



North Raccoon Farm to River Partnership Project



The North Raccoon Farm to River Partnership: An Iowa Water Quality Initiative to implement in-field and edge-of-field practices that keep nitrogen and phosphorus out of Iowa waters.

Batch and Build Project in Sac County

The Farm to River Partnership is embarking on a Batch and Build project, focused in Sac County, one of the four counties in the Water Quality Initiative (WQI). A Batch and Build project entails geographically grouping sites for economical installations of conservation practices. Joe Wuebker, the Farm to River Partnership project manager, is partnering with the Sac County Board of Supervisors to identify and secure locations across the county to install structures within the same time frame.

“In Sac County alone, we’ve identified more than 180 potential sites for saturated buffers and bioreactors,” says Wuebker. “We are hoping to have 20 to 30 locations in this first round of our Batch and Build. We want to identify and approve as many locations as possible and install practices in groupings based on geography.”

The sites are identified using Agricultural Conservation Planning Framework, or ACPF, which uses large-scale aerial imagery that shows elevations, waterbodies, farmland and other landscape features that would lend themselves to a conservation practice. This portion of the work is complete, and Wuebker and the county officials are embarking on the next steps.

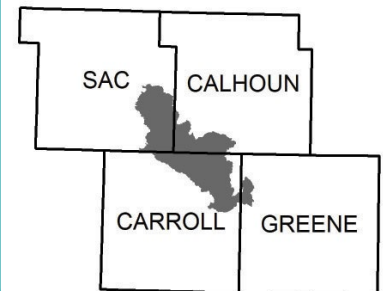
“Edge-of-field practices like these take time to be identified, designed and installed. Start to finish, optimistically it is an 18-month process,” Wuebker says. “We are preparing to contact landowners of the identified sites to discuss details, receive their permission, sign contracts, and survey the land for confirmation of their suitability. We plan to have several one-on-one meetings with the landowners as we go through this process.”

To get these conservation practices installed, contractors use large machinery. For example, a backhoe is needed to dig a bioreactor trench and move the earth from the trench elsewhere on the property. It saves time and labor costs to move these machines to nearby geographical locations for subsequent installations, maybe even on the same farm.

With the Farm to River Partnership, the landowner does not shoulder any costs, rather, they are covered from the WQI funding with the Iowa Department of Agriculture and Land Stewardship,

Winter 2024

Farm to River Partnership Area



GOALS:

20
EDGE-OF-FIELD PRACTICES
including
BIOREACTORS,
SATURATED BUFFERS

7,000
COVER CROP ACRES

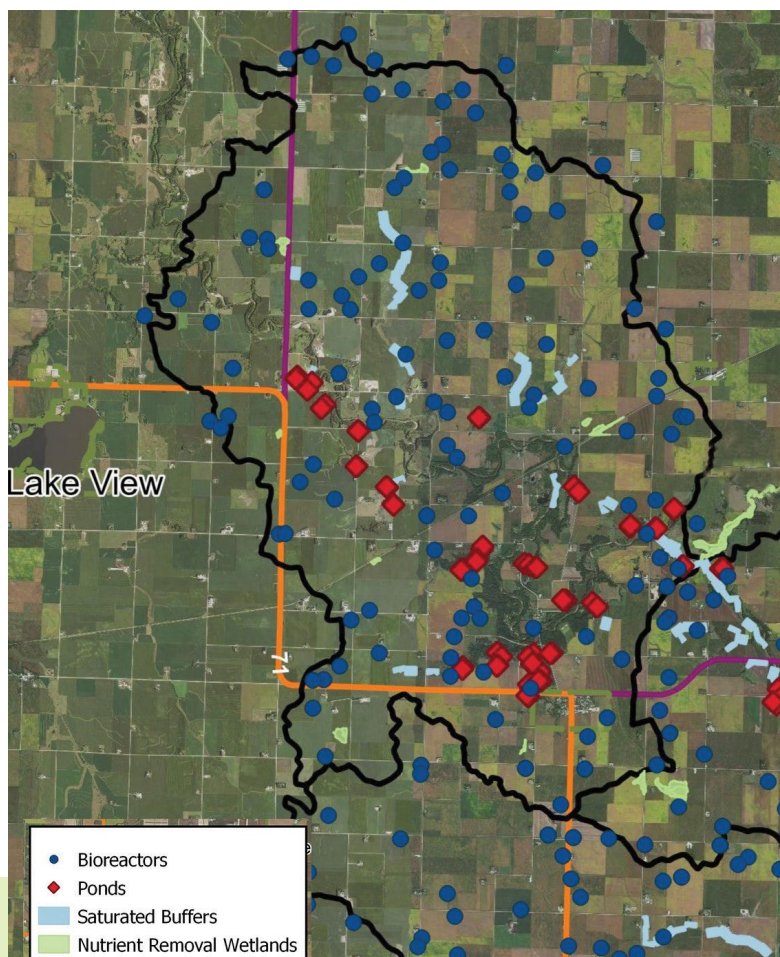
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Iowa Soybean Association and the federal Regional Conservation Partnership project (RCPP).

The Sac County Board of Supervisors is serving as the fiscal agent for the project, which is not a small role. The board will help with permits and other important documents, the contractor bidding process, and working between the grant funders and contractors to ensure payments after installation. None of these are small tasks, which illustrates the county's commitment to seek solutions for improved water quality within the county, the watershed, and for those downstream.

