISWCD mentions that both the Farm Bureau and IL Soil and Water Conservation Districts are voluntary land management solutions.
- People will only volunteer if there are financial solutions available. Otherwise they could be worse off than they are now.
- It could be a tough sell because transition is tough to take on. Farmers will see this as a big risk and a possible financial hit.
- USACE mainstem and 100 year floodplain don't think outside of that. NRCS has lots of different conservation programs issues with collaboration and communication. How does that work and the more collaboration and money be used up through that.

3.2.3 "What are the most important benefits of floodplains to you and your community?"

Responses:

- Good soil for farming.
- Highly productive farmland agriculture is in river communities and is the economic driver for that community.
- Societal benefit of growing food. Need to ensure that this is recognized and understood.
- Beautiful areas outdoor recreation/activities very important to all groups.

3.2.4 "What are the flood and floodplain related challenges to generating/enhancing/protecting the benefits identified in Question 3?"

Responses:

• Regulatory changes are needed to make improvements on the river.

• Making sure we are looking at this systematically and that all parties are benefiting from this and that nobody is negatively impacted.

3.2.5 "What questions do you have about implementing multi-benefit projects in Illinois?"

Responses:

- How are we going to pay for this? IL has some fiscal challenges.
- What agency will drive this/house this?
- How does it fit within the nutrient state strategy?

3.2.6 "Other Questions, Comments or Concerns?"

Responses:

None

3.3 BREAK OUT GROUPS - SOCIAL JUSTICE AND EQUITY

3.3.1 "What appeals to you about the multi-benefit approaches you heard about this morning?"

Responses:

- No surprises heard. Look at what we do to improve holistic approaches
- Better management of streams/floodplains as well as people who live in them address different and diverse needs/coexist; giving streams room to move without damaging people and property
- Current/past floodplain management that is siloed has exacerbated current issues
- Climate change impacts have a disproportionate effect on EJ communities
- Agencies and floodplain groups get focused on single actions; focus needs to be on multiple processes and people
- Information presented this morning on floodplains and programs was a lot of info to take in at one time
- Floodplain users seem to lookout for their own interests (e.g. levee districts); sharing floodplains should be the goal

3.3.2 "What concerns you about a multi-benefit approach?"

- Ensure floodplains are adequate to support freshwater and recreational fishing
- People of color make sure they are protected, levee should protect those communities (e.g. Centerville flooding; people who live there need to be protected); need to determine if there a way to incorporate protection of these communities into levee design/upgrades
- Multi-benefit floodplain should mean holistic approach with broad group participation and consideration
- A consistent basis for multi-benefit floodplain approach is needed with tangible solutions and timelines that prevent imminent damage
- ALL VOICES ARE HEARD toolbox needs to be adequate to provide relief to people suffering from increased flooding
- People are experiencing climate justice inequities, needs to be diverse group representing the demographics that are being impacted (e.g. black and brown people)

• Fair and equal representation/consideration of stakeholders, BUT urban areas should be prioritized in order to protect people

3.3.3 "What are the most important benefits of floodplains to you and your community?"

Responses:

- Connection to natural resources for recreation (e.g. fishing, open space)
- Good water quality
- Adequate space for high water flows/food conveyance so levees do not have to be opened and inundated neighborhoods

3.3.4 "What are the flood and floodplain related challenges to generating/enhancing/protecting the benefits identified in Question 3?"

Responses:

- EJ communities are not being heard equitably in floodplain decision making
- EJ communities need to have an equal seat at the table
- Representatives of people who live in the communities that are experiencing the damage and devastation need to be part of the solution and decision making direct experience matters
- Agencies and leadership in floodplain management need to prioritize perspective and participation of communities that are being impacted
- Health and safety flood is contaminated plus lack of access or impetus to provide access to clean and safe drinking water
- Location of EJ housing people of color) in flood prone areas can result in demolition due to consistent pervasive issues
- EJ communities need to have better access to the decision makers; ensuring that EJ communities are included in the floodplain decision making process

3.3.5 "What questions do you have about implementing multi-benefit projects in Illinois?"

Responses:

- How do EJ communities that do not own the property and do not have flood insurance find assistance
- How can EJ communities be better engaged and have access to the decision makers

3.3.6 "Other Questions, Comments or Concerns?"

Responses:

None

3.4 GEOGRAPHIC (CASE STUDY) BREAK OUT ROOMS - CENTRAL ILLINOIS

Download Video Recording

3.4.1 Effingham

Effingham map files:

Is this a good case study location?

- Flood hazard data in Vermilion County is not considered valid it's really old.
- Danville uses surface water from a reservoir on the North Fork, this may have water quality issue
- Effingham selected because of data and Wabash watershed
- Decision to switch to Danville.

What geographic area should we focus on in this community?

• N/A

What are the goals/challenges in this community?

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• N/A
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How can flood damages be reduced in this community?

• N/A

How does the community use their river?

• N/A

How does the community want to use the river or how could they use their river?

• N/A

What types of natural resource/environmental issues exist in this area?

• N/A

What types of economic issues exist in this area?

• N/A

What types of projects are already being or have been implemented to address flooding issues in the communities?

• N/A

What are the available resources for multi-benefit projects at this location, if any?

• N/A

3.4.2 Freeport

Freeport map files:

Is this a good case study location?

- Yes there is updated flood hazard data and a lot of outreach has occurred with the community. At one time a neighborhood greatly impacted by the Pecatonica River had a plan for relief. I understand buyouts may be in progress.
- Image is from the USACE National Levee Database

What geographic area should we focus on in this community?

- Need someone from the community
- There is also a community upstream that is flooding.
- Northeast corner of Freeport might be a good place to start.

What are the goals/challenges in this community?

• N/A

How can flood damages be reduced in this community?

• N/A

How does the community use their river?

• N/A

How does the community want to use the river or how could they use their river?

• N/A

What types of natural resource/environmental issues exist in this area?

• N/A

What types of economic issues exist in this area?

• N/A

What types of projects are already being or have been implemented to address flooding issues in the communities?

• N/A

What are the available resources for multi-benefit projects at this location, if any?

• N/A

Other questions

• DO they have levees?

3.4.3 Rockford

Rockford map files: _

Is this a good case study location?

• Has updated flood hazard data, recent update showed hundreds of additional homes in the 1% floodplain. We did a structure specific risk assessment. Lots of low to middle income housing, renters impacted.

What geographic area should we focus on in this community?

• N/A



What are the goals/challenges in this community?

• N/A

How can flood damages be reduced in this community?

• N/A

How does the community use their river?

• N/A

How does the community want to use the river or how could they use their river?

• N/A

What types of natural resource/environmental issues exist in this area?

• N/A

What types of economic issues exist in this area?

• N/A

What types of projects are already being or have been implemented to address flooding issues in the communities?

• N/A

What are the available resources for multi-benefit projects at this location, if any?

• N/A

3.4.4 Top 4 Take-Aways from Central discussion

- 1. Get presentations from community leaders into next stakeholder meeting
- 2. Danville, Freeport & Rockford are good case study sites (Peoria & East Peoria might be a good community to swap out, they have water quality issues, levees, low income, combined sewer overflow issues). Quincy might also be considered levee district.
- 3. Scope should include upstream problems aren't always in the community.
- 4. Data should include hazard mitigation plans. USACE has list of plans for mitigation

3.5 GEOGRAPHIC (CASE STUDY) BREAK OUT ROOMS - CHICAGO

Download Video

3.5.1 Ford Heights

Ford Heights Map Files:

Is this a good case study location?

- There are plenty of places in the Chicago area that flood
- Ford Heights seems to be representative of diversity, low income, EJ; south suburban area has similar flooding due to topography, industrial and grey structure changes and vast low lying with bad drainage

• Chicago Metropolitan Agency for Planning to point group to CMAP resources

What geographic area should we focus on in this community?

- Group raised concern that this question was difficult to relate to this case study given Ford Heights small area
- Group wondered if this case study should stop at the municipal boundary or should this case study look more broadly?
- Group had limited knowledge of Ford Heights and asked what the current WQ of Deer Creek or other tributaries in the area is. Also curious how WQ plays into decision making?

What are the goals/challenges in this community?

- Ford Heights is a small community that has little control over water flows surrounding and contributing to issues there
- Funding issues due to small tax base
- Allocation of Ford Heights limited funds
- Trust in government
- Declining population (50% decline over 30 years)

How can flood damages be reduced in this community?

• Is there an opportunity to do floodplain management on the east side of Ford Heights (1-394 is in the way)

How does the community use their river?

- Group determined they needed to investigate further due to lack of knowledge about the Ford Heights area
- Group asked if Deer Creek is channelized not certain?
- Group asked if there is room to provide space for the creek to move
- Also asked if Deer Creek is currently connected to the floodplain or if it needs to be connected to the floodplain?

How does the community want to use the river or how could they use their river?

• Group gave same answer to number 5 and believes they need to better understand what Ford Heights uses are; need familiarity with the area

What types of natural resource/environmental issues exist in this area?

- Open space to the north and the west, outside Ford Heights may provide multi-use floodplain opportunities
- Plum Creek is located to the South and could consider ways to access from Ford Heights
- Group wants to understand the cause of population decline in Ford Heights and wondered how impacts potential for multi-use projects?

What types of economic issues exist in this area?

- Funding, small tax base
- How funds are allocated currently
- Declining population (50% decline over 30 years)

• If multi-use projects are implemented would/could that result in pushing out longtime residents?

What types of projects are already being or have been implemented to address flooding issues in the communities?

- Green Streets Project 31,000 sf of bioswales in Sunnyvale neighborhood
- USACE constructed a basin in SE Ford Height in 2014 to address flooding:
- https://www.lrc.usace.army.mil/Missions/Civil-Works-Projects/Deer-Creek/

What are the available resources for multi-benefit projects at this location, if any?

• There is open/vacant (possibly ag land) land that could potentially provide space for multi use projects

3.5.2 Top 3 Take-Aways from Chicago discussion

- 1. Ford Heights is a small municipality surrounded by other municipalities, many of which have flooding issues
- 2. We did not have a representative from Ford Heights so it was difficult to understand issues/potential multi-use needs and issues.
- 3. Funding, limited tax base, decreasing population.

3.6 GEOGRAPHIC (CASE STUDY) BREAK OUT - SOUTHERN ILLINOIS

Download Video

3.6.1 Alexander County

Alexander County map files:

Is this a good case study location?

- NAACP IL Chapter stated that this is a great case study due to the flooding issues.
- Cairo what steps are being taken with infrastructure issues stormwater maintenance.
 - Are there federal dollars being put towards the levee improvements?

What geographic area should we focus on in this community?

- Alexander County needs to update their pre-disaster mitigation plan so they are eligible for federal funds
- East Cape Girardeau major flooding issues drainage system issues.
 - Major flooding issues with velocities.
- Dog Tooth Bend
 - Many stakeholders are involved and have issues with Mississippi River flooding; climate change is increasing the volume and velocity of the water to the point that the river is trying to cut a new channel.
 - Local landowners have reached the conclusion that even if the levee was repaired, it would break at another point next year. They recognize that the river has changed and that business as usual (levee rebuild without allowing room for the river and nature-based solutions) won't solve the issues.

- Federal funds are currently being spent in the area, per landowner request, to purchase easements that allow for land use change and the land to regenerate to help absorb the river's energy.
- Cairo
 - Unique issues with the stormwater and levees.

What are the goals/challenges in this community?

• Challenges and regulatory groups involved are different in N. Alexander County vs. Cairo. The federal government is more involved in the Cairo levees due to it being part of the Mississippi Rivers & Tributaries program. Cairo's issues are with drainage and maintenance with the existing levees.

How can flood damages be reduced in this community?

- Infrastructure with a lack of funding is something that can be improved. This is a common theme across all areas. Water level is high and the ground is already saturated. There is no place for that water to go except for the surface. It has to be pumped.
 - Lack of funding is a major issue. Tax assessments can't keep up with this equipment.
- Some places are located right next to the major rivers and there is no good place to go with the rivers system. A lot of coordination has to occur in the uplands where the water needs to be caught and slowed down before it hits the floodplain.
- All need help accessing the federal system for funding and assistance.

How does the community use their river?

- Economic opportunities, particularly early on. In a challenging position being next to the river.
 - With increased flooding issues has now put these communities in a bad position moving into the future.
- Recreation opportunities, economic opportunities (fishing, etc.).
- Transportation corridor and navigation. Barges economically sustainable and efficient for moving goods.

How does the community want to use the river or how could they use their river?

• N/A

What types of natural resource/environmental issues exist in this area?

- Len Small Levee issue failing multiple times of year.
 - Starting talking with the landowners and they know that the river's velocity and volume has changed.
 - Changes need to occur behind the levee.
 - Landowners are working on a buyout program.
 - Ag is moving into natural vegetation, which is helping people downstream. Work has already started. Enrollment project is already moving forward.
- Cairo/East St. Louis.
 - East St. Louis has lots of past industrial issues resulting in challenges to construction projects with soil contaminants.

- The East St. Louis Metro levees cannot fail. There are chemical plants that would result in a large environmental disaster.
- The steel plant is still operational.
- Explosions would occur if the levee system was to fail.
- Levee setback will likely not be an option here and we will need to deal with the water behind it in other ways.
- Recently, a park was developed as a recreational overlook to watch the river. It is experiencing flooding problems and it is getting worse.
 - Mayor has the redline of streets not to drive down because it's flooded. Working with another group (NAACP) clearing up an aluminum plant that is now a dump. It is in the second phase of this project. The next step is unknown.
- o West of East St. Louis is flooded and not too far from them.
 - Cairo has similar issues but at a smaller scale.

What types of economic issues exist in this area?

- In Cairo it was announced during a flood event that the governor is going to be working on a port authority proposal to stimulate the economy. Permitting hasn't been started. But, it is something that is being proposed and talked about. Could bring a lot of investment into the area.
- Insufficient economic base to support a healthy economy, many residents work outside of the City of Cairo because of a lack of opportunities
- The agricultural economy is not supporting as many people as it has historically because of mechanisation and industrialization of agriculture, so, they don't have the tax base to support the flood mitigation infrastructure

What types of projects are already being or have been implemented to address flooding issues in the communities?

- At Dogtooth Bend the NCRS is currently purchasing easements to allow for reconnection of the floodplain.
- There are voluntary buyouts in the Olive Branch and East Cape Girardeau jurisdictions to move some at risk landowners out of harm's way. There was an attempt to perform a Valmeyer-type relocation of the town.

What are the available resources for multi-benefit projects at this location, if any?

• N/A

3.6.2 East St Louis

East St Louis map files:

Is this a good case study location?

• Yes, this is a good place to focus on.

What geographic area should we focus on in this community?

• N/A

What are the goals/challenges in this community?

- Similar issues to those in Cairo and East St. Louis.
- Internal drainage issues stormwater maintenance needed.
 - o Bluff runoff the pipes were draining down to East St. Louis. The system was not upgraded to deal with the population growth.
- It is taking a very long time to figure out how to map the levees in East St. Louis. New mapping is occurring in this area now.
- Are they truly involving the EJ community? IDNR will share with NAACP these names offline so they can get involved.

How can flood damages be reduced in this community?

• See Alexander County notes. Similar issues to Cairo.

How does the community use their river?

• N/A

How does the community want to use the river or how could they use their river?

• N/A

What types of natural resource/environmental issues exist in this area?

• N/A

What types of economic issues exist in this area?

• N/A

What types of projects are already being or have been implemented to address flooding issues in the communities?

• The metro east sanitary district and associated levee districts / jurisdictions have passed new taxes to meet maintenance needs - however, the levee system is still under funded.

