

Minutes

The meeting was called to order by WMA Chairman, John Kurtz at 1:30 pm.

Motion to approve the agenda. Motion was made by Michael O'Loughlin and seconded by Sean Dolan. Motion Passed.

Attendees: John Kurtz, *Buchanan County Supervisor*, Tori Nimrod, *Northeast Iowa RC&D*, Orlan Love, *City of Quasqueton*, Randy Leach, *City of Fredericksburg*, Kip Ladage, *Bremer County SWCD*, Dennis Goemaat, *Linn County Conservation*, Steve Breitbach, *Chickasaw County*, Mike O'Loughlin, *City of Independence*; Ron Lenth, *Bremer SWCD*, Sherman Lundy, *Black Hawk County SWCD*, Sean Dolan, *Buchanan SWCD*, Trevyn Cunningham, *Central City*, Sydney Hartogh, *Mitchell County*, Brian Keierleber, *Buchanan County Engineer*, Ben Bonar, *Buchanan CCB*, Steve Geerts, *City of New Hampton*, Karmin McShane, *Linn Co SWCD*.

Motion to approve the Minutes from July 11th, 2024. Amendment was made to section Water Sampling Results 2023 to correct a typo. Correction reads, "*Dr. St. Claire is now working at the University of Iowa and continues to partner from his new position.*" Motion was made by Mike O'Loughlin and seconded by Sean Dolan. Motion Passed.

Presentation:

Watershed Coordinators, Ross Evelsizer and Tori Nimrod presented an on-road structure GIS analysis project funded by the Iowa DOT research board and completed by the Iowa Flood Center, Iowa State University and local county engineers. The project worked to create an online network of potential locations for on-road detention structures.

On-road detention structures are a fairly new practice that helps reduce flooding downstream by building up a section of road to create the dam structure. These practices can be designed as dry ponds in which normal flow under the road still exists and water only backs up during heavy rain events' or they can have a permanent pool with extended storage during heavy rain events. The structures work to reduce the flashy nature of heavy rain events by temporarily holding water back and letting it through the structure at a slower rate. They are designed to return to normal flow within 48 hours reduce damage to crops or other vegetation in the inundation area. These structures are built in the county right of way so the structure itself is maintained like a normal road and culvert system by the Counties. Landowners up-stream enter a perpetual inundation easement for the acres potentially inundated with water during heavy rain events. With the easement landowners upstream are compensated through a one-time payment. In Buchanan County the easement payment is equal to 20% of the assessed value of land being temporarily inundated. Land owners upstream and downstream of the project are also compensated 100% of the land value for any extension to the right-of-way needed to build the structure itself.

The mapping project detailed hundreds of thousands of potential road structures throughout the state of Iowa and developed an online platform so that anyone can view their location and preliminary pool and drainage area characteristics. For a limited number of structures, the research team also conducted modeling to show the potential flood reduction if the structure was installed. Many of those modeled showed significant reductions at the structure to flood events.

Explore the data by visiting: <https://hydroinformatics.uiowa.edu/lab/idot-ors/>

This presentation sparked conversations as to why aren't more of these structures being implemented. Coordinators explained that it takes great cooperation between County and upstream landowners to develop the easement. It is totally voluntary. This data will help expedite the process so when counties are looking to replace culverts or bridges they can look at this data and determine if it might be a good fit for an on-road structure. They then have a tool to look at the potential pool area and drainage area to the structure. These structures are also a little bit larger cost upfront then just replacing a culvert depending on how much the road needs to be built up to form the dam structure. This higher upfront costs could be justified because the on-road structure would extend the life and protect downstream infrastructure.

Presentation slides attached to the Minutes.

Watershed Coordinator Update:

FY26 Proposed Funding Mechanism Discussion

Coordinator, Tori Nimrod brought to the boards attention the results of the on-line motion made on adopting the new funding formula that is based on the number of people living in each jurisdiction. Via email the motion passed with 17 "yes" votes. No significant opposition was received by board members. The only no vote was by Fayette County, who simply was not willing to contribute their increased amount in the new formula because they didn't feel right contributing more to the Wapsi than to the Turkey River WMA which makes up majority of their county. It was not because they were against the Upper Wapsi WMA from asking. Coordinators made the point again that this is a voluntary donation entities are able to give as much or as little as they want, the letter is purely a suggestion on what the WMA would appreciate from their entity.

The board was one person short to conduct a formal motion to adopt the new funding formula, but coordinators will proceed to develop the letters and send them out in the next couple of weeks.

