WRIGHT SOIL & WATER CONSERVATION DISTRICT

# 2024 Wright Soil and Water Conservation District www.wrightswcd.org / 763 682 1933 ext. 3 / Buffalo, MN

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# INTRODUCTION

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# **PARTNERS**

Pheasants Forever, FSA, NRCS



Back Row: Sandi Hessedal, Luke Johnson, Charlie Bean, Andrew Grean, Eric Mattson Front Row: Alicia O'Hare, Dan Nadeau, Samantha Kaml, Whitney Peterson

### MISSION STATEMENT

To be the trusted leader in natural resource conservation in Wright County.

### VISION STATEMENT

The Wright Soil and Water Construction District Board envisions a changing Wright County. The District will be sensitive to the environment, citizen concerns and will foster a spirit of cooperation among all agencies and entities charged with the management of our precious natural resources.

As a catalyst for this vision, the Wright SWCD will proactively influence, educate, cooperate, and encourage the wise use of resources to maintain our high quality of life.



# BOARD OF SUPERVISORS

Soil and Water Conservation Districts are special purpose units of government that manage natural resource programs.

Our Board sets goals, policies and priorities for the District.

Back Row: Bill Daluge, Duane Dahlman,

Mike Zieska

Front Row: Kris Olson, Chris Uecker

**District 1** 

District 4

District 5



District 1 Mike Zieska

Clearwater, Corinna, Silver Creek, Maple Lake District 2 Kris Olson

Monticello, Otsego, St. Michael, Hanover

District 3 Bill Daluge

District 2

District 3

Buffalo, Chatham, Rockford, Franklin, Woodland District 4 Chris Uecker

Albion, Middleville, Marysville, District 5
Duane Dahlman

Southside, French Lake, Cokato, Stockholm, Victor

# **COUNTY COMMISSIONERS**

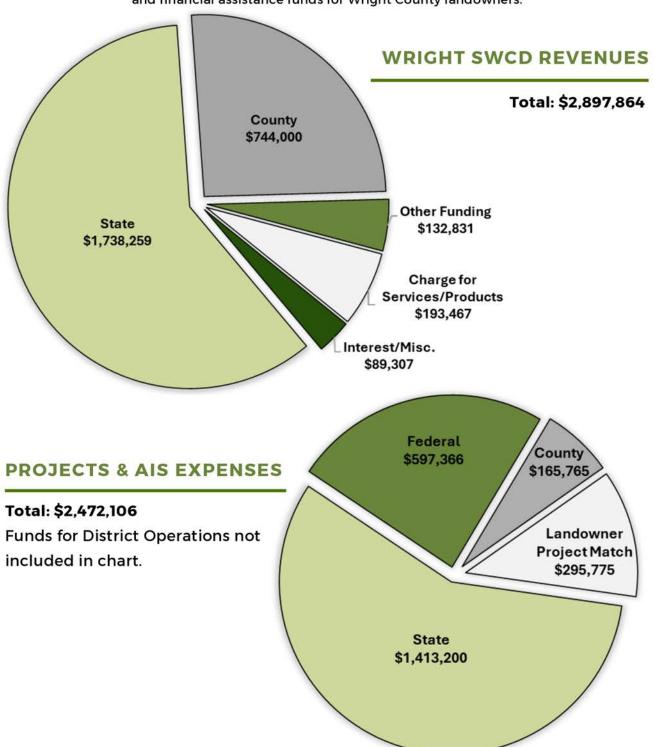
Five Wright County
Commissioners represent
populations of
approximately 28,000 each.
2024 Commissioners
pictured: Tina Diedrick,
Jeanne Holland, Darek
Vetsch, Mike Kaczmarek,
Nadine Schoen.

The Wright SWCD thanks the Commissioners for their continued support and partnership in improving conservation in our county.



# FINANCIAL SUMMARY

The Wright SWCD does not have taxing authority and relies on support from Wright County and the State of Minnesota, which enables us to leverage and secure additional technical assistance and financial assistance funds for Wright County landowners.



### EDUCATION AND OUTREACH - TOUR OF CONSERVATION PAGE 06



On June 5, 2024, Wright SWCD held a tour highlighting some of the completed conservation practices in our county. Senator Bruce Anderson, Representative Walter Hudson, and many of our partners joined to hear from our landowners, lake associations, and staff about these projects.

**Top Left:** Attendees view a Water and Sediment Control Basin, Grade Stabilization Structure, and Buffer near Maple Lake.

