

UIRWMA | Agenda

Meeting date time 6/14/2018 Business Meeting 5:00-5:15 PM Presentations 5:15 | Meeting location Decorah City Council Chambers

BUSINESS MEETING

1) Agenda topic *Call Meeting to Order* | Presenter John Beard

John Beard called meeting to order at 5:15pm on 6/14/18

2) Agenda topic *Approval of Minutes 2/15/18 meeting* | Presenter John Beard

Action items	Motion	Second
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Approve Minutes from 2/15/18 meeting

The minutes from the 2/15/18 were approved unanimously. Motioned by Jan and seconded by Dan.

3) Agenda topic: *Approval of vision statement, goals, objectives, and strategies for the Upper Iowa Resiliency Plan* | Presenter: Ross Evelsizer

Action items	Motion	Second
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Approval of UIR Plan statements.

Ross Evelsizer presented the vision statement, goals, objectives, and strategies for the Upper Iowa Resiliency Plan. The plan was approved unanimously after a lengthy discussion. Motioned by Jan and seconded by Andy.

4) Agenda topic: *Approval of adding the UIR WMA as a partner to the Upper Iowa River Watershed Resilience Team flood survey* | Presenter: Jon Jensen/Rachel Brummel

Action items	Motion	Second
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Approval of being partner.

Rachel Brummel asked for the approval of adding the UIRWMA as a partner to the Upper Iowa River Watershed Resilience Team flood survey. The request was approved unanimously. Motioned by Dan and seconded by Jack.

5) Agenda topic *Set Next Meeting Time/Date and Adjourn Business Meeting* | Presenter John Beard

Action items	Motion	Second
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Meeting Date: ? Location: Decorah City Council Chambers

The next meeting time and location were determined to be in the Decorah City Council chambers on Thursday, August 9th at 5 p.m.

The business meeting was adjourned unanimously.

UIRWMA | Agenda

Presentations:

Update from Iowa Flood Center:

- *Presentation by IFC-Flood Resilience Team – Ashlee Johannes*
-

University of Iowa Center for Evaluation and Assessment:

- *Survey from U of I Center for Evaluation and Assessment*
-

Update from Northeast Iowa RC&D:

- *Upper Iowa River Watershed Plan Development Update*
-

Upper Iowa River WMA Coordinator Update:

- *Matt Frana - UIR Project Coordinator Update*
-

Natural Resources Conservation Service

- ~~Todd Duncan – Soil Health~~

Todd was unable to present so will likely speak at the next meeting

Activity	Strategy	Description	Target Audience	Key Messengers	Potential Partners	Methods/Vehicles to Maximize	Outcomes	Evaluation Metrics
Education and Outreach Branding	1,2,3,4	This activity will develop a consistent UIR WMA "brand" so that all the education and informational materials have the same look, including printed materials, the WMAs website, mass media, informational and educational outreach materials developed by and for the UIRW WMA. This will include layout and design of interpretive kiosks, watershed signs, billboards, brochures, postcards and any other educational materials developed by or for the UIR WMA.	Watershed residents, students, leaders, partners, and visitors	WMA Board with WMA Coordinator and RC&D	Producer organizations, UIR Alliance, Local and Regional Nonprofits	Input meetings with WMA Board or committee, selection of specific characteristics such as colors, fonts, style and other, draft brand review and final selection of branding characteristics, draft component design standards for specific types of education and outreach	A unified, consistent and cohesive education and outreach effort that is highly recognizable as being associated with the UIR WMA. Increased public awareness of, understanding of, and support for, watershed resiliency and future implementation of BMPs on private and public properties	Number of unique component design standards that are utilized and overall number of times the design standards are applied
Demonstration Tours	3	This activity includes development and implementation of guided tours of UIRW <i>implemented</i> projects and/or practices especially the practices implemented through the Iowa Watershed Approach Project. It also includes tours of urban conservation practices in UIRW communities, tours of the NE Iowa RC&D's Urban Stormwater Demonstration Site, and other urban and rural sites residents, leaders, and visitors can go to see first hand examples of the urban and rural practices being promoted by the UIRW WMA Board. It may include bus tours and will include a guide who explains the practices to the participants.	Community and county leaders. City officials and city staff. Community-level partners, including staff, members and boards of Master Gardeners, Downtown Betterment, Chamber of Commerce, Park and Recreation, school boards and administrations, businesses and any other community members that might implement urban stormwater practices.	NRCS, SWCDs, Winneshiek County, RC&D, leaders from cities with existing stormwater BMPs	County Engineers, ISWEP, USFWS, NFWF, Alliant Energy, Local Schools, Iowa Flood Center, IIHR, EPA, Local Businesses, Chamber of Commerce, Downtown Betterment, Master Gardeners, 4-H, Eagle Scouts, Local Churches and other partners interested in investing in Watershed Resiliency	Event planning, scheduling, site summaries, invitations to, educational events/tours, publicity, secure partners, donations for meals, speakers and transportation as needed, coordination with property owners, post event activities on social media	Increased dialog, familiarity, understanding of, and comfort with, watershed resiliency, and urban and rural BMPs	Number of tours, participants, entities (such as cities, counties and organizations) attending/represented.
Interpretive Kiosks	1	This project will develop, fabricate and install informational and educational kiosks in strategic urban and rural locations where projects have been implemented. The kiosks will explain the practices and or the concepts associated with watershed resiliency and other priority topics like soil health, cover crops, permeable pavers, stream restoration etc.	General Public	Property owners who have implemented rural and urban practices, RC&D	Private Landowners, Cities, Businesses, SWCDs, RC&D, Community Betterment Groups, NRCS, IDALS	Kiosks development fabrication, placement and care. Public and private kiosk ownership and care. Stories in local media, Mini-events at BMPs with kiosks	Increased public awareness of, understanding of and support for watershed resiliency and implementation of specific BMPs on private and public properties	Number of BMPs implemented by private and public partners and watershed community members
Field Days	2	This activity will implement field days that are educational events on local farms. Producers will voluntarily participate. The farms that are selected will have already implemented practices that the UIRW WMA is promoting. Topics could range from cover crops, no-till and other soil conservation practices implemented on working land, to structural practices such as ponds and on-road structures.	Producers, Landowners	Producers, SWCDs, NRCS, IDALS, Producer Groups, RC&D, ISU Extension, Driftless Chapter Trout Unlimited, national TU, NIFAC	Producers, SWCDs, NRCS, IDALS, Producer Groups, RC&D, ISU Extension, Driftless Chapter TU, National TU, NIFAC, Groups, County Engineers.	Coordination of event and speakers, invitations, press releases and promotion in local media and through partners, secure donations for meals, develop handouts, video and post event activities on social media	Increased dialog, familiarity, understanding of, and comfort with, watershed resiliency, agricultural BMPs and structures	Number of Producers and producers who attend events. Enrollment in related farm programs and/or number of Producers requesting follow-up assistance from farm agency staff.

Living Room Meetings	2	This activities will provide support for individual watershed residents who want to host landowners from a specific sub-watersheds, subwatershed area or social group, at the host's house to talk about watershed resiliency, challenges within a defined land area and potential projects and solutions the group could implement in their rural or urban "neighborhood". The support provided may include things like giving a presentation, providing maps and handouts, helping with development and mailing of the invitations, etc.	Neighborhood Associations and Groups, Producers and Landowners within a subwatershed or common land area, other public and private groups within a defined sub-watershed area or within a defined social sector or group	Watershed Residents, Producers, Neighborhood Associations and Social Groups	SWCDs, RC&D, NRCS, CCBs, Producer Groups, UIR Alliance, Driftless Chapter TU, PF Chapters, Youth Groups, Church Groups, Community and Social Groups	Invitations and personal outreach and promotion, agendas, supporting maps and information, speakers and presentations as requested, technical expertise for follow-up projects	Empowered watershed residents who want to conduct farmer-to-farmer and neighbor-to-neighbor outreach that considers and addresses watershed resiliency concerns within a HUC 12 or within a defined land area or neighborhood. Increased public and private understanding, support for and implementation of BMPs and resiliency projects.	Number of meetings held, number of participants at meetings and number of project implemented as a result of the meetings.
"Lunch" & Learn	3	This activity is intended to bring interested watershed residents together to hear about the UIRW WMA's efforts and plan over a meal. A host would give an Informational talk during a meal (breakfast, lunch or supper). Topics may include urban stormwater management, the importance of protecting vulnerable populations, on-road structures, rural BMPs, local water resources, potential local policy, WMA project updates and other education & programming.	General Public, Community Leaders, Decision Makers, Ag Lenders, Chamber of Commerce	SWCDs and other WMA members and partners	Chamber of Commerce, Community Betterment Groups, RC&D, Ag Lender Groups, Local Banks, ISWEP, IDALS, NRCS, Producer Groups, UIR Alliance, Driftless TU, ICC	Develop, coordinate, promote and present a series of topics, press releases, direct invitations to target audience. Identify, secure and coordinate sponsors, space, meal, and speakers	Increased familiarity and comfort with the WMA, urban and rural BMPs, watershed resiliency, and the return on investment for implementation of practices. Increased understanding and appreciation for the resource	Number of events, number of partner, sponsorships and attendance
Youth Water Conservation Programming	4	This activity is organized events for K-12 children and youth in informal education settings. It could include hands on projects, like building rain barrels, or outdoor recreation activities like canoeing clean-ups, playing with a stream table during a public library youth program time, learning about trout and how to fish through a Park and Recreation program, or creative water activities at a fair or festival.	Children & Youth	SWCDs, CCBs, School Clubs 4H and Scout Groups, Park and Recreation, Daycare Providers, Libraries, Fair, Festival and Event Organizers, RC&D	Teachers, School Administrators, Education Professionals, ISU Extension K-12 program staff, CCBs, Libraries, Youth Organizations, Camps, UIR Alliance, RC&D, Faith-based Youth Groups, Park and Recreation	Identify existing programs, festivals, events and activities that draw youth or would like to draw youth. Develop and provide program activity kits that empower partners and foster fun learning about watershed resiliency, water quality, best management practices and other related topics. Promote use of activity kits.	Foster a culture of stewardship and environmental leadership among youth who will grow into community members and leaders. Secondary effect of parents learning through conversation with kids, take-home materials and projects in the community	Number of events that refer to and/or use program activity kits to inform implementation of youth water conservation programming, participation in events.
Water & Arts Series/Activities	1, 4	This activity is intended to introduce conservation issues through creative methods including music, dance, theater and visual art events that relate back to watersheds, stewardship of water, and stormwater management.	General Public, Children & Youth	Event Organizers, Communities, Schools, ECYL, Artists: Singers, Songwriters, Composers, Dancers, Actors, Visual Artists, etc.	Communities, Schools, Event Planners, Arts, Theater and Music Organizations and Businesses. K-12 School Art & Music Programs, College Art & Music Programs, Cultural Organizations. Local Businesses, RC&D, Driftless Art Collective, Northeast Iowa Artist Studio Tour, Event Organizers, Fair Boards	Create a regional forum that fosters dialog about how water and art can enhance events, festivals and fairs and shares activities and programs that can be used by interested parties and partners. Encourage planners to incorporate stormwater and watershed education into existing events, festivals and fairs.	Increased engagement related to water, increased public awareness of, understanding of and support for water resources	Number of forum users, number of activities and programs shared, number of activities and programs implemented, participation in activities and programs.
UIR Watershed Awareness Weeks: Coordinated Activities during World Water Week (August) and during Earth Day Week (April)	1, 4	This activity recognizes and coordinates local activities with world efforts to draw attention to the UIRW. It includes coordinating and promoting a week of events & media around watershed concepts during World Water Week and Earth Day Week. It could include: local media blitz, youth classes/activities, river cleanup outing, mini film festival, BMP tours, field day(s), fishing tournament, canoeing/kayaking races, pool party, nature hikes, art contest, block party, etc.	General Public, Children & Youth, Tourists/visitors	Community Leaders, Private Nonprofit Environmental Organizations, City Park and Recreation Departments, CCBs, SWCDs, RC&D	Local Water-Related Business Owners such as Outfitters, Guides, etc., Chamber Offices, Tourism Offices, County Sanitariums, CCBs, Parks & Recreation, Hotel Motel Boards, SWCDs, UIR Alliance, RC&D	Outreach to potential partners, coordination and promotion of multiple events within the UIR Watershed before and during the watershed week, follow-up social media and press releases	Increased awareness of UIR Watershed, water quality, flood prevention, resiliency concepts and BMPs. Increased support for implementation of urban and rural BMPs, supporting local policy, and public and private water management. Increased watershed awareness, responsibility and stewardship.	Number of events held during the target week, participation in each activity/event, number of related media events and web post/likes, shares, traffic

