

UIRWMA | MINUTES

Meeting date | time 6/8/2016 4:00 PM | Meeting location Decorah City Council Chambers

Meeting called by John Beard

Type of meeting Iowa Flood Center Kickoff

Facilitator John Beard

Secretary Mark Jensen

Other

Attendees:

UIRWMA Board – Dan Byrnes, Andy Carlson, John Beard, Jan McGovern, Mark Jensen, Harlan Hickie

Community Members

Not Present: Rick Weymiller, Jack Knight, Mike Lewis, Kevin Bill

AGENDA TOPICS

Time allotted | As needed | Agenda topic WMA/Kickoff Meeting Presentation | Presenter Iowa Flood Center – Larry Weber, Jeff Geerts

Discussion:

Jeff Geerts discussed the general outline of the grant funding received by the state of Iowa. Mr. Geerts explained the vast number of partners in the Iowa Watershed Approach. These partners can be seen on slide 7 of the attached presentation. Mr. Geerts identified the Iowa Economic Development Authority as the acting fiscal agent for the program.

Larry Weber presented that the Iowa Flood Center is working through the final stages with HUD to organize and implement the funding. Mr. Weber described the process of application for the grant and how Iowa was the sole applicant to utilize a watershed approach, and that HUD will be using this setup as a model for future reference. Mr. Weber outlined the following characteristics of 1.) Presidential Disaster Declaration, 2.) Infrastructure needs, and 3.) Environmental needs as the qualifying factors for selected watersheds. Mr. Weber presented information and a video about Soap Creek in Wapello County as an example of a successful project of similar nature.

Future visit dates and purposed testing sites and practices were discussed. It was stated that the primary objective of the project will be to reduce stream bank flow during rain fall events to provide water quantity control and improve water quality as an additional benefit. Initial testing will be done for water quality, soil moisture and temperature, and stream flow. The number of test sites has not yet been determined. Data collection and analysis will begin soon, with construction starting in 2017 at the earliest. Cooperating landlords will receive 75% cost share for the implementation of practices and will be obligated to leave them in place for a minimum of 20 years. Please reference attached presentation for further information.

Action Items

Motion

Second

None

Time allotted | As Needed | Agenda topic *Approve 3/9/16 Minutes* | Presenter *John Beard*

Discussion: No corrections requested

| <i>Action Items</i> | <i>Motion</i> | <i>Second</i> |
|-----------------------------|---------------|---------------|
| Approve minutes from 3/9/16 | Dan Byrnes | Jan McGovern |

Time allotted | As Needed | Agenda topic *Approval of Bylaws* | Presenter *John Beard*

Discussion: Mr. Beard informed the group that the bylaws had been created and reviewed by the county attorney. A signed copy was left with Mr. Beard to be presented to the Vice-Chairman Rick Weymiller.

| <i>Action Items</i> | <i>Motion</i> | <i>Second</i> |
|---------------------|---------------|---------------|
| Approval of Bylaws | Andy Carlson | Harlan Hickie |

Time allotted | As Needed | Agenda topic *Scheduling of next meeting* | Presenter *John Beard*

Discussion: Next meeting was set to follow a quarterly basis. The next meeting was set for 9/28/16 at 4:00 PM. The meeting will be held at the Decorah City Council Chambers at 400 Claibourne Drive, Decorah, IA 52101

| <i>Action Items</i> | <i>Motion</i> | <i>Second</i> |
|--|---------------|---------------|
| Set next meeting date at September 28, 2016 at 4:00 PM | Harlan Hickie | Mark Jensen |

The Iowa Watershed Approach



Larry J Weber

(larry-weber@uiowa.edu)

Director, IIHR—Hydroscience & Engineering



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IIHR—Hydroscience & Engineering



IIHR is a unit of the University of Iowa's College of Engineering. At IIHR, students, faculty members, and research engineers work together to understand and manage one of the world's greatest resources—water.



www.iihr.uiowa.edu



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Iowa Flood Center

In response to extreme flooding in 2008, the state legislature established the Iowa Flood Center at the University of Iowa to serve as a technical resource for Iowans.



www.iowafloodcenter.org

National Disaster Resilience Competition



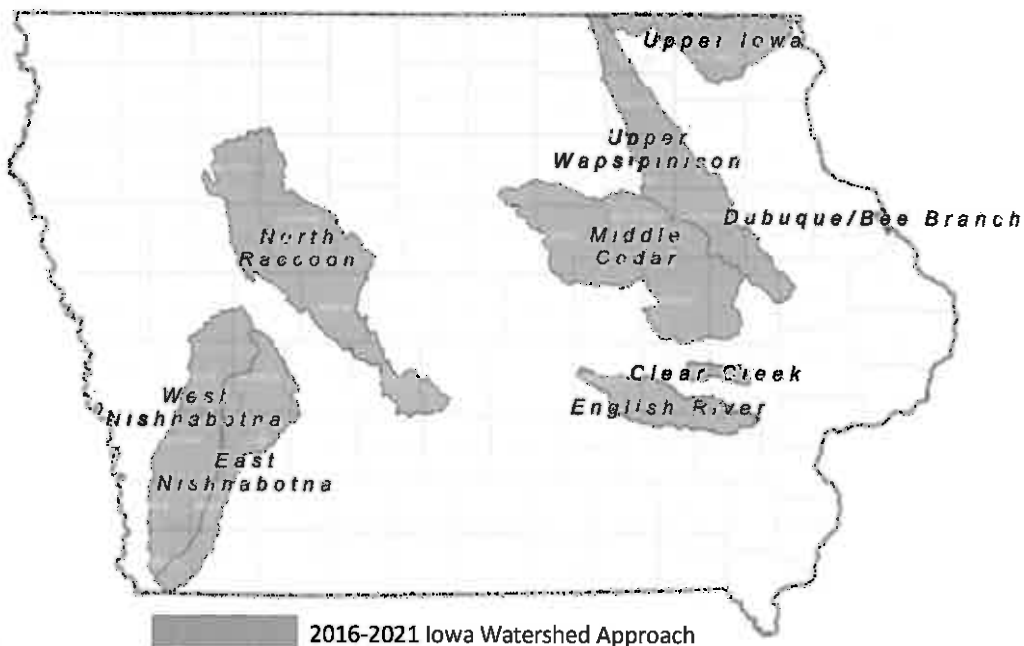
- Funder: US Dept. of Housing and Urban Development (HUD), in collaboration with the Rockefeller Foundation
- Funding Level: \$1 billion; Community Development Block Grant; Superstorm Sandy (special appropriation of \$180M)
- Applicant: State of Iowa, Iowa Economic Development Authority
- *Iowa Watershed Approach* program development by Iowa Flood Center in consultation with many, many partners

HUD's Program Goals



- Help communities recover from prior disasters and improve their ability to withstand and recover more quickly from future disasters, hazards, and shocks
- Consider future risks and vulnerabilities in planning and decision-making
- Help communities better understand their risks and identify ways in which they can protect the long-term well-being and safety of residents

Iowa Grant Award: \$96,887,177



Iowa Watershed Approach Partners



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Iowa Watershed Approach (IWA): Program Goals