**Top Right:** Wright SWCD Conservationist of the Year, Mike Young, shares some of his successes since switching to strip-tillage.

**Bottom Left**: Area producer and lake association representative share of their partnership in improving water quality at Howard Lake.

**Bottom Right**: The rain garden and native shoreline plantings were the highlight of our stop at a Howard Lake park and boat landing.



### AGRICULTURAL MANAGEMENT

Wright SWCD continued to work with producers experimenting with cover crops in 2024. State soil health, targeted watershed, and One Watershed One Plan funds were used to incentivize soil health practices such as cover crops and reduced tillage systems. There was a concerted effort to highlight

the work of area producers who have more experience with cover crops and strip-till. Their willingness to share their experiences with other producers has been invaluable for the increased adoption and interest in these types of practices.

### PAGE 08



The soil on the left has a cover crop planted resulting in higher infiltration rates and less soil loss with surface run-off (clear water in the tray in front of it).

The soil on the right has been compacted through repeated tillage, resulting in low infiltration and high rates of surface run-off (see the gray run-off water in front).

## **2024 OUTCOMES**

994 acres of cover crops 421 acres of strip-till

Total Reductions:
- 832 pounds of phosphorus
- 2,172 tons of sediment

Some of the tools used for conducting in field soil health assessments. 30 of these assessments were completed in 2024 and will help quantify the effect of soil health practices over time.

Wright SWCD commends the producers who have stepped outside of the "normal" farming practices to show that these practices can be utilized in Wright County. We will continue to provide technical support, funding, and be an overall resource for anyone interested in incorporating soil health practices into

their operation.



An area producer planting soybeans into cereal

rye. The rye was terminated after planting and he

reported no loss in yield.





# TYPES OF PROJECTS

- 20 Water & Sediment Control Basins
- 9 Grade Stabilization Structures
- 4 Terraces
- 2 Grassed Waterways
- 1 Shoreline Restoration

1 Wetland Creation

14 cover crop contracts (994 acres)

3 strip-till contracts (421 acres)

1 no-till contract (54 acres)

# REDUCTIONS

SEDIMENT

**PHOSPHORUS** 

3,453 tons/yr

993 lbs./yr

1.2 + M

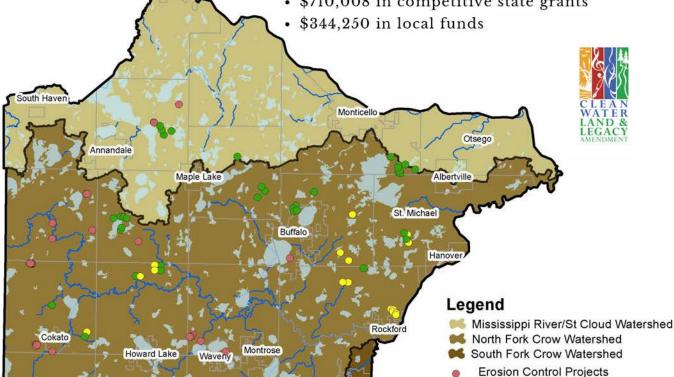
Cover Crop Projects Strip Till/No Till Projects

### NITROGEN

9,303 lbs./yr

### IN FUNDING BROUGHT TO WRIGHT

- \$180,236 in leveraged federal assistance
- \$710,008 in competitive state grants



### PROJECT HIGHLIGHT - CITY OF COKATO

### PAGE 11



Wright SWCD in partnership with the Wright County Drainage Authority and the City of Cokato addressed significant sediment erosion and provided peak flow reductions at the outlet to County Ditch 7, immediately prior to entering Joint Ditch 15. This project included installing a 3.65-acre wetland and 0.5 acre sediment forebay adjacent to Joint Ditch 15 that will reduce sediment and nutrients leaving County Ditch 7, as well as attenuate peak flow entering the frequently flooded Joint Ditch 15. In addition, 9.1 acres of native prairie was established around the wetland.

