

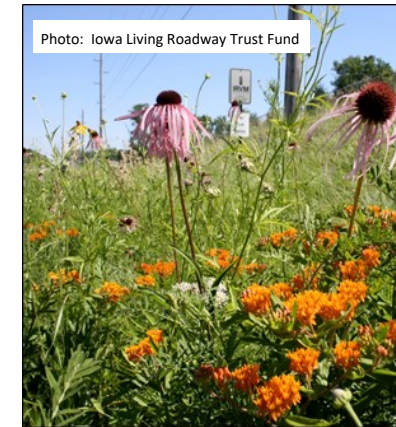


# CLEAR CREEK NEWS

AN IOWA WATERSHED APPROACH PROJECT

## Miles of potential pollinator habitat— Roadsides

Johnson County has approximately 2,000 miles of road, Iowa County has 930 miles, multiply that by two (each side of the road) and you have 5,860 miles of possible habitat for pollinators (butterflies, bees, plus all the others), many bird species and other animals. The shoulder (6-8') will be mown by the county or the State but from there you can plant **native prairie grasses and flowers** which pollinators can use for food, shelter and movement. You will need to put up "No Spraying" signs to protect your planting and you'll need to keep noxious weeds out, plus keep trees and shrubs away from the road. Be sure to check with Secondary Roads about specifics. You'll need a permit to work in the right-of-way and there may be



other regulatory considerations. There are many reputable native grass and wildflower dealers. Johnson County's Integrated Roadside Vegetation Management (IRVM) encourages the use of "yellow tag, source identified, Iowa ecotype" seed in your plantings. For additional information on dealers, please visit the [Iowa Prairie Network's Seed Dealer Guide](#) for up to date listings of seeding contractors. The list of dealers does not imply endorsement or preference by Johnson County IRVM.

For more information on roadside prairie plantings and pollinators see the Xerces Society at: <https://xerces.org/pollinator-conservation-roadsides/> or The Tallgrass Prairie Center at: <https://tallgrassprairiecenter.org/irvm> or Johnson Co. Secondary Roadside Habitat at: [https://www.johnson-county.com/dept\\_sec\\_roads.aspx?id=8541&terms=roadside%20habitat](https://www.johnson-county.com/dept_sec_roads.aspx?id=8541&terms=roadside%20habitat)

All programs offered through the Johnson County SWCD and USDA-NRCS are offered on a nondiscriminatory basis with-out regard to race, color, national origin, sex, religion, age, disability, political beliefs, marital status, or handicap.



## Clear Creek Watershed—Upcoming Events

Clear Creek Watershed  
**Picnic, Pot Luck & Pie Contest**  
 Sept. 21<sup>st</sup>, 2019 11:00 am  
 F.W Kent Park  
 Bob White Pavilion

Family friendly gathering to get together and share good food and friendly conversation. We will be providing grilled hamburgers and hotdogs and soft drinks. Please bring a dish to pass and your best pie for a pie contest!  
**You are invited!**

Clear Creek Watershed  
 Coalition — Quarterly meeting  
 October 16th, 2019  
 5:00—6:00 pm

Join the Clear Creek Watershed Coalition and Iowa Watershed Approach partners for our quarterly meeting. This is an opportunity to be involved in the activities of the IWA and ask questions about the program. Meetings are open to the public. For more information contact John Rathbun: 319-499-4835 or [john.rathbun@ia.nacdnet.net](mailto:john.rathbun@ia.nacdnet.net)

Conservation & Wildlife Presentation  
**Date & Location to be Announced**  
**Dr. Adam Janke**  
 Extension Wildlife Specialist  
 Iowa State University

### In This Issue:

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## Project Update

Over the past two years we have met with 58 different landowners who are interested in constructing projects! **This is a testament to Clear Creek watershed's dedicated community members who care about their land and their neighbors.**

We will soon be advertising for bids on construction of ten practices; seven ponds and three grade stabilization structures. We have a list of interested contractors, that list will be notified and there will be a public announcement as well.

### CONTACT:

**John Rathbun** | Clear Creek Watershed Project Coordinator  
 Johnson County SWCD | 51 Escort Ln. | Iowa City, IA 52240  
 Phone: (319) 499-4835 | Email: [john.rathbun@ia.nacdnet.net](mailto:john.rathbun@ia.nacdnet.net)

### Check out these websites to learn more about the project:

- [www.clearcreekwatershedcoalition.org](http://www.clearcreekwatershedcoalition.org)
- [www.facebook.com/ClearCreekWatershed/](https://www.facebook.com/ClearCreekWatershed/)
- [www.iowawatershedapproach.org/](http://www.iowawatershedapproach.org/)
- [www.jcswcd.org/clearcreek](http://www.jcswcd.org/clearcreek)

**34**  
of your neighbors have 86 practices in the works!

20 Pond  
 13 Grade Stabilization Structure  
 29 Water/Sediment Control Basin  
 33 Oxbow



## Practice Focus—Oxbows and Prairie

### Oxbows:

#### What is an oxbow?

Oxbows are a portion of a stream that has become disconnected from the main stream channel. They are part of the natural evolution of streams as they meander across the land. Looking at the photo on the left you may be able to see a serpentine depression that is an old oxbow which has filled with silt. They often have shallow water in them during the early spring or a wet fall.