Watershed Signage	1	This activity will develop, fabricate and strategically place signage, including "Entering UIR Watershed" and "Exiting UIR Watershed" signs posted on highways and major roads at the watershed boundaries. It would include "Flows to" storm sewer stencils for use in UIRW communities. (Such as Flows to Trout Stream or Flows to Upper Iowa River etc.)	General Public	Iowa Coldwater Conservancy, SWCDs, County Farm Bureau, Iowa DNR, UIR Alliance, RC&D	Iowa DOT, County Engineers and Roadside Managers, Conservation Organizations, Iowa Coldwater Conservancy, SWCDs, County Farm Bureau, Iowa DNR, Local and Regional Private Foundations	Sign and stencil design, fabrication and installation, partner site agreements, dedications, press releases	Increased awareness of watershed boundaries, water flow and water cycles.	Implementation sites and numbers, road traffic numbers (views of road signs)
Watershed units in STEAM K-12 Classrooms	4	This activity will help increase the availability of and quality of curricula and hands-on activities that are easily accessible for K-12 teachers to use in their classrooms. It would include curricula related to watersheds, watershed resiliency, water quality, water conservation, in-stream and near stream habitat, urban and rural BMPs, stormwater management, and other related concepts. It will also increase support for and opportunities for students to actively participate in related service projects through schools (development of rain gardens, rain barrel building workshops, etc.) in the watershed.	Children & Youth	School Teachers, Districts and Administrators, SWCDs, RC&D	School Districts, Teachers and Administrators, SWCDs, RC&D, Area Education Agencies, Local and Regional Nonprofits	Development of on-line database of tools and resources for teachers including but not limited to high quality curricula, hand-on activities and links. Development and implementation of RC&D Stormwater Education curricula and program	Foster a culture of stewardship and environmental leadership among youth who will grow into community members and leaders. Secondary effect of parents learning through conversation with kids, take-home materials and projects in the community.	Number of teachers that add watersheds to their curricula and/or expand watershed units. Number of students participating in watershed units, implementation of BMPs by students, number of service projects by students
River Guardian Program	4	This activity will develop and implement a fun children/youth program that requires students to complete a series of educational requirements and tasks that qualify them as "River Guardians". Once the tasks are completed, the students will receive a reward for their effort, such as a backpack pull in the shape of a fish.	Children & Youth	RC&D and School Teachers, Districts and Administrators	School Districts, Teachers, Iowa Coldwater Conservancy, SWCDs, CCB, Park and Rec, Cities, UIR Alliance.	Development of River Guardian Program guidelines, recruit partner organizations and sponsors, create rewards/recognition for achievement	Individual pride in learning about and implementation of stormwater practices. Peer encouragement to participate in River Guardian activities	Number of River Guardians
School Stormwater Field Trips	3, 4	This activity will implement K-12 School field trips to the RC&D's new Urban Stormwater Demonstration Site and other watershed resiliency focused sites for guided tours that demonstrate multiple BMPs and provide interactive lessons.	Children & Youth	School Teachers, Districts and Administrators, SWCDs, RC&D	School Districts, Teachers and Administrators, SWCDs, RC&D, Area Education Agencies, Local and Regional Nonprofits	Development of off-school grounds field trip options including RC&D Stormwater Education Program, Decorah Fish Hatchery and other sites that welcome school groups, have interpretation, programming and hands-on learning opportunities, recruit sponsors and partners to help pay for school travel expenses, equipment, and engagement. Assist with development of site amenities when needed.	Foster a culture of stewardship and environmental leadership among youth who will grow into community members and leaders. Create a sense of connection and relevance that fosters life-long responsibility and engagement. Secondary effect of parents learning through conversation with kids, take-home materials and projects in the community.	Number of quality field trip sites available, number of field trips taken, number of different schools participating, number of students participating
Watershed & water conservation units in agriculture education, FFA and 4H	2, 4	This activity will result in the adoption of watershed concepts and water conservation practices in middle and high school agricultural education programs. It will also develop FFA experiences that focus on or include water conservation as a key component.	Children & Youth	School Teachers, Districts and Administrators including but not limited to Agricultural Educators, SWCDs, ISU Extension, Parents, Producer Groups	SWCDs, FFA, ISU Extension, NRCS, Farm agencies, Producer Groups, RC&D, 4H	Work with high school and middle school ag teachers who already cover the topics to do outreach to colleagues in other districts. Make curricula, lesson plans and activities available to interested teachers. Work with interested FFA and 4H chapters to increase interest in watersheds within those programs.	Foster a culture of stewardship and increase familiarity with agricultural BMPs and structures among youth who will grow into Producers, farm leaders, and community leaders.	Number of teachers including watersheds and water conservation practices & structures in their curricula, number of students exposed, number of 4H projects and FFA agricultural experiences
School Farm Conservation Field Trips	2, 4	This activity will develop 7-12 grade school field trips to UIRW farms that have implemented practices that are promoted by the URW WMA Board. The school farm field trips will include opportunities for student classes to interact with farmer-conservation leaders and see first hand agricultural BMPs.	Children & Youth	Producers, SWCDs, NRCS, Teachers (esp. Ag teachers & FFA leaders)	SWCDs, School districts, teachers, FFA, ISU Extension, SWCDs, NRCS, Farm agencies, Producer Agencies, 4H,	Work with high school and middle school ag teachers who already cover the topics to do outreach to colleagues in other districts, and with NRCS, and Farm and Producer Agencies to find Producers to host field days close to schools.	Foster a culture of stewardship and increase familiarity with agricultural BMPs and structures among youth who will grow into Producers, farm leaders, and community leaders. Recognize and honor the leadership of farmer-conservationists.	Number of field trips, number of different schools participating, number of students participating

Fit Environment	1,4	This activity was originally developed and will be implemented by the Winneshek County CCB and other CCBs in partnership with the schools. It will provide children with outdoor recreational and environmental education in school physical education classes, such as how to fish and kayak but also how to monitor water quality in streams and identify healthy stream invertebrates etc. It will encourage students to experience nature in their free time and will teach them life-long outdoor skills while developing an appreciation for natural resources, including area streams and the Upper Iowa River.	Children & Youth	School Teachers, Districts and Administrators, Winneshek CCB	Schools, CCBs, Local and Regional Nonprofits, Driftless TU, Local Outfitters and Businesses	Coordination of programming between CCB and schools, equipment for various lessons, transportation as needed	Foster a culture of stewardship and environmental leadership among youth who will grow into community members and leaders. Create a sense of connection and relevance that fosters life-long responsibility and engagement. Secondary effect of parents learning through conversation with kids, take-home materials and projects in the community.	Number of classes, types of classes, number of students participating
ECYL	1,4	ECYL, the Environmental College for Young Leaders, is a Luther College summer program that provides a week of hand-on outdoor learning activities for children and youth from around the region. Through this activity, the UIRW WMA would encourage and empower ECYL Director and team to incorporate hand-on, outdoor, summer educational programming for elementary and middle school students that includes water quality, watershed resiliency, flood prevention and other topics related to the WMAs vision, mission and goals	Children & Youth	Luther College ECYL	Local and Regional Nonprofits, Local Educators and Experts	Develop summer learning modules and programming that supports the vision, mission and goals of the WMA, secure equipment, sponsorships and technical assistance as needed to ensure program implementation, promotion	Foster a culture of stewardship and environmental leadership among youth who will grow into community members and leaders. Create a sense of connection and relevance that fosters life-long responsibility and engagement. Secondary effect of parents learning through conversation with kids, take-home materials and projects in the community.	Number of classes related to the vision, mission and goals of the UIRW WMA, number of experts assisting, number of participants
UIR Watershed website and social media	1	Northeast Iowa RC&D has already developed a website for the UIRW. This activity is ongoing management of the UIRW website, which provides important, current, information on relevant topics including water monitoring data, publications, recreation information, resources, and WMA updates. It also includes development of social media associated with those same topics, which would reach a different audience.	General Public	RC&D, SWCDs, UIR Alliance, and other Contributing Partners	Local, Regional and State Partners, Organizations and Agencies	Develop and continuously update content. Promote via social media, partner websites and press releases.	Watershed residents and visitors have continuous access to information about the watershed. Home for watershed information.	Unique visits
Promotional Materials	1,2,3,4	This activity will develop and distribute promotional materials to attract the attention, engage and educate each of the WMA target audiences, including, but not limited to promotional materials such as brochures, banners, posters, displays, press releases billboards, and 1-page or postcard handouts and mailings.	General Public. Targeted audiences including: Producers, Community Members, Landowners, Homeowners, Youth	SWCDs, RC&D, City Stormwater Boards, County Departments and other Partners depending on target audiences	SWCDs, RC&D, NRCS, ISU Extension, Producer Agencies, Cities, Conservation Groups depending on target audiences	Identify topics and focus areas for publications and specific target groups, design, develop and print/fabricate promotional materials, Identify partner funders and distribute	Promote watershed concepts and increase familiarity with watershed resiliency, water quality, flood prevention, conservation, BMPs, urban storm water runoff practices and other WMA priority issues	Number of materials distributed, traffic/views of billboards and banners
DIY: Community BMP Workshops	1,3	This activity will develop a series of public workshops for residents who might be interested in learning more about building stormwater practices at home. The public workshops will cover simple-to-construct and manage best management practices for homeowners, such as how to construct rain barrels, install native plantings, rain gardens, or native turf, roof water collection, installation of grassed pavers for sidewalks, etc. It may be implemented in combination with city cost-share or grants secured for private BMP implementation.	General Public, Urban Homeowners.	WMA Cities and City Storm Water Management Boards	SWCDs, Producer Groups, ISU Extension, Local and Regional Nonprofits including UIR Alliance and RC&D, Schools, Local Businesses, Luther College, Local Churches and Museums, Local Landscapers and Garden Shops	Development of Workshop content and schedule, promotion and coordination with city and city storm water management boards	Increase the visibility of low-cost, easy-to-maintain BMPs and general awareness of water conservation and management. Increase familiarity with urban BMPs.	Number of participants in workshops, number of practices implemented

Producer Peer Leadership	2	This project will recognize and work with producers and other watershed residents who have implemented urban and rural storm water runoff practices. The participants and their practices will be professionally photographed so the WMA Board and partners have photos of local producers and practices to incorporate into UIRW WMA promotional and educational materials that support implementation of the WMA Plan. The participating producers will also be interviewed so they can be quoted in publications as well.	General Public and Producers	SWCDs, RC&D, Producer Groups,	RC&D, Producer Groups, SWCDs, UIR Alliance	Identify specific use of photographs and goals of specific outreach efforts and then identify appropriate producers and practices to meet the goals. Secure photographs, video and other visual media and incorporate into print and social media efforts.	Increased participation and implementation in flood reduction and water quality improvement practices. Increase pride in participation and peer encouragement	Number of participating producers and number of practices photographed, number of different media developed and number distributed
Newsletter	1,2,3,4	This activity will include regular development and distribution of a paper and/or e-newsletters that will include updates to watershed residents about UIRW WMA activities, programs, incentives, successes, how to participate, etc. It may include producer/resident and practice photographs and/or testimonies.	General Public and Producers	UIRW WMA Board and Coordinator	SWCDs, Cities, Counties, RC&D, Producers, Residents	Develop and distribute newsletter. Identify target audience and develop USPS and/or e-mailing lists.	Increased participation and implementation in flood reduction and water quality improvement practices. Increase pride in participation and peer encouragement. Increased awareness of UIRW WMA activities. Overall improved communications between WMA Board and Coordinator and watershed residents.	Number of newsletters distributed
Conservation Leadership Awards	1,2,3,4	This activity will recognize UIRW leadership by establishing an UIRW WMA Producer Leader of the Year award, an UIRW WMA Urban Leader of the Year award, and an UIRW WMA Youth Leader of the Year award. These awards may be presented in an independent ceremony or in partnership with UIRW SWCDs or others who already distribute awards annually.	General Public, Producers who are implementing practices that help improve watershed resiliency, City Residents who are implementing urban conservation practices or leading urban initiatives, Youth who are implementing conservation practices or leading urban/rural initiatives	SWCDs, Cities, WMA Partners	Conservation Districts of Iowa, Producer Groups, Local businesses, IDALS, Local and Regional Nonprofits including UIR Alliance	Develop nomination criteria, promote the program, develop a selection committee, identify sponsors, present award	Increased participation and implementation in flood reduction and water quality improvement practices. Increase pride in participation and peer encouragement	Number of nominations, press coverage
WMAs of Iowa	1,3	This activity includes participation in and input to the WMAs of Iowa Board, statewide meetings and other events.	Partnering WMAs and state leaders	WMA Board Members and Coordinator	Other WMA Boards, Board Members and WMA Coordinators, State Agencies, Legislators, Iowa Flood Center, IIHR, IEDA, ISU Extension, and other State Partners	Attend statewide meetings, participate on the state board	Increased statewide understanding of WMA issues, challenges and needs	Number of meetings attended

Dear Resident or Business Owner in the Upper Iowa River Watershed,

Communities in the Upper Iowa River Watershed have experienced several serious flooding events in recent years. Flooding can have many kinds of impacts – from being displaced from your home to being forced to drive a different route to work. Our team – which is a partnership between the Iowa Flood Center, the Upper Iowa Watershed Management Authority, and Luther College – is working to understand these impacts by conducting a survey of residents and business owners in the Upper Iowa Watershed.

Hearing of your experiences during the 2016 flooding events – regardless of whether you were directly impacted by flooding – is of great interest to us as we think about how to make our communities more resilient to flooding. Just being a resident or business owner in the Upper Iowa Watershed qualifies you to be included in this survey! We are only taking a sample of residents – your address has been selected randomly – so we appreciate your response.

To help us understand differing flooding experiences, we are enclosing a questionnaire that will take you 10-15 minutes to complete. The questions range from basic questions about your property to questions about ways you may have been directly or indirectly impacted by flooding. Please know that all information you provide is anonymous and confidential. Of course, you are not required to answer any questions that you don't feel comfortable answering.

By filling out and returning this questionnaire, you consent to participate in the study and agree that the purpose of this research has been satisfactorily explained to you. We are happy to answer any questions you may have (contact information below) and will be making our survey results available to the public.

You can mail your completed survey back in the pre-paid envelope that we have provided.

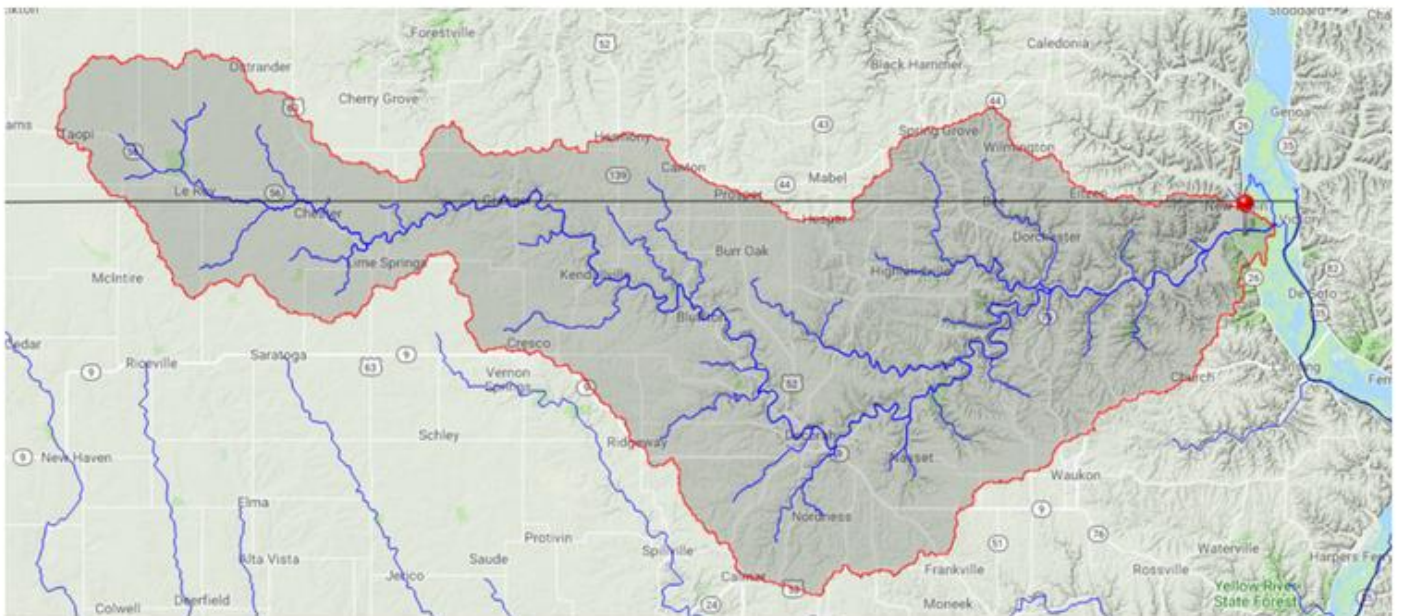
Thank you,

The Upper Iowa River Watershed Resilience Team

If you have questions, you may contact Rachel Brummel, by phone at 563-387-1778 or by email brumra02@luther.edu.

Any complaints or problems concerning this research project may, and should, be reported to The Dean's Office, Luther College, 563-387-1005 if they arise.

SURVEY OF RESIDENTS: UNDERSTANDING FLOOD IMPACTS IN THE UPPER IOWA WATERSHED



Map Source: Upper Iowa Watershed Approach

WHAT IS A WATERSHED?

A WATERSHED IS THE AREA OF LAND WHERE ALL OF THE WATER THAT FALLS WITHIN AND DRAINS OFF OF IT ENDS UP AT A COMMON OUTLET. EVERYONE WHO LIVES IN THE DARKENED AREA ABOVE LIVES IN THE UPPER IOWA WATERSHED.



