Improving Competitiveness.
ENHANCING ENVIRONMENTAL QUALITY.

2014 ISA ENVIRONMENTAL PROGRAMS & SERVICES ANNUAL REPORT

IOWA SOYBEAN Association

Expanding Opportunities. Delivering Results.

LETTER FROM THE DIRECTOR

When I joined the Iowa Soybean Association (ISA) in 2000, the farmer board envisioned the association to become a leader by directing and executing studies and projects related to agriculture's impact on the environment. Today, ISA's Environmental Programs and Services (EPS) department is action oriented, science and data driven and geared to help farmers with decision making. Our primary strategy is to improve natural resource management practices and environmental quality, while also improving the competitiveness of Iowa soybean farmers.

In 2014, ISA has had 32 active projects supporting work across Iowa. These initiatives assist farmers directly and address priority resource concerns including nutrient loss and reduction, water and soil quality, energy management, habitat and overall sustainability.

In this report, we discuss watershed planning applied by farmers in the Rock Creek Watershed, a subwatershed within the Upper Cedar River Watershed, as they seek to reduce nutrient loss and minimize downstream flooding. In coordination, ISA's accredited certified water laboratory analyzes water condition for farmers and watershed stakeholders and evaluates the performance of conservation practices applied within fields, edge-of-field and at watershed scales.

At the farm level, we share insight into utilizing in-field conservation plans and practice designs to improve natural resource quality and address downstream impacts with edge-of-field practices, such as tile line bioreactors. For each project, we collect data, conduct analysis, document and report new knowledge about our work.

ISA believes these endeavors will provide future generations of farmers with a solid base of natural resource work leading to a lasting legacy of strong soils, clean water and more resilient and productive agriculture.

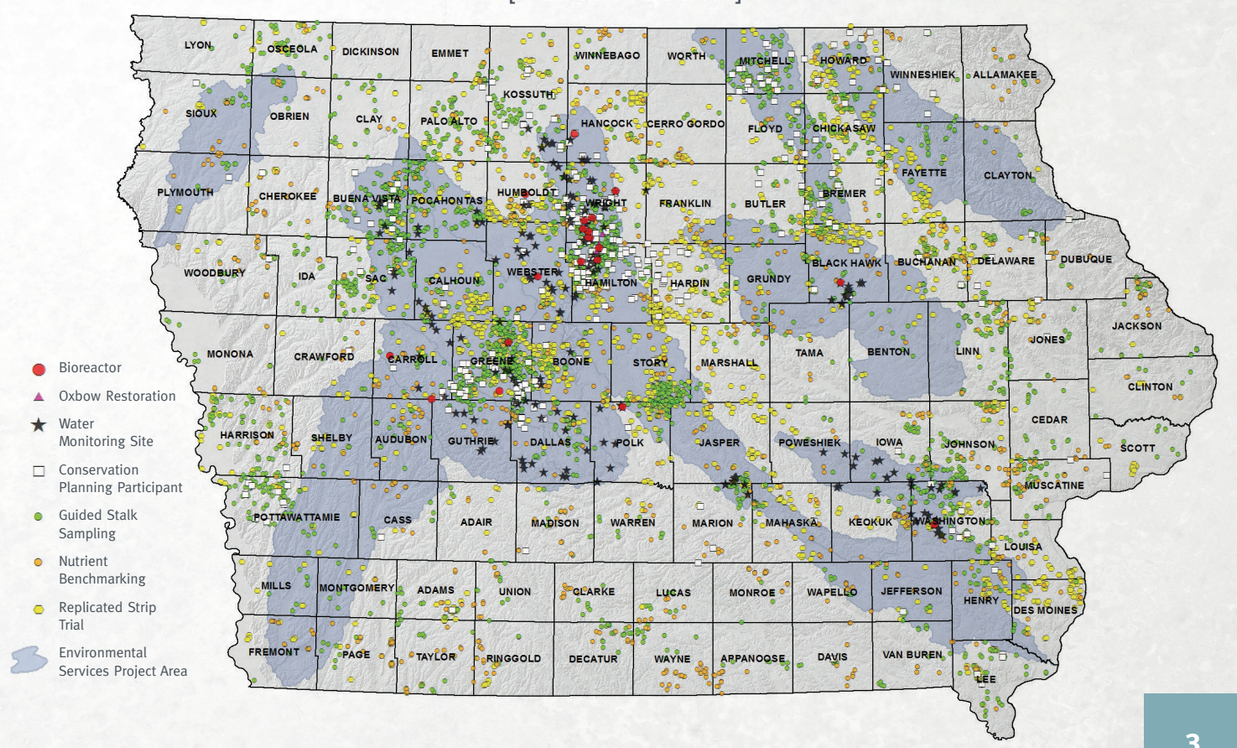
We hope you share our enthusiasm.