WMA DAY Event:

Watershed Coordinators and others attended a WMA day event in August, which was a gathering of WMA board members and coordinators who got together to share knowledge between WMAs about topics such as WMA development, meeting structure, project implementation, grant writing and keeping board members engaged. Coordinators learned about the challenges that some WMAs are facing as well as gained ideas of things to incorporate into the upper Wapsi WMA.

Another major topic of WMA Day was a discussion on how to better approach legislators in getting delegated state funding for the WMAs. Many WMAs in the state are not fortunate enough to have a full or part-time coordinator. Each WMA stressed the importance of having a coordinator that is available to write grants and secure the little funding that is out there for projects in their watersheds.

Not only is having a coordinator important but having the office space and an organization willing to serve as the fiscal agent is also very important. These are all things that Northeast Iowa RC&D can do for the Upper Wapsi WMA. These services are often not as easily available to other WMAs in the state. It was concluded that the WMA needs to have a consistent clear voice for the things WMAs need when talking to the State.

Partner Updates:

Board member Lenth, Bremer Co SWCD explained that the Shell Rock River WMA is interested in adding water sampling to their watershed and likes how the Upper Wapsi conducts its sampling methods. He is going to talk with them more, but they might be reaching out for more details on how to facilitate sampling efforts.

- **Next Meeting Date:** Tori, will send out potential meeting dates for January, 2025

Meeting Adjourned at 2:50 Motion made by Mike O'Loughlin, Second by Sherman Lundy. Motion Passed.

ASSESSING THE FLOOD REDUCTION BENEFITS OF ON-ROAD STRUCTURES

Antonio Arenas

Larry Weber

Ibrahim Demir

Calvin Wolter

Marian Muste

Lee Bjerke

Brian Moore

Jimmy Ellis

Dave Claman



THE UNIVERSITY
OF IOWA
College of Engineering

IOWA STATE UNIVERSITY
Department of Civil, Construction
and Environmental Engineering