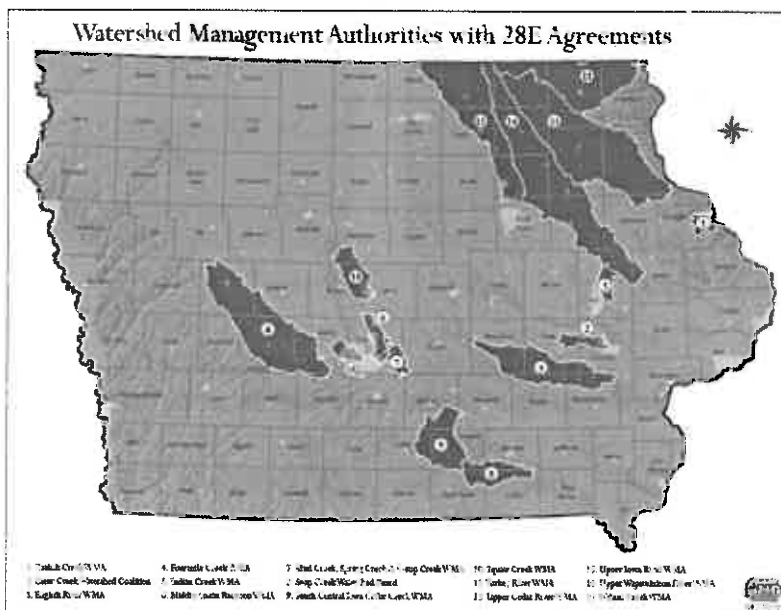
- Reduce flood risk
- Improve water quality
- Increase resilience
- Engage stakeholders through collaboration and outreach/education
- Improve quality of life and health, especially for vulnerable populations
- Develop a program that is replicable throughout the Midwest and the United States

IWA Project Description



- Establish a Watershed Management Authority
- Develop a hydrologic assessment and watershed plan
- Deploy monitoring equipment
- Implement projects in the watershed to reduce the magnitude of downstream flooding and improve water quality
- Assess the project benefits based on monitoring and modeling data

Watershed Management Authority

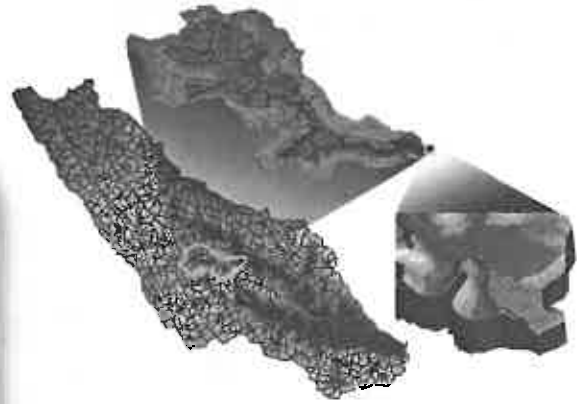
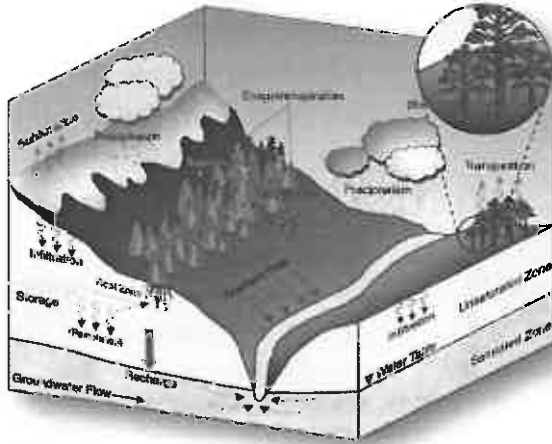


Benefits of forming a WMA:

- Foster multi-jurisdictional partnership and cooperation
- Develop a watershed plan
- Leveraging resources such as funding, technical expertise
- Facilitate stakeholder involvement in watershed management

Hydrologic Assessment & Modeling

- Understand flood hydrology in the watershed
- Estimate watershed response to different rainfall events
- Quantify the impact of small-scale flood mitigation practices



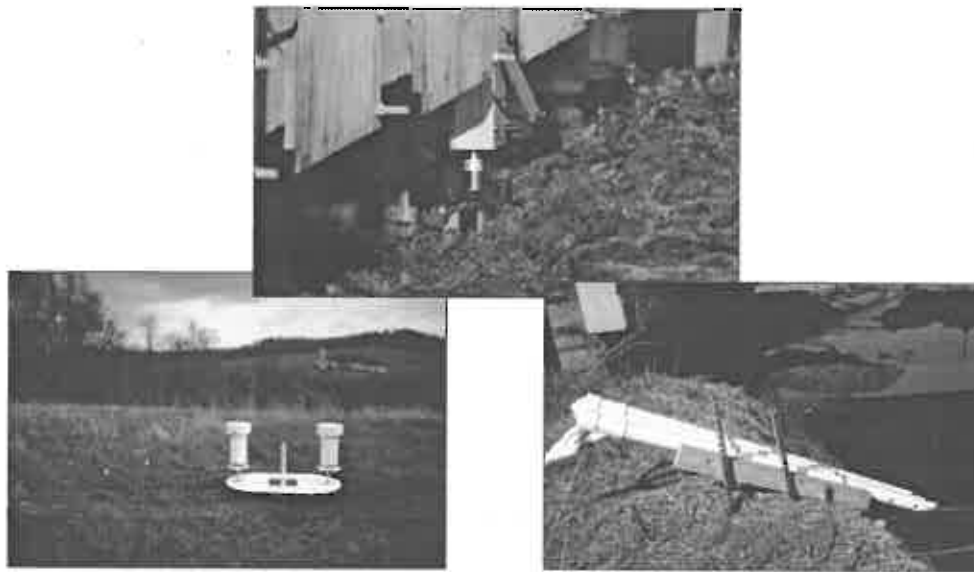
Project Construction & Implementation



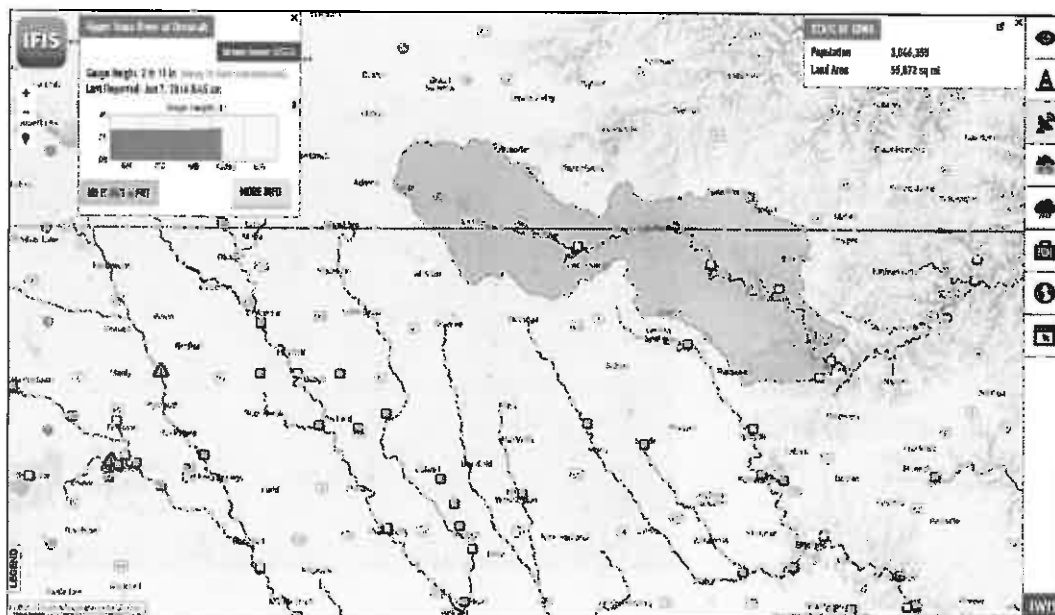
- Engage volunteer landowners to construct projects in subwatersheds
- Practices may include:
Floodplain restoration or easements, farm ponds, terraces, buffer strips, bioreactors, wetlands, saturated buffers, storm water detention basins, sediment detention basins
- 75% cost share assistance available to landowners; 25% local (landowner) contribution
- Practices will follow NRCS guidelines and specifications
- Monitor impact of constructed projects and evaluate feasibility at a larger scale