ROGER WOLF

ISA EPS Director | rwolf@iasoybeans.com | 515-334-1051

IOWA SOYBEAN ASSOCIATION RESEARCH PROJECTS

[2002 - 2014]



EPS SUPPORTS WATER QUALITY INITIATIVE

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In support of the Iowa Nutrient Reduction Strategy, the state has developed the Iowa Water Quality Initiative (WQI), which has funded 13 watershed demonstration projects across the state. The goal is to demonstrate conservation practices aimed at improving water quality and encouraging greater adoption of these projects across the state.

The Iowa Soybean Association (ISA) Environmental Programs and Services (EPS) team is working actively with four of the WQI projects to help farmers identify practices appropriate for their operations. Implementing suitable conservation practices is necessary to achieve the Nutrient Reduction Strategy objectives of reducing nitrate and phosphorus leaving the state via rivers and streams by 45 percent. Targeted nitrate reduction is 41 percent for nonpoint sources and four percent for point sources, while phosphorus reduction is 29 percent for nonpoint sources and 16 percent for point sources.

Conservation practices

In north central Iowa, EPS is assisting farmers in the Boone River Watershed by providing opportunities to participate in tile outlet water monitoring, replicated strip trials, stalk nitrate sampling and education and outreach.

Through water monitoring, farmers can measure nutrient levels in water leaving their fields and develop a baseline for future monitoring. As of November 2014, the EPS team has collected 125 water samples for the Boone WQI project and 417 in other WQI projects across Iowa. This data has validated the benefits of practices implemented as part of the Boone River project, such as cover crops and bioreactors.

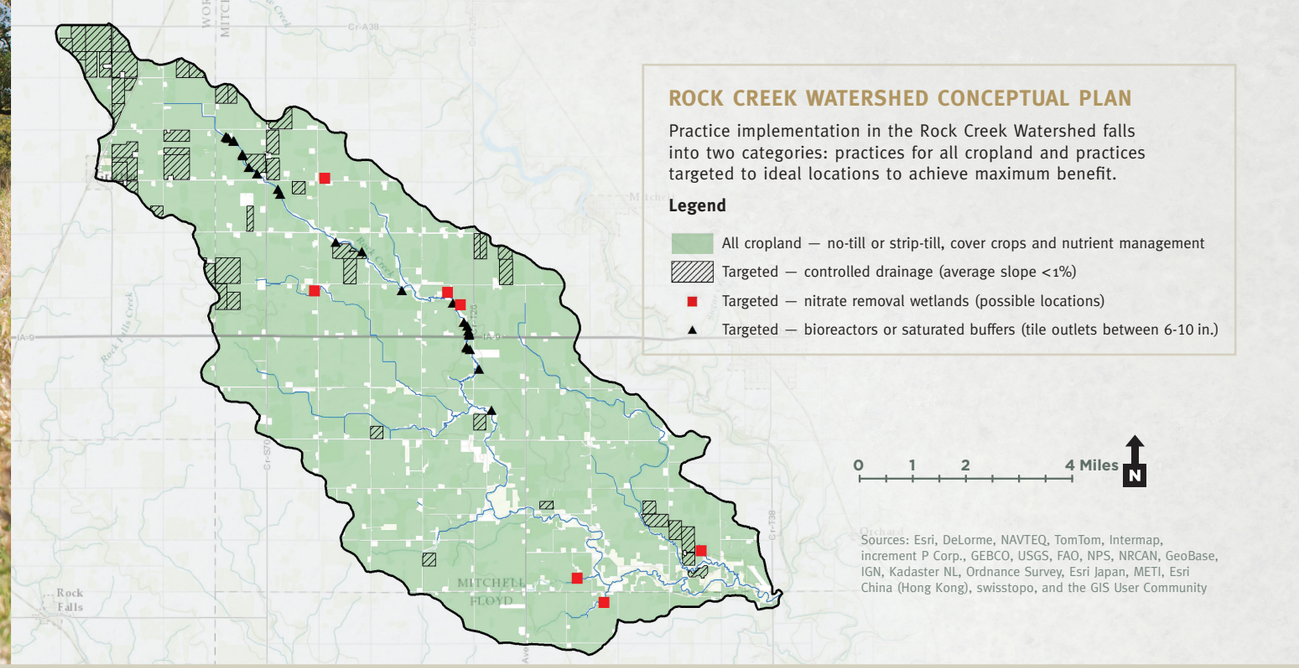
To supplement water quality monitoring results, EPS in conjunction with the ISA On-Farm Network® has conducted replicated strip trials for cover crops and nitrogen management to generate agronomic data. This year, 13 cover crop trials have been implemented as part of the Boone River WQI and additional nitrogen trials are being secured for 2015.

