

Water Resources Coordinating Council

Wednesday, December 18, 2024
1:30 PM- 3:00 PM

Meeting Notes

Call to Order and Virtual Meeting Logistics

The meeting was called to order at 1:33 PM. There were a total of 23 participants in the virtual meeting. Logistics were briefly discussed.

WRCC Agency Updates (All)

NWS: Justin Glisan, IDALS, sat in and presented the current weather and hydrologic outlook for NWS. A copy of the presentation is included with the meeting notes.

DNR (Schneiders): Water Quality bureau is completing EO10 rules now. Being published in January to be followed by public hearings and administrative rules changes. Mark Moeller returning to Water Quality Bureau as monitoring/TMDL supervisor. Nonpoint Source management plan has been approved by EPA- in effect until 2029.

Summer flooding- more than 250 boat rescues occurred. Significant impacts to lake and river shorelines and municipal water supplies. Recycling of damaged materials and locating of items that floated in floods also ongoing. Continued efforts include long-term recovery and rehab of damaged water/sewer facilities.

Iowa HHS (Wickam): Have yet to release after action reports. Working through EO10 evaluation and publication.

IDOT (Solberg): New federal administration- monitoring impacts to WOTUS. USACE has mitigation banking guidance out. Will evaluate and discuss potential comments. Flood recovery- still working to rebuild roads and bridges in NW Iowa. 99 damage claims in system, combination of local and DOT claims. Estimate of \$46 million in damage. 20 projects have already been let for repairs totaling about \$7.6 million. 60+ additional projects will be let this winter. Highway 18 bridge project in Clay County (Stoney Creek) has been let and is already open to traffic.

IIHR (Young): Working with several localities in western Iowa to do inundation mapping and to help identify recovery priorities based on future flood probabilities. Working with DOT/DNR and local engineers to submit recovery funding requests. Also working to increase coverage of flood sensor networks to improve forecasting ability and research on flood damages.

IEDA (Geerts): No new water/sewer applications to review this quarter. New round will be reviewed in January. Working to promote infiltration-based practices in programs.

UNI (Clayton): No update.

EPA Region 7 (Reed): Iowa Nonpoint source plan has been approved and is in place. Also reviewing grant applications for Iowa's Gulf of Mexico grant applications.

ISU Extension (Helmert): Starting Crop Advantage series meetings. Hired Elizabeth Schwab as new NRS Measures Coordinator. Extension worked with local offices and county officials on flood recovery and dedicated staffing to long-term coordinated disaster response through Courtney Long.

USACE (Steele): Regional Permit 39 has been put on public notice and has been extended to 60 days, through February 10. Also have issued mitigation banking guidance for comments through January 10, 2025. Regional Permit 49 (Urban Stream restoration) will go out for comment in January. Phil Brown also reported that RCPP structural projects in Rathbun Lake watershed are proceeding.

USGS (Nania): Report is focused on 2024 flood recovery. Many record peaks in streamflow over 100 year period experienced in the summer. Some gauge sites were undermined so extent of recording was compromised. Continued surveys of bridge locations and stream reaches with DOT to determine extent of impacts on key bridges. USGS Flood Event Viewer shows locations of high water marks and dates for research/informational purposes.

IDALS (Hansen): HPAI response and recovery is ongoing. Urban- 19 apps, 18 moving forward. \$3.7 M state request, \$5.7 M match. Full apps due next month. Cover crop numbers remain high and crop insurance discount program is now open for signup. Also working with HSEMD on Levee Safety Program. Meeting in January to review first round of applications. Will meet this week with IFA/IEDA and DNR to review SF512 Water/Wastewater Financial Assistance Program. Awards for both expected to be finalized this winter. IDALS is monitoring proposed listing of monarch butterfly as a threatened species by USFWS.

Agricultural Drainage Well Closure Program Summary

Mike Bourland and Jake Hansen, IDALS, gave the Council an update on the completion of the Ag Drainage Well program. A copy of the presentation given is included with the meeting notes.

Iowa Nutrient Reduction Strategy Update

Representatives from IDALS, the Iowa DNR, and ISU Extension provided an update on the process of soliciting public input regarding edits and updates to the Iowa Nutrient Reduction Strategy. Updated components of the NRS included language changes and reflection of implementation programs developed as a result of the Strategy. Updated strategy incorporates ongoing federal guidance and EPA memos and incorporation of the NRS dashboard as a dynamic reporting tool. Extensive involvement by partners in implementation is also reflected in update, along with need for additional research needs and next steps to broaden practice offerings. The updated strategy documents and portal for comments/feedback can be found at <http://www.nutrientstrategy.iastate.edu>.

Public Comments

There were no requests by the public to address the Council.

Adjourn

The meeting was adjourned at 2:56 PM. The next meeting will likely be held in March following the same hybrid format.

	WRCC Representative	Position	Organization
	1 Mike Naig	Secretary (WRCC Chair)	Iowa Department of Agriculture & Land Stewardship
	2 Kim Reynolds	Governor	Governor's Office
	Lillie Brady	Designee	Governor's Office
	3 Kayla Lyon	Director	Iowa Department of Natural Resources
	Adam Schneiders	Designee	Iowa Department of Natural Resources
	4 Susan Kozak	Director	IDALS - Division of Soil Conservation & Water Quality
	Jake Hansen	Designee	IDALS - Division of Soil Conservation & Water Quality
	5 Kelly Garcia	Director	IA Department of Public Health
	Tim Wickam	Designee	IA Department of Public Health
	6 John Benson	Acting Director	Iowa Homeland Security & Emergency Management
	Larry Giofreddi	Designee	Iowa Homeland Security & Emergency Management
	7 Dan Robison	Dean	College of Agriculture and Life Sciences, ISU
	Jamie Benning	Designee	College of Agriculture and Life Sciences, ISU
	8 Edith Parker	Dean	College of Public Health, University of Iowa
	Tom Peters	Designee	College of Public Health, University of Iowa
	9 John Fritsch	Dean	College of Humanities, Arts and Sciences, UNI
	Maureen Clayton	Designee	College of Humanities, Arts and Sciences, UNI
	10 Scott Marler	Director	Iowa Department of Transportation
	Marc Solberg	Designee	Iowa Department of Transportation
	11 Debi Durham	Director	Iowa Economic Development Authority
	Jeff Geerts	Designee	Iowa Economic Development Authority
	12 Debi Durham	Executive Director	Iowa Finance Authority
	Tony Toigo	Designee	Iowa Finance Authority
	13 Alec Scranton	Dean	College of Engineering, University of Iowa
	Larry Weber	Designee	College of Engineering, University of Iowa
	14 Jon Nania	Director	USGS, Iowa-Illinois Water Science Center
	Steve Kalkhoff	Designee	USGS, Iowa-Illinois Water Science Center
	15 Jon Hubbert	State Conservationist	USDA, Natural Resources Conservation Service
	Scott Cagle	Designee	USDA, Natural Resources Conservation Service
	16 Vacant (Curt Goettsch)	State Executive Director	USDA, Farm Service Agency
	17 Vacant	State Director	USDA, Rural Development
	Kate Sand	Designee	USDA, Rural Development
	18 Jim Macy	Regional Administrator	EPA-Region 7
	Amanda Reed	Designee	EPA-Region 7
	19 Colonel Jesse Curry	Rock Island District Commander	US Army Corps of Engineers Rock Island District
	Abby Steele	Designee	US Army Corps of Engineers Rock Island District
	Philip Brown	Designee	US Army Corps of Engineers
	Jeff Zogg	Designee	National Weather Service



