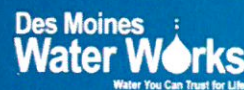


Des Moines Water Works and Heartland Cooperative: Uncommon Collaboration for Healthy Soil and Cleaner Water

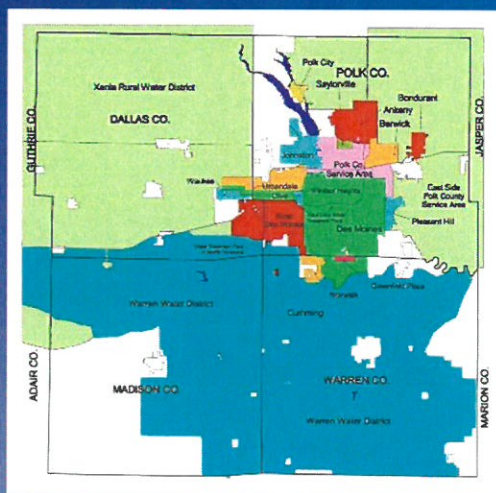
Iowa House of Representatives
Appropriations Committee
March 6, 2023

Ted Corrigan, CEO & General Manager
Corrigan@dmww.com

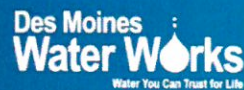


1

DMWW Service Area



- Largest drinking water utility in Iowa
- 600,000 customers / one-fifth of Iowa's population
- Urban
- Suburban
- Rural
- Serves six of the 10 fastest-growing cities in Iowa



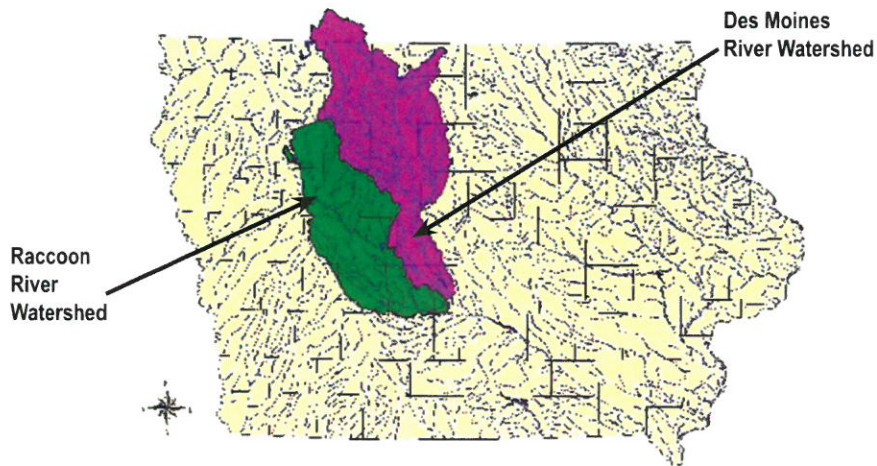
2

**We are
Unique.**

- **Fleur Drive**
 - Infiltration Gallery
 - Raccoon River
 - Des Moines River
- **McMullen**
 - Raccoon River Alluvial Wells
 - Maffitt Reservoir
 - Off River Storage
- **Saylorville**
 - Des Moines River Alluvial Wells

