



IOWA DEPARTMENT OF NATURAL RESOURCES

LEADING IOWANS IN CARING FOR OUR NATURAL RESOURCES

Water Use Program Annual Stakeholder Meeting
Water Supply Engineering Section
July 19th, 2023

Agenda

- SFY 2023 Program Accomplishments
- 2022 Water Use Summary
- WACOP Database Project Update
- Drought Update
- Jordan Aquifer Update
- SFY 2024 Anticipated Work
- Proposed SFY 2024 Water Use Program Annual Fee
- Proposed Rule Changes / EO10
- Q & A

SFY 2023 Program Accomplishments

- In March, Mark Moeller transitioned to SE Iowa District Engineer in the Land & Water Bureau
- Carmily Stone is now the Water Supply Engineering Supervisor
- Heidi Cline accepted the Drinking Water Program Coordinator position - will backfill ES position in Water Allocation & Use
- Stakeholder meeting held 7/16/2022 to set 2023 Annual Fee; approved by EPC on 8/16/2022
- Invoiced & tracked ~3300 Annual Fee payments
- Sent ~515 Renewal Applications; Issued ~484 renewed Permits

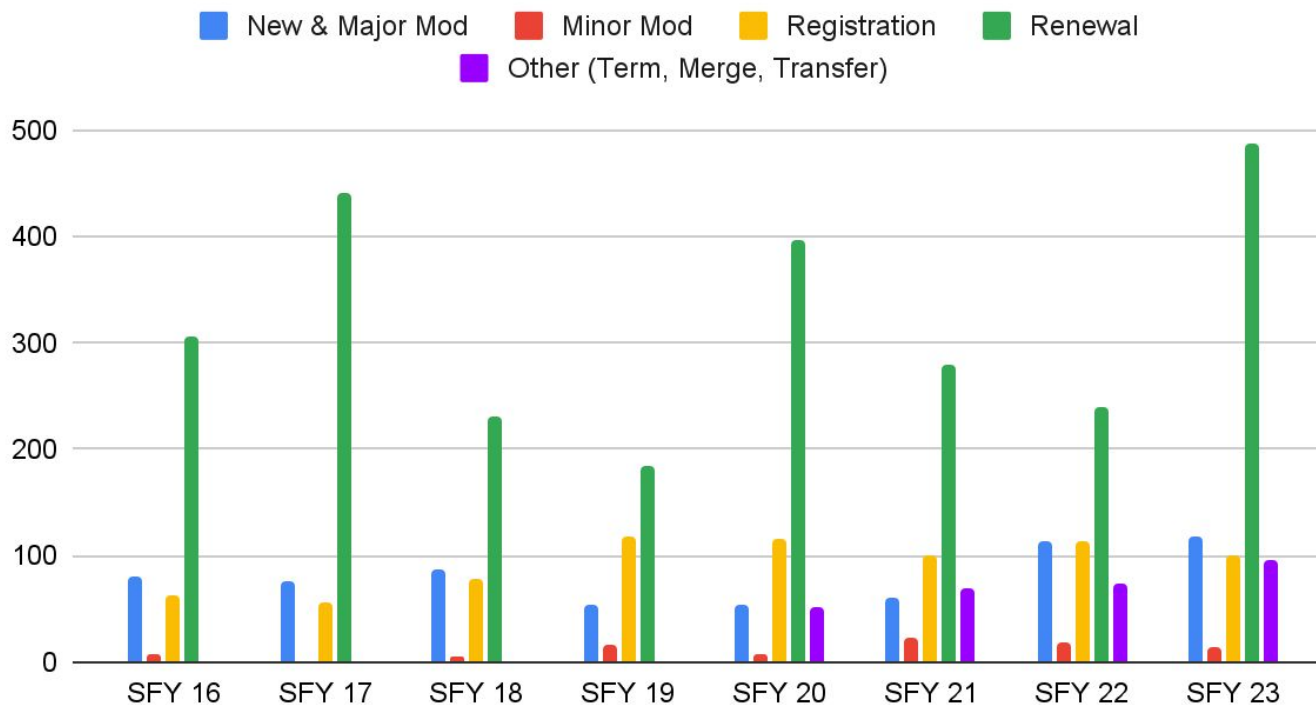
SFY 2023 Program Accomplishments

- Mailed Annual Water Use Report forms & entered ~2100 Annual Water Use Reports into WACOP database
 - 96.5% compliance rate
- Tracked Water Use Exceedances for 2022
- Monitored stream levels & issued protected flow restrictions
- Released the new WACOP database and web application into production!!
- In conjunction with the database release, we released new streamlined program forms, including the water use permit application

SFY 2023 Program Accomplishments

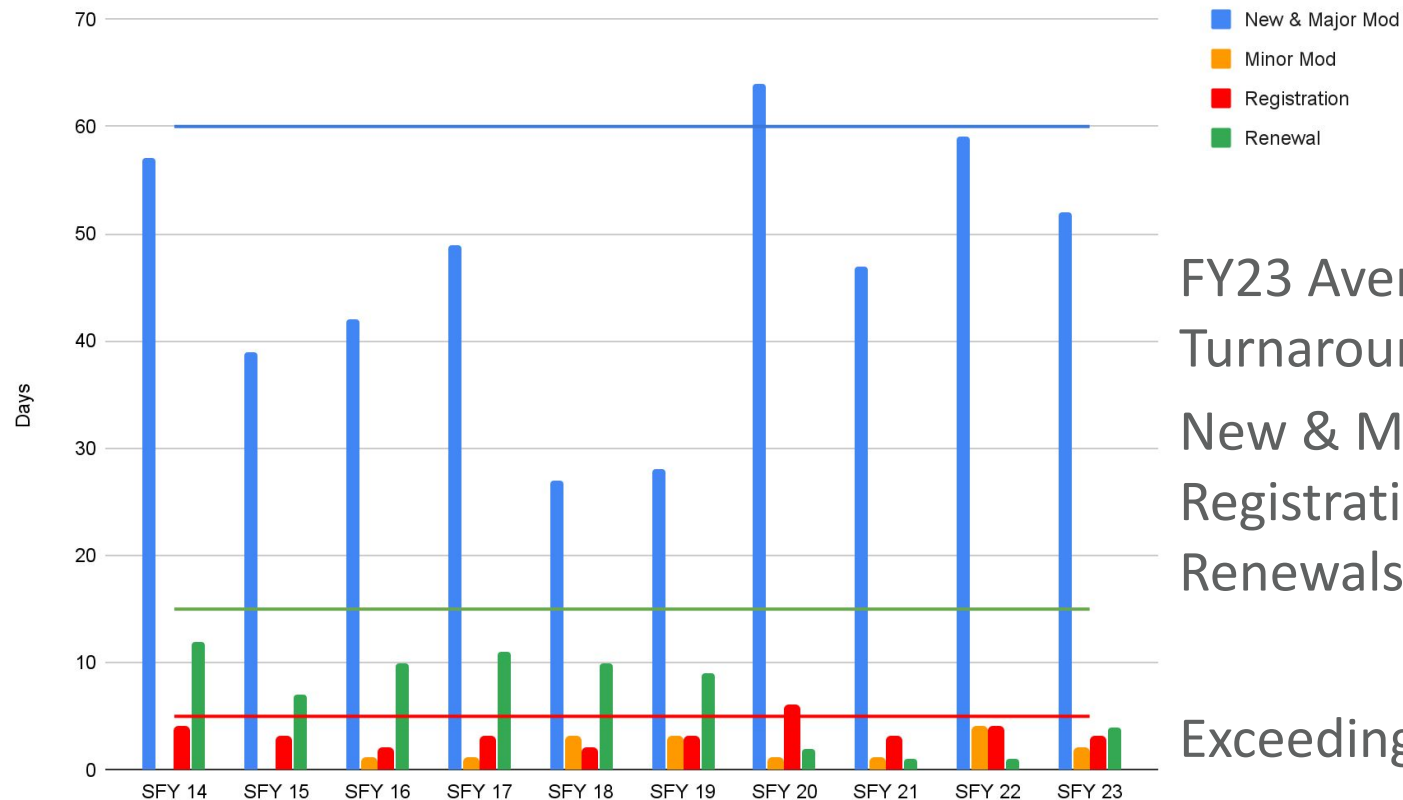
868 Applications Received (all types); 814 Applications Closed Out
Much higher than average (10 year = 436)

Projects Received by SFY



SFY 2023 Program Accomplishments

Average TAT



FY23 Average Project
Turnaround Time:

New & Major Mod = 52 days

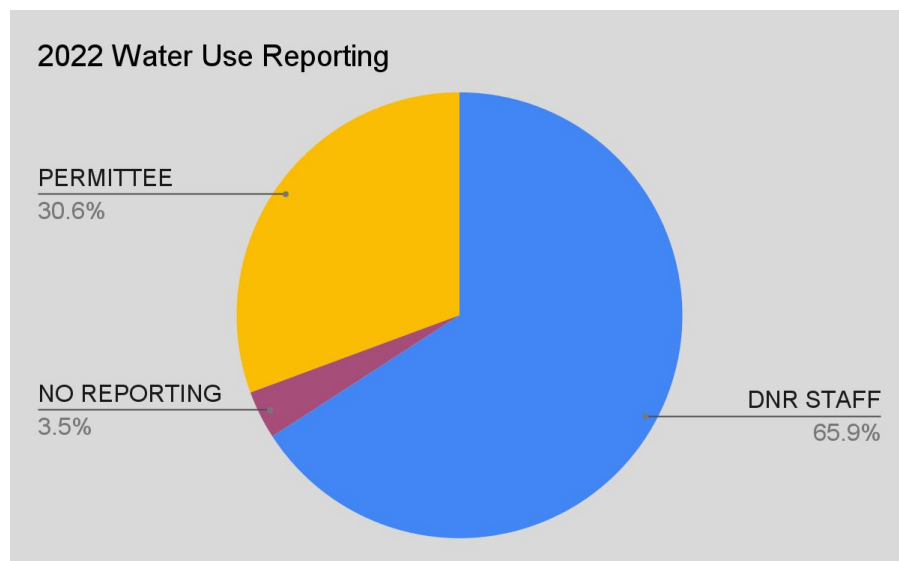
Registrations = 3 days

Renewals = 4 days

Exceeding Goal on All Types

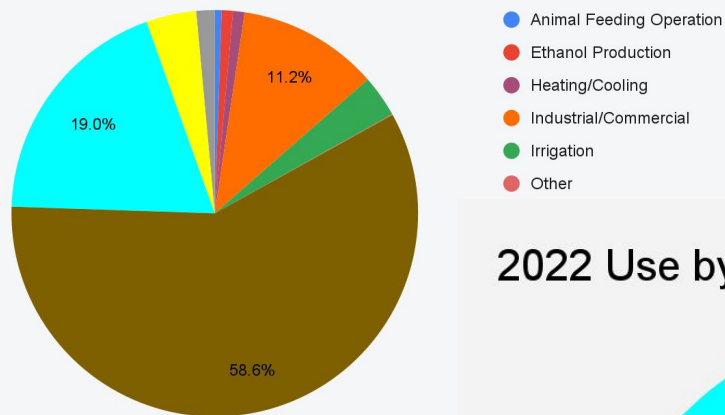
SFY 2023 Program Accomplishments

- WACOP Database User Statistics
 - 1558 users have a WACOP account linked to 1 or more permits => **11% increase**
 - 1602 WU Permits linked to a user => **48% of active permits & 1% increase**
 - 885 fees (all types) paid online in SFY2023 => **9% increase**
 - 1019 (**31%**) 2022 Annual Water Use Reports entered online by permit holders; **7% increase!**