Producer engagement

To improve awareness and increase adoption of these practices, EPS and conservation partners have worked with “Farmer Champions.” These producers implement conservation practices, collect project data and share their experiences and results.

Through on-farm tests, farmers develop a better understanding of nutrient losses. This often leads to greater implementation of conservation practices tailored specifically to farm conditions and a commitment to improve agronomic and environmental performance. As a result of greater engagement, almost 4,000 acres of cover crops were established as part of the Boone WQI project this year.

In order to realize the goals of the Nutrient Reduction Strategy, nearly all Iowa farmers will need to implement a practice or suite of practices to reduce nutrient losses. Utilizing multiple practices to keep nutrients in the field allows farmers to improve their bottom line, crop production and water quality.



WATERSHED PLANNING PAYS OFF IN ROCK CREEK

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Improving water quality is a statewide goal for producers, and this can appear as an overwhelming challenge. While every farmer will need to implement practices, often it is helpful to view the problem from a watershed perspective.

Developing a watershed management plan provides a far-reaching vision that yields community dividends for decades. In 2013, the Iowa Soybean Association (ISA) received a grant from the Walton Family Foundation to develop a plan for the Rock Creek Watershed in Mitchell County. The watershed includes 44,787 acres that drain to the confluence of Rock Creek and the Cedar River southwest of Osage, Iowa. The yearlong effort resulted in a project that helps farmers and landowners implement conservation practices.

ISA facilitated the development of a watershed plan by working with farmers and conservation groups in the Rock Creek drainage. The planning document defines and addresses existing land and water quality conditions and shortfalls and provides a path for improvement. The development of the plan followed a set watershed planning process and incorporated input from many different stakeholders, both public and private.

The Rock Creek Watershed Plan serves as the culmination of existing studies, citizen and stakeholder input and recommendations for conservation and agricultural practices aimed at meeting goals developed through the watershed planning process. The plan will guide both water quality and flood reduction efforts. It is one of the first in Iowa to address Nutrient Reduction Strategy goals.

Development of the Rock Creek Watershed Plan included these steps:

Partnership building and stakeholder participation — ISA and the Mitchell County Soil and Water Conservation District (SWCD) formed farmer and technical advisory committees. The need to create a framework of open communication among diverse stakeholders is critically important to the overall success of the plan.

Characterizing the watershed — All available water quality data was gathered, visual inspections of the stream corridor were conducted and inventories of land use and management practices were collected. A survey of all watershed residents was used to determine existing social beliefs within the watershed areas.

Development of goals and solutions — Watershed goals were identified and solutions developed using input from the advisory committees and watershed surveys. A conceptual plan of conservation and agricultural practices was developed using computer modeling and mapping to meet the desired goals. The conceptual plan identifies locations for practice placement to achieve maximum benefit.

Development of implementation program — An implementation schedule was developed, which set a timeline for meeting the plan's goals. The schedule is both environmentally and economically sustainable given current funding availability. Methodologies and schedules track implementation and progress toward goals, facilitate communication and education with stakeholders, identify technical and financial assistance and evaluate effectiveness.

Implementation of the watershed plan — Conservation partners have worked to secure financial resources to implement the Rock Creek Watershed Plan. The Mitchell SWCD was recently awarded a multi-year grant totaling nearly $1 million from the Iowa Department of Agriculture and Land Stewardship to implement conservation practices. Pursuing these funding sources would not have been possible without a watershed plan.

Development of a monitoring and evaluation plan — A watershed monitoring strategy is included in the Rock Creek Watershed Plan to help local decision makers assess water quality improvements over time. Monitoring of water, soil, social beliefs and other indicators are important to track progress and make adjustments. A plan should adapt to new technologies, watershed conditions and available resources.

Improving land and water resources is a challenging and complex task requiring collaboration, partnerships and practice adoption. The Rock Creek Watershed Plan balances current resources with the desire to make land and water improvements. A 20-year phased implementation schedule allows for continuous improvements that will be evaluated to ensure progress towards desired goals. The investment needed to achieve goals identified in the Rock Creek Watershed Plan is approximately $5 million for constructed practices, including wetlands and bioreactors, among others. Additional investment will be needed on a year-to-year basis to ensure management practices, such as cover crops, are implemented.