**Des Moines
Water Works**
Water You Can Trust for Life

DMWW Source Watersheds

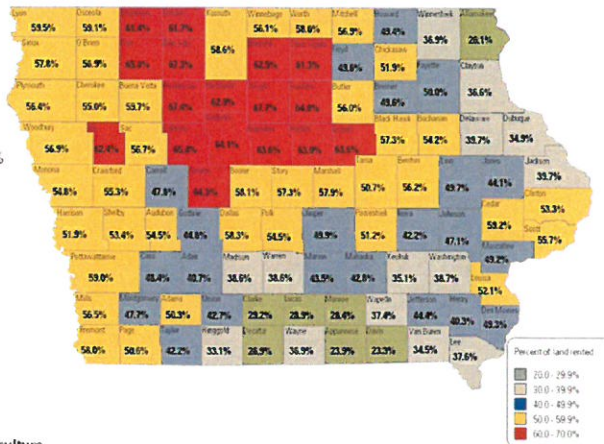


**Des Moines
Water Works**
Water You Can Trust for Life

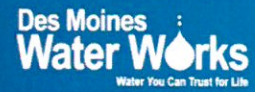
Conservation Adoption

Percent of land in farms rented, 2017

Statewide = 51%

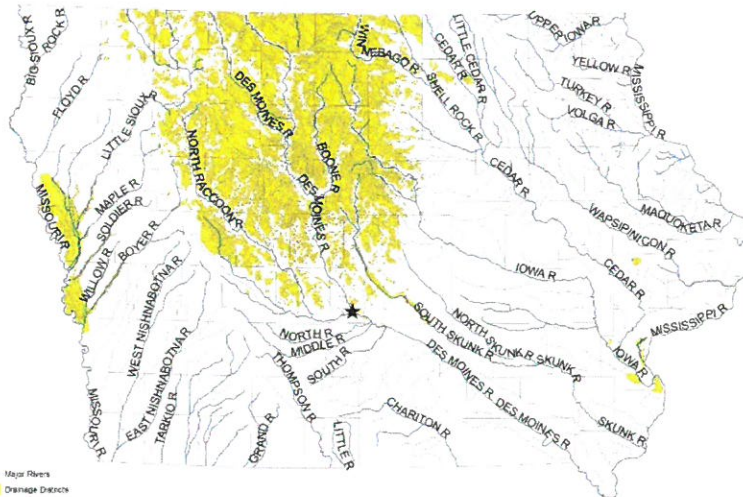


Source: 2017 USDA Census of Agriculture

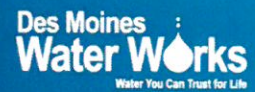


5

Iowa Drainage Districts

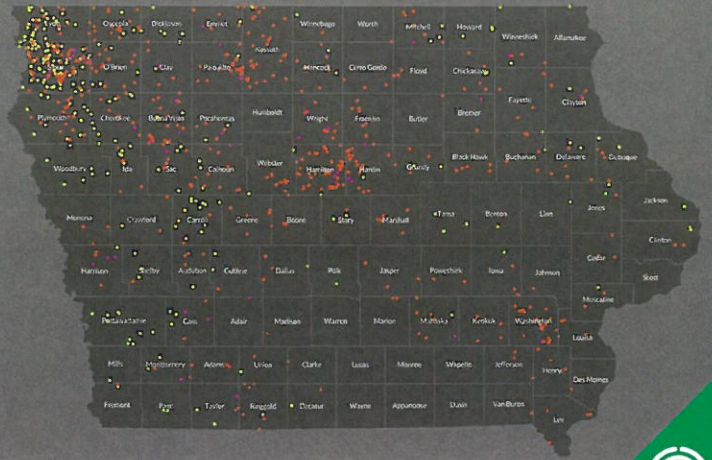


Major Rivers
Drainage Districts



6

1990



■ Beef-Dairy ■ Poultry ■ Swine



Confined Animal Feeding Operations Have Large Impact

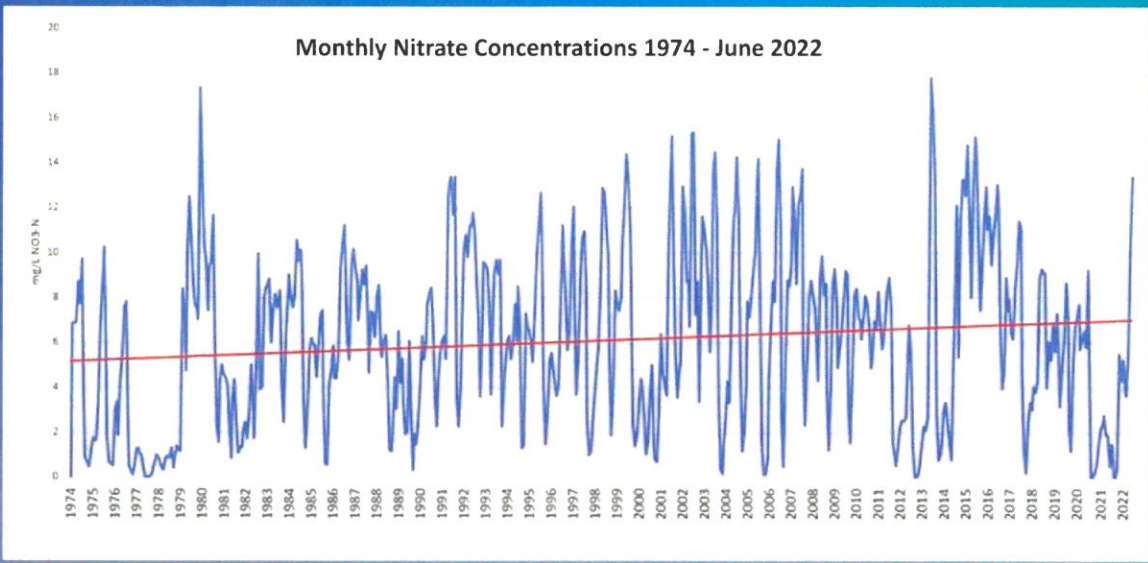
Des Moines
Water Works
Water You Can Trust for Life

**1.8 BILLION
POUNDS OF
NITROGEN HAVE
FLOWED PAST
OUR FLEUR DRIVE
TREATMENT