IOWA DOT
RESEARCH

Culverts



On-road Structures



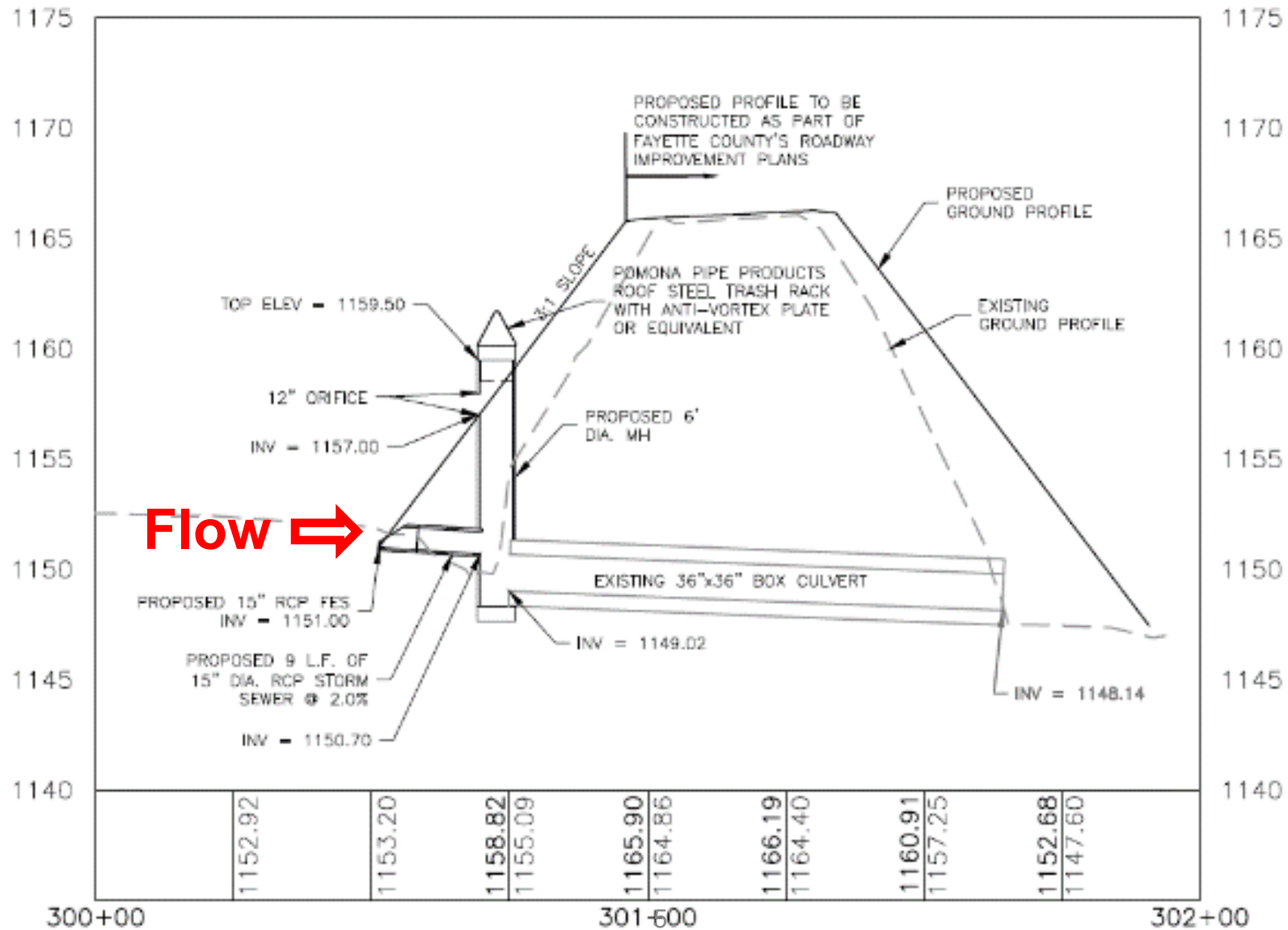
On-road Structures

Upper Wapsipinicon River Watershed



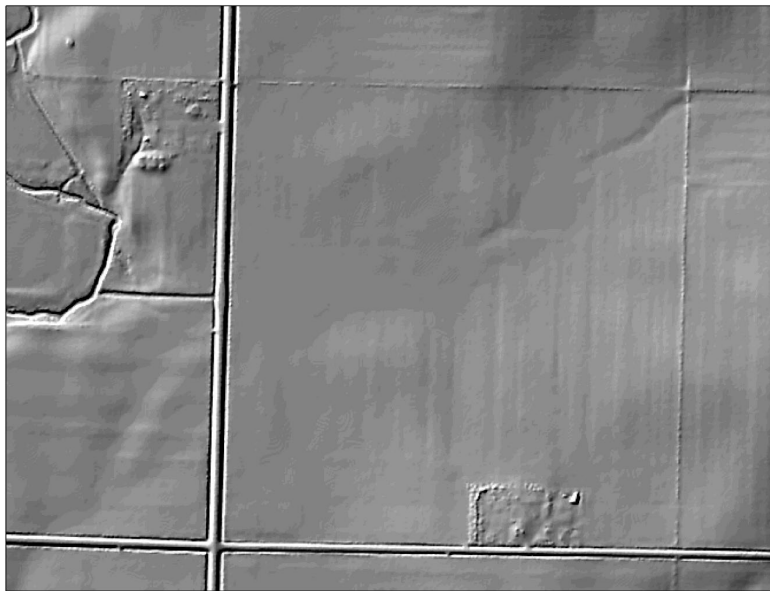