What are the available resources for multi-benefit projects at this location, if any?

• N/A

3.6.3 Top 3 Take-Aways from Southern discussion

- 1. Good case study sites, but vastly different issues in these areas. There is more traditional flooding and the Mississippi River wanting to move versus groundwater intrusion and stormwater issues (no where for the water to go).
- 2. Infrastructure with lack of funding is something that can be improved. Access to funding and assistance from the federal government needs to be improved for all communities in S. Illinois.

3. Major contamination/environmental issues exist in these areas (particularly in the urban areas). Major flood events seriously risk public safety. This may cause challenges for project implementation.

Illinois Floodplains Work

Stakeholder Engagement Meeting #2

October 27, 2020

Download participant list and contact information here.

Download notes from Stakeholder Engagement Meeting #1 here.

Please note that due to technical difficulties during the meeting, not all the break-out session videos were recorded properly. We apologize.

1 EDUCATIONAL PANEL & DISCUSSIONS

1.1 RECAP OF STAKEHOLDER PROCESS – WHITNEY FIORE, SWCA

Hyperlinks: PDF of Slide Deck & Video

The product of this process is a feasibility study to examine the application of multi-benefit floodplain development in Illinois. It will be used to assess potential and make recommendations to manage and develop floodplains in Illinois for multi-use benefits (e.g. urban communities, habitat, public access, stormwater and flood zone management, among others). Stakeholder input will be used to inform development of the feasibility study. Stakeholders will not be asked to endorse the feasibility study.

In the Post-Meeting #1 Participant Survey you told us that you would like to see

- ✤ A shorter, more focused experience;
- Clearer expression of overarching goals and purpose;
- More detailed or pre-circulated information on case studies could allow more constructive discussion;
- More clarity on focus of study (e.g. is it targeting urban or minority communities, floodplains, in the broader sense, etc.); and
- Information on funding mechanism for the study.

To address this feedback, we have

- Changed to half day format;
- Reiterated that goal is to determine the feasibility of implementing a multi-use benefit floodplain program in Illinois;
- Reiterated stakeholder input needed to help refine and focus feasibility study and case study locations;
- Clarified that stakeholder workshops intended to build upon each and become more focused as we proceed;

- Eliminated one proposed case study;
- Focused on only three case studies during this meeting (the other case studies will be reviewed in January);
- ✤ Added additional local participants added from case study areas; and
- Clarified that the study will be presented to the Illinois Legislature for program consideration and funding.

The stakeholder meetings focus on case studies. These locations were selected to represent compendium of floodplain issues and concerns. The case studies will be used to discusses floodplain develop in terms of issues and multi-use benefit opportunities. Participants should provide input based on your area of concern, expertise or lived experience. The feasibility study will not be used to solve the issues in the case study areas, just highlight the feasibility of the program as a tool to help address these issues.

1.2 RECAP OF MULTI-BENEFIT FLOODPLAIN DEVELOPMENT – OLIVIA DOROTHY AMERICAN RIVERS

Hyperlinks: PDF of Slide Deck & Video

What is "multi-benefit floodplain development?" Let's break down the definition. Floodplains are any low-lying area subject to flooding. Floodplains, like rivers, can be big and small. Urban floodplains can be hard to identify because wetlands, creeks, and streams have been converted to storm sewers. Regardless, the same geomorphologic and hydrologic are at work in big, small and urban rivers and floodplains. Land development that is not compatible with flooding has numerous negative impacts on public safety, river health, economic stability, and quality of life. Multi-benefit projects aim to address disparate needs and community priorities in the same physical space. Taking these definitions together, multi-benefit floodplain development seeks to plan and develop floodplains in ways that both maximize community resilience and ecosystem functionality. In other words, multi-benefit floodplain development identifies and advances projects that check as many boxes as possible: public safety, economic stability/growth, ecosystem health, water quality improvement, recreation opportunities, aquifer recharge, drinking water security, etc. Different areas and communities might have different priorities and opportunities that check different combinations of these boxes.

Why is multi-benefit floodplain development important? Climate change is driving more frequent severe precipitation events that cause flooding. Despite hundreds of billions of dollars being spent on traditional "flood control" infrastructure flood disasters continue to escalate. "Flood control" – the strategy of trying to move water away from people and infrastructure – has been proven largely ineffective and risky. "Flood risk reduction" – the strategy of trying to move people and infrastructure away from frequently flooded areas – is the most effective approach for protecting people. However, with the "flood risk reduction" approach, communities are often left with parcels of land that have limited functionality for people and ecosystems. "Multi-benefit floodplain development" strives to look at flooding as a resource for communities and asks the question, "how can we benefit from the floods?"

The purpose of the feasibility study is to identify incentives to increase the application of multibenefit floodplain planning and development in Illinois. Other states have started to take this approach. At the last stakeholder meeting, we learned about Washington and Vermont.

1.3 CALIFORNIA DWR MULTI-BENEFIT FLOODPLAIN PROJECT OFFICE - STEVE ROTHERT, DIRECTOR

Hyperlinks: Video (no slides)

Steve is the new chief of the California Department of Water Resources Division of Multi-Benefit Initiatives. This office emerged after a long history of battling floods. Going back to gold rush – when European decedents came to California – they mined gold in the Sierra Nevada, but also settled California Central Valley. The Central Valley has great soils, but the area is also very flood prone. So, levee districts formed and built levees to control flooding. Things were great for decades, but it became apparent that the levees only approach wasn't working, the levees kept failing and overtopping. So, they built bypasses to allow water to access parts of the floodplain. The approached worked well for last century. But with climate change, the system is no longer adequate to protect communities and agriculture. So American Rivers and other partners started pushing for more integrated approach to flood management. California recognized that we couldn't keep building our way out of flooding problems. So groups started trying to get the Central Valley Flood Board – the regulatory entity – and the Dept of Water Resources – the implementor of projects - to adopt principles of multi-benefit planning approaches. The approach recognizes we need to do more and different things to reduce flood risk while doing other things to restore habitat for salmon and other at-risk species. In 2012, California developed first statewide flood management plan that adopted multi-benefit approach in concept but not much detail. As a state California recognizes that the investments in flood management need to address 4 societal goals:

- 1. Public safety
- 2. Ecosystem health
- 3. Stable economies
- 4. Enriching life experiences

Last goal is interpreted expansively to include equity and environmental justice. Those four goals set a prioritized framework for multi-benefit initiatives. In project planning and development, we try to advance all four of those societal goals, though not every project achieves all four.

The Multi-Benefit Office works to identify strategies to achieve the four societal goals. Some projects include working to set large levees back by as much as half a mile to provide more room for flood water conveyance while restoring floodplain habitat. New bypasses are being created by breaching levees to allow for managed flooding. There are a lot of concerns about land use, property rights, property values, and agricultural practices on the wet side of the levee. We are finding that is possible to continue to farm wet side of levees with compatible crops like rice. Still learning as we go and still not a universally accepted approach. Most stakeholders are realizing that the multi-benefit approach might not solve all the problems, but it's an important component. His office works with all the state and local agencies to find multi-benefit solutions for flood related issues. Setbacks and bypasses might not work everywhere – levee raises and strengthening can be compatible.

1.4 New York Rising Project - Andy Boehne

Hyperlinks: PDF of Slide Deck & Video

Village of Sidney used collaborative local and regional partnerships, consensus around climate change, working with nature to enhance public safety. The village had a highly flood prone area; had rebuilt after large events in early 2000's but didn't address root causes. Ultimately the community determined some areas of the Village in the extreme risk floodplain could not be kept safe. Brought stakeholders on board by not presenting plan as "RETREAT" – instead MAKING PEACE with nature and giving back what she clearly intends to take. Plan prioritized sustainable green infrastructure to minimize flooding. The plan understands the post storm real estate market and that rebuilding in place does not make economic sense. So, creating a vital new neighborhood where relocated residents, businesses, and community organizations can enjoy a remarkable quality of life and REBUILD THEIR LIVES. Development used sustainable mixed-Use LEED Neighborhood Development with scaled development/density, open space, smart grid, municipal services. Plan also incorporated affordable and market rate housing to meet needs of all including executive level housing, senior housing missing from current market mix. To be successful, they collaborated with private sector developers and used Adaptive Preservation techniques.

1.5 BREAKOUT SESSION #1: DRAFT PROGRAMMATIC RECOMMENDATIONS

Hyperlinks: <u>Chelsea's group</u>, <u>Olivia's group</u>, and Whitney's group (not recorded).

With the new information from California and New York, stakeholders reviewed the draft recommendations and suggested changes:

1.5.1 Collaboration:

"Many discussed the need to collaborate across stakeholders to solve flooding problems, indicating a lack of venue for discussions to take place, especially if there are power dynamics at play."

- ✤ What is the "venue" now? What are alternative venue options?
- The base for collaboration is clear data and information (quantitative impacts, ROI, and qualitative impacts).
- Direct communication with community leaders is important and needs to expand to more frequently flooded communities and continue. It is important to share, listen and fine-tune to develop ideas that have not been considered.
- We need to make sure we acknowledge the scale of the communication we are trying to accomplish. We need to make sure we are adequately engaging at all levels of stakeholders (from the State level to the local). Local engagement is very important as they have direct knowledge of the impacts. More collaboration is needed between agencies and across communities.
- The decision-making process needs rules and boundaries, including an approach to the collaboration.
- Need to ensure that all communities have an equitable place at table so we can develop an equitable solution. Who has decision making authority?

- There is lots of collaboration occurring in different circles creating barriers to getting things done.
- ◆ There are many competing funding requests compounded by Illinois fiscal situation.
- Data/information needs to be presented in accessible formant and that it uses language everyone can understand. Use layperson's terms, explain the scientific and engineering information There is a lack of expertise at local level. Involving more partners generates a more comfortable atmosphere. Partners need appropriate tools to participate and be heard.

1.5.2 Climate resiliency

"Many emphasized the need to move away from static flood control tools and the need for more flexibility and options, indicating a need for more tools and resources on how to build projects"

- The statement above indicates that our only tool is to move away from static flood control, when there are other tools and at times, static flood control is a useful one.
 - We should also be looking at maintaining and improving existing hard infrastructure where necessary, and not fully discounting it
- There is an inherent downside to static infrastructure...rivers are not static, they continue to change and are less predictable.
 - The word static and static structures imply that you cannot adjust, and there is a long-term downside
- This statement needs to indicate that we are looking at all the tools, more than just moving the levees back.
- We need to work with the river, provide space and live with its dynamic nature.
- Sewer backup issues in urban environments correcting errors of the past might be impractical and costly. What are the available natural options?
- Need to understand the individual watersheds, one solution does not fit all. We need to develop unique solutions to unique conditions.
- Need to figure out how to adjust to climate change in the built environment. Much of the infrastructure is aging.
- Need to look in the upstream areas of the watershed for solutions, not just the areas where flooding occurs.
- There is no silver bullet it's not possible for a single entity or industry, agency etc. to take this on. This will require everyone's participation
- Must accelerate move away; identifying multi-benefit projects (e.g. beyond water resources or disaster constituencies); multi-stakeholders, etc
- What is meant by "static flood control tools"? I.e. levees are set to a certain elevation but flood frequency elevations change over time.
- There needs to be a set "design standard" for projects can't get away from static design standards for all projects i.e. roads.

- However, to address climate crisis, it's likely that projects that affect/solve only a single primary service (e.g tollways, major highways) which are often some of our most expensive projects need to rapidly expand the types of benefits that are provided to the communities where the projects are located. Multi-benefit projects might account for benefit s accrued to local counties, municipalities, forest preserves and other public lands
- ✤ Is this the place to discuss green, nature-based infrastructure?
- Changing regulations to be based on flood frequency? How can we get communities out of the cycle of chasing those elevations with the infrastructure?
- I'm really interested in prioritization criteria that work across agencies, across capital projects. For example <u>https://www.metroplanning.org/news/8931/Investing-Wisely-in-Transportation</u>

1.5.3 Cost & Jobs

"Any floodplain development will have short and long-term costs and employment implications, indicating a need for deliberate planning to ensure net economic gains"

- Need to put in context of "costs & benefits."
- "Net economic gains": This really should be more comprehensive than economic. The benefits to local communities, local waterways, and local economies should be prioritized. There are plenty examples of infrastructure projects that can demonstrate a net economic benefit, which do not result in sustained, inclusive economic growth for a community where a project is located.
- This statement should be expanded to include ecosystem service benefits (in particular), but other benefits as well. Expanded ecosystem services usually result in a benefit to the cost analysis.
- We need to make sure we look at more than just the tax base, and look at the long-term effects.
- Make sure that the economic benefits of these projects are going directly to the local communities. In the past, outside groups/organizations have received economic benefits, and the money didn't make it to the local communities.
- Make sure to look at the full economic cycle of projects. For example, don't just look at the immediate cost analysis of the restoration itself, or relocation itself, but also the long-term economic benefits of these actions (i.e. increased tourism, recreation, etc.)
- Look at the regional and state economic benefits as well as the local benefits.
 - It may be useful to look at the potential future costs of continuing to fix floodplain issues, or mitigation due to floodplain issues at the state/regional level. What would have been spent if the program wasn't created.
 - Perhaps these funds (that would have been spent after flood events or other disasters) could be put into another fund that could help pay for additional community support

- In urban areas, we need to take into account equity issues, particularly around displacement of homeowners and renters. We shouldn't consider just moving people out of the floodplain without also taking into consideration generational wealth accumulation and equity.
- There are multiple funding sources and applications. Will need to coordinate when identifying available funding
- There will be green jobs in the communities where the issues occur and solutions are being implemented, resulting in training and development for those in the community

1.5.4 Regulatory challenges

"Permitting for projects is difficult and there is a lack of resources for non-landowners, indicated need to review state and federal regulations."

- This statement shouldn't be specific to non-landowners, the language should be changed to include landowners as well.
- This statement seems contradictory. While permitting projects is difficult due to the existing level of thresholds, expanding the number of parties involved in a program like this, could have unintended consequences... making the process even more difficult because of the number of stakeholders involved.
- "Resources" in this statement needs to be defined.
- Tools and guidance needs to be provided to communities so they can efficiently and effectively navigate the regulatory process.
- Multiple permits and agencies involved, multiple funding opportunities that don't necessarily coordinate well
- Requires consultant or expertise in permitting often, grant requests should account for engineering and environmental expertise needs
- Building Resilient Infrastructure and Communities (BRIC) Program addresses the need for funding technical expertise
- Some regulations are restrictive and perpetuate issues in EJ communities (e.g., public/private inequitable rules and policies)
- Lots of flood mitigation funding comes with a cost share requirement which many urban and low-income communities cannot contribute towards.
- Note what is "regulatory, permitting" for building versus NFIP for renters, etc.
- There could be an accelerated permit process, if a project was to reach the multi-benefit criteria. Another idea is to align funding for pre-development, or public participation.

1.5.5 Public health

"Not all floodplain issues are in the "regulated floodplain" and solving them is difficult (i.e. mold from high water tables), indicating a need to adopt a more comprehensive view of 'floodplains"

 Hazardous materials need to be taken into account. We may need to consider groundwater as well.