**CONDUCTED BY LUTHER COLLEGE, IN PARTNERSHIP WITH
UPPER IOWA WATERSHED MANAGEMENT AUTHORITY AND
THE IOWA FLOOD CENTER**

Part 1: Understanding your Home, Property, or Business

1. This survey is intended for residents or business owners in the Upper Iowa Watershed. Do you currently live in or own a business in the Upper Iowa River Watershed at the address to which this survey was sent?

- ☐ Yes
☐ No (if "No" → explain in the "Additional Comments" box and return survey in envelope)

2. How long have you lived at the address to which this survey was mailed? _____ years

3. Which of the following describes your home/property? *[check all that apply]*

- ☐ In town ☐ Farmland ☐ Woodland ☐ Other _____
☐ Rural home ☐ Business ☐ Grassland/Prairie/Pasture

4. Do you rent or own your current home?

- ☐ Rent (if you rent → skip to question "6")
☐ Own

5. If you own your home, what is the approximate value of your home and property, including land and any outbuildings?

- ☐ Less than \$50,000 ☐ \$50,000-\$99,999 ☐ \$100,000-\$299,999
☐ \$300,000-\$499,999 ☐ \$500,000-\$749,000 ☐ \$750,000-\$999,999
☐ \$1 million or more

6. How much land is associated with your home/property?

→ If you rent, this will be how much land that is available for your use along with your dwelling or business
→ If you own, this means how much land is included in the value of the property you referred to in question 5.

- ☐ Less than 0.5 acre ☐ 100-249 acres
☐ 0.5 – 9.9 acres ☐ 250-499 acres
☐ 10-49.9 acres ☐ 500 acres or more
☐ 50-99.9 acres

7. Approximately how large is your home or business?

- ☐ Less than 1000 ft² ☐ 1000-1,499 ft²
☐ 2,000-2,499 ft² ☐ 2,500-2,999 ft²
☐ 3,500-3,999 ft² ☐ 4,000-4,499 ft²

8. If this address is a residence:

How many people currently live in your household?

Number of Adults (18 or older) _____

Number of Children (younger than 18) _____

Additional Comments: Please feel free to share anything else that you think will help us better understand your home and property in the Upper Iowa Watershed:

Part 2: Understanding the Indirect Impacts of the 2016 Flooding Events : In this section, we ask for ways flooding may have affected your household, ***even if your home or property was not flooded.*** In places, we ask you to estimate dollar amounts - it may be challenging to come up with exact number, but go with your gut and give your best estimate.

9. In the 2016 floods, did you or anyone in your household experience any of the following?

FLOOD-IMPACTED ACTIVITY (check boxes if you experienced)	How or to what degree did this affect you and your household?	How much you estimate this change cost you and others in your household?	
<input type="checkbox"/> Driving alternate routes or driving more than usual due to closed or impacted roads or any other flood-related reason	Approximately how many miles more than usual do you think you and others in your household drove? _____ miles	<input type="checkbox"/> \$0 <input type="checkbox"/> Less than \$10 <input type="checkbox"/> \$10-\$99 <input type="checkbox"/> \$100-\$199	<input type="checkbox"/> \$200-499 <input type="checkbox"/> \$500-\$999 <input type="checkbox"/> \$1000-\$2,499 <input type="checkbox"/> More than \$2,500
<input type="checkbox"/> Not working or not being able to work	Approximately how many hours of work did you and others in your household miss? _____ hours	<input type="checkbox"/> \$0 <input type="checkbox"/> Less than \$10 <input type="checkbox"/> \$10-\$99 <input type="checkbox"/> \$100-\$199	<input type="checkbox"/> \$200-499 <input type="checkbox"/> \$500-\$999 <input type="checkbox"/> \$1000-\$2,499 <input type="checkbox"/> More than \$2,500
<input type="checkbox"/> Unable to attend school (K12, college/ university or continuing ed of any kind)	Approximately how many days of school were missed? _____ days	<input type="checkbox"/> \$0 <input type="checkbox"/> Less than \$10 <input type="checkbox"/> \$10-\$99 <input type="checkbox"/> \$100-\$199	<input type="checkbox"/> \$200-499 <input type="checkbox"/> \$500-\$999 <input type="checkbox"/> \$1000-\$2,499 <input type="checkbox"/> More than \$2,500
<input type="checkbox"/> Loss of business	Comments:	<input type="checkbox"/> \$0 <input type="checkbox"/> Less than \$10 <input type="checkbox"/> \$10-\$99 <input type="checkbox"/> \$100-\$199	<input type="checkbox"/> \$200-499 <input type="checkbox"/> \$500-\$999 <input type="checkbox"/> \$1000-\$2,499 <input type="checkbox"/> More than \$2,500
<input type="checkbox"/> Loss of rental income	Comments:	<input type="checkbox"/> \$0 <input type="checkbox"/> Less than \$10 <input type="checkbox"/> \$10-\$99 <input type="checkbox"/> \$100-\$199	<input type="checkbox"/> \$200-499 <input type="checkbox"/> \$500-\$999 <input type="checkbox"/> \$1000-\$2,499 <input type="checkbox"/> More than \$2,500
<input type="checkbox"/> Changes in eating habits, food shopping habits or food availability	Comments:	<input type="checkbox"/> \$0 <input type="checkbox"/> Less than \$10 <input type="checkbox"/> \$10-\$99 <input type="checkbox"/> \$100-\$199	<input type="checkbox"/> \$200-499 <input type="checkbox"/> \$500-\$999 <input type="checkbox"/> \$1000-\$2,499 <input type="checkbox"/> More than \$2,500
<input type="checkbox"/> Loss or change in utility services: power/electricity, phone coverage, water, garbage collection, etc.	Comments:	<input type="checkbox"/> \$0 <input type="checkbox"/> Less than \$10 <input type="checkbox"/> \$10-\$99 <input type="checkbox"/> \$100-\$199	<input type="checkbox"/> \$200-499 <input type="checkbox"/> \$500-\$999 <input type="checkbox"/> \$1000-\$2,499 <input type="checkbox"/> More than \$2,500
<input type="checkbox"/> Changes in child care or child care arrangements	Comments:	<input type="checkbox"/> \$0 <input type="checkbox"/> Less than \$10 <input type="checkbox"/> \$10-\$99 <input type="checkbox"/> \$100-\$199	<input type="checkbox"/> \$200-499 <input type="checkbox"/> \$500-\$999 <input type="checkbox"/> \$1000-\$2,499 <input type="checkbox"/> More than \$2,500
<input type="checkbox"/> Impacts on health or wellness (injury, sickness, emotional or mental health impacts)	Comments:	<input type="checkbox"/> \$0 <input type="checkbox"/> Less than \$10 <input type="checkbox"/> \$10-\$99 <input type="checkbox"/> \$100-\$199	<input type="checkbox"/> \$200-499 <input type="checkbox"/> \$500-\$999 <input type="checkbox"/> \$1000-\$2,499 <input type="checkbox"/> More than \$2,500
<input type="checkbox"/> Other _____	Comments:	<input type="checkbox"/> \$0 <input type="checkbox"/> Less than \$10 <input type="checkbox"/> \$10-\$99 <input type="checkbox"/> \$100-\$199	<input type="checkbox"/> \$200-499 <input type="checkbox"/> \$500-\$999 <input type="checkbox"/> \$000-\$2,499 <input type="checkbox"/> More than \$2,500
<input type="checkbox"/> Other _____	Comments:	<input type="checkbox"/> \$0 <input type="checkbox"/> Less than \$10 <input type="checkbox"/> \$10-\$99 <input type="checkbox"/> \$100-\$199	<input type="checkbox"/> \$200-499 <input type="checkbox"/> \$500-\$999 <input type="checkbox"/> \$000-\$2,499 <input type="checkbox"/> More than \$2,500

Part 3: Direct impacts of 2016 Flooding on your HOME, BUSINESS, PROPERTY and HOUSEHOLD or FARM

10. Was your building or property flooded during the 2016 flood events?

☐ Yes → (if “Yes” continue to question “11”)

☐ No → (if “No” skip to “**Part 4: Becoming more Resilient to Floods**”)

11. During the 2016 floods, what was the primary source of flooding in your home/property: [check only one]

☐ River/creek/lake overflow (flood waters)

☐ Rain

☐ Sewer backup

☐ Rising groundwater

☐ Broken water pipes

☐ Other _____

12. Please briefly describe what happened during the 2016 floods in your home/business or on your property:

13. Estimate the damages to your HOME and PROPERTY. Please consider all damages related to your home and associated property, such as landscaping features, driveways, and any outbuildings such as garages/sheds/barns.

☐ \$0 ☐ <\$5,000 ☐ \$5,000- \$10,000 ☐ \$10,000- \$15,000 ☐ \$15,000- \$25,000 ☐ >\$25,000

14. Estimate the damages to your BELONGINGS. Please consider all items in and around your home, such as clothing, furniture, and electronics, as well as cars, recreational vehicles, and other machinery.

☐ \$0 ☐ <\$5,000 ☐ \$5,000- \$10,000 ☐ \$10,000- \$15,000 ☐ \$15,000- \$25,000 ☐ >\$25,000

15. Estimate the damages to your AGRICULTURAL LAND or CROPS. Please consider impacts such as damaged crops and lost livestock, loss of topsoil, and damaged landscape features such as terraces.

☐ \$0 ☐ <\$5,000 ☐ \$5,000- \$10,000 ☐ \$10,000- \$15,000 ☐ \$15,000- \$25,000 ☐ >\$25,000

16. Did you or anyone in your household lose any of the following in the flood (indicate “yes” by checking the box):

☐ Pictures

☐ Irreplaceable objects such as memorabilia and family heirlooms

☐ Pets

☐ Other irreplaceable items: _____

17. What were the LARGEST SOURCES of FUNDING for repairs/replacement to your home, property, belongings, or farm? Indicate your top three by placing a “1, 2 or 3” next to the three top sources of funding.

_____ Bank account/cash/check/debit

_____ Non-profit/Church/Charity

_____ Friends or Co-workers

_____ Insurance Settlement

_____ Crowd-funding (e.g. GoFundMe)

_____ Government Assistance

_____ Bank Loan

_____ Family

_____ Put on Credit Card

18. How much TIME DID PEOPLE VOLUNTEER in cleaning up or repairing your property?

About how many hours do you estimate that you and your family worked? _____ hours

About how many hours do you estimate that non-family members worked? _____ hours

Additional Comments on direct impacts of flooding:

EVACUATION and DISPLACEMENT:**19. Were you displaced from your home or business during the 2016 flooding events?**☐ No (if "No", go to Question 23)☐ Yes (If "Yes" go to Question 20)**20. For those who were DISPLACED: What caused or prompted you to leave? [check all that apply]:**☐ I received an evacuation notice☐ Water was threatening my property☐ Other _____☐ I was worried about being stuck or stranded☐ There was water in my home or business☐ Other _____**21. For those who DID EVACUATE: When you evacuated your home, where did you stay and how long?**

Location	#days/weeks/mos.	Location	#days/weeks/mos.
<input type="checkbox"/> A designated shelter (church, etc.)		<input type="checkbox"/> with family in the community	
<input type="checkbox"/> Hotel		<input type="checkbox"/> with family outside the community	
<input type="checkbox"/> with a friend		<input type="checkbox"/> Other	
<input type="checkbox"/> with a coworker		<input type="checkbox"/> Other	

22. How long was it before you returned to your home permanently? _____ days/weeks/months (circle one)**23. For those who DID NOT EVACUATE:****If you stayed in your home during the worst flood threat or actual flooding, why did you stay? [check all that apply]:**☐ I did not feel threatened☐ I was worried about my pets☐ I wanted to protect my property☐ Minimal water was in my dwelling☐ I have special health needs☐ Others in my household have special needs☐ It was not safe to leave☐ I did not know where to go☐ Other _____**Part 4: Becoming More Resilient to Floods**

The following questions help us understand ways that you may have responded to flooding, as well as thoughts about what actions might better allow your household and our communities to bounce back after flooding.

24. Did you or anyone in your household make improvements to your home or property to better prepare for or prevent future flood impacts?

TYPE of CHANGE	Estimated Cost to You for Making this Change						
Earth moving/landscaping	<input type="checkbox"/> \$0	<input type="checkbox"/> \$1-\$999	<input type="checkbox"/> \$1,000-\$4,999	<input type="checkbox"/> \$5,000-\$9,999	<input type="checkbox"/> \$10,000-\$19,999	<input type="checkbox"/> \$20,000-\$34,999	<input type="checkbox"/> > \$35,000
Tiling or drainage management	<input type="checkbox"/> \$0	<input type="checkbox"/> \$1-\$999	<input type="checkbox"/> \$1,000-\$4,999	<input type="checkbox"/> \$5,000-\$9,999	<input type="checkbox"/> \$10,000-\$19,999	<input type="checkbox"/> \$20,000-\$34,999	<input type="checkbox"/> > \$35,000
Structural changes to your home	<input type="checkbox"/> \$0	<input type="checkbox"/> \$1-\$999	<input type="checkbox"/> \$1,000-\$4,999	<input type="checkbox"/> \$5,000-\$9,999	<input type="checkbox"/> \$10,000-\$19,999	<input type="checkbox"/> \$20,000-\$34,999	<input type="checkbox"/> > \$35,000
Structural changes to other buildings	<input type="checkbox"/> \$0	<input type="checkbox"/> \$1-\$999	<input type="checkbox"/> \$1,000-\$4,999	<input type="checkbox"/> \$5,000-\$9,999	<input type="checkbox"/> \$10,000-\$19,999	<input type="checkbox"/> \$20,000-\$34,999	<input type="checkbox"/> > \$35,000
Enrolling in conservation programs (e.g. EWP, CRP)	<input type="checkbox"/> \$0	<input type="checkbox"/> \$1-\$999	<input type="checkbox"/> \$1,000-\$4,999	<input type="checkbox"/> \$5,000-\$9,999	<input type="checkbox"/> \$10,000-\$19,999	<input type="checkbox"/> \$20,000-\$34,999	<input type="checkbox"/> > \$35,000
Other: _____	<input type="checkbox"/> \$0	<input type="checkbox"/> \$1-\$999	<input type="checkbox"/> \$1,000-\$4,999	<input type="checkbox"/> \$5,000-\$9,999	<input type="checkbox"/> \$10,000-\$19,999	<input type="checkbox"/> \$20,000-\$34,999	<input type="checkbox"/> > \$35,000
Other: _____	<input type="checkbox"/> \$0	<input type="checkbox"/> \$1-\$999	<input type="checkbox"/> \$1,000-\$4,999	<input type="checkbox"/> \$5,000-\$9,999	<input type="checkbox"/> \$10,000-\$19,999	<input type="checkbox"/> \$20,000-\$34,999	<input type="checkbox"/> > \$35,000

25. Did you or anyone in your household make other changes to better prepare for or prevent future flooding?*[check all that apply]:*☐ Buy flood insurance☐ Buy groundwater insurance☐ Other _____☐ Start a phone tree with neighbors☐ Make a household flood response plan☐ Other _____

Additional Comments on Resilience/Ways you Adjusted after Flooding:

Part 5: Understanding your Household

This information will help us understand how different types of households or families are affected by flooding. Again, **this information is completely anonymous and confidential.**