#### What can a restored oxbow provide?

Oxbows provide habitat for fish, birds and other wildlife as well as plant species. They provide water quality improvement by reducing nitrogen (on average 42% reduction), especially when drainage tiles are outlet to the oxbow. Oxbows provide flood water storage and can provide a water source for livestock. Surveys of restored oxbows have counted, up to 31 fish species and 54 bird species.

#### How do you restore an oxbow?

Oxbow restoration in the simplest terms is done by removing the sediment that has deposited over time, then sloping the sides so they are safe and stable. The depth of the excavation is normally to the same depth as the old stream bed, this will connect the oxbow to ground water. The oxbow can be connected to the current channel of the stream, this is called an oxbow channel. The oxbow can also remain disconnected from the stream, this is called an oxbow lake. The oxbow lake gets water from the groundwater connection and when the main channel overflows from heavy rains.

When the oxbow receives flood water it also gets an inflow of fish and fish that have been growing while in the oxbow can access the main channel. The areas disturbed by construction and re-sloping can be seeded to native species or pasture species whichever is desired by the landowner. Oxbow restorations have been completed in the Boone River, Walnut Creek and Morgan Creek watersheds in Iowa. We look forward to some in Clear Creek.

## The other side of the Soil Health coin – Soil Loss.

Lately there is an emphasis on soil health, it is highlighted because healthy soil has many benefits just like a healthy body has many benefits. For decades we have battled soil loss, soon after the dust bowl the Soil Conservation Service was established (the current name of the agency is the Natural Resource Conservation Service) and has been working diligently to help us save and conserve our soil. Why? In part it's the fact that our lives and crops depend on the soil, healthy soil. We protect what we need and care about. We put practices in place to keep our soil where we can work with it and make our farms more profitable and easier to work. Through practices like grassed waterways, basins (dry ponds), buffers, filter strips and now the increased use of cover crops we protect and save our soil, our resource. As is usual the largest room in all our "homes" is the room for improvement.



On August 20th, 2019 we had a moderate rain storm, 2.25 inches to 2.75 inches of rain fell on the Clear Creek watershed. There is an Iowa State project named the "Daily Erosion Project" they have undertaken a colossal job in showing what our soil loss is for every watershed in Iowa, on any given day. So, I checked out their website to see what happened to our soil on that day and was surprised. You can see for yourself at: <https://www.dailyerosion.org>

Let me say up front that these numbers are an average across the watershed, they consider what types of land-use (crop, pasture, woods, residential & commercial development, etc.) there are in the watershed and what types of management practices (no-till, strip till, full till, etc.) we use in the watershed. Soil loss on any given field will be higher or lower than what these numbers represent. These numbers also do not reflect soil loss through gully erosion and stream bank erosion which go up when we have rain events like this, therefore the numbers are conservative in my opinion. Lastly the "Hillside Soil Loss" represents soil that moved from the slope, that soil may not have left the field but a portion of it likely did.

With all of that said, here are the numbers by sub-watershed:  
 Upper Clear Creek – 2.76" of rain, Hillside Soil Loss = 1.12 ton/acre x 18,056 acres = 20,223 tons of soil.  
 Middle Clear Creek – 2.51" of rain, Hillside Soil Loss = 1.35 t/ac. x 10,621 ac. = 14,338 tons of soil.  
 Lower Clear Creek – 2.21" of rain, Hillside Soil Loss = 1.12 t/ac. x 6,227 ac. = 6,974 tons of soil.  
 This would give us a total of 41,535 tons of soil moved, say a smaller amount left the fields and moved into streams, 20% of 41,535 = 8,307 tons. That would equal 554 tandem axle truck loads of soil that moved off our land and downstream. If we were to put that soil in dump trucks and parked those trucks bumper to bumper, they would stretch 2.5 miles! That's the distance on Highway 6 from Jon's Ice Cream to Theisen's.