On-road structure- Upper Iowa watershed

On-road Structures

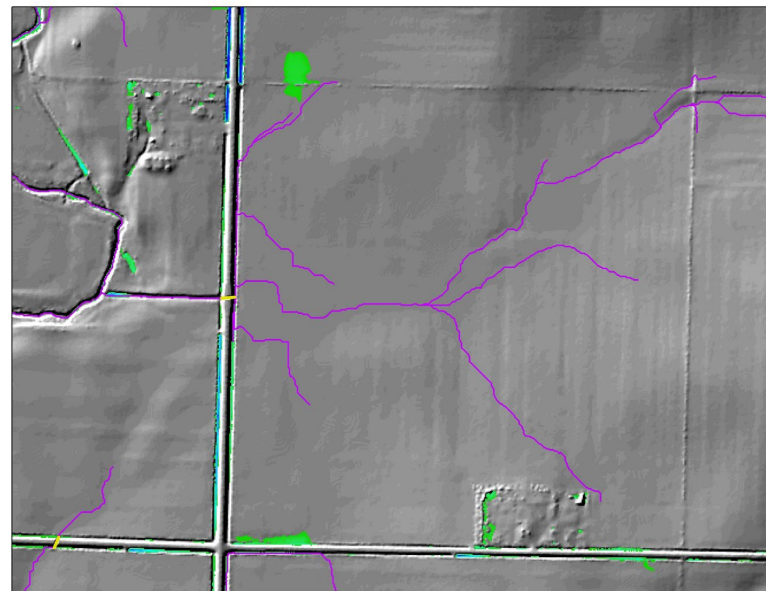


Statewide GIS-based Analyses

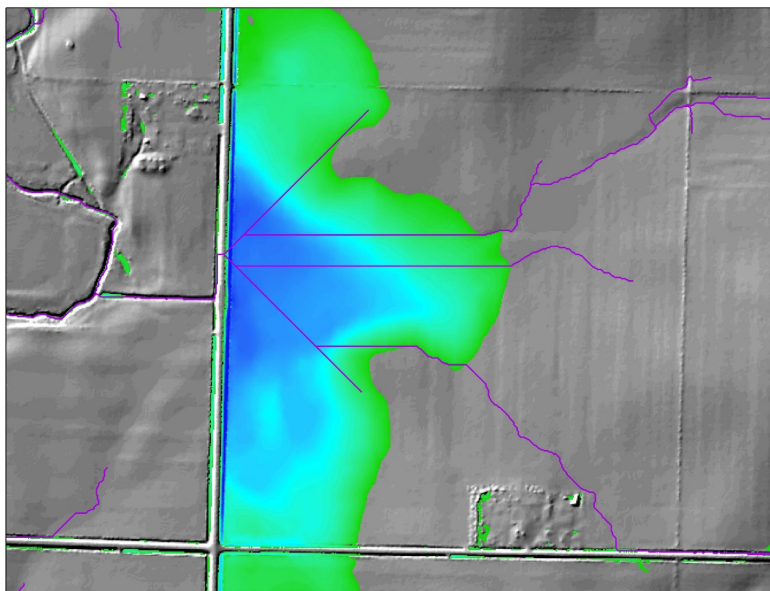
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