Iowa River and Weather Briefing

December 17, 2024
3:15 PM



National Weather Service

Des Moines, IA

December 18, 2024



National Oceanic and
Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Iowa

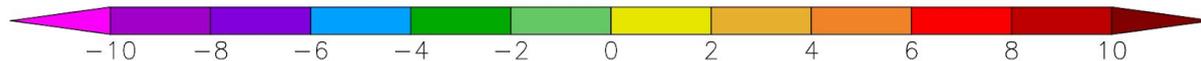
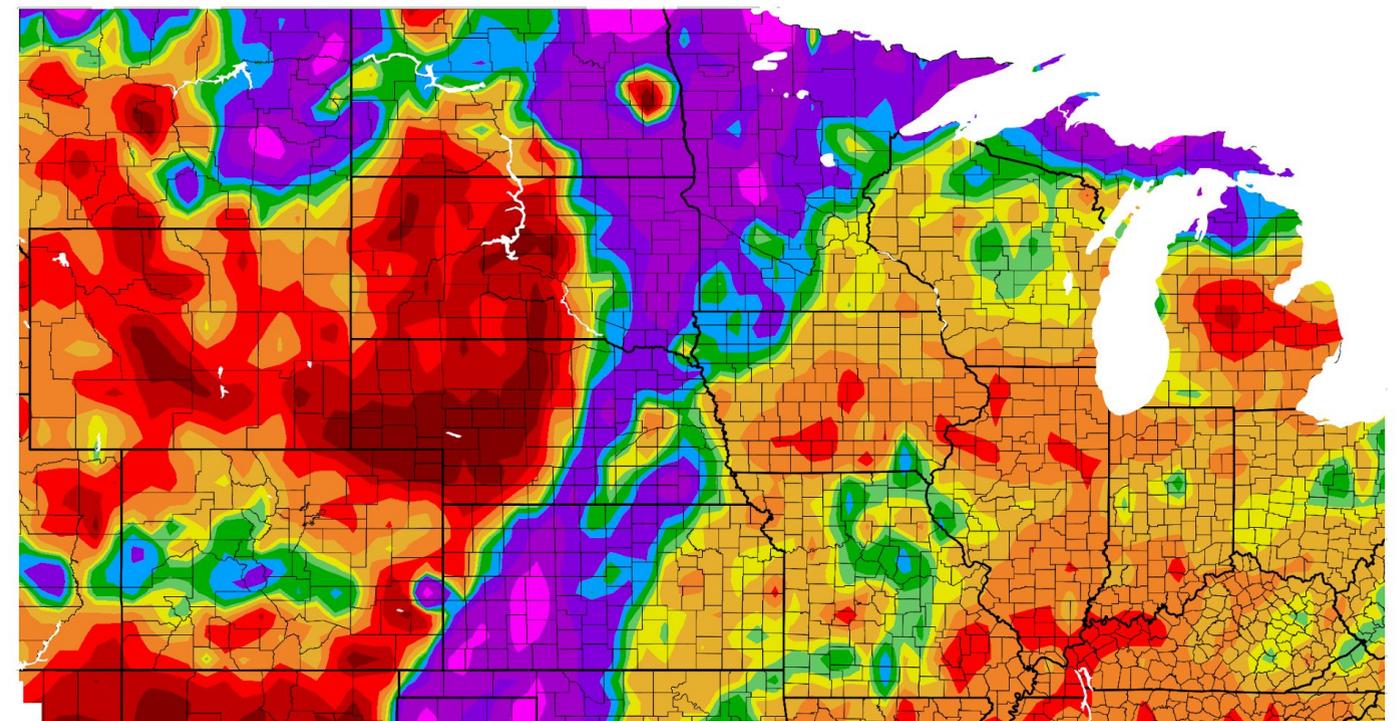
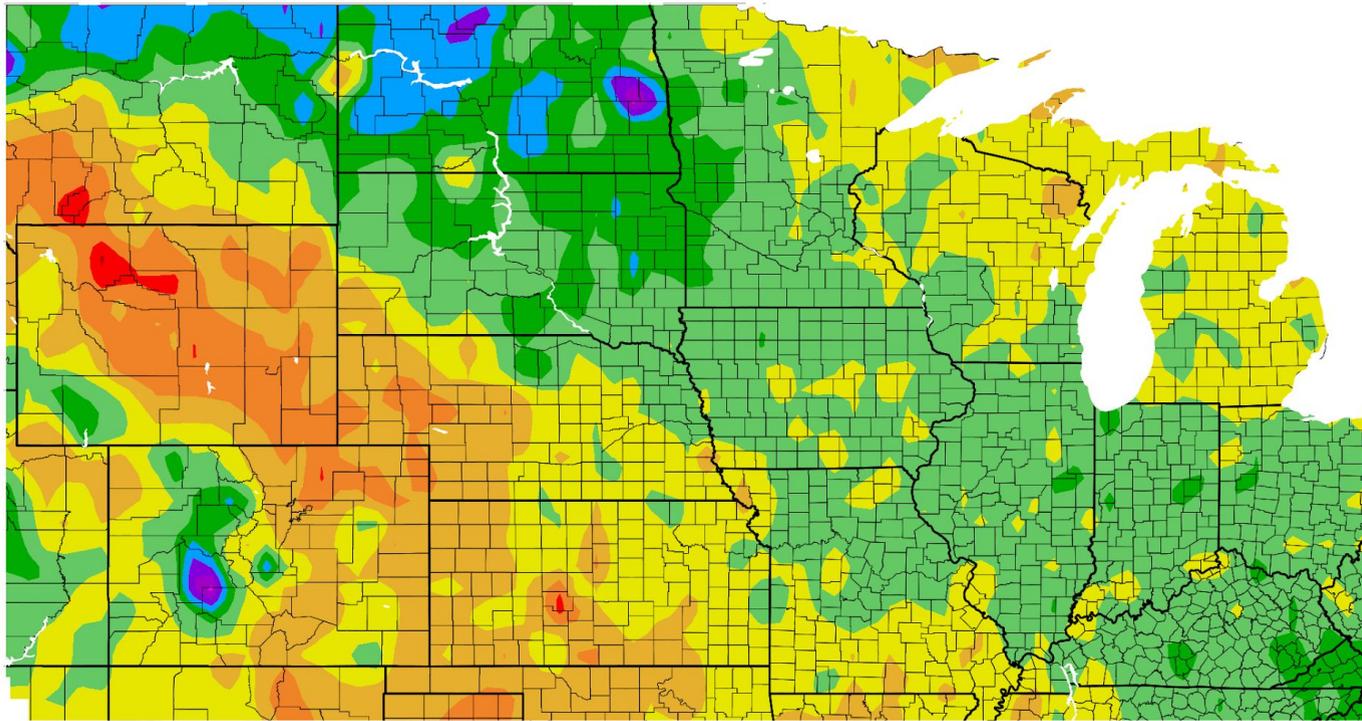


Observed Temp & Precip Departure

Departure from normal

Departure from Normal Temperature (F)
11/17/2024 - 12/16/2024

Percent of Normal Precipitation (%)
11/17/2024 - 12/16/2024



Generated 12/17/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Generated 12/17/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