*Engagement of WMA, watershed partners,
and private landowners will be vital to
project success*

Data Collection & Monitoring



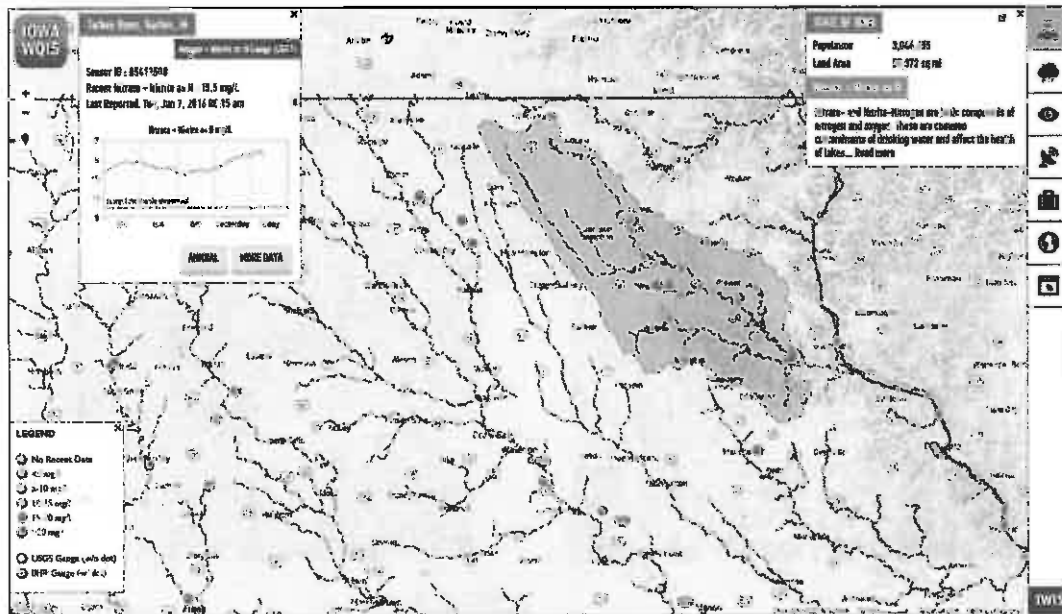
IFIS Iowa Flood Information System



<http://ifis.iowafloodcenter.org/ifis/en/>



Iowa Water-Quality Information System



<http://iwqis.iowawis.org/app/>



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Resilience Program

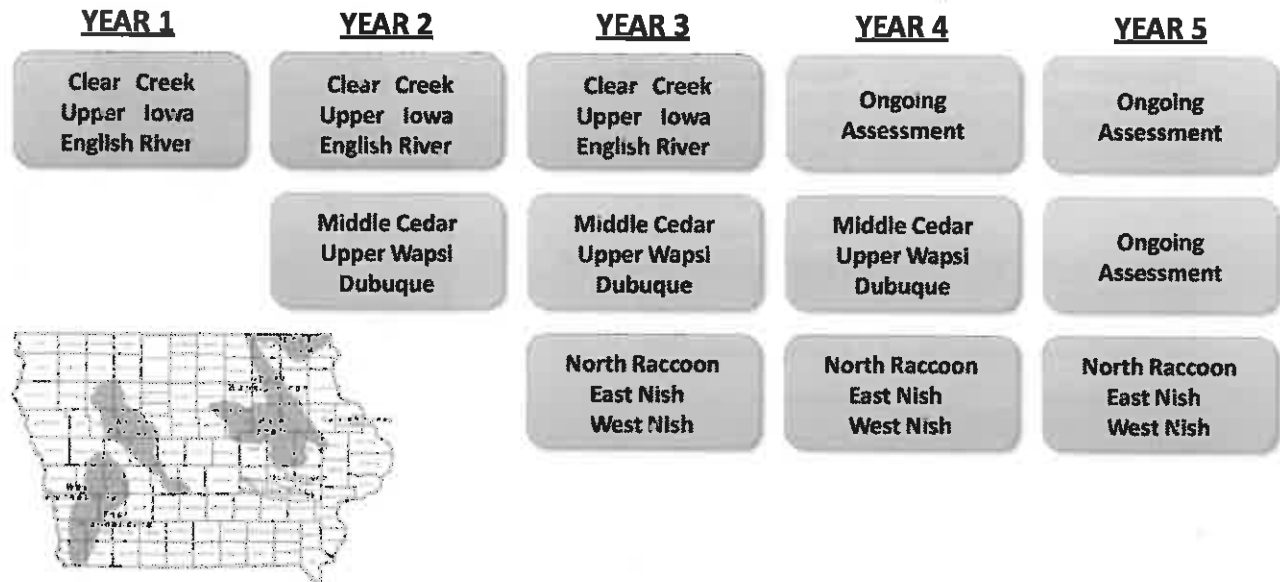
- Ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events
- “Build back stronger”
- “Build back differently”



Contact: Craig Just
Assistant Professor, University of Iowa
craig-just@uiowa.edu

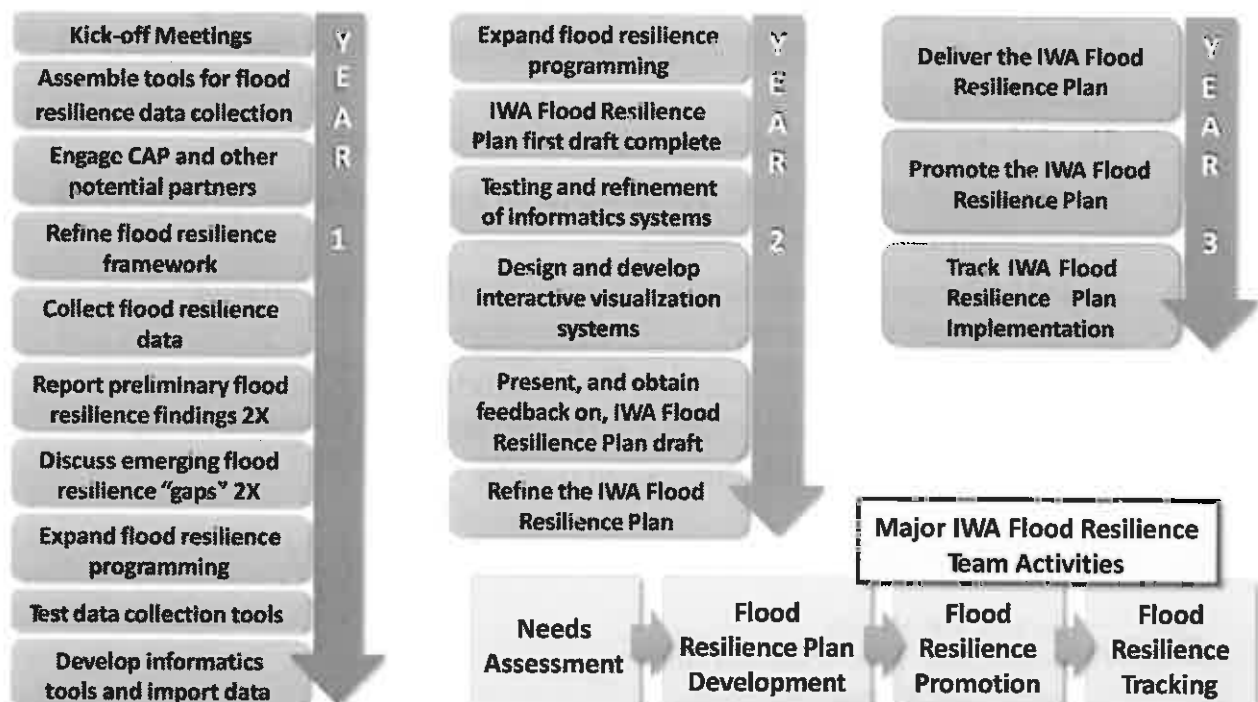
IWA Flood Resilience Team

The IWA Flood Resilience Team will engage stakeholders in nine watersheds for 3 to 5 years



