



# Shell Rock River WMC Meeting

September 14, 2023



# Presentation Overview

Project Updates

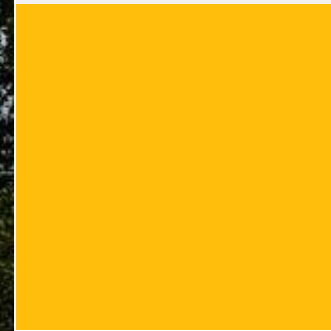
Input on Implementation Strategy

Update project schedule

Questions, Next Steps, and Homework



# Planning Process Update

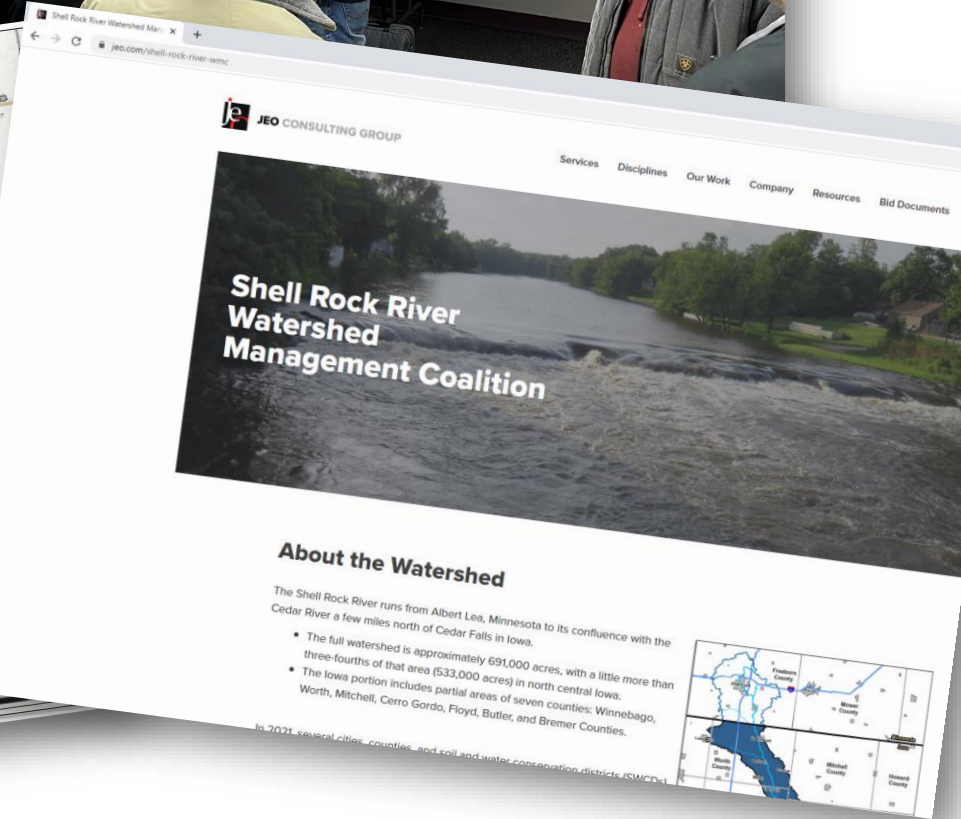
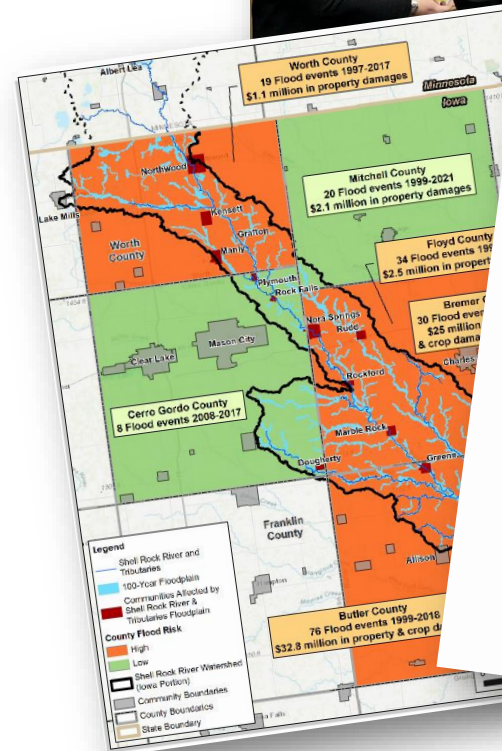


# Overview of Recent Work

>50% of plan is drafted

Mission Statement & Goals adopted in July

Continuing to draft remaining chapters





# Status of Watershed Plan Document

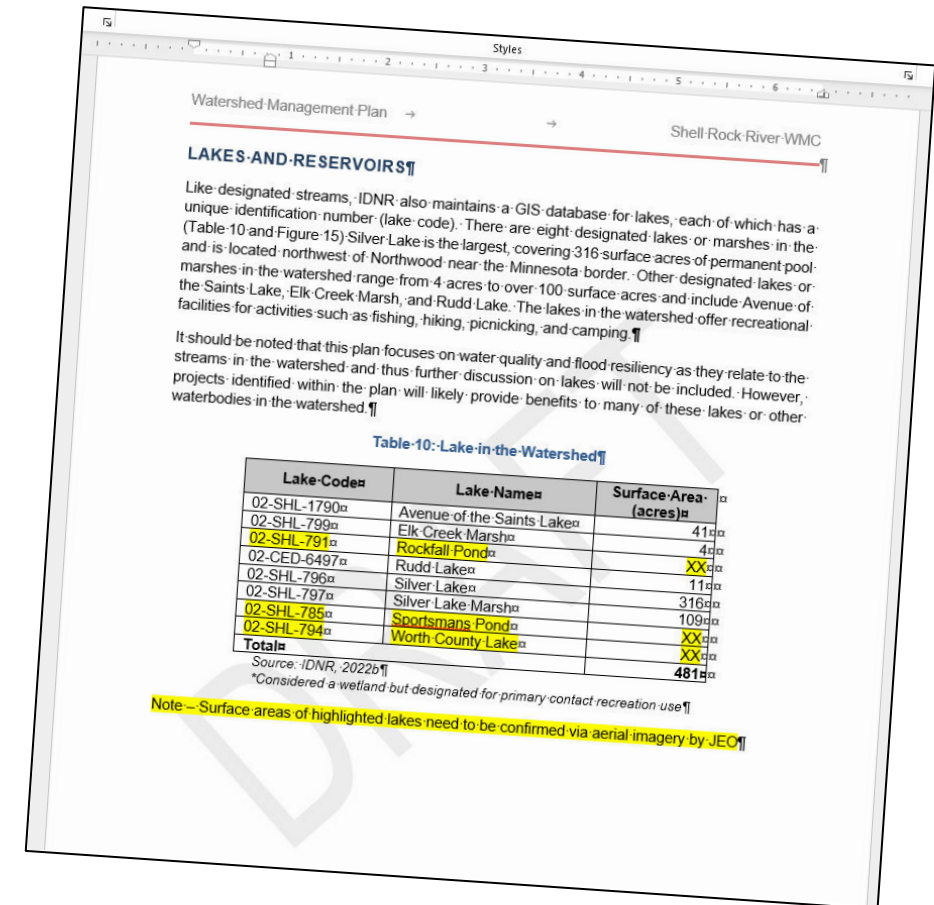
Chapter	Status
Executive Summary	Last item to be completed
Chapter 1 – Introduction	<i>Under Review</i>
Chapter 2 – Watershed Inventory	<i>Under Review</i>
Chapter 3 – Current Conditions	<i>Under Review</i>
Chapter 4 – Goals	<i>Under Review</i>
Chapter 5 – Implementation Strategy	Drafting
Chapter 6 – Education Plan	Drafting
Chapter 7 – Action Plan	Drafting
Chapter 8 – Funding	Drafting
<i>Appendices</i>	<i>TBD</i>

**Today's Input**

# Plan Review Check-In

- ✓ Access via Microsoft OneDrive
- ✓ Use of “comments” or “track changes”

*Any questions or issues with review process?*




# Today's Big Question

## How will the plan help the Coalition work together?

- Are your priorities different than the Coalition's? Where do they align?
- What will make the plan helpful to you?