Research being done by ISA's On-Farm Network® and Environmental Programs and Services works to evaluate practices and approaches suggested in strategies like the Rock Creek Watershed Plan. ISA's goal is to ensure suggested conservation practices are maximizing agronomic and environmental benefits. ISA is working with farmers in the watershed to evaluate the benefits of cover crops, estimate subfield scale profitability of conservation practices and monitor edge-of-field water quality benefits.

Watershed planning coupled with on-farm research is critical to achieve Iowa Nutrient Reduction Strategy goals, as exemplified by ISA's experience in Rock Creek and other Iowa watersheds.

"With a watershed plan in place, we were able to apply for a Watershed Protection Fund Grant and it was approved. The money from this grant gives us sufficient funds to work with and provide cost share to landowners to install conservation practices."

- Kari Gardner, District Project Coordinator, Mitchell County SWCD

CONSERVATION PLANNING: PURPOSE AND VALUE

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Resource concerns and production goals of each farm are unique, but all farms can benefit from conservation planning. The purpose of a conservation plan is to identify opportunities for improving management of natural resources and agricultural production. Many strategies are available to reduce negative soil and water resource impacts and improve the productivity of cropping systems.

The planning process is driven by goal identification, implementation and measurement. A conservation plan is not a static document, but serves as a guide to approach changes and document effectiveness of actions for continued improvement. With clear goals, it is possible to accurately measure improvements, experiment with alternative practices, authenticate conservation successes and understand where new technologies and opportunities fit within defined goals.

Value of a conservation plan:

- Set continuous improvement goals and measure effects
- Interface with government programs
- Identify both short and long term plans/goals
- Plan risk management/alternative scenarios
- Provide summary of existing management to determine how new tools and technologies can improve management or measurement
- Demonstrate and verify conservation success to landowners, peers, industry personnel and the public

STRUCTURAL PRACTICES

Structural conservation practices minimize soil erosion by slowing and controlling water flow during weather events. Depending on the landscape, practices including terraces, sediment control basins, grassed waterways, contour strips, ponds and reconstructed wetlands can be integrated to complement crop production. These practices, in conjunction with drainage infrastructure, enhance the productivity of cropland, conserve soil and reduce nutrient losses to waterways. Planning structural practice needs can aide in prioritizing construction, conducting maintenance of current infrastructure and assessing conservation goals.

HABITAT PLANNING

Habitat planning varies greatly based on the farmer's interest and goals. A base assessment of habitat quantity and quality can be provided for cropped and non-cropped areas. When habitat improvement is identified as a goal of the operation, the farmer is connected with the appropriate expertise and programs allowing for more in-depth assessment and examination of support programs.

Profitability mapping is a new initiative increasing interest in habitat programs, primarily the Conservation Reserve Program. Profitability mapping identifies areas of cropland operating at a consistent economic loss. Enrolling these areas in habitat programs may allow for an improvement in habitat as well as an improved balance sheet for the farm.

COVER CROPS

Cover crops can improve multiple aspects of corn and soybean production. The purpose and choice of cover crops vary greatly, thus success is based on individual goals and assessment. Soil quality metrics, cover crop biomass and drainage water evaluation are possible testing opportunities for environmental goals. Agronomic indicators such as crop yield, weed control, forage value and profitability are useful factors to evaluate when defining success.

To assist cover crop integration, a planning approach is being developed to define goals upfront and pair them with appropriate measurements. Combining nutrient management plans and on-farm research, producers can better integrate cover crops and address farm specific production questions.

NUTRIENT MANAGEMENT PLANNING

A nutrient management plan articulates nutrient needs during a soil test cycle taking into account the producer's goals, crop rotation, soil test levels and in-field test results. While typically built around Iowa State University recommendations and the Natural Resources Conservation Service's 590 Nutrient Management Standard, the plan can be refined through adaptive management.

Adaptive management involves use of relevant field testing results to adjust the source, rate, time and placement of future nutrient applications. The plan is customized with data from individual fields and, if available, aggregated outcomes from similar management and trials implemented across a county or watershed. The plan itself will articulate the scope and scale of testing needed to validate making a nutrient adjustment.

A number of tools and testing approaches can inform the nutrient management plan including:

- Replicated strip trials
- Aerial imagery
- End-of-season corn stalk nitrate testing
- In-season crop tissue testing
- Late spring nitrate sampling
- Soil tests
- Soil types

ADDITIONAL FOCUS AREAS

A number of additional focus areas can be incorporated into conservation plans:

PROFITABILITY ANALYSIS — multi-year digital yield data, input and income data are mapped identifying areas of the field consistently resulting in increased or decreased profits.