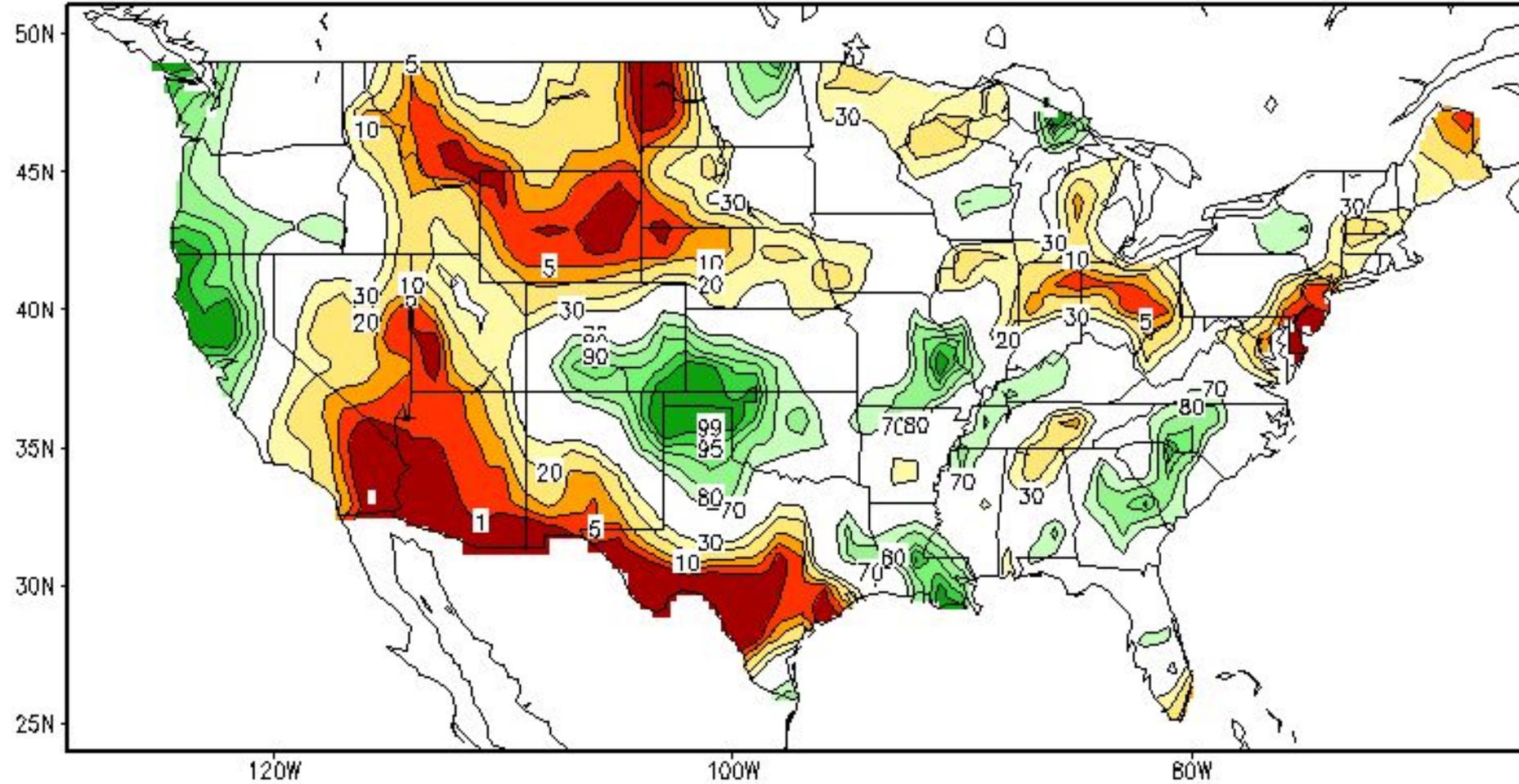




Current Soil Moisture

Wetness percentiles

Calculated Soil Moisture Ranking Percentile
DEC 16, 2024



Near to below normal across Iowa

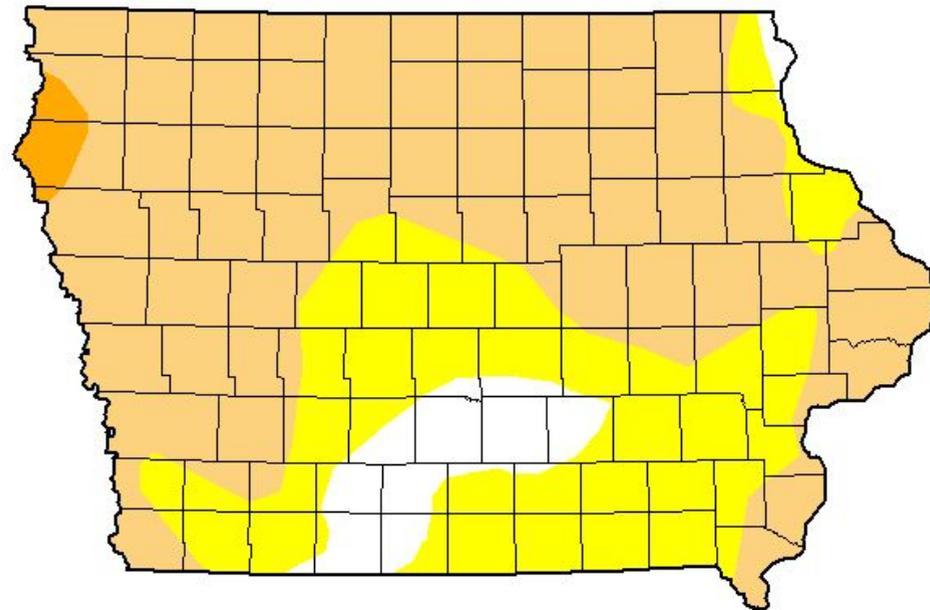




Current Drought Monitor

U.S. Drought Monitor Iowa

December 10, 2024
(Released Thursday, Dec. 12, 2024)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	7.20	92.80	63.13	1.30	0.00	0.00
Last Week 12-03-2024	7.20	92.80	60.23	1.30	0.00	0.00
3 Months Ago 09-10-2024	34.91	65.09	0.00	0.00	0.00	0.00
Start of Calendar Year 01-02-2024	2.77	97.23	83.41	65.09	35.18	0.00
Start of Water Year 10-01-2024	6.02	93.98	23.20	1.29	0.00	0.00
One Year Ago 12-12-2023	0.57	99.43	84.33	62.08	27.47	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme 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:
Curtis Riganti
National Drought Mitigation Center



droughtmonitor.unl.edu

Category	Historically observed impacts
D0	Corn shows drought stress; soil is dry
D1	Soybeans abort pods; corn test weights are struggling
	Grasses are brown; more grass fires occur; burn bans are issued Pond levels decline
D2	Dryland corn has extremely low yields; commodity shortages are noted; livestock is stressed
	Fire danger is high Fewer mosquitoes are observed Surface water levels are low; algae blooms increase; voluntary water conservation is requested
D3	Pastures are dry; producers sell cattle; crops are tested for toxins; crops have pest infestation
	Seasonal allergies are worse; farmers are stressed about high feed prices Trees drop leaves; acorns are underdeveloped Warm water leads to fish kills; streambeds are low to dry
D4	Row crop yields and forage production have significant impacts
	Extreme measures are taken to conserve water Aquatic invertebrates in waterways increase



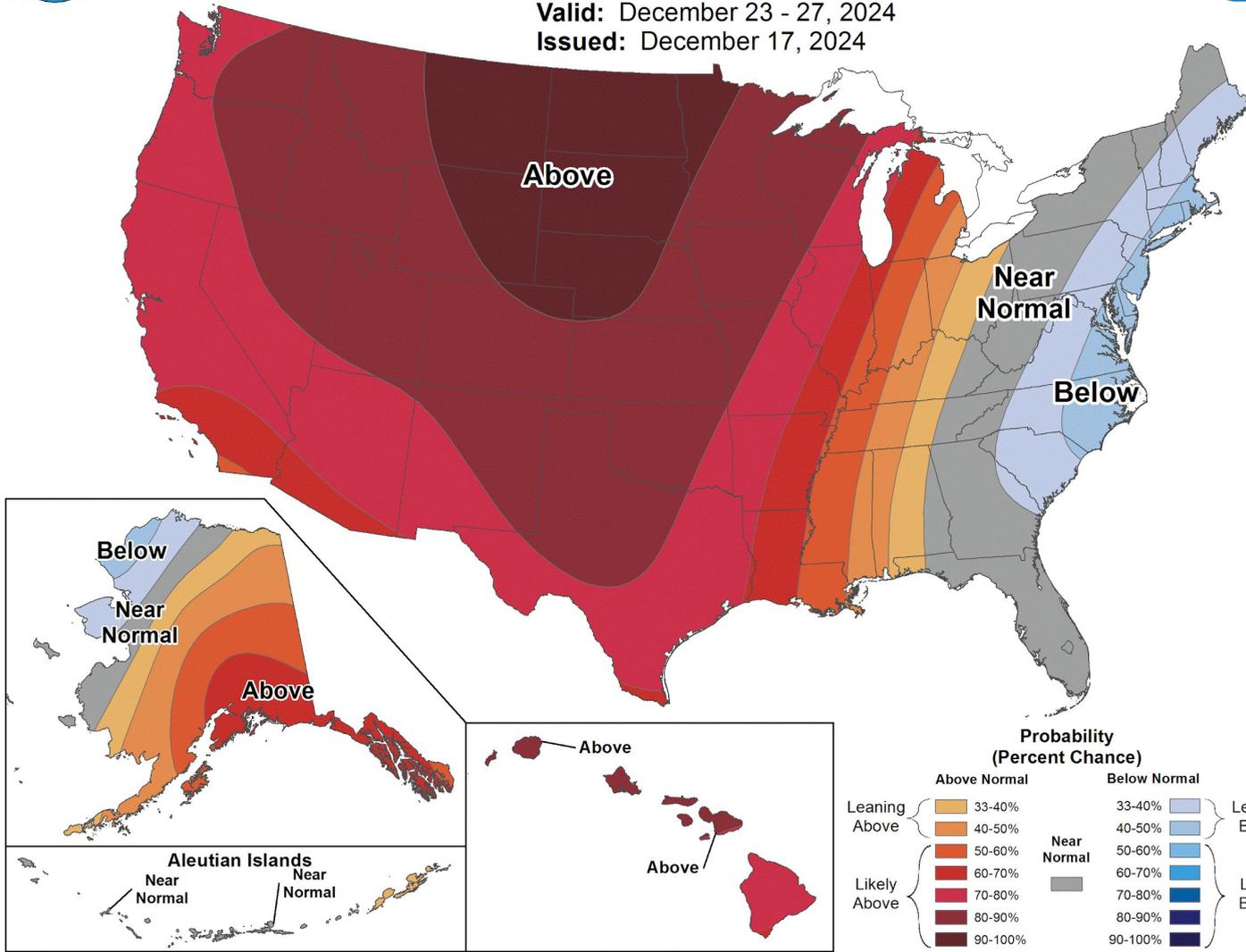
6-10 Day Temp & Precip Outlooks



6-10 Day Temperature Outlook



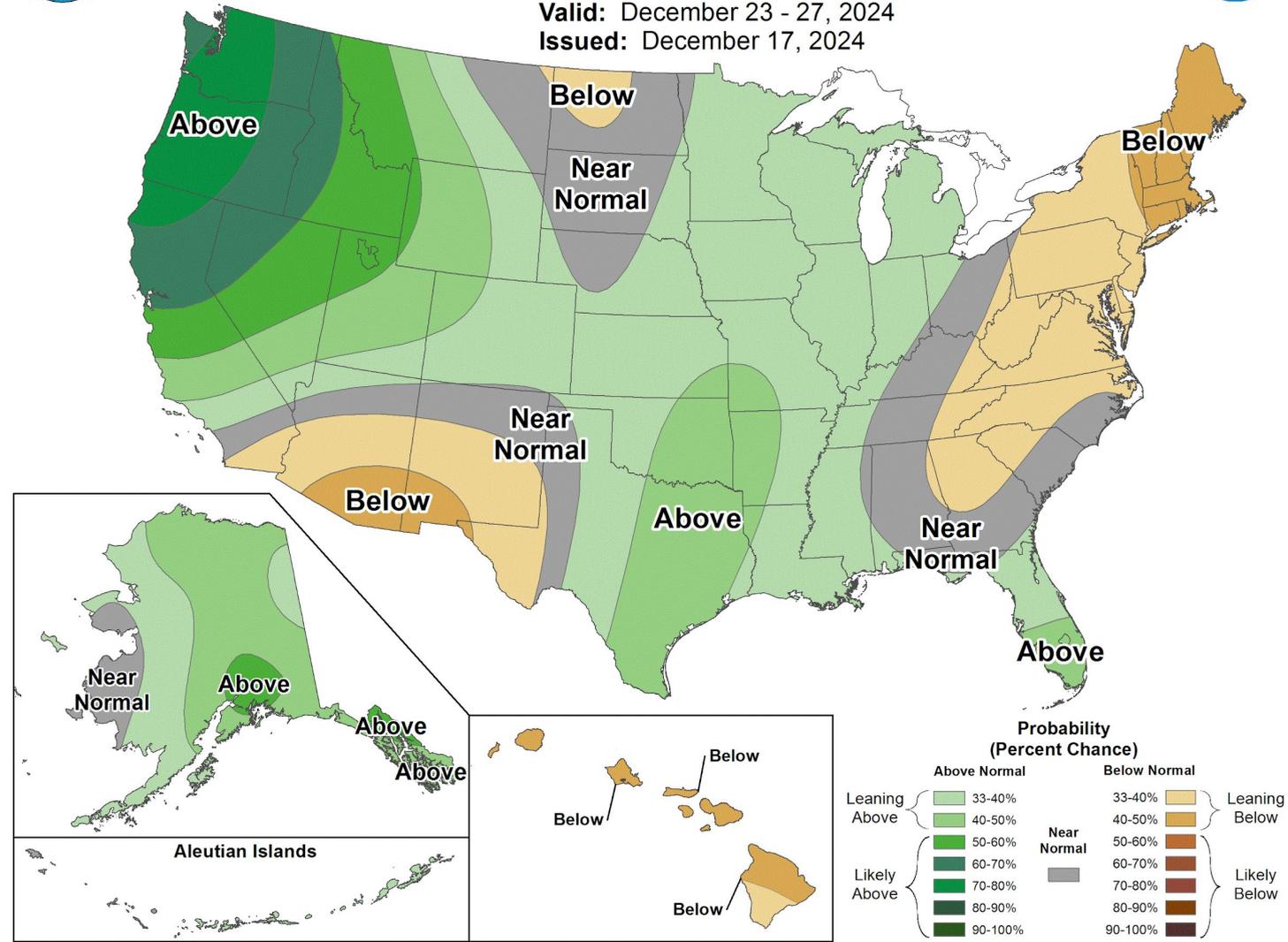
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Issued: December 17, 2024