COMMUNITY ISSUES AND INPUT  
SHELL ROCK RIVER WATERSHED MANAGEMENT COALITION (SRRWMC)



3. Is your community/jurisdiction willing to work with others to solve flooding at the watershed scale (work across city and county lines)?

*YES. WE WILL WORK WITH WHOMEVER NECESSARY FOR THE GOOD OF THE WATERSHED*

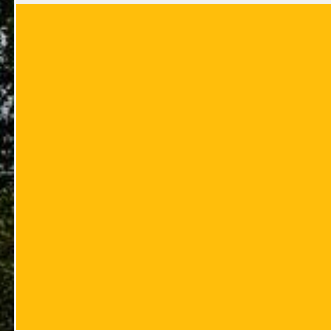
3. Is your community/jurisdiction willing to work with others to solve flooding at the watershed scale (work across city and county lines)?

*Yes*

3. Is your community/jurisdiction willing to work with others to solve flooding at the watershed scale (work across city and county lines)?

*I would think so. That's a tough question.*

# Input on Implementation Strategy





# Implementation Components of the Plan

## Today's Input



### Long-term Strategy

20-years  
(Chapter 5)



### Education Plan

Multi-level approach  
(Chapter 6)



### Short-term Action Plan

5-years  
(Chapter 7)

## Will Review Next Month



### Getting Started Page

1-year

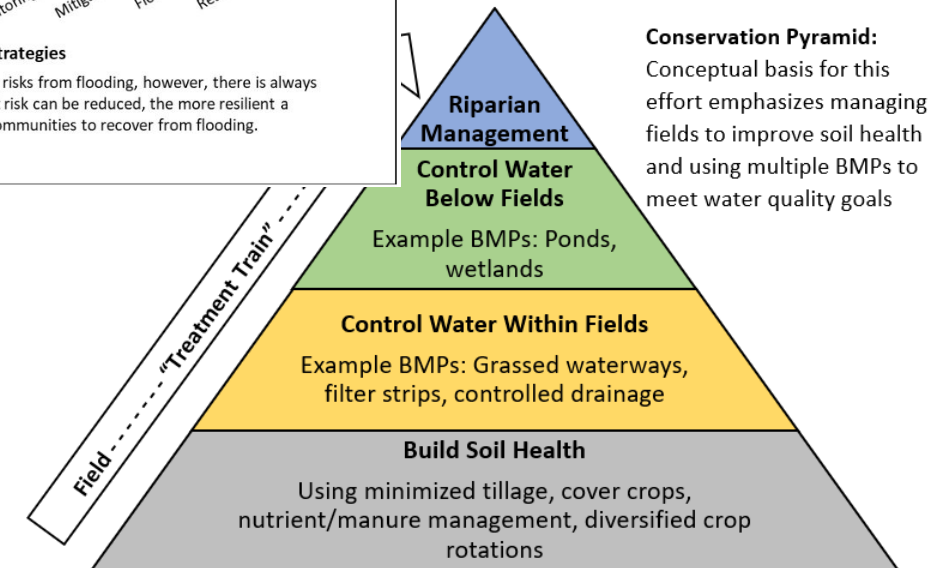
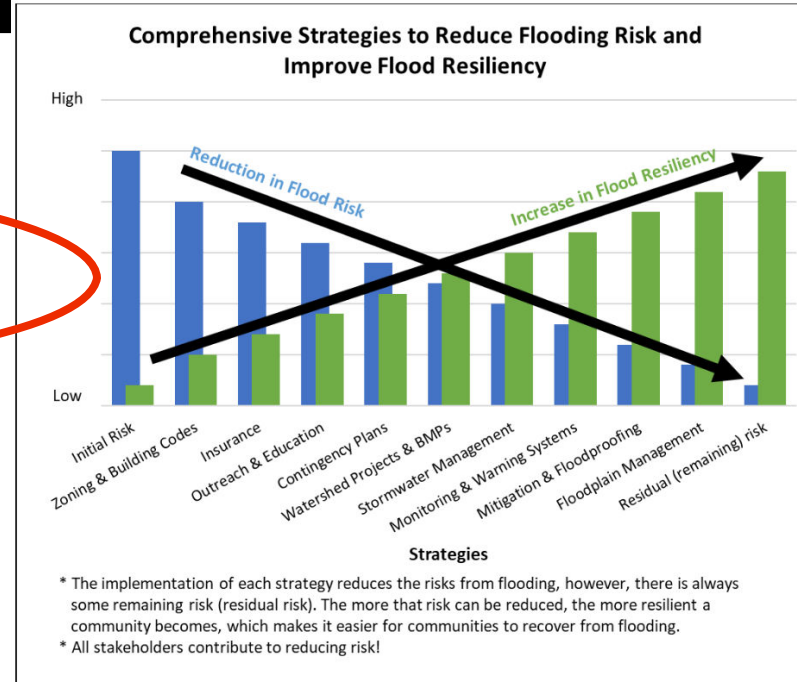


### Executive Summary

Call to action

# Long-term Implementation Strategy

- ✓ Overall approaches/strategies
- ✓ Toolbox of practices/BMPs
- ✓ BMP target levels
- ✓ Cost estimates
- ✓ Schedule and milestones
- ✓ Monitoring and evaluating progress



Modified from Tomer and others, 2013

# Long-term Implementation Strategy

## Discussion Questions

In general, how do you envision the plan being used?

1. Each type of coalition member takes a lead role, for example:
  - SWCD focus = conservation (BMPs)
  - CCB focus = recreation and education
  - City focus = flood reduction
2. Or Focus on identifying priorities for the coalition “as a whole”, or “as a standalone entity”?
3. Or something else?

# Long-term Implementation Strategy

## Discussion Questions

What “overarching strategies” will guide future efforts?

- Whole Farm Conservation
- Sustainable Communities
- Flood Resiliency
- Data Driven
- Compatible with Agriculture
- Voluntary
- *Others, or changes to these?*



# Education Plan

- ✓ Resources and guidance for:
  - ✓ Stand-alone education and outreach projects/campaigns
  - ✓ Project focused efforts that are tied to implementation projects
- ✓ Target audiences
- ✓ Delivery methods and timing
- ✓ I&E Strategies – general and targeted to the watershed



# Education Plan

## Discussion Questions

What education priorities have you already identified?

What partnerships exist or are needed?

Are there any demonstration sites/farms within the watershed?

# Short-term Action Plan

- ✓ Summarize plan recommendations
- ✓ For each action item:
  - ✓ Corresponding goal that is addressed
  - ✓ Timeline/Milestones
  - ✓ Activity lead
  - ✓ Potential partners
  - ✓ Other technical or funding resources
- ✓ Identifies priority areas for implementation or further study
  - ✓ Water Quality
  - ✓ Flooding
  - ✓ Recreation

## ACTION PLAN FRAMEWORK

### MONITORING & PLAN EVALUATION

Efforts to collect, manage, and utilize data over time to track progress of meeting watershed plan goals. Baseline and goal benchmarks are established through plan goals and objectives, or through other individually identified outcomes of other activities. This action is measured by diversity of resources monitored, amount of data collected, and the development of a long period of record.

### EDUCATION

Outreach, education, or technical assistance aimed at various target audiences that helps to increase awareness of the WMA, the watershed plan, or assists in the increased adoption of BMPs. This is measurable in terms of changes in knowledge, attitude, and behavior.