### PROJECT DETAILS

- Wetland Creation practice
- Target Water: Judicial Ditch 15
- Implemented in 2024
- North Fork Crow River Watershed

### FUNDING:

- BWSR MDM Grant \$495,000
- Wright County Grant \$250,000
- Wright County ARP \$70,124
- NFCR 1W1P Grant \$50,000 Total \$865,124

### PARTNERS:

- · City of Cokato
- Wright County Agriculture and Drainage Authority
- Wright County
- · North Fork Crow River 1W1P
- Board of Water and Soil Resources

### REDUCTIONS:

- · Sediment 1,024 tons/yr
- Phosphorus 107 lbs./yr
- Total Nitrogen 3,592 lbs./yr

### BENEFITS:

- Flood control
- · Reduces sedimentation to JD 15
- Reduces downstream nutrient loading
- 9.3 aces of native prairie vegetation

### COMPONENTS:

- Sediment forebay
- · Created wetland
- · Native buffer
- Outlet structure









### WETLAND CONSERVATION ACT

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The MN Wetland Conservation Act (WCA) is administered locally by Local Governmental Units (LGU's) such as Wright SWCD and some cities within Wright County. The primary goal of WCA is to achieve no net loss in the quantity and quality of wetlands. Regulated activities under WCA include draining, filling, and in some cases excavation. Contact us if you have any questions about our services, wetland regulation, or who the current LGU is in your area.



District staff, in partnership with BWSR, and the Wright County Drainage Authority, coordinated with the landowners to abandon a portion of County Ditch 20, enabling the wetland restoration and native prairie for the generation of wetland credits.

The easement totals approximately 118 acres (shown in blue). Photo taken during construction in the fall of 2024.



Prior to restoration the easement area was cropped. Spring melt and rains would cause prolonged periods of flooding resulting in a loss of planted crops. Marginal cropland like this is targeted by district staff for restoration. Example photo of a flooded soybean field Photo credit MDA.



Even with limited rainfall, water levels quickly re-established after the outlet structure was installed in the fall of 2024. BWSR will continue to monitor and manage this site to ensure it is functioning as intended and re-establishes with a diverse mixture of native vegetation.

# WCA 2024 ACCOMPLISHMENTS

- Approximately 440 landowner contacts regarding wetlands
- Participated in approximately 100 TEP meetings
- Assisted in the establishment of one Local Government Road Wetland Replacement Program wetland bank
- · 29 wetland boundary/type applications

- 3 exemption and 1 no-loss application
- 3 replacement plan applications
- Pre-application review and comments for numerous prospective projects
- Investigated 29 potential WCA violations, resolved 1 informally, and 1 restoration order was issued

## 12 MILE CREEK WATERSHED

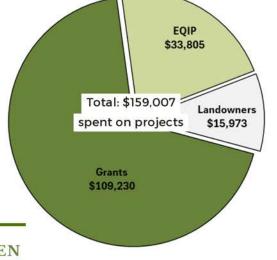
12 Mile Creek watershed covers 38,948 aces in southwest Wright County.

This area has been identified as a priority by Wright SWCD. Since 2022 several grants have been awarded for this area to aid producers to address erosion concerns, cities to identify water quality improvements within stormwater, and lake associations to assess vegetation and fish communities.

# TYPES OF PROJECTS

- 3 Water & Sediment Control Basins
- 1 Grade Stabilization Structure
- 127 acres of Cover Crops

# REDUCTIONS



### SEDIMENT

### PHOSPHORUS

NITROGEN

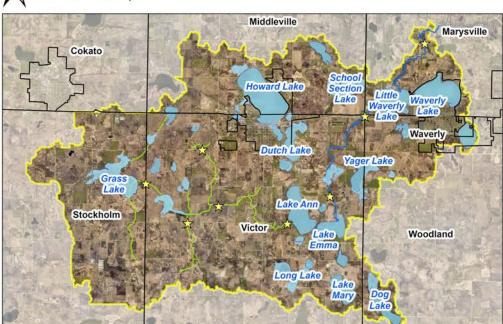
219 tons/yr

102 lbs./yr

672 lbs./yr









Left: There are several lakes and small towns in the watershed that is predominantly agricultural land.

### 12 MILE CREEK WATERSHED CONT'D

2024 Project Highlights

### PROJECT DETAILS

- Grade Stabilization Structure practice
- Target Water: Waverly Lake
- North Fork Crow River Watershed

### BENEFITS:

- Reduces sedimentation and nutrients
- Protection of county road and private driveway

### COMPONENTS:

- Class IV riprap
- Straw blanket
- · Native seeding

### PARTNERS:

- Landowner
- · City of Waverly
- Wright County Highway Dept.