6-10 Day Precipitation Outlook



Valid: December 23 - 27, 2024
Issued: December 17, 2024





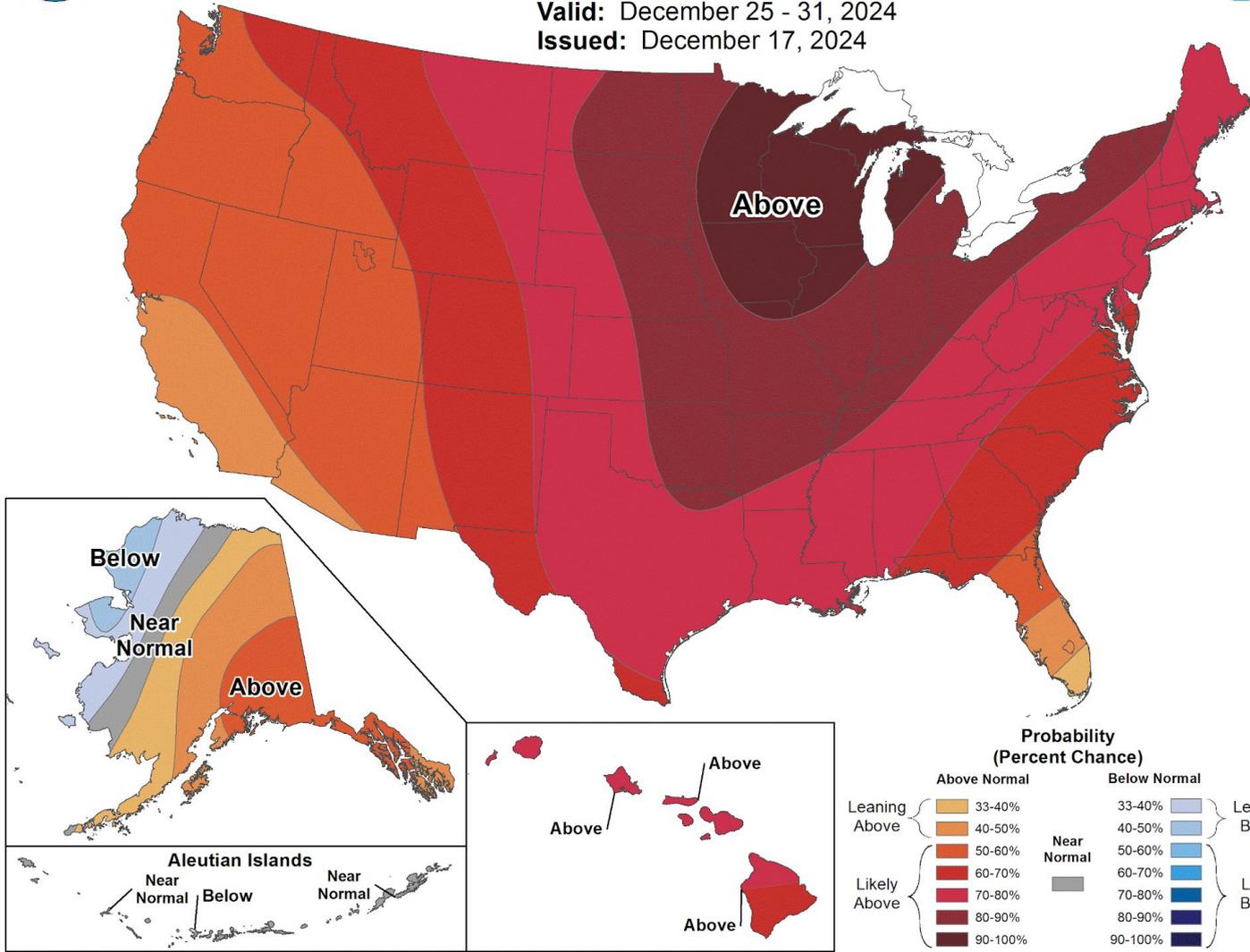
8-14 Day Temp & Precip Outlooks



8-14 Day Temperature Outlook



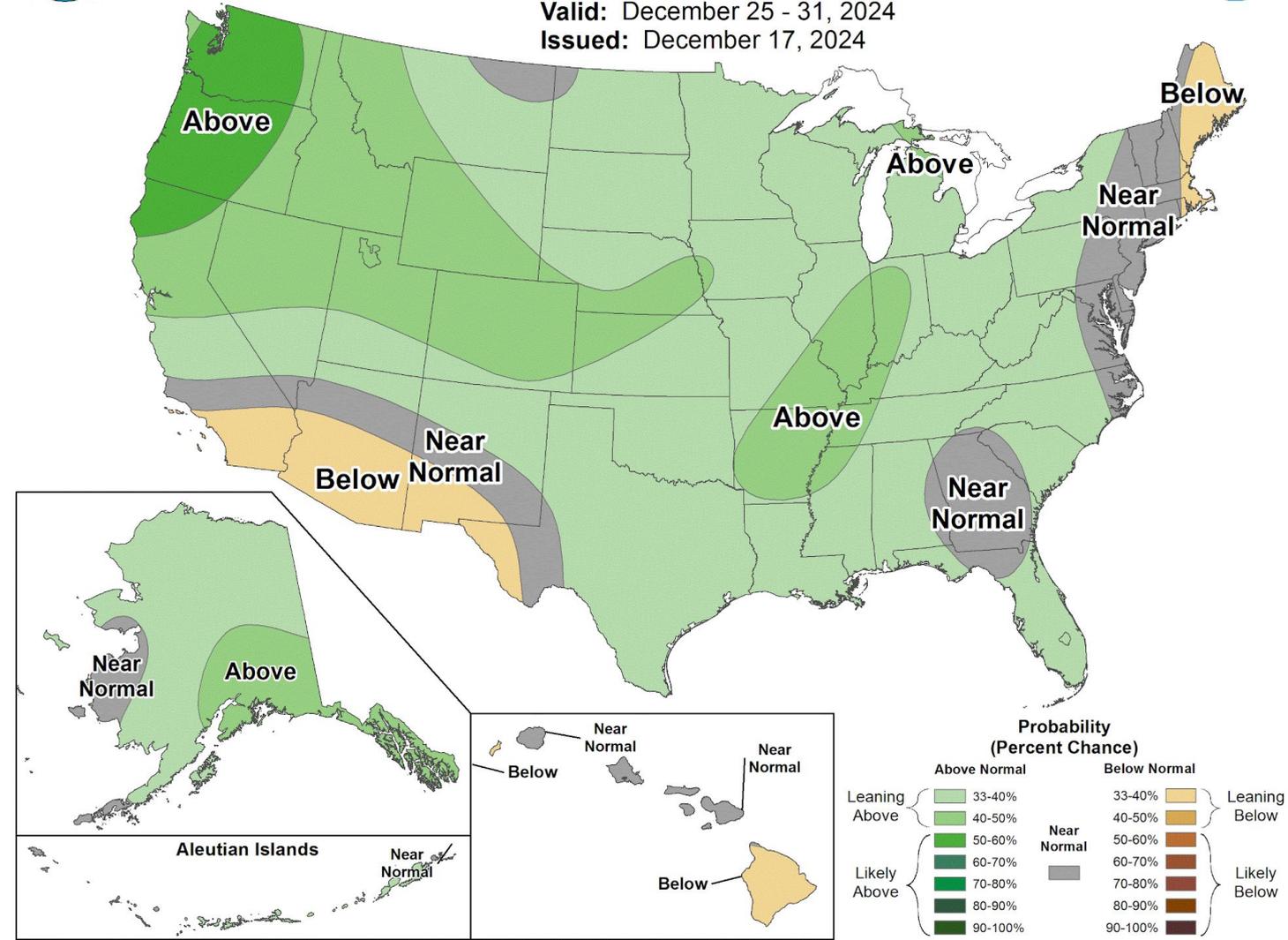
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Issued: December 17, 2024



