Topic: Expectations of floodplain landowners – what solutions do they want to see and how would those be implemented?

Convener: Dana Ripper

Number of people: 11

Notes (verbatim from facilitator):

Are there problems/concerns?
Comments:
Drainage districts are stuck doing the same thing.
Lots of red tape to maintenance – then levees break and FEMA has to pay.

- set backs would require everyone in the district to agree
- need for a systems approach
- there is some agreement that a system-wide approach is needed – several districts at a mtg a few years ago stated willingness to take on water
- some areas can't be allowed to flood ever.
- people reacted negatively to buy-outs.

City of Alexandria area (John Winkleman)

- 1953 Flood control act.

Keokuk area dist – Did flood fighting this year. → Very expensive!
Warrants issued -- >2/3 vote of local landowners. Also FEMA involvement.
Wants higher levees – permits → instead of going through the cyclical process of flood fighting, raising $, doing restoration, etc.
Fox dist. landowners may be willing to do H_2O storage (more than they already to)

- More water needs to be stored before it reaches the lower levees.

- Who would need to be the authority that oversees the cooperation of levee districts – ACE, USDA, Miss River authority, etc.
  possibly interagency effort/funding for compensation
  what about protecting (e.g., ring levees)
  only the infrastructure that's most necessary/vulnerable w/in a district that's willing to work on water storage??

USACE – LSAC – a way to prioritize the Corps' funding. – what levees most need maintenance/restoration; what they're protecting and its value.

USACE wants to work w/districts to do more outreach to people that work behind levees.

Bruce Brinkman:
We have to look at how much time have we wasted – we need a solution & to move forward
→ stop having meetings and initiate action

It may be more beneficial for districts to take a little bit of water for a short period of time – far less $ than it would take to flood fight & then rebuild.

~ there needs to be compensation to the districts for taking on that water.
Doesn't do them any good to be the nice guy if their north end of levee goes and they can't fix it.

Need to redesign systems so that we don't keep going through this cycle – its not working but need to get all stakeholders to the table

Redesigning of the whole system needs to be fair & equitable – farmers, townsfolk, conservationists, recreationists, etc.

Nancy – need very clear rules & regs & respect the authority of the Corps, etc.
need to bring experts to the table.

- Stakeholders must be willing to compromise, come to the table w/open mind.

- Miss. River Commission – could that be the authority that oversees an Upper Miss plan.
with local input.

Topic: The New Normal: Extreme Precipitation & Judicious use of the US tax dollar

Convener: Mary Culler

Number of people: 4

Notes (verbatim from facilitator):

- Ethan: more rain, predictions from pre-2012 are coming true
- The headlines and reports show we are getting wetter
- The price tag to "fix" levees from this year is $2 Billion
- Given that this level of precipitation is likely to be a trend, how do we best use funds available? So we are not re-doing the same thing year after year?
- Can farm bill program be used to compensate for land taken out of production?
- Emergency Watershed Protection funding can be used for buy-out
- Wetland Reserve Program –
- What type of vegetation supposedly cause more
- We've got 12-19% left of bottomland forests & we have lost 70 miles of the Missouri
- Discussion of endangered species work on Missouri river and claims that endangered species work are causing flooding. Why are all the other rivers flooding that don't have endangered species work being done in the watershed.

  Many rivers are having huge flooding that have no sturgeon or other endangered species work in the watershed? The variable of endangered species is not the cause of flooding in the MO River – look at the extreme precipitation and encroaching upon the river with no place for the water to go.
- Places that are successful consider value of floodplains.
- How are land use changes in the watershed impacting runoff? We used to have native prairie that helped soak up the vegetation.
- A Whole Systems approach is needed, help infiltrate more water, create more room for the river, limit potential damage.
- New Normal = flashy streams

Ethan – We have lost quite a bit of grass land in our watersheds. We don't have a sodbuster program in Missouri.

- How do we plan for not having to spend tax dollars to rebuild year after year?
- Something needs to change.
- Do study, can the area where it can be flooded determined and either easement or buy-out done?
- A Toolbox is needed for options for river-side owners.
- New development in floodplains should not be encouraged by tax dollars
- Using bottomlands for purposes other than flood storage is risky because these areas historically flooded. Building levees creates false sense of security.

Topic: Floodplain Restoration

Convener: Maisah Khan

Number of people: 6

Notes (verbatim from facilitator):

Floodplain restoration has many benefits including
- Flood conveyance
- Water quality improvements
- Groundwater recharge
- Habitat improvements

Look at Holland – workshop looked at St. Louis & how to make room for the River
- Intentional flooding
- Escape valves

Projects can look different – levee set backs are just one type of project

Issues of equity – make sure not negatively impacting poor/minority communities.

Only enviro groups in this discussion.

Retention basins & dams are not restoration. Not sustainable solutions.