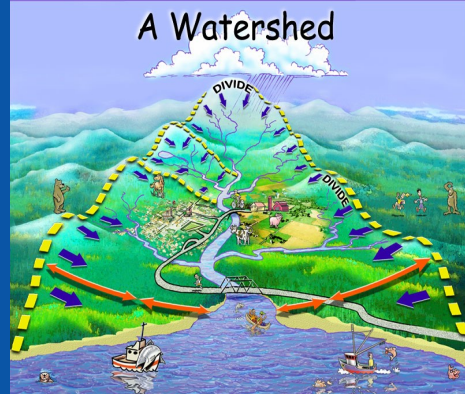
## The Iowa Watershed Approach (IWA)



It may not be possible to completely stop floods, but a collaborative effort in the state of Iowa is working to help communities better understand and reduce their flood risk.

Across the state, the Iowa Watershed Approach (IWA) is working with landowners and other stakeholders to implement watershed projects at 90% cost-share to reduce flooding and improve water quality. The IWA is a five-year project to minimize flood risk in Iowa that began in 2016. The IWA aims to bring Iowans together to address the factors that contribute to floods, and in the process to also increase rural and urban resilience to flooding. This approach builds upon other statewide programs in Iowa designed to reduce flooding and improve water quality, such as the Iowa Flood Mitigation Program and the Iowa Nutrient Reduction Strategy.

To learn more about the IWA check out: [www.iowawatershedapproach.org](http://www.iowawatershedapproach.org)



moves to larger and larger water bodies. Watersheds follow the land and extend across county, state and national boundaries.

Watersheds, sometimes called basins, describe land area at different scales. Watersheds are nested, larger watersheds are made up from many smaller watersheds. Clear Creek is a part of the Iowa River Watershed which is a part of the Mississippi River Watershed (or basin), which is a part of the Gulf of Mexico Watershed.

### No matter where you live, you live in a watershed.

As you can see above, there can be many types of land uses within a given watershed. Differences in land use can have significant impacts on how fast water flows off the landscape. Adding conservation practices and water retention structures in a watershed will reduce the time it takes for water to leave the landscape, reducing occurrences of flash flooding and improving water quality.

Focusing conservation efforts at a watershed level have shown to be an effective method for successful implementation with measurable results.

## What is a Watershed?

A watershed is the land area that drains to a particular body of water such as a stream, pond, lake, wetland, river or ocean. Ridges and high points form the boundaries of watersheds; draws and valleys collect and transport precipitation into streams, ponds then river systems and eventually water

## Prairie: Simple and effective

There's a place on the Iowa landscape for any practice that reduces flooding, prevents erosion and improves water quality.

Planting prairie has proven to be one of the simplest and most effective ways to achieve these goals.



Made up of deep-rooted, perennial grasses and wildflowers, native prairie plantings provide durable, permanent cover that **keeps water on site**. How? In part because prairie vegetation is so robust. Dense foliage, strong stems and ample plant residue all intercept rainfall (preventing soil compaction) and slow runoff as it moves across the soil surface. Prairie's extensive *underground* growth also plays a role in keeping water on site. Extremely large root systems improve the soil's structure and water-holding capacity by adding pore spaces and organic matter. Absorbent soil allows water to infiltrate, then *gradually* be released.

While reducing runoff and erosion, prairie is simultaneously capturing nutrients. The large roots trap and take up excess nitrogen

in water leaching through the soil, while phosphorus, which attaches to soil particles, is kept on site through decreased erosion. Other popular prairie benefits: superior habitat for game birds, song birds and other wildlife; three-season flowering for pollinators and hay and forage opportunities (following NRCS guidelines, if applicable).

Large or small, prairies can be planted – and provide beneficial landscape services – nearly anywhere. Seed mixes are available for all soil types and moisture levels, and can be designed in a variety of price ranges. To receive the 90% cost share for IWA projects, prairie may be used for the following practices:

**Perennial cover:** Use prairie as a permanent, resilient cover for erodible, non-productive or retired land.

**Prairie strips:** Strategically placed in crop fields, relatively small contour buffers or edge-of-field strips result in disproportionately high reduction of runoff, erosion and nutrient loss.

**Permanent cover for other IWA-funded practices:** Ponds, terraces and other conservation structures may be seeded with prairie. — Maria Urice Tallgrass Prairie Center

Visit [www.tallgrassprairiecenter.org](http://www.tallgrassprairiecenter.org) for additional information about prairies. Specific information about prairie strips can be found at [www.nrem.iastate.edu/research/STRIPS/](http://www.nrem.iastate.edu/research/STRIPS/).

**All projects are voluntary.** Design & cost obligations will be determined before a landowner is committed to anything. Keep in mind, no single practice will be the cure-all. It will take a community effort between many landowners for project success.

