

2020 ANNUAL REPORT

IOWA WATER QUALITY INITIATIVE

**IOWA'S NUTRIENT
REDUCTION STRATEGY
IN ACTION**



**IOWA DEPARTMENT OF
AGRICULTURE &
LAND STEWARDSHIP**

IOWAAGRICULTURE.GOV | 515.281.5321



UPDATE FROM SECRETARY NAIG

The Iowa Department of Agriculture and Land Stewardship is grateful that Gov. Reynolds and the Iowa Legislature continue to invest in the state's ongoing soil health and water quality improvement programs. The funding allocated through the Water Quality Initiative is critical to helping farmers, landowners and municipalities scale-up rural and urban conservation practices to achieve the goals outlined in Iowa's Nutrient Reduction Strategy. By doing so, we're protecting our rich soil and water sources for future generations of Iowans.

I'm pleased to tell you that, despite the pandemic, 2020 was a record year for participation in the state's conservation programs. I visited more than a dozen water quality project sites to speak with the farmers, landowners, community leaders and conservation experts who are our boots on the ground. Thanks to these individuals, we're adding conservation practices at a faster rate than ever before.

We're also attracting new private partners, like Ducks Unlimited, Nestlé Purina and Pheasants Forever, who are contributing significant funding and technical resources to help us build nutrient-reducing wetlands in priority watersheds.

The Iowa Department of Agriculture and Land Stewardship and our public and private partners know there is more work to do, but we are on the right track. In 2021, we remain committed to working with our partners to continue scaling-up soil health and water quality improvement practices in rural and urban areas across the state.



Mike Naig
Iowa Secretary
of Agriculture

FUNDING SOURCES

WATER QUALITY INITIATIVE

The Water Quality Initiative (WQI) was established during the 2013 legislative session to help execute Iowa's Nutrient Reduction Strategy (NRS). The NRS provides a roadmap to achieve a 45 percent reduction in nitrogen and phosphorus losses to our waters using an integrated approach that includes point and nonpoint sources and public and private partners working together. The WQI cost share funds help farmers and landowners install nutrient-reducing conservation practices around the state.

SENATE FILE 512

In 2018, the Iowa Legislature with support from Gov. Kim Reynolds, passed Senate File 512 which allocated more than \$270 million to help fund the state's water quality efforts through 2029. FY2021 is the first year the Department is receiving \$15 million to fund edge-of-field practices, like wetlands, saturated buffers, bioreactors and urban conservation projects. In 2020, the Department used this funding to hire technical resources in targeted watersheds, and to construct 10 wetlands, 15 bioreactors and seven saturated buffers.