River topics are compartmentalize = flood control vs habitat vs navigation
Floodplain restoration can have multi-benefits.

Economic restoration of floodplains – legacy of past decisions & development. What to do?

- On the Mississippi there are competing goals – it has to be everything for everybody how do you optimize the river for all users?

- Economic redevelopment to be compatible
  - Industry
  - Farming

  What does the new choices look like?

- Which groups have political clout?

- Problem around what is the cheapest option – maintain status quo.

- Incremental change vs dramatic changes.
  - Major disasters can lead to dramatic change.
  - Most floodplain restoration projects stem from disaster.

Need to look at economic value of floodplain habitat & restoration in decision-making process

- Where have floodplain restoration & reconnection project had positive economic impacts?

  → Ottawa, IL → locality that saved $4.5 million

- Reservoirs aren't the only form of water storage → You can have more dynamic systems with floodplains
- Manage for a way that manages for multiple benefits
- Water is much better off now than 100 years ago
- Disagree → Now we dump coal ash →
  We have different problems now (not necessarily better)
  Filtered MO drinking water is filtered but then put back in
  Different issues now – Gulf Hypoxia Dead Zone 2nd largest
- Floodplain restorations can improve water quality, especially in removing nitrogen.
- How does it look like in a plan?
  Floodplain restoration is a tool in a toolbox.
  We define what it mean?
    Reconnection = Not ecologically restored (e.g. park, managed system)
    Restoration = Restore ecological integrity of space. Smaller footprint of human impact
- A plan must explain what these terms mean, their difference
- Remove obstacles that're in the way of using this tool:
  - Easements
  - Buy-outs
- How tools could be used and communicated
- Local land-use changes often inspired by higher up-stage value
- Miss. River has high-level goal language
- Power is distributed, decentralized
- Idea of approaching the issues incrementally
- Even with incremental change, all pieces need to be made in orchestra
- Role of citizens who are making decisions at the local level (example: decisions to increase tax base at the local level, but has impacts)
- Observed that there is a low turnout from the general public.
  Encourage the organizers to publicize the events with public better
- Beauty of floodplains/Intrinsic Value
  - Most of us are motivated to be here because of the special connection to environmental/natural spaces

  First time in the day that people are speaking about the intrinsic value of natural places, their beauty, their value
  Different approach → aesthetics of a floodplain

Topic: Providing Room for the River

Convener: Mary Culler

Number of people: 14 to 25

Notes (verbatim from facilitator):

1) Need holding structures designed for detention – they should be designed to handle the flow
2) What we have done to our floodplains
   What was the original floodplain & can be open up to alleviate
3) Look to Iowa – ¼ acre to 22 acre lake & can hold 80% of stormflow
   → Dr. Larry Weber – Iowa Flood Center University of Iowa Iowafloodcenter.org
4) This will be a Multi-Billion Dollar Solution
5) Discussion of Levee Setback
   - multi-generation farmers may feel differently than move in land-owners – could be compensated differently – this could be a topic of conversation
   - More holding areas in tributary areas would be a good idea
   - Need to know what the gain is from moving it back – will this help towns?
   - Mike – they did look at levees (none) & levees back.
   - Having No levees is not an acceptable answer

   Areas to allow the river to flood!
   Avoid:
   - Critical Infrastructure
     - Loss of Life
     - Health & Safety of People
     - Economy
     - Equity Issues – towns/counties, individuals
     - Electrical Structures/Public Infrastructure
6) VOICE of Everybody – Political – <u>everyone's</u> voice needs to be heard
   - Communication of needs to politics
7) 100 Year, 500 year flow – can this be recalled to percent?
8) What does compensation look like?
   - for levee setbacks?
9) What is the best management for area if levees are set-back?
10) USDA/crop insurance – are there ways this can be benefitted?
11) USDA easement/Federal wetland reserve program could have changes to it.
12) Ethan – Upstream – there is a need for multiple actions not just one

13) Management Cooperative – looking at whole basin and guided by Army Corps of Engineers
14) 118 million acres in the watershed only 1 million leveed
15) Lower insurance rate for unprotected areas – this would be supported
16) Sedimentation occurs in areas – so there may not be volume for water to flow
17) Need to look at development in cities & floodplain planning – limit development next to rivers

Topic: Develop a Systemic Flood Control Plan as Soon as Possible – Design Flood similar to the MR&T project Flood magnitude

Convener: Mike Klingner

Number of people: 17

Notes (verbatim from facilitator):

Key Points:

1) The Vision is the first step. How to convey a major flood through the valley with minimal property damage & no loss of life. Should include structural & non-structural where needed improvements.
2) Must look at tributaries & upland storages & ever larger reservoir if possible. Iowa ponds & small lake programs was mentioned.
3) Any plan will have opposition – some people will not be happy on the final selected plan.
4) Anything we do upstream on the Upper Mississippi affects the MR&T and should be coordinated.
5) When improvements are needed, levee districts see too much time – 3 or more years to get percent is too long and has caused more damage.
6) What is the cost of doing nothing. 26 years after '93 and still no plan is costing landowners & tax payers too much – money that could go toward implementing a plan
7) Evaluate compensation for those that store water on extreme events – the districts should be compensated – similar to CRP payment
8) The Corps is not dredging like they once did resulting in too much silt & loss of conveyance in the river.
9) Farmers are hurting but not looking for handouts. They want to see improvement.
10) Timeline. 26 years is too long. Goal should be set to come up with the plan in 1 to 5 years. 3 years was the consensus of the Group – Have a plan in place within 3 years.

Topic: Problems & solutions in the tributaries

Convener: Olivia Dorothy

Number of people: 4

Notes (verbatim from facilitator):

- Olivia kicked off by explaining topic – want keep scope broad - not limited to mainstem.
- Tributaries need to be included in this study, including drainage systems, what used to be streams – the entire watershed.
- Q: What do you mean
- CAN WE FIGURE OUT HOW TO FARM WITH FLOODS BETTER
- WE NEED TO FIND WAYS TO MAKE ROOM FOR THE RIVER & FARM
- WE NEED TO KEEP POLLUTANTS OUT OF THE RIVER
- PRACTICALLY SPEAKING PEOPLE CAN BUILD ANY LEVEES THEY WANT
- CORPS DOES NOT REFER VIOLATION IN LEVEE HEIGHT TO DOJ
- MUST OF AVOID TRAP OF ONLY LOOKING @ WHAT FEDERAL GOVERNMENT CAN DO
- IF YOU KEEP HAVING FLOODS CROP INSURANCE COST GO UP. SO THERE IS AN ECONOMIC INCENTIVE FOR FARMERS TO BUILD HIGHER LEVEES
- PREVIOUS SOLUTION DID NOT VALUE RECREATION & ENVIRONMENTAL VALUES.

Topic: Why reinvent the wheel? What are the best models for river & watershed mgt.

Convener: Ethan

Number of people: 1

Notes (verbatim from facilitator):

No people showed for this session. I was hoping for expert advice, relaying real world solutions that have worked in flood risk management and watershed management.
There has been a great deal of focus on levee height/set backs, but these are only part of the solution. Inputs leading to increased runoff need to be addressed. Climate change and land-use are and will cause more extreme flooding. People need to change. People need to move to less risk areas or the tax payer will tire of supporting failures.

Topic: Floodplain Development rules, enforcement & accountability

Convener: Olivia Dorothy

Number of people: 13

Notes (verbatim from facilitator):

- Comp Plan discussion, concern about limited scope from the past. Discussion about whether its still relevant.
- Question/comment – allowing levee owners to do what they want.
  - History, federal levees - want to increase their level of protection
  - Sny assesses themselves are large amount of support levee O&M.
    - State projects assess different taxes.
- Olivia reiterated the topic. Olivia mentioned MER listing. Russ responded that everything the Sny has done has been legal. Got permission from Illinois to raise levee. Nancy pointed out that existing floodplain development rules have no enforcement/consequences to wrong doing. Between FEMA & the Corps, very different recommendations – Corps (Angie) responded that conversations are happening between FEMA & the Corps. Point made that Corps will pull people out of PL 84-99 program, that penalizes bad actors. Response that the action does not correct. Point made that economics plays a big part in decision making.
- Olivia prompted w/question about what people think makes good FP develop rules & accountability. Response, compared this topic to conservation compliance rules, no fed payments to farms w/o soil conservation.
- Conservation compliance is not enforced, no one is checking. Enforcement could involve USDA & tie to insurance, etc. payments. Dru makes point about complexity of this issue, so many layers of regulations.
- Dru made prompt, looking forward, what do we want the rules to be. Russ said the Mississippi is largely wild. Refuges do not pay drainage assessment. Refuges like to be w/in levees to control water levels for waterfowl. Highway approaches create tight points. Railroads are not ideally located. Sny wants to just be allowed to do what they think is needed. High water events are coming more often.
- Question – what's the impact to move levees back? Russ responds that MO & IL DOT refused to consider flood impacts. Rules not properly defined. Nancy makes point that mitigation is required for permits – this isn't being applied uniformly. Complaint that Corps not dredging enough.
- Question – where did levee data come from for MER decision? Answer Corps.
- Discussion centered around levee height. raising levee higher & higher causing problems for others. How can we make a solution – consider alternatives.
- Flood fighting is a hallmark of a failed flood management approach.
- Susan mentioned that the problem is that the river doesn't have anywhere to go. Need easements & buy outs. Response, clean up is hard – need a fair & equitable system.