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IWA Flood Resilience Team Activities



Local Hazard Mitigation & Disaster Recovery Planning

| Flood Risk Analysis | Disaster Recovery |
|---|--|
| Hazard Identification Review Historical Impacts, Conduct an Asset Inventory | Recovery Organization Framework Community Priorities |
| Vulnerability Assessment Determine the Likelihood Determine the Economic Social, Legal, and environmental consequences | Recovery Support Functions Community Planning Economic Health & Social Services Housing Infrastructure Systems Natural & Cultural Resources |
| Impacts Assessment Hazus Modeling Integrated Climate Conditions Identify community weaknesses | Disaster Case Management Unmet Recovery Needs Vulnerable Populations Voluntary Organizations |
| Plan Development Vision, Goals, Strategies, Actions Prioritization Integration Implementations | Resilience? |



Contact: Jessica Turba
Planner, Iowa Homeland Security & Emergency
Management
Jessica.turba@iowa.gov

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Iowa Department of Ag & Land Stewardship

- Technical assistance to SWCD commissions and/or County Supervisors on management of project coordinators dedicated to HUD IWA program
- Assistance with hiring process for watershed coordinators
- Development of standard documents for use by project coordinators (i.e. maintenance agreements)
- Direct technical assistance to project coordinators related to engaging with landowners and selling practices
- Individual and/or group training for coordinators on unique requirements associated with HUD program compared to other SWCD watershed implementation grants



Contact: Jake Hansen
Bureau Chief, Water Resources Bureau
Jake.Hansen@iowaagriculture.gov

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Iowa DNR

- **WMA formation assistance**
 - Preparing 28e documents, work with local partners to promote benefits of WMA and answer questions, GIS mapping services, project coordinator trainings
- **Watershed management planning assistance**
 - Assistance with developing WMP, providing technical assistance, reviewing draft documents and providing feedback
- **WMA network meetings**
 - Meetings will include:
 - Education/Training
 - WMA networking opportunities
 - Site visits, field trips
 - Q & A
 - Open WMA discussion
- **WMA formation guidebook**
 - Develop a guidebook to assist new WMAs form across the state

Contact: Allen Bonini
Supervisor, DNR Watershed Improvement Program
Allen.Bonini@dnr.iowa.gov

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ISU Extension & Outreach

- Develop theme-based curriculum, outreach materials, and social media packages
- Develop a communication plan in each project watershed
- With project partners, coordinate field days, workshops, and events
- Collaborate with INRC team to develop additional outreach materials

Contact: John Lawrence
Director, Iowa Nutrient Research Center
jdlaw@iastate.edu

Iowa Nutrient Research Center

- Develop a framework to monetize the benefits of nutrient-reducing practices
 - Considering both primary on- and off-site economic benefits, as well as, secondary and tertiary benefits
- Develop alternative scenarios of practices aimed at achieving the goals established in the Iowa Nutrient Reduction Strategy
 - Better understand effects from field to sub-watershed to larger watershed scales
- Incorporate changing hydrologic patterns into hydrologic models that predict water quantity and quality
 - Understand how hydrologic changes from weather and land management impact nutrient processing and E/ET



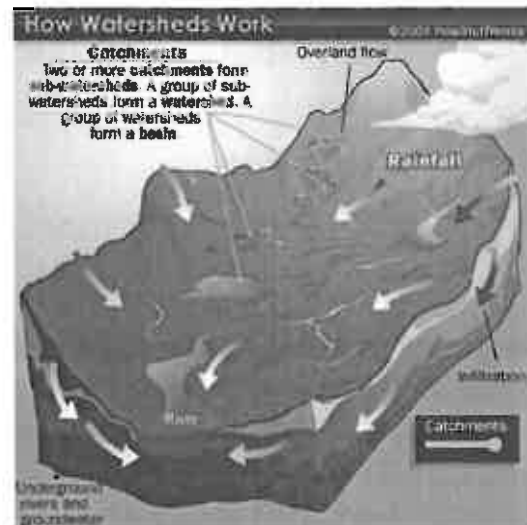
Contact: John Lawrence
Director, Iowa Nutrient Research Center
jdlaw@iastate.edu

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IOWA STATE
UNIVERSITY

Iowa Water Center

- Identify vulnerable watershed areas based on
 - Slope
 - Soil type
 - Proximity to water
- Identify appropriate practices to address runoff and erosion vulnerability
- Estimate soil erosion and runoff with and without practice implementation



Contact: Rick Cruse
Director, Iowa Water Center
rnc@iastate.edu

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IOWA STATE
UNIVERSITY

Tallgrass Prairie Center



- Provide technical assistance to each WMA in native vegetation establishment and management, including individual consultation
- Coordinate with partners to organize field days, workshops, and create demonstration sites for teaching and learning
- Provide print and online technical guides and videos
- Build a leadership network in prairie reconstruction techniques related to agriculture

Contact: Laura Jackson
Director, Tallgrass Prairie Center
Laura.L.Jackson@uni.edu

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How will we do it?

Iowa Watersheds Project

Overview:



- In 2010, The Iowa Flood Center and IIHR—Hydrosience and Engineering at the University of Iowa were awarded funds from the U.S. Department of Housing and Urban Development (HUD) to prepare watershed mitigation projects directed toward flood damage reduction in select Iowa watersheds.

Specific Project Goals:

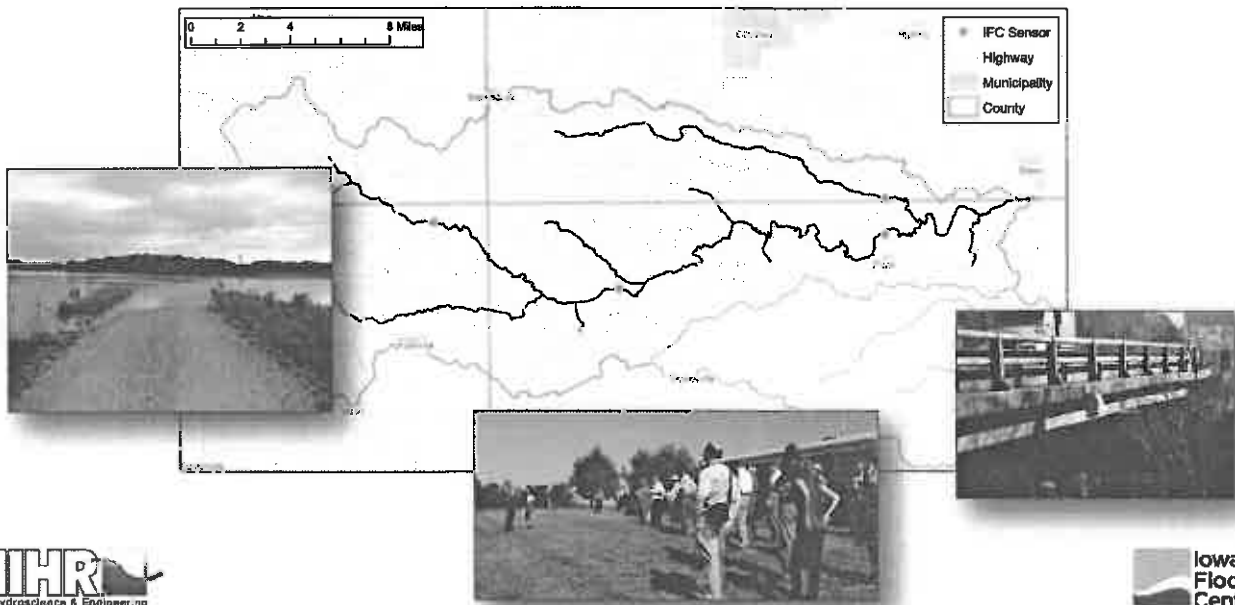
- Maximize soil water holding capacity from heavy precipitation
- Minimize severe scour erosion and sand deposition during floods
- Manage water runoff in uplands under saturated soil moisture conditions
- Reduce and mitigate structural and nonstructural flood damages