2020 WQI HIGHLIGHTS

3.5K FARMERS & LANDOWNERS
ENROLLED IN 2020

18K FARMERS & LANDOWNERS
ENROLLED IN WQI SINCE 2013

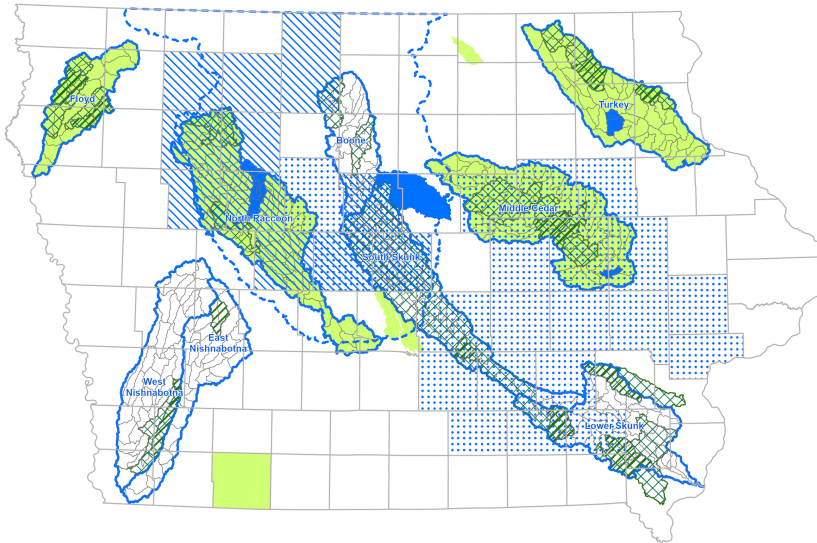
\$19M WQI FUNDS
OBLIGATED IN 2020

44 WETLANDS
UNDER DEVELOPMENT

585K COVER CROP ACRES APPROVED
FOR WQI FUNDS IN 2020

45 SATURATED BUFFERS AND BIOREACTORS
UNDER DEVELOPMENT

2020 WQI PLANNING, DEVELOPMENT AND IMPLEMENTATION PROJECTS



32 PROJECTS FUNDED IN 2020

\$10M WQI FUNDS OBLIGATED IN 2020

50 PROJECTS FUNDED SINCE 2013

\$34M WQI FUNDS OBLIGATED SINCE 2013

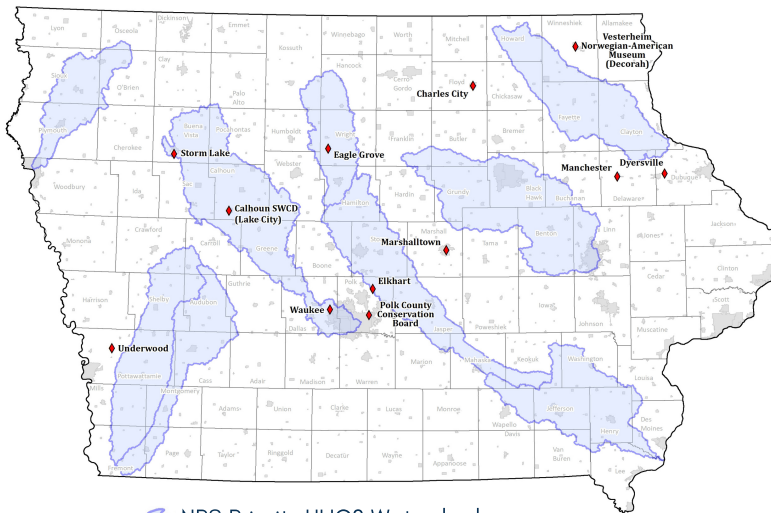
- | | |
|--|--|
| <p>Planning & Demonstration Projects</p> <ul style="list-style-type: none"> Watershed Project Areas (non-HUC8) Ducks Unlimited Project Area Watershed Project Areas (HUC8s - Soil & Water Outcomes Project) INREC Project Area Soil & Water Outcomes Project Area | <p>Watershed Demonstration Projects</p> <ul style="list-style-type: none"> Complete Active <p>Practice Demonstration Projects</p> <ul style="list-style-type: none"> Practice Demonstration Projects |
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IOWA SYSTEMS APPROACH TO CONSERVATION DRAINAGE RCPP

The Iowa Department of Agriculture and Land Stewardship is working alongside 15 partners on the Iowa Systems Approach to Conservation Drainage project. This is a five-year, \$10 million demonstration project funded by USDA NRCS through the Regional Conservation Partnership Program (RCPP). It demonstrates the connection between in-field practices that improve agronomic, soil health and nutrient use efficiency, and edge-of-field practices that further improve water quality. When it is complete, the project is expected to reduce nitrogen losses by 1.185 million pounds per year and phosphorous losses by 40,000 pounds per year.



2020 URBAN CONSERVATION PROJECTS



NRS Priority HUC8 Watersheds
 Urban Demonstration Projects

12 PROJECTS FUNDED IN 2020

\$1M WQI FUNDS OBLIGATED IN 2020

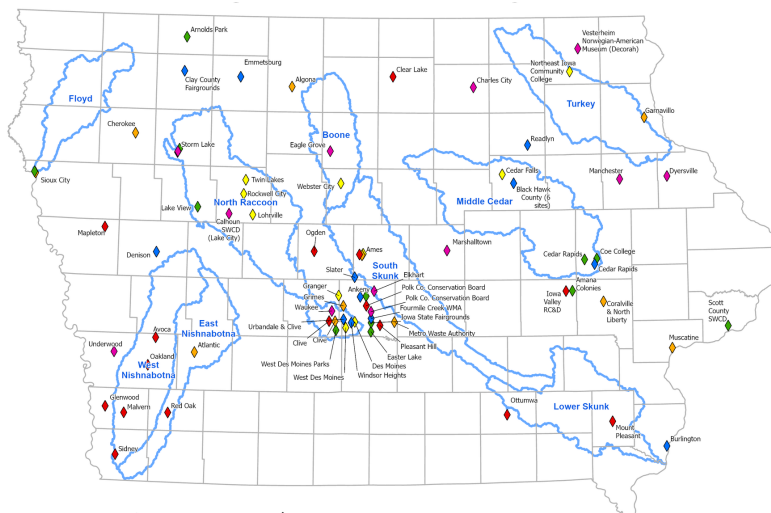
\$8M PUBLIC-PRIVATE INVESTMENTS IN 2020

Urban conservation projects capture storm water and allow it to soak into the soil instead of running off the surface. This reduces the property’s contribution to water quality degradation, stream flows and flooding. Partnerships, outreach and education are also key components of urban water quality projects. They raise awareness about water quality improvement practices and encourage others to adopt permanent infrastructure that reduces the nutrient loads in surface waters.

Practices which may be installed as part of these urban projects include bioretention cells, bioswales, native plantings, permeable pavement, rain gardens, soil quality restoration and wetlands.