8-14 Day Precipitation Outlook



Valid: December 25 - 31, 2024
Issued: December 17, 2024





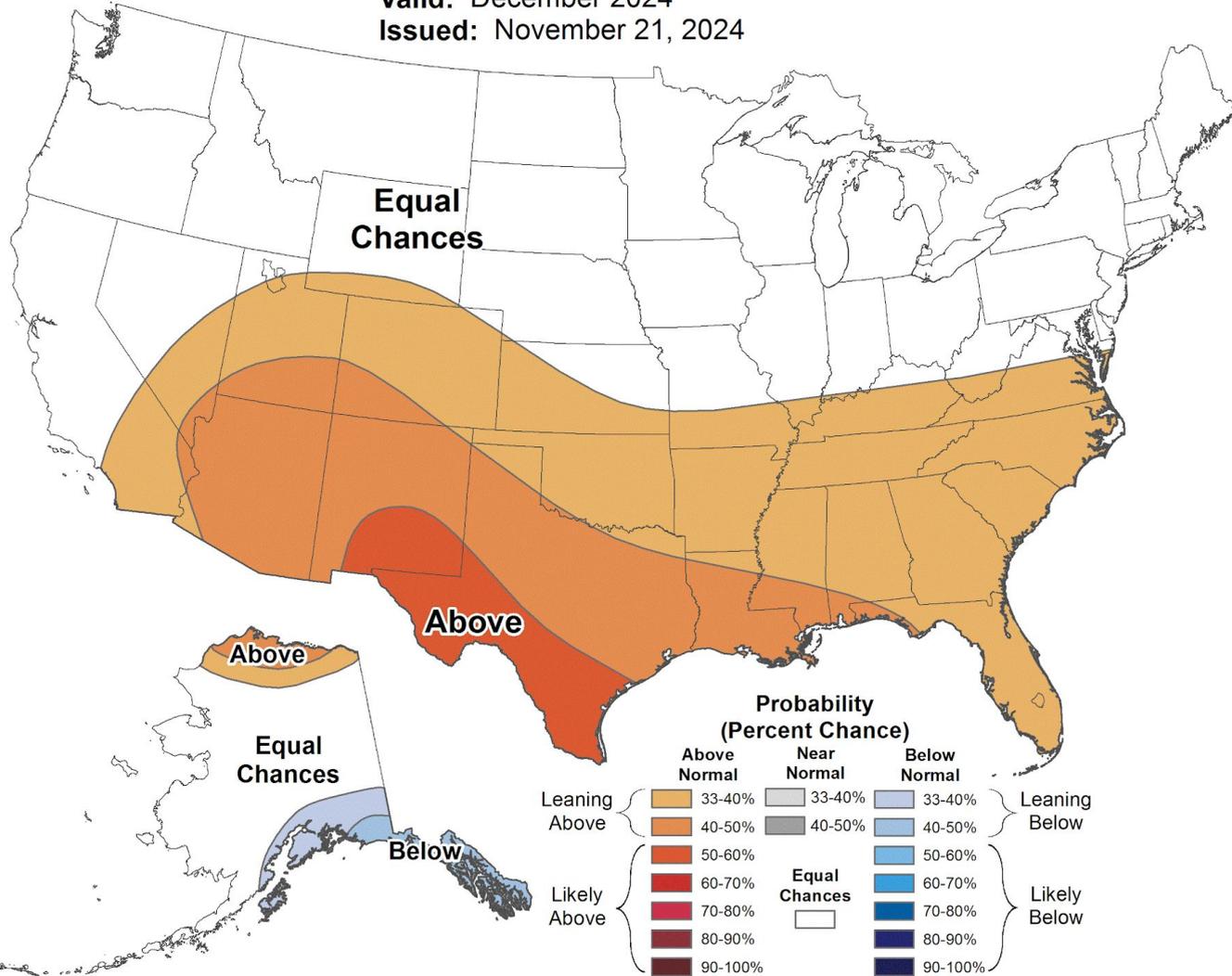
Monthly Temp & Precip Outlooks



Monthly Temperature Outlook



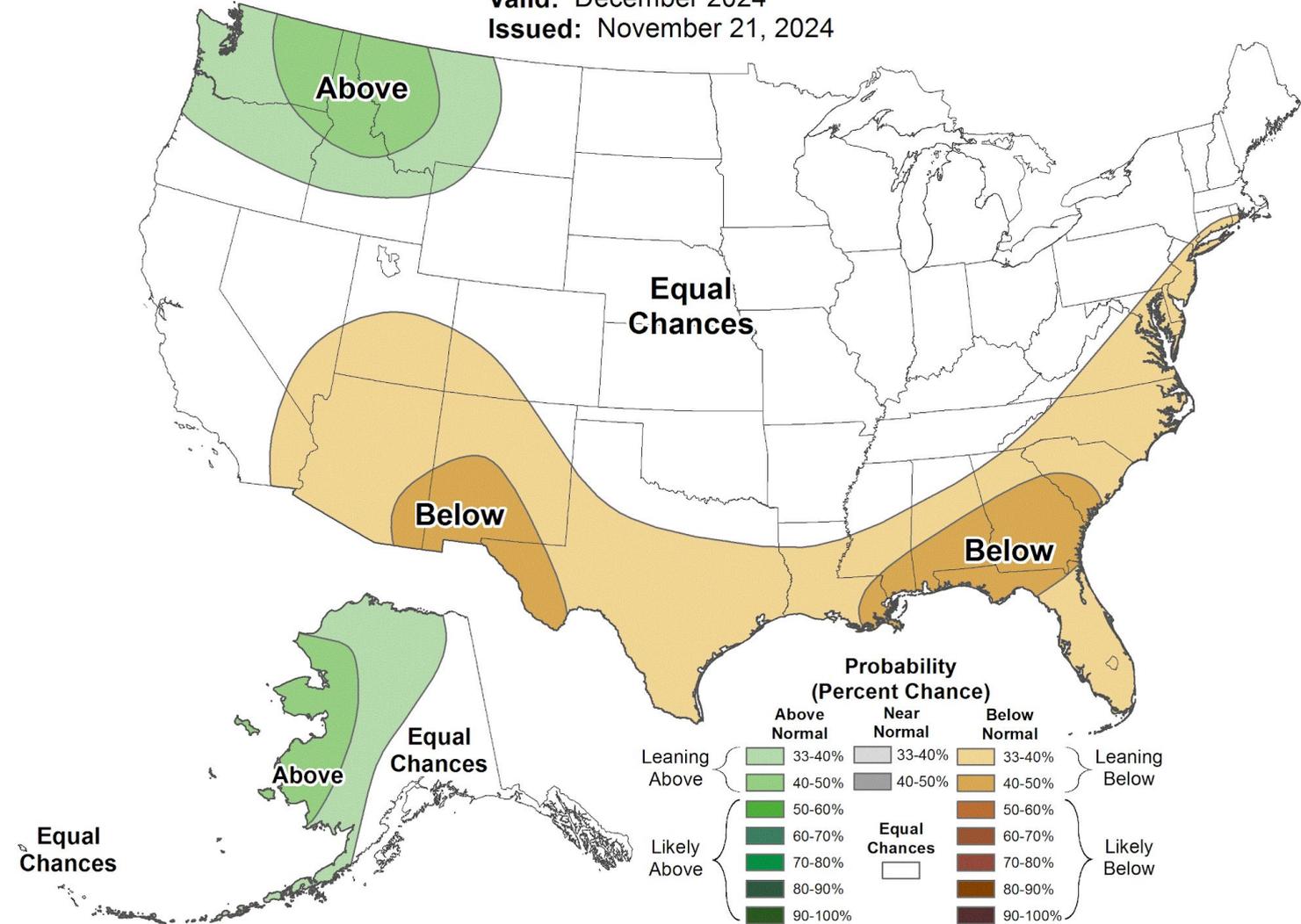
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Issued: November 21, 2024