# CARP STUDIES



Euthanized carp from Little Waverly

The common carp is an invasive species brought to Minnesota from Europe in the 1800's. They can damage plant populations and stir up sediment. We have been studying the impact of carp in 12 Mile since 2022. Here is what we learned in 2024:

- A winter kill on Ann Lake in 2022 did significantly reduce the carp population
- Since 2022 there has been recruitment of young carp in Ann Lake
- Carp in Howard Lake tend to aggregate near the outlet rather than the upstream wetlands
- There are significant carp populations in Dutch, Round, and Emma Lakes
- Removal efforts on Little Waverly Lake removed more than 4,600 lbs. of carp

### ONE WATERSHED. ONE PLAN

The goal of One Watershed One Plan (1W1P) is to align local water planning on major watershed boundaries with state strategies towards prioritized, targeted, and measurable implementation plans. We work with our local partners including neighboring Counties, SWCDs, watershed districts and cities to create and implement these plans.



Wright County is divided into three watersheds - Mississippi River -St. Cloud, North Fork Crow River and South Fork Crow River

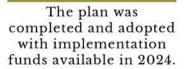
# MISSISSIPPI RIVER - ST. CLOUD (MRSC)

The planning process began in 2022 and was completed at the end of 2024. Implementation funds are expected to be available in the summer of 2025.

# NORTH FORK CROW RIVER (NFCR)

This is one of the original five pilot plans, adopted in 2018. Wright SWCD has been the plan coordinator and fiscal agent since the FY 2020 grant.

# SOUTH FORK CROW RIVER (SFCR)





# NFCR 1W1P FUNDS USED IN WRIGHT

- FY 2018 Grant: \$268,628
  - 11 structural projects
- FY 2020 Grant: \$501,512
  - 17 structural projects
  - o 5 ag. management projects
- FY 2022 Grant (still active): \$213,304
  - 11 structural projects
- 3 ag. management projects
- FY 2024 Grant (still active): \$68,150
  - o 2 ag. management projects
  - o 1 lake feasibility study for 7 lakes

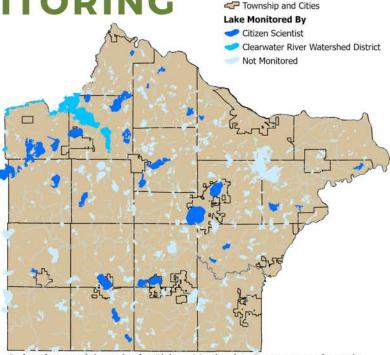
Total: \$1,051,594

# CITIZEN MONITORING

Thanks to dedicated citizen volunteers, many lakes in Wright County have routine water quality data, some for longer than 25 years. 35 lakes participated in 2024. Volunteers collect water samples at the surface of the lake five times throughout the summer. Each collection only takes about one hour, training and equipment are provided.



Young citizens helping monitoring Brooks Lake.



Lakes that participate in the Citizen Monitoring Program are shown in dark blue. Some lakes may monitor water quality through other programs or entities such as the Clearwater River Watershed District.





# **DETAILED LAKE STUDIES**

Based on the citizen monitoring program SWCD staff prioritize lakes that need a more detailed study. The goal of this study is to get a detailed list of action items that could improve and protect the lake. In 2024, we worked on seven Wright County lakes using funds from the North Fork Crow River Watershed Based Implementation Funds.

...Continued on next page

Image on right: Charlie Bean, Engineering Technician, labeling sample bottles.



# **DETAILED LAKE STUDIES CONT'D**



Lakes are chosen based on:

- 1. Water Quality Trends (better or worse)
- 2. Known concerns such as carp or algae blooms
- 3. Other data available: TMDL reports, fish surveys, plant surveys, etc.
- 4. Available funding

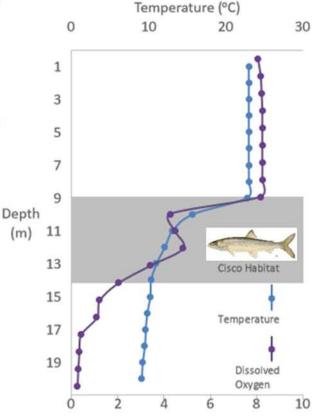
Cost per study is approximately \$25,000 per lake which includes:

- 40 water samples
- Dissolved Oxygen profiles
- · Sediment core analysis
- · Carp population count
- · Curly-leaf pondweed delineation
- Native plant survey
- · Watershed Model



to take a sediment core.