New projects were funded in 2020 in Charles City, Decorah, Des Moines, Dyersville, Eagle Grove, Elkhart, Lake City, Manchester, Marshalltown, Storm Lake, Underwood and Waukee.

ALL WQI URBAN CONSERVATION PROJECTS



FY2015 FY2018
 FY2016 FY2019
 FY2017 FY2020
 Iowa NRS Priority HUC8 Watersheds

67 PROJECTS FUNDED SINCE 2015

\$5M WQI FUNDS OBLIGATED SINCE 2015

\$19M PUBLIC-PRIVATE INVESTMENTS SINCE 2015

CROP INSURANCE DISCOUNTS FOR PLANTING COVER CROPS

Under a joint, ongoing project administered by the Department and USDA Risk Management Agency (RMA), farmers who plant cover crops in the fall may be eligible for a \$5 per acre reduction on their cash crop insurance premiums the following spring. To qualify, the cover crop acres cannot be enrolled in other state or federal cost share programs. Interest in the program continues to grow and new farmers and fields join each year. Neighboring states in the Mississippi River basin have taken notice and are using Iowa's cover crop insurance discount program as a model to encourage adoption within their own borders. Since the program began four years ago, nearly 1,700 farmers and landowners have enrolled more than 500,000 acres of cover crops in the WQI crop insurance discount program.



665

FARMERS &
LANDOWNERS
ENROLLED IN 2020

198K

COVER CROP
ACRES ENROLLED
IN 2020

\$1M

WQI FUNDS
OBLIGATED FOR
COVER CROPS IN 2020

STATEWIDE COST SHARE FOR IN-FIELD CONSERVATION PRACTICES

Each summer, the Iowa Department of Agriculture and Land Stewardship encourages farmers and landowners to enroll in the WQI cost share program and adopt in-field conservation practices that improve soil health and water quality, including cover crops, no-till/strip-till practices or a nitrification inhibitor. Since this initiative began, more than 13,000 farmers and landowners have enrolled more than 1.2 million acres of cover crops in this WQI program.