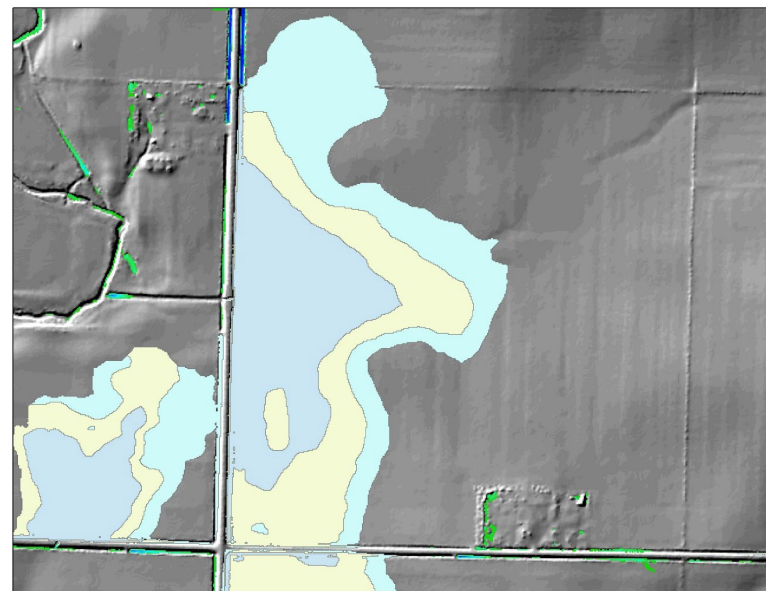
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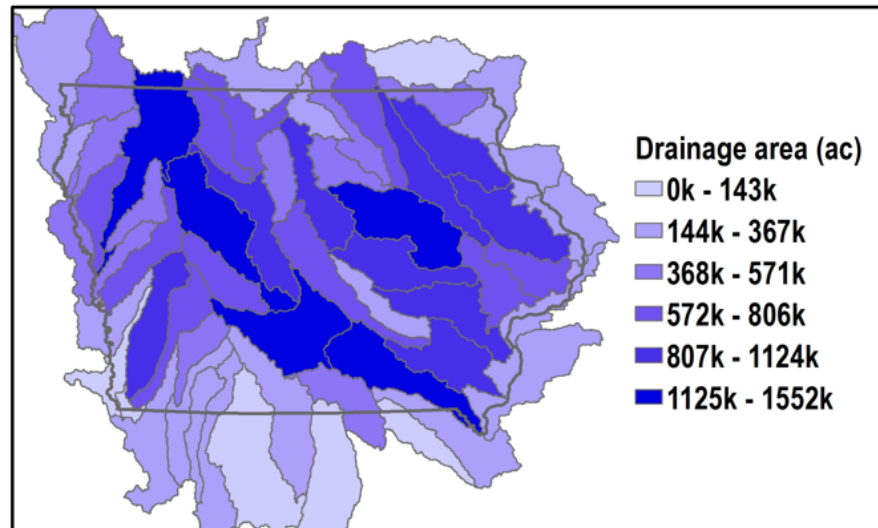
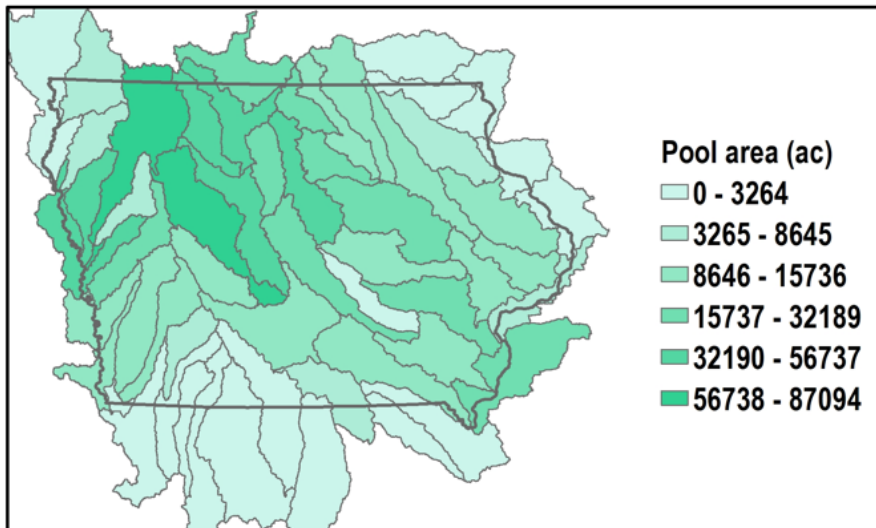