### PARTNERSHIPS & POLICY

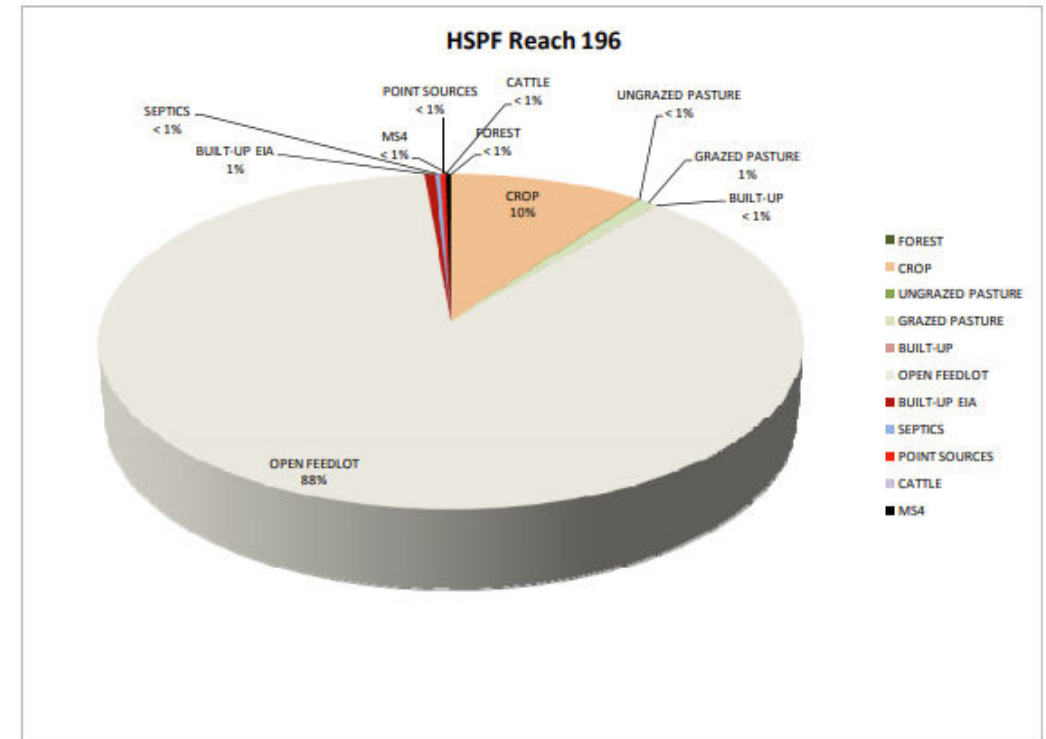
Collaboration between WMA members or other partners and the resulting actions, guidelines, or protocols set forth to achieve a specific outcome. Generally these are undertaken to support other activities or projects. These could be at the WMA level or at the individual partner level. Whenever possible, policy should promote incentives rather than be punitive. This is measured by tracking the development of policies, WMA membership status, and the number of partnerships on other activities.

### PROJECTS & STUDIES

A standalone or specific effort meant to produce a product, tool, report, or achieve a tangible result. Projects are temporary work efforts with a clear beginning and end. This is measured by documenting the efforts, outcomes, or other deliverables produced through each project.

# Water Quality Priority Areas

- Primary pollutants
  - *E. coli* bacteria
  - Nitrogen
- Secondary pollutants
  - Phosphorus
  - Sediment
- Many BMPs will address all pollutants
- *Where/how should BMPs be prioritized?*

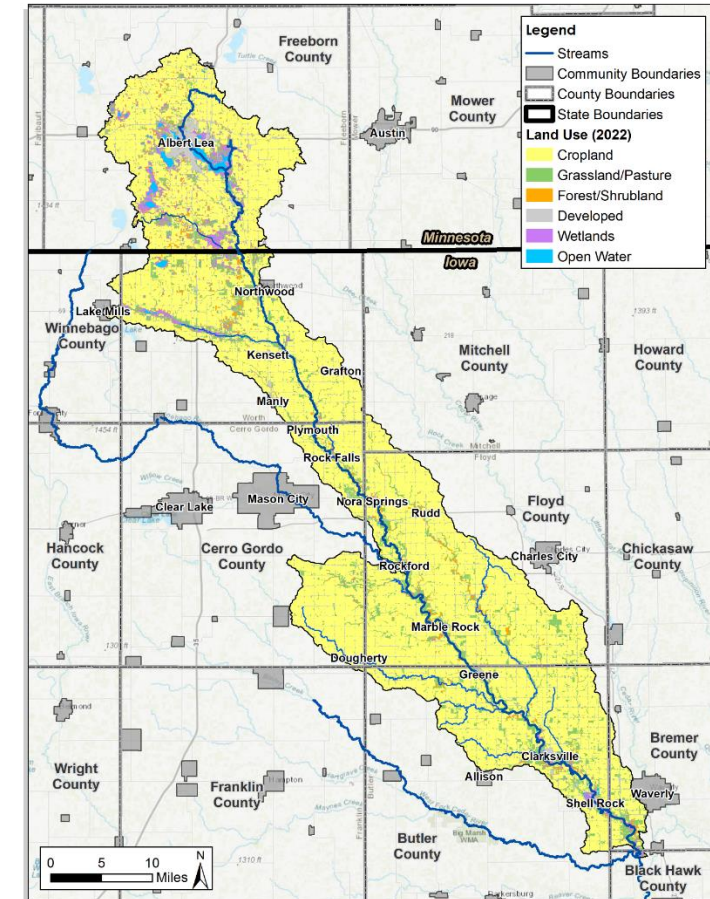


**Top bacteria sources:** Open Feedlot Runoff and Manure Spread on Cropground (2010 TMDL)



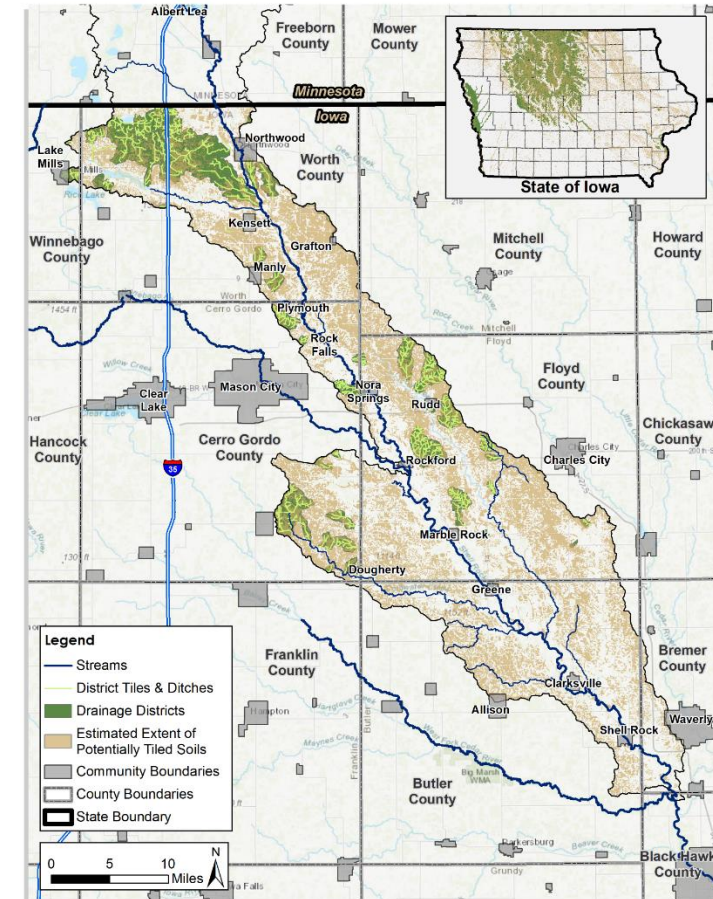
# Approaches for Prioritization

- Whole watershed – maximum eligibility
- All BMPs – no prioritization
- Specific BMPs
  - Most “Effective” BMPs
  - Most “Acceptable” BMPs
  - “Gateway” BMPs
- Specific areas – targeted approach
  - Resource needs or monitoring data
  - Landowner willingness
- Funding programs may dictate some of this
- This can always be changed with future data, input, and lessons learned!