PLANT SINCE
1974.**

- ▶ 2015 – 57,959 tons
- ▶ 2016 – 38,387 tons
- ▶ 2017 – 19,938 tons
- ▶ 2018 – 29,326 tons
- ▶ 2019 – 24,496 tons

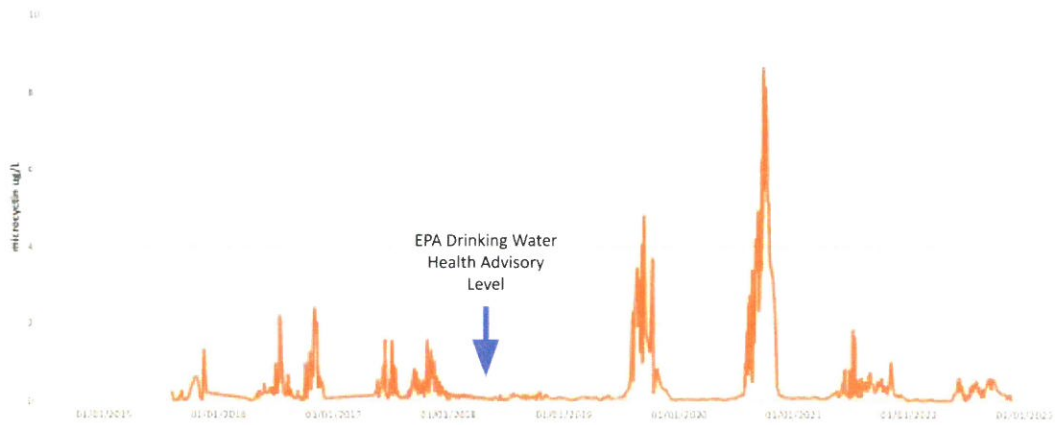
**THAT'S
900,000
TONS.**

Des Moines
Water Works
Water You Can Trust for Life



Des Moines :
Water Works
 Water You Can Trust for Life

Des Moines River Microcystin 2015-2022



Des Moines :
Water Works
 Water You Can Trust for Life

Saylorville Lake Marina
November 21

Where we rather be. all day. everyday! Fleetwood at Saylorville
#saylorvillelakemarina #lakelife #marina #lifeatthelake #polkcity #iowa #missing #suntexmarinas

85

Share

Saylorville Reservoir Upstream on the Des Moines River

Des Moines Water Works
Water You Can Trust for Life

Our Mission

Leading and advocating

to deliver water
you can trust for life.