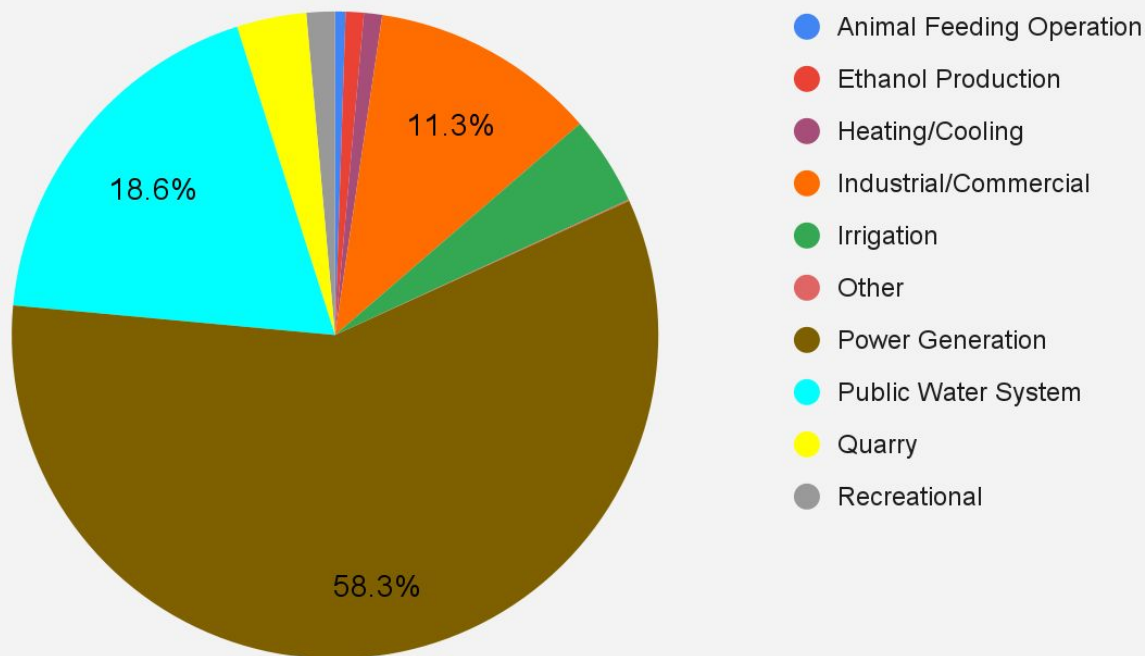
2022 Water Use Summary

2021 Use by Category



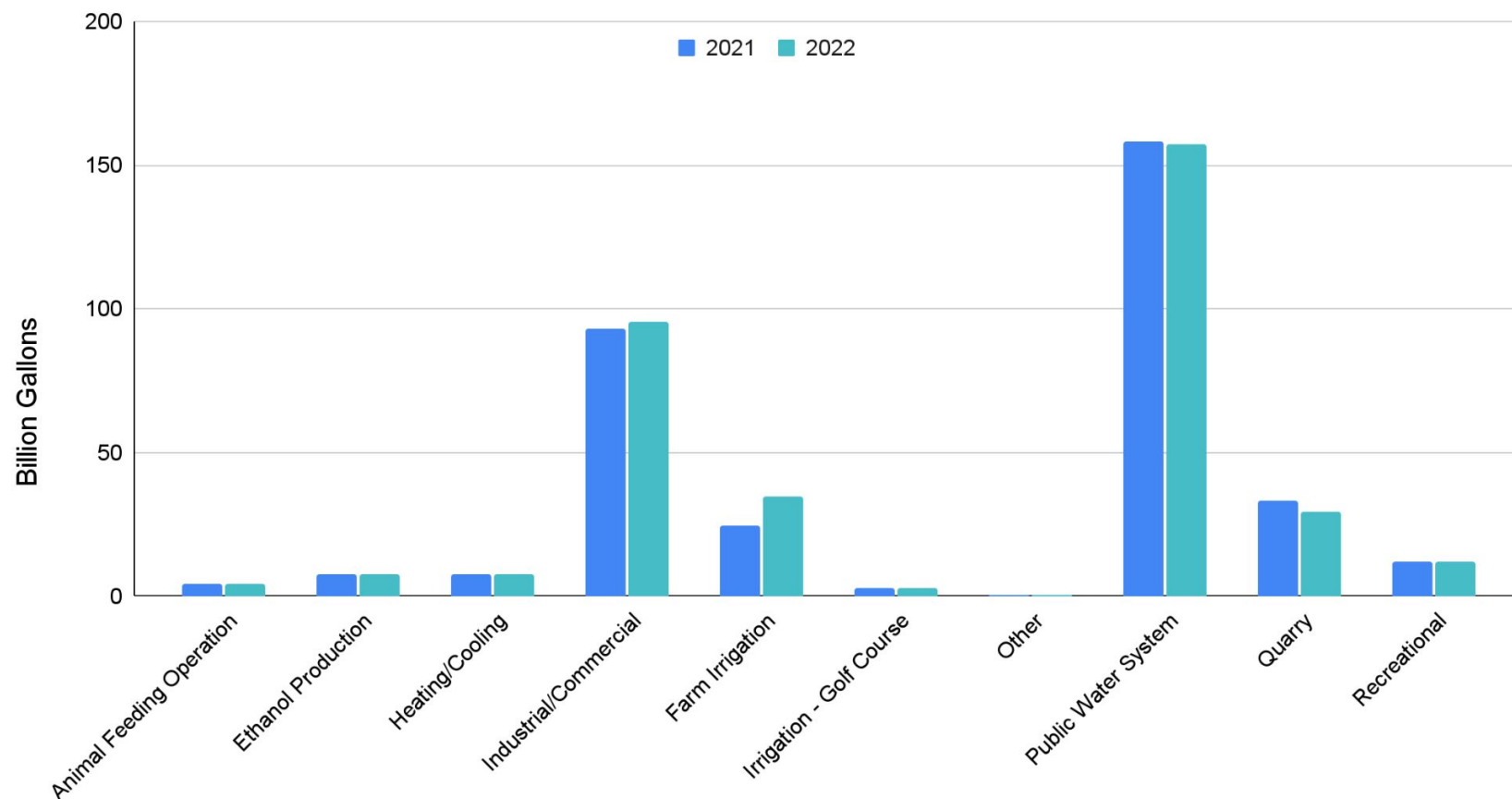
2021 Total = 831 Billion Gallons
2022 Total = 843 Billion Gallons (+1.4%)

2022 Use by Category



2022 Water Use Summary

Annual Water Use by Major Category (power production not included)



See appendix for 2022 precipitation level data

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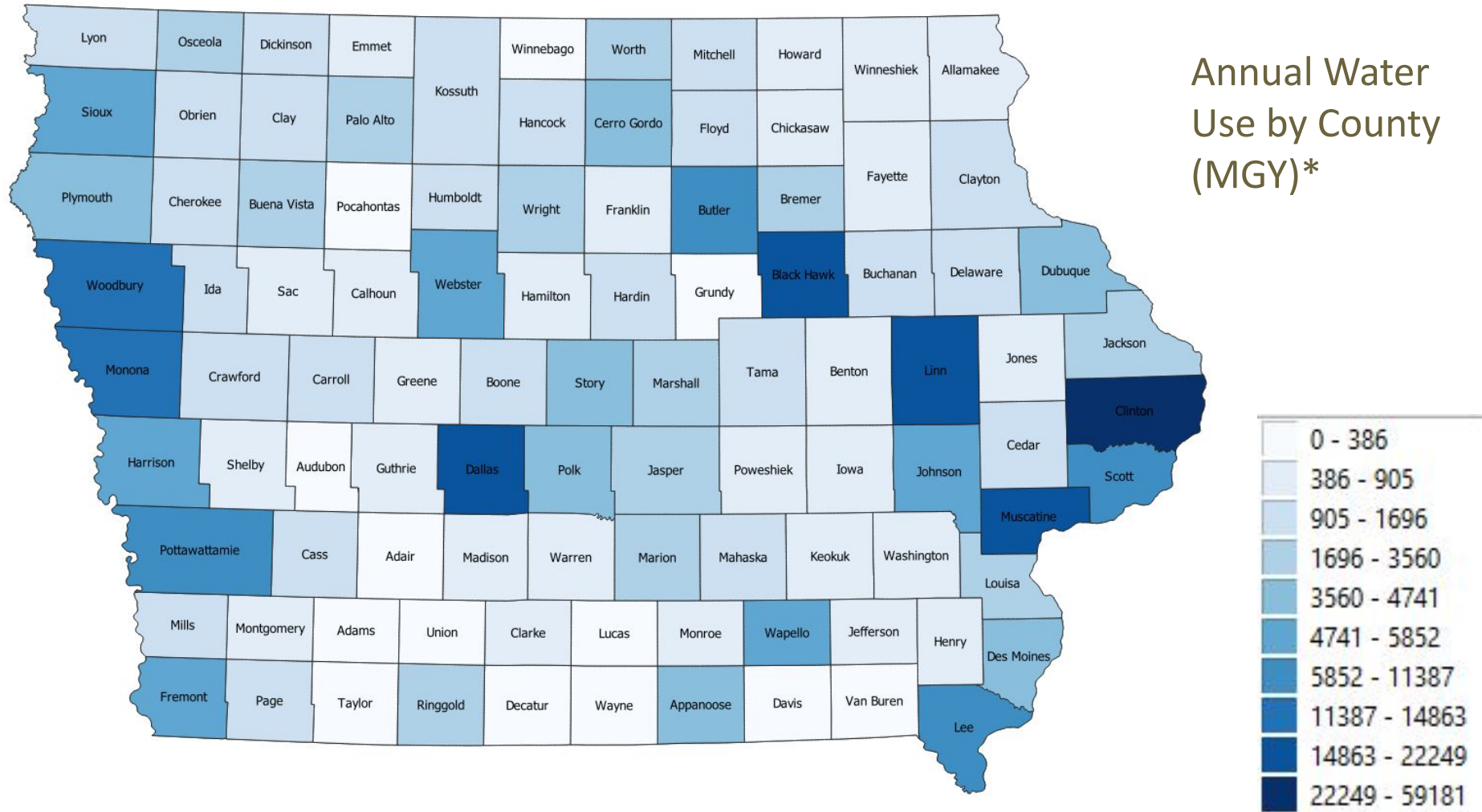
KAYLA LYON, DIRECTOR



2022 Water Use Summary

Use Type	2021	2022	% Change
Animal Feeding Operation	4515	4410	-2.4
Ethanol Production	7425	7653	3.0
Heating/Cooling	7614	7669	0.7
Industrial/Commercial	93147	95686	2.7
Irrigation - Corn & Soybean	22145	31846	30.5
Irrigation - Golf Course	2977	2750	-8.3
Irrigation - Speciality Crops	2537	2975	14.7
Other	422	511	17.3
Power Generation	486849	491720	1.0
Public Water System	158123	157251	-0.6
Quarry	33106	29376	-12.7
Recreational	12178	11994	-1.5
Total	831038	842533	1.4