# Where/how should BMPs be prioritized?

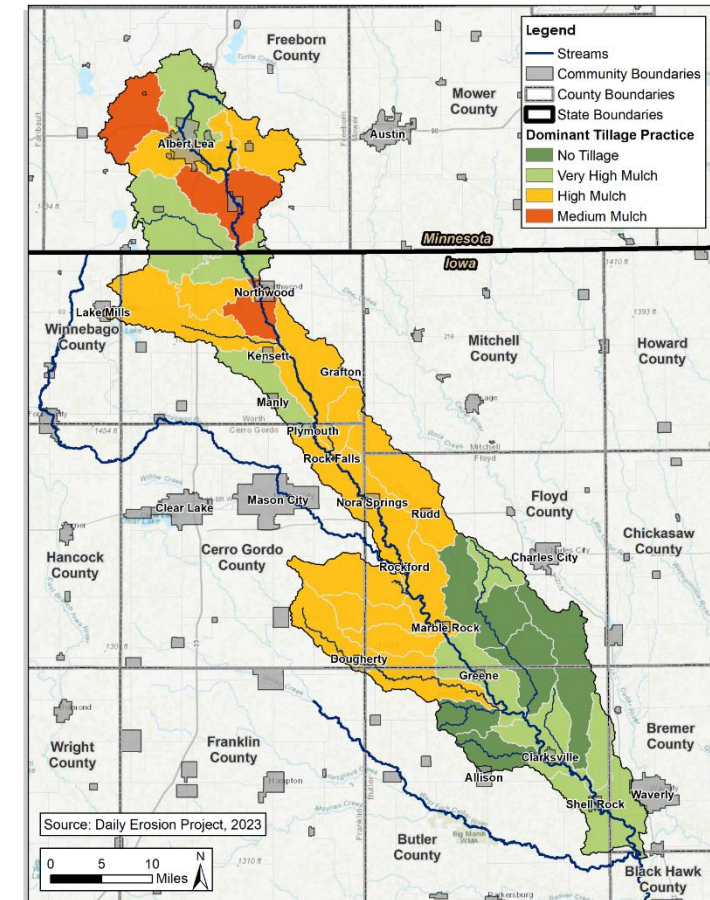
Tiling and drainage infrastructure?



# Where/how should BMPs be prioritized?

Tiling and drainage infrastructure?

Existing tillage estimates?



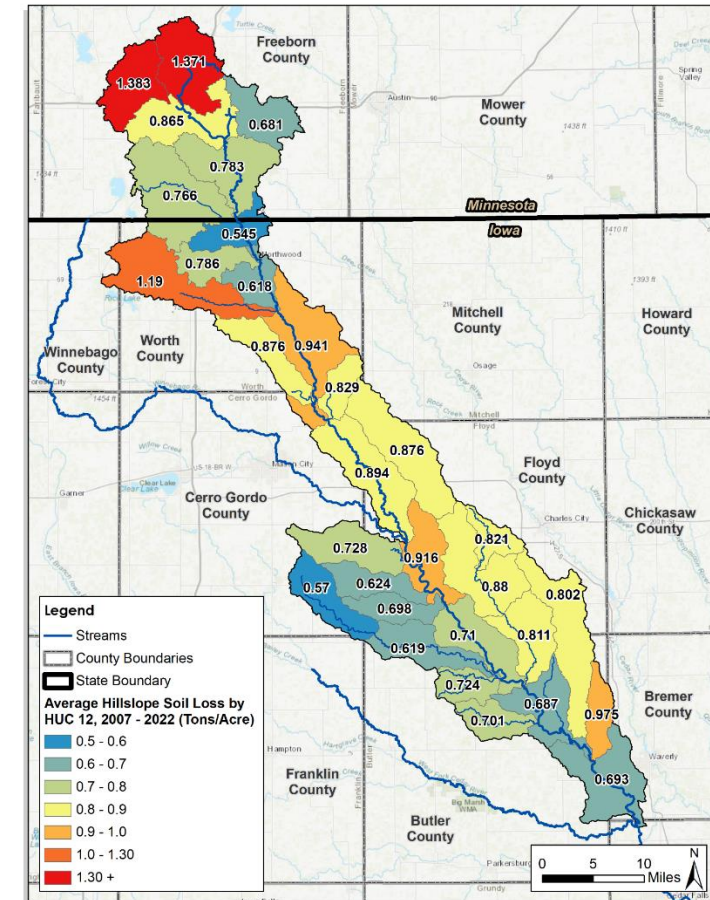


# Where/how should BMPs be prioritized?

Tiling and drainage infrastructure?

Existing tillage estimates?

Erosion estimates?





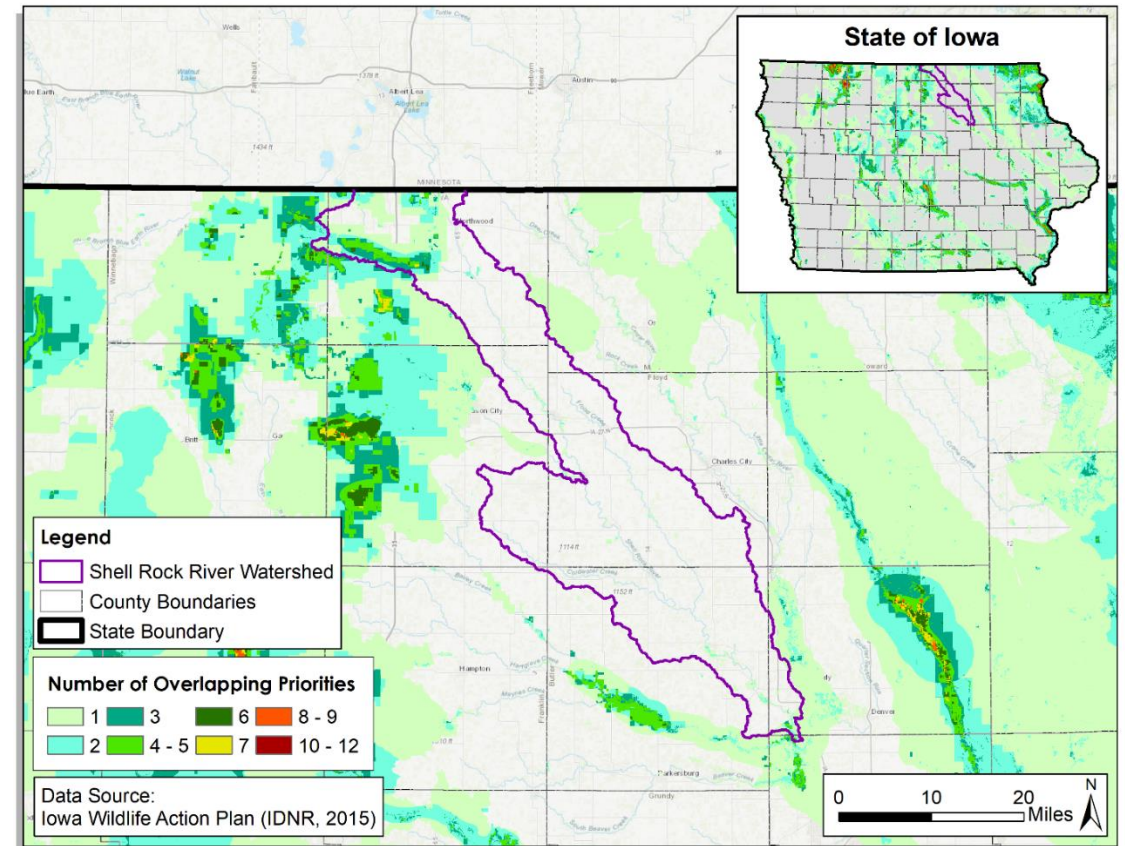
# Where/how should BMPs be prioritized?

Tiling and drainage infrastructure?

Existing tillage estimates?

Erosion estimates?

Wildlife & habitat opportunities?



# Where/how should BMPs be prioritized?

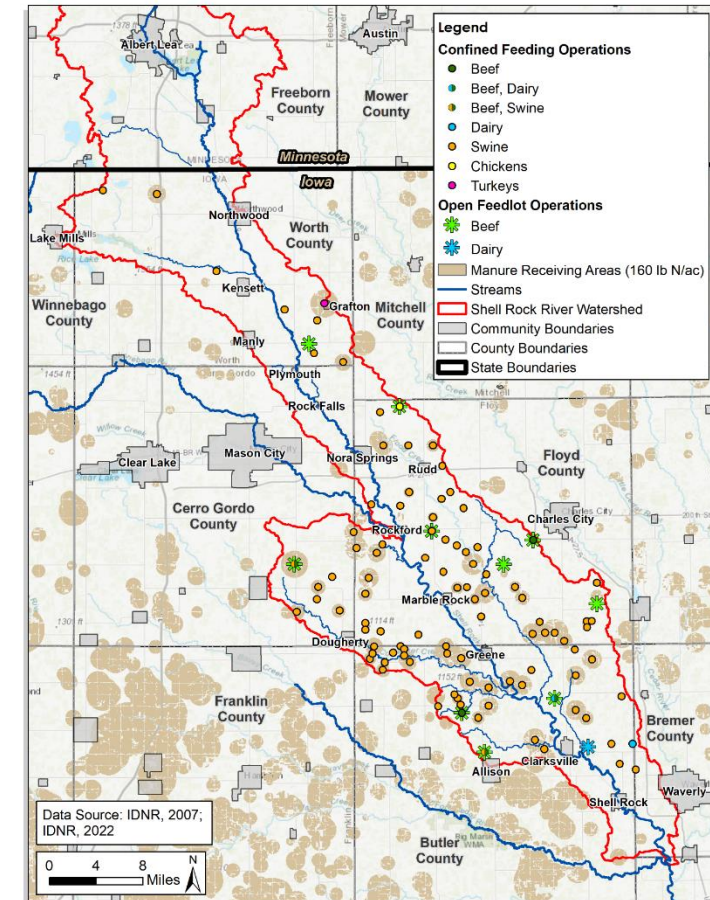
Tiling and drainage infrastructure?