Des Moines Water Works
Water You Can Trust for Life

Heartland Cooperative & DMWW



Des Moines
Water Works
Water You Can Trust for Life

Challenges and Opportunities:

- More cover crop seeders in our watersheds, more conservation agronomists
- Support research projects in Saylorville (leverage federal Water Resources Development Act WRDA funding at local level)
- Continued funding WQI - Raccoon and Des Moines River Watersheds – water security

Des Moines
Water Works
Water You Can Trust for Life



HELPING FARMERS PRODUCE AND MARKET PROFITABLY

2023 HOUSE APPROPRIATIONS COMMITTEE
CONSERVATION AGRONOMY







Farmer Focused Conservation Sales Model



Heartland Co-op Delivering the 4Rs of Conservation

1. Right Practice
2. Right Acre
3. Right Timing
4. Right Funding

www.ConservationAgronomy.com



Conservation Farming Practices

- Nitrogen stabilizers
- Applying fertilizer in the spring
- Variable rate fertilizer application
- In-season N application
- Keeping animals out of streams
- Saturated buffers or bioreactors
- Cover crops and/or relay cropping
- Diversifying crop rotation, hay, pasture
- Vertical till, strip till, or no till
- Buffer strips, grass waterways, filter strips, prairie strips
- Improved wildlife habitat
- Wetlands, terraces, sediment control basins

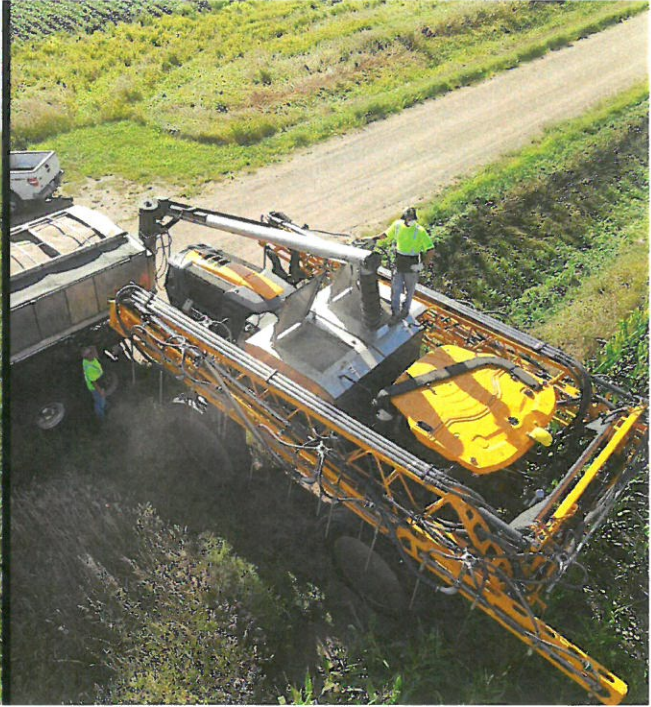


Central Iowa Cover Crop Partnership

New Opportunity for Cover Crop Application in Central Iowa

- First program of its kind
 - Connecting IDALS, Polk County, City of Des Moines, Des Moines Water Works and Heartland Co-op
- First machine of its kind
 - 2022 Hagie STS 12
 - Montag Fortifier 2212
- Des Moines and Racoon River Watersheds





Central Iowa Cover Crop Partnership

Total Acres Applied in 2022

Application by County

Boone	1,218
Dallas	1,607
Greene	1,023
Guthrie	631
Hamilton	506
Jasper	140
Marshall	248
Polk	432
Story	1,271
Webster	77