2022 Water Use Summary

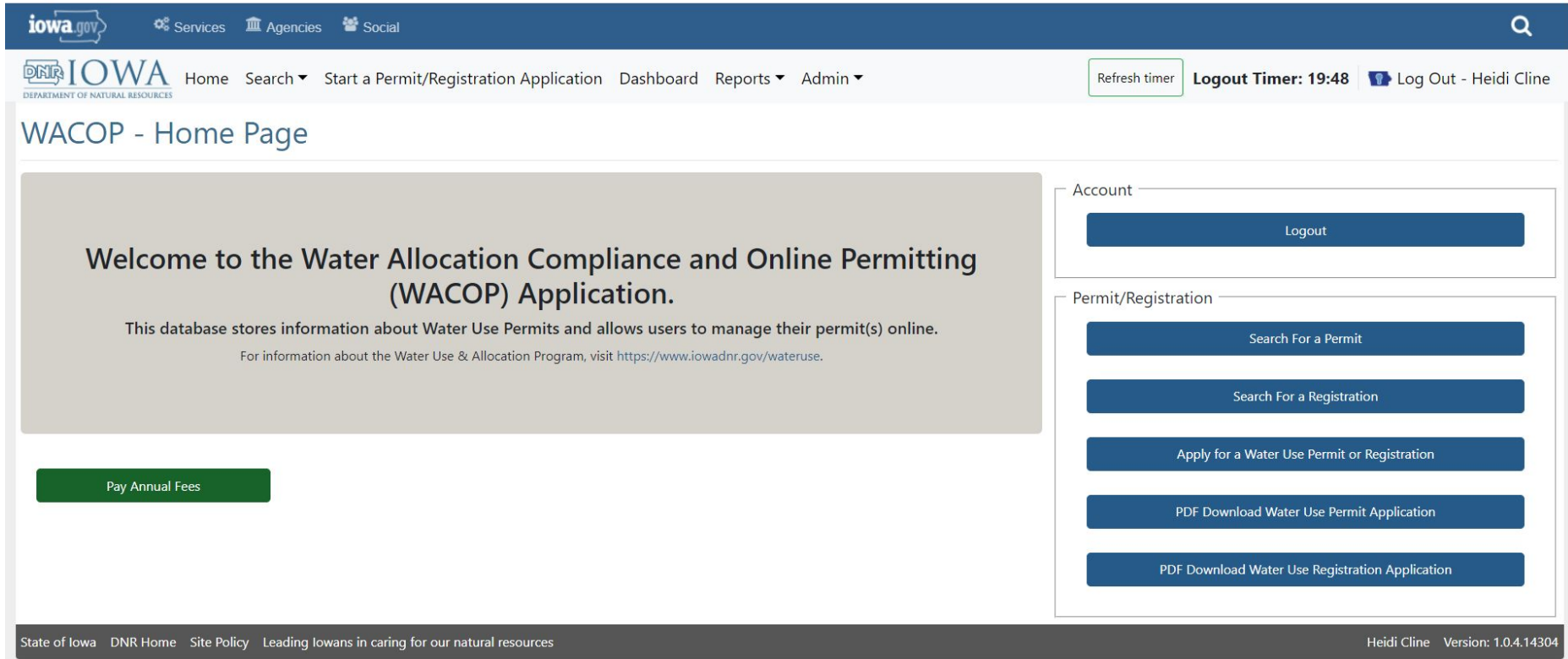


*power production not included

WACOP Database Project Update

- First major upgrade since 2015
- Agile development process
 - 50 sprints over ~2.5 years
 - Complete redesign of the database and web application
 - Released into production late September 2022
- Major goals/highlights:
 - User friendly/**EASY TO USE**
 - Brought up to Department standards
 - Easier for internal IT to support
 - Easier for staff & administrators to use
 - Ability to pay annual fee as a guest w/o account & by ACH
 - Ability to self-link to permits
 - Functionality to invoice annual fee electronically
 - Permit document storage

WACOP Database Project Update



The screenshot shows the WACOP Home Page. At the top is a dark blue navigation bar with the Iowa.gov logo, links for Services, Agencies, and Social, and a search icon. Below this is a light blue header with the DNR IOWA logo, navigation links (Home, Search, Start a Permit/Registration Application, Dashboard, Reports, Admin), a Refresh timer button, a Logout Timer showing 19:48, and a Log Out link for Heidi Cline. The main content area is titled 'WACOP - Home Page'. It features a large grey box with a welcome message: 'Welcome to the Water Allocation Compliance and Online Permitting (WACOP) Application.' followed by a description of the database and a link to the Water Use & Allocation Program. A green 'Pay Annual Fees' button is located below this. To the right, there are two sections: 'Account' with a Logout button, and 'Permit/Registration' with five buttons: Search For a Permit, Search For a Registration, Apply for a Water Use Permit or Registration, PDF Download Water Use Permit Application, and PDF Download Water Use Registration Application. The footer contains links for State of Iowa, DNR Home, Site Policy, and a quote about lowans, along with the user name Heidi Cline and version 1.0.4.14304.

iowa.gov Services Agencies Social

DNR IOWA DEPARTMENT OF NATURAL RESOURCES Home Search Start a Permit/Registration Application Dashboard Reports Admin Refresh timer Logout Timer: 19:48 Log Out - Heidi Cline

WACOP - Home Page

Welcome to the Water Allocation Compliance and Online Permitting (WACOP) Application.

This database stores information about Water Use Permits and allows users to manage their permit(s) online.
For information about the Water Use & Allocation Program, visit <https://www.iowadnr.gov/wateruse>.

Pay Annual Fees

Account

Logout

Permit/Registration

Search For a Permit

Search For a Registration

Apply for a Water Use Permit or Registration

PDF Download Water Use Permit Application

PDF Download Water Use Registration Application

State of Iowa DNR Home Site Policy Leading lowans in caring for our natural resources Heidi Cline Version: 1.0.4.14304

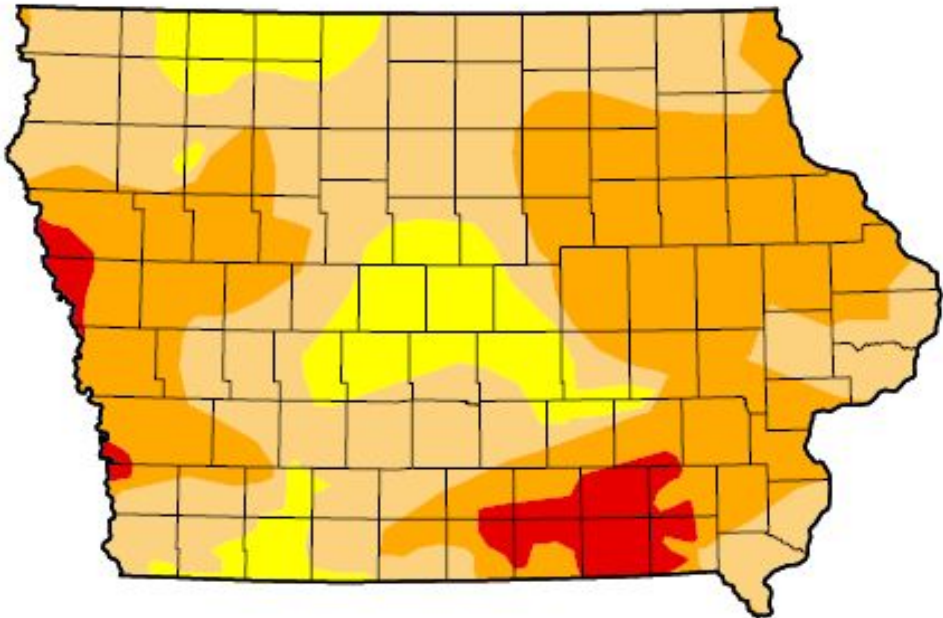
User guidance documents available on our [program website](#).

After using the application for ~1 year, we will work on another round of improvements

Drought Update

U.S. Drought Monitor Iowa

July 11, 2023
(Released Thursday, Jul. 13, 2023)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	86.97	43.38	4.71	0.00
Last Week 07-04-2023	0.48	99.52	86.98	43.52	4.71	0.00
3 Months Ago 04-11-2023	37.97	62.03	31.90	15.51	1.51	0.57
Start of Calendar Year 01-03-2023	10.69	89.31	66.66	29.43	8.83	0.57
Start of Water Year 09-27-2022	20.90	79.10	45.05	22.25	5.07	0.02
One Year Ago 07-12-2022	54.87	45.13	12.96	7.34	2.47	0.00

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Richard Tinker
CPC/NOAA/NWS/NCEP



