WATERSHED MOMENTS IN COMMUNITY BUILDING:
ORGANIZING A WATERSHED PROJECT

The Indian Creek Watershed Project offered many lessons to the residents of Livingston County, Illinois, and the many farmers, agribusiness leaders, conservation agency officials and policymakers who came to visit between 2010 and 2016. Dozens of meetings of stakeholders from throughout the region, scores of demonstration plots, a data-rich study of the impact of widespread adoption of best management practices (BMPs) on water quality in the creek, and deep exploration of conservation systems on farms across the 52,000-acre watershed have had a significant impact on the landscape, the creek and the people who live in the watershed.

But one of the most enduring legacies of the Indian Creek Watershed Project may well be the leadership lessons taught by the program's organizers. Conservation systems and BMPs can vary from farm to farm, and, likewise, every community has different dynamics. Still, good organizational practices can be adopted and applied to enhance the impact of projects like Indian Creek across the country.

Backed by his conservation district board, Terry Bachtold, ag resource coordinator for the Livingston County Soil and Water Conservation District (SWCD), launched the Indian Creek Watershed Project with USDA Natural Resources Conservation Service (NRCS) district conservationist Eric Gerth in 2010. Bachtold described three phases to developing a watershed program.

"First, plan ahead," he advised. "Make sure you know what you want to do in that watershed. Pick a small watershed, not a large one, because you can work with all the producers in a smaller area. The next thing is to hand-pick your steering committee. Make sure you have producers and retail outlets that you know and are willing to try different things. The third phase is promotion. Try to hook up with somebody who can help you do the promotion—that can go a long way."

Indian Creek runs through central Illinois

SMALL WATERSHED, BIG IMPACT

Bachtold and Gerth saw the importance a small watershed could play in demonstrating the effects of adopting conservation farming practices on a majority of the farm acreage in the drainage area. They realized that working with a smaller number of people in a concentrated area could facilitate greater participation and a higher proportion of land enrolled in the project.

In 2010, they found funding and logistical support through NRCS's Mississippi River Basin Initiative (MRBI), a massive effort dedicated to reducing nutrient loads in the Mississippi River system that contribute to the vast, hypoxic "dead zone" in the Gulf of Mexico.

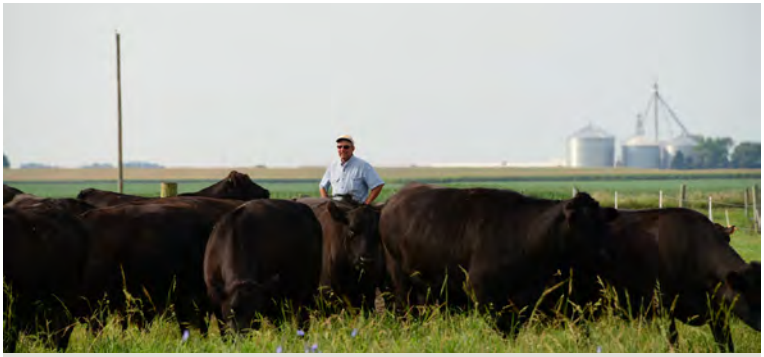
Because Indian Creek feeds into the Vermilion River—the source of drinking water for the cities of Streator and Pontiac—the project secured further support through the State of Illinois Environmental Protection Agency (Illinois EPA), funded in part with a pollution abatement grant through Section 319 of the Clean Water Act. In addition, the Conservation Technology Information Center (CTIC) helped recruit and coordinate the efforts of a wide range of partners from among its members in agribusiness, academia and the conservation community to support the project and develop a watershed-wide demonstration plot program.

Individual farmers within the Indian Creek watershed also have more impact than their counterparts in many other areas, noted Bachtold. He explained that most of the land in the watershed is owned by the operators who farm it—there is little rental or absentee ownership. That critical dynamic simplified decision-making and implementation of conservation practices that could otherwise have involved negotiating with landowners.

Importantly, the project was not seeking to reinvent any wheels. Many farmers in the Indian Creek watershed had already proven themselves open to adopting conservation farming practices, participating in previous outreach efforts and incentive programs. Just as important, program organizers focused on systems to improve fertilizer use efficiency and reduce off-field flow of nutrients that were already well established, scientifically proven and chosen for their fit with local conditions.

In fact, much of the demonstration program was built on the 4Rs of Nutrient Stewardship, a fertilizer management program developed by the International Plant Nutrition Institute (IPNI) and The Fertilizer Institute that emphasizes the right nutrient source, at the right time, at the right rate, in the right place.

Terry Bachtold (left) and Chad Watts of CTIC discuss demonstration plots for the Indian Creek Watershed Project



Terry Bachtold is a local farmer and conservation district coordinator

CLEAR GOALS

One of the early strengths of the Indian Creek Watershed Project was that its leaders set clear goals from the start.