Existing tillage estimates?

Erosion estimates?

Wildlife & habitat opportunities?

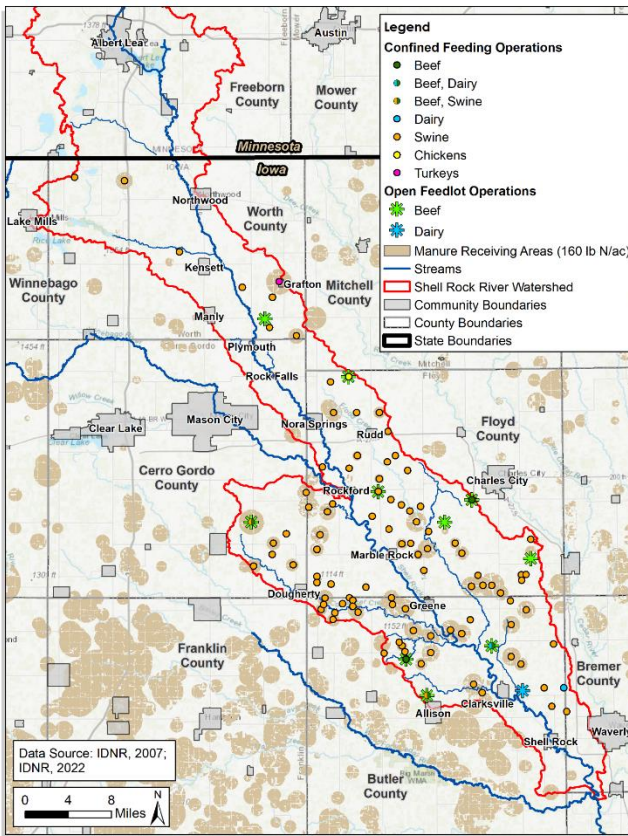
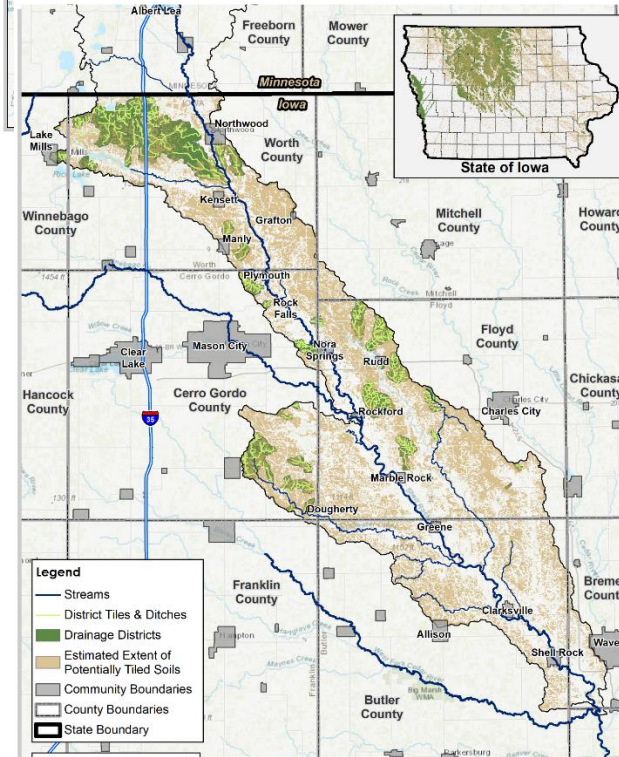
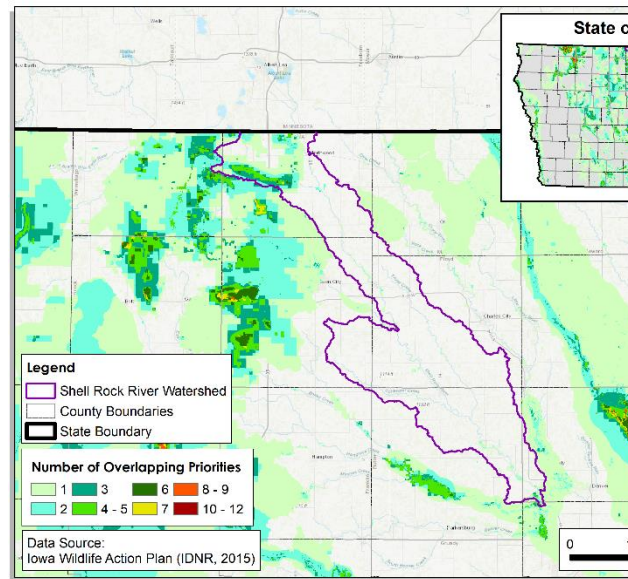
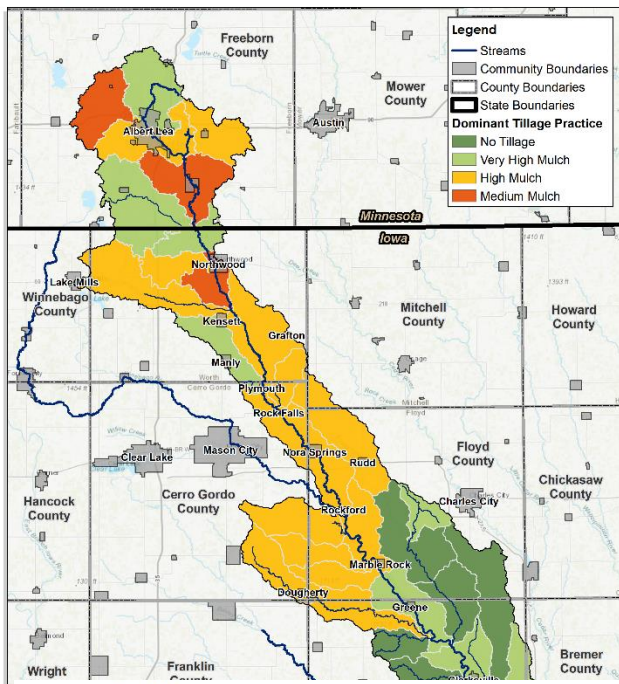
Livestock & manure locations?





# Potential BMP Priority Ideas

- **Worth County Area** – edge-of-field, wetland/habitat, and soil health BMPs
- **Whole Watershed** – livestock and manure management BMPs
- *Other ideas?*
- *Are there other factors to consider besides what the “data” tells us?*
- This can always be changed with future data, input, and lessons learned!