- This statement needs boundaries, i.e. what are considered threats to public health? Could this statement extend to waterborne diseases and pests, such as mosquitos and Zika?
 - > We should have clarity about what we mean by public health
- There is a difference that needs to be taken into account with this statement, riverine flooding versus urban flooding and what that means to public health.
- We should consider health issues with the homeless and those that are being displaced from homes during a flood event that makes buildings uninhabitable. The homelessness issue complicates things.
- Another consideration to consider when discussing public health issues is the nutrient loading and pollution that comes with floodwaters and how we can work on nutrient reduction projects to update these pollutants.
- Public health is a major problem in floodplain areas. Basement flooding is a public health issue. People try to clean up themselves, not understanding the public health issues, i.e. mold. More assistance is needed for communities that are outside the flood plain dealing with flood issues
 - > Especially during pandemic mold is a huge issue. Need to assist.
 - > Using more nature-based flood risk reduction solutions can improve public health.
 - Public health is not only respiratory, but the mental health impacts that economic hardship, relocation, etc cause.

1.5.6 Communities need to set priorities

"While information and resources are helpful, floodplain development needs to be community driven, indicating the need to get resources into the hands of communities for better decision-making."

- How do we empower people to get the information into their hands?
- We should consider drilling down into planning at the community level and use a bottom up approach to this program.
- Perhaps look at establishing community benefit agreements, requiring a community to sign off on the plans and what the anticipated benefits will be for that community
- One of the most important pieces. Getting information to people to help reimaging solutions.
- Community stakeholders should have a voice in setting priorities. It should be clear what participation looks like for each community, each planning process; as well as what the limits of that input may be. An example of this might be, in communities where there is costly repetitive flooding, a community with a strong priority for staying in place, should be evaluated against the triple-bottom line impacts and benefits of the local and upstream/downstream communities.

1.5.7 Other items

 If flooding is not associated to "waterways" how can we address flooding from a multibenefit approach that start from other concerns? Flooding is certainly a negative, but it may not be the most pressing issue for all communities where this group would want input. Are there ways to work through other planning or priority setting initiatives or collaborations, that allow floodplain development prioritization to occur. At this point in time, there seems to be a lot of participation fatigue, AND increased access for many communities to participate digitally.

2 CASE STUDIES

Below are the draft case study findings. With each case study, links to the raw notes, discussion recordings, maps and other resources. Prior to Meeting #3 (January 20, 2021), stakeholders will be asked to review the draft case study findings and submit corrections, suggested edits and other comments.

2.1 ALEXANDER COUNTY - INTRODUCTION

Hyperlink: Introductory video here.

Jeff Denny, Alexander County Engineer

Alexander County is bordered by the Mississippi and Ohio Rivers. Both rivers are trying to cut new channels during flood events. Last year over 300,000 cfs cut through Dogtooth Bend, which disconnected part of the county. Cairo is protected by the Mississippi River & Tributaries Project, but the County has to maintain the pumps stations with a shrinking tax base. Also, in the northern part of Alexander County, across from Cape Girardeau, there is a large agricultural levee that protects about 550,000 acress of farmland. The long duration of last year's flood caused major flooding behind the levee because there are not pump stations.

David Maginel, Alexander County Soil & Water Conservation District

The Len Small Levee caused Horseshoe Lake in Alexander County to be subject to periodic backwater flooding from the Mississippi and Cache Rivers. Water moving through Horseshoe Lake is causing damage to transportation infrastructure, including a main road. Horseshoe Lake and sedimentation caused by flooding is degrading the natural resources. Need to revive the recreational opportunities in the area. Gates in the spillway could be opened during flood events to help drain water and sweep sediment out. Just northeast of Horseshoe Lake is a good area for waterfowl development and bottomland hardwood restoration. There is also an opportunity to link this whole area to the Shawnee National Forest. Creating a corridor to the bluffs and uplands would help critters escape floodwaters.

Viv Bennett, The Nature Conservancy

TNC is working with landowners and USDA to secure conservation easements in the Dogtooth Bend area of Alexander County. Flooding in this area now regularly occurs every year or every other year. Cultivation is becoming impossible. 99% of the landowners have applied for easements. USDA is working towards making offers on the land to take it out of production permanently.

Tyrone Coleman (Theresa Haley presented), Cairo NAACP

Black people in the County are suffering from social inequities for several reasons. Because many Black people in the County do not own their land, they cannot get flood insurance. Having

forums such as this allows stakeholders to take back information to these communities. Cairo is suffering, HUD removed their only housing program. Concerned over census results since population in Cairo is decreasing.

Bill Bodine, IL Farm Bureau

While most farmers have applied for easements in the frequently flooded areas of Alexander County, most want their levees rebuilt to protect their investments.

2.2 ALEXANDER COUNTY CASE STUDY DISCUSSION

During the discussions, facilitators asked stakeholders two questions: Given unlimited resources, how could the flood-related issues in this community be fixed? Once participants had exhausted all ideas, facilitators follow up with another question: Are there currently any programs/funds/policies to install/apply the identified solutions?

Hyperlinks:

- ✤ No recordings available for the Alexander County discussion groups.
- ◆ Full notes from <u>Whitney's Group</u>, <u>Chelsea's Group</u>, and <u>Olivia's Group</u>.
- ✤ Flood Factorⓒ Maps and Data.
- Map package for Alexander County (maps include land use, buy out locations, threatened and endangered species sightings, threatened and endangered species critical habitat areas, census block demographic data, flood hazard zones, areas of increasing flood risk, impaired water bodies, natural areas, and priority conservation areas).

Draft Findings:

- Levee Improvements. Stakeholders felt that levees and/or floodwalls should be considered around Cairo and across the breach near Dogtooth Bend.
 - > State and federal programs to build/improve levees:
 - Federal levees are eligible for repair funds through the PL 84-99 Levee Repair Program.
 - Barrier: Levee repair costs must meet benefit cost ratio thresholds. Withdrawal of federal financing due to low benefit-cost ratios for post-flood levee repairs is intended to incentivize levee setbacks and floodplain reconnection, but these projects must be initiated by local sponsors. Local sponsors lack the information and resources they need to understand, build support for, and advance setback projects within their communities.
 - Cairo is part of the Mississippi River and Tributaries System, operation and maintenance of their levees is fully federally funded through the US Army Corps of Engineers Mississippi River Commission.
 - Barrier: None.
- Flood bypass channel. Stakeholders felt that in lieu of building a new levee or retiring all the farmland in Dogtooth Bend, a flood channel or bypass can be created at the site. New infrastructure could be built to access the land during flood events.

- > State and federal programs to construct flood bypass channel:
 - None.
- Floodplain reconnection. Stakeholder felt that since many agricultural levees cannot meet benefit-cost ratio thresholds, levees should be removed or set back far enough to convey flood water.
 - > State and federal programs to remove and/or setback levees:
 - PL 84-99 Federal Levee Repair Program can finance levee setbacks and removals.
 - Barrier: Non-federal sponsor must initiate requests for non-structural flood risk reduction alternatives before US Army Corps of Engineers can provide planning assistance. Local sponsors are not aware of non-structural options or understand that they must initiate the process.
 - US Department of Agriculture Conservation Easement Program can help landowners recuperate losses due to repetitive flooding.
 - Barrier: Conservation easement funding is limited, landowners are turned away annually. <u>Additional funding is needed at the state and federal levels to enroll</u> more acres.
 - Barrier: Conservation easements only help landowners and not tenet farmers who do not receive any financial subsidies under easement programs. <u>Financial assistance is needed for tenet farmers when land is taken out of production.</u>
 - Barrier: Farmland loss impacts local economies. <u>Strategies to protect productive</u> <u>farmland need to be developed in the context of multi-benefit floodplain</u> <u>development.</u>
 - Barrier: Levee and Drainage Districts in Illinois are regulated under the Illinois Drainage Code, which prohibits districts from advancing projects that might cause localized flooding or ponding within the districts. <u>Illinois Drainage Code should be reviewed and amended to provide more flexibility to advance green infrastructure projects that might help reduce flooding.</u>
- Pre-disaster resilience planning and projects. Stakeholders felt that Cairo would benefit from pre-disaster planning and investment to address the numerous flood-related issues that stem from groundwater intrusion and Cairo's very high residual risk of catastrophic flooding if the levees fail. Stakeholders also felt that Cairo would be benefit from green infrastructure projects to more sustainably resolve local flood-related challenges.
 - > State and federal programs for pre-disaster planning and construction:
 - FEMA's Building Resilient Infrastructure and Communities Grant will finance predisaster planning, design and construction.
 - Barrier: Lack of resources, expertise and capacity to successfully apply for funding. Population is steadily decline due to lack of community amenities, Cairo is a service desert (groceries, gas station, medical, etc.). <u>Cairo needs assistance</u>
revitalizing itself from top to bottom to comprehensively address flooding issues, housing stock, services, economic development.

- Environmental Protection Agency Revolving Loan Programs to assist with necessary upgrades to storm and sewer infrastructure.
 - Barrier: Loans cannot be paid back unless Cairo's economy is revitalized. <u>Need to</u> <u>coordinate infrastructure upgrades with community revitalization plan.</u>
- FEMA/DNR home buy-outs and/or flood proofing to reduce community reliance on risky levee infrastructure.
 - Barrier: Home buy-outs often disperses communities and undercuts the informal support networks people of low-income often rely on. <u>Need to provide support for community "relocation".</u>
 - Barrier: Loss of property tax revenue for the city. <u>Need assistance calculating</u> returns on investments, developing plan to expand taxable city property, and/or increase property values.
 - Barrier: Buyouts only benefits home-owners and not renters. <u>Need financial</u> <u>assistance program for renters to function in tandem with home-owner and</u> <u>landlord payments.</u>
- EPA Section 319 Non-point Source Pollution Grants can help the community finance green infrastructure projects, including along Vermillion Creek where there are public safety concerns with flooding and coal ash storage ponds.
 - Barrier: Lack of resources, expertise and capacity to successfully apply for funding. <u>Need technical assistance for grant applications.</u>
 - Barrier: Some pollution sources come from farmland and there is no standard venue for rural and urban residents to collaborate on watershed flood issues. Need to facilitate conversation between cities and rural areas in watersheds.
- Revitalization. Stakeholders felt that Cairo's economy needed a deliberate revitalization plan. Cairo and the surrounding region is impoverished, revitalization that focused on economically sustainable infrastructure, green jobs, local farm and food production, and ecological health could raise quality of life. Area has unique natural resources created by historic flooding. Economic opportunities: waterfowl hunting, tourism (Shawnee National Forest, Horseshoe Lake, Dogtooth Bend), silviculture, etc.
 - > State and federal programs for community revitalization
 - None?

2.3 EAST ST. LOUIS / CENTREVILLE - INTRODUCTION

Hyperlink: See all the presentations <u>here</u>.

Cornelius Bennett and Earl Fuse, Residents from Centreville

All longtime residents and homeowners in Centerville. Repeated and persistent flooding in basements is common. Sewage backs up into their basements and yards, have to install cleanout pipes and pay for clean outs of raw sewage in their yards after storms. Multiple replacements of hot water heaters, HVAC systems and other home utility equipment is common as well as flooring on 1st floor. Property values are less than the purchase price. American Waters piping system is ~100 years old and in disrepair. Some people have moved hot water heaters/HVAC systems to attic to avoid repeated replacement.

Bill Bodine, IL Farm Bureau

Farmers agree that infrastructure is causing or exacerbating flooding. Drainage issues in southwest need to be addressed

Stanley Franklin, East St Louis NAACP

E St Louis is still suffering from 1993 floods. FEMA requirements to protect SW area have still not been met; means homeowners have to carry flood insurance. USACE has been requested to repair/upgrade, but they have not done so. Bluffs/Bellevue community above stormwater flows through E St Louis which has expanded in population but not upgraded stormwater systems, overwhelms antiquated pumping system Centerville area. Many people's basements flood. Centerville is one of poorest cities in US, 95% African American, older residents. Home values are very depressed, many owned by residents. Sewage issues pervade, backup into basements, toilets and sinks; many people have clean outs in their yards so they can remove raw sewage. Community has repeatedly raised these issues, but no solutions have been forthcoming. Drinking water is also unsafe.

2.4 EAST ST. LOUIS / CENTREVILLE DISCUSSIONS

During the discussions, facilitators asked stakeholders two questions: Given unlimited resources, how could the flood-related issues in this community be fixed? Once participants had exhausted all ideas, facilitators follow up with another question: Are there currently any programs/funds/policies to install/apply the identified solutions?

Hyperlinks:

- Recordings <u>Whitney's Group</u>, <u>Chelsea's Group</u>, and <u>Olivia's Group</u>.
- Full notes from <u>Whitney's Group</u>, <u>Chelsea's Group</u>, and <u>Olivia's Group</u>.
- <u>Flood Factor© Maps and Data.</u>
- <u>Map package for East St. Louis / Centreville</u> (maps include land use, buy out locations, threatened and endangered species sightings, threatened and endangered species critical habitat areas, census block demographic data, flood hazard zones, areas of increasing flood risk, impaired water bodies, natural areas, and priority conservation areas).

Draft Findings:

Community education. Stakeholders felt that the community needs technical assistance to guide assistance requests. Communities often "see" the manifestation of a problem, but maybe not the cause. They also help identifying and applying for the right grants and enrolling in programs to finance planning and projects. This could be done through the establishment of a non-profit or coordination with a non-profit organization.

- > State and federal programs to help communities identify and access:
 - Any?
 - Barrier:
- Infrastructure upgrades. Stakeholder felt that storm and wastewater infrastructure need to be upgraded in the community.
 - > State and federal programs for infrastructure upgrades:
 - EPA State Revolving Loans provide low-interest loans for drinking, storm and wastewater infrastructure upgrades.
 - Barrier: Loans cannot be paid back unless Centreville's tax base grows. <u>Need</u> <u>more grant opportunities.</u>
- Pre-disaster resilience planning and projects. Stakeholders felt that Centreville would benefit from pre-disaster planning and investment to address the numerous floodrelated issues. Stakeholders also felt that Centreville would be benefit from green infrastructure projects to more sustainably resolve local flood-related challenges.
 - > State and federal programs for pre-disaster planning and construction:
 - FEMA's Building Resilient Infrastructure and Communities Grant will finance predisaster planning, design and construction for long-term solutions that stop the "flood-rebuild-flood-rebuild" cycle.
 - Barrier: Lack of resources, expertise and capacity to successfully apply for funding. <u>Centreville needs assistance applying for grant funding.</u>
 - Barrier: Projects need to be outlined in the county hazard mitigation plan. <u>Centreville needs assistance determining which projects are eligible and</u> <u>advocating the county to include projects in future plan.</u>
 - FEMA/DNR home buy-outs and/or flood proofing to reduce community reliance on risky levee infrastructure.
 - Barrier: Home buy-outs often disperses communities and undercuts the informal support networks people of low-income often rely on. <u>Need to provide support for community "relocation".</u>
 - Barrier: Loss of property tax revenue for the city. <u>Need assistance calculating</u> returns on investments, developing plan to expand taxable city property, and/or increase property values.
 - Barrier: Buyouts only benefits homeowners and not renters. <u>Need financial</u> <u>assistance program for renters to function in tandem with homeowner and</u> <u>landlord payments.</u>
 - EPA Section 319 Non-point Source Pollution Grants can help the community finance solutions to address public health issues stemming from the impacts of raw sewage, coal ash ponds, and superfund sites in the area.