PEST MANAGEMENT — integrated crop management principles can be incorporated as crop management influences soil health and water quality. Weed and insect resistance planning can be incorporated to assess the impact of tillage and pesticide use as management techniques.

ENERGY ANALYSIS — assessment of energy used to grow corn and soybeans identifying both direct and indirect energy inputs.

INDUSTRY BENCHMARKING — comparison of farm performance and environmental impact to local, state and national averages.

GEOSPATIAL ANALYSIS — using spatial data including as-applied data, yield data, LiDAR and aerial imagery adds depth and strength to any assessment and planning protocol.

BY THE NUMBERS:

ISA Environmental Programs and Services staff, who are Certified Crop Advisers and Conservation Planners, work closely with farmers to assess and prioritize resource concerns and evaluate options for improvement. They have provided conservation planning services to 427 farmers on approximately 111,980 acres, which includes 198 structural conservation practice designs.

Photo courtesy of USDA Natural Resources Conservation Service.

INTEGRATING EDGE-OF-FIELD PRACTICES FOR REMOVING LOST NUTRIENTS

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The Iowa Nutrient Reduction Strategy sets an aggressive goal for agriculture to reduce its nitrogen loss by 41 percent to meet the overall reduction of 45 percent. Nutrient management, cover crops, land use changes and edge-of-field practices are listed as ways to achieve this reduction.

While working with current production methods, edge-of-field practices show the biggest impact potential with more consistent performance in terms of nitrogen reduction. Edge-of-field practices targeted to reduce nitrogen from field tiles reaching streams often include bioreactors, wetlands, drainage water management and saturated buffers. Table 1 describes potential locations and impacts of conservation drainage practices and three edge-of-field practices.

2014 Bioreactor Performance

The Iowa Soybean Association (ISA) Environmental Programs and Services (EPS) has worked with bioreactors since 2008, beginning with a demonstration project jointly funded by Agriculture's Clean Water Alliance and the Sand County Foundation (SCF). In 2014, three separate bioreactor projects have been funded by federal, state and private dollars. The federal project is through a U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Conservation Innovation Grant. This effort is among University of Illinois at Urbana-Champaign, Minnesota Department of Agriculture and ISA investigating optimal design and management of bioreactors to maximize nitrate reduction and minimize possible contaminant generation. The state project is funded through the Iowa Nutrient Reduction Center and examines how alternative stop log management within the bioreactor affects performance and longevity. ISA also has managed private contracts with individual farmers to assess bioreactor performance throughout the year.

Bioreactors have been shown to remove 30 to 60 percent of the annual nitrate load. This year, bioreactor performance has not lived up to those expectations as performance has ranged from only six-to-44 percent of nitrate load removed.

Currently, bioreactors are designed to handle 20 percent of the peak flow, but monitoring indicates they are not performing as designed. For example, ISA monitored the amount of flow treated by two bioreactors for a high flow event occurring June 16 through June 22. The first bioreactor treated nine percent of the peak or storm event flow and the second bioreactor treated 11.5 percent of the peak flow. Results of 2014 monitoring suggest design improvements should be considered to treat a higher percentage of flow.

Dual Purpose Oxbow

Additionally, ISA is evaluating restored oxbows for nitrate removal effectiveness. An oxbow is a remnant meander of a river or stream cut off from present flow as the channel has migrated within its floodplain. The remnant meander historically is connected to the water table and reconnects to a stream on a one-to-two year increment, creating valuable fish habitat. Regular flooding has caused sediment and organic material to be deposited in the depression over time, which reduces the volume and duration of standing water in the oxbow, eliminating its habitat potential. Through a project funded by SCF, ISA has partnered with The Nature Conservancy (TNC) to pair oxbow sites with tile drainage. The oxbows have potential to serve a dual purpose of wildlife habitat and nutrient processing, much like a wetland.

A nitrate concentration decline has been noted from the tiles drained into the oxbow when compared to the outlet of the oxbow. It is not known the extent of this decline linked to denitrification and vegetative assimilation versus the degree of decline due to dilution through groundwater. ISA continues to work with TNC to better understand the mechanism for nitrate reduction within oxbow systems.

BY THE NUMBERS: ISA EPS staff has assisted or conducted research with 25 edge-of-field practices.

In order for the Iowa Nutrient Reduction Strategy to be successful, edge-of-field practices need to play a vital role. ISA EPS continues its research and dissemination of information regarding the effectiveness of both proven and innovative practices.

TABLE 1. CONSERVATION DRAINAGE OPTIONS.