Monthly Precipitation Outlook



Valid: December 2024
Issued: November 21, 2024





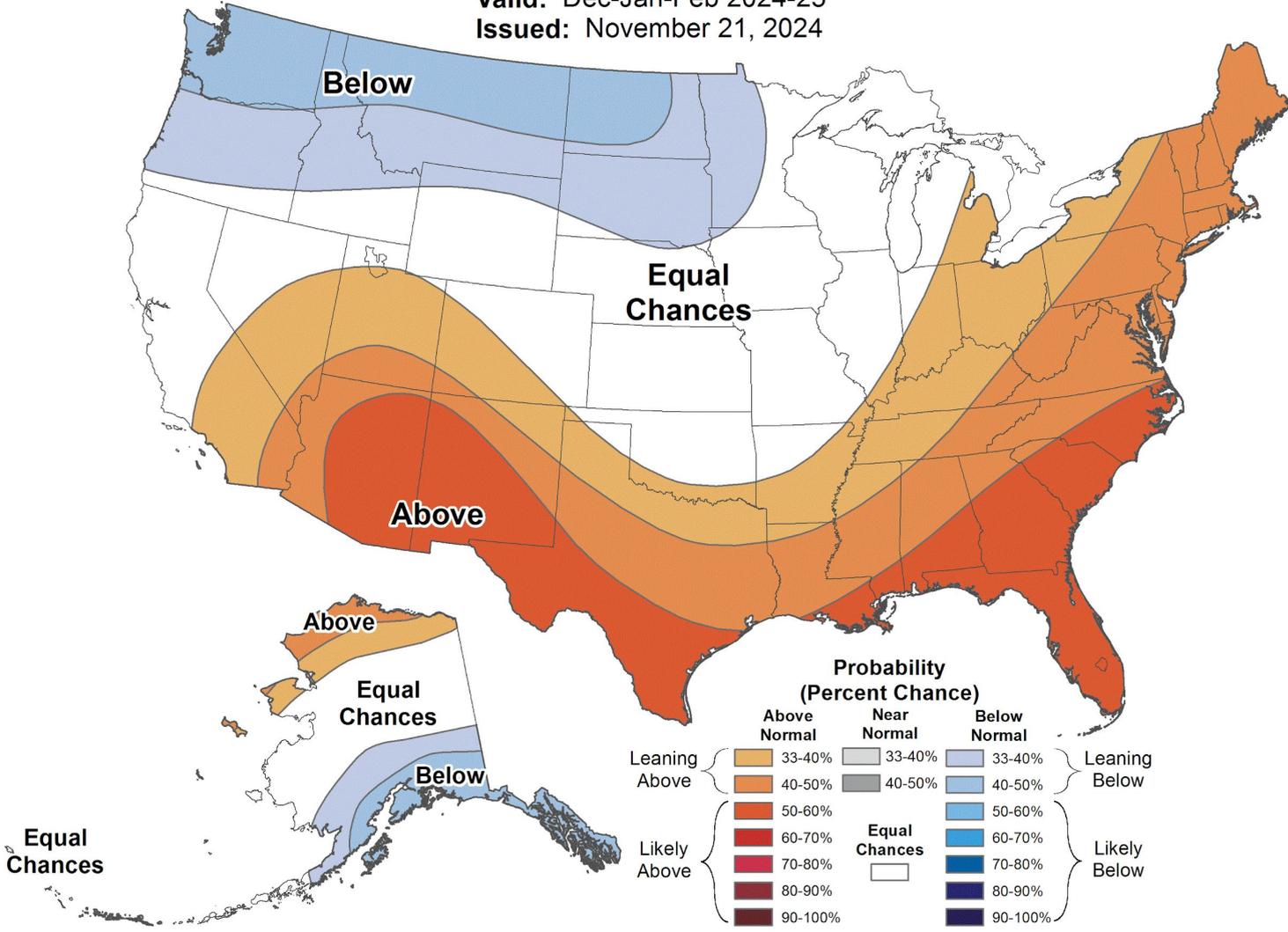
Seasonal Temp & Precip Outlooks



Seasonal Temperature Outlook



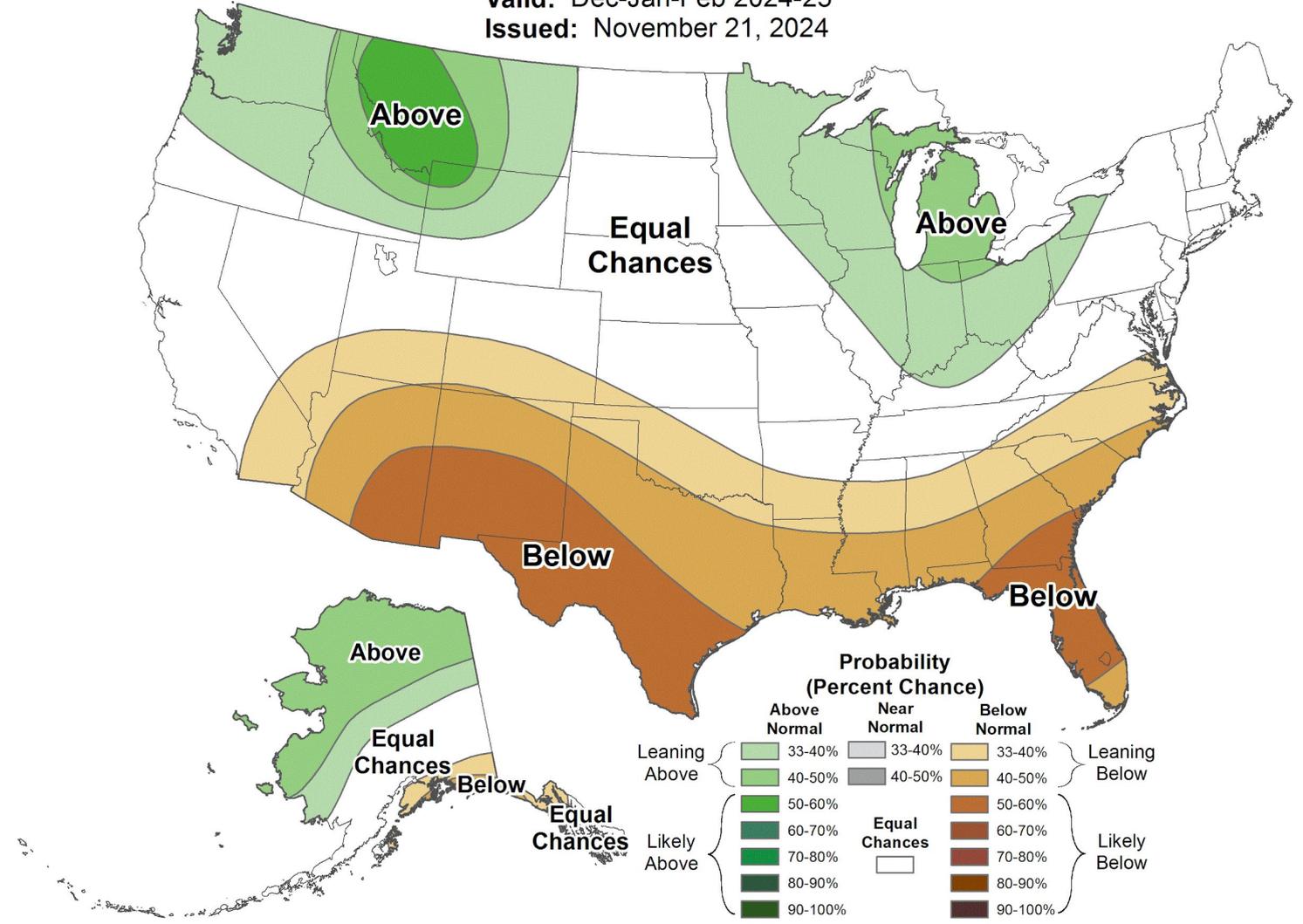
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Issued: November 21, 2024



Seasonal Precipitation Outlook



Valid: Dec-Jan-Feb 2024-25
Issued: November 21, 2024



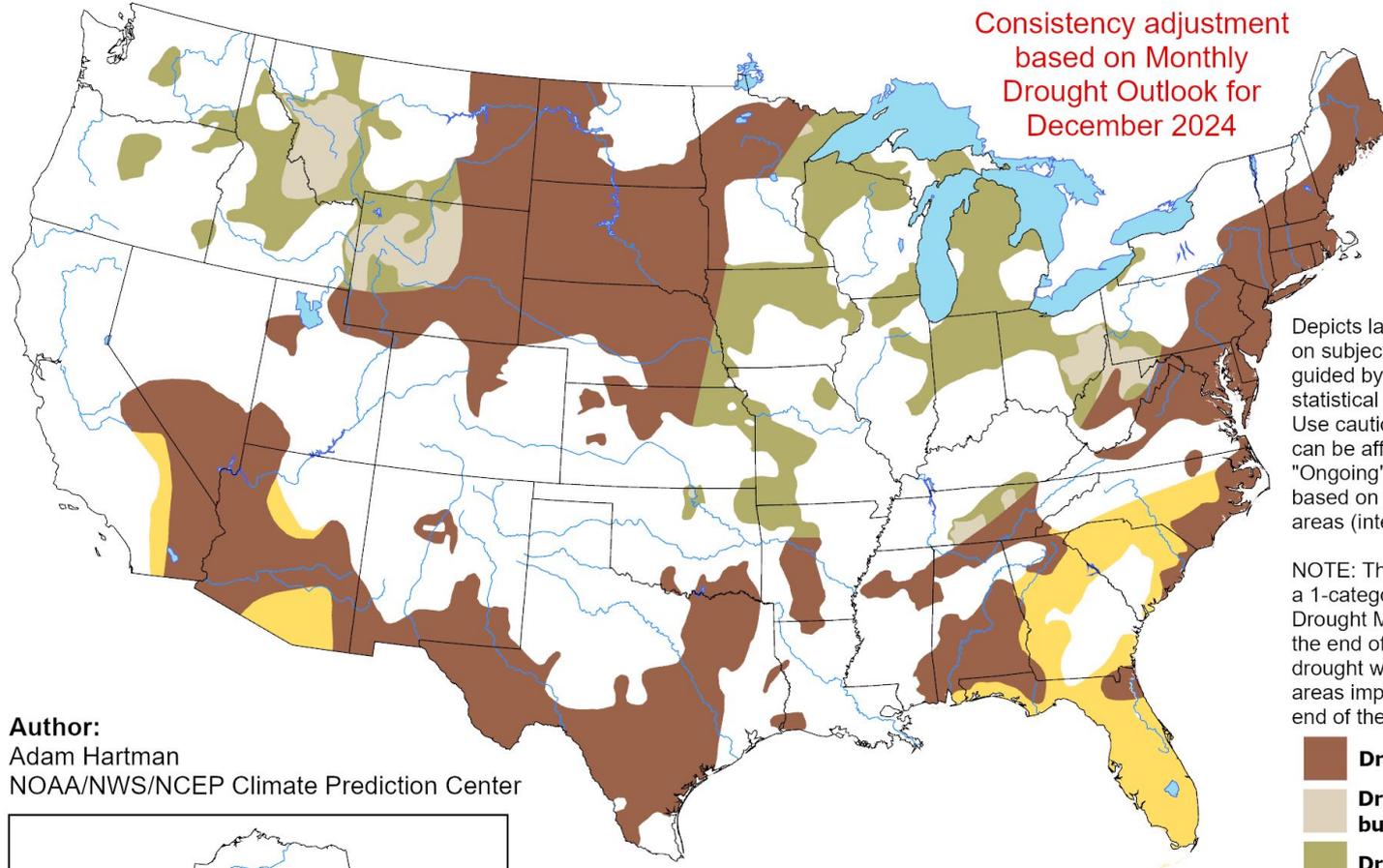


Seasonal Drought Outlook

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for December 1, 2024 - February 28, 2025
Released November 30, 2024

Consistency adjustment
based on Monthly
Drought Outlook for
December 2024

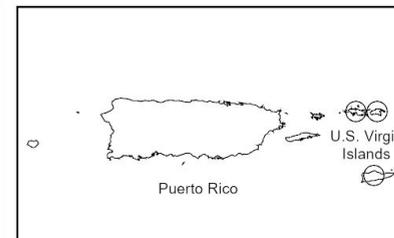
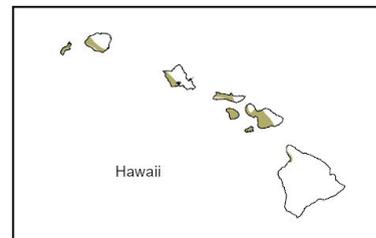