- Barrier: Lack of resources, expertise and capacity to successfully apply for funding. <u>Need technical assistance for grant applications.</u>
- Barrier: Some pollution sources come from farmland and there is no standard venue for rural and urban residents to collaborate on watershed flood issues. <u>Need to facilitate conversation between cities and rural areas in watersheds.</u>
- FEMA Flood Vulnerability Assessment can help prioritize investment in flood risk reduction projects.
 - Barrier: Any?
- Racial equity. Stakeholders heard from Centreville panelists that there is, at least, a perception of unequitable distribution of resources around flood risk reduction strategies. State and federal programs need to be more transparent regarding demographic information around their community assistance programs.
 - > State and federal programs to address racial equity in government spending.
 - Any?
 - Barrier: Any?
- Political power. Stakeholders felt that Centreville needs better access to decision-makers and political power to bring resources into their community for investments.
 - State and federal programs to empower community and provide access to decisionmakers.
 - Consolidation of water management districts through the legislative process would allow more equitable distribution of funds in the region.
 - Barrier: Requires legislative action.
- Agency coordination. Stakeholders felt that Centreville deserves the attention of multiple state and federal agencies. FEMA, USACE, IL DNR, IL EPA, and the county Soil and Water Conservation Districts should review Centreville's flood and pollution problems collaboratively and develop an integrated plan to assist the community.
 - > State and federal programs to facilitate agency collaboration within communities.
 - Any?
 - Barrier: Any?

2.5 ROCKFORD CASE STUDY INTRODUCTION

Hyperlink: See all the presentations <u>here</u>.

Brad Holcomb, Engineering Operations Manager:

Buyout program after 2007/08 back to back floods on Keith Creek. Purchased 122 homes. Area converted to open space, but river is essentially channelized at this location. The buyback open space area would benefit from restoring it to a meandering river. Alpine dams needs to be

upgraded and homes could be updated. Some of these fixes would reduce flood insurance premiums.

Bill Bodine, IL Farm Bureau

Farms along Rock River flood every other year in last 10 years. One farmer put 10 acres into the wetland program. Significant increase in Rock River flows has exacerbated flooding of agricultural areas.

Rhonda Robinson, Rockford NAACP

Rockford population ~155,000, very diverse city. Many residents live below the poverty lie in this area, resulting in high crime rates. SW side of Rockford is especially prone to flooding. Public access to riverfront/open space is inadequate. Land use plans need to be updated to address flooding along Rock River.

2.6 ROCKFORD CASE STUDY DISCUSSIONS

During the discussions, facilitators asked stakeholders two questions: Given unlimited resources, how could the flood-related issues in this community be fixed? Once participants had exhausted all ideas, facilitators follow up with another question: Are there currently any programs/funds/policies to install/apply the identified solutions?

Hyperlinks:

- Recordings <u>Whitney's Group</u>, <u>Chelsea's Group</u>, and <u>Olivia's Group</u>.
- Full notes from <u>Whitney's Group</u>, <u>Chelsea's Group</u>, and <u>Olivia's Group</u>.
- <u>Flood Factor© Maps and Data</u>.
- <u>Map package for Rockford</u> (maps include land use, buy out locations, threatened and endangered species sightings, threatened and endangered species critical habitat areas, census block demographic data, flood hazard zones, areas of increasing flood risk, impaired water bodies, natural areas, and priority conservation areas).

Draft Findings:

- Green infrastructure. Stakeholders felt many of the urban flooding issues in Rockford could be address through investments in green infrastructure to slow down the water and increase permeable surfaces to reduce flooding. Keith Creek is an area to look at for green infrastructure (trees/train gardens, stream meandering, etc.).
 - > State and federal programs to plan, design and construct green infrastructure projects:
 - FEMA's Building Resilient Infrastructure and Communities Grant will finance predisaster planning, design and construction for long-term solutions that stop the "flood-rebuild-flood-rebuild" cycle.
 - Barrier: Project needs to be listed in the county hazard mitigation plan. <u>Need</u> <u>assistance ensuring green infrastructure projects are included in the county</u> <u>mitigation plan.</u>
 - Communities can impose stormwater utility taxes to fund green infrastructure projects:

- Barrier: Any?
- Silver Jackets flood risk reduction study to identify priority areas for buyouts, relocations, and protections.
 - Barrier: Any?
- State granted authority for stormwater management is not available in Winnebago County.
 - Barrier: State needs to grant authority for all counties to manage stormwater according to the Urban Flooding Report.
- Watershed Planning. Stakeholders felt the community needs develop watershed plans to guide land development and investments, including the green and grey infrastructure projects necessary to reduce flooding. Most watersheds in Rockford have a combination of urban and rural land uses. For example, there is a large condo community of the east side, where water pours down into the building and grounds and develops into a lake. The people who live in the condo are often displaced and living with environmental and public health concerns. This water comes from farmland up-river. This process needs to be community driven.
 - > State and federal programs to develop watershed plans:
 - EPA Section 319 Non-point Source Pollution Grants can help the community finance green infrastructure projects.
 - Barrier: Some pollution sources come from farmland and there is no standard venue for rural and urban residents to collaborate on watershed flood issues. <u>Need to facilitate conversation between cities and rural areas in watersheds.</u>
 - US Department of Agriculture Conservation Easement Programs and Environmental Quality Incentives Program can incentivize farmers to change land use or farm practices to reduce runoff.
 - Barrier: Conservation easement funding is limited, landowners are turned away annually. <u>Additional funding is needed at the state and federal levels to enroll</u> <u>more acres.</u>
 - Barrier: Conservation easements only help landowners and not tenet farmers who do not receive any financial subsidies under easement programs. <u>Financial assistance is needed for tenet farmers when land is taken out of production.</u>
 - Barrier: Farmland loss impacts local economies. <u>Strategies to protect productive</u> <u>farmland need to be developed in the context of multi-benefit floodplain</u> <u>development.</u>
 - Barrier: Programs are not regularly connected with urban flooding issues. <u>Need</u> guidance and coordination assistance to facilitate planning.
- Flood insurance. Stakeholders felt the community should work to increase enrollment in the National Flood Insurance Program (including the Preferred Rate Policies for residents

that are not in the mapped flood hazard zones). This would help homeowners and renters recover from flood events.

- > State and federal programs to increase flood insurance enrollment
 - Nation Flood Insurance Program Community Rating System encourages communities to expand flood insurance enrollment
 - Barrier: There is significant misinformation about eligibility outside of mapped flood zones. <u>Need to increase awareness of flood and back up insurance options for homeowners, renters and insurance agents.</u>
- Public health. Stakeholders felt that there are significant health issues associated with water damage that are not being addressed because the buildings are not in a mapped flood hazard area.
 - State and federal programs to repair and prevent water damage outside of mapped flood hazard areas:
 - Any?
 - Barriers: Any?
 - In other states, property owners need to disclose to renters if they are located in a hazardous area.
 - Barrier: Legislation is needed to advise tenets of flood history.
- * **Racial equity.** Stakeholders felt that Black residents may not be adequately engaged in the decision-making process regarding community planning and development.
 - > State and federal programs to assist community engagement in watershed planning:
 - Any?
 - Barrier: Any?

Illinois Floodplains Work

Stakeholder Meeting #3

March 9, 2021

Download participant list and contact information here.

Download notes from Stakeholder Engagement Meeting #1 <u>here</u>.

Download notes from Stakeholder Engagement Meeting #2 <u>here</u>.

1 EDUCATION PANEL

1.1 RECAP

Hyperlinks: <u>Slide Deck</u> & <u>Video</u>

Chelsea, Whitney, and Olivia welcomed everyone and provided an overview of why we are here, what the feasibility study is, and the case study process. Multi-benefit floodplain planning & development tries to maximize the many benefits of floodplains - economy, aquifer recharge, water quality, EJ, etc. Today our case studies are Ford Heights, Danville, Freeport. Executive summary comments due back on Friday March 12th. Executive summaries from meetings 2 & 3 will not be discussed until meeting 4.

1.2 FEMA'S BUILDING RESILIENT INFRASTRUCTURE AND COMMUNITIES GRANT PROGRAM - MR. ERIC LETVIN, DEPUTY ASSISTANT ADMINISTRATOR FOR MITIGATION, FEMA

Hyperlinks: Video & Slide Deck

Contact Information: eric.letvin@fema.dhs.gov

Mr. Letvin is in DC where he oversees the BRIC program for the Biden Administration. BRIC stands for Building Resilient Infrastructure and Communities. It is a pre-disaster and postdisaster grant program that works with the national floodplain insurance program. Mr. Letvin is also responsible for implementing the STORM Act when it is finalized. The STORM Act authorizes revolving loans for flood risk management infrastructure.

FEMA has been delivering pre-disaster mitigation grants since. New BRIC grant program was established in 2018 and FEMA is currently reviewing the first grant applications. BRIC was created following extensive stakeholder feedback in 2019 - over 5,000 comments received – and is designed to make communities more resilient. BRIC guiding principles are to support community capacity building, encourage and enable innovation, promote partnerships, enable large infrastructure projects, maintain flexibility, and provide consistency. BRIC Priorities are to encourage public infrastructure projects, mitigate risk to lifelines, promote nature-based solutions, and incentivize adoption of modern building codes.

Major programmatic focus now on funding "lifelines" – i.e. not just thinking about a single structure standing, but how do we keep the whole community operational, need to support the

communication, power, etc. Also focusing more on promoting nature-based solutions and green infrastructure, including promoting building code updates. Notice of Funding Opportunity was posted August 20 and the grant application period Sept 2020 - Jan 2021. By law, grants must be approved via the state emergency office before getting to FEMA. States set their own deadlines. This caused a little bit of stress because the window for communities to apply was short.

Now, FEMA is reviewing applications through June 21. It is a competitive program - not just within states, but nationwide. Scoring criteria are listed in the Notice for funding. Panels of state and federal floodplain managers are going through the project submissions now. Project selection Summer 2021.

FEMA is really trying to focus on pre-disaster funding to prevent damages. Funding for BRIC is based on current disaster spending. FEMA takes all the disasters that happen in a certain year and creates an estimate for about 6 months after an event - how much money will FEMA spend on that disaster for all the different programs? 6% of the estimate will go into a piggy bank that will feed into BRIC. In 2020 there was \$500 million available. Broken out into: State/territory allocation: \$33.6 million, tribal allocation: \$20 million, mitigation grants: \$446.4 million. Who is eligible? States, territories, federally recognized tribal governments, and DC; and sub applicants, including local gov, tribal governments, states agencies, and tribal agencies.

We also changed the Ecosystem Service Benefits Policy. By law we must have a cost/benefit analysis on any projects that come through. Previously, had to get to .75 benefit-cost ratio (BCR) before you could use the ecosystem benefits (i.e. water quality benefits of a wetland). Now removed the .75 BCR threshold, however, they can be used to bolster the applications.

Other Capability & Capacity Building activities include updating building codes, encouraging partnerships, funding project scoping, studies and associated costs with studies, feasibility and conceptual design, and pre-studies/cost-estimates.

To submit for a BRIC grant, communities must have an approved Hazard Mitigation Plan and keep them up to date. Hazard Mitigation Planning is eligible for BRIC grant funding. Grant applications with strong partnerships will be ranked higher. Partnerships can include other federal agencies, state/local/tribal/territorial governments, and private sector/non-governmental organization.

FEMA has a lot of supporting materials for communities available online. There are new executive orders (EOs) for climate and equity, so the program may change to accommodate the goals of those EOs. Intention not to make massive changes from year 1. If you think you have a project, start working on it now based on Year 1 guidance. Year 2 funding Notice of Funding Opportunity will be coming out this Summer. There will be communication and outreach in the future with project examples that were successful in year 1.

1.2.1 Q&A

Hyperlink: **Q&A Audio**

Question: Does a local government need to be a National Flood Insurance Program (NFIP) community to be eligible for BRIC? Must they also have been a participant in their County Hazard Mitigation Plan?

Response: Communities must participate in the NFIP and have a current hazard mitigation plan to be eligible for BRIC funding. If the community does not have an approved plan, they are eligible to get a BRIC grant to do the required hazard mitigation planning.

Question: Who can apply for the grant within a city for BRIC - can an individual apply?

Response: The city would be the sub applicant. The city would apply to the state, which functions as the main applicant. A typical application would be a group of homeowners that want to be bought out or flood-proof their homes via renovations. The city would solicit this information from their community members. Individuals are unable to apply directly to BRIC.

Additional Response: There is a matching funds requirement on BRIC funding. FEMA provides typically 75%, but community must come up with some money to match. That is often a stumbling point for some communities. There are times when the state can help with that, but it is a competitive program to request matching funds from the state. Grants can be used for match, if tax revenues are not sufficient.

Question: Are any of the communities allowed to make changes to application after submission?

Response: No, it is a competitive process. The software locks applications after the deadline. Sometimes FEMA will reach out to a community if a file cannot be opened, etc. But once a deadline passes, it is not fair to others if continual changes are allowed on some applications.

1.3 NATIONAL FLOOD INSURANCE PROGRAM - MARILYN L. SUCOE, ILLINOIS NATIONAL FLOOD INSURANCE PROGRAM COORDINATOR (ACTING)

Hyperlinks: Video

Contact Information: Marilyn.Sucoe@illinois.gov

Basic terms:

- FEMA Federal Emergency Management Agency
- NFIP National Flood Insurance Program
- FIRM Flood Insurance Rate Map (Note: Not all communities have a FIRM, or are working with very old maps that cannot be viewed digitally)
- Pre-FIRM Refers to a structure built before a community's first FIRM
- SFHA Special Flood Hazard Area, aka: Floodplain, Regulatory Floodplain, Zone A and Zone AE.

Anyone can get flood insurance if your community is part of the National Flood Insurance Program (NFIP). In Illinois, 89 out of 102 counties have joined and 891 communities have joined. Only a few rural areas have not been mapped - primarily in counties that are not members of the program. NFIP is a voluntary federal insurance program for homeowners and renters. NFIP provides incentives for better floodplain management for communities and maps flood hazard zones. To join, a community must adopt the flood hazard maps and studies, flood hazard regulations, and enforce flood hazard regulations. Flood insurance only covers surface water flooding. It does not cover sanitary issues, basement seepage, pump failures, etc. Anyone in a community participating in the NFIP can purchase flood insurance through the federal program. Buildings within the regulatory floodplain will have higher insurance premiums versus those outside the mapped floodplain. Often, urban flooding areas are not shown as having a flood risk because they behind a levee or are "protected" by another impoundment. Urban areas in densely populated areas will not show, even though flood risk is present.

The regulated floodplain is broken into parts. The floodway is the deeper/faster moving portion of the floodplain – areas most likely to flood on a regular basis. Development is regulated here to a higher degree. In Illinois, this area is defined conservatively, so a much broader portion of the floodplain is in the floodway. The goal is to keep people out of the floodway completely. The regulated floodplain is defined by the Flood Insurance Rate Map, which defines the areas subject to flooding during 100-year flood events. To receive lower flood insurance premium rates, structures must be elevated above or relocated outside of the flood zone, as defined by the rate map. Mapping quality has increased significantly for Illinois, making it easier to understand the flood zone boundaries. Mapping is coming for Madison and St. Claire counties.

Flood insurance is required as part of any federal-backed loan if a building or mobile home is sited within the Special Flood Hazard Area, as defined by the Flood Insurance Rate Map. The flood insurance is used as a security of the loan. Once the loan is paid off, flood insurance is no longer required.

Flood insurance premium rates depend on where the structure is in relation to the flood elevation. If the structure is above the flood elevation, the premium is lower. If the structure is below the flood elevation, flood insurance rates can increase significantly.

Flood insurance premium rates also depend on community actions. If a community is doing a good job by enforcing minimum requirements and going above and beyond (i.e., performs consistent maintenance to benefit their community), the community can reduce flood insurance premiums for community members and help organize a community floodplain management program. Ex: Danville has 29 policies; resulting in savings a little over \$1,000. Ex: East St Louis has over 340 policies; resulting in savings over \$5,000. There are 71 active communities in the community rating system in Illinois.