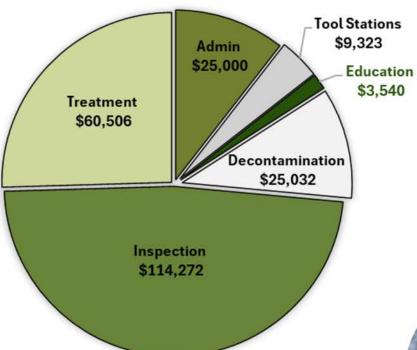
In 2024, Wright SWCD staff started monitoring seven lakes in Wright County for cisco habitat. Cisco are a salmonoid fish that thrive in coldwater lakes. The are an indicator species, meaning that if they are no longer present in lakes it shows something in changing. In August of each year, staff check the oxygen and temperature conditions in Augusta, Clearwater, Pleasant, Cedar, Sugar, East Sylvia, and West Sylvia. Data indicated that conditions for cisco were poor except in East Sylvia and West Sylvia.



Dissolved Oxygen (ppm)

Figure 1: Area of optimal cisco habitat shaded in grey for East Lake Sylvia

# **AIS BUDGET**



# AIS INSPECTIONS BY THE NUMBERS

- 18,002 inspections
- 8,366 hours staff
- 8,062 unique vehicles
- 47 accesses covered

# **TREATMENT**

With funds from the State of Minnesota, we prioritized the discovery of new infestations early and treatment of the most aggressive species found in a few lakes. \$60,500 in grants were provided to Wright County lakes to assist in treatment of AIS. 90% cost-share was available for new species searches and starry stonewort treatment, along with additional funds for flowering rush, Eurasian watermilfoil and curly-leaf pondweed.



Zebra mussels on a rock with a dime for scale

# Clearing Station Compared to the compared to

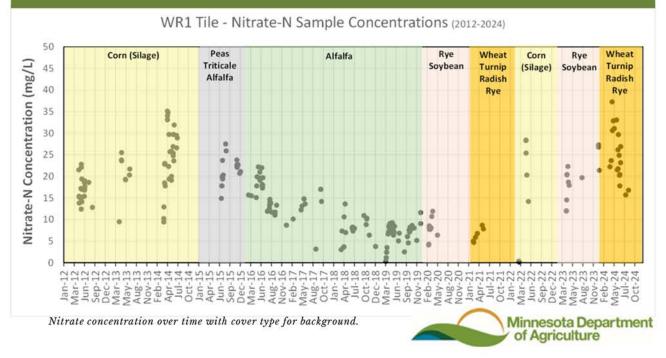
AIS tool station at Lake John public access

# **AIS TOOL STATIONS**

New tool stations are popping up at boat launches in Wright County. The project was a partnership with Bass Lake Association and Wright County Coalition of Lake Associations. A tool station includes a sign, post, grabber, brush, drain plug wrench, and weed stick. These tools help boaters more easily clean, drain, and dry their equipment at boat launches. By taking these actions boaters help prevent the spread of damaging aquatic invasive species like zebra mussels, starry stonewort, and Eurasian watermilfoil. The cost of the station is \$150, and Wright SWCD coordinates permitting and installation.

## **DISCOVERY FARMS**

Discovery Farms Minnesota is a farmer-led water quality research and education program administrated by the Minnesota Department of Agriculture (MDA). The mission of this program is to collect water quality information under real world conditions to provide better farm management decisions. There are currently five Discovery Farms located in MN.



In partnership with the MDA, the Minnesota Agricultural Water Resource Center, and farmer Sean Groos, Wright SWCD has monitored water quality from farm runoff since 2012. Over this time, Groos has planted a variety of crops contributing to reduced runoff, breaking up soil compaction, improved infiltration, and reduced erosion.



records depth of water at a DNR well

# DNR OBSERVATION WELLS

Since 1944, the Department of Natural Resources (DNR) has managed a statewide network of water level observation wells. Data from these wells are used to assess groundwater resources, determine long term trends, interpret impacts of climate and pumping, plan for water conservation, evaluate water conflicts, and otherwise manage the water resource.

The Wright SWCD is contracted to measure 22 wells four times a year and report the data to the DNR.

### TREE PROGRAM

The Wright SWCD is proud to offer this program as a service to the public and thanks Wright County for the partnership which make it successful!

35

### TREE/PLANT SPECIES OFFERED

A variety of shrubs, conifers, small and large deciduous, fruit/nut tree pack, native prairie seed and native plant kits were available.

463



### **PREORDERS**

Our tree program was publicized in the local paper, on social media, our website and through direct mailings.