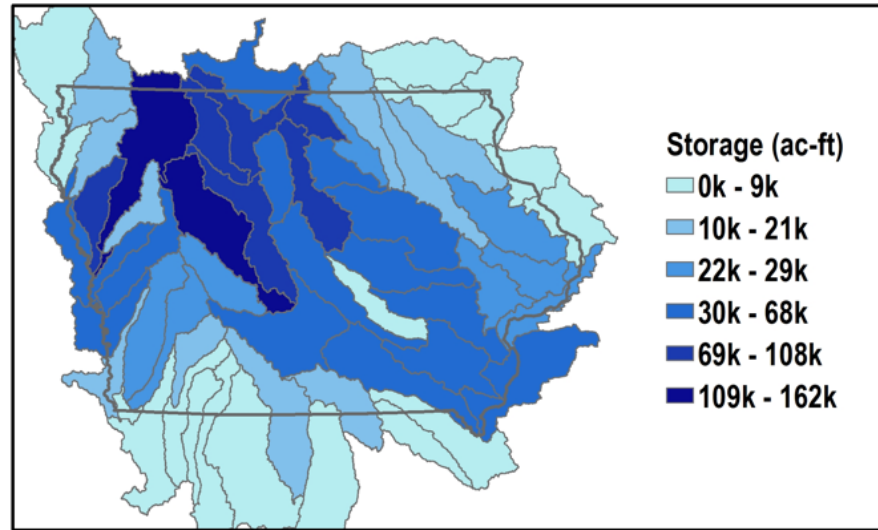
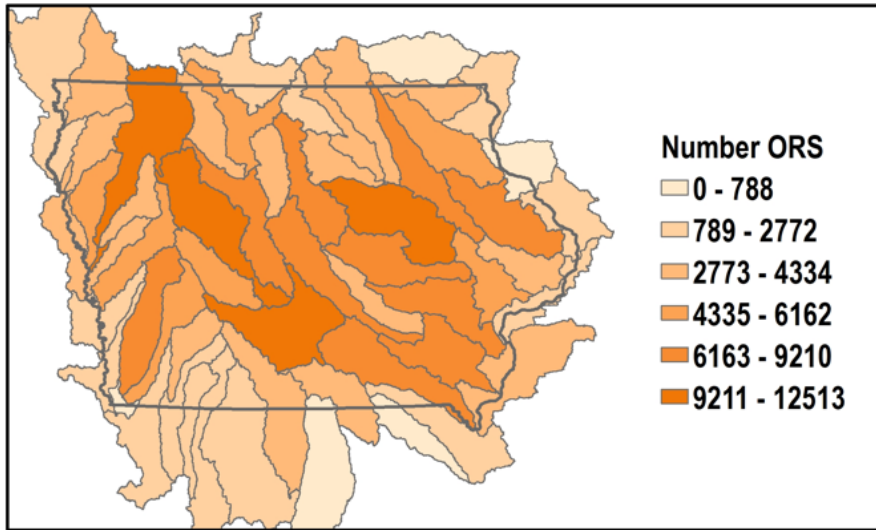
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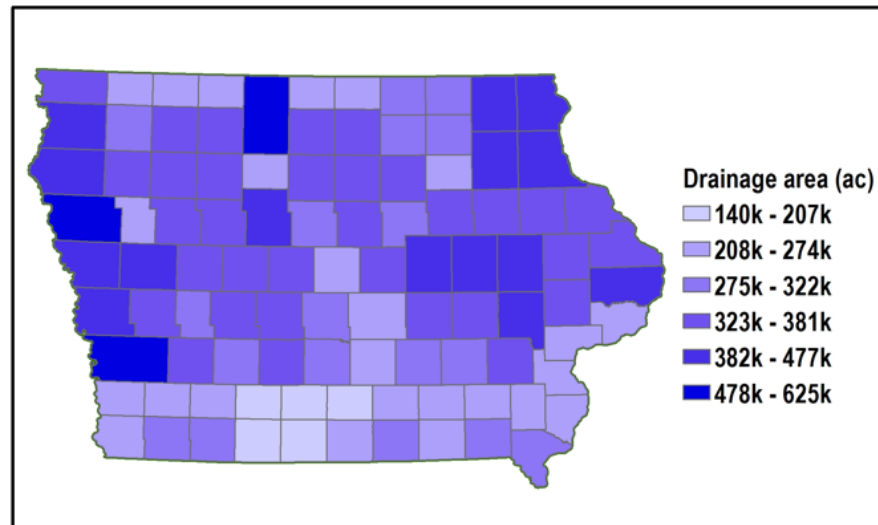
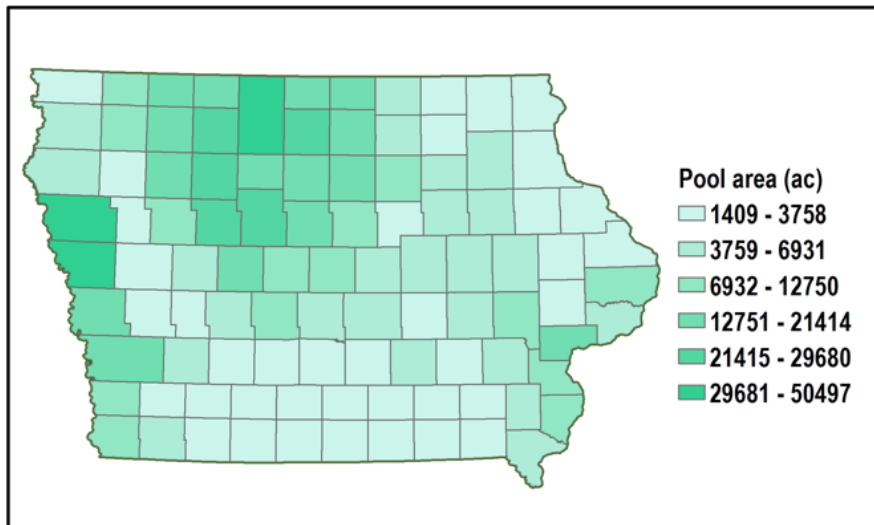