Soap Creek Watershed

1986 – Formation of Soap Creek Watershed Board – 28E

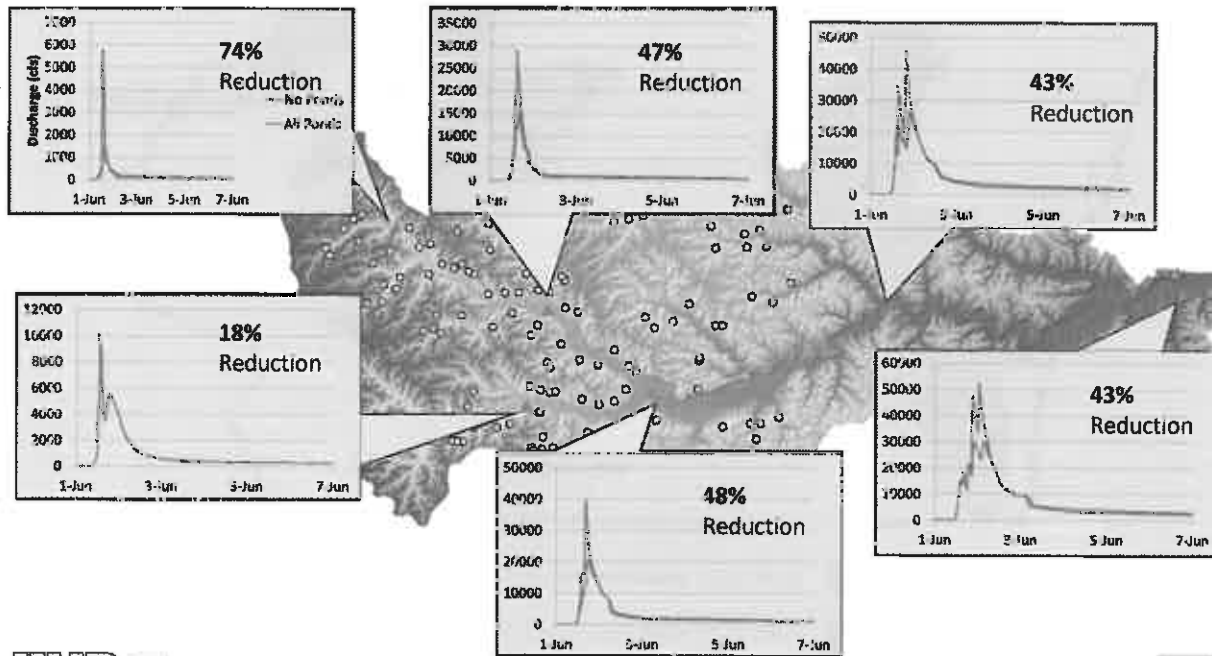
1988 – Study identifies 154 project locations to reduce flooding

2012 – 132 watershed projects complete

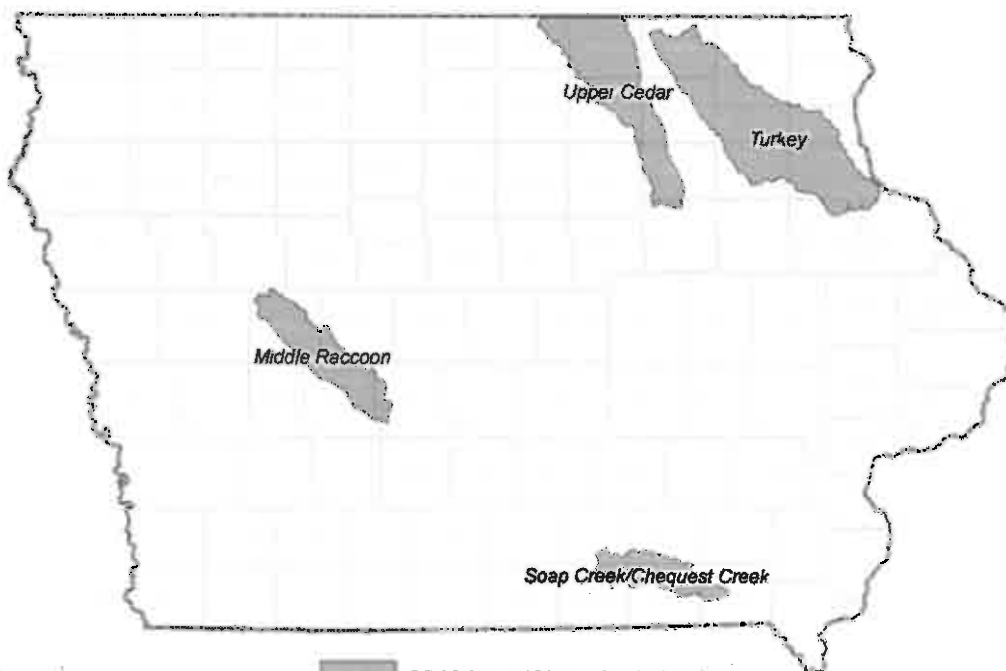


Reduction in Peak Flow

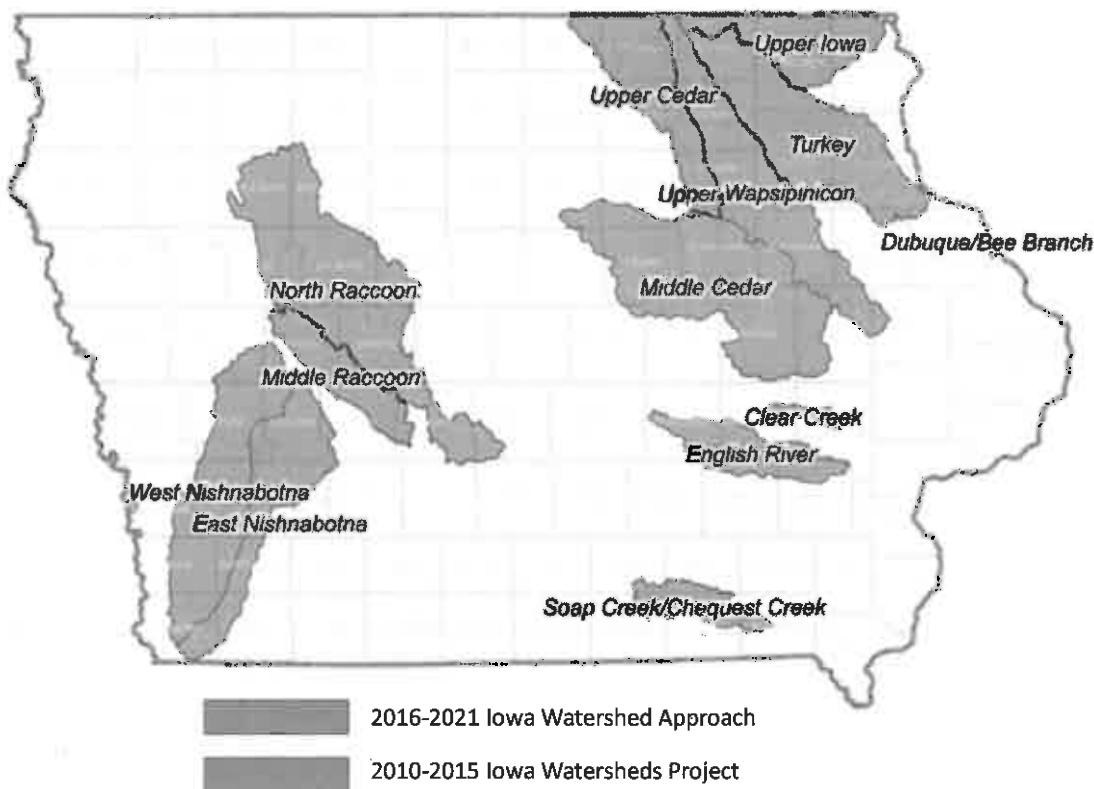
100 yr Storm, 7.5" inches of rain in 24 hours