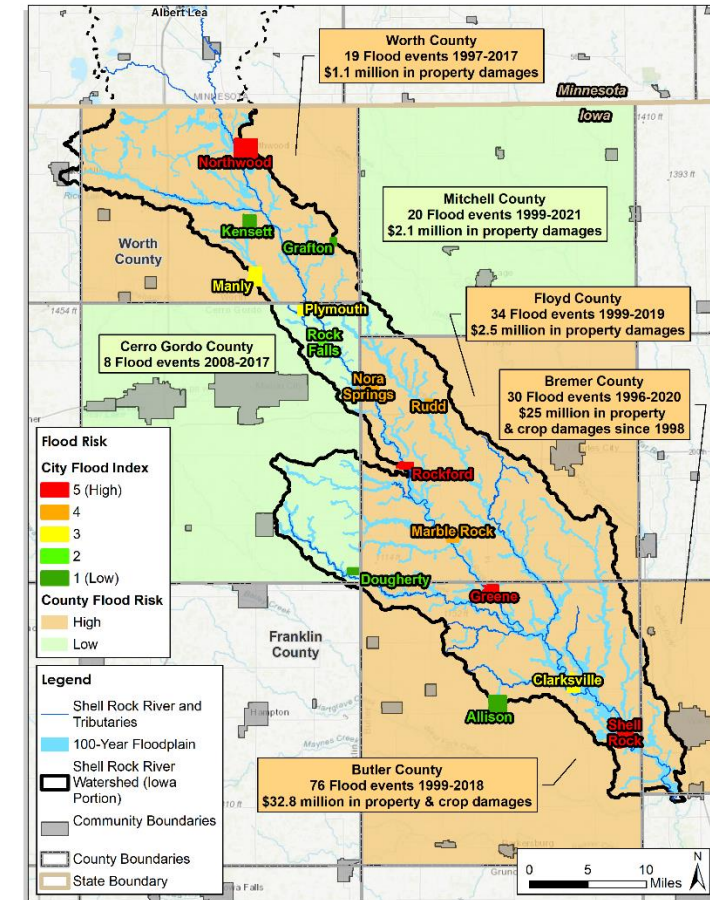


# Flood Mitigation Priorities

Flood risk assessment completed across counties and cities, using existing data:

- Hazard mitigation plans (HMPs)
- Risk from any upstream dams
- Existing in-town flood control
- Flood risk maps from IFC

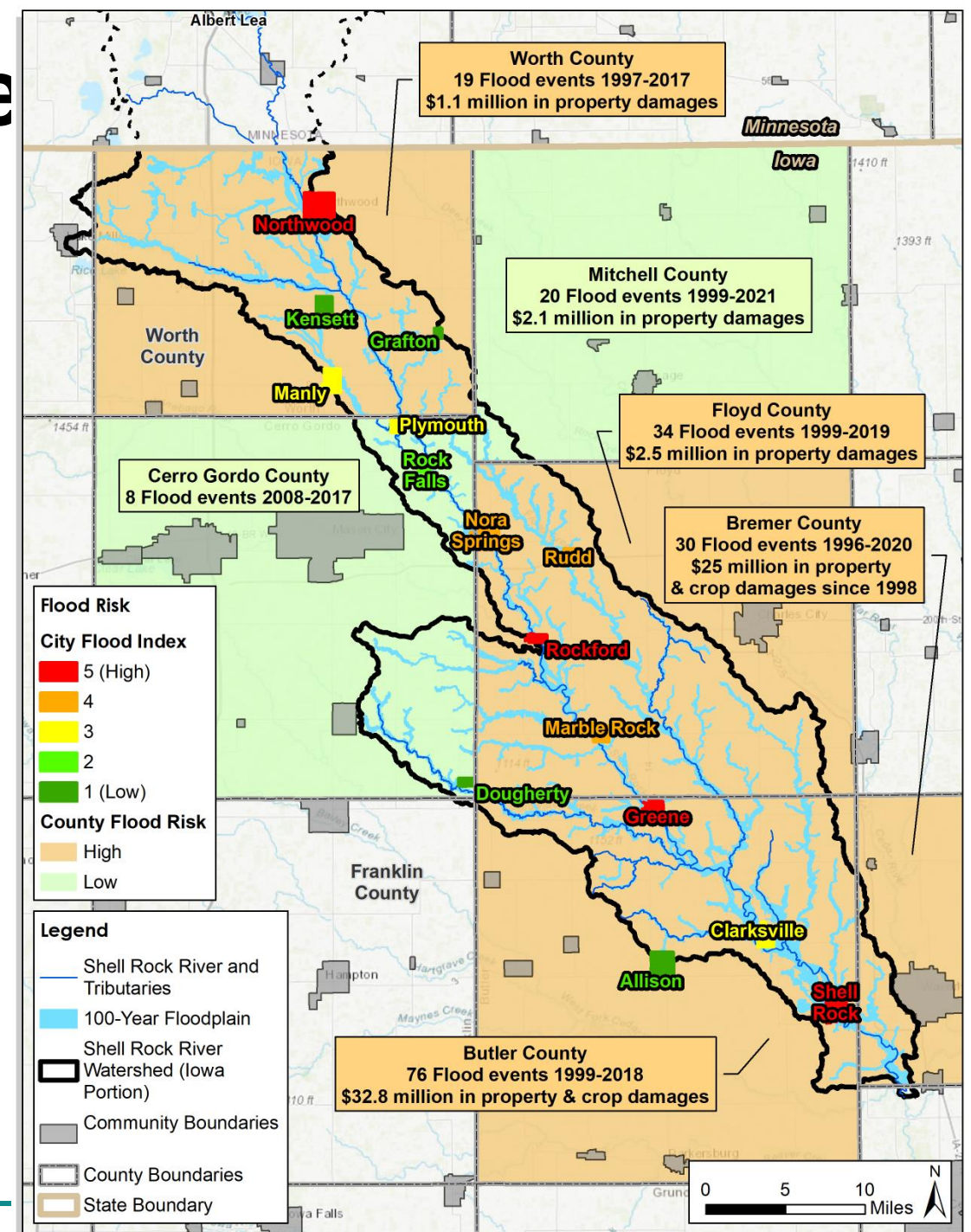
**Primary risks are at the city level, but there are opportunities to jointly improve county impacts**