26. Describe the primary decision maker(s) in your household regarding issues like flooding and flood preparedness:

Age/Gender	Highest Level of Education	Employment Status	Years lived in the Upper Iowa River Watershed?
1. <input type="checkbox"/> 18-24 <input type="checkbox"/> 55-64 <input type="checkbox"/> 25-34 <input type="checkbox"/> 65-74 <input type="checkbox"/> 35-44 <input type="checkbox"/> 75-84 <input type="checkbox"/> 45-54 <input type="checkbox"/> 85+ <input type="checkbox"/> Female <input type="checkbox"/> Male	<input type="checkbox"/> Less than high school graduate <input type="checkbox"/> High school graduate or GED <input type="checkbox"/> 1+ year of college, no degree <input type="checkbox"/> Associates/ other 2 year degree <input type="checkbox"/> College graduate, 4 year degree <input type="checkbox"/> Graduate degree completed	<input type="checkbox"/> 0% (Unemployed) <input type="checkbox"/> 0% (Retired) <input type="checkbox"/> Part-time (5-20 hrs/week) <input type="checkbox"/> Part-time (21-39 hrs/week) <input type="checkbox"/> Full-time (40+ hrs/wk)	_____(# of years) Did this person contribute to filling out this survey? <input type="checkbox"/> No <input type="checkbox"/> Yes
2. <input type="checkbox"/> 18-24 <input type="checkbox"/> 55-64 <input type="checkbox"/> 25-34 <input type="checkbox"/> 65-74 <input type="checkbox"/> 35-44 <input type="checkbox"/> 75-84 <input type="checkbox"/> 45-54 <input type="checkbox"/> 85+ <input type="checkbox"/> Female <input type="checkbox"/> Male	<input type="checkbox"/> Less than high school graduate <input type="checkbox"/> High school graduate or GED <input type="checkbox"/> 1+ year of college, no degree <input type="checkbox"/> Associates/ other 2 year degree <input type="checkbox"/> College graduate, 4 year degree <input type="checkbox"/> Graduate degree completed	<input type="checkbox"/> 0% (Unemployed) <input type="checkbox"/> 0% (Retired) <input type="checkbox"/> Part-time (5-20 hrs/week) <input type="checkbox"/> Part-time (21-39 hrs/week) <input type="checkbox"/> Full-time (40+ hrs/wk)	_____(# of years) Did this person contribute to filling out this survey? <input type="checkbox"/> No <input type="checkbox"/> Yes

27. What was your annual gross household income from all sources before taxes in 2017?

- | | | | |
|---|---|---|---|
| <input type="checkbox"/> Less than \$15,000 | <input type="checkbox"/> \$25,000 to \$34,999 | <input type="checkbox"/> \$50,000 to \$74,999 | <input type="checkbox"/> \$100,000 to \$149,999 |
| <input type="checkbox"/> \$15,000 to \$24,999 | <input type="checkbox"/> \$35,000 to \$49,999 | <input type="checkbox"/> \$75,000 to \$99,999 | <input type="checkbox"/> \$150,000+ |
-

Please leave any additional comments here:

If you would like for us to mail you a summary of this research or be involved in future flood-related research, leave your contact information below:

A vision for a more resilient Iowa

The Iowa Watershed Approach

Ashlee Johannes

Iowa Watershed Approach Flood Resilience Program Coordinator

ashlee-johannes@uiowa.edu



Flood Resilience Program Goals and Current Products

The IWA Flood Resilience Program seeks to:

- Measure, visualize, and communicate flood resilience resources
- Enhance flood resilience content in formal watershed plans
- Improve social resources for flood resilience

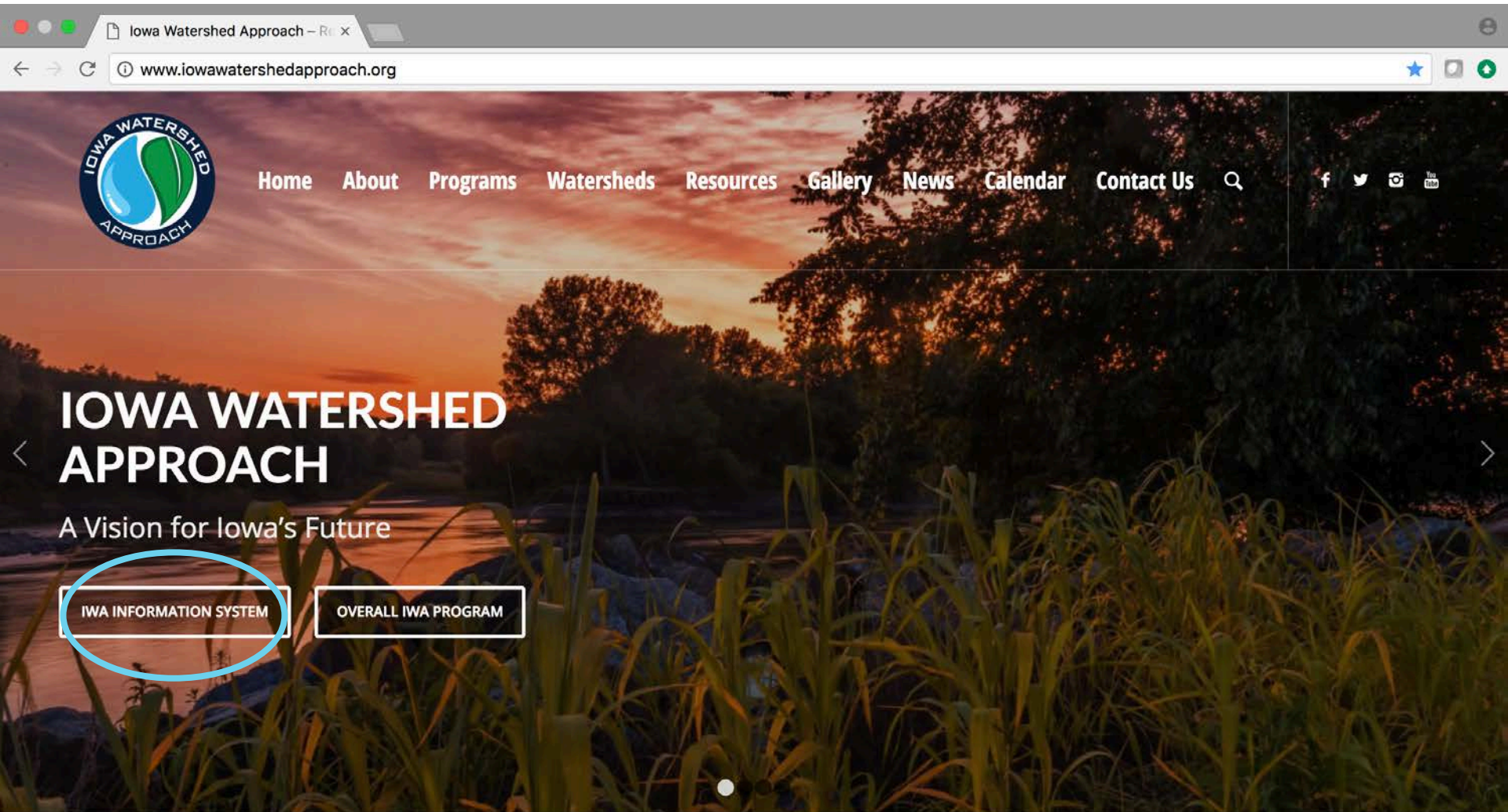
Current available products for select towns:

- Interactive flood damage estimations

Current products under development:

- Flood Resilience Action Plans
- Interactive Social Vulnerability & Flood Risk Platform
- Pre-Disaster Mitigation Grant Preparation Assistance
- Town-Scale Resilience Case Studies

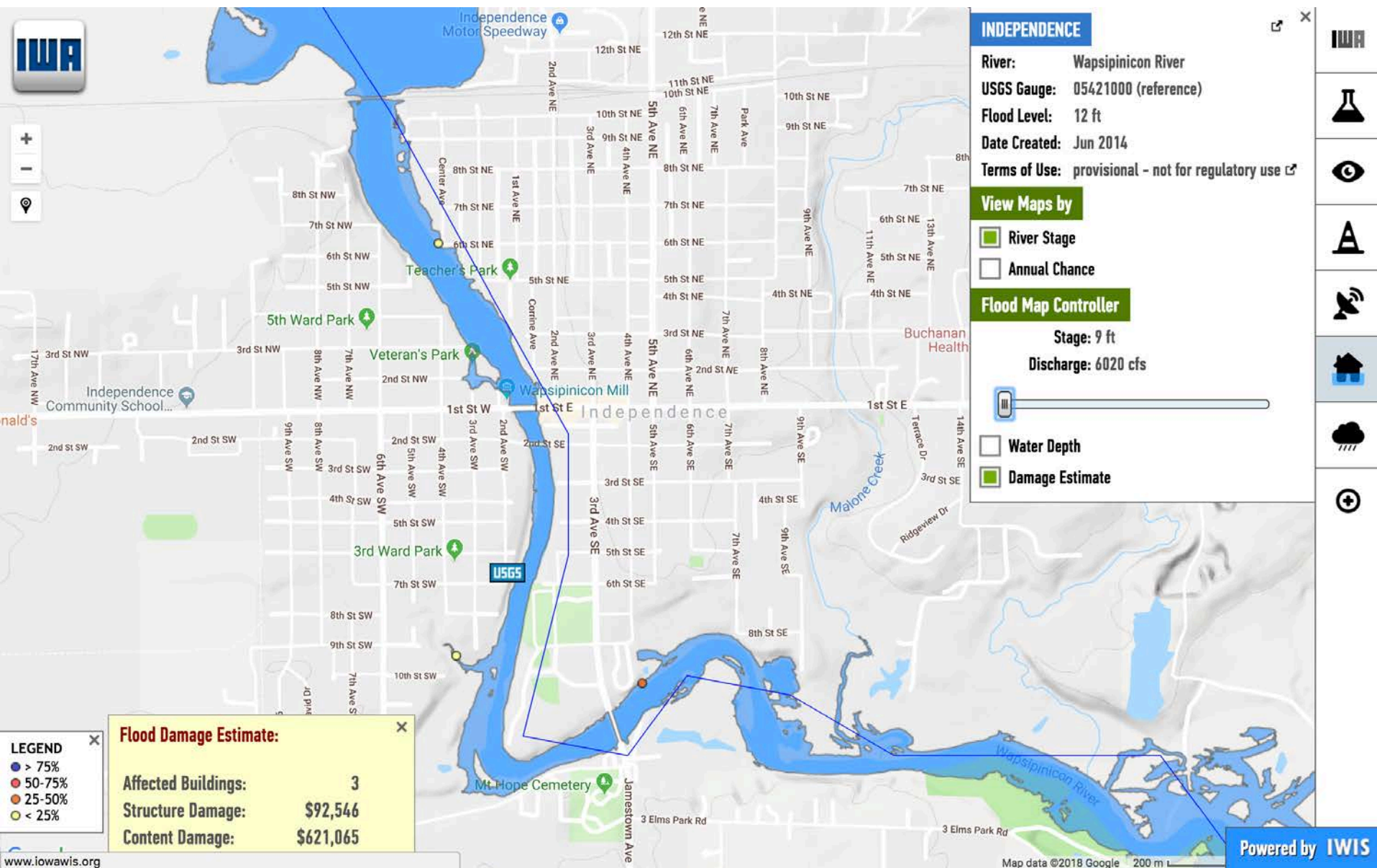
Iowa Watershed Approach Information System