The key objectives included:

- Implementing productive, profitable conservation practices on 50 percent or more of the acreage in the watershed.
- Measuring water quality in Indian Creek to determine whether the voluntary implementation of conservation practices on at least 50 percent of the land in the watershed during the six-year timeframe of the project could impact water quality.
- Providing education and technical assistance to help watershed producers adopt nutrient management and conservation farming practices.
- Engaging the community in the effort to protect water quality, from farmers and other community leaders steering the project to agricultural retailers and other experts spreading the word about nutrient use efficiency.

As the project got underway, Bachtold and Eric McTaggart—who replaced Gerth as NRCS district conservationist in the summer of 2010—set a schedule for quarterly steering committee meetings, one general winter meeting and an annual summer field day. Their goals were to disseminate information, show progress and keep stakeholders, farmers and funders engaged in the process.

Building the project on a foundation of clear, measurable goals created targets to both reach and quantify, and made the project attractive and comprehensible to supporters. It also zeroed in on practices and improvements that could be funded through NRCS programs such as the Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program (CSP).

Purdue University social scientists Sarah P. Church and Linda Stalker Prokopy studied the process and dynamics of the Indian Creek Watershed Project and published an extension bulletin on their findings. The researchers also produced videos conveying success stories from the program's success in building its steering committee and working with agribusiness. They noted that the producers participating in the program sought to demonstrate that voluntary conservation measures could be an effective way to reduce nitrogen loss and help meet water quality goals.

"The Illinois Nutrient Loss Reduction Strategy offered a convenient framework for producers in the Livingston County area to show that they take water quality seriously, and are working toward better farm management for the greater good as well as their own farm viability over time," Prokopy and Church wrote in Purdue Extension Bulletin FNR-511-W, *Indian Creek Watershed Project: Key Takeaways for Success.*

"We suggest that linking voluntary measures with state-wide programs such as the Illinois Nutrient Loss Reduction Strategy, can put conservation projects, and what project leaders are asking producers to do, in a larger context," they added.

Indian Creek feeds into the water supplies of Streator and Pontiac downstream

IN SYNC

The importance of state and federal programs to the success of the Indian Creek Watershed Project highlighted one of the first stumbling blocks the organizers encountered.

"We started in July of 2010, and NRCS typically runs from October 'till October, so that first year we only had three months to go out and get some producers involved in those programs," Bachtold recalled. "But once we had our first winter meeting and interviewed some people, we got them into the next signup. You just can't go out and talk to producers and say, 'we have this great program—tomorrow you can enroll in it.' You have to think ahead and get people lined up a year ahead."

THINKING LOCAL

Local leadership and local issues kept the Indian Creek Watershed Project focused and relevant.

At Purdue, Church and Prokopy note that local goals—like improving water quality for downstream neighbors, or improving the long-term viability of local farmland—are more compelling to producers in a watershed than more abstract, distant objectives like helping reduce the hypoxic zone a thousand miles downstream in the Gulf of Mexico.

The researchers also pointed out the importance of engaging respected local leaders from the very start of the project.

"The first thing is to make sure your local board—soil and water conservation board or whoever you're working with—is on board," agreed Bachtold, who spoke personally with every farmer in the watershed to explain the program. "You need the local board behind you, and you also need somebody that actually wants to go out and talk to the producers. That's the big thing. Producers get more confident in talking to a person they know rather than having somebody else come in from outside and say, 'well, we've got this program: yes or no?' They like working with local people, so the more local you can do the project, the better off you are."

More than half of the watershed's farmland added conservation practices

HAND-PICKED COMMITTEE

Before signing people up to try conservation practices, Bachtold and Gerth identified people within the watershed whom they felt would be engaged and productive members of the project's steering committee, then asked each one personally to join. Everyone who was invited to serve on the committee agreed to take the post.

The pair aimed for diversity—from small produce farmers to larger grain growers, livestock producers, agribusiness leaders and the mayor of Fairbury—as well as for people who had the respect of their neighbors. Not everyone was an early adopter of conservation practices, but each one had already proven to be willing to try farming systems that improved his or her operation.

Mike Trainor, a local farmer and elevator owner who was deeply involved in the steering committee, said the diversity of the farmers' experience was important in creating a broad reflection of the community rather than a conservation-farming clique.

"I think the key was that they chose farmers that were farming different ways," Trainor said. "A lot of times we preach to the choir, to the point that we get all of us together that are conservation-minded. It's the other 25 percent out there that isn't—how do we get them on board with us? Hopefully, together we can do that."

Mike Trainor liked the steering committee's diversity

John Traub appreciated perspectives from ag businesses

DIVERSE PERSPECTIVES

John Traub, a steering committee member and demonstration plot host, pointed out that having both farmers and agribusiness people on the committee provided valuable perspective.

"Unless you've got the producers who are willing to say, 'OK, I believe in this and I'm willing to spend time on this and I'm willing to spend some money on this,' you're not going to accomplish a whole lot," Traub noted.