\$6M

WQI FUNDS
OBLIGATED IN 2020

3.5K

FARMERS & LANDOWNERS
ENROLLED IN 2020

\$12M

PUBLIC-PRIVATE
INVESTMENTS IN 2020

11K

NEW STRIP-TILL/NO-TILL
ACRES APPLIED FOR IN 2020

387K

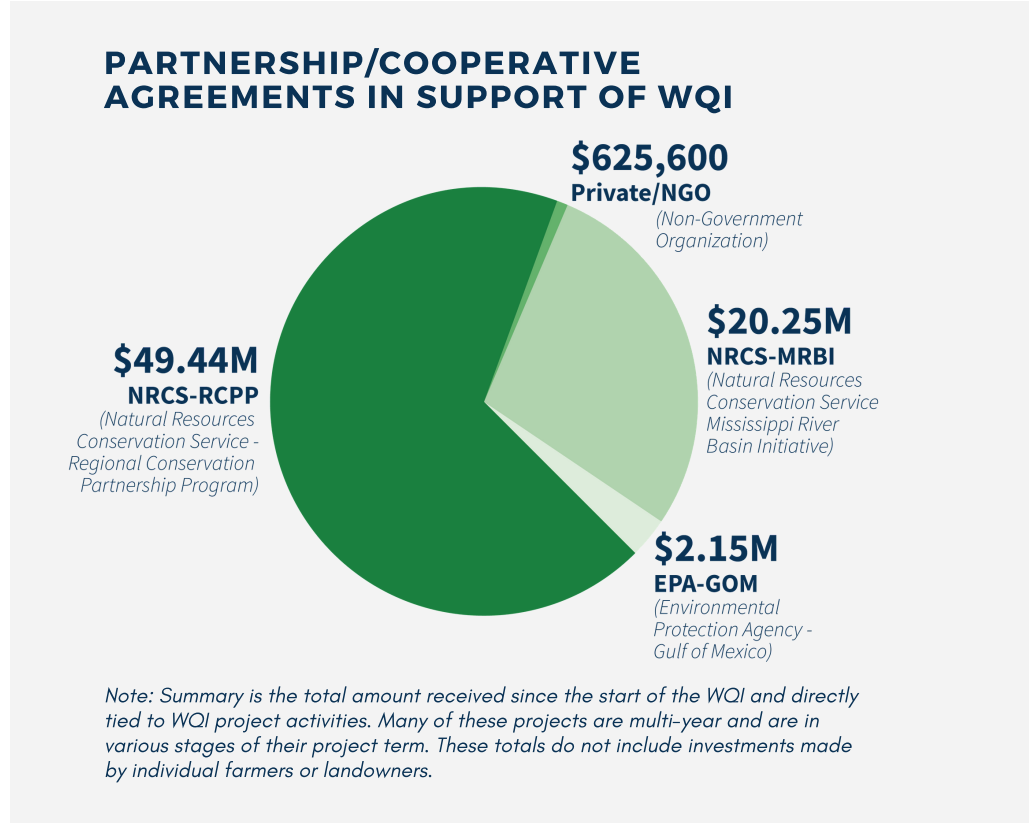
COVER CROP ACRES
APPLIED FOR IN 2020

6K

NEW NITRIFICATION INHIBITOR
ACRES APPLIED FOR IN 2020

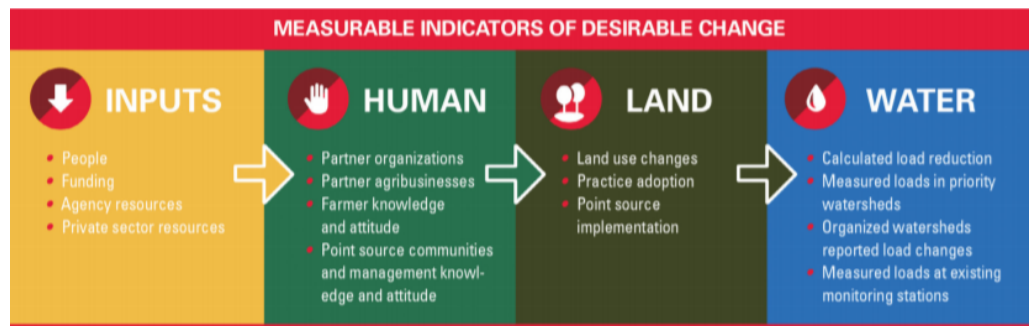
PUBLIC AND PRIVATE PARTNER PROJECTS

The Department is working alongside more than 350 public and private partners to execute Iowa's Nutrient Reduction Strategy. This includes federal agencies, private businesses, individual landowners, farmer-led organizations, community groups and local municipalities. Private partners provide significant financial assistance to help leverage state funding and additional technical resources to support farmers and landowners at the local level. The success of these partnership projects has allowed the state to acquire additional federal funding to further scale-up conservation efforts. Working together, Iowans are adding more conservation practices at a faster rate and more cost-effectively today than when the WQI began in 2013.



PARTNERS IN MEASURING PROGRESS

Iowa State University, the Iowa Department of Natural Resources and the Iowa Department of Agriculture and Land Stewardship issue an annual report providing progress updates on point and nonpoint source efforts to reduce nitrogen and phosphorus loads leaving the state. Progress is measured using the logic model that guides the INRS. The reports can be viewed at nutrientstrategy.iastate.edu.



The Logic Model of the Iowa Nutrient Reduction Strategy, guided by measurable indicators of desirable change. (Iowa Nutrient Reduction Strategy Measure of Success Committee, Water Resource Coordinating Council)

From 2019-2020, the Iowa State University Center for Survey Statistics and Methodology partnered with the Iowa Nutrient Research and Education Council (INREC), the Iowa Department of Natural Resources and the Iowa Department of Agriculture and Land Stewardship to employ a best management practices land survey to better measure the number of land-based practices implemented across the state.

PARTNERSHIP SUCCESS STORIES

There are soil health and water quality improvement projects underway all across the state. Here are two examples of planning and implementation projects that were completed in 2020.



EDGE-OF-FIELD CONSERVATION PRACTICES - LINN COUNTY

The Department partnered with the USDA, Linn Soil and Water Conservation District (SWCD), City of Cedar Rapids, Indian Creek Watershed Management Authority, Ecosystem Services Exchange, Sustainable Environmental Consultants, and local farmers and landowners to install two saturated buffers and two bioreactors in the Indian Creek watershed during the fall of 2020. Plans for an additional bioreactor and wetland are being finalized. The two constructed bioreactor projects will treat approximately 165 acres of subsurface drainage and will reduce nitrate loads by 43 percent. The two saturated buffers will treat approximately 85 acres and will reduce nitrate loads by 50 percent. These projects are part of the Indian Creek Soil Health Partnership, which works with farmers to improve soil health while reducing nutrient loss.



WATER QUALITY WETLAND - FAYETTE COUNTY

The Department completed a unique partnership project with the Fayette SWCD and USDA NRCS to help a landowner install a water quality wetland on their farm. The wetland is nine acres and treats about 716 acres of land. This wetland is estimated to remove about 8,000 pounds of nitrogen annually. The landowner was able to secure EQIP funding from USDA to cover a portion of the cost to install the practice. The Department supported the design, the remainder of the restoration costs and established a permanent easement on the site. This is one of the first NRCS-EQIP sites in Iowa and one of four recently completed wetlands using this partnership model.



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