Iowa Watersheds Project



The Iowa Watershed Approach
a vision for a more resilient Iowa

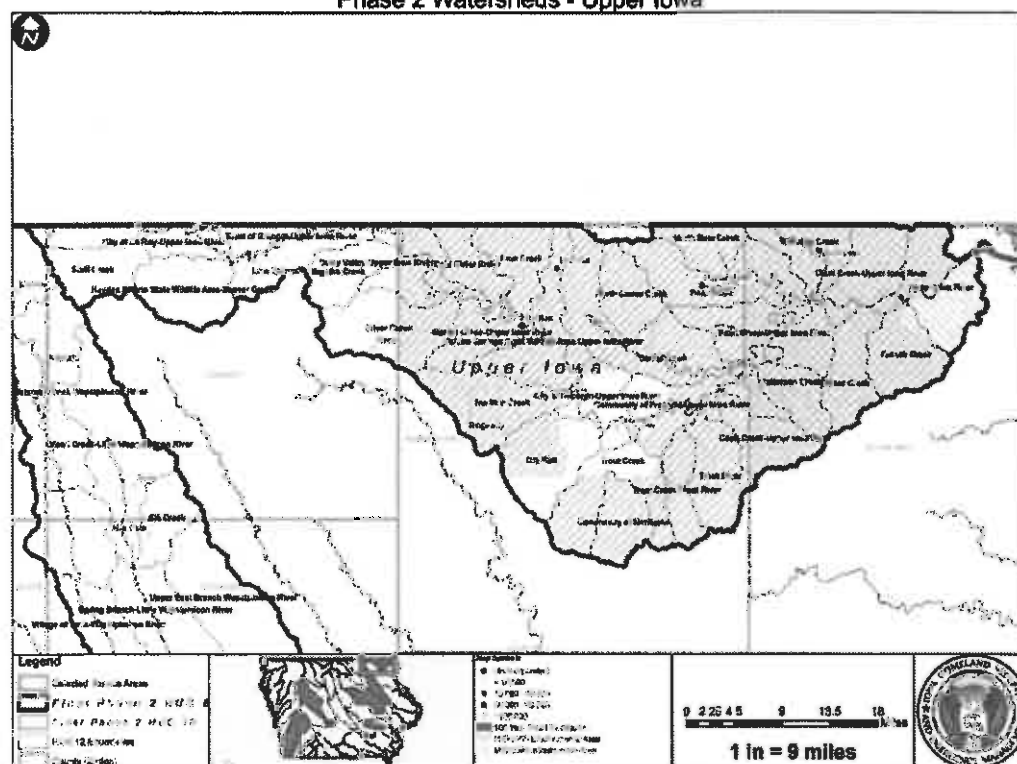


31.



The Iowa Watershed Approach
a vision for a more resilient Iowa

Phase 2 Watersheds - Upper Iowa



Phase 2 Watersheds - Upper Iowa



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National Disaster Resilience Competition

| | |
|---|--|
| ISU Planning (Extension, Water Center, Nutrient Center) | \$2,112,500 |
| IaDNR Planning (WMA Formation & Assistance) | \$576,000 |
| UI CEA Planning (Program Evaluation) | \$482,883 |
| IIHR/IFC Planning (Phase 1 Hydrologic Assessment) | \$3,125,000 |
| IIHR/IFC Planning (WMA A/Ly Board and Training) | \$812,500 |
| UNI Planning (Tallgrass Prairie Center) | \$498,750 |
| HSMD Planning (Data Support and Flood Mitigation Board) | \$1,776,852 |
| HSMD Planning-PreAgreement Costs/Application | \$50,500 |
| IFC Planning-PreAgreement Costs/Application | \$52,000 |
| Dubuque Planning-PreAgreement Costs/Application | \$52,100 |
| IDALS Planning (Coordination w/WQI) | \$230,000 |
| UI IFC/CEA (+CAP) Resilience Planning | \$,689,513 |
| Total Planning | \$13,428,578 |
| Infrastructure Projects | |
| Dubuque | \$31,527,665 |
| Storm Lake | \$6,474,750 |
| Coralville | \$1,834,800 |
| Total | \$39,837,215 |
| Watershed Related Projects | |
| Counties | Project Coordinators \$2,250,000 |
| SWCD/NRCS/Contract | Design \$1,511,792 |
| Counties | Practices \$29,947,500 |
| IIHR/IFC | Modeling, Data Analysis, Sensors \$5,303,179 |
| | Total \$38,012,471 |
| admin | \$4,608,913 |
| Grand Total | \$96,887,177 |

**Draft Budget
Subject to
Change
Pending
Final HUD
Agreement**

National Disaster Resilience Competition

Upper Iowa

| | |
|--|--------------------|
| Practices (County) | \$4,012,500 |
| Project Coordinator (County) | \$375,000 |
| Planning, hydrologic assessment, design (IFC/County) | \$550,625 |
| Model/Sensors/Data Collection & Evaluation (IFC) | \$757,597 |
| | \$5,695,722 |

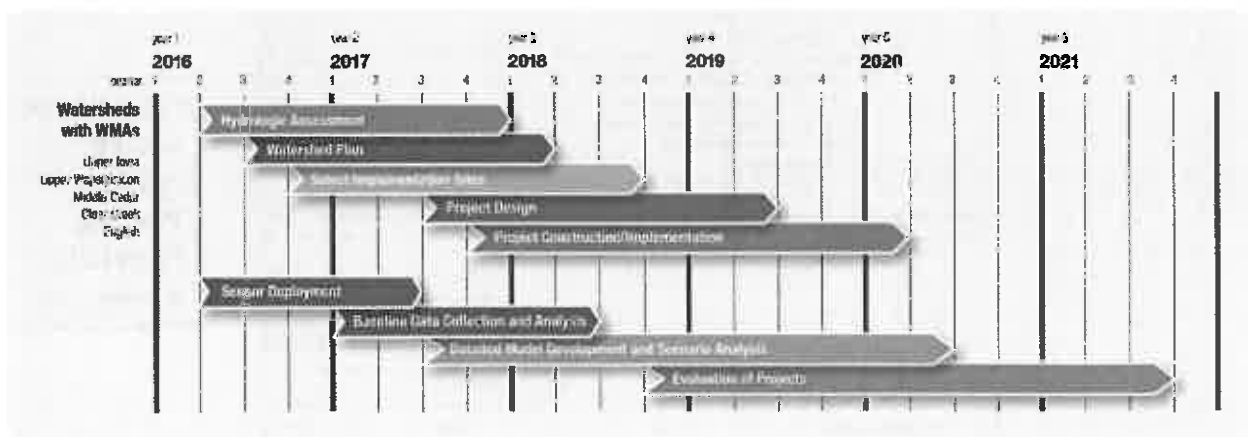
**Draft Budget
Subject to
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Project Timeline