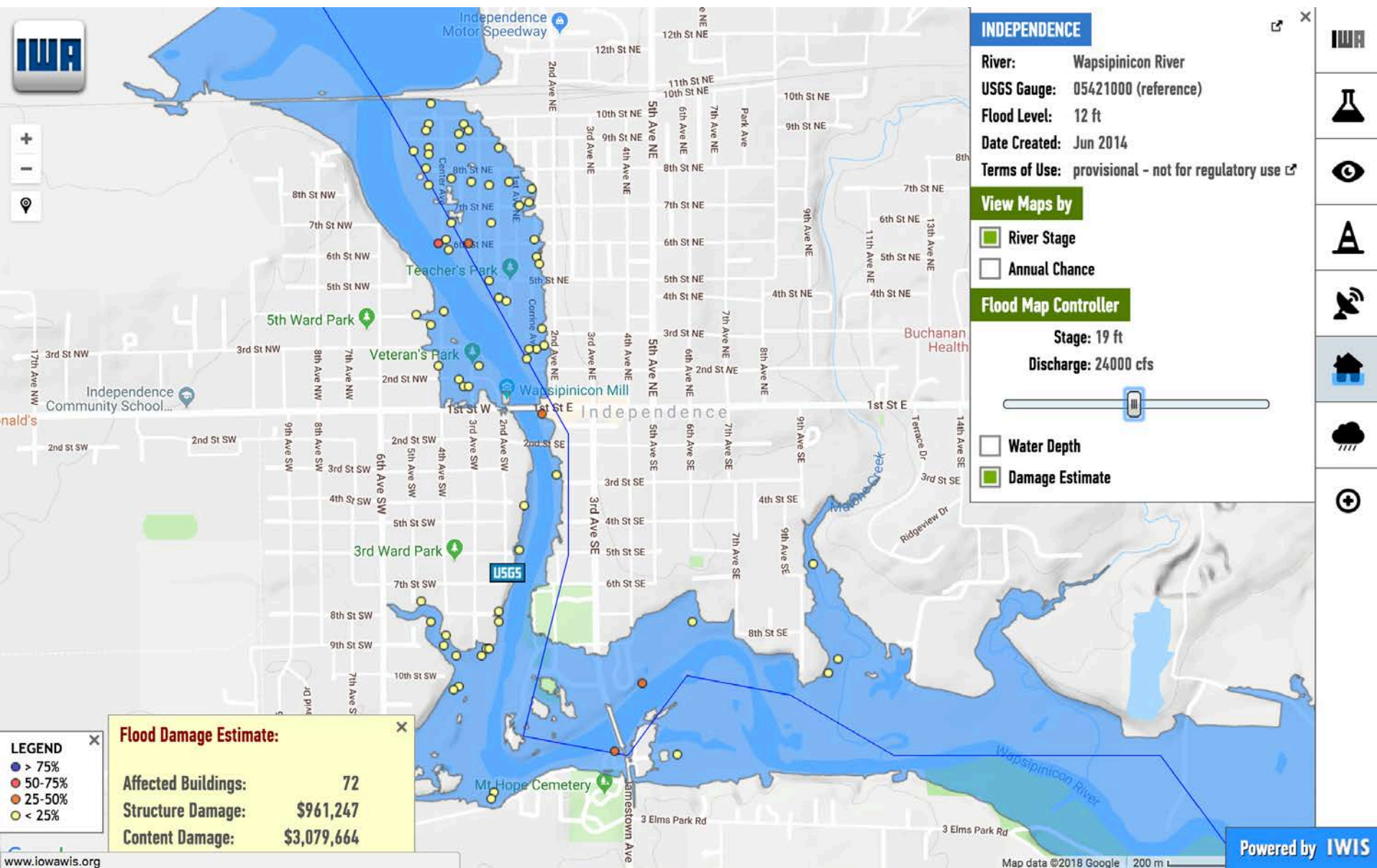
IOWA WATERSHED APPROACH

HUD Disaster Resilience Grant to Iowa: \$96.9 million

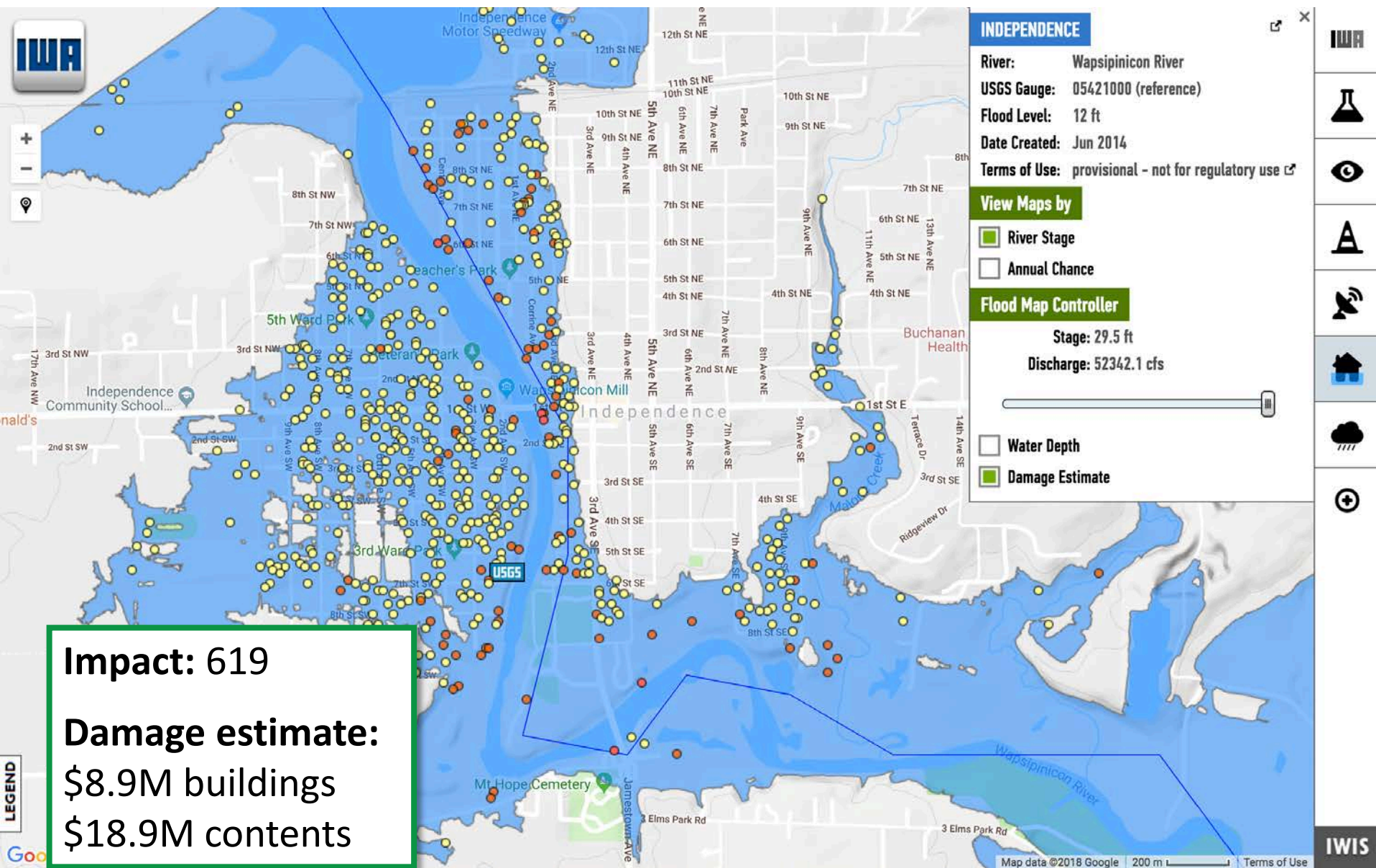
Interactive Flood Damage Estimations – Independence



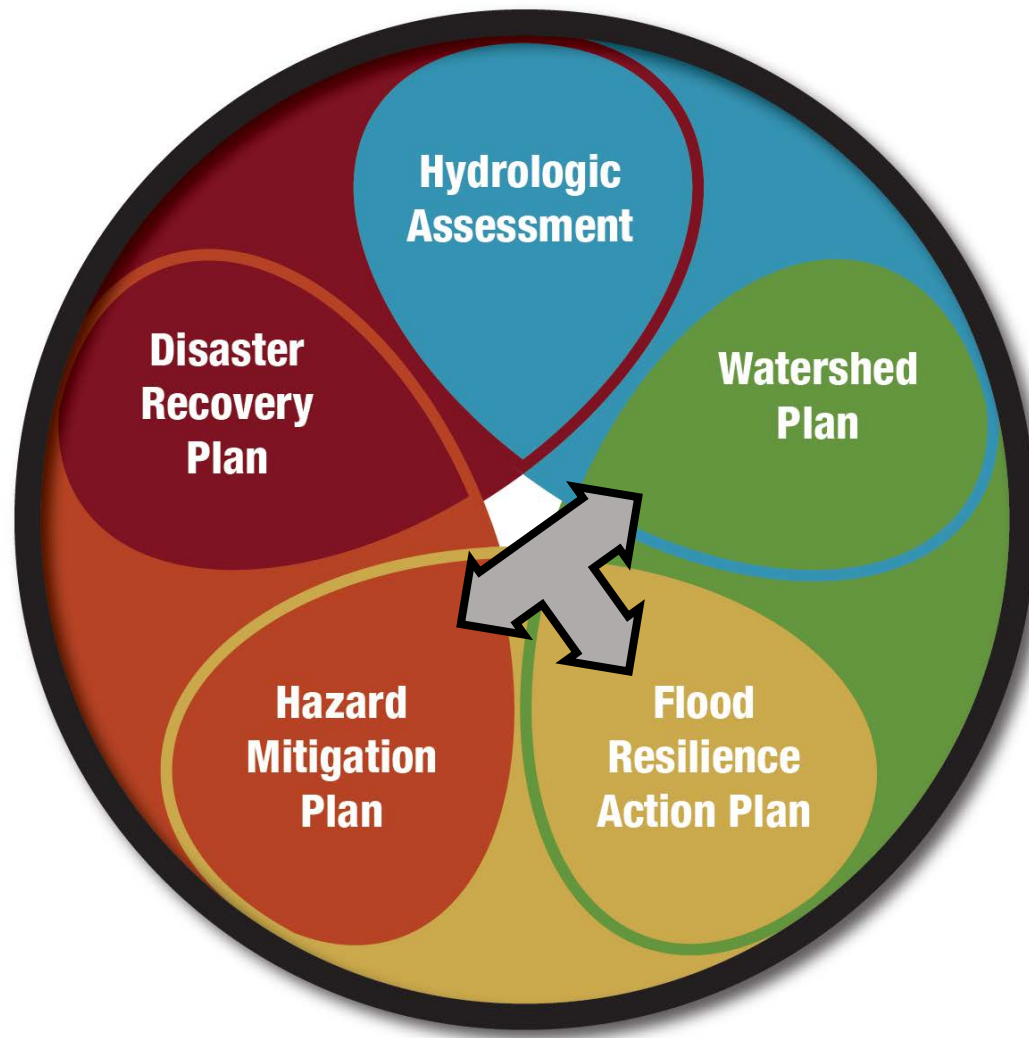
Interactive Flood Damage Estimations – Independence



Interactive Flood Damage Estimations – Independence



Developing a Flood Resilience Action Plan to facilitate connection of watershed plan and flood hazard mitigation planning



Flood Resilience Action Plan



Middle Cedar River Flood Resilience Action Plan

IOWA WATERSHED APPROACH

Product of Flood Resilience Program
IOWA WATERSHED APPROACH |
[HTTP://WWW.IOWAWATERSHEDAPPROACH.ORG/](http://www.iowawatershedapproach.org/)



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THE FLOOD RESILIENCE APPROACH

WATERSHED COMMUNITIES & ENVIRONMENT

FLOOD RESILIENCE ACTION RECOMMENDATIONS

A MULTI-BENEFIT APPROACH TO A WATERSHED FLOOD RESILIENCE ACTION PLAN

CREDITS

APPENDIX

“Lower-income people are among the least able to recover, yet they are often central to the economy and culture of a community.”

- THE INSTITUTE FOR SOCIAL AND ENVIRONMENTAL TRANSITION – INTERNATIONAL

Social vulnerability indicators help us prioritize actions

% Black

% Language barrier

% Renters

% Unemployed

% Poverty

% Children

% Elderly

% Hispanic

% Low Education

% Female head of household

% Disabled

% No vehicle access

Nat Hazards (2016) 80:2055–2079
DOI 10.1007/s11069-015-2060-8

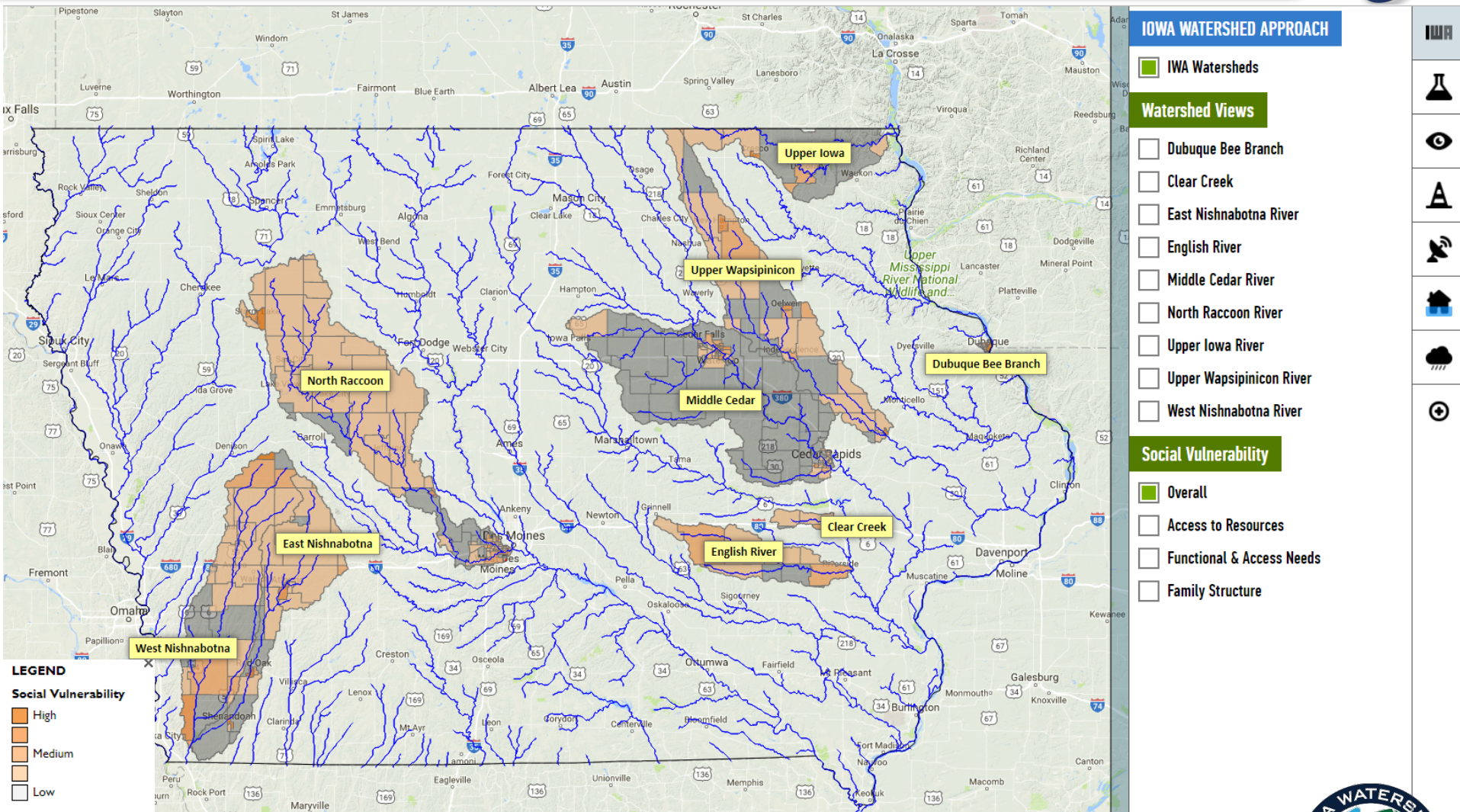


ORIGINAL PAPER

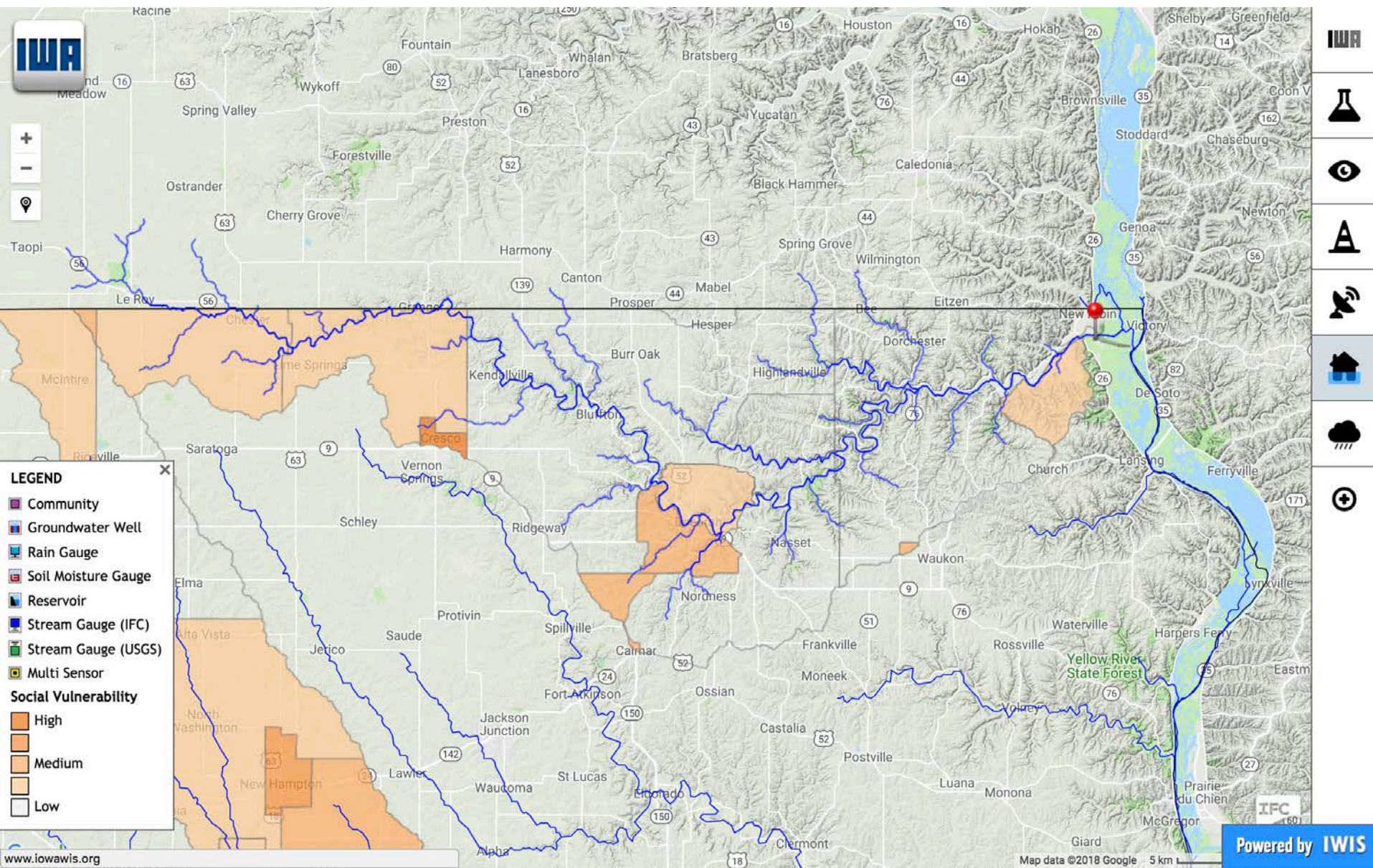
Flood recovery and property acquisition in Cedar Rapids, Iowa