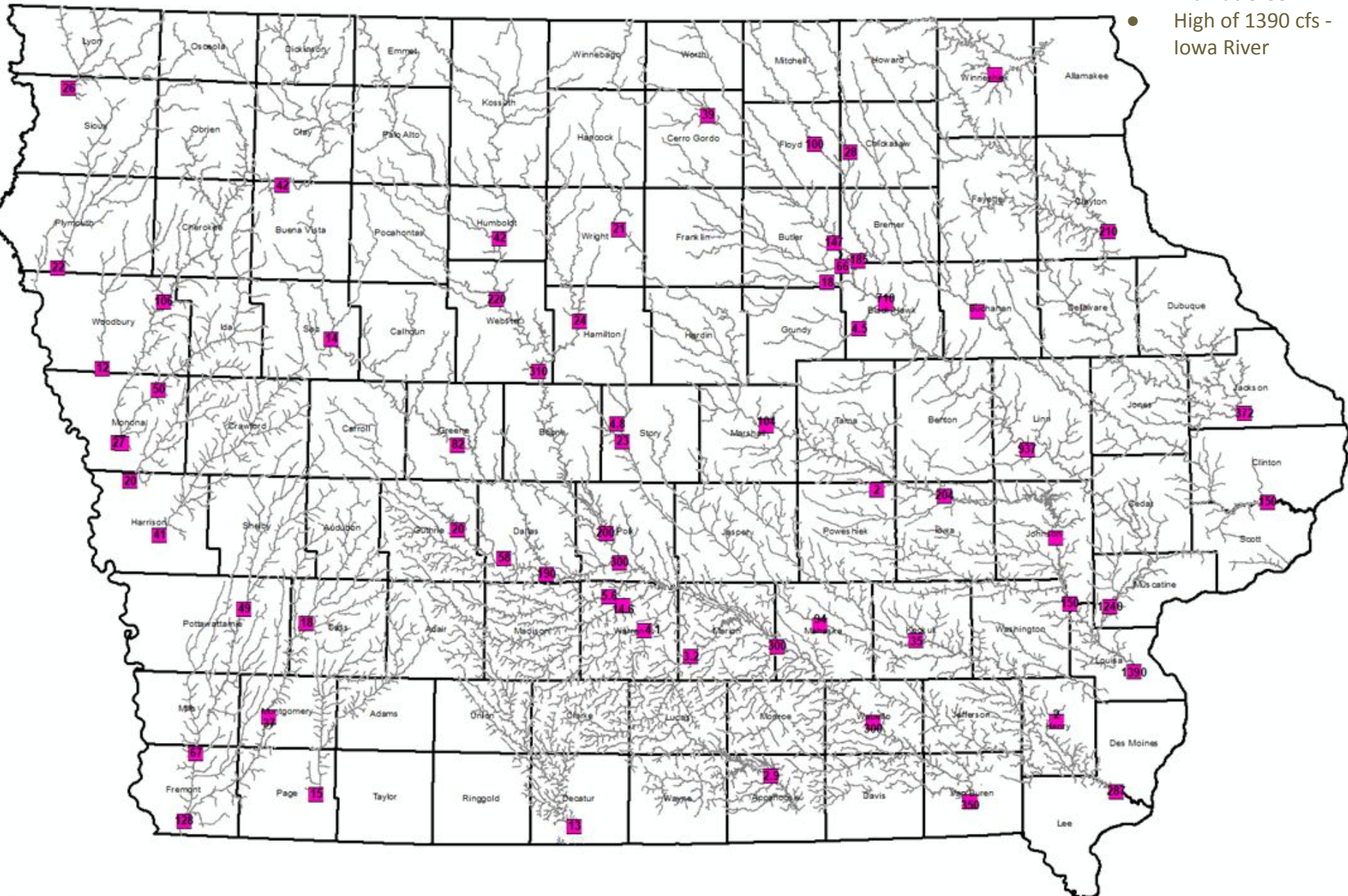
Drought Update - Protected Flow

- Intended to protect ordinary household and livestock use, fish and wildlife uses, & other uses of a public nature
- Set in administrative rules - IAC 567-52.8(455B)
- Primary application to irrigation
- Consumptive, non-community use warnings & cutoffs when streams reach and remain below protected flow levels
 - Irrigation, including golf courses
 - Manufacturing
 - Recreational
 - Quarry operations

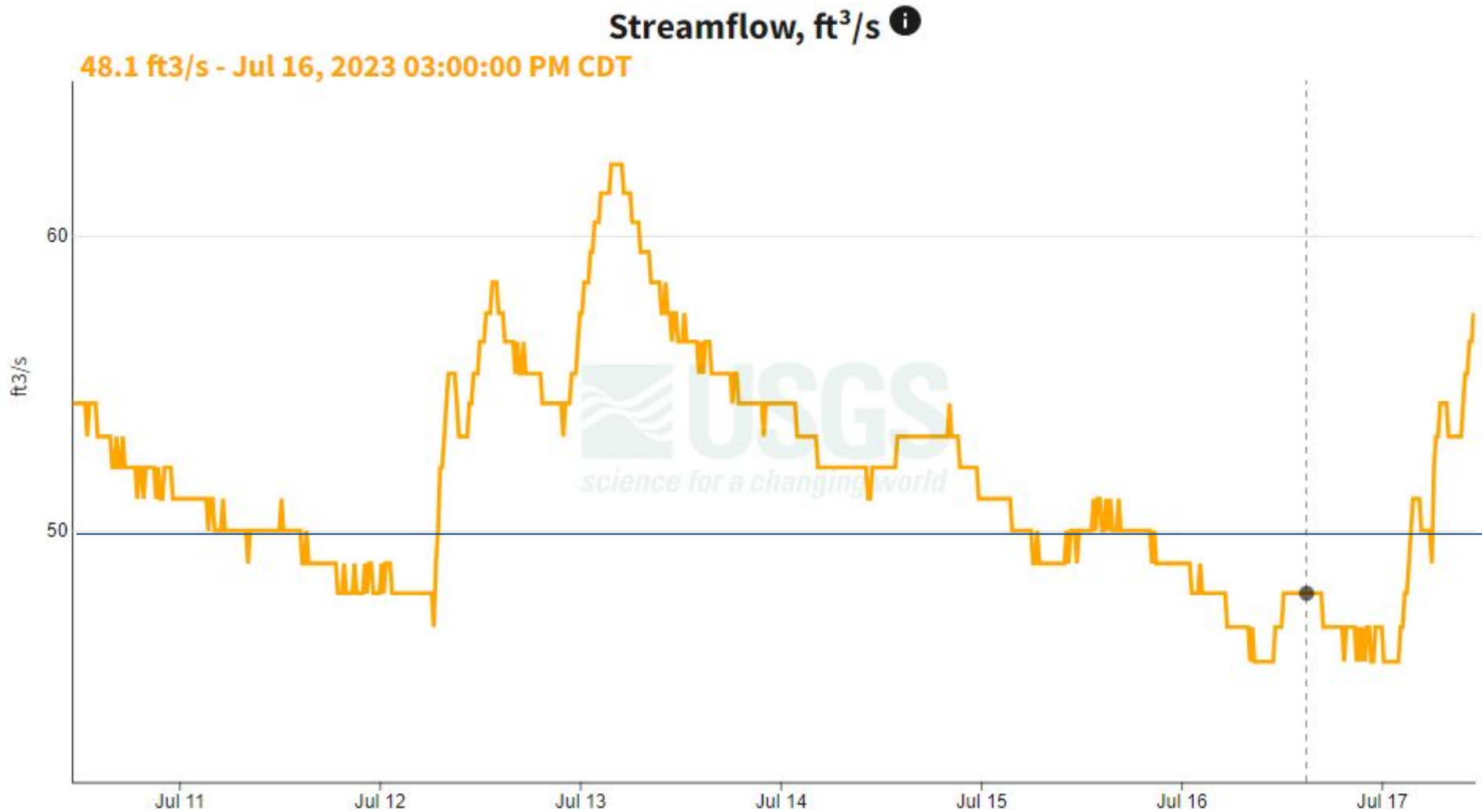
Drought Update - Protected Flow

Protected Flows

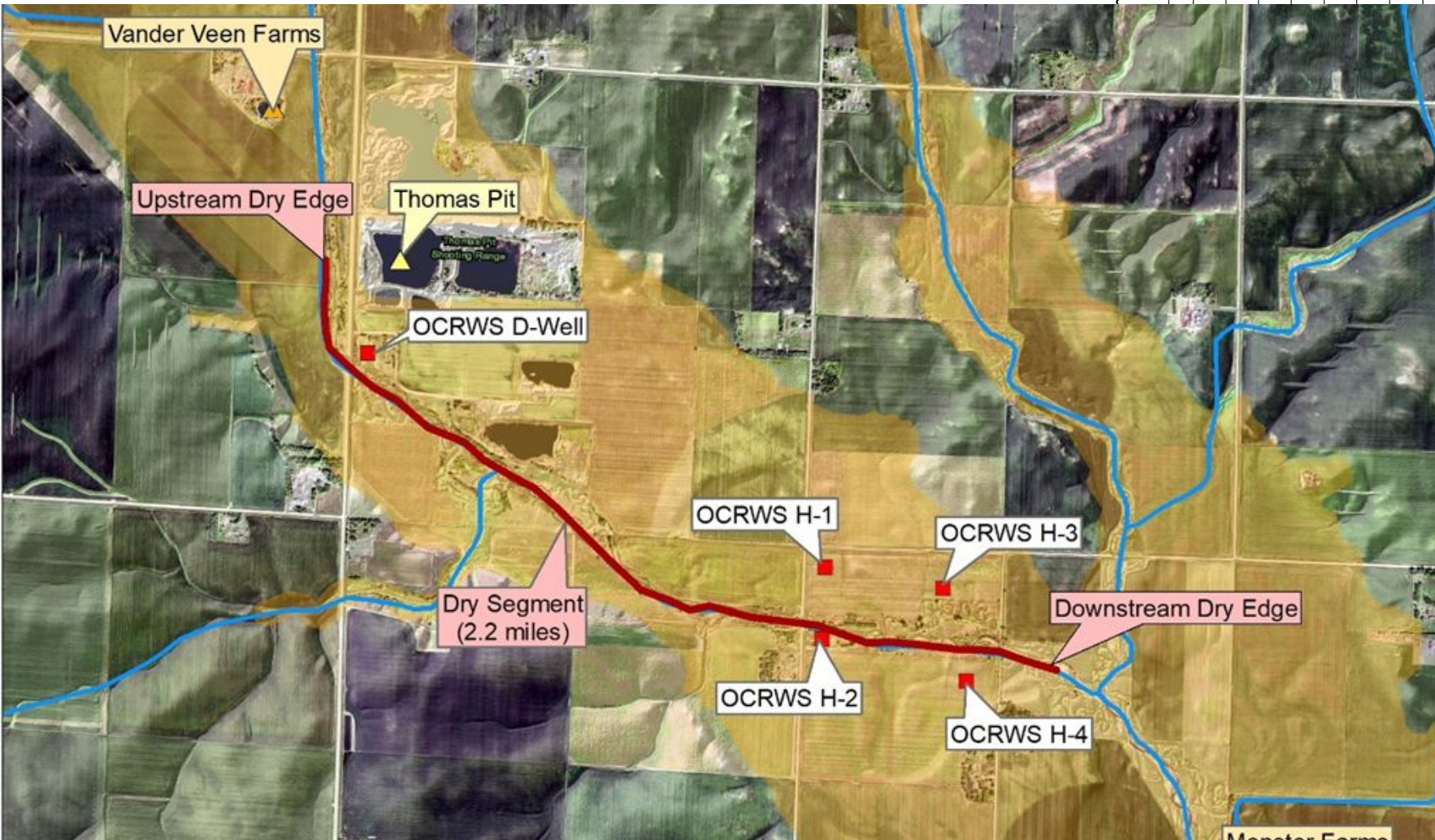
- Low of 2 cfs - Big & Walnut Creek
- High of 1390 cfs - Iowa River










West Nishnabotna River at Hancock (USGS 06807410)