PRACTICE	LOCATION PRACTICE APPLIES	N REMOVAL % AVERAGE (SD*)+	BARRIERS
DRAINAGE WATER MANAGEMENT (DWM)	Flat fields with 0.5% - 1% grades. Can be installed on new tile or retrofitted to existing systems.	33 (32)	Difficult to retrofit unless previous tile was installed along field contours.
SHALLOW DRAINAGE	New tile installations or when splitting lateral spacing.	32 (15)	Requires closer lateral spacing, increasing the cost compared to conventional.
BIOREACTOR	30 - 100 acre drainage areas with 6 in. - 10 in. tiles. Not recommended for smaller drainages.	43 (21)	No economic benefit and requires periodic management.
SATURATED BUFFER	Non-incised channel and 30 ft. buffer minimum.	50 (13)	Site specific and minimal performance data.
WETLANDS	0.5% - 2% wetland to drainage area and minimum 500 acre drainage area.	52	Large footprint and design time.

** SD = standard deviation*
+ Iowa Nutrient Reduction Strategy Nitrogen Reduction Practices Assessment

Figure 1. The two-stage flume is placed at the edge of the field to measure surface water runoff. As water moves through the flume, the depth is logged to calculate the volume of water and water samples are pumped into a bucket by equipment inside the shed.

MONITORING EDGE-OF-FIELD SURFACE WATER RUNOFF

Monitoring edge-of-field practices measures their performance as part of an adaptive management framework. ISA is a partner in a three-state Conservation Innovation Grant project evaluating low cost edge-of-field surface water monitoring equipment designed and built by the University of Wisconsin at Platteville Pioneer Research Farm. The focus is to test the equipment in a variety of landscapes and determine how it compares with more expensive options used by researchers. Funded by the NRCS, the project goal is to have a more cost-effective option for edge-of-field monitoring, which a farmer could deploy on his/her own or with a partner like ISA.

At the heart of the system is a two-stage flume (Figure 1), which accurately measures small volumes of water while also capturing large runoff events. Other components include ultrasonic depth sensors retrofitted from storage tanks, gravity fed backup samplers, time lapse cameras to monitor crop growth and field activities as well as a datalogger designed and built by the university's engineering department.

After the samples are analyzed at the lab, each producer is given a report detailing the volume of runoff water, the total amount of nitrate-nitrogen, total phosphorus and sediment for each event. This information can help a farmer assess the need for alternate tillage practices or grassed waterways if large amounts of soil and nutrients are being lost.

WATER MONITORING AND ANALYSIS: INFORMING NATURAL RESOURCE MANAGEMENT

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Improving water quality requires measuring current conditions and continued monitoring as conservation practices are implemented. This year marked the fourth year of operation for the Iowa Soybean Association (ISA) water laboratory, a state-of-the-art certified facility.

During the first year, the lab analyzed about 550 water samples for nitrate-nitrogen. Nearly all samples were collected in central Iowa streams as part of the Agriculture's Clean Water Alliance (ACWA) monitoring project in the Raccoon and Des Moines River Watersheds. As of November 2014, ISA had received and analyzed 2,932 samples, almost six times the number of samples analyzed the first year.

Water monitoring programs

While the ACWA samples remain the lab's bread and butter, many other projects rely on ISA analytical expertise as well. Several monitoring projects are funded by the Iowa Department of Agriculture and Land Stewardship's (IDALS) Water Quality Initiative (WQI). These samples span the state and come from the following project areas: Van Zante Creek, central; Miller Creek, northeast; Crooked Creek and English River, southeast; and Boone River, northern.

Two new ISA monitoring programs began this year, voluntary tile monitoring for interested farmers and well water or drinking water testing for ISA members. Additional samples arrive from ISA's numerous bioreactor projects, restored oxbows in the Boone River watershed, nutrient and flow projects from three drainage district main tiles in Lyons Creek and an NRCS stream project from Lizard Creek, a tributary of the Des Moines River.

Once received, almost all samples are analyzed for nitrate and turbidity, or cloudiness. In addition, some samples are quantified for carbon to assess loss from Iowa soils, E. coli bacteria, ammonia and other various parameters, depending on the particular water quality issue.

How is data used?

Water quality data helps farmers target conservation practices to locations where practices can be most effective. Data characterizes the condition of Iowa streams and helps determine the direction water quality is headed. This is extremely important for assessing crop and conservation management strategies.

This data also enables ISA to produce original science. Since the lab began work in 2011, five articles have been published in peer-reviewed scientific journals, with several more in progress. Furthermore, staff members have used ISA lab data in presentations and posters at state and national scientific meetings.