Eric Tate¹ • Aaron Strong² • Travis Kraus³ • Haoyi Xiong¹

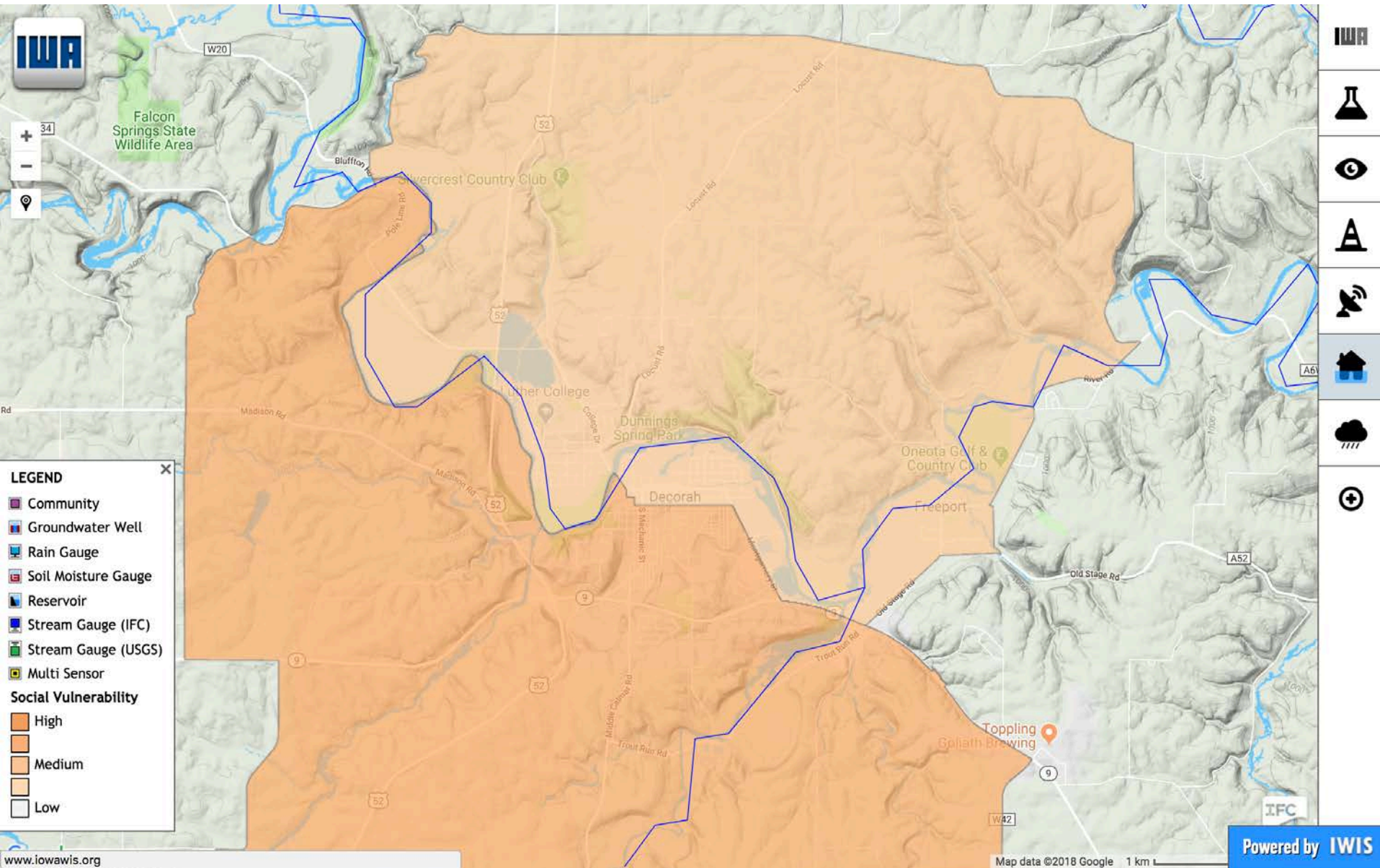
Interactive Social Vulnerability & Flood Risk Platform



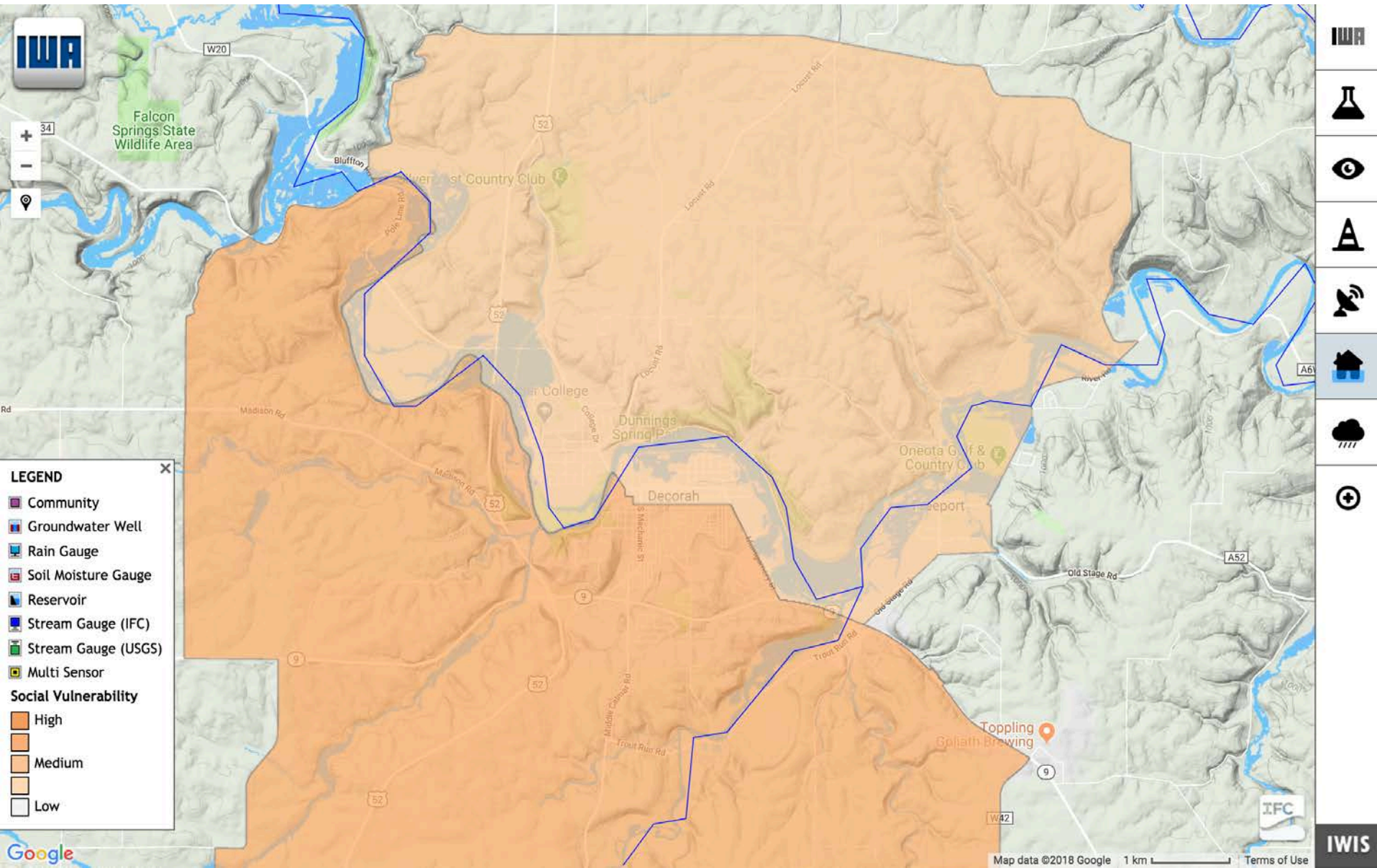
Social Vulnerability Overlay – Upper Iowa



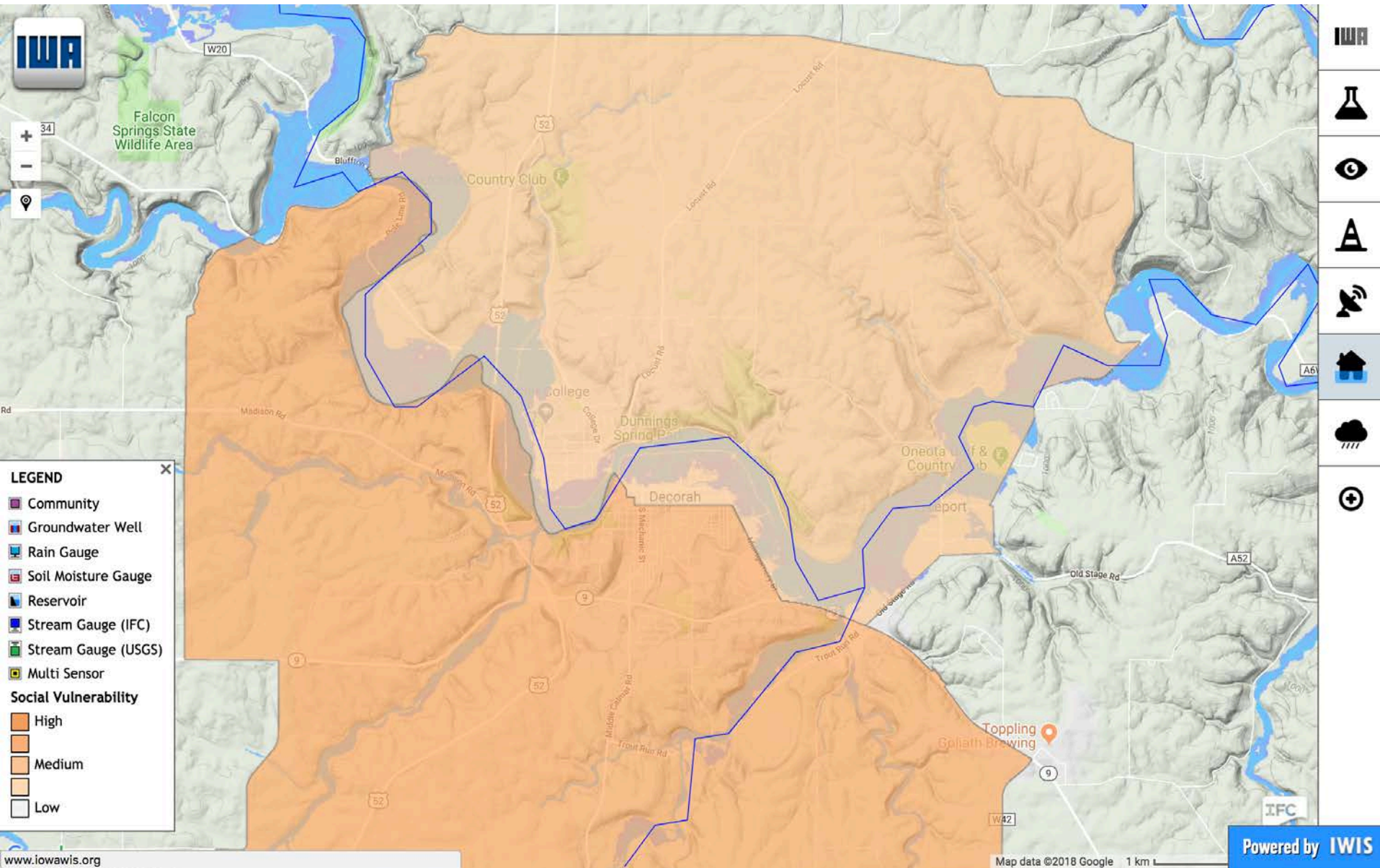
Social Vulnerability at the Intersections of Flood Risk - Decorah



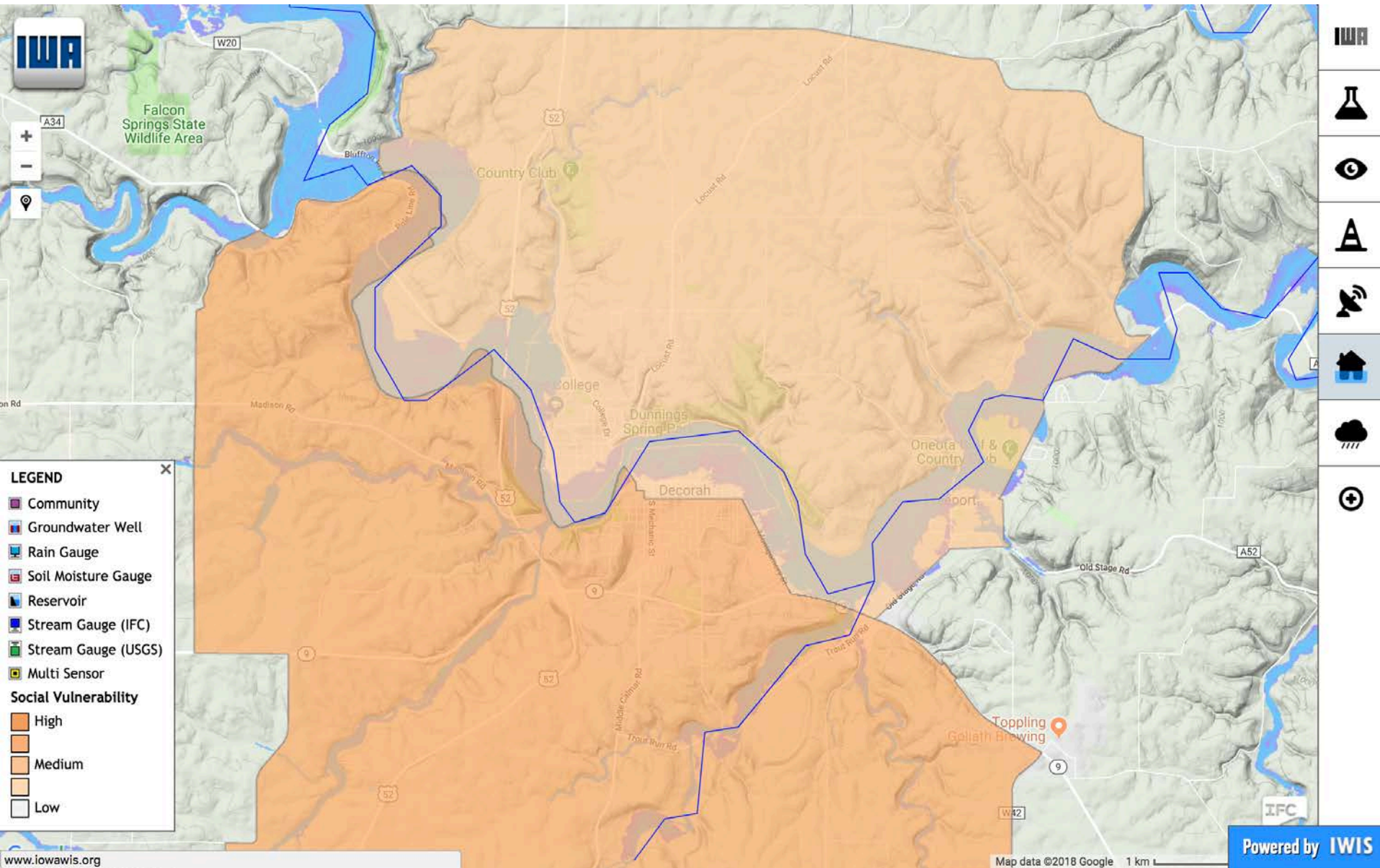
Social Vulnerability at the Intersections of Flood Risk - Decorah