Right: A map generated by ACPF identifies potential sites for conservation practices such as bioreactors, saturated buffers, targeted wetlands and ponds in Sac County.



What is ACPF?

The Agricultural Conservation Planning Framework, or ACPF, is software that creates aerial maps of watersheds with potential locations for many different conservation practices overlaid on the map.

Developed by USDA Agricultural Research Service (ARS) in partnership with the USDA NRCS, the ACPF is free for anyone to use, but a knowledge of ArcGIS software is needed.

Josh McDanel, Iowa Soybean Association spatial data analyst, created the ACPF maps for the Farm to River Partnership and Batch and Build project.

“The ACPF maps provide field boundaries and soil information, which is the backbone to several of the tools and the digital elevation models for the watershed,” explains McDanel. “They provide the elevation characteristics of the landscapes, which were retrieved from the State of Iowa’s LiDAR information.”

The state’s LiDAR imagery was taken between 2007 and 2010, [according to an Iowa DNR news release](#). The state’s conservation

practice mapping was completed in 2018 using the LiDAR data. LiDAR is an acronym for Light Detection and Ranging.

But there is still some manual work to be done with the maps, which McDanel knows too well.

“For example, we have a lot of culverts and ditches in the state with bridges going over them,” he says. “When I run some of the tools, the bridges will look like dams. I have to draw lines to manually cut through those bridges, to make sure the water flows correctly and we’re not seeing a huge back-up of water, which adds to the processing time.”

But the finished product is well worth the effort as they show potential locations for a number of options within a watershed including grassed waterways, contour buffers, saturated buffers, wetlands and bioreactor locations. The toolbox has the best value with a conservationist working jointly with a GIS technician.

For more information about ACPF, visit www.acpf4watersheds.org.

Wrapping up the Current Farm to River Partnership project

The Farm to River Partnership is approaching the end of the three year Water Quality Initiative (WQI) agreement with the Iowa Department of Agriculture and Land Stewardship (IDALS). Leaders with ACWA and IDALS are in the process of drafting on a new agreement to continue water quality improvement work in the watershed. Details are still being finalized but ACWA is hopeful this strong relationship and the outcomes achieved will continue to make an impact on Iowa's waterbodies.

"Currently, we have more options than

before for cost-share opportunities within the watershed," says Joe Wuebker, Farm to River Partnership project coordinator and conservation agronomist. "We should be able to find an option that fits everyone's unique situation. Cost-share options include bioreactors, saturated buffers, targeted wetlands, and oxbow restorations."

The 2023 cost share for cover crops has ended, but 2024 cost share will be starting late this spring. Contact Wuebker for details on cover crops or other conservation practices.

Conservation Agronomist Network rooted in Farm to River initiative

Last spring, Agriculture's Clean Water Alliance announced a partnership with the Iowa Department of Agriculture and Land Stewardship (IDALS) to expand the network of conservation agronomists working with ag retailers across the state. Conservation agronomists are professionals who assist farmers and landowners with implementing conservation and water quality improvement practices on their land.

ACWA launched the conservation agronomist network in August of 2020, but creation of this model goes back to 2015 and the Elk Run watershed project, a Water Quality Initiative (WQI) in Sac, Calhoun and Carroll counties.

The Elk Run coordinator found their responsibilities went beyond recruiting for cover crop adoption and bioreactor installation. Farmers and landowners relied on this position to explain the benefits of conservation practices as well as helping with contracts and cost-share paperwork. As the Elk Run project got off the ground, and then expanded to the North Raccoon Farm to River Partnership in 2018, the conservation agronomist position grew and evolved with the initiative.

Today, as the third iteration of the Farm to River Partnership wraps up and looks toward new goals, the conservation agronomist model has

solidified. These professionals work alongside the retail field agronomist, both sharing their expertise with farmers and landowners so they can reap the greatest benefits from crop production and agricultural conservation.

The new partnership with IDALS will utilize more than \$2 million in public funding from the Environmental Protection Agency's new Gulf Hypoxia Program to support five conservation agronomist positions. Other funding support for the network will continue from ACWA and individual ag retailers. What began as a response to an unknown need has emerged as a vital professional position for agriculture and conservation.



Conservation Agronomist Ruth McCabe, right, talks with farmers about ways to improve water quality on their farm while remaining profitable. McCabe is serving in this position at Heartland Co-op.



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The Time is Now!

If you are wondering how an edge-of-field practice would fit on your farm, now is the time to act. Cost-share funding is available through the Farm to River Partnership and the RCPP for these practices:

- Bioreactors, saturated buffers
- Cover crops
- Targeted wetlands and oxbow wetland restoration

Other opportunities are available at no cost:

- Tile water monitoring
- Whole farm conservation assessments to identify ideal choices for conservation practices
- Replicated strip trials to test practices and products on your farm with your management systems.

Contact **Joe Wuebker** to discuss any of these options.

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ACWA is a non-profit organization of Iowa ag retailers that agree water quality is vital to the future of farming. By helping their farmer clients with management options, adopt conservation practices, ACWA members are making strides toward the alliance's goals of farmer profitability combined with improving water quality.

www.acwaiowa.com