"If I have retailers or businessmen that I respect telling me, 'you know, John, you maybe ought to try doing this,' it's encouraging, and it validates," he added.

The importance of diverse perspectives and pooled strengths was reflected at every level of the project, pointed out Chad Watts, project director for CTIC in West Lafayette, Indiana.

Voluntary conservation improved water quality

"Every partner—whether it was the local farmers or ag retailers, government agency people, non-profit groups, scientists, or agribusiness people—brought different skills, priorities and funding sources to the project," Watts said. "Often, one group is expected to bring everything to the table in order to make a project successful. The Indian Creek project was built on the strength of many partners, many perspectives and expertise from all over, and that helped make it so successful."

INVOLVED LEADERS

Church and Prokopy noted that no single person or group dominated the committee, so each member was able to contribute to the committee's decision-making process.

Another step toward success was empowering the steering committee to actually steer the program, added Bachtold. Regular meetings, ample information on options and directions, reports on progress, and open conversation kept the group engaged and in charge.

"It wasn't as if we came in and said, 'hey, we're going to do this,'" Bachtold noted. "So anytime we made decisions on plots or any programs we wanted to offer, they gave input on everything, so I think that makes them feel more like they're part of the project."

Keeping leaders involved required making the meetings interesting. Speakers on conservation topics, often brought in from outside the area, helped create value for the committee members and keep them engaged through the six-year program.

THE NEXT LEVEL

As the project gained traction on a local level, CTIC widened its outreach and education program to share results of the demonstration plots and community-building efforts with conservation-minded audiences across the country. Researchers from Purdue University studied the social science aspects of the project, while scientists from the University of Notre Dame focused on water quality studies; both teams shared results with the community and published academic

papers. And a wide range of other sponsors and cooperators helped organize, fund and execute the demonstration plots.

John Traub said broader exposure and a wider range of participants were vital to building on the project's momentum and bringing it to a higher level at a time when many programs start to lose their luster.

"With CTIC coming on board, it not only gave us a whole other level of exposure, but also a sense of credibility and along with that, a sense of importance," he noted. "Plus, it brought another energy: 'you know, we're not working out here alone in the middle of Illinois. These folks are interested.' It really gave us a boost around the time we needed it."

CHOICES

The demonstration plots—nine per year—provided producers in Indian Creek with a range of practices to observe, question and try on their own farms. Church and Prokopy pointed out that the farmers they interviewed for their study appreciated the hands-on, trial-and-error process. The producers also preferred the opportunity to choose conservation systems that suited their farms far more than the prospect of strict regulations on fertilizer rates.

"The light in front of us is telling us that regulation is coming, we have to do something about our water quality," said Mike Trainor. "Rather than having someone coming to you and say, 'this is the way you have to do it,' try two or three different things on your own farm. Find out what works for you. It's just going to make it a lot easier to go forward."

Local livestock operations got deeply involved in the project, too

Bachtold (left) visited more than 100 farmers to build participation

RIGHT PEOPLE, RIGHT TIME

In addition to great leadership practices, clear goals, a dedicated steering committee and good organization, the Indian Creek Watershed Project benefited from a couple of measures of good luck.

First, Terry Bachtold himself is widely credited for the success of the program. A local farmer with deep roots, family ties and lifelong friends in the community, Bachtold was earnest, committed and driven enough to personally visit 100 of his neighbors to solicit their involvement in the program. There is little doubt that he was the right man for the job—a variable that can't be forced into place.

Second, the project gained momentum during a period in which commodity prices enjoyed record highs. Some producers around the country chased the high prices by plowing and planting as much as they could to maximize yields. But a couple of years of good profits gave many farmers in the Indian Creek watershed the cash to invest in new equipment and the confidence to try some new practices without fear that a mistake or learning curve would pull them under. In periods of tighter margins, widespread adoption of conservation systems would likely have been a harder sell.

OUTSIDE THE BOX

The Indian Creek Watershed Project was successful on a range of levels, from providing evidence that widespread adoption of conservation practices could have a measureable effect on water quality in just a few years to providing a model for community building and voluntary conservation.

It also had a powerful impact on the economic and environmental sustainability of individual farms.

"It's an excellent program—you get to thinking outside the box," said Danny Harms, who hosted nitrogen rate and timing strip trials on the farm he operates with his father and uncle in the watershed. Based on the results of their strip trials and what they observed around the watershed, they methodically adopted a system to improve their nutrient use efficiency by shifting their nitrogen applications to springtime and spoonfeeding their crops.

Danny Harms says demonstration plots inspired changes on his farm

"If it wasn't for this program, we'd probably still be doing what we were doing even 10 or 15 years ago as far as applying fall ammonia—it was simple and we got it out of the way.

"It's a good way to try something, and as far as the funding for it, it's an incentive for the farmer to give it a shot," Harms added. "We had to purchase equipment to make a change, so if it wasn't for the program, we probably wouldn't be doing what we're doing right now."

Success in Indian Creek is inspiring other watershed groups

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