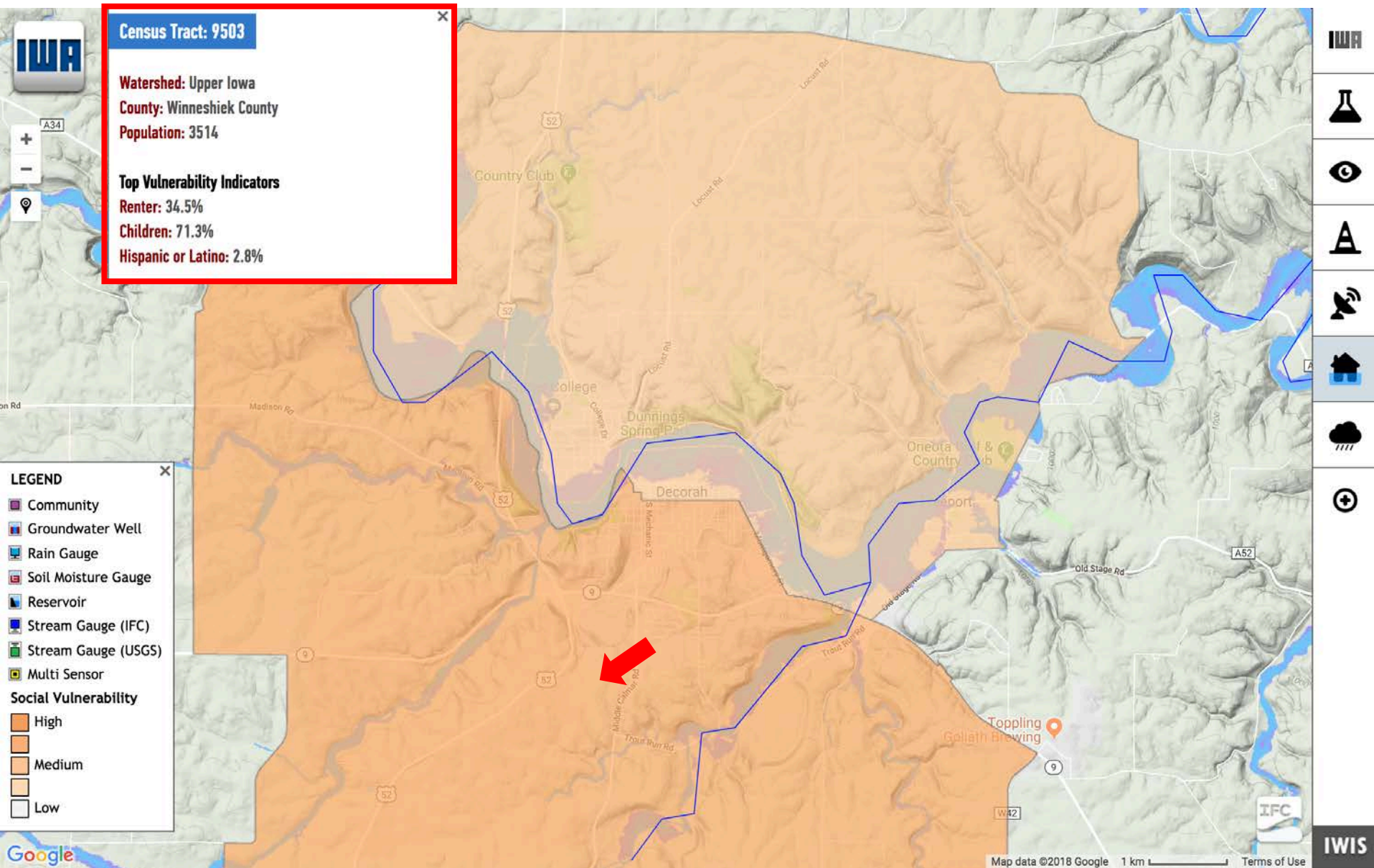
Social Vulnerability at the Intersections of Flood Risk - Decorah



Social Vulnerability at the Intersections of Flood Risk - Decorah



Social Vulnerability at the Intersections of Flood Risk - Decorah



Social Vulnerability Narratives & Pre-Disaster Mitigation (PDM) Grants

PDM goal: To reduce population and structural risk to future hazard events

PDM awards **planning and project grants** and provides opportunities for public awareness and education about reducing flood impacts

PDM grants are funded annually by Congressional appropriations and are awarded on a nationally **competitive** basis

<https://www.fema.gov/pre-disaster-mitigation-grant-program>

The IWA Flood Resilience Team wants to provide social vulnerability narratives for PDM grant applications

Flood Resilience Program is making connections with local partners

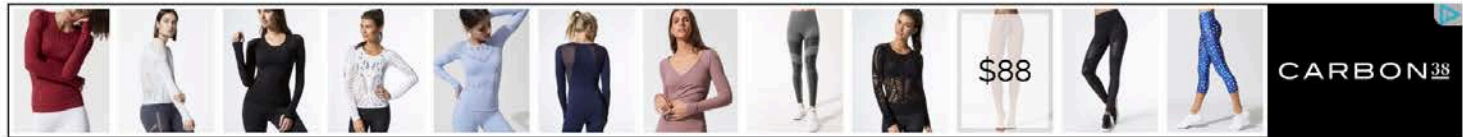
Current Engagement in Upper Iowa

- Partnership with Luther College to carry out local programming
- County EMAs
- Freeport residents

Engagement in Other Watersheds

- Community organizations Active in Disaster (COADs) – e.g., Benton Co Recovery Coalition, LAP-AID, Johnson Co EOC
- Partnership with Hawkeye Area Community Action Program (HACAP) to enhance the 211 system for floods – almost 3,000 calls during September 2016 floods seeking essential resources

Flood resilience case studies will be developed for each watershed



PUBLIC SAFETY

Wed., August 24, 2016

Freeport couple among many forced from their homes due to flooding

'Our basement was like a tidal wave, filling up with water'

Flooding in northeast Iowa, Aug. 24

BUY PHOTO

EXPAND SLIDESHOW





A vision for a more resilient Iowa

The Iowa Watershed Approach

Iowa Flood Center
The University of Iowa
100 C. Maxwell Stanley Hydraulics Laboratory
Iowa City, IA 52242

319-335-5233

<http://www.iowawatershedapproach.org/>

  @IWAReduceFloods



A vision for a more resilient Iowa

The Iowa Watershed Approach





NORTHEAST IOWA RC&D

Resource Conservation & Development

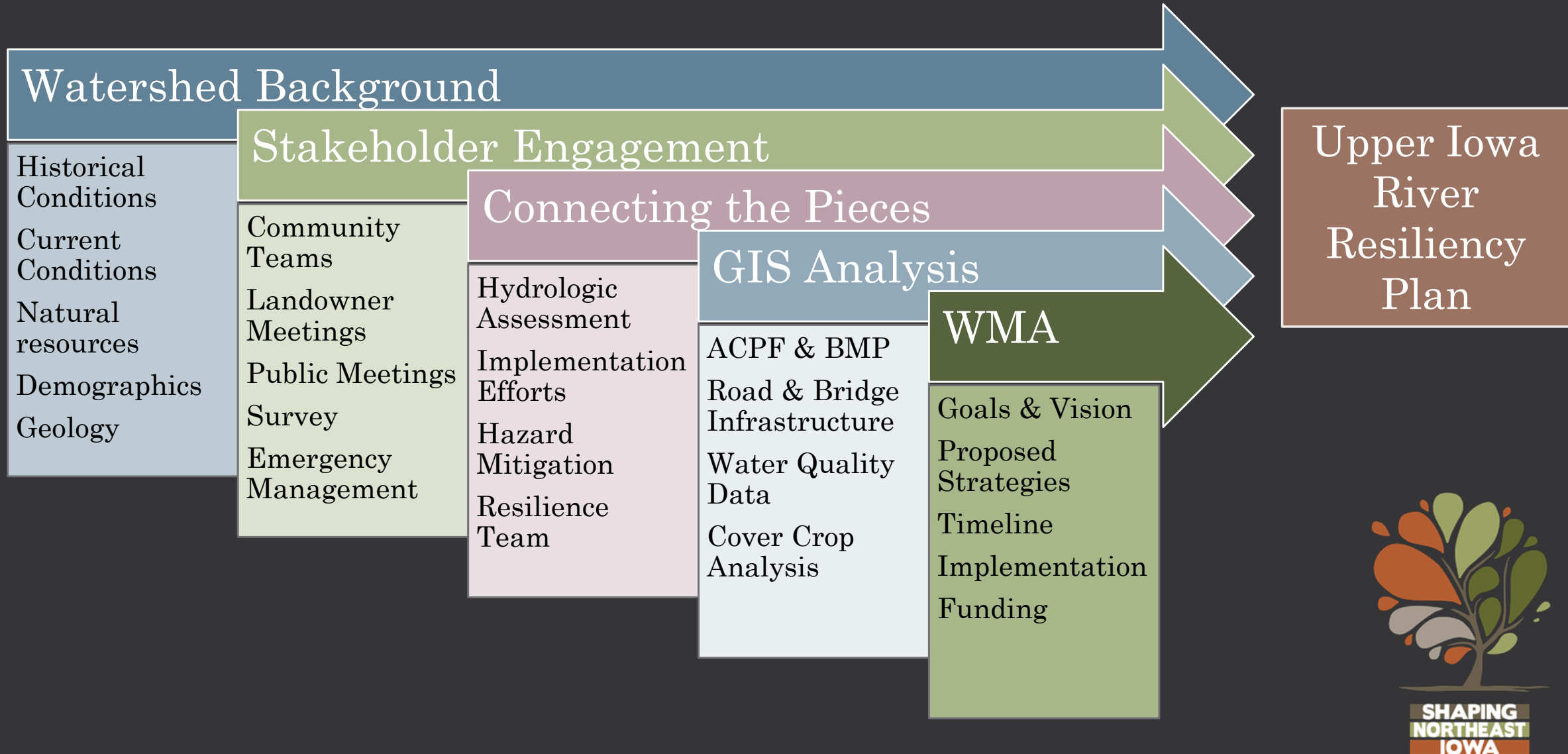
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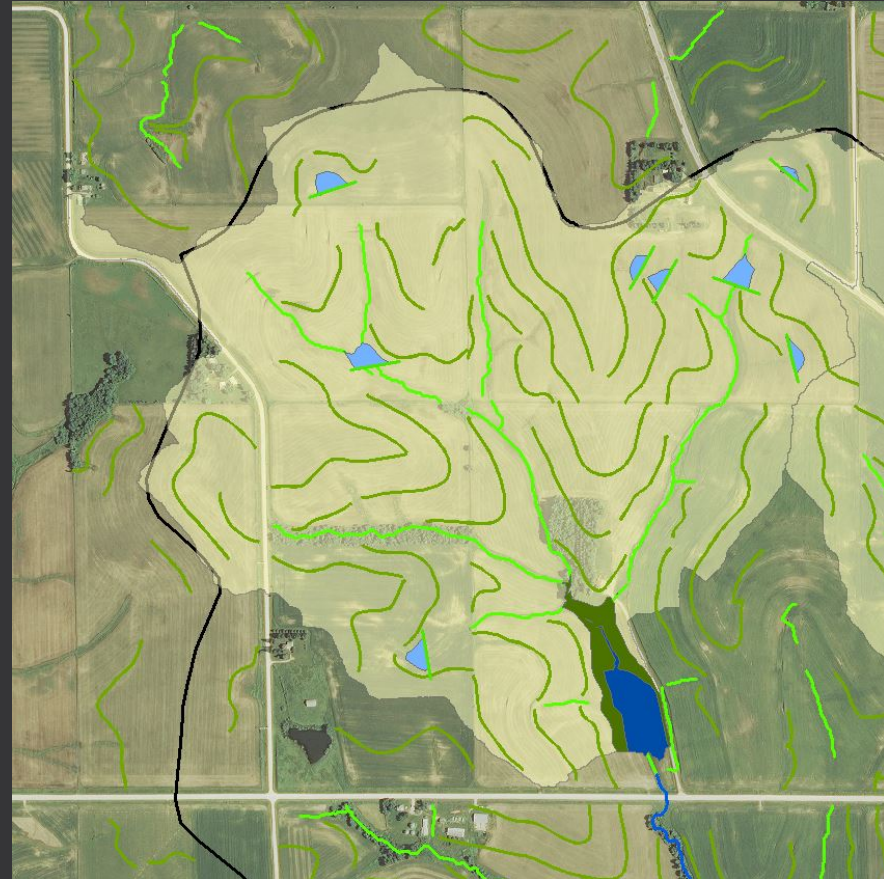
June 14th, 2018

Upper Iowa River Watershed Planning



UIR GIS Analysis

- Agricultural Conservation Planning Framework (ACPF)
 - Iowa Flood Center & RC&D
- BMP Analysis
 - Iowa DNR & RC&D
- Road & Bridge Infrastructure
 - RC&D & County Engineers