Application Period

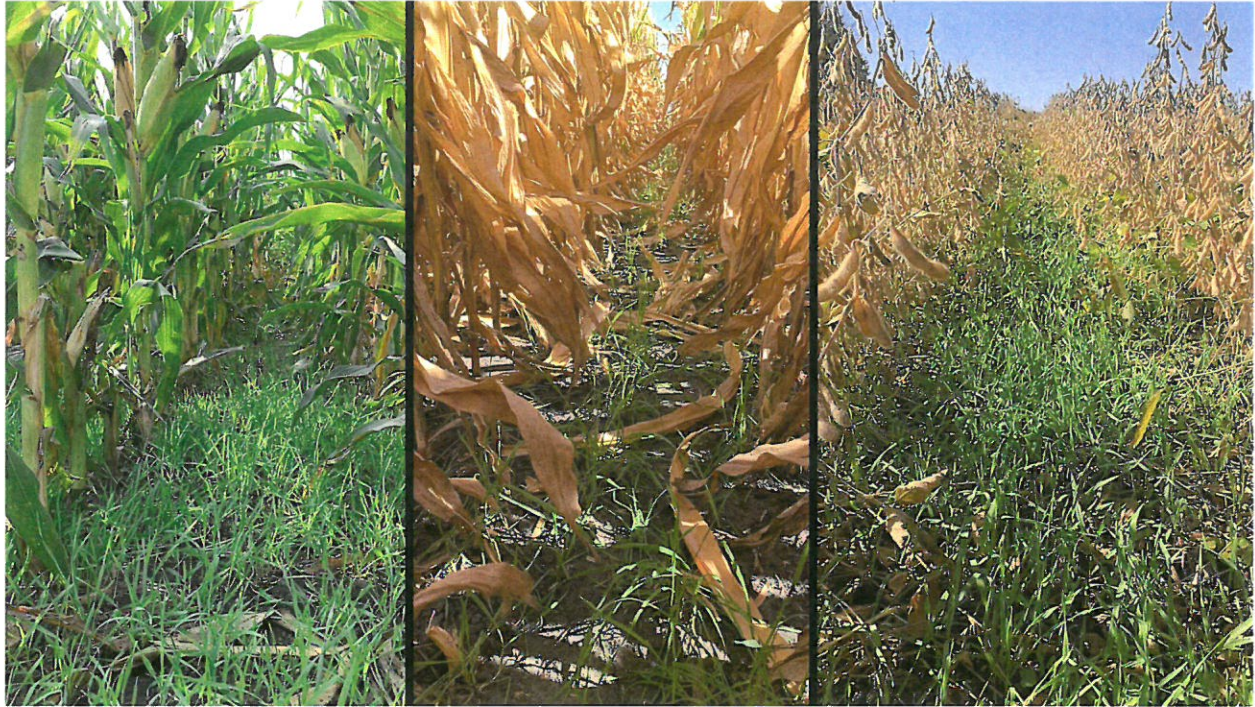
Pre-Harvest Ac	5,488
Post-Harvest	1,669

Crop Type

Corn/Stalks	5,304
Bean/Stubble	1,852

Total 7,157





Central Iowa Cover Crop Partnership

Program Deliverables

Year	Goal	Actual
2021	3,000	3,100
2022	7,000	7,157
2023	9,000	-
2024	11,000	-
2025	12,000	-