Despite efforts to mitigate flood hazards in floodplains, 92% of flood damages now occurring outside of the mapped floodplain this is due to out-of-date maps and more intense rainfall. Rainfall has increased by 5 inches in the last 100 years, and this is expected to get worse. The National Climate Data Center is predicting an increase of 31% of heavy precipitation per year. Flooding outside the mapped floodplain is especially problematic because homeowner policies do not typically cover surface flooding and insurance riders are required for sanitary sewer backups. Some private policies are available but read the fine print.

1.3.1 Q&A

Hyperlink: <u>Q&A Audio</u>

Question: Is Chicago's south side intense rain increasing due to climate change being reconsidered for NFIP?

Response: The flood maps that FEMA produces are designed to help set an insurance rate, not forecast future risk. So, they look in the past at historical data in setting the flood elevations. As part of FEMA's new Riskmap program, we are looking at releasing data that is produced as part

of the modeling process that could be used to help with future conditions such as sea level rise, urban flooding, etc. There is more to come.

Question: How can municipalities join?

Response: Communities join by resolution and apply to FEMA for NFIP. Then the community must adopt the NFIP program regulations associated with the State of Illinois. Communities that get kicked out of NFIP for permitting structures that are in non-compliance and must bring all properties into compliance before they can rejoin. Regardless, if an area is mapped by FEMA, a local government can map their own flooded areas and enforce their regulations in those areas. e.g., Downers Grove has a Locally Poor Drainage Area map to which they apply their floodplain regulations. Local realtors and homeowners are aware of this mapping. Finally, flood insurance is available to residents that suffer from urban flooding even though it is not mandated by their lender.

Additional Response: A tool that may be informative for some Chicago region communities is CMAP's Flood Susceptibility Index. Link:

(https://www.cmap.illinois.gov/programs/water/stormwater/flood-index).

Important Note: While riverine flood risk continues to be best identified through updated floodplain modeling efforts, locations of urban flood risk remain largely unknown outside of individual modeling efforts done by municipalities. These indexes are not intended to replace those more technical efforts; instead, they are designed to identify larger scale priorities across the region for mitigation activities, and help inform flood susceptibility in communities lacking more technical analysis.

Question: Danville was not on the list of NFIP participants?

Response: Danville is part of NFIP, but not a Community Rating System member – which means residents are not eligible for special discounts. It takes a lot of effort to join the Community Rating System and communities that have staff or funding issues and are trying to keep their head above water will have a more difficult time participating. Savings at class 7 at typical entry level is about \$1,650 - not much in the way of savings. In comparison - Northeast IL has 800 flood insurance policies and saw close to \$100,000 savings. Another thing to note, the <u>Vermillion County Hazard Mitigation Plan</u> is expired and it needs to be updated for Danville to be eligible for BRIC funding.

Question: Is there a timeline for map updates for St Clair and Madison County?

Response: They have been working on the maps for 25 plus years and much of the delay is due to levees, disrepair, and their potential for decertification. The levees are being recertified, Metro East, Alton's and others. Their floodplains are complicated (levees, pumps, lack of elevation, etc.). Look for preliminary maps being released soon, and community members can make comments.

Question: The NAACP continues to ask these questions and the response is always that they are working on it. We want to make sure they are.

Response: The thinking is the next year or two this will be completed.

Question: It was noted that a \$21,000 yearly premium was shown under the new rating system. How does that translate for poorer communities?

Response: It is true this can be crippling for some homeowners if their premiums go up that high. They would have to move everything (HVAC, water heater, etc.) out of the basement to reduce premiums. Many people have walked away from their homes because of this. In October of this year, FEMA is rolling out new flood insurance premiums and coastal communities will be paying more for premiums, than non-coastal. If you do things to reduce risk (i.e., lifting the AC up on stand, moving appliances to upper floors), you can find ways to reduce premium, even if you do not get rid of your basement. FEMA is looking forward to updating the program and for Congress to tackle larger policy issues.

Question: Do local governments need to be part of NFIP and have a county hazard mitigation plan to be eligible for BRIC?

Response: Yes, to both. You must have an up-to-date hazard mitigation plan, local or community level, or be part of a county plan. BRIC provides funding to update these plans, if it is out of date or if it has never been done.

Question: Is Chicago southside overland funding due to climate change? Is it being reconsidered for NFIP flooding?

Response: Essentially, the flood maps look at historic data over the last 100 years. People frequently use flood maps to predict risks, but we caution people that this is just a point in time. We are looking at releasing data to communities - but it is a static point of time that looks backwards and not forwards. We know it floods outside the mapped floodplain. We are trying to help communities with tools to help manage floodplains properties. We are exploring advisory, not legal layers.

Additional Response: While FEMA produces the maps, they are a partner to communities and to the state - communities can work to update their maps if risks have changed. Applying for a letter of map revision is a costly process. Most municipalities do not want to show the risk in their communities, even residents do not want that shown because it affects their home values. It is difficult to get these maps updated. Illinois and FEMA are working with communities that still do not have maps. It is difficult to expect FEMA to be the sole entity to update these maps.

Question: Would buyout and turning properties into forest reserve address very much of the flooding in that area?

Response: It depends on the hydrology of the area, but this type of project is generally encouraged.

1.4 PAULA HINGSON – US DEPARTMENT OF AGRICULTURE, STATE DIRECTOR FOR THE AGRICULTURE CONSERVATION EASEMENT PROGRAM.

Hyperlinks: Video & Slide Deck

Contact Information: paula.hingson@usda.gov

The easement programs that work in the floodplain area include the Agricultural Conservation Easement Program (ACEP). Emergency Watershed Protection Program (EWPP) - Floodplain Easement Option (FPE), and Wetland Reserve Easement (WRE) Program. Other programs not discussed today include the ACEP-Agricultural Land Easement Program, Healthy Forests Reserve Program (HFRP), and Regional Conservation Partnership Program (RCCP).

Most ACEP easements require voluntarily enrollment into the program. There are land restrictions, but the landowner gets to keep the title, and can sell the land or pass it on to heirs. Landowners enter easement program when it gets recorded in the courthouse and easement is transferable to other landowners. Easements can be perpetual or 30 years. Around 85% are perpetual. Frequently, the 30-year easement holders come back to get perpetual easements.

Tribal and private landowners can enroll WRE. Goal is to restore, protect and enhance wetland areas - mostly in the floodplain. Easement holder is the USDA and is responsible for monitoring and maintenance of the easement. Purpose is to get back to hydrology and native vegetation. 24-month ownership is required and landowners keep rights to use and enjoy, to exclude others, to possess or to transfer by sale or gift. NRCS can subdivide and develop the land. The goal is to restore the land back to conditions prior to it being farmed - as close to baseline as possible.

Emergency Watershed Protection Program (EWPP) - Floodplain Easement Option (FPE) is only funded when and where there is a disaster. Funding gets requested through a secretarial order and is not something the NRCS has every year. Dogtooth Bend area is an example of EWPP-FPE. There was a levee - but the Mississippi River broke the levee and damaged all the adjacent lands. Broke in 2016, flooded in 2017. Subsequent flooding in 2019. Farmland unable to be used since. Designated an IL disaster and secretarial disaster declared in 2019 and was able to get some money under this program.

Lands eligible for the EWPP-FPE Easements must have been damaged by flooding at least once in the previous calendar year or twice within the previous ten years. Land is within a floodplain and contributes to the restoration of the flood storage and flow, providing for control of erosion, or improving the practical management of the floodplain easement. What determines landowner eligibility is much like WRE program: Provide title as landowner and comply to terms of agreement. Additional requirement is proof landowner is suffering from the flood damage and not just looking at restoration potential to get back to baseline. Application package contains: Application for assistance, evidence of sufficient legal access, site specific evidence of flood damage, and documentation of other disaster recovery assistance received or utilized such as other funding from groups like FEMA or the state. NRCS is the last resort - but often the best option for some of these rural landowners.

How are landowners compensated? Appraisals happens every year. Compensated 90% of property value through WRP, but with this type of floodplain easement, purchase closer to 100% of what the land is worth. NRCS covers 100% of the restoration costs. Restoration restores floodplain functions back to baseline and includes both structural and non-structural conservation practices (ex: Planting trees to cut down the water flow). NRCS establishes Compatible Use Agreements for landowners who still want to manage the property. Make sure that whatever the landowner is doing is further benefiting the area. Management must make the land better. Easement compensation is \$3,000 per acre downstate and \$6,000 per acre in parts of Northern Illinois. This does not cover the full cost of the property, but a sizable amount for control of the property.

2 CASE STUDIES

2.1 CASE STUDY DISCUSSION SET UP – OLIVIA DOROTHY, AMERICAN RIVERS

Olivia reiterated the purpose of case-studies is to identify resource gaps to justify a new program and/or incentives.

2.2 FORD HEIGHTS

2.2.1 Overview

Hyperlinks: Video

2.2.1.1 Map Review – Whitney Fiore

Hyperlinks: Maps

2.2.1.2 Village of Robbins - Mayor Tyrone Ward

A big portion of Robbins (1.5 mi²) is in the flood zone. We are working on the east side of town. Our goal is to get the entire area out of the floodplain. Richard Fisher from MWRD is doing some work on the east side of town. He wants to make sure that we are looking for operations to alleviate the entire flood zone area of Robins. Listening in to see what we have to offer and what we are suggesting for solutions. Looking out for the best interests of Robbins always.

In Ford Heights there is one roadway that floods in the spring and closes the elementary school (Cottage Grove Upper Grade Center) causing major issues with the educational system in the area. People cannot leave their homes because the area must be closed. Regarding maps shown earlier, in underserved minority and disadvantaged area; flooding is a major problem. Highest shown risk is not actually mapped by FEMA. All local media is there when it rains near cottage grove school - major issues with the flooding west of I-394.

2.2.1.3 Metropolitan Water Reclamation District - Richard Fischer and Jack Chan

Provided a walk through/overview of their work in the Ford Heights areas. We have been working with the Village for a while to develop a project that is community led and is compatible with the community priorities. We originally looked at a project that was developing a very minor levee, that would be along the western border of the residential area that is highlighted as having the most risk. We developed engineering plans for the minor levee, because to the west of the residential area is farmland. Idea that farmland could accommodate most of the flooding compared to the residential areas. Community identified that area as having potential for future development - some opportunity for connection to the interstate. They want to make sure that anything development-related would include consideration of these parcels.

Area has challenges - FEMA flood maps do not indicate flood risk in the area. Detailed watershed plan done in 2011, inundation maps indicated what is shown on flood risk maps. They also indicated that the risk is much greater than what FEMA shows. Presents unique challenges, because you want to address the flooding, but also the solution is going to require that the area be remapped.

Could the next project to look at (after direction from the community) channel improvements? Even levees will not eliminate the flood hazard. When you remap, the area behind the levee will still be a flood risk area. Could we make a project that would increase the flood area, or just remove the risk? Maybe channel improvements in the area to accommodate more water? Even with modeling and channel improvements, Jack Chan pointed out that although the flooding comes from Deer Creek, the internal stormwater infrastructure is inadequate. Even if flood waters could stay in the creek, infrastructure is overwhelmed by storm events. To really address flooding some significant changes to the internal infrastructure will need to happen. Building a reservoir plus the channel improvements.

Towards the east side of the development, coming down a hill into a bowl area with a creek in the bottom of it. With any kind of measures, there will still be a flood hazard. This is a significant investment for the Village plus commitment to maintenance. In the end, the projects need to be turned over to the communities to own and operate the projects. With both projects, costs for maintenance would not be feasible, and would not result in a level of protection that would guarantee that home would not flood.

We are now evaluating a buyout program. We do have a program for voluntary acquisition of homes in the floodplain for opportunities to move away from the risk. This is a significant challenge due to the lack of affordable housing. Acquisition funding available, but where can these people go with that money? We are looking at bringing other partners into the project to help in areas that our mission (legislative authority) is unable to help with. Potential partners for building affordable housing include Cook County as a partner, Economic Development and Land Bank Authority, and potentially the Housing Authority of Cook County.

Can we develop an acquisition project that phases move outs and develops other housing in a different location? Another partner that has expressed interest is the Cook County Forest Reserve - purchase houses and turn the area into a natural area owned by the forest reserve. Looking at developing this framework now. We understand that this is not going to happen overnight. It is going to take a lot of resources, partnerships, and time to get this program off the ground. Will look to the community of Ford Heights to help lead to the answer.

Jack will share maps with the group as we move forward on these discussions. Shared buyout location map for riparian restoration work. It is between Woodland Ave and Kennedy Ln, and Lincoln Hwy and Hammond Ln. Homes are being looked at for the buyout program. A lot of the parcels are already vacant. Some due to fires, some due to Village demolition. You can see that some of the residents are already moving out of the area.

Shared inundation map - FEMA flood hazard area (100-year area). Confined to the creek itself, the orange area shows the 500-year floodplain. Reality is that flooding is occurring more frequently and coming into the 500-year floodplain. MWRD came up with their own 100-year inundation area. Shows lots of street flooding and home flooding. Showed Village Development map plans for development opportunities in the area. Development shows areas east of I-394 for development.

If we can get a buyout program implemented, then there will be opportunities for turning this area into a green space/riparian corridor. Concept plan shown. Thinking of a phased approach for the buyouts and restoration. Phase 1: 40 homes, Phase 2: 83 homes. This work must be community championed to be successful.

2.2.1.4 Mayor of Ford Heights - Mayor Annie Coulter

Community is not understanding what MWRD is trying to do. Many outstanding questions like: Where is the water flowing from? What other communities is the water coming from? Are there floodgates in other communities? Are there dams in this area? Why can't we just move the water to the farmland? How is the communication piece going in terms of the intent of the buyout program? What are the pros/cons of the buyout program?

There are issues with landlords (i.e., renters and homeowners). Landlords are absent. In addition - there are seniors in the area that may need additional communication. Need help with tax bases as taxes have been charged to the community incorrectly. Rebuilding is an issue. Also look at types of homes - especially for the seniors.

Theresa Haley, NAACP added that disadvantaged communities continue to be disadvantaged for many reasons (not educated, absent slumlords, cannot afford to move or have good options for affordable housing). Maybe NAACP can help with calling out the slumlords. Yes, there are some problems with floods, but there is work that the NAACP can be doing behind the scenes.

2.2.2 Ford Heights Discussion Groups

Note: The purpose of these discussions was to identify and document the various barriers to implementing multi-benefit floodplain development in these communities. Facilitators hosted structured discussions with the prompt "If we have totally unlimited resources, how would we fix the flood issues in this community?" Following an open discussion that identified various solutions, facilitators then tried to drill down on the primary solutions to understand the opportunities and barriers associated with those solutions. This discussion structure was not strictly enforced, and, in some instances, time ran out before the discussion was done.

2.2.2.1 Olivia's Ford Heights Discussion Group

Hyperlinks: Video & Jamboard

Prompt: If we have totally unlimited resources, how would we fix the flood issues in this community?

Open Discussion: Want to see them build a whole new community outside of the flood area, where they can take pride in their communities and not be in fear of the government taking their homes, which is very stressful. Slum landlords and crooked attorneys are scary for people. On the East Side of Ford Heights is 394 – what additional pieces of economic development can come in and help stabilize the community and increase the tax-base. Would like to see a sustainable approach that avoids further environmental issues for the community. Need access to healthy foods. Need to be a sustainable, healthy community. Not an industrial toxic zone. With unlimited resources, perhaps we could re-route the water source. Looking at re-routing the water away from the community. The only sustainable way is to remove the homes form the floodplain to allow for a more natural riparian habitat – it will have a lower long-term maintenance cost. It will be hard to ensure we maintain everyone's investment in the community. Need to engage the community in the discussions and choices.