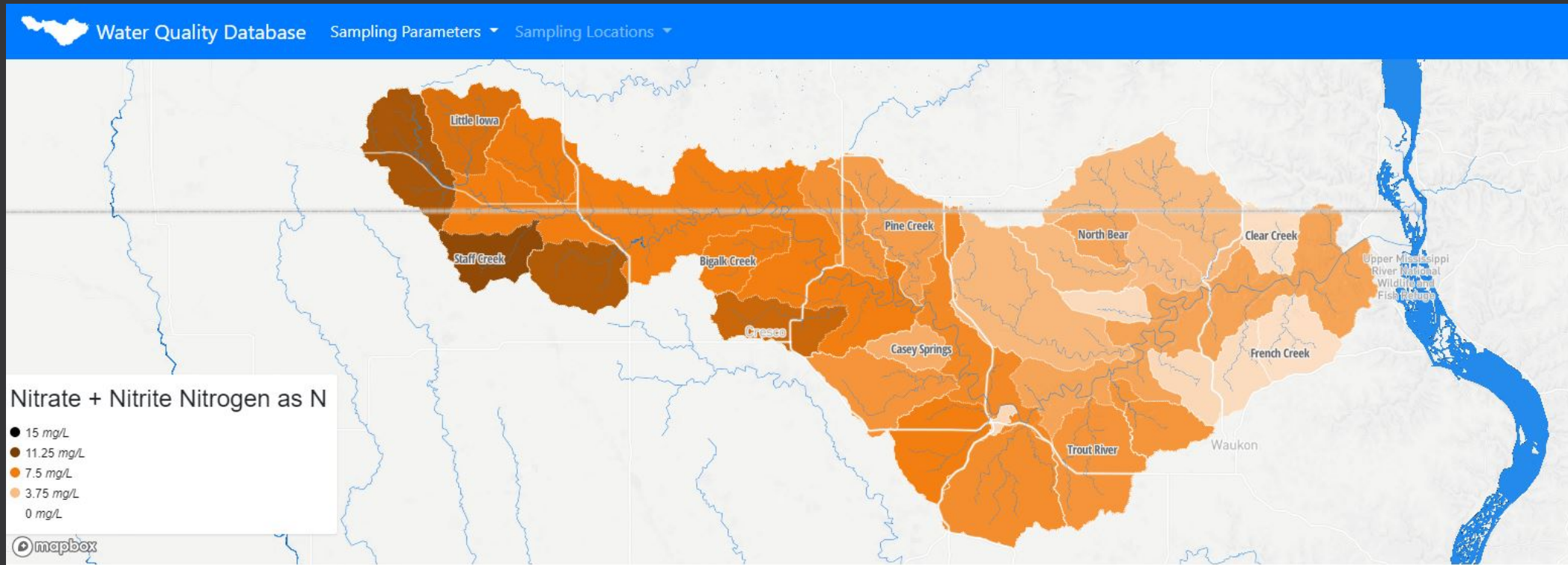


ACPF, BMP, Road Infrastructure Analyses



UIR GIS Analysis

- Water Quality Analysis
 - <https://data.upperiowariver.org/>



Cover Crop Analysis



Acres	191.3486
isAG	1
Shape_Length	4617.22924
Shape_Area	773866.420175
OBJECTID	323
FBndID	F070801020503_323
GenLU	C/S with Continuous Corn
CropRotatn	BCCCBC
CropSumry	C4B2
CCCcount	2:6
MixCount	0:6



Why are cover crops important?



- Cover Crops + No-till increases organic matter in the soil by 0.1%/yr
- 0.1% soil organic matter increases water capacity by 2,000 gallons of water per acre
- 1 inch rainfall = 27,000 gallons of water per acre

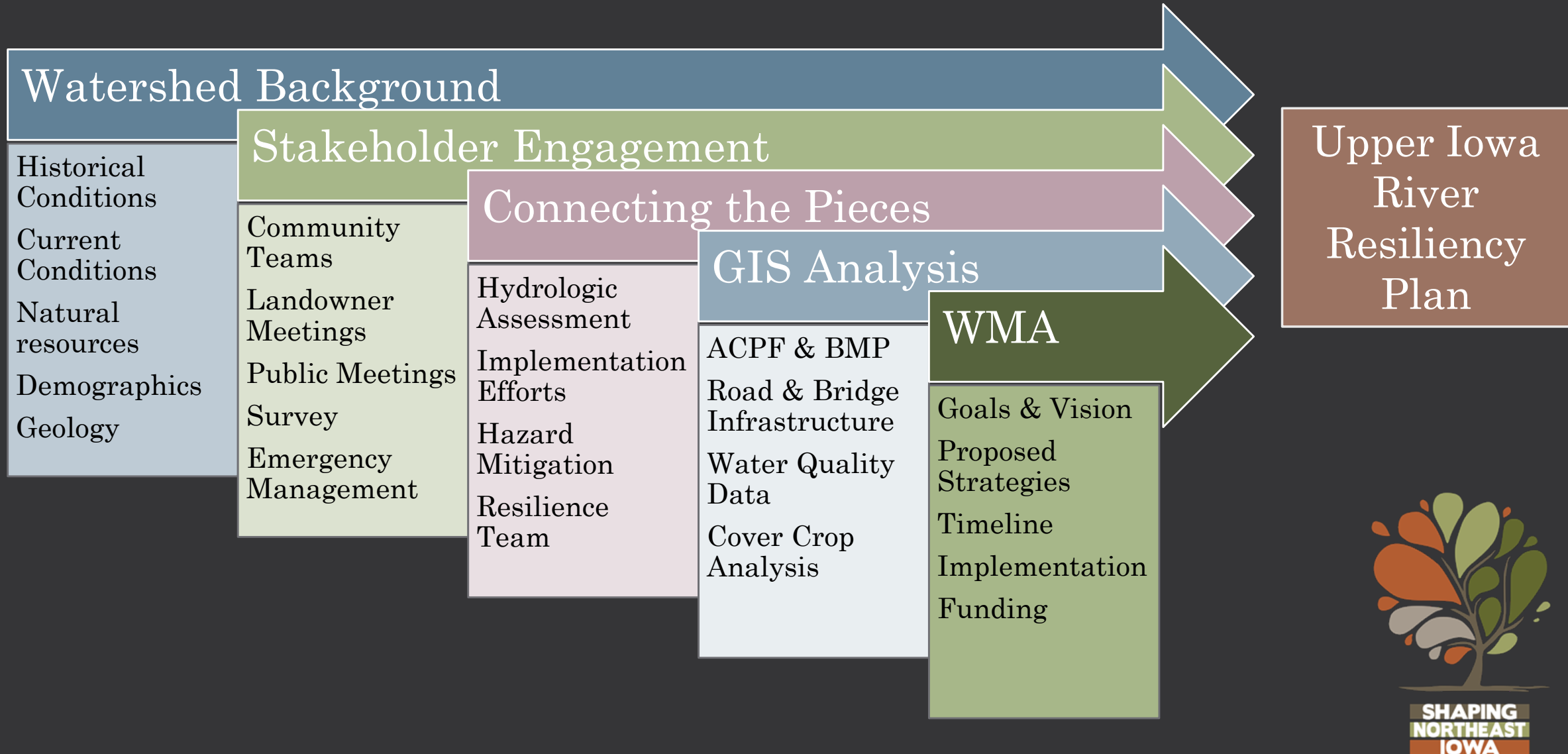


Why are cover crops important?

- Average of 31% N reduction
- Average of 29% P reduction



Upper Iowa River Watershed Planning



UPPER IOWA RIVER WATERSHED PROJECT



Matt Frana – *UIR Project Coordinator*

One year down....2017-2018 timeline review

- **Short-term (Summer 2017)**

Finalize Sub-watersheds/landowner contacts/ hash out contracting process...

- **JUNE**

- Meet with partners and interested organizations to get a better understanding of the watershed project and practices that will be utilized.
- Develop Criteria to pick sub-watersheds
- Begin narrowing down watersheds
- Work with RC&D to get post cards/survey sent out

- **JULY**

- Winn Co Fair (July 10-15)
- Landowner Information Meetings (July 20th)
 - Inform landowners of program/practices/process
 - Gauge landowner interest in sub-watersheds
- Start making landowner contacts/field visits to better evaluate potential for practices

- **AUGUST**

- **Finalize sub-watersheds (Aug WMA meeting)**
 - Use info from IFC data, surveys, public meeting, landowner and professional input
- Determine application/ranking/contracting process - WMA Laundry List (Aug/Sept)



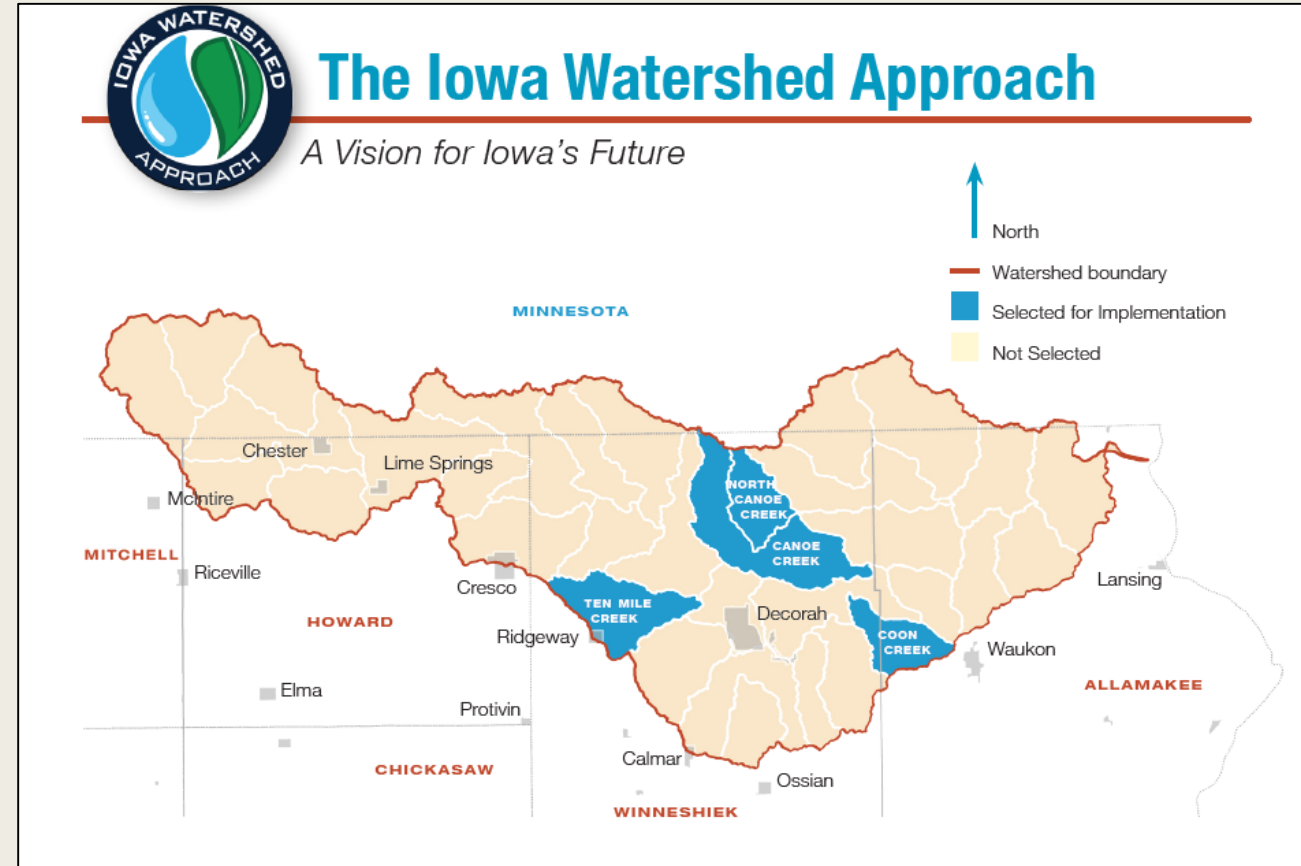
One year down....2017-2018 timeline review

- **Mid-term (Aug-Summer 2018)**

- Get in contact with interested landowners & begin developing list of good project locations.
- General Public Information Meeting (Sept/Oct)
- Begin designs (Fall/Winter 2017)
- **Start Projects (Spring/Summer 2018)**

- **Long-term (Summer 2018-2021)**

- Continue Projects
- Be looking for grant opportunities to assist with current funds, extend project and/or start new project area.



Potential projects...

- Landowner contacts ~ 50-60
- Site visits with potential projects ~ 25
- Potential project surveys ~ 17
- Road structures - 4

Challenges 2017-18

- Delays with hiring conservation technician.
 - *Had to extend application deadline to get quality applicants.*
- Patience on project process.
 - *New process for completing projects, figuring out as we go.*
- A lot of landowner interest in projects...but quality projects a harder to come by...sifting through and figuring out where to start.
 - *Cost*
 - *Karst Topography*
 - *Fill Material*



Highlights from last 6 months...

- Hired Conservation Technician
 - *Marc Oyloe...worth the wait*
- Started investigating/surveying project sites from compiled list of interested landowners.



Water and Sediment Control Basin Sites



Road Structure







Spring 2018 newsletter

- Sent out to landowners in the priority watersheds.
- 700+ Landowners
- Wanted to give landowners in the watershed general background info on the project and its purpose.



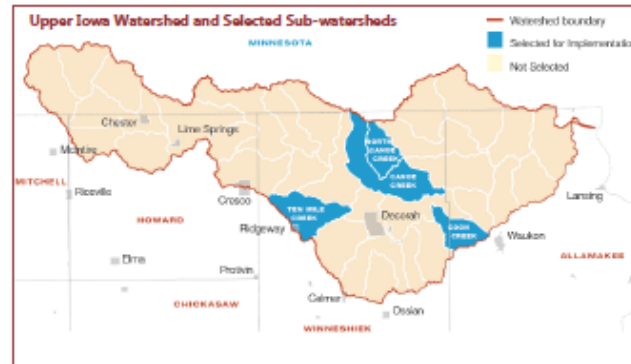
Project Background

In 2016 the State of Iowa secured a \$96.7M federal FEMA Disaster Resilience Grant issued through Housing and Urban Development (HUD) to address flooding issues throughout the state.

The money was then split up amongst watersheds in the state that qualified for assistance. The Upper Iowa River (UIR) Watershed was one of selected watersheds and received around \$4 million to implement water retention projects. In order to maximize the effect of these projects, four sub-watersheds within the UIR watershed were selected to concentrate practices in.

The selected sub-watersheds are: Ten-Mile Creek, North Canoe Creek, Canoe Creek, and Coon Creek.

Input from many professionals (NRCS/SWCD staff, DNR, local emergency management services, County Engineers, Northeast Iowa RC&D, FWS, Iowa Flood Center, etc.) as well as info from landowner surveys and public comments were used to select the watersheds. Some factors that helped determine the watersheds included: eligible areas, areas that are frequently damaged during heavy rain events, potential for projects, landowner interest, and areas of significant public value/awareness.



The Iowa Watershed Approach (IWA) is a vision for

Iowa's future that voluntarily engages stakeholders throughout the watershed to achieve common goals, while moving toward a more resilient state. It is a replicable model for other communities where the landscape has lost its natural resilience to floods. This program is not only about Iowans helping Iowans, but also about demonstrating Iowans' commitment to agricultural stewardship, to the environment, to their neighbors, and to the future. The goals of the IWA include the following:

- Reduction of flood risk;
- Improvement in water quality;
- Increased resilience;
- Engagement of stakeholders through collaboration, outreach, and education;
- Improved quality of life and health for Iowans; and
- Development of a replicable program.

To learn more about the IWA check out: www.iowawatershedapproach.org

Future

- Start looking at project sites not obstructed by cropland
- Really focus on getting a project completed to have a better mental timeline of project process.
 - *Optimistically Fall 2018*
 - *Realistically Spring 2019*



Questions?

Matt Frana

Upper Iowa Watershed Project Coordinator

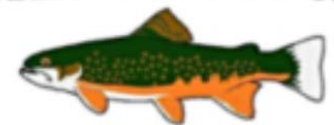
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CONSERVATION DISTRICT