www.CoverCropPartnership.com

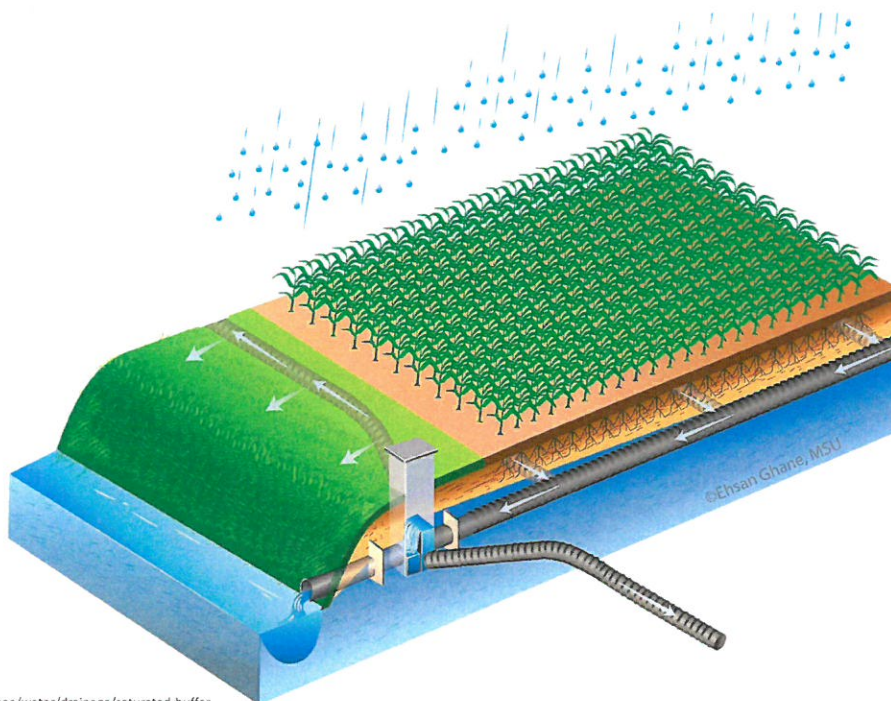
Heartland's Saturated Buffer Program

Public / Private Partnership:

- Heartland Co-op
- Iowa Seed Association
- Iowa Nutrient Research & Education Council
- Agriculture Clean Water Alliance
- Syngenta
- BASF

Incentivizing Adoption of Bioreactors and Saturated Buffers

- Fields that run up against a creek or drainage ditch
- Fields with tile and outlets in a nearby creek or drainage ditch
- 100% cost share for installation of the SB or BR
- \$1000 payment incentive PER OUTLET for participating in program



Survey Equipment



CONSERVATION SALES

Report Starting

Report Ending

7/1/2020

1/31/2023

Practices Implemented

Conservation Practice	Lead	Interested	Signed Up	In Work	Complete	Total	Growers
Cover Crop	735		1,889	280	59,866	62,035 Acres	239
Crop Rotation			65		75	140 Acres	3
Pasture / Hay / Biomass	100					Acres	1
Improved nutrient management			880		1,920	2,800 Acres	40
CRP / Pollinator / Habitat Planting		5			147	147 Acres	3
Saturated Buffer	31	32	62	23	39	124 Outlets	59
Bioreactor / Drainage H2o Mgmt	2	4	2	3	3	8 Outlets	12
Wetland / Pond	2	3			4	4 Projects	8
Grass Waterway / Buffer Strips / Filter strips	3					Projects	3
							368





CONSERVATION SALES

Report Starting

Report Ending

7/1/2020

1/31/2023

Environmental Impact

Conservation Practice	Lbs N Load avoided (Annually)				Lbs P Load avoided (Annually)			
	Signed up	In Work	Completed	TOTAL	Signed up	In Work	Completed	TOTAL
Cover Crop	17,568	2,604	558,381	578,552	548	81	18,169	18,798
Crop Rotation	819		945	1,764				
Improved nutrient management	1,584		3,456	5,040				
CRP / Pollinator / Habitat Planting			3,749	3,749			110	110
Saturated Buffer	10,538	6,279	19,929	36,746				
Bioreactor / Drainage H2o Mgmt		387	516	903				
Wetland / Pond			2,153	2,153			117	117
Grass Waterway / Buffer Strips / Filter strips							3	3
				628,906				19,028



So where are we going?

1. Improving on-farm value to our member farmers by
 - Reducing Soil Loss
 - Reducing Nutrient Loss
2. Increase conservation adoption through efficiency and competition
3. Achieve the Iowa Nutrient Reduction Strategy



What do we need?

1. Outcome based funding for conservation agronomists
2. Increased state-level (IDALS) funding for conservation farming adoption