Solution: Relocations instead of buy-out.

Barriers: Education, resources, outreach, communication. Transportation – dealing with a small community that does not have access to grocery stores, etc. People need public transportation to shift with the community. Financial barrier between market value of the properties versus what cost to replace homes. Paying higher property taxes if the relocation area is higher value. Age is a barrier – seniors are reluctant to move away from a home that they live their whole life. It is the homestead, gathering place, memories, etc.

Opportunities: If done the right way, relocation focus can help improve access to facilities.

Solution: Sustainable Development

Barriers: Making sure brown spaces turn to green space, make sure land is not toxic. There is an extra cost to doing things right – with sustainable designs, etc. Need to connect people to healthy food by bringing a grocery store into the new development or fix public transportation to connect people to grocery stores.

Opportunities: Building energy efficient homes. Access to green space for gardens, farmers markets, etc. There are a lot of resources to do energy efficiency and independence. Opportunities for education and home improvements.

2.2.2.2 Whitney's Ford Heights Discussion Group

Hyperlinks: Video (only recorded last 5 minutes of 20 minute discussion) & Jamboard

Prompt: If we have totally unlimited resources, how would we fix the flood issues in this community?

Open discussion: Do not just look at buy outs, but also home elevations and flood proofing. Is there room in the community to do new development outside the floodplain? FEMA mitigation funding does not work well in communities of low-income and tends to facilitate gentrification that pushes Black and other minorities out of the community. Need to combine and coordinate federal, state, and private grants to due multiple things across siloed agencies. Moving people out of the floodplain decimates the school district because property tax declines and this needs to be addressed. When FEMA comes in – people do not get the full value of the home. It is not the buyers' fault because it is not revealed to them that the home was in the flood area. Flood information needs to be communicated to potential buyers at time of purchase. There is a need for supplemental funding for buy out program to provide home replacement costs.

2.2.2.3 Chelsea's Ford Heights Discussion Group

Hyperlinks: Video & Jamboard

Prompt: If we have totally unlimited resources, how would we fix the flood issues in this community?

Open discussion: Not recorded.

Solution: Build apartments for relocation

Opportunities: Some of agricultural acres could be tax delinquent. They are looking at the Cook County Land Bank, which can be used to repurpose blighted homes. Need to utilize land that can be redeveloped, repurpose properties, grants available, like HUD.

Barriers: Urban sprawl, need to directly fund projects in center of town to rebuild.

Solution: Affordable housing for relocation

Opportunities: Elevate the homes (\$10-20,000 per home). Continued community engagement to resolve the issues through community visions. Work with agency for aging in the area to help understand housing needs of the senior citizens.

Barriers: Regarding home elevations, a lot of the houses in the floodplain have basements – elevation might not be a solution. Would need to bring the houses into compliance, which will increase cost. Absentee landlords can take advantage of people in cheap housing.

Solution: Deer Creek Restoration

Opportunities: IDNR Grants division can help ecosystem restoration and converting the land into a park. Open Space Land Acquisition Grant would apply. Wetland banking through Section 404 regulations – a lot of dollars

Barriers: None discussed.

2.3 DANVILLE

2.3.1 Overview

Hyperlinks: Video

2.3.1.1 Map Review – Whitney Fiore

Hyperlinks: Maps

2.3.1.2 Sam Cole, City Engineer, NFIP Coordinator

Where do we see flood issues manifesting? Lots of rain events in 2016, Danville was hit hard with 6 - 8 inches of rain within 24 hours. There is public outcry. Some issues in community include street flooding and home flooding. City collected data on how to move forward on projects to address flooding, including drainage reports, city infrastructure info, interviews, and community outreach.

Results from Drainage Problem Survey: Common problems include street flooding, yard flooding, erosion, rolling topography, basement flooding, building flooding and maintenance. Lots of creeks and watersheds in the area. There are filled in creeks/drainages causing issues. This is an old community founded in 1880. Infrastructure is old (1920s - 1970s) and newish infrastructure is from the 70s.

Solutions include: Stormwater and sewer infrastructure, curb and gutter, drainage basins, etc. Project areas: Not necessarily the floodplain itself - mostly a lack of drainage systems, 40 projects identified, less than 1 acre to 204 acres per project, variety of solutions, and costs around \$24.8 Million (2016 dollars).

Floodplain management is not a large part of the plan, it is more about the infrastructure. Some neighborhoods were built without drainage systems at all. There are areas where ravines are resulting in major erosion events that flow downstream, and this exposes sewer lines.

Project prioritization based public safety and other factors, like city council and staff funding needs. There is not enough money in the general fund and not a lot of nationwide stormwater infrastructure funds.

For the top projects, how do we invest in the infrastructure? Wanted to look at a business case for funding it - not just a wish list. How do we sustainability fund and sustain this? What level of investment will be needed? There is a 2021 rate increase for utility- will generate around \$1 million in funds for stormwater improvement projects. Could be used for a variety of things,

including match to federal grants. Low market values of properties. Could open some greenspace. Trying to develop a maintenance program.

2.3.1.3 Farm Bureau - Bill Bodine

Outside urban Danville are rural lands. Opportunity to speak with Vermillion County Farm Bureau. Flooding outside in the more rural areas has been happening for a long time. Issues with water quality and nutrient management, especially North of Lake Vermillion (flows North to South).

2.3.1.4 NAACP, Ed Butler

Has been living in Danville for a long time, floods on Harrison Street. When there is a 2-day rain Stoney Creek floods - runs north to south, right through town. Attempted to get maps for the floodplain from the City and was unsuccessful. There is a long history of flooding and areas that need specific attention. Including Stoney Creek area, all along the creek homes are flooded. Especially in the heart of Danville. Low-income families are located here. Ed lives 4 blocks from the creek, and this is still a concern when it rains. Heavy rains flood the entire town. Great Creek area, and Great Creek road - mobile homes are in this area of the floodplain. North Fork Vermilion River - always floods, particularly parks where little league and festivals occur, also goes by the water treatment plant. Flooding was so bad it flooded the treatment plant and sent sewage into town. Fixed by creating a barrier around the treatment plant.

Two years ago, 2 dams were taken out for safety reasons. Helped a bit, but still a problem. Seems like up north there is no control for water flow, which impacts Danville. Very personal issue - Harrison Street is regularly flooded resulting in safety issues for children/teens playing in the area. Aware buyouts occurring, but still issues.

2.3.2 Danville Discussion Groups

Note: The purpose of these discussions was to identify and document the various barriers to implementing multi-benefit floodplain development in these communities. Facilitators hosted structured discussions with the prompt "If we have totally unlimited resources, how would we fix the flood issues in this community?" Following an open discussion that identified various solutions, facilitators then tried to drill down on the primary solutions to understand the opportunities and barriers associated with those solutions. This discussion structure was not strictly enforced, and, in some instances, time ran out before the discussion was done.

2.3.2.1 Olivia's Danville Discussion Group

Hyperlinks: <u>Video</u> & <u>Jamboard</u>

Prompt: Given unlimited resources, what would we do in Danville to resolve flood related issues?

Open Discussion: Need to do something with our barriers around the Stoney Creek area. It is unsafe, and it is a small area, and it is where the most impoverished people live. Need to do something about storm sewers. Like Cairo, nothing will happen until the citizens start to make elected officials more accountable at the local, state, and federal levels. These problems are not new, but there is a lack of leadership and people at the city are not doing their jobs. Grants and assistance is available, but the community needs to bring things to the attention of leaders inside and outside the community. The whole community needs to be involved. Danville does not have a floodplain ordinance. Infrastructure is an issue, need funding to address maintenance and upgrades. Need to do education like "turn around don't drown." Danville has a lot of land where they can expand and so buy outs might be more feasible. Based on information provided by the city, more investments are going to the wealthier, whiter neighborhoods. Need to work with environmental lawyers to being attention to the justice issues of who is getting the investments. Does not seem like Tier 1 projects in Danville are happening the Black and Low-Income census blocks, investments are going to white, wealthy neighborhoods – this is a problem. Need to do a vulnerability assessment and look at health impacts.

Solution: Fix drainage

Barriers: Need to update flood hazard mitigation plan to get access to grants.

Opportunities: Programs like BRIC and EPA Section 319 grants help finance infrastructure projects. Municipality is trying to do this, though they are not prioritizing the most vulnerable neighborhoods.

Solution: Community education

Barriers: Community groups are not organized around flood issues.

Opportunities: Some community organizational structure does exist, so need to leverage and build off what we have in terms of community organizing. Need community leaders with flood risk management expertise.

Solution: Equitable investments

Barriers: Need to do more outreach to representatives, mayors, governors to fix problems.

Opportunities: Grants.

Solution: More buy outs

Barriers: What do we do with the land after the land is empty? Generational homes. Keeping community together.

Opportunities: None discussed.

2.3.2.2 Whitney's Danville Discussion Group

Hyperlinks: Video & Jamboard

Prompt: Given unlimited resources, what would we do in Danville to resolve flood related issues?

Open Discussion: Need a long-term vision of how they want to address flooding. Do not need all the details in hand, but a framework for a long-term vision. What resources are available to do this? The problem is not that they are land-bound. They can restore the river corridor as an amenity that makes room for the river and move development away. No levees, but there is a reservoir – but it is not a flood control dam. Could levees help? Maybe a small berm, but it would be very expensive to maintain. While investments can build projects, there will always be maintenance challenges to ensure infrastructure is upkept. "Strong Towns" is a movement to address the financial issues in towns to maintain infrastructure. Partnership is key to make sure cities are getting equitable funding. Need to get more expertise in the communities to help apply for grants and administer them to do successful projects. Multiple property owners can present challenges to coordinated solutions. They started a stormwater utility but it fell apart in 2017, they should revisit this to implement green infrastructure and community engagement. It can be

successful if it is done right. How was this implemented and how did it fall apart? Neighbor Champaign-Urbana has a stormwater utility and it works really well. Maybe Danville should revisit this idea. Requires municipal buy in, but it provides a sustainable long-term community structure to address localized flooding. Rock Island also has a stormwater utility, has similar topography, a lot of success installing rain gardens to prevent erosion in the gullies. Affordable housing is an issue with buy-outs. In buy-outs, is there an opportunity for retention of some of the residents who may not be able to afford, but be subsidized to stay in place. Start thinking about wealth building within floodplain communities to avoid racial and social inequalities. Danville was able to do a fee increase to do matching with some of the federal grants.

2.3.2.3 Chelsea's Danville Discussion Group

Hyperlinks: Video & Jamboard

Prompt: Given unlimited resources, what would we do in Danville to resolve flood related issues?

Discussion: Update storm water infrastructure, including detention basins where land is available. Urban green infrastructure throughout the watershed – planting trees, permeable pavements – need to take pressure off the existing infrastructure. Infrastructure is a major issue – multiple creeks, watersheds, stormwater runoff. Need the upgrade infrastructure. There are a lot of green corridors, younger generation really appreciates the natural riparian habitat, and need to address encroachment issues and do more restoration to improve natural amenities. Community education needs to be a part of everything. Citizen science could be a good tool to get people engaged with keeping storm water infrastructure clean.

Solution: Update stormwater infrastructure and do more green infrastructure

Opportunities: Flood prone property buy outs, post-buy out restoration funding needs to come from other resources. Land and Water Conservation Fund can help fund restoration and land acquisition.

Barriers: Match can be really challenging for a lot of communities – getting private funding for a restoration component can help meet match without taxing communities. Having staff resources to find grants, etc. IL Department of Natural Resources can do a lot of work to champion matching grants, etc – but staffing cut-backs limit ability. "Local assistance section" of IDNR Office of Water Resources, was cut due to budget constraints, not staffed or funded for 30 years or so. Lack of community awareness of stormwater issues.

Solution: Community education and citizen science

Opportunities: Teaching good habits to improve long-term stewardship and maintenance.

Barriers: Need to maintain long-term communications and relationships.

Solution: Buy outs

Opportunities: None discussed

Barriers: None discussed

2.4 FREEPORT

2.4.1 Overview

Hyperlinks: Video

2.4.1.1 Map Review – Whitney Fiore

Hyperlinks: Maps

2.4.1.2 NFIP Coordinator – Kristin Hinds

City of Freeport is located at the Pecatonica watershed, the area of focus is the east side neighborhood. This area is low income, and they get a disproportionate amount of flooding. Neighborhood is majority Black, and there is a lot of section 8 rental housing. Long history of flooding, recording back to 1916, most recent was in 2019. Construction of buildings stopped in the area since 1993 flooding. Intended to do buyouts, but not enough outreach. In 2012 attempted buyouts also did not work. In 2019, river was at 17.26' and a lot of flooding.

Since 2019, there have been several town hall meetings to build trust and frozen the sale of tax trustee homes. But people continue living in flood prone zones. Community buildings such as Taylor Park Elementary and multiple churches, Freeport Housing Authority also has housing development in this area. Need to relocate residents to different section 8 housing. Challenges include generational house and history in neighborhood, devoted residents, older residents, and availability of affordable housing.

Current actions include grants from IDNR (\$1M), DCEO acquisition (\$300k) and demolition of 24 abandoned, vacant, and condemned properties. Also submitted \$4M for pre-disaster mitigation grants for 139 homes. Submitted \$4M for HMGP & BRIC Grant Applications for remaining floodway properties.

Long Range Plans include park expansion, bike trail expansion, pollinator meadows, housing options through Northern Illinois Land Bank, and affordable housing.

2.4.1.3 NAACP, Patricia Norman

Freeport, years ago, had a horse racing track in Taylor Park. All the festivities were held there. A big community focal point. Gradually over the years it has moved to the other side of town. Majority of African Americans grew up on the east side of town. Many have moved out of the east side that could afford it. Those who have stayed are maintaining the family home.

Main points of contention: the way people feel about their homes and having some opportunities to stay connected to the neighborhood. The elementary school is no longer operable. But was a very important building to the community. Every year the flooding seems to be getting worse and worse.

In 2017 or 2018 people had to evacuate and move out of the community. Previously the norm was to stay in the home, until these years. People in the community were trying to decide what to do. City applied for BRIC grants. They do not want to see the community disappear. There is the idea that the community could work with the City to make it a wetland and recreation area that also honors the community's history (interpretive signage, benches, etc.).

Flood in 2019/2020 - people realized that a lot of the community did not come back after 2017/2018 flooding. Majority of community understands that the buyouts are the best thing that can happen on the east side. Find on every block 5-6 empty homes. FEMA and IEMA have

worked with the community and have done a good job communicating with the Freeport community. Gave people an opportunity to express pleasure/displeasure.

Need to hear concerns from the population still on the east side. Services will still take place but losing that feeling of "home". This is particularly hard for the elderly communities. Generational homes are difficult to leave/abandon. Everyone understands that they can stay or take advantage of the buyouts. The City is working with Homestart and other organizations on affordable housing and other options - particularly for those who are living on a fixed income.

Question: Were there any proposed buyouts such as in Ford Heights?

Response: We believe they are similar. There is a voluntary list and are waiting to hear if the funding came through a grant. There is a buyout that is going to be offered to the residents.

There is a lack of developable lands that can be repurposed and finding the funds are difficult.

Additional Response: It is important to have a community member from the NAACP. NAACP wants to see follow through and action.

2.4.2 Bill Bodine, Farm Bureau

Freeport is a city within an agricultural watershed. Farming community outside freeport - much like Vermillion county is aware of the flooding issues in the city. Outside of the city there is no flood protection (such as levees). Flooding happened in these areas in 2019, along Pecatonica River, as well as along Yellow Creek. We are participating in a water stakeholder group that includes multiple counties - looking at water quality issues mainly, but now looking at quantity issues.