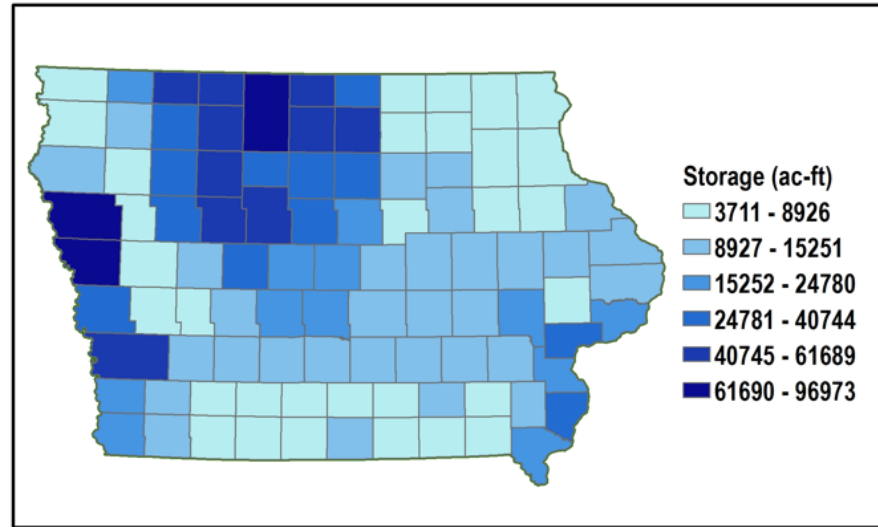
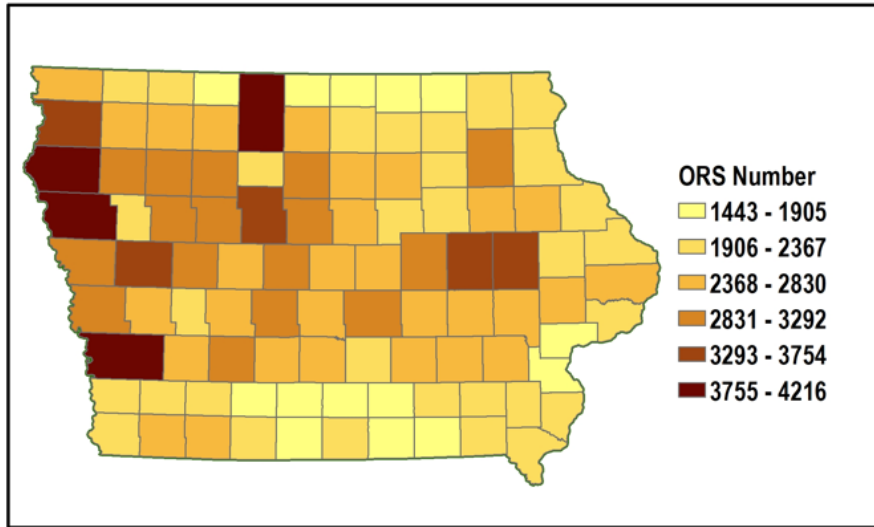
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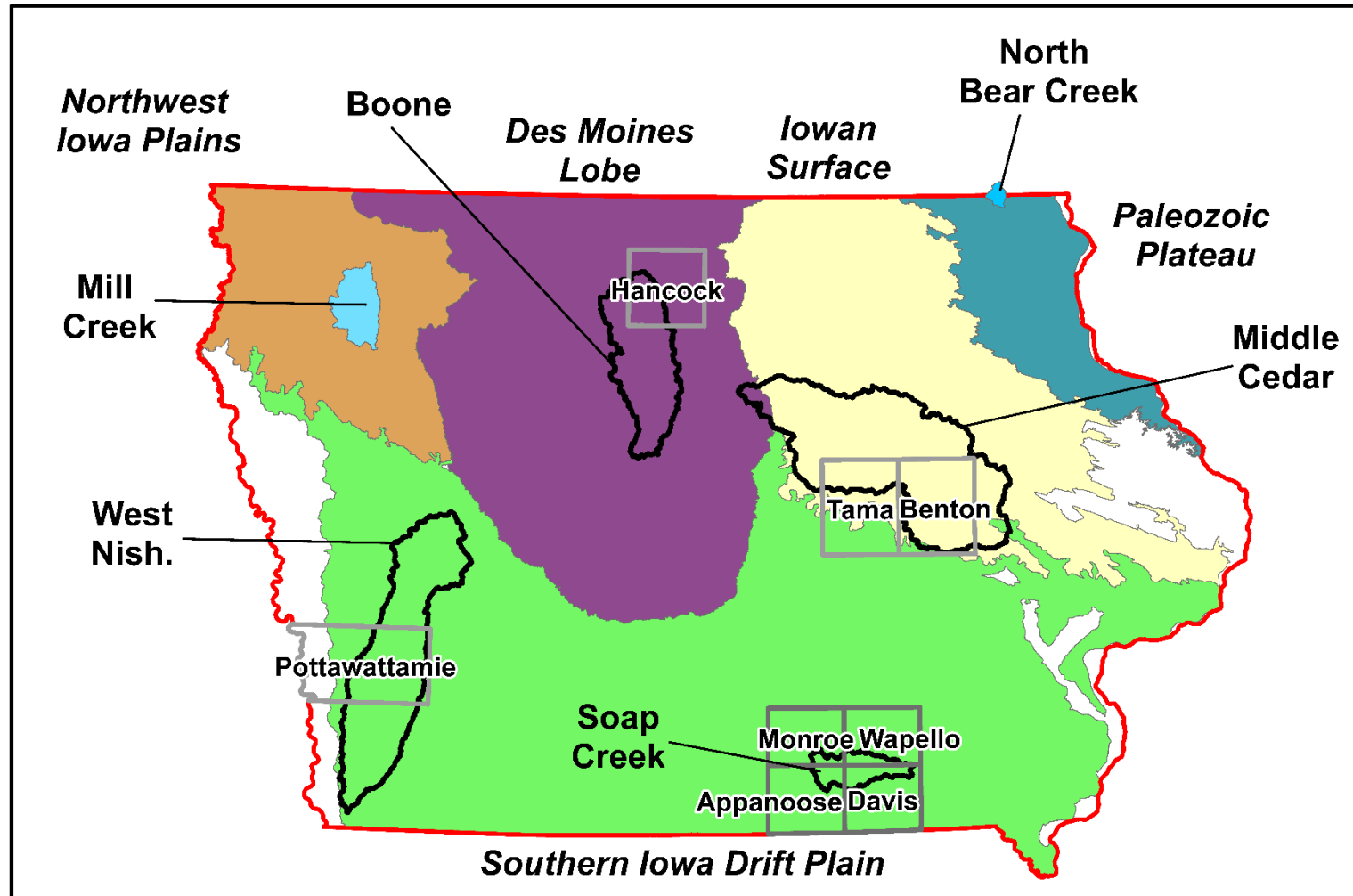
Statewide GIS-based Analyses