In the historical record, this year's nitrate results are unique. Nitrate levels were unexceptional during the first eight months of the year. Then in August, it started raining and didn't stop until October. Fall nitrate levels increased rapidly after Labor Day and haven't declined. Since crops thrived this year with record or near-record yields, presumably nitrogen uptake was robust and few nitrogen inputs were left behind on the landscape. These recent high nitrate levels are a bit surprising, but as we collect more data, we begin to understand high nitrate levels are not only connected to residual fertilizer applications, but also levels are tied to high flow events. Water quality data spanning several decades shows nitrate levels peak in high flow situations until they reach a point of dilution. This is why ISA continues to dedicate resources to water monitoring and researching water quality.

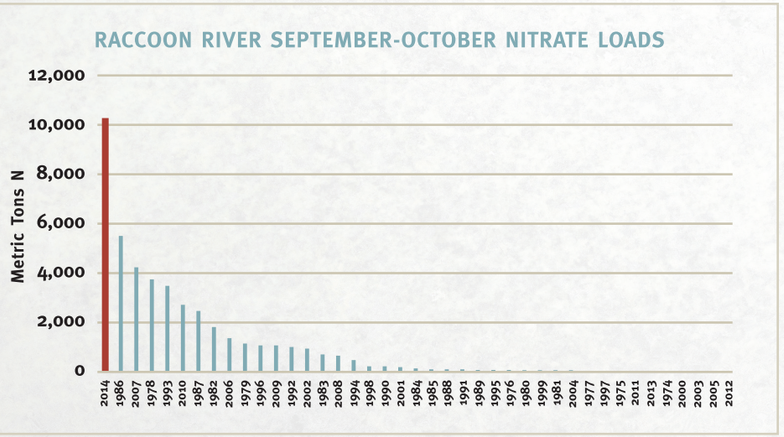


Figure 1. Combined September and October Raccoon River Nitrate Load, 1974-2014.

BY THE NUMBERS: The Iowa Soybean Association water laboratory has been involved in the coordination, collection and analysis of more than 9,000 water quality samples from across Iowa since 1999. Water quality data is used to help develop and guide projects, evaluate management response and better understand agriculture's ability to have impact.

Bioreactor under construction, Boone River Watershed.

LETTER FROM THE FIELD

In early 2014, the Iowa Soybean Association (ISA) created a new strategic plan to guide our organization through the next five years. A normal part of the strategic planning process is to look back at the last five years and analyze what has changed and how our organization will adapt to this change. In regards to the environment, a lot has and is changing.

Our customers as well as the public are now showing more interest and concern in how their food is produced. They are concerned about farming practices and how they affect the environment, especially in regards to water quality. That concern has resulted in the Environmental Protection Agency (EPA) asking states to develop plans to improve water quality, especially as it relates to the Mississippi River and the Gulf hypoxia zone. Iowa has responded to the EPA request by developing the Iowa Nutrient Reduction Strategy. ISA and our Environmental Programs and Services (EPS) team are heavily invested in this strategy because it meets our objective of continuously improving natural resource management practices and environmental quality.

As a farmer with a passion for environmental improvement, it has been a pleasure to work with the EPS team. They have 15 years of experience working with farmers developing plans to enhance water quality, reduce soil loss and improve habitat, all while maintaining or improving our competitiveness as soybean producers. As we look forward to adopting practices to meet the goals of the Iowa Nutrient Reduction Strategy during the next few years, the EPS team is here to help guide ISA members in selecting strategies and practices best suited for their operation.

On my own farm, no-till, strip-till, grass waterways and nutrient management have been long-term practices. With the help of the EPS team, we recently integrated cover crops, filter strips, a pollinator habitat and long-term profitability analysis into our operation. The skills and knowledge provided by the EPS team members were invaluable during the implementation process.

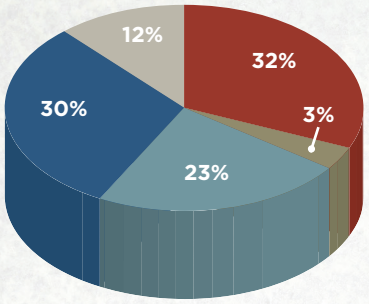
I challenge each of you to consider your current operation and ask yourself what can be done better to improve environmental quality. Water, soil, air and habitat — they all matter to our customers, the public and hopefully to you. This year, if you aren't using any conservation practices, then try one. If you are doing one practice, then add a second. If you are applying two practices, then adopt a third. The ISA EPS team is here to help you in this process. Give them a call. Our ultimate goal at ISA is to improve your competitiveness as an Iowa soybean farmer while enhancing environmental quality. I think we can all agree we want to leave this land better as we pass it on to the next generation, and improving environmental quality is a good place to start.