2.4.3 Freeport Discussion Groups

Note: The purpose of these discussions was to identify and document the various barriers to implementing multi-benefit floodplain development in these communities. Facilitators hosted structured discussions with the prompt "If we have totally unlimited resources, how would we fix the flood issues in this community?" Following an open discussion that identified various solutions, facilitators then tried to drill down on the primary solutions to understand the opportunities and barriers associated with those solutions. This discussion structure was not strictly enforced, and, in some instances, time ran out before the discussion was done.

2.4.3.1 Olivia's Freeport Discussion Group

Hyperlinks: Video & Jamboard

Prompt: Given unlimited resources, what would we do in Danville to resolve flood related issues?

Open Discussion: Freeport is a good example of a municipality that is listening to and working with the minority communities in the city. The floodplain is continuing to encroach and that will continue to happen. Questions about whether buildings were salvageable in terms of preserving the historic properties. If there are historic buildings, they should be saved where it is possible, if buildings are not too badly damaged. The NAACP has being working to articulate their problems with flooding for a long time in the Freeport community. Suggesting relocating the buildings, which might be a viable option for smaller historic buildings. Until you can hold elected officials accountable, the problems will not be fixed. It will require lobbying elected officials at all levels, local city councils, Springfield, and DC.

Solution: Community engagement and communication with elected officials

Barrier: Financial resources.

Opportunity: Municipal leagues are a good venue to coordinate education with elected officials. Active community and champions who are engaging with local officials.

Solution: Historical preservation

Barrier: Overcoming historic racism that is erasing African American history under the guise of flood risk reduction. What does historical preservation look like in the context of public safety?

Opportunity: There are state and federal funds available for historic preservation. Local benefactors have helped a lot with historic preservation.

Solution: Maintain community structure and cohesion

Barrier: The federal buy-out program is bad for maintaining community cohesion, which is particularly damaging to communities of low-income and color.

Opportunity: There is a lot of dialogue around this, and we can influence the outcome.

2.4.3.2 Whitney's Freeport Discussion Group

Hyperlinks: Video & Jamboard

Prompt: Given unlimited resources, what would we do in Freeport to resolve flood related issues?

Open discussion: Can homes be elevated or moved whole-sale instead of buyouts? That has happened in some communities. The Honeywell plant seems to be constricting the river and might be causing water to back up and exacerbate flooding. The plant has been there for decades. The big plant south of town is closed. The plant that is on the east side of Pecatonica River was flooded. Is there an opportunity to widen the floodplain at that location? The other plants are closed, can jobs be relocated? It is contributing to flooding and should look at to modify. There is another industrial site in the floodplain that has been closed, the soil is toxic, but there might be another opportunity to open the floodplain there. The community has come around and wants to discuss more options to reduce flood mitigation. More people are signing up for buyouts, close to 100 people have signed up for buy outs so far. People are exhausted. Flood stage maps are available from the USGS here

<u>https://water.weather.gov/ahps2/hydrograph.php?wfo=dvn&gage=feei2</u>. One of just a few spots in Illinois where we have flood stage mapping. Green infrastructure should be incorporated into the plan. There has been good dialogue between the municipality, citizens and FEMA happening in Freeport. Good case study of doing things right and working with citizens. Community discussions are even so nuanced focusing on recreational trails in buy-out areas with interpretive materials to remember the African American History. Need to develop an After Action Report for Freeport to share. Communications in particular have been great in this community. Yellow Creek has also been problematic and will be a focus of future efforts. Unfortunately, after FEMA buyouts there often is not funding for restoration and you end up with an eye sore. Need to do that long-term planning.

2.4.3.3 Chelsea's Freeport Discussion Group

Hyperlinks: Video & Jamboard

Prompt: Given unlimited resources, what would we do in Freeport to resolve flood related issues?

Open discussion: Need to purchase new homes for residents who have been or might be displaced by flooding. Keeping the sense of community, how do we keep the sense of home and sense of community in place? Need to start a conversation with the community at the table. Start conversation about why they cannot stay in these flooded areas and then listen to what the community wants to do to fix it. Form partnerships with the communities. There are generational differences in values, older residents moved to areas for specific reasons, but many areas are not attractive to the younger generations for a lot of reasons. Need to get a feasibility committee or group to see where we can get funding to address flooding issues and address economic development. Learning that a lot of structural solutions have not worked, sunk a lot of money into flood control historically. These issues are as much a housing issue as anything else. Should not just focus on fixing flooding – because that is not really the problem. The problem is safe, affordable housing. Agencies are silo-ed, MWRD is not authorized to deal with housing issues, but tasked with figuring out how to fix flooding issues without being about to access all the opportunities.

Solution: Community-driven feasibility committee

Opportunities: Private foundation grants. Leveraging existing community relationships to understand localized concerns.

Barriers: Funding and staff capacities at municipalities.

Solution: Affordable housing

Opportunities: Public-private partnerships with NGOs to bridge gaps.

Barriers: Outreach – it is difficult for government agencies to effectively do outreach due to limited to staff and expenses.

2.5 FINAL THOUGHTS & SENTIMENTS

Hyperlinks: <u>Audio</u> & <u>Group Photo</u>

Illinois Floodplains Work

Stakeholder Meeting #4

April 27, 2021

Download participant list and contact information here.

Download notes from Stakeholder Engagement Meeting #1 <u>here</u>.

Download notes from Stakeholder Engagement Meeting #2 <u>here</u>.

Download notes from Stakeholder Engagement Meeting #3 here.

1 WELCOME & RECAP

Hyperlinks: Slide Deck & Video

Chelsea, Whitney, and Olivia welcomed everyone. Whitney reminded everyone about roles, process, expectations. Olivia reviewed the purpose of the feasibility study, to determine appropriate state-level reforms to encourage more multi-benefit floodplain development projects. Reminded everyone of the different types of floodplain management strategies: "Flood control" tries to move the water away from people and critical infrastructure, "flood risk reduction" tries to move people and critical infrastructure away from the water, "multi-benefit floodplain development" combines "flood risk reduction" with strategic, flood compatible development that maximizes environmental, economic, and social benefits of healthy floodplains.

Need to shift how we manage and respond to flooding because climate change is causing more frequent flooding in more areas. Traditional "flood control" approaches are not safe and do not reduce flood damages. "Flood risk reduction," while safer than flood control, ignores many social, environmental, and economic needs in communities. But there are not many examples of good multi-benefit floodplain planning and development and there are many barriers to doing projects in this framework. This feasibility study tries to identify those barriers and leverage public-private partnerships to do more projects using this model.

Unlike previous meetings, we will review the draft conclusions, findings and recommendations. We will be reviewing the 6 case studies we developed, and we want to hear from the stakeholders to ensure we captured the feedback from all previous meetings.

Before getting things started, Olivia asked everyone to schedule one-on-one meetings with her to get feedback from everyone individually. Sort of an "exit interview" to understand how we did with this process.

2 CASE STUDY REVIEW

2.1 FORD HEIGHTS

Hyperlinks: Slide Deck, Chelsea's Video, Olivia's Video & Whitney's Video

Entire residential area at risk of riverine flooding and ponding due to runoff. Flood Insurance Rate Maps are significantly wrong when compared to actual flood risk. Need to relocate residents, but not sure where. City wants to develop business near interstate exchange. Most homeowners are elderly and need additional assistance and considerations. Community identified that there are still many outstanding questions regarding potential upstream options. Community also very worried about protecting economic and social interests of the residents and concerned that floodplain buyouts will hurt people and the community.

2.1.1 What are the most important lessons from this case study?

- Because the area is a "bowl" shape, there are limited options for addressing flooding or moving water. If we cannot build our way out of it, where do you go?
- Long-term residents (often elderly) present challenges to moving the community.
- There is a lack of education and communication within the community and leadership on these issues and potential solutions.
- Need to ensure that there is not just an opportunity for a public-private grant program, but community education to ensure long-term care. People need the tools to get engaged community needs the tools to make the projects.

2.1.2 Did we miss or mis-interpret anything?

- Upgrades to stormwater storage and conveyance system are needed, but this may have limited benefit due to the topography (bowl-shaped).
- Flood insurance and lack of education are also important issues.
- Lack of communication in the entire village as of Tuesday the past administration was voted out which will impact the relationship building. This is cyclical.
- Political issues surrounding moving/buyouts affordable housing needed someplace safe to accommodate buyouts.
 - Solutions need to be scaled to the community (looking at smaller successes over a longer period rather than a complete overhaul that disrupts an existing community). Example phased buyouts to address community makeup (older/longer term residents vs. younger population)
 - People are afraid of buyouts. It's like "starting again" and most people are older. The focus should be on making people comfortable.
 - Some of the elderly residents do not understand the contract with the buyouts. Some lost money because they were not able to adequately negotiate.
 - Need help fighting for fair prices to ensure residents get the cost of replacement.
 - Low-income residents need assistance getting services/advisors that will help them get the best price for their properties.
 - Need to address other inequities as community is relocated. The area is a food desert, need to do some intentional planning to improve community well-being.
- Green infrastructure should include looking upstream at where the water comes from. The Forest Preserve of Cook County has had an interest in the properties upstream.

2.1.3 Other General Reactions?

• There needs to be a desire by local, state, and federal elected officials to address the issues and the process should be driven by community members. This requires long-term, personal investment.

- MWRD did they look at the property to the east for reservoir options for future development? Is there rethinking for stormwater retention?
- Consider elevating homes particularly for those in the flood insurance program. They can get funding to elevate their home and reduce flood insurance rates.
- Significant role that the highway east of the Village plays could Illinois Department of Transportation be a partner in rectifying the flooding issues in this region?
- Lower premiums do not happen with more enrollment need to enroll in the Community Rating System. That may take some technical assistance. Note: On the recommendation table add that they will require technical assistance and need for additional funding, which may be possible via private grant.
- Need to draw attention to the issues using media, outreach, etc., particularly by the community that is affected by the flooding.
- Education on the issues and available/needed tools within the community. Similar issues were reviewed in the <u>Thorne Creek watershed plan</u>.

2.2 DANVILLE

Hyperlinks: Slide Deck, Chelsea's Video, Olivia's Video, Whitney's Video

Farmers in Vermilion County are working to implement nutrient management strategies in the Lake Vermilion watershed. No rural flood control infrastructure. In Danville, most of the flood infrastructure is inadequate, degraded, or absent. The city is struggling to sustainably fund infrastructure needs. Danville does have a prioritized list of stormwater and flood risk infrastructure projects. None of the prioritized projects are located downtown, where most of the communities of low income and color are concentrated. Significant flooding issues downtown around Stoney Creek where some buyouts have occurred. There is also a mobile home park southwest of town that is situated at a spot where the Flood Insurance Rate Map shows no risk of flooding but there has been significant flooding at the site. Danville's wastewater treatment plant is also in the floodplain and sometimes discharges raw sewage during high water events.

2.2.1 What are the most important lessons from this case study?

- People from disadvantaged communities are not getting a fair share of resources or being adequately engaged in the decision-making process.
- There needs to be community led communication to the state in order to get FEMA floodplain studies updated as well as the hazard mitigation plan updated. This will help prioritize Danville for the state and FEMA
- Issues in Danville are in the inner-city with Stony Creek flooding into people's property.

2.2.2 Did we miss or misinterpret anything?

- Mobile home areas also having issues. Flooding could wipe out many of these areas and flood out the homes which are low-income population areas.
- Drainage issues in Stony Creek watershed and south.
- Learned in education panel with FEMA that Danville is part of NFIP but not a community rating system member. Vermilion County hazard mitigation plan has expired. Representative Tammy Duckworth in Springfield reached out to Ed Butler (NAACP) to see how they can help within Danville to see what they can do for infrastructure and floodplain areas.

- Following a buyout, it is difficult to find an entity to take on land ownership and liability typical entities include municipalities or forest reserves.
- Need to emphasize Vermilion County farmers are "working to implement nutrient management strategies in the Lake Vermillion watershed." Farmers are dealing with flooding issues consistently no levees or other flood protection infrastructure is present.
- Need to address wastewater being discharged during flood events. This is also important for protecting endangered species, which are present in the Vermillion River. This should be a priority.

2.2.3 Other General Reactions?

- Danville did not have funding to conduct the studies necessary to update the FEMA floodplain maps. So, it is not surprising that there are areas not identified on the current maps that are experiencing frequent flooding. Cairo's flood maps are being updated, but other case study areas (East St Louis Area and Ford Heights) need to be updated.
- Who does the Flood Insurance Rate Maps? IDNR Office of Water Resources and the State Water Survey give FEMA a list of what to prioritize for updated studies. FEMA will help support this multi-benefit work.
- Hazard mitigation plan is outdated and needs to be updated to access BRIC funding. Who does this? Usually organized by local municipality. BRIC funding can be secured to do the Hazard Mitigation Plan to access future project funding through BRIC. Plan and funding for subsequent projects must be approved by Illinois Emergency Management Agency (IEMA). FEMA State Hazard Mitigation Officer is Sam M. AL-Basha.
- Short letter from Danville to Illinois DNR Office of Water Resources outlining the need will help move process forward.
- An example we should review is Elmhurst, where a buyout program allowed underground storage at those areas. IDNR OWR manages this the land goes to the municipality and must remain open with deed restrictions. The land is allowed to flood, so maintenance is limited.
- FEMA is strict about what can happen on buyout lands post-buyout. OWR typically has matching FEMA funds. Improvements to the land could possibly be made if it's not considered development this would be explicit in the deed restrictions.
- Information was clear a lot of people are going through similar flood-related issues. Especially as it relates to Black and Brown communities.

2.3 FREEPORT

Hyperlinks: Slide Deck, Chelsea's Video, Olivia's Video, & Whitney's Video

There is a Black community on the Northeast part of town that is entirely within the Pecatonica floodplain. The community has been flooded many times and some buyouts have happened in the past. Outreach for the buyout program has been conducted poorly by the city, which has led to low acceptance rates. New city management has opened up dialogue with the community and the city has been receptive to community needs, like historic preservation and helping offset relocation costs for residents. Grant applications are pending and it is too early to call this a success story, but progress is going in the right direction.

2.3.1 What are the most important lessons from this case study?

- Impacted communities need a seat at the table and to be a part of the decision-making process. Not just a seat at the table, impacted communities need to led the dialogues.
- Transparency is important for trust-building. Everyone did not always agree, but transparency helped build trust in the process.

2.3.2 Did we miss or misinterpret anything?

- Need to educate people about what happens after the buyout. Need to build public knowledge so they have negotiating skills because now many do not understanding the loan and tax implications of accepting a buyout and moving someplace else.
- Potentially add to the feasibility study that this could be a case study for success of community engagement.
- The river dynamics (land between Pecatonica and smaller stream) may preclude and engineered solution.
- Freeport is only talking about flood mitigation for buyouts, not the additional green infrastructure and quality of life pieces. The City is still not doing a great job assuring residents regarding the future of their homes and communities. The overall progress in the community is mis-represented and is not as great as we made out.
- Flood insurance was largely unaffordable for the community in the flood area.
- The City will not allow people to sell homes in the floodplain.
- The City is doing a good job with conversations, but there has not been the necessary action.

2.3.3 Other General Reactions?

- Report needs to call out and specify importance of stream restoration outside of green infrastructure maybe use the term "nature-based solutions" instead to act as an umbrella that captures more actions.
- A just transition needs to be applied to buyouts and relocations. Same for other infrastructure and mitigation upgrades. How can we make sure the process is "just"? Need to do the cost of relocation not just value of home.

