

ACPF USE EXAMPLE: Buckeye Creek Watershed in Southeast Iowa

A Q&A with James Martin of the Iowa Department of Agricultural and Land Stewardship

How were the ACPF results used within the watershed?

The ACPF maps were shared with the Soil and Water Conservation District's (SWCD's) watershed advisory council to help them visualize changes on the landscape and set goals for the watershed in order to reach Iowa Nutrient Reduction Strategy targets. The maps were also used internally by the SWCD staff to prioritize conservation planning efforts.

How did the ACPF fit into the watershed planning process?

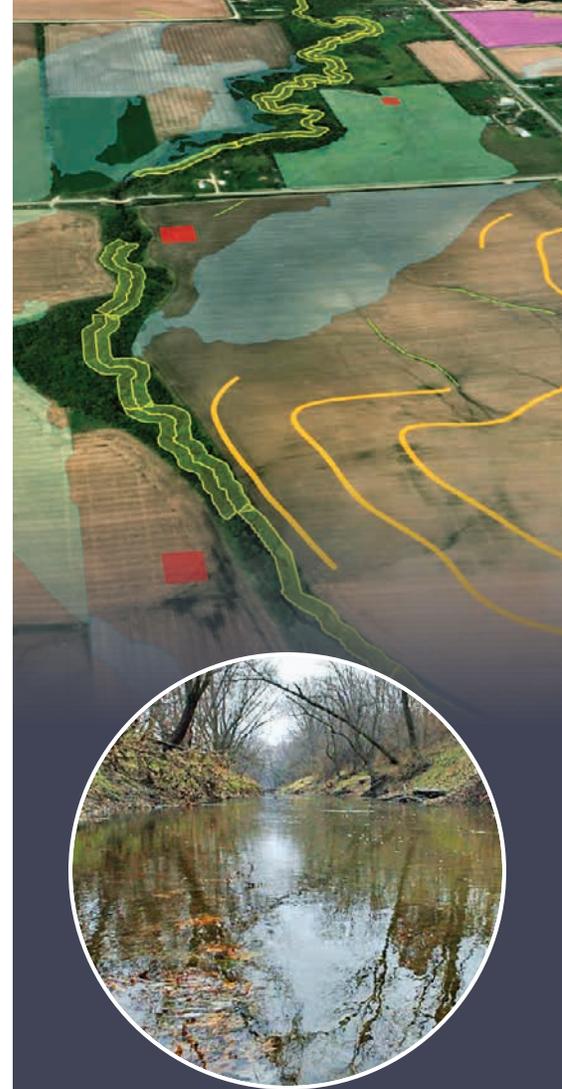
The team used the ACPF maps in tandem with data from Iowa State University's Best Management Practices (BMP) Mapping Project and NRCS's Revised Universal Soil Loss Equation (RUSLE). We focused in on the watershed's highest priority acres by identifying the overlap between priorities identified by ACPF and by local field observations captured by RUSLE, and places where BMPs were not already in place. Specifically, the ACPF runoff risk tool identified 3,300 priority acres in the watershed, RUSLE generated 2,100 priority acres, and 1,400 acres were common to both analyses. Of those 1,400 acres, the team selected 350 acres to prioritize because they had more than one ton/acre of sediment delivery from erosion. The team was then able to compare those 350 acres with Iowa State's BMP maps to get a feel for what is already in place and what is possible on the landscape. In this case, the BMP map really went hand in hand with the ACPF – together they are a powerful tool for identifying what is occurring and where we need to go next.

After comparing each data source and identifying the areas of overlap that indicated the remaining priority areas, the local watershed coordinator did extensive walkovers in the watershed to ground-truth the proposed practice sites, validate existing practices in place, and get a better feel for the type of practices that would work best within the landscape.

After reviewing the ACPF maps and walkover results, the team was able to set their annual goals and had a better idea of who to approach about implementing conservation practices.

Who ran the ACPF? Who shared the results?

I ran the ACPF, and a local watershed coordinator with the soil and water conservation district shared the results with producers.



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How was ACPF used?



Support watershed planning and encourage watershed thinking

The ACPF output was used to educate local soil and water district commissioners on the needs within the watershed and help identify areas where the team should focus their efforts. The analysis helped the team develop a twenty-year watershed management plan and assists with their annual goal setting. The Buckeye Creek Watershed has been transitioning from primarily sediment and erosion improvements to increased projects focusing on water quality and nutrient reduction. The ACPF helped the team identify what was left to be done and what they could realistically do on the landscape considering what was already in place.



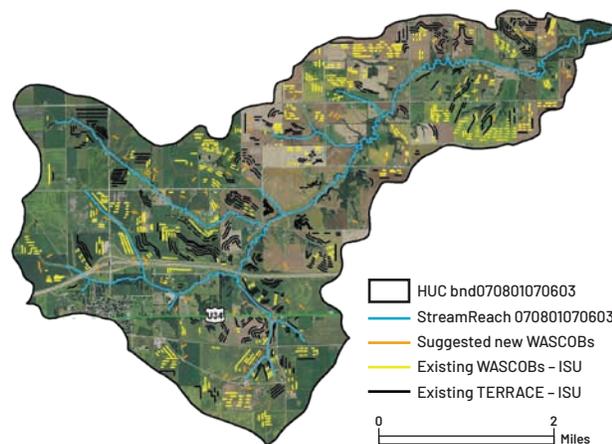
Make more efficient use of field visits

The ACPF maps helped ensure that watershed coordinators used their time more efficiently when they were out in the field.



Provide scientific validity to funding proposals and conservation plans

The ACPF maps were compared to other data sources including the RUSLE maps and BMP maps, to justify what opportunities remain in the landscape that should be incorporated into a conservation plan.



Map of new impediment sites identified through ACPF intersected with existing WASCObS and Terraces.

What about ACPF made it helpful?

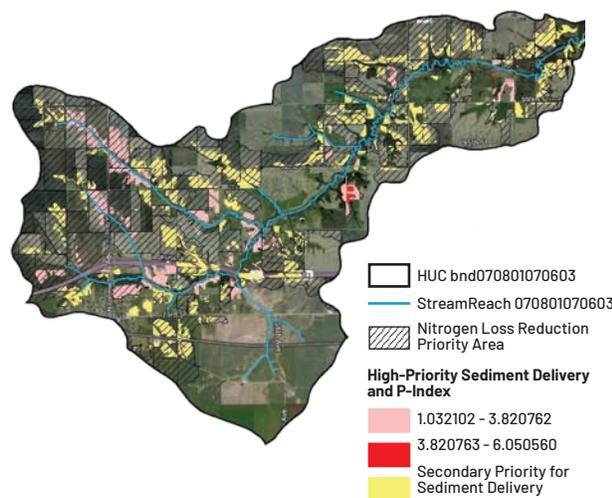
The ACPF helped the local watershed coordinator identify areas to knock on doors. It also helped the district determine how to spend available funds and ensured that funding went to the highest priority areas.

What tips or advice would you give to others working with ACPF?

When running the ACPF, I created a checklist of the steps and defaults I used when creating the maps so someone could duplicate my maps if needed. Having the settings, inputs and symbology in writing helped document my work and created a process for the local conservation district to recreate each of the maps.

To learn more about the Buckeye Creek Watershed and how they used ACPF contact James Martin with IDALS at James.Martin@iowaagriculture.gov.

For more information and learning resources, visit acpf4watersheds.org



Map of RUSLE Sediment Delivery intersected with ACPF P-Index Runoff Risk Factors. Existing BMPs were taken into account for Sediment Delivery.

Maps provided by the Iowa Department of Agriculture and Land Stewardship