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

- Drought persists**
- Drought remains, but improves**
- Drought removal likely**
- Drought development likely**
- No drought**

Author:
Adam Hartman
NOAA/NWS/NCEP Climate Prediction Center



<https://go.usa.gov/3eZ73>



Spring Flood Outlook Dates

2025

December 17, 2024
3:15 PM

- Thursday, February 13, 2025 - Outlook #1
- Thursday, February 27, 2025 - Outlook #2
- Thursday, March 13, 2025 - Outlook #3

Will be available on NWS local office Websites by 4 pm each day



National Oceanic and
Atmospheric Administration

U.S. Department of Commerce

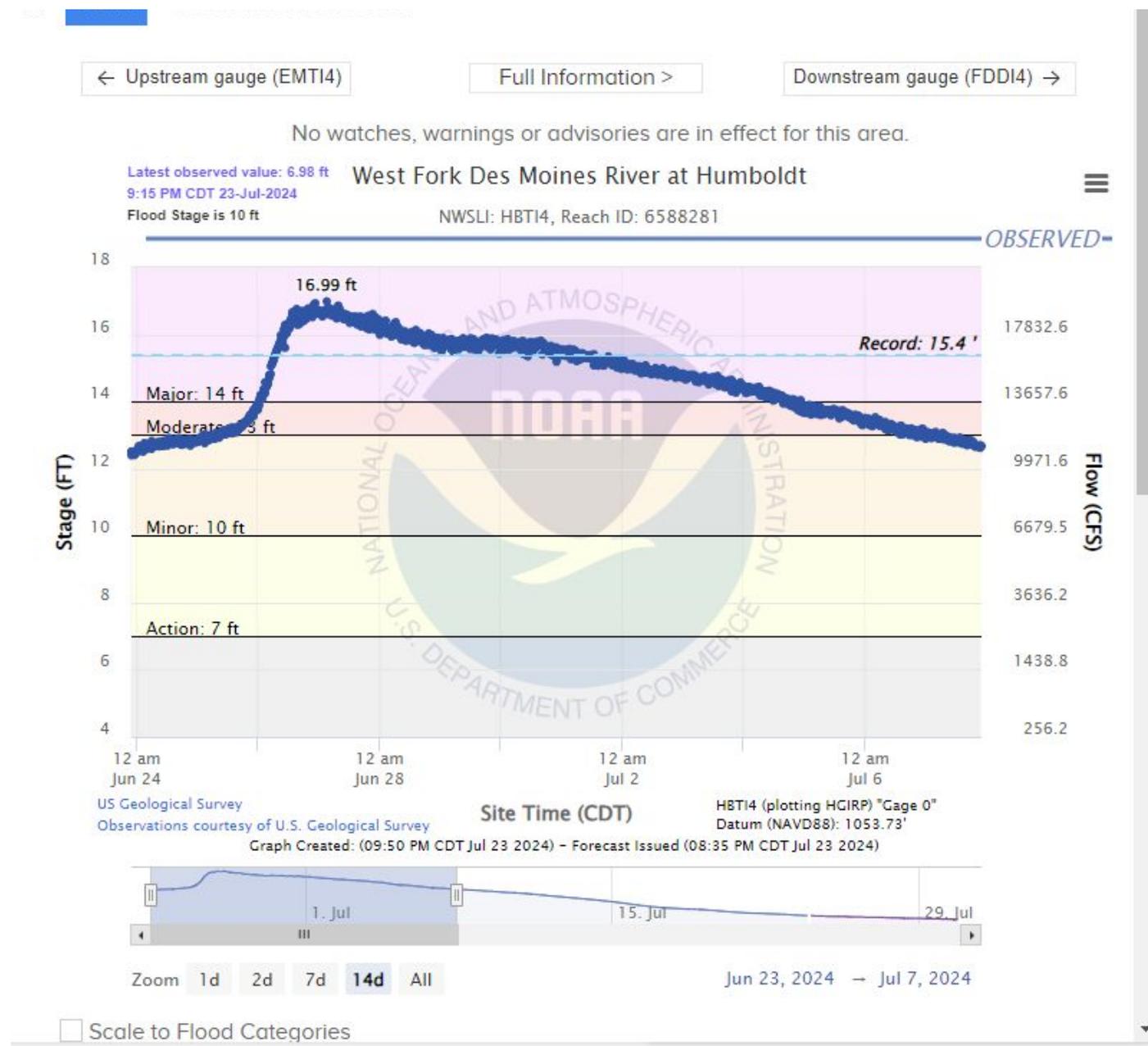
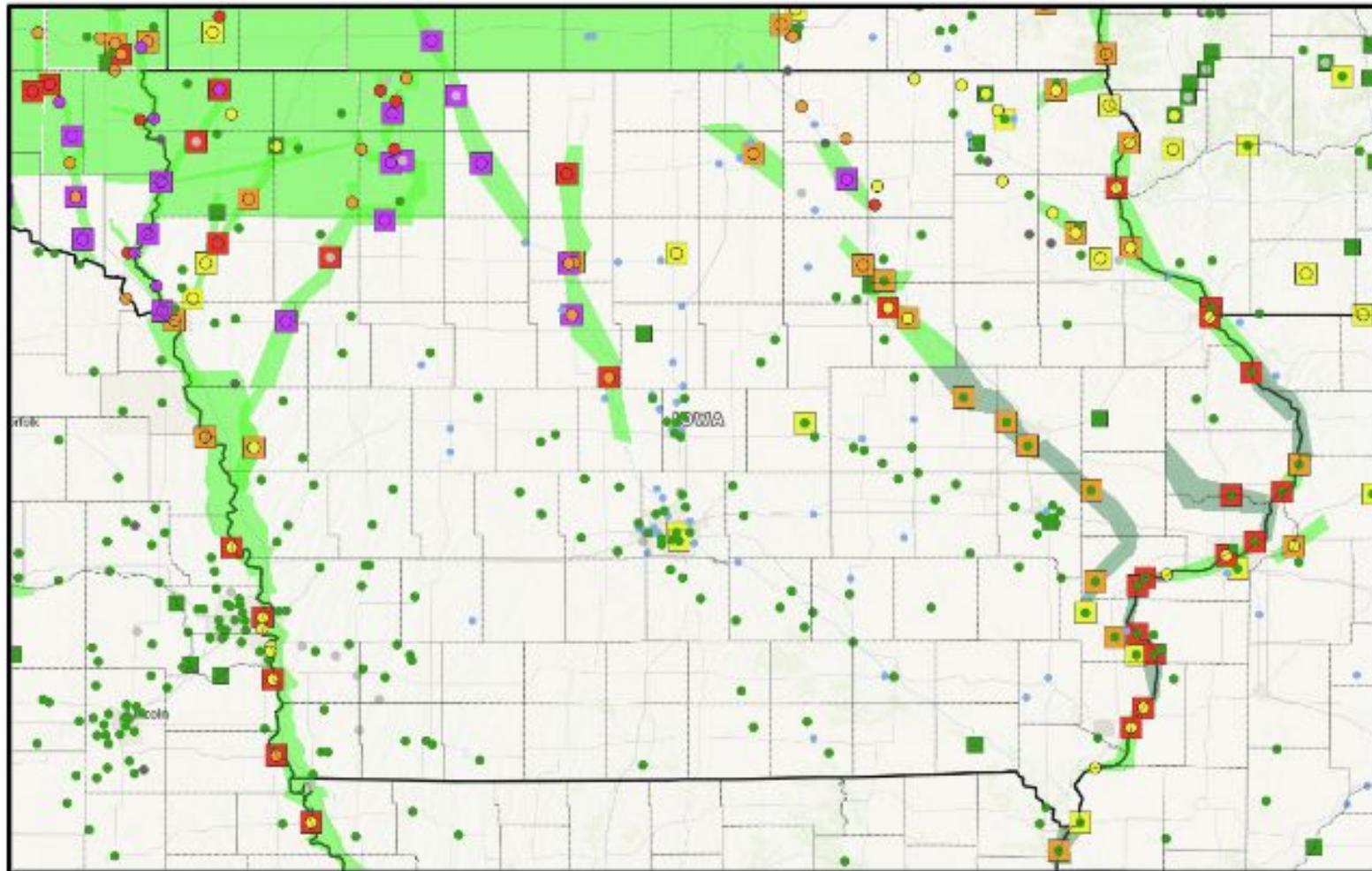
National Weather Service
Iowa



Latest Waterway Observations & Forecasts

National Water Prediction Service (NWPS)

- Visit weather.gov/desmoines/water.
- More information at weather.gov/desmoines/nwps info.





For the Most Recent Forecast

- For the most recent information for your area please visit <http://weather.gov/desmoines> and enter your location.

Bookmark this page and/or resultant URL for further updates. This will always be the latest information.

The screenshot shows the National Weather Service website for Ames, IA. The page includes a search bar, navigation menu, and news headlines. The current conditions for Ames Municipal Airport (KAMW) are displayed as "Fair and Breezy" with a temperature of 34°F (1°C). The extended forecast shows a "Wind Advisory" for today, followed by a period of mostly sunny and clear weather through Sunday night, with a 30% chance of snow on New Year's Day.