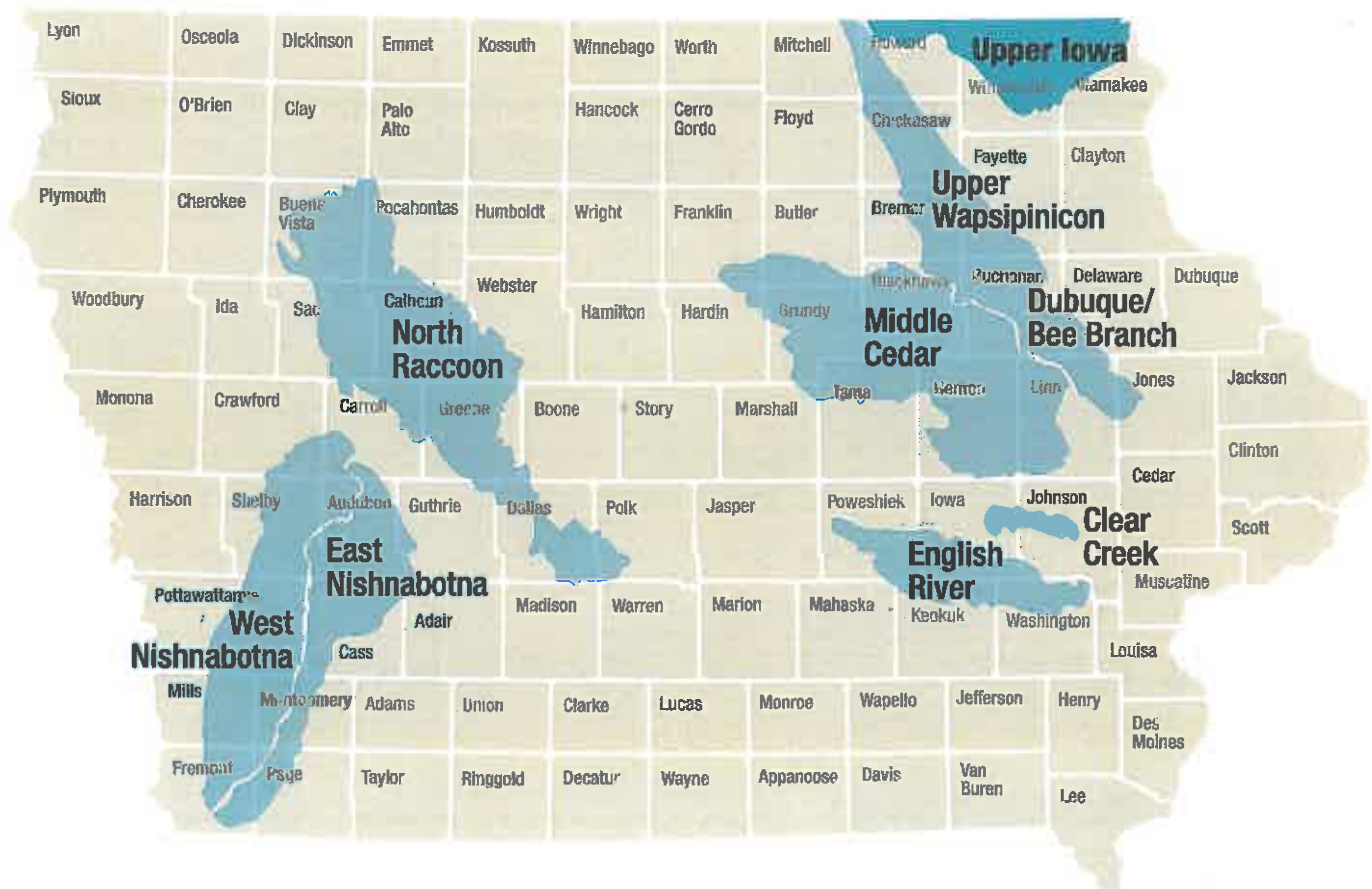


Iowa Flood Center
The University of Iowa
100 C. Maxwell Stanley Hydraulics Laboratory
Iowa City, IA 52242
319-384-1729 (office)

For more information, visit
www.iowafloodcenter.org



The Iowa Watershed Approach— for Urban and Rural Resilience



**HUD Disaster
Resilience Grant:
\$96.9 million**

**Upper Iowa River:
\$5.7 million**

● A vision for our future that voluntarily engages stakeholders throughout the watershed to achieve common goals, while moving toward a more resilient Iowa.

Each watershed will leverage a watershed management authority, develop a hydrologic assessment and watershed plan, and implement projects to reduce the magnitude of downstream flooding and to improve water quality during and after flood events.

These projects range from construction of farm ponds, wetlands, and storm water detention basins; restoration of floodplains and oxbows; and implementation of perennial cover and buffer strips.

All projects will be voluntary, with landowners receiving 75 percent cost share assistance on constructed practices.