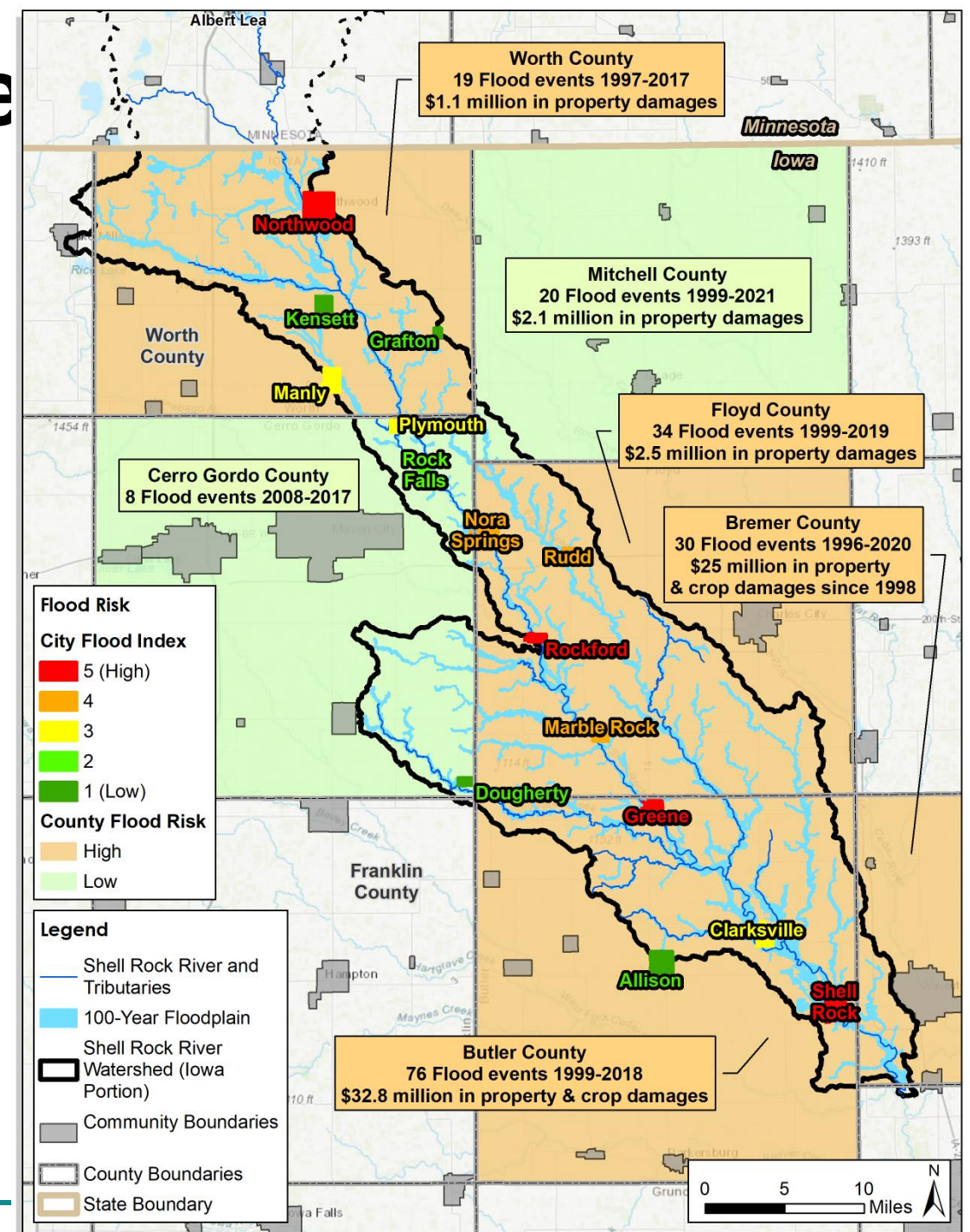
# Flood Mitigation Priorities

City	Primary Flooding Source	Flood Risk Index (5=High, 1=Low)
Greene	Shell Rock River	5
Northwood	Shell Rock River	5
Rockford	Shell Rock River and Winnebago River	5
Shell Rock	Shell Rock River	5
Marble Rock	Shell Rock River	4
Nora Springs	Shell Rock River	4
Rudd	Flood Creek and Unnamed Tributaries	4
Clarksville	Shell Rock River	3
Manly	Beaver Creek	3
Plymouth	Shell Rock River and Beaver Creek	3
Rock Falls	Shell Rock River and Unnamed Tributary	2
Allison	Dry Creek	1
Dougherty	Coldwater Creek	1
Grafton	N/A	1
Kensett	Tributary to Beaver Creek	1



# Flood Mitigation Priorities

City	Primary Flooding Source	Flood Risk Index (5=High, 1=Low)
Greene	Shell Rock River	5
Northwood	Shell Rock River	5
Rockford	Shell Rock River and Winnebago River	5
Shell Rock	Shell Rock River	5
Marble Rock	Shell Rock River	4
Nora Springs	Shell Rock River	4
Rudd	Flood Creek and Unnamed Tributaries	4
Clarksville	Shell Rock River	3
Manly	Beaver Creek	3
Plymouth	Shell Rock River and Beaver Creek	3



# Flood Mitigation Priorities

City	Primary Flooding Source	Flood Risk Index (5=High, 1=Low)	Potential Flood Mitigation Needs (to be confirmed with further study)
Greene	Shell Rock River	5	Non-structural*, Urban stormwater systems upgrades, Channel or bridge improvements, Upstream detention (dams, cells, wetlands, etc.) on tributaries.
Northwood	Shell Rock River	5	Non-structural*, Channel or bridge improvements
Rockford	Shell Rock River and Winnebago River	5	Non-structural*
Shell Rock	Shell Rock River	5	Non-Structural*, Diversion channel, Levee/berms, Channel or bridge improvements. <b>Need to confirm if industries to the north are impacted by flooding.</b>
Marble Rock	Shell Rock River	4	Non-Structural*, Urban stormwater system upgrades. <b>Possibly downgrade to risk level 3 - flooding to structures seems to be limited and there no reported history of flooding</b>
Nora Springs	Shell Rock River	4	Non-Structural*, Levee accreditation, Dam assessment/EAP. <b>Need to confirm if a levee breached in 2008.</b>
Rudd	Flood Creek and Unnamed Tributaries	4	<b>Possibly downgrade to a risk level of 2? Airport damaged in 2008, but no longer operating?</b>
Clarksville	Shell Rock River	3	Non-Structural*, Diversion channel, Urban stormwater system upgrades. <b>Possibly upgrade risk level if there are access issues. Check if there is a dike in the area that may cause flooding.</b>
Manly	Beaver Creek	3	Non-Structural* <b>If no impacts to industries to north, then downgrade risk level</b>
Plymouth	Shell Rock River and Beaver Creek	3	Non-Structural*

<< Potential projects

<< Discussion questions

## Key Recommendation

### Complete a hydrologic assessment

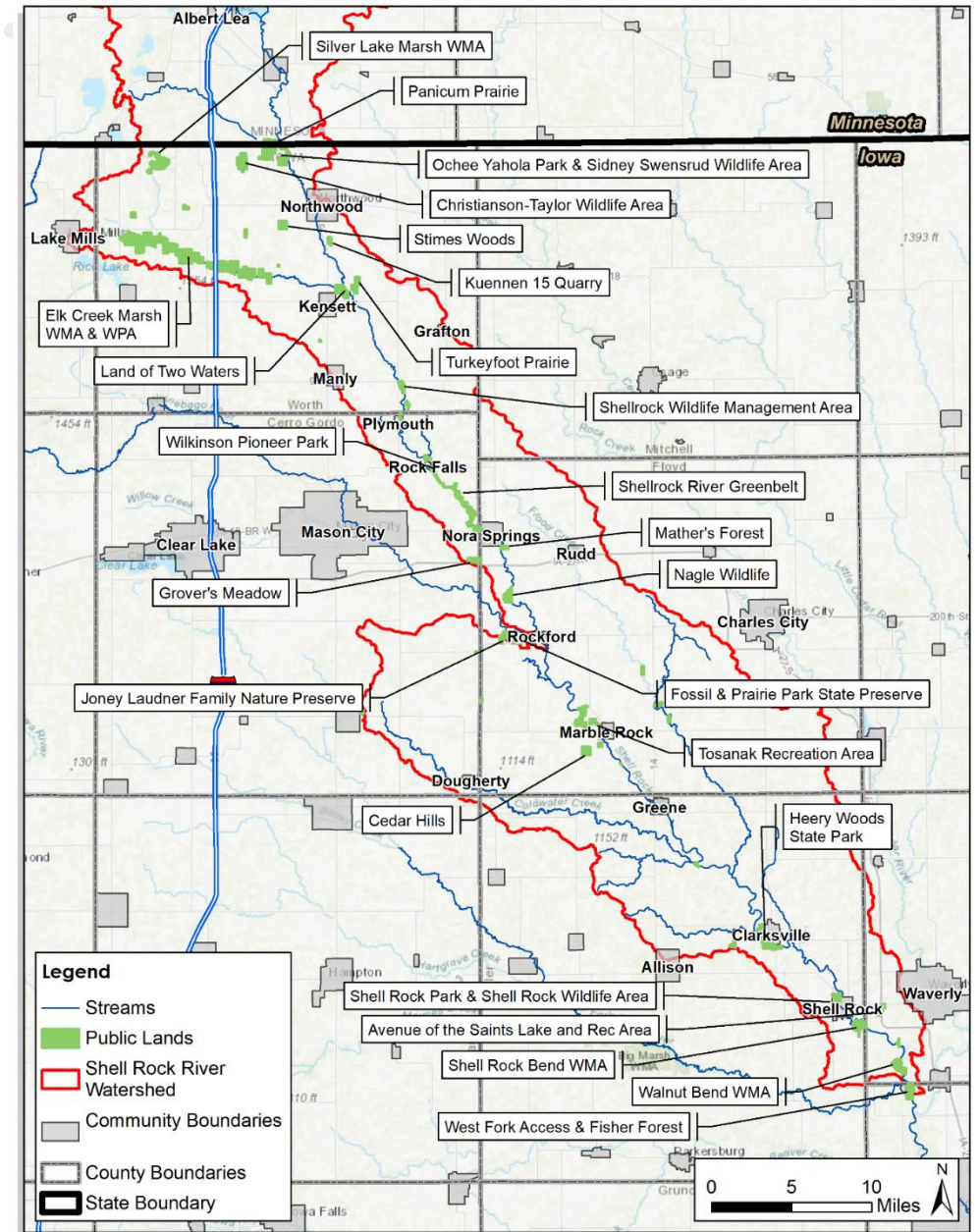
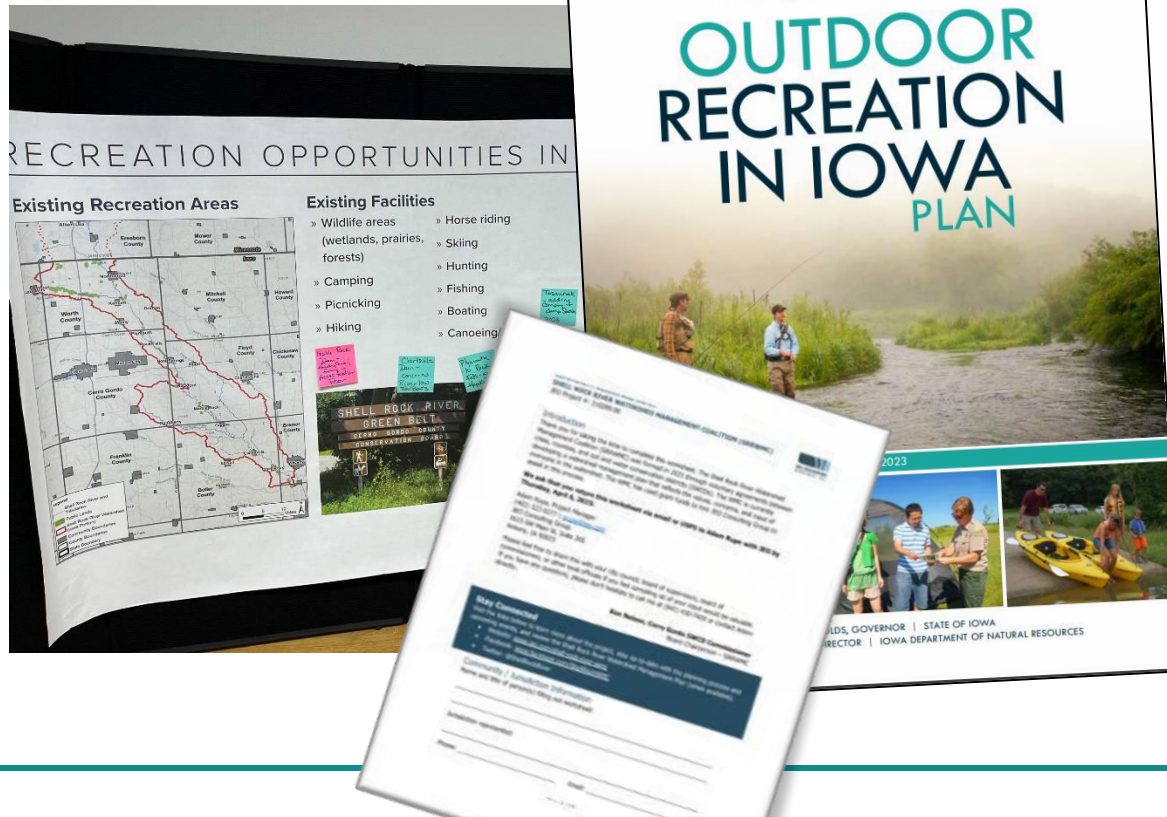
- Benefits
  - Better ID flood sources/risks
  - Evaluate effectiveness
  - Integrate into future water quality modeling
- Complete city by city?
  - Project ID may be more difficult
- Complete at watershed scale
  - Partner with Winnebago WMA?