Statewide GIS-based Analyses



Hydrologic Modeling



Web-platform

<https://hydroinformatics.uiowa.edu/lab/idot-ors/>

Member Entities	2020 Census Population	Percent of area in Watershed	Population in Watershed	Contrib. \$/capita	Historical Cont.(23-24)	Vote on New Funding Request
Central City	1247		1247	\$810.55	\$600.00	Yes
City of Frederika	205		205	\$133.25	\$ 300.00	Yes
City of Aurora	168		168	\$109.20		Yes
City of Dunkerton	831		831	\$540.15	\$ 600.00	Yes
City of Elma	506		506	\$328.90		
City of Fredericksburg	984		984	\$639.60	\$ 600.00	Yes, Yes
City of Hazleton	712		712	\$462.80		
City of Independence	6179		6179	\$4,016.35	\$ 5,000.00	Yes
City of New Hampton	3416		3416	\$2,220.40	\$ 600.00	
City of Quasqueton	587		587	\$381.55	\$ 600.00	Yes
City of Readlyn	855		855	\$555.75	\$ 600.00	
City of Riceville	803		803	\$521.95		
City of Sumner	2036		2036	\$1,323.40		Yes
City of Tripoli	1204		1204	\$782.60	\$ 600.00	
City of Winthrop	822		822	\$534.30	\$ 600.00	Yes
Black Hawk County	10393	0.118	1226	\$797.14	\$ 600.00	
Bremer County	6781	0.542	3675	\$2,388.95		
Buchanan County	7486	0.668	5001	\$3,250.42	\$ 600.00	Yes
Chickasaw County	4695	0.598	2808	\$1,824.95	\$ 600.00	Yes
Fayette County	5494	0.238	1308	\$849.92		No, \$250
Howard County	3162	0.197	623	\$404.89		
Linn County	18339	0.208	3815	\$2,479.43		Yes
Mitchell County	4908	0.117	574	\$373.25		Yes
Black Hawk SWCD			2	\$400.00	\$ 600.00	Yes
Bremer SWCD			3	\$600.00		Yes
Buchanan SWCD			4	\$800.00	\$ 600.00	Yes
Chickasaw SWCD			5	\$1,000.00	\$ 300.00	
Delaware SWCD			2	\$400.00	\$ 250.00	
Fayette SWCD			0	\$250.00	\$ 600.00	
Howard SWCD			0	\$250.00	\$ 250.00	
Linn SWCD			5	\$1,000.00	\$ 300.00	Yes
Mitchell SWCD			0	\$250.00	\$ 100.00	
TOTAL				\$30,679.71		