41,625

### TREES SOLD IN BUNDLES OF 25

We maintain a strong participation from the public with many repeat customers each year.





# **REINVEST IN MINNESOTA (RIM)**



Missy Kirby, Farm Bill Biologist, installing boundary signage on RIM acreage

RIM is an easement program to protect soil and water quality and support fish and wildlife habitat. The Board of Water and Soil Resources implements this program in cooperation with the SWCD. Participating landowners establish native vegetation habitat on marginal, erodible or otherwise sensitive lands, and are then compensated by the state for a permanent conservation easement.

Landowners maintain property ownership and access rights.

# COOPERATIVE WEED MANAGEMENT AREA (CWMA)

The Wright CWMA was created in 2009 to provide a collaborative effort for weed control by land managers within Wright County. This CWMA consists of local land managers including MN DNR, MDA, MN DOT, Wright County Agriculture Inspector, Wright County Highway Department, Wright County Parks Department and Townships and Wright SWCD.



Eric Mattson, Conservation Technician, presents at the CWMA annual meeting.

The first focus of the CWMA was Wild Parsnip due to its public safety risk. However, efforts have expanded to other species including: Leafy Spurge, Common Teasel, Oriental Bittersweet, Common Tansy, Non-native Phragmites, Knotweed and Wild Carrot.

Wright SWCD has applied and been awarded several CWMA grants from BWSR for noxious weed control and monitoring, educational efforts and cost-share for treatment. Wright SWCD hosted the annual CWMA meeting on March 21, 2024 (picture above).

### PHEASANTS FOREVER

The Farm Bill Biologist program is a partnership between NRCS, Pheasants Forever and the local SWCD.



Wright County's first Pheasants Forever Farm Bill Biologist, Missy Kirby pictured on the left, was hired in April 2024. This position will help with landowner contacts, program outreach and sign-ups, and technical assistance. The federal Conservation Reserve Program (CRP) turns marginal cropland into grassland and other wildlife habitat. The CRP is a main focus of the Farm Bill Biologist, along with the Reinvest in Minnesota easement program (RIM), and the combination, Conservation Reserve Enhancement Program (CREP), that creates permanently protected habitat. The Farm Bill Biologist helps the SWCD and NRCS with routine site inspections of these programs, in addition to following up and communicating with landowners.

# WRIGHT/HENNEPIN COUNTY FSA

The USDA Farm Service Agency (FSA) implements federal agricultural policy, administers credit and loan programs, and manages conservation, commodity, disaster, and farm marketing programs to local producers.

The Wright/Hennepin County FSA Office is comprised of 5 program analysts that specialize in specific farm program areas to offer expert assistance, the County Executive Director, and the producer elected County Committee. Our committee members in 2024 were Kay Bakeberg, Bill Daluge, Derrick Johnson, Chad Schleif, and Daniel Weldele.

"We are proud to serve this community and work with our producers each day."



Danielle Sonsteby, Cecilia Reifschneider, Holly Johnson, Lori Marthaler, Casey Gohmann. Not pictured: Jordyn Munson

# **2024 NEWLY FUNDED CONTRACTS**

1.89M

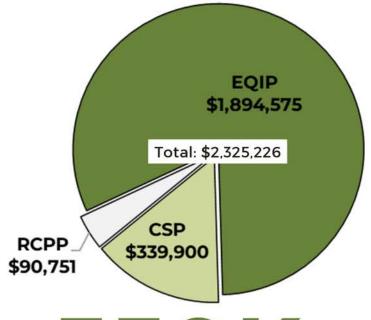
### 20 EQIP CONTRACTS

Environmental Quality Incentive Program (EQIP) provides financial assistance to help off-set the cost of implementation of conservation practices or as an incentive to assist crop, livestock, & other operations.

90K

### 9 RCPP CONTRACTS

Regional Conservation Partnership Program (RCPP) funds solutions to natural resource challenges on agricultural land.



339K

### 4 CSP CONTRACTS

Conservation Stewardship Program (CSP) focuses on helping build existing conservation efforts while strengthening farm operations.

# **2024 COMPLETED PRACTICES**

605 acres of Cover Crops

1 Farm Energy Assessment

35 acres of Prescribed Grazing

\$597,366 paid to Wright Co. Residents

2 Ag Waste Pits

18 Water & Sediment Control Basins

1 Diversion

3 Comprehensive Nutrient Management Plans

2 Grass Waterways