WAYNE FREDERICKS

Wayne Fredericks

ISA President-elect

EPS FINANCIAL INVESTMENT



2001-2014: **$19,060,569**

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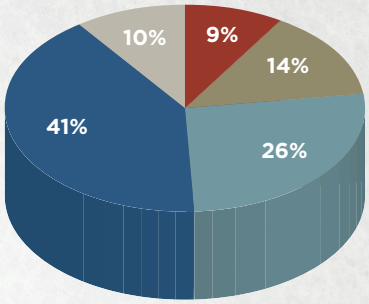

2014: **$2,309,277**

We would like to thank all of our past and present partners, collaborators and supporters for their collaboration and assistance. We look forward to working with you in 2015.

Iowa soybean farmers | Agriculture's Clean Water Alliance (ACWA) | Ag Drainage Management Coalition (ADMC) | Agren, Inc. | Agri Drain Corp | AgSolver | Altria | Boone River Watershed Association | Carroll County Conservation Board | City of Cedar Rapids | Dallas County Conservation Board | Des Moines Water Works (DMWW) | Dickinson Clean Water Alliance | Drake University: Environmental Sciences, College of Law | Environmental Defense Fund (EDF) | Environmental Intelligence, Inc. (EII) | Environmental Protection Agency (EPA) | Family Farm Alliance | Fishers & Farmers Partnership (FFP), which includes: Illinois DNR, Iowa DNR, ISA, Minnesota Corn Growers Association, Minnesota DNR, Missouri Agribusiness, Missouri Department of Conservation, USDA Forest Service, US Fish & Wildlife Service (USFWS), US Geological Survey (USGS), Wallace Pasture Project (WI), Wisconsin DNR | Herron Lake Watershed District | IIHR (Iowa Flood Center) | Illinois Soybean Association | Indiana Soybean Alliance | Iowa Agriculture Water Alliance (IAWA) | Iowa Corn Growers Association | Iowa Farm Bureau | Iowa Pork Producers Association | Iowa Department of Agriculture and Land Stewardship (IDALS) | Iowa Department of Natural Resources (IDNR) | Iowa Geological Survey | Iowa Land Improvement Contractors Association (LICA) | Iowa League of Cities | Iowa State University: Natural Resources Ecology & Management (NREM), Ag & Biosystems Engineering, Center for Agriculture & Rural Development (CARD), Extension Service, Leopold Center | Iowa's US Congressional Delegation (Harkin, Grassley, Latham, Loebsack, Boswell, King, Braley) | The Johnson Foundation at Wingspread | Kentucky Soybean Board and Association | The McKnight Foundation | Minnesota Department of Agriculture | Mitchell County Conservation Board | MSA Professional Services | Monsanto | National Academy of Sciences, National Research Council (NAS, NRC) | National Biodiesel Board (NBB) | National Fish and Wildlife Foundation (NFWF) | National Laboratory for Agriculture and the Environment (NLAE, USDA-ARS) | The Fertilizer Institute (TFI) | The Nature Conservancy in Iowa (TNC Iowa) | The Nature Conservancy, Great Rivers Partnership (TNC) | Ohio Soybean Council | Pheasants Forever | Pioneer Hi-bred, A DuPont Business | Prairie Rivers of Iowa RC&D (USDA NRCS) | Prairie Winds RC&D (USDA NRCS) | Sand County Foundation (SCF) | Smeltzer Family Trust, Iowa Learning Farm | Soil and Water Conservation Districts (SWCDs): Black Hawk County, Boone County, Bremer County, Chickasaw County, Dallas County, Emmet County, Floyd County, Greene County, Hamilton County, Hancock County, Howard County, Jasper County, Johnson County, Kossuth County, Madison County, Marion County, Mitchell County, Palo Alto County, Washington County, Webster County, Wright County | Soil and Water Conservation Society (SWCS) | South Dakota Soybean Research and Promotion Council | Trees Forever | 25x'25 Alliance | University of Illinois | University of Iowa, Hygienic Lab | University of Wisconsin — Platteville | United Soybean Board (USB) | US Army Corps of Engineers | USDA Natural Resources Conservation Service (NRCS) | USDA Agricultural Research Service (ARS) | US Geological Survey (USGS) | US Water Alliance | Walton Family Foundation (WFF) | Watershed Management Authorities (WMA): Upper Cedar River, English River, Turkey River, Walnut Creek | Western Illinois University | White Rock Conservancy

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