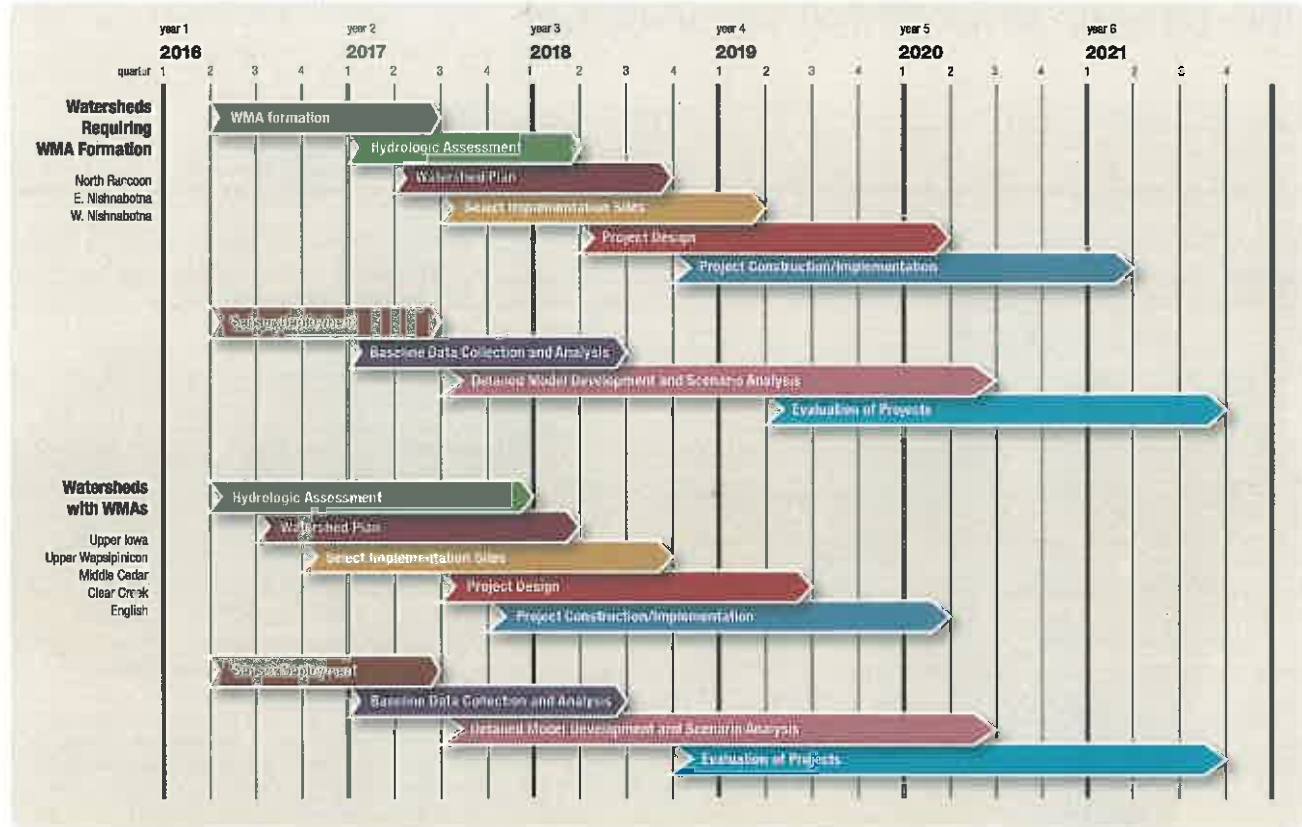
Upper Iowa River Watershed Budget*

| | |
|--|--------------------|
| Practices (County) | \$4,012,500 |
| Project Coordinator (County)† | \$375,000 |
| Planning/Hydrologic Assessment/ Design (IFC/County) | \$550,625 |
| Model/Sensors/ Data Collection & Evaluation (IFC) | \$757,597 |
| Total | \$5,695,722 |

* Draft budget subject to change pending final HUD agreement.

Contact: Breanna Shea, IFC Outreach Coordinator • 319-384-1729 • breanna-shea@iucwa.edu

The IWA Timeline:



Iowans have already tried, tested, and approved the concepts of the IWA. In 2010, the IFC implemented the HUD-funded Iowa Watersheds Project (IWP) in five watersheds across the state. As the IWP enters into its final year, over 65 built practices including ponds, terraces, and wetlands will be completed. Iowans are now seeing the benefits of these structures.

"Watershed projects not only provide protection against soil loss, but also provide an opportunity to enhance wildlife habitat."

—Josh Batterson, *Davis County Quail Forever*

"[The] project has created jobs and outside income for our small communities ... The structures have increased the value of ag land, not only for the landowners, but for those downstream as well."

—Soap Creek Landowner

"Structures have provided significant savings in federal, state, and local road and bridge maintenance costs to our county."

—Davis County Supervisor

IWA Partners

- Iowa Economic Development Authority
- Iowa Homeland Security & Emergency Management
- University of Iowa/Iowa Flood Center,
- Iowa State University
- University of Northern Iowa
- Iowa Department of Agriculture & Land Stewardship
- Iowa Department of Natural Resources
- Natural Resources Conservation Service
- County Soil & Water Conservation Districts
- The Nature Conservancy
- Iowa Natural Heritage Foundation
- Iowa Soybean Association
- Iowa Corn Growers Association
- Iowa Farm Bureau
- Iowa Agricultural Water Alliance
- local Resource Conservation & Development offices
- local Council of Governments offices
- Iowa Department of Transportation
- Iowa Association of Counties
- Silver Jackets Flood Risk Management Team
- and many more

Contact: Breanna Shea, IFC Outreach Coordinator • 319-334-1729 • breanna-shea@uiowa.edu



Iowa Watershed Approach: Key partners, contacts, and roles

Iowa Economic Development Authority

| | | | | |
|-----------------|--------------|--------------------------|------|--|
| Leslie Leager | 515-725-3071 | leslie.leager@iowa.gov | IEDA | Community Development - Division Coordinator |
| Peggy Russell | 515-725-3009 | peggy.russell@opwa.gov | IEDA | Team Leader - NDR Grant |
| Jeff Geerts | 515-725-3069 | jeff.geerts@iowa.gov | IEDA | Project Manager - Watershed Projects |
| Shelly Peterson | 515-725-0418 | shelly.peterson@iowa.gov | IEDA | Project Manager - Planning Activities |
| Ann Schmid | 515-725-3079 | ann.schmid@iowa.gov | IEDA | Project Manager - Housing Activities & Historic Preservation |
| Joe Bohke | 515-725-3011 | joseph.bohke@iowa.gov | IEDA | Specialist |
| Haley Crozier | 515-725-3037 | haley.crozier@iowa.gov | IEDA | Project Manager - Infrastructure Activities & Procurement |
| Tim Metz | 515-725-3079 | tim.metz@iowa.gov | IEDA | Specialist |
| | | | IEDA | Project Manager - Reimbursement Coordinator |
| | | | IEDA | Contract and Compliance Manager |

Iowa Homeland Security and Emergency Management

| | | | | |
|-----------------|--------------|---------------------------|------------|---------------------------------------|
| Dennis Harper | 515-725-9348 | dennis.harper@iowa.gov | Iowa HSEMD | Strategic Manager |
| Jessica Turba | 515-725-9383 | jessica.turba@iowa.gov | Iowa HSEMD | Technical Resources Coordinator |
| Tom Oswald | 515-725-9357 | tom.oswald@iowa.gov | Iowa HSEMD | Partnership Logistics and POC for IWA |
| Larry Gioffredi | 515-724-3857 | larry.gioffredi@iowa.gov | Iowa HSEMD | Planning Team |
| Terry Brown | 515-725-9371 | TE.brown@iowa.gov | Iowa HSEMD | HAZUS and GIS Technical Support |
| Dusty Pogones | 515-725-9384 | jonathan.pogones@iowa.gov | Iowa HSEMD | HAZUS Support and BCA |
| Carol Tomb | 515-725-9305 | carol.tomb@iowa.gov | Iowa HSEMD | Flood Mitigation Board |
| Lucinda Parker | 515-725-3239 | lucinda.parker@iowa.gov | Iowa HSEMD | PIO |
| Stefanie Bond | 515-725-3207 | stefanie.bond@iowa.gov | Iowa HSEMD | PIO |

University of Iowa

| | | | | |
|-----------------|--------------|--------------------------|--------------------------------------|--|
| Weber, Larry | 319-335-5597 | larry-weber@uiowa.edu | Iowa Flood Center | Project lead for the UI components of the IWA, and coordinator of activities in the rural watersheds. |
| Langel, Carmen | 319-335-5841 | carmen-angel@uiowa.edu | Iowa Flood Center | Outreach coordinator for IFC. Will work closely with rural watersheds, help organize events, help with public communications, answer watershed questions |
| Shea, Breanna | 319-384-1729 | breanna-shea@uiowa.edu | Iowa Flood Center | Help with external communications (writing/editing) |
| Stolze, Jackie | 319-335-6410 | jackie-stolze@uiowa.edu | Iowa Flood Center | Lead person on implementation of community resilience programming |
| Just, Craig | 319-335-5051 | craig-just@uiowa.edu | Iowa Flood Center | Faculty expert in community vulnerability and resilience, will help lead development of resilience framework. |
| Tate, Eric | 319-335-0250 | eric-tate@uiowa.edu | Iowa Flood Center | Lead CEA person participating in the community resilience programming (benchmarking, etc.) |
| Decker, Valerie | 319-335-5351 | valerie-decker@uiowa.edu | Center for Evaluation and Assessment | Lead CEA person for evaluation of IWA program |
| Kearney, Julie | 319-384-3542 | julie-kearney@uiowa.edu | Center for Evaluation and Assessment | student |
| Cristina Muñoz | | | | |

Iowa Department of Agriculture and Land Stewardship

| | | | | |
|---------------|--------------|-----------------------------------|------------------------|--|
| Jim Gillespie | 515-281-7043 | jim.gillespie@iowaagriculture.gov | Deputy Assistant IDALS | |
|---------------|--------------|-----------------------------------|------------------------|--|