Day	Forecast	High/Low
Today	Mostly Sunny and Windy	High: 36 °F
Tonight	Mostly Clear and Windy	Low: 21 °F
Friday	Mostly Sunny	High: 33 °F
Friday Night	Mostly Cloudy	Low: 26 °F
Saturday	Mostly Sunny	High: 31 °F
Saturday Night	Mostly Clear	Low: 18 °F
New Year's Day	Mostly Sunny	High: 35 °F
Sunday Night	Mostly Cloudy then Chance Snow	Low: 27 °F



Additional NWS Information



Web: weather.gov/desmoines



Facebook: facebook.com/NWSDesMoines



Twitter/X: [@NWSDesMoines](https://twitter.com/NWSDesMoines)

Latest waterway observations & forecasts: weather.gov/desmoines/water

Past precipitation information/estimates: weather.gov/desmoines/pastprecip

Decision support information: weather.gov/dmx/dsscurren





Thank You



For questions & additional information:
NWS Des Moines, IA
weather.gov/desmoines
Phone: 515-270-4501



Agricultural Drainage Well (ADW) Closure Program Update

Michael L. Bourland, P.E.

Division of Soil Conservation and Water
Quality

IOWA DEPARTMENT OF
**AGRICULTURE &
LAND STEWARDSHIP**



Agricultural Drainage Wells

In areas of north-central Iowa, land is drained by means of agricultural drainage wells. These wells may drain both surface water and tile-drainage water into deeper aquifers below (Figure 18). These aquifers also serve as a primary source of drinking water in the areas with agricultural drainage wells. Studies have shown that the wells are delivering sediment, nitrogen, and pesticides to the groundwater and are affecting the drinking water supplies of nearby users.

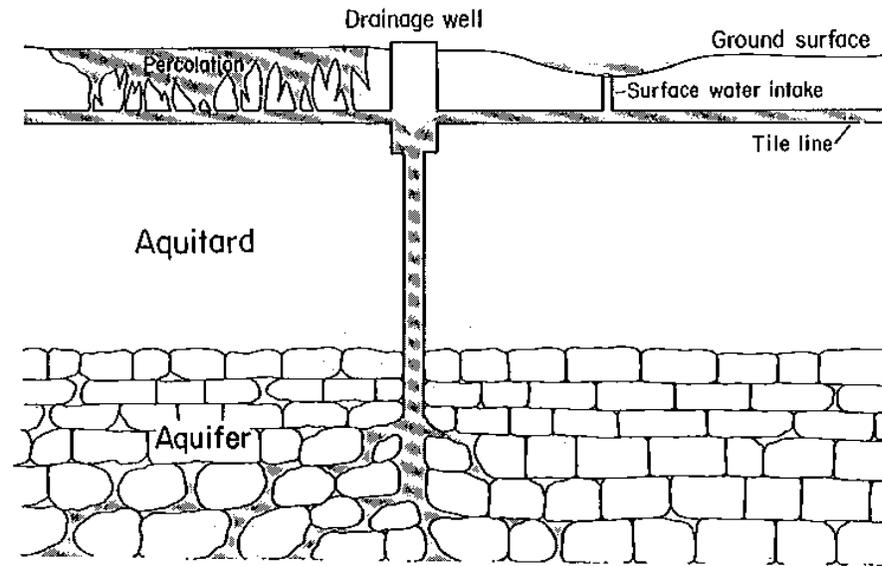


Figure 18. Schematic Diagram of Agricultural Drainage Well.
Source: Glanville, 1985.



Background

IAC 27 – 30.20

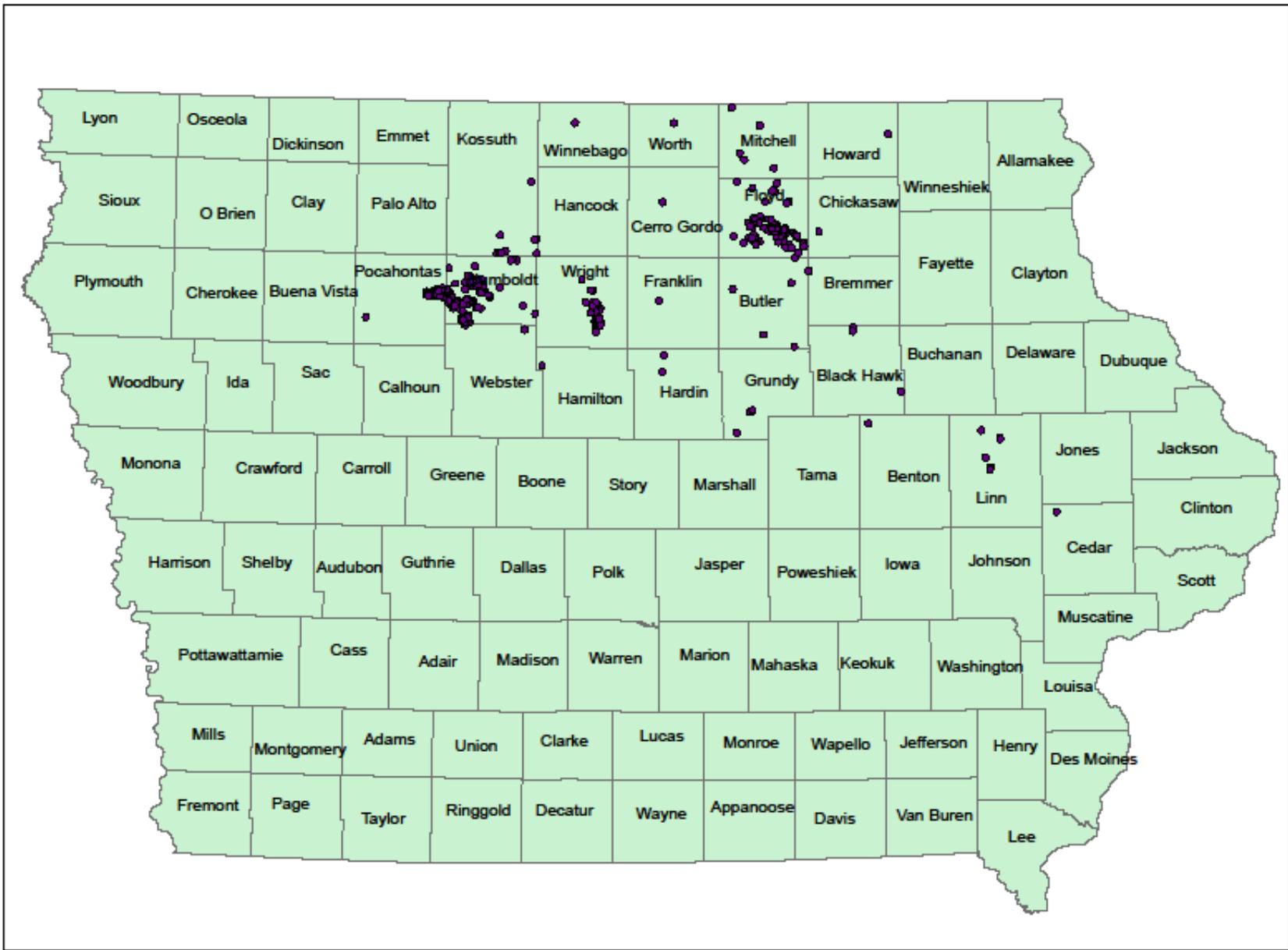
“Agricultural Drainage Well” means a vertical opening to an aquifer or permeable substratum which is constructed by any means including but not limited to drilling, driving, digging, boring, augering, jetting, washing, or coring, and which is capable of intercepting or receiving surface or subsurface drainage water from land directly or by a drainage system.



Program History

- ADWs constructed from early to mid 1900's in north central Iowa because of the cost of extending tile to a gravity outlet.
- Iowa Groundwater Protection Act passed in 1987 requiring all ADWs to be registered with IDNR and directed IDALS to study both continued use and closure of ADWs.
- First year of study completed at research farm in Pocahontas County outside Gilmore City in 1989.





Scope of Program

- IDALS contracted engineering studies of all ADWs in state to determine cost of closure and providing alternative drainage with several engineering firms in the 1990's.
- A summary report was completed in 1999 that collated and normalized the different studies. A total of 293 ADWs were combined into 84 projects concluding that a total cost of \$41.6M to close these ADWs with a potential additional cost of \$18M for wetland mitigation.



ADW Inventory

- Total of 300 total ADWs reported or found.
- 28 ADWs closed by landowner or determined to be non-functioning or natural sink holes prior to 1999.
- 76 ADWs closed with cost share money prior to 1999.
- 16 additional ADWs closed by applicants without any cost share assistance.
- 186 continued use permits issued by IDNR in 1999 and 2000 with 4 others discovered while working on other closure projects.



Continued Use of ADWs

- Continued use permits issued by IDNR in late 1990s for 10- year period with three requirements:
 - 1) All surface intakes had to be removed.
 - 2) All well heads had to be protected with covered cistern.
 - 3) Any septic lines going to tile drained by ADW had to be disconnected.
- Continued use permits reissued in 2009 and 2010 unless already closed.



State Funding for ADW Closures

- Cost share provided at 75% for the most cost- effective means of conveyance based on the engineer's estimate or actual costs, whichever is less. Cost share provided for legal, engineering, construction, land damages, wetland mitigation, and interest.



ADW Closure Appropriations

- IDALS received initial appropriation of \$1.5M in both FY1998 and FY1999 and then subsequent appropriations ranging from \$0.5M to \$2.2M, including some years with \$0 as well as de-appropriations totaling \$1.6M in FY2001 and FY2002 .
- Last appropriation of \$1.86M received in FY2021.
- Appropriations received total \$25.9M along with total accrued interest of \$2.1M for total of \$28M



Implementation

Challenges

- Some projects expensive even with 75% cost share
- Open channel more cost effective than large diameter tile but not desirable by producer
- Wright County Drainage District with DeCoster Farms and determining their eligibility to receive cost share
- ADWs in areas with shallow limestone
- ADWs closed privately and working with neighbors



Implementation

Allowing Wetland Creation