Ocheyedan River Dry Segment



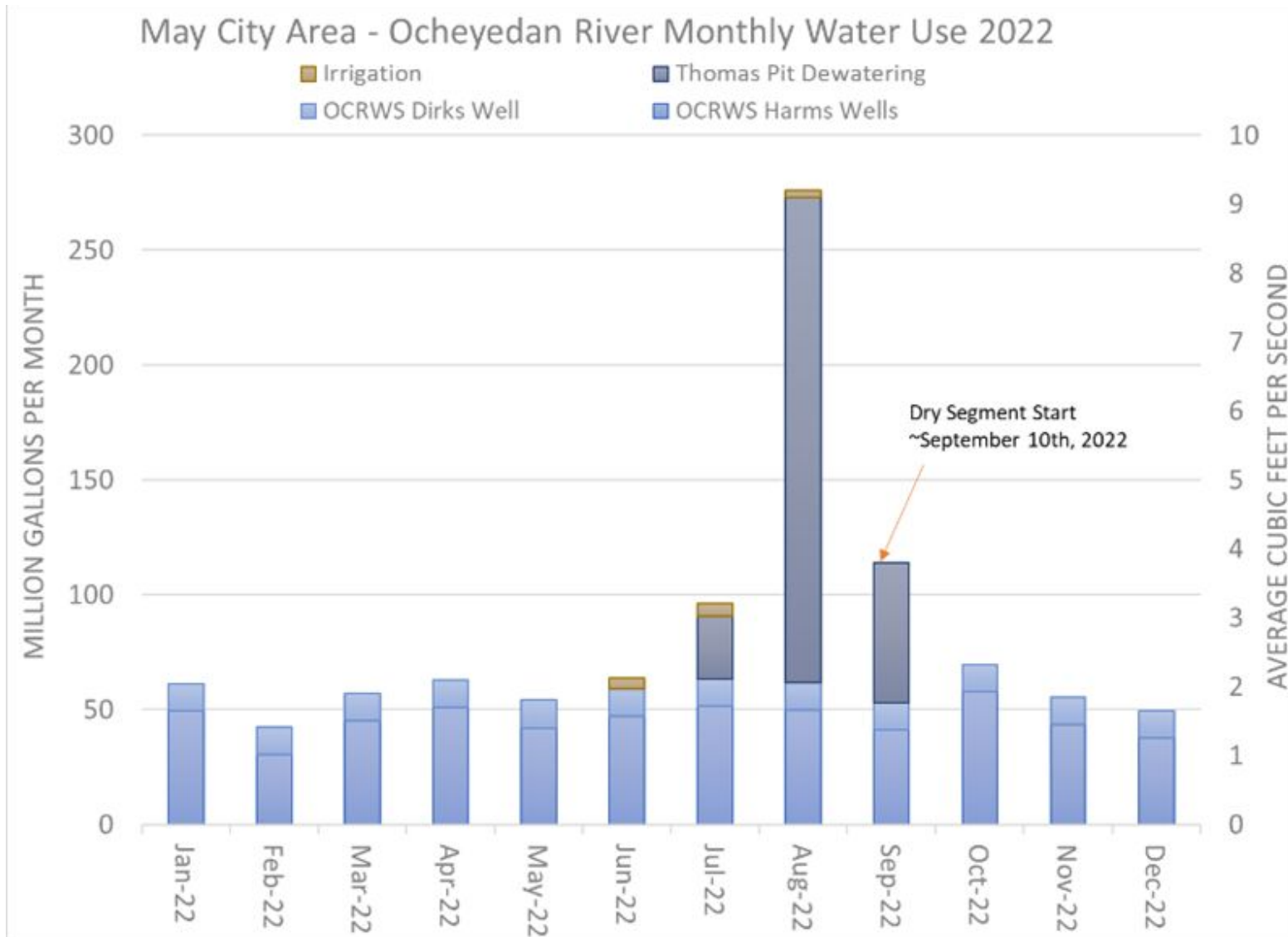
Legend

- | | |
|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
|  Pit Dewatering Intake |  Ocheyedan River Alluvial Aquifer |
|  Irrigation Intake |  Ocheyedan River Dry Segment |
|  Irrigation Well |  Ocheyedan River |
|  Osceola County Public Well | |

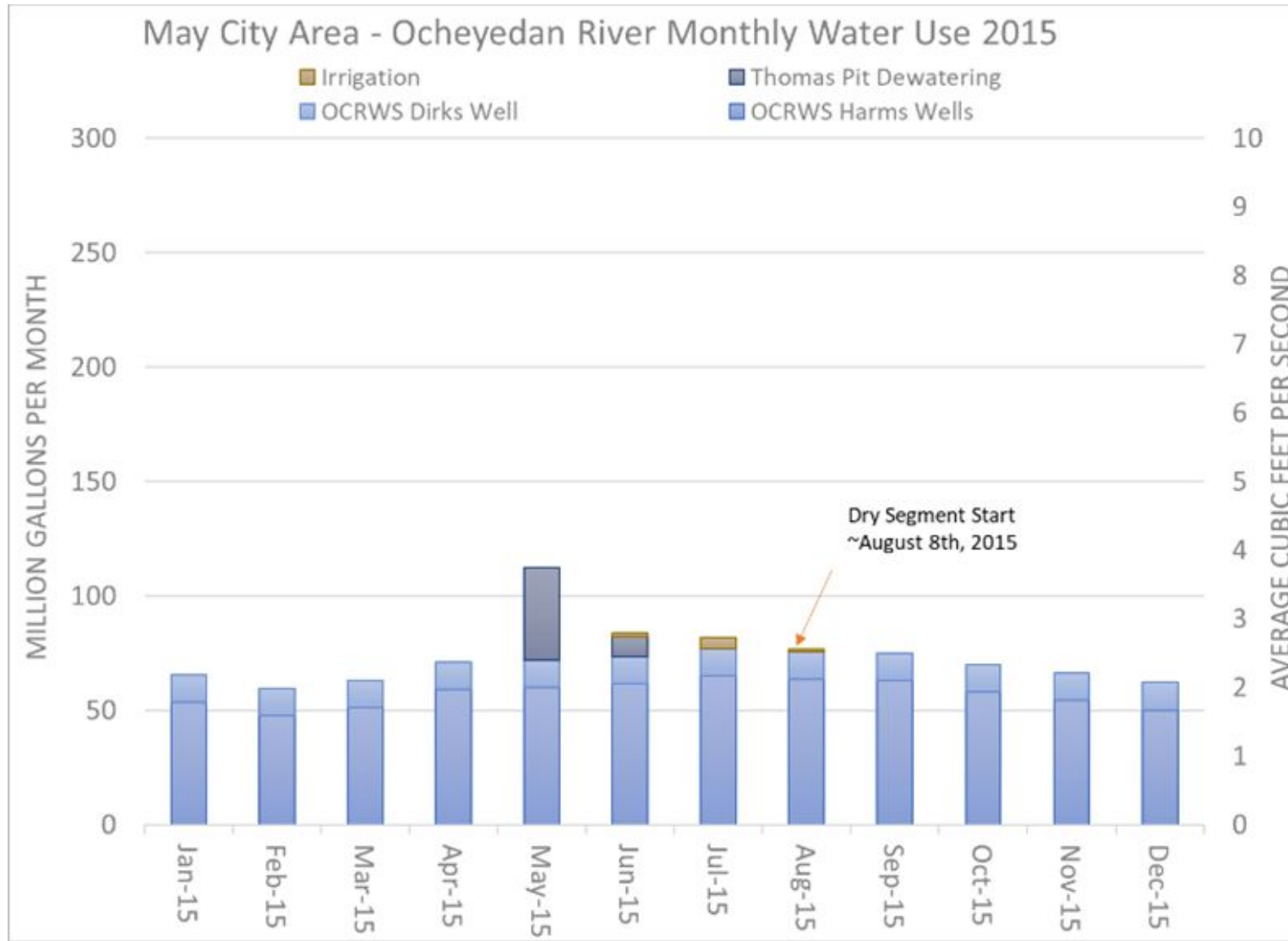




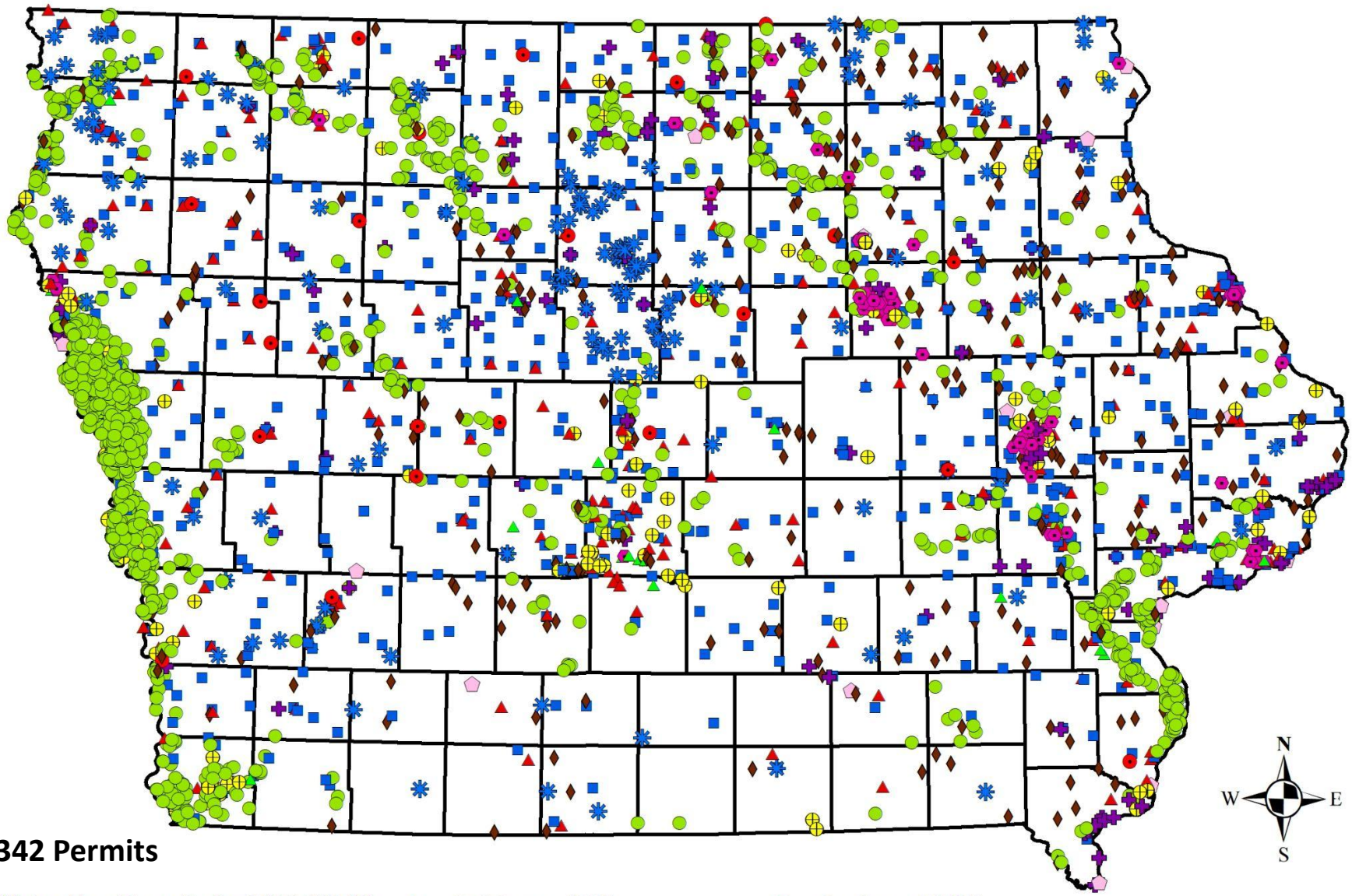
Ocheyedan River Dry Segment



Ocheyedan River Dry Segment



All Active Water Use Permits - SFY2023

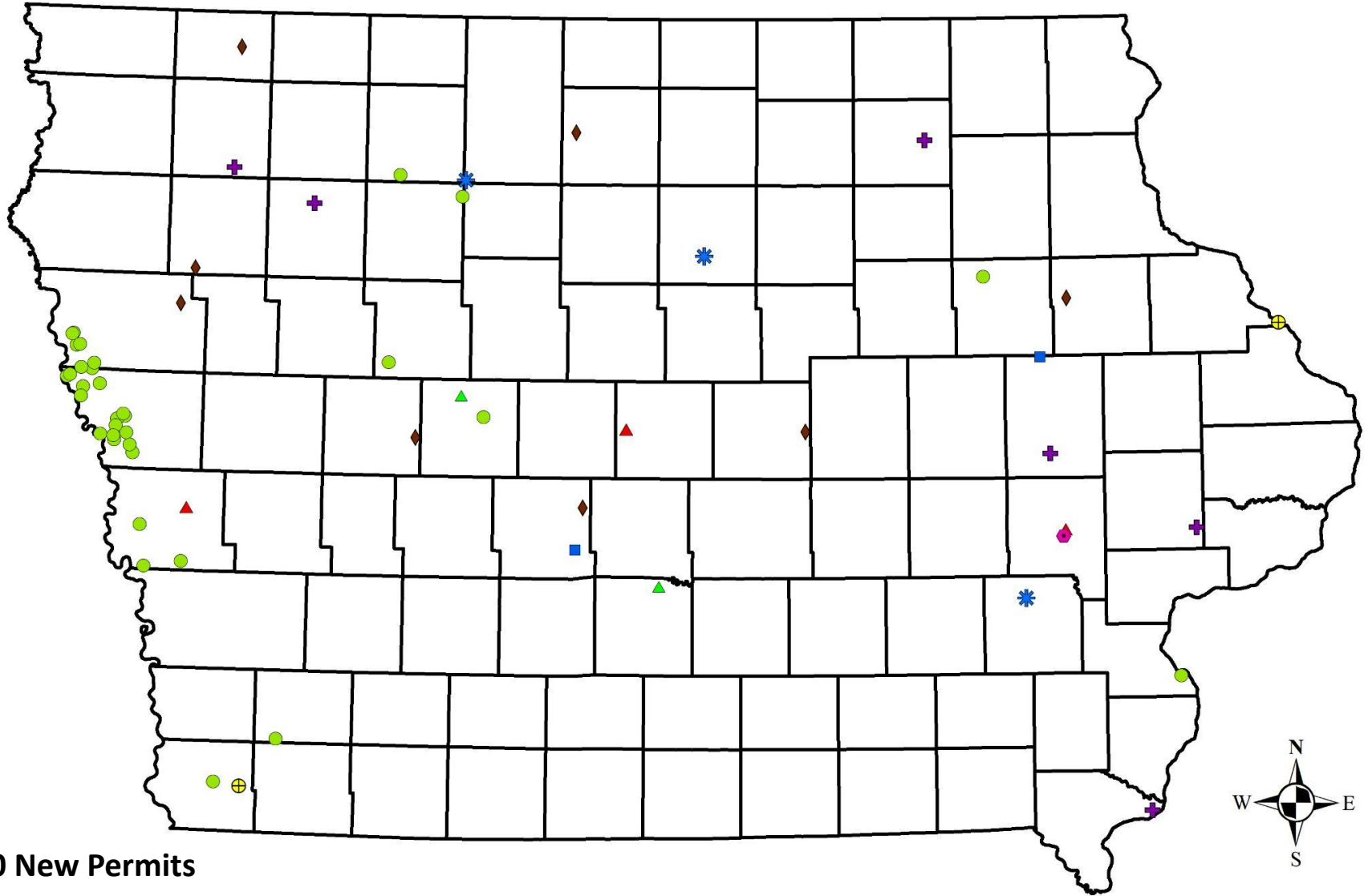


3,342 Permits

Water Use Permits in 2023 (3342)

● Crop Irrigation [1,549]	▲ Golf Course [220]	◆ Geothermal [109]
■ Public Water Supply [660]	✱ Animal Feeding Operation [149]	● Ethanol Production [31]
◆ Quarry Operation [333]	✚ Industrial/Commercial [131]	◇ Power Generation [21]
	⊕ Recreational Water [114]	▲ Other [24]

New Water Use Permits - SFY 2023



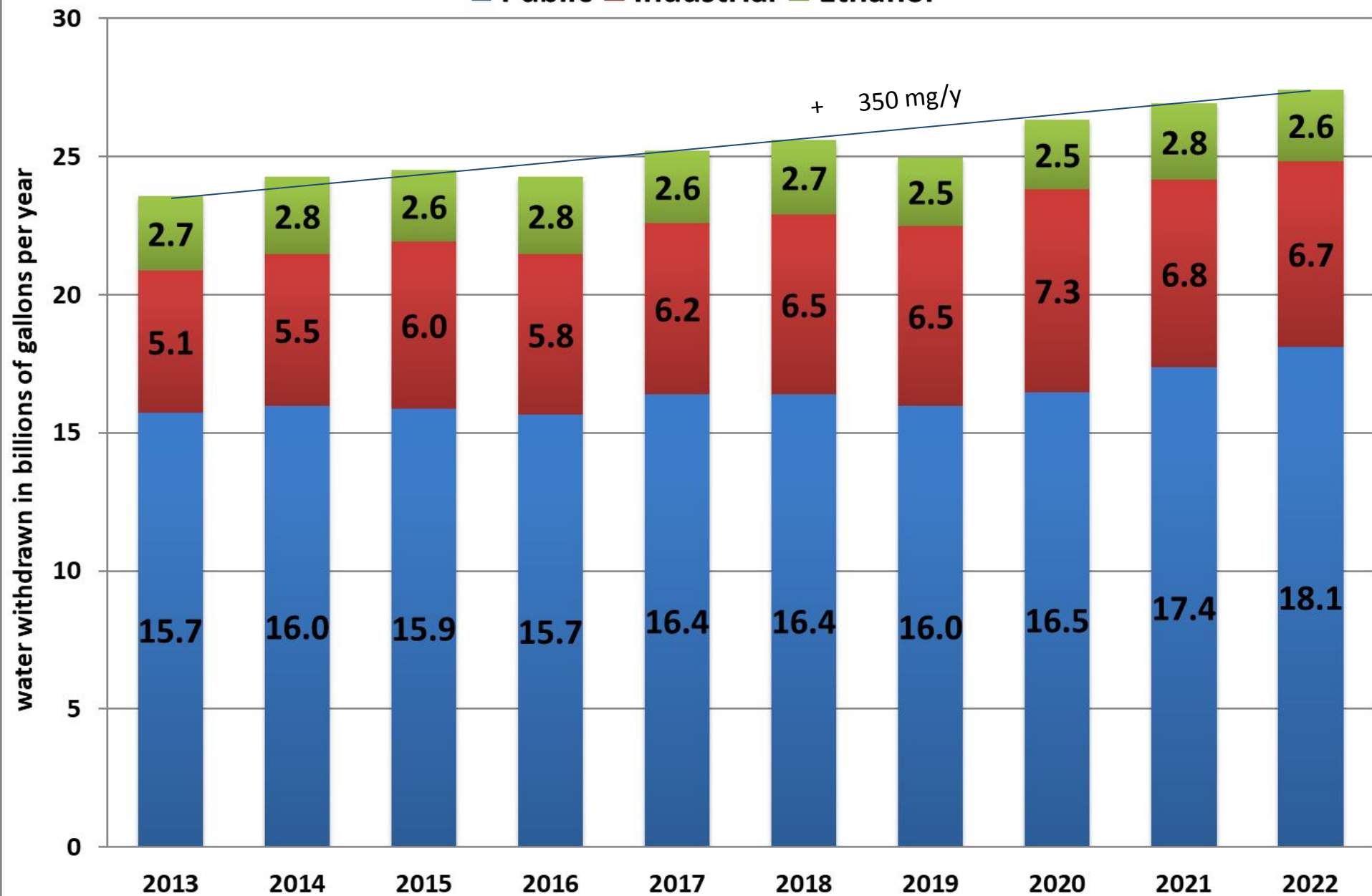
60 New Permits

New Water Use Permits in SFY2023 (60)

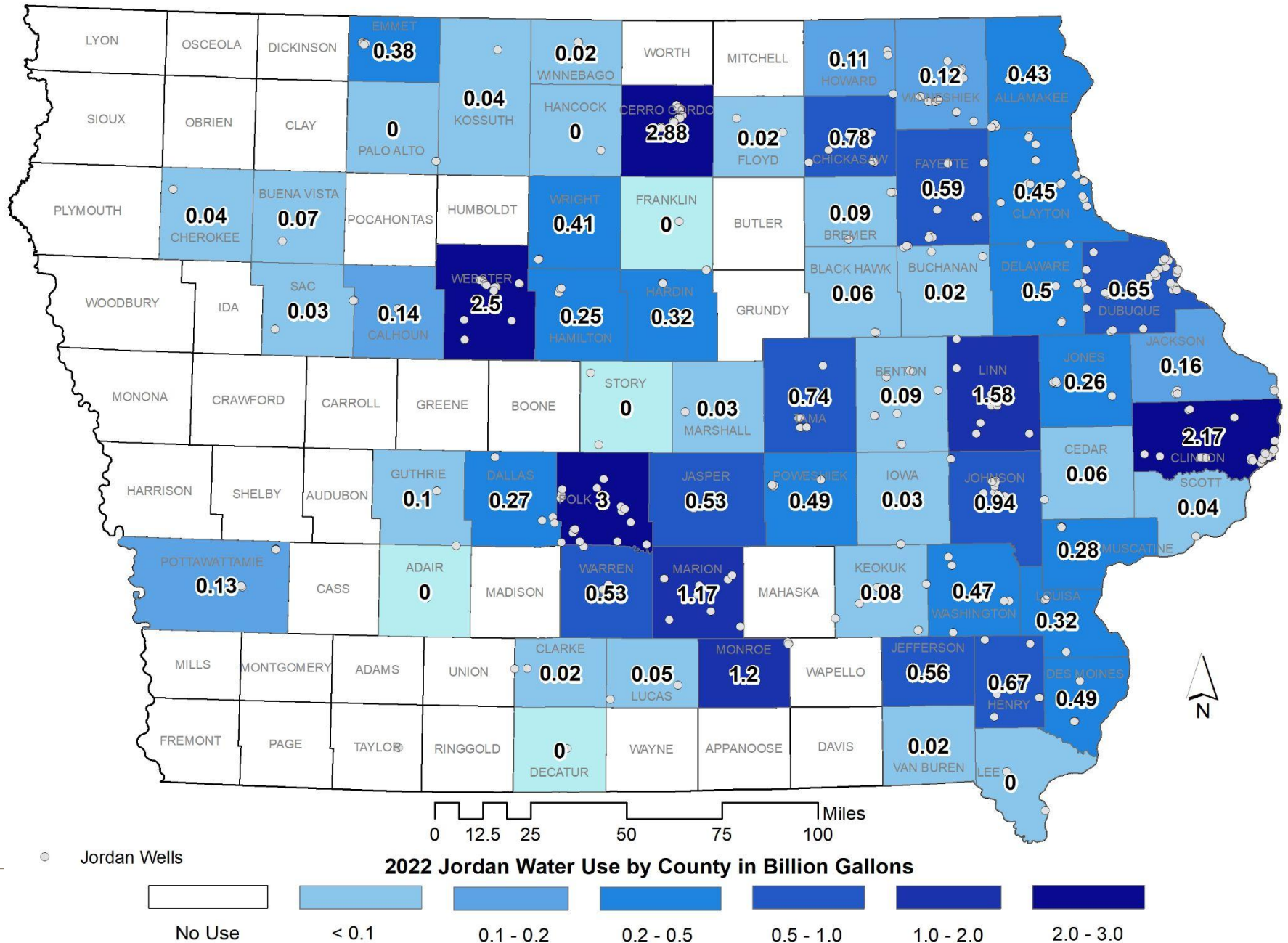
● Crop Irrigation [33]	▲ Golf Course [3]	◆ Geothermal [1]
■ Public Water Supply [2]	✱ Animal Feeding Operation [3]	● Ethanol Production [0]
◆ Quarry Operation [8]	✚ Industrial/Commercial [6]	◇ Power Generation [0]
⊕ Recreational Water [2]	● Other [2]	

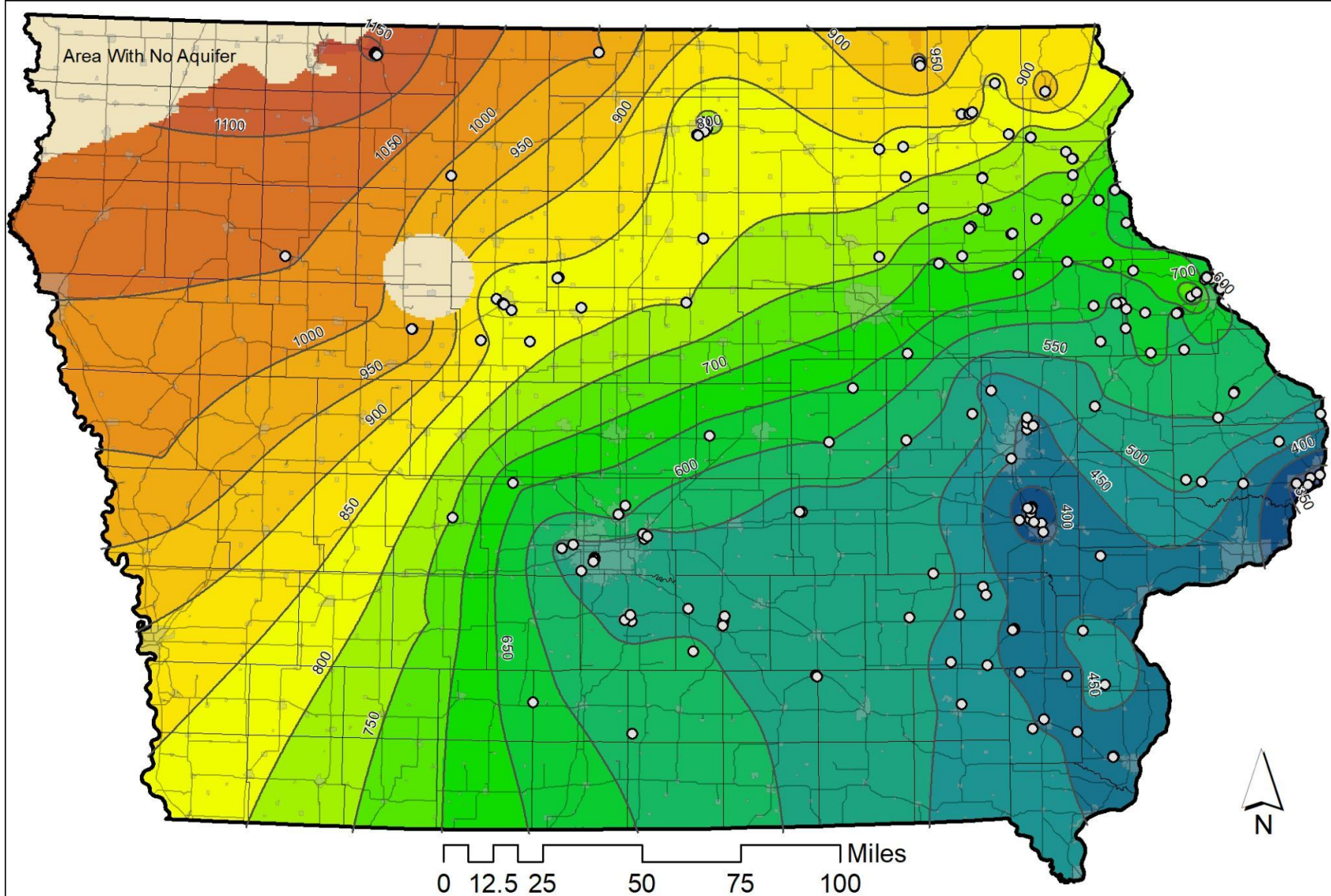
Water Use from the Jordan Aquifer

Public Industrial Ethanol

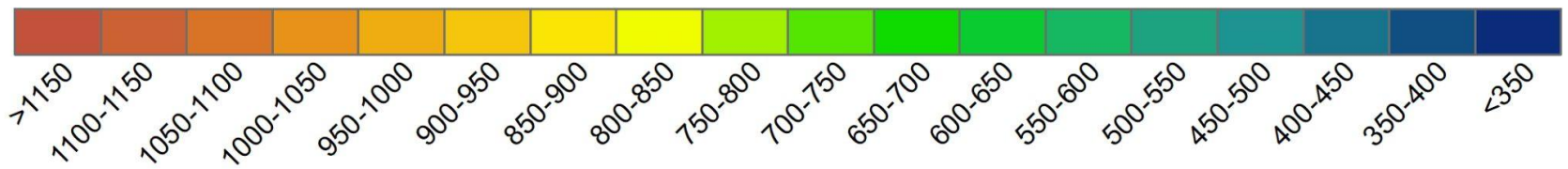


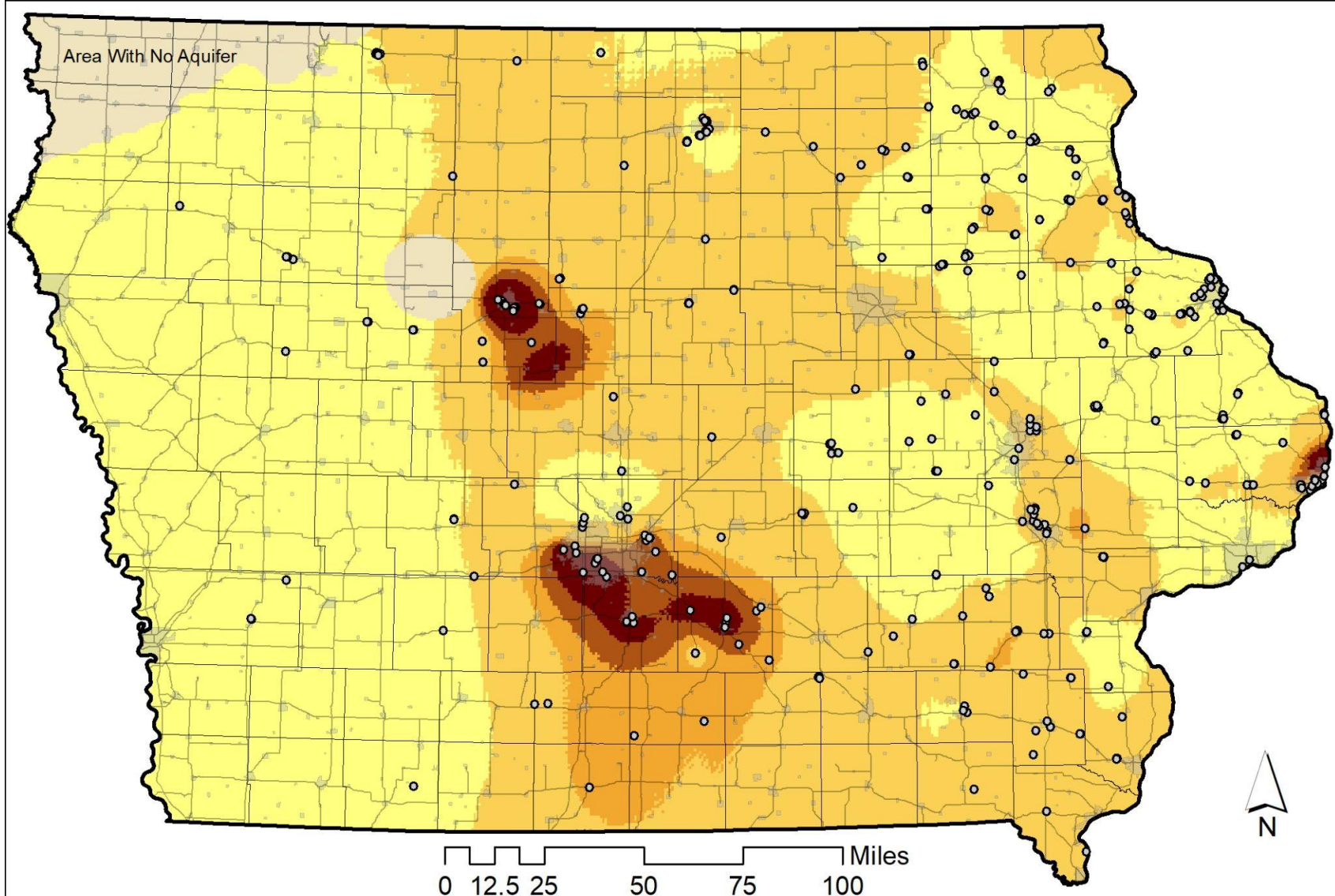
Jordan Water Use by County - 2022



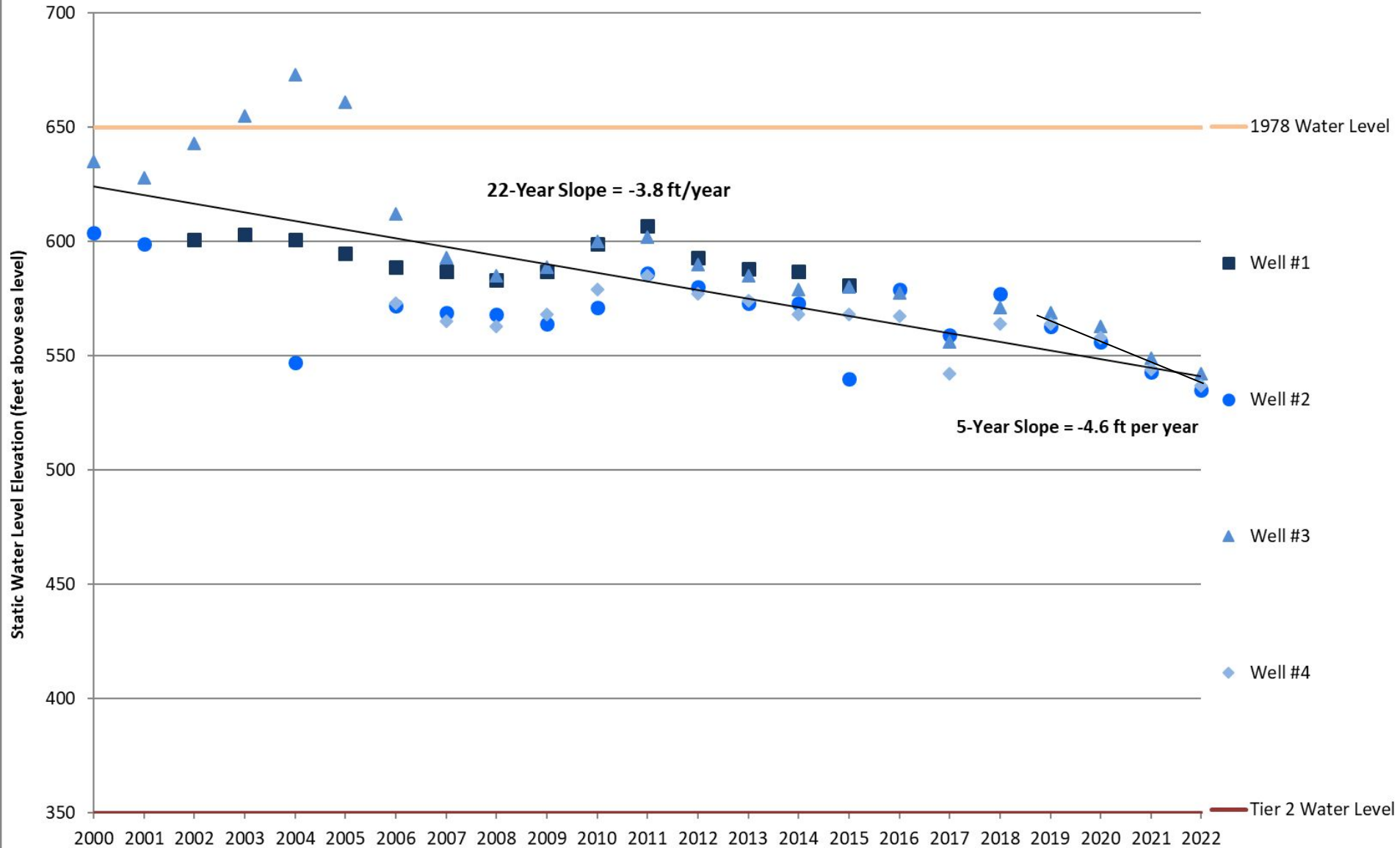


2022 Jordan Aquifer Potentiometric Surface
feet above sea level





Static Water Level Measurements for the City of Altoona, Iowa



SFY 2024 Anticipated Work

- Routine Work
 - Issuing permits; Annual fee collection; Database maintenance; Conflict resolution; Program administration; Data entry; Exceedance tracking
- Encourage online permit management by permit holders, including annual fee payment & water use reporting
- Continue to meet & exceed project review and close-out TAT goals
- Continue implementing Jordan aquifer management strategies; work with affected Tier 2 systems
- Add necessary improvements or fixes to WACOP 2.0

FY24 Budget – Major Cost Items

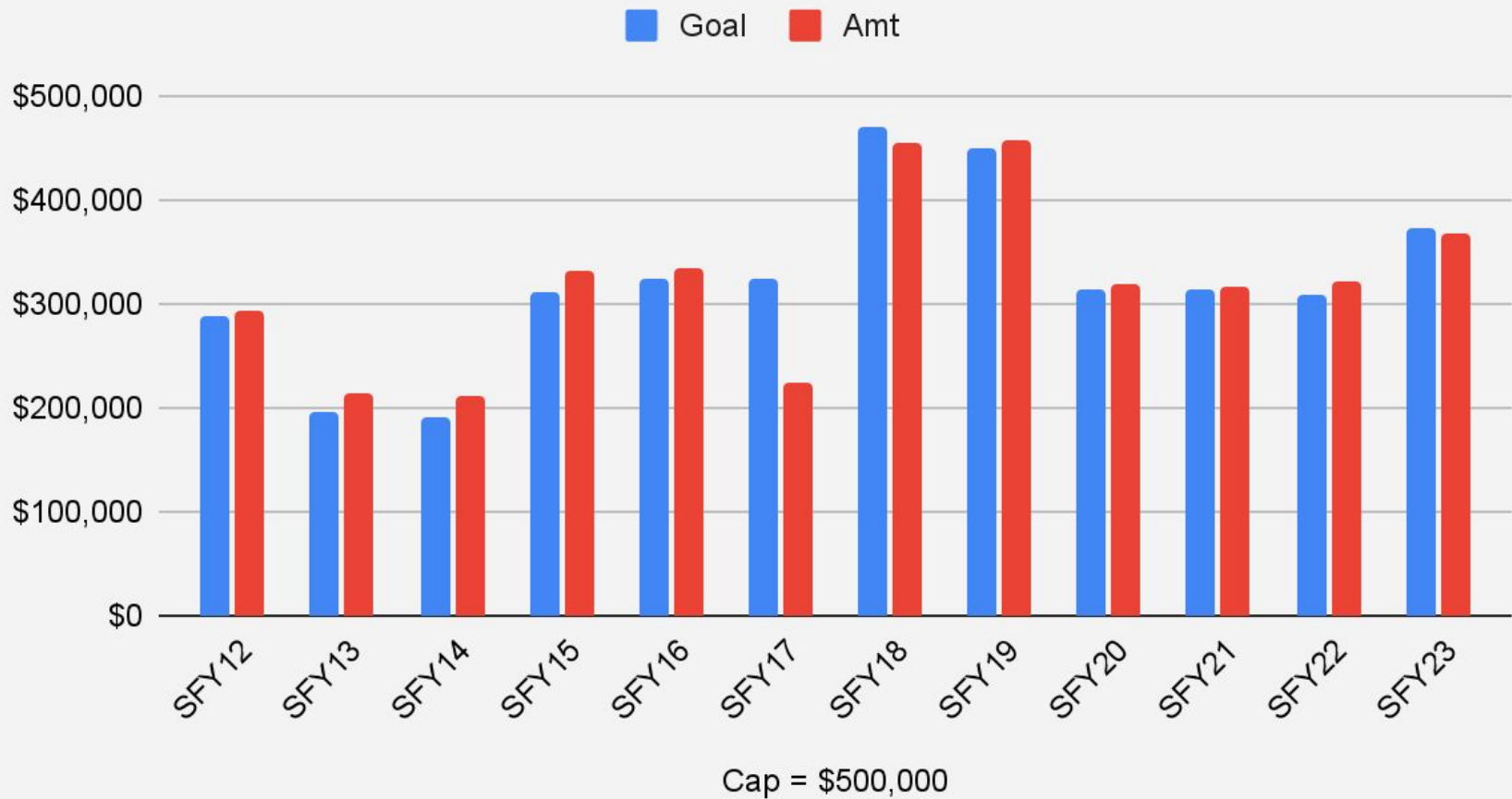
- Staffing = 84% of budget
 - 4 FTE
- Indirect = 11% of budget
 - Internal Department costs
- Remaining 5% of budget
 - Publishing (public notices)
 - Miscellaneous (travel, office supplies, postage, phones, etc.)
 - Computer equipment
 - Field Office and/or administrative assistance

Long Term Budget Needs

- Program is stable
- Staffing needs expected to remain stable
- Staffing costs rise over time
- Continue to hold annual fees as steady as the budget allows

Fees Generated from Water Use Permits

Annual Fees Generated from Water Use Permits



Annual Fee Calculation

- Fee Calculation

\$613,956 budget

-184,190 General Fund

-34,000 application fees

-20,646 carryforward

\$375,130 to be collected from Annual Fees

- Number of active permits: 3348 (no attrition expected)
- Number of permits paying 2024 fee: 3262
- $\$375,130 / 3262 = \115.00 per permit
- Proposed 2024 Annual Fee: \$115.00**

Year(s)	Amount
2010-2011	\$135
2012	\$95
2013-2014	\$66
2015-2016	\$99
2017	\$66
2018-2019	\$134
2020-2022	\$95
2023	\$115

Annual Fee Calculation

- Directed to assume no General Fund in SFY 2018 & 2019, but was received; resulted in carryforward amount built up
- We have been gradually spending down the carryforward to a target of \$200,000 by reducing the annual fee; reached in FY22
- If there is no GF, the carryforward will cover 2 years of budget
 - Carryforward in 2021: \$232,487
 - Carryforward in 2022: \$220,288
 - \$8,007 FY22 spend down
 - \$212,281 carryforward
- Last year we raised the permit fee to \$115 in order to maintain carryforward of ~\$200,000; attempt to hold steady/maintain equilibrium in future years

Executive Order 10

Water Use Program Rules (IAC Chapters 50-55)

- Program believes majority of the current rules and regulations are working well. Changes include:
 - Removal of 200 gpm withdrawal limits from streams and unconfined aquifers in watersheds that drain <50 mi²
 - Remove rules regarding water storage and agricultural drainage wells
 - Merge and update Chapters 50-52 into single chapter
 - Clean-up and clarification
 - Update/merge definitions
 - Update references
 - Update DNR form numbers

Executive Order 10 Process & Timeline

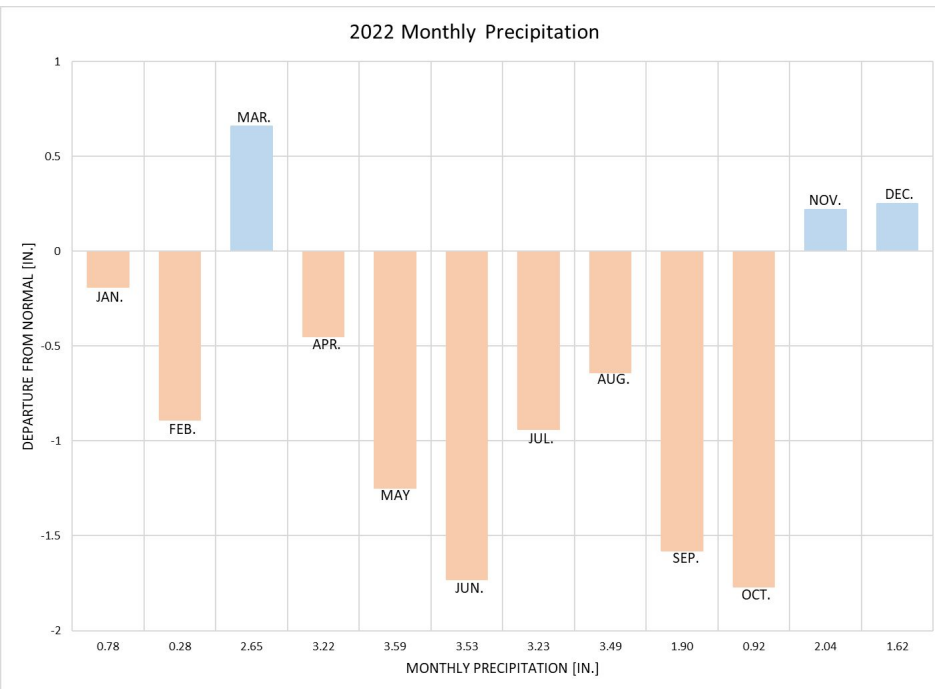
- Currently finalizing rule language.
 - **September 1, 2023** - expected to post draft chapters on program webpage (www.iowadnr.gov/wateruse)
 - Stakeholders/public have month to review provide comments back to program.
 - **September 29, 2023** - Second stakeholder contact and feedback deadline
 - **July 1, 2024** - Completion of final documents
- **Questions, comments, issues, about our current rules?**

Questions????



SFY2024 Annual Fee Approval Request at August 9th
Environmental Protection Commission Meeting

Appendix



2022 County-Level Precipitation Totals, Departure from Normal (inches)