2.4 ALEXANDER COUNTY

Hyperlinks: <u>Slide Deck</u>, <u>Chelsea's Video</u>, <u>Olivia's Video</u>, & <u>Whitney's Video</u>

Alexander County is bordered by the Mississippi and Ohio Rivers. In the northern part of Alexander County, across from Cape Girardeau, there is a large agricultural levee that protects about 550,000 acres of farmland. In a southern part of the county, both the Mississippi and Ohio Rivers are trying to cut new channels during flood events. In 2019, over 300,000 cfs cut through Dogtooth Bend, which disconnected part of the county. USDA securing conservation easements in the Dogtooth Bend area of Alexander County. Flooding in this area now regularly occurs every year or every other year. Cultivation is becoming impossible. Initially farmers tried to repair the levee, but now 99% of the landowners have applied for easements. USDA is working towards making offers on the land to take it out of production permanently. Farmers are not happy about what is happening. Lots of confusion, broken promises and delays due to poor collaboration between Corps – who maintains the levees – and USDA – who manages easements and farm programs. Due to the breach, a lot of water is now moving into Horseshoe Lake, causing damage to road infrastructure and natural resources. Need to add spillway to

facilitate drainage as water levels lower. Proximity to Shawnee National Forest could allow for restoration of floodplain to blufflands corridor, which would help some critters get out of the floodplain during severe events. This would enhance recreational opportunities too.

Cairo, the largest metropolitan area in Alexander County, is protected by the Mississippi River & Tributaries Project, but the County must maintain the pumps stations with a shrinking tax base. long duration of 2019 Flood caused major flooding behind the levee because there are not pump stations. As a Black community, Cairo has suffered from significant divestment and failure of government at multiple levels. Concerned over census results since population in Cairo is decreasing. Food desert, no grocery stores inadequate public transportation, etc. The town is entirely in the historic Mississippi and Ohio River floodplains, protected solely by levees. Misinformation around flood insurance availability for renters especially. Need more access to political power structures and decision-makers. Not enough affordable housing.

2.4.1 What are the most important lessons from this case study?

• None listed.

2.4.2 Did we miss or misinterpret anything?

- PL 84-99 funds are only available after a disaster. Need to look at other levee related funded under pre-disaster funding. Planning for system wide improvements that could also come into play in this location.
- Ensure that levee removal recommendation is associated with the agricultural areas and not Cairo's levees. Levee removal was/is not supported by agriculture community, who consider the levee vital to maintaining the navigation channel. USACE modified breach to prevent migration of navigation channel, but levee overtops during flood events.
- Agriculture community wants to change cost benefit analysis to include transportation benefits in the PL 84-99 Benefit-Cost Ratio. Note this request for recommendations table.
- There is a proposed major port in the Cairo area that would provide job creation and economic development. This should be supported by local and state decision makers. Build on Governor's proposed budget to support this.
- Habitat investments should be included beyond conservation easements. Should look at different plantings to create various different habitats. Note this request for recommendations table.
- Flood insurance is not a panacea for the community because the levees are so important. Should the levees breach, there would be a surge of 20-feet of water. This is an emergency situation.
- Why has USACE neglected Cairo's levees if they are part of the Mississippi Rivers and Tributaries system? The agricultural levees on other parts of the Lower Mississippi River are better maintained. These should be fully self-sustaining and maintained by the Memphis District. Should look at MR&T backlog of maintenance and list of projects to see why this is taking so long. Is there a communication breakdown? What is causing the delay?

2.4.3 Other General Reactions?

• Cairo survives by levees and five pump stations. It has no funds to maintain them and depends on ongoing or revolving grant funding to maintain infrastructure that is built to address flooding.

- Infrastructure is very old and has not been maintained. The decreasing tax base exacerbates the situation the state needs to assist.
- Highlight the importance of having a plan in place if the levees break (evacuation).

2.5 CENTREVILLE

Hyperlinks: Slide Deck, Chelsea's Video, Olivia's Video, & Whitney's Video

East St Louis area is working to repair the levees, slow progress and many additional issues. Significant storm and wastewater infrastructure upgrades are needed. Urban development in the wealthier, whiter communities on top of the bluffs is accelerating water runoff into the lowlying areas of the Southwest Metro East, including Centreville. Residents from Centreville described how combined sewer overflows coupled with accelerating runoff has resulted in their community frequently being flooded with human waste. Wastewater can be so deep at times it damages residential utilities, like water heaters, furnaces, air conditioners, etc. Contaminates drinking water supply. Constant mold issues, people cannot use their yards due to odor issues.

2.5.1 What are the most important lessons from this case study?

• Need to help communities get funds to resolve problems. Municipal or other governments are not reliable. Need to be able to self-advocate.

2.5.2 Did we miss or misinterpret anything?

- Issues with local municipalities American Water. Neglect. Local governmental body is not providing the assistance needed.
- County, Centreville and East St. Louis working with this these three entities brings complexity. The reason why Centreville is hit so hard is because systems surrounding them are updated, but their systems. Pumps are not being activated when they need to because East St. Louis does not want to take on the flooding.
- Locals are getting the runaround but are gaining support. Representatives need to be involved (Belt and Greenwood) at the state level.
- Issues with stormwater and utilities are not included in the hazard mitigation plan need help to solve these issues.
- Need to look at separating these utilities to help with the flooding issues and sewer backup.
- Centreville and Allerton have separate collection systems that combine and are delivered to another entity that treats the wastewater. Existing funding sources are unable to address this split municipality system.
- FEMA and IEMA grants were previously identified and an application was made in 2021.
- IEPA awarded a 319-grant for Heartlands Conservancy to develop a watershed plan for 95,000 acres (Portion of St. Clair county and Judy's branch). Citizen driven watershed planning and a small amount of BMPs. How will these funds be used to benefit the community?
- Need to engage with the Department of Public Health. It is shocking how often residents have to replace appliances need to discuss this in the report.
- State agencies are having ongoing communication to implement actions. There are problems with local leadership. Looking at addressing drainage maintenance.

2.5.3 Other General Reactions?

- When the building on the bluffs happened, they didn't build enough retention ponds/basins. Perhaps a recommendation is to build these nature based solutions to assist with flooding issues.
- These residents do not have a choice they feel trapped, abused, not valued, communicate concerns, but no one listens. Nothing changes. There needs to be additional help for families. Living conditions exacerbate public health concerns.
- Allerton, Centreville, and Cahokia to be Cahokia Heights. This has left gaps in leadership and cohesion.
- Where does the responsibility sit with the wastewater system? Is it county or municipal?
- This is a huge public health concern where are those departments/agencies?

2.6 ROCKFORD

Hyperlinks: Slide Deck, Chelsea's Video, Olivia's Video, & Whitney's Video

In Winnebago County, farmers deal with flooding every year, there are no levees or pumps. In Rockford, Keith Creek is an area with a lot of flood issues. Buyouts have moved everyone out, city is still looking for funds to re-meander and restore the channel. City is also prioritizing repairs for Alpine Dam in Northeast part of town. Looking to reduce flood insurance premiums via the Community Rating System. Rockford is a very segregated city, a line through the center of town is stark. The Southwest part of town has a concentrated population of people of color and low-income. The Northeast part of town is very white and wealthy. NAACP representatives pointed out that there is a lot of flooding in the Downtown and Southwest part of town along the Rock River and Kent Creek, and resolving flood issues here are not high priorities for the city. The Black community also needs investments in walking and biking paths in the Southwest part of town. The area is very rich in natural resources and the local neighborhoods want to see more investments to improve quality of life.

2.6.1 What are the most important lessons from this case study?

- There is a disconnect between where the city is prioritizing its funds and where the needs are on the ground. The racial equity gap seems obvious.
- Very rich natural resources and the community sees those resources as an asset.

2.6.2 Did we miss or misinterpret anything?

- A farmer along rock river that has issues and is worried that impervious surfaces that may be increasing flooding in the area.
- There were risk assessments conducted along Kent Creek there was some outreach but the floodplain manager left and the momentum was lost and the program died.
- Kent Creek has a lot of renters this challenges community participation and community leadership.
- There is a significant problem with mold and water damage related issues.
- Error in flood map lots of flooding downtown as well.

2.6.3 Other General Reactions?

- Conversations with the city are happening, but we are seeing few projects implemented.
- Consider expanding city parks to enhance natural resources where there are flood issues (possible buyout and redevelopment).

3 DRAFT RECOMMENDATIONS

Hyperlinks: Slide Deck & Video

3.1 PRESENTATION

Olivia provided an overview of the draft program and policy recommendations. Explained that the case studies are informing these program and policy recommendations, but recommendations are not limited to only those items that have been discussed. Some recommendations are being put forward based on literature review and other factors.

Olivia provided an overview of what we learned in this process. Climate change is driving more frequent flood events at increasing costs. This why we are driving this study towards multi benefit floodplain development to improve community resilience and maximize healthy floodplain functions. Goals to use the floodplain space to improve economy, aquifer recharge, flood risk reduction, recreation, fish and wildlife, water quality, and social and racial justice.

Started this process by looking at the Washington State Model which was a public/private model. On the public side, Washington Department of Ecology administers a grant program for multi-benefit floodplain development that reduces flood risk and restores river habitat. On the private side, NGOs help state prioritize projects and help communities feed projects into the grant program. Question: Will something like the Washington Public-Private Partnership Program work in Illinois?

Stakeholder meetings were held. We hosted educational panelists, looked at case studies, and had discussion groups. Major questions that were asked during our meetings included: How can we solve the flood issues in these communities? What tools do we have and don't have?

We collected feedback on how communities are successfully and unsuccessfully planning and developing floodplain projects with multi-benefit goals. A table with all this information will be included in the final report.

Major finding: Stakeholders like the idea of multi-benefit floodplain development because it provides a good framework, however, there are barriers.

In Illinois, barriers to multi-benefit floodplain development fall into three major categories:

- 1. Need support for more **community led problem solving**. This includes public education around flood issues and solutions; community visioning processes; access to decision-makers and other people in power; and recognition that floodplain management is intricately intertwined with housing, transportation, access to food and other social needs.
- 2. Need incentives to **do more projects**. This includes direct funding for projects; outreach to community leaders to update building codes and local ordinances; homeowners insurance agent education; and incentives for private sector job growth to do flood hazard mitigation.
- 3. Need support **equitable economic growth** (i.e. remove floodplain management silos). This includes supporting municipal needs to address shortfalls in local tax revenue through low-interest loans and grants; economic development; and community revitalization.

Based on these needs and the barriers identified during the case-study discussions, Olivia put the following recommendations forward for discussion.

- 1. Establish Public Private Collaborative structure
 - NGOs/Agencies continue with this dialog created through this stakeholder process to continue to understand the needs in more communities across IL and develop further reforms (Community Led Problem Solving).
 - NGOs/Agencies can develop workshops to advance public understanding of issues and solutions (Community Led Problem Solving).
 - NGOs/Agencies to work with communities to identify and help develop competitive multi-benefit projects for federal/state financing (Do More Projects & Equitable Economic Growth).
 - NGOs/Agencies develop more technical information floodplain mangers (Do More Projects).
- 2. Reform Agriculture Programs
 - Create permanent floodplain easement program in next Farm Bill (Do More Projects).
 - Reform crop insurance to reward farmers who "hold water" during wet years (Do More Projects).
 - Encourage farmer/urban dialogue to advance watershed-scale solutions (Community Led Problem Solving).
 - Develop additional recommendations for flood-compatible farming (Do More Projects).
- 3. Higher Levels of Assistance for Communities in Need.
 - Acknowledgement from State that access to resources has not always been equitable (Community Led Problem Solving).
 - Need to establish a program to assist extremely poor communities who lack staff to manage community-wide flood hazard mitigation programs (Do More Projects).
 - State needs to be more transparent to release socio-economic information about communities who benefit from grants and other forms of assistance (Community Led Problem Solving).
- 4. Increase Public Awareness of Flood Issues and Solutions
 - Continue dialogue we have started as part of this program, reaching out to more communities and affinity groups (Latinx, Immigrant, Indigenous, etc.) (Community Led Problem Solving)
 - Mandate flood insurance training for all homeowners insurance agents (Do More Projects)
 - Create incentives for flood hazard mitigation job growth (Do More Projects)

3.2 DISCUSSION

Discussion Prompt: What is your reaction?

- Flood insurance is being reformed, and will hopefully be more transparent, particularly around flood risk.
 - You are required to join the community rating system to reduce insurance rates. However, there are some things individual homeowners can do to lower their rates if they are in a mapped floodplain (raise the home, etc.)
- Urban flood awareness report as part of the insurance agent's continuing education training was recommended as being mandatory for insurance agents.
- How do we educate the community that this is available?
- Areas that we have covered are poor communities. People cannot even afford the cost of flood insurance. So, something that must be done about this. There needs to be a subsidy to help community members.
 - Rates are already subsidized to be that low, otherwise they would be higher. The community rating system is there - however it is a substantial task to get communities into this system.
- Office of Water Resources in IDNR had a stronger local assistance program. They used to be assistant to these communities. They helped with recommendations we made. However, this program has been cut with the budget cuts and downsizing. Maybe reestablish funding for these positions in government to assist?
 - Increasing state assets to help.
 - Also getting a different mix of staff. Many of the staff at the state are technical, and not educated in community engagement/liaisons. These would be new positions in the government.
- There needs to be a desire from the local, state, and federal officials, and from the community to make this better. Everyone must be a part of the solution. Bringing the press into this for exposure and the politicians may be helpful. Utilization of the press could shed a light and educate politicians, community members, etc.
- \$20 million dollar BRIC grant for Centreville has not been awarded yet. That was a miscommunication to the community only the Illinois Section 319 Watershed Grant was awarded.
- One of the recommendations was that the state should provide more transparency and release socioeconomic information on the grants that are being released. However, many of these grants are coming from the federal government. This may be the responsibility of the federal government to do.
 - As far as transparency the statewide mitigation officer there is not policy in IL on how IEMA prioritize the projects for BRIC grants. FEMA is the organization that screens and prioritizes the projects at IEMA.
 - FEMA has a checklist that gives the application points as they evaluate each one.
 - Recommendation in state flooding report a collection of state agency representatives/agencies that would get together and the applications would come through (Interagency Mitigation Advisory Group IMAG) this committee first, using screening criteria. Left with real and actionable mitigation solutions that would go with a point system. Perhaps due to a lack of staff, the committee fell apart. That recommendation has been offered before to reestablish an integrated state management of the mitigation applications.
 - We have learned through this process that, prior to a lot of current events, the social and environmental aspects were not weighted in applications in the past.
 - Agencies in the Governor's office need to follow the mandated process to make sure that the reviews and spending through grants is more consistent. For IEPA, they need to put together notice of funding, (review process, who is eligible, what

is available, what the grant is for, etc.). The IEPA is trying to fix these historical issues with the reviews and getting money to where it needs to go.

- Example of how program is evolving there are additional points in the ranking system that gives more points to environmental justice communities.
 - However, they do not have proper communication with those communities to make sure they are submitting projects for these programs. The communication, education, and resources for these communities is not there yet. IEPA is continuing to work through this.
- An issue with all these grants, is that there are matching funds required, which limits communities applying because they cannot afford match at any level.
 - IEPA is trying to figure out how to bridge this gap, and the list of communities who need assistance is growing, especially when compared to the state budget. The money just is not there.
- \circ $\;$ Very important that NAACP is at the table.
- EO from the Biden Administration states that EJ now applies to all federal actions. Which expands the environmental justice lenses to all actions of the federal government (will apply to BRIC and other grant programs).