*Other recommendations?*



# Recreation Priorities

Reviewed existing maps, studies, and public input



# Recreation Priorities

## Summary of Stakeholder Input

- Improved access at existing recreation areas (including Walnut Bend WMA)
- Improved amenities (parking, restrooms, dump stations, etc.) at existing facilities
- Additional access points for canoe/kayak launches and fishing
- Development of a lake in Butler County
- White water park on the Shell Rock River
- Better information on water level conditions within the Shell Rock River, and how they affect boat access
- Additional wetlands for hunting
- Rental options for kayaks, tubes, or other equipment
- Community campgrounds (ex: Swensrud Park in Northwood)
- Additional places for riding horses and ATV





# Recreation Priorities

## Summary of Potential Priorities

- Water trail designation
- “Branding” and/or comprehensive map
- Improvements at existing facilities
- New facilities (white water, lake, wetlands, campgrounds, etc.)

## Questions

- Do CCBs or Cities have any “recreation master plans”? REAP plans?
- How much should the plan focus on watershed-level opportunities and common needs, verses individual projects/facilities?
- Any other priorities to consider?





# Implementation Components of the Plan



## Long-term Strategy

20-years  
(Chapter 5)



## Education Plan

Multi-level approach  
(Chapter 6)



## Short-term Action Plan

5-years  
(Chapter 7)



## Getting Started Page

1-year

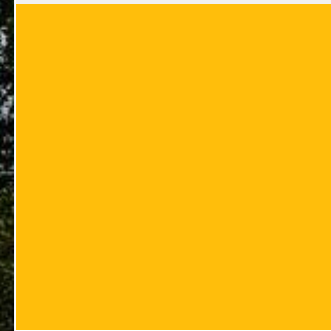


## Executive Summary

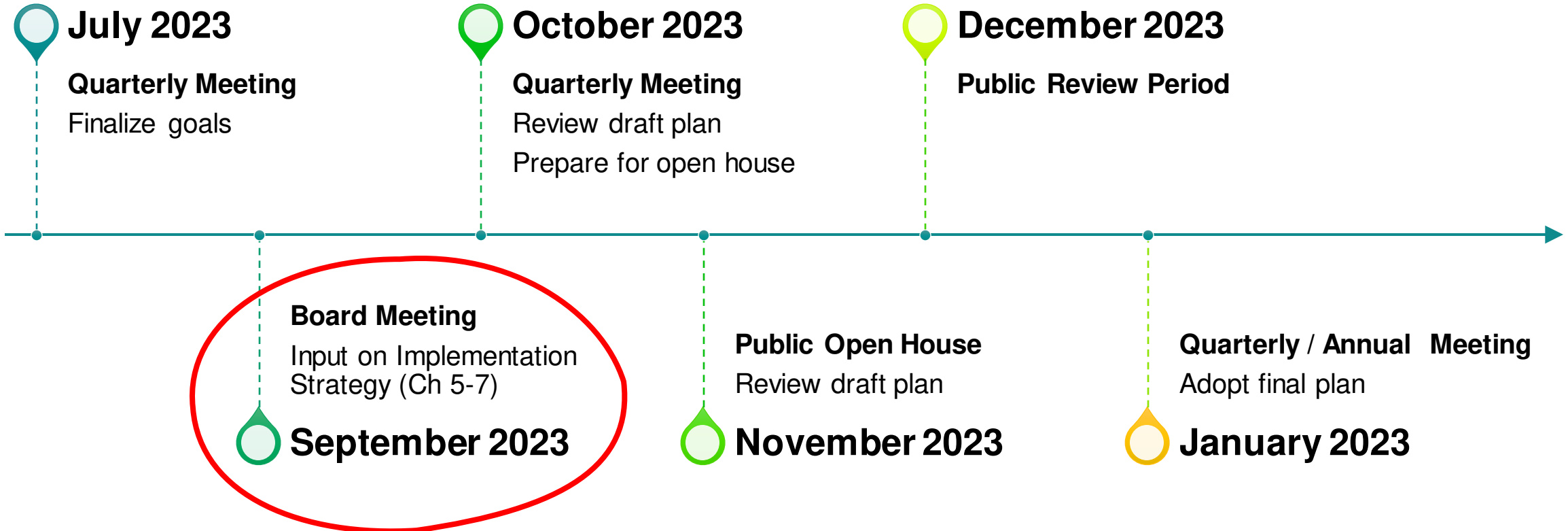
Call to action

**Next Steps = Drafting each component for detailed review**

# Update Project Schedule



# Remaining Project Schedule



# Public Meeting Planning

## Open House Style Meeting

- Multiple stations
- “Come and go” event



## Need to schedule

- Before Thanksgiving: Nov 13 ,14, or 15  
*or*
- After Thanksgiving: Nov 28, 29, or 30







## Next Steps

# Next Steps

## Next meeting agenda (tentative)

- Begin to review final components of plan
  - Updated implementation strategy
  - Executive summary poster / Getting started
  - Remaining chapters
- Prep for public open house meeting

## Homework Reminder

- Continue to review draft chapters



# Thank You!!



**Adam Rupe**  
[arupe@jeo.com](mailto:arupe@jeo.com)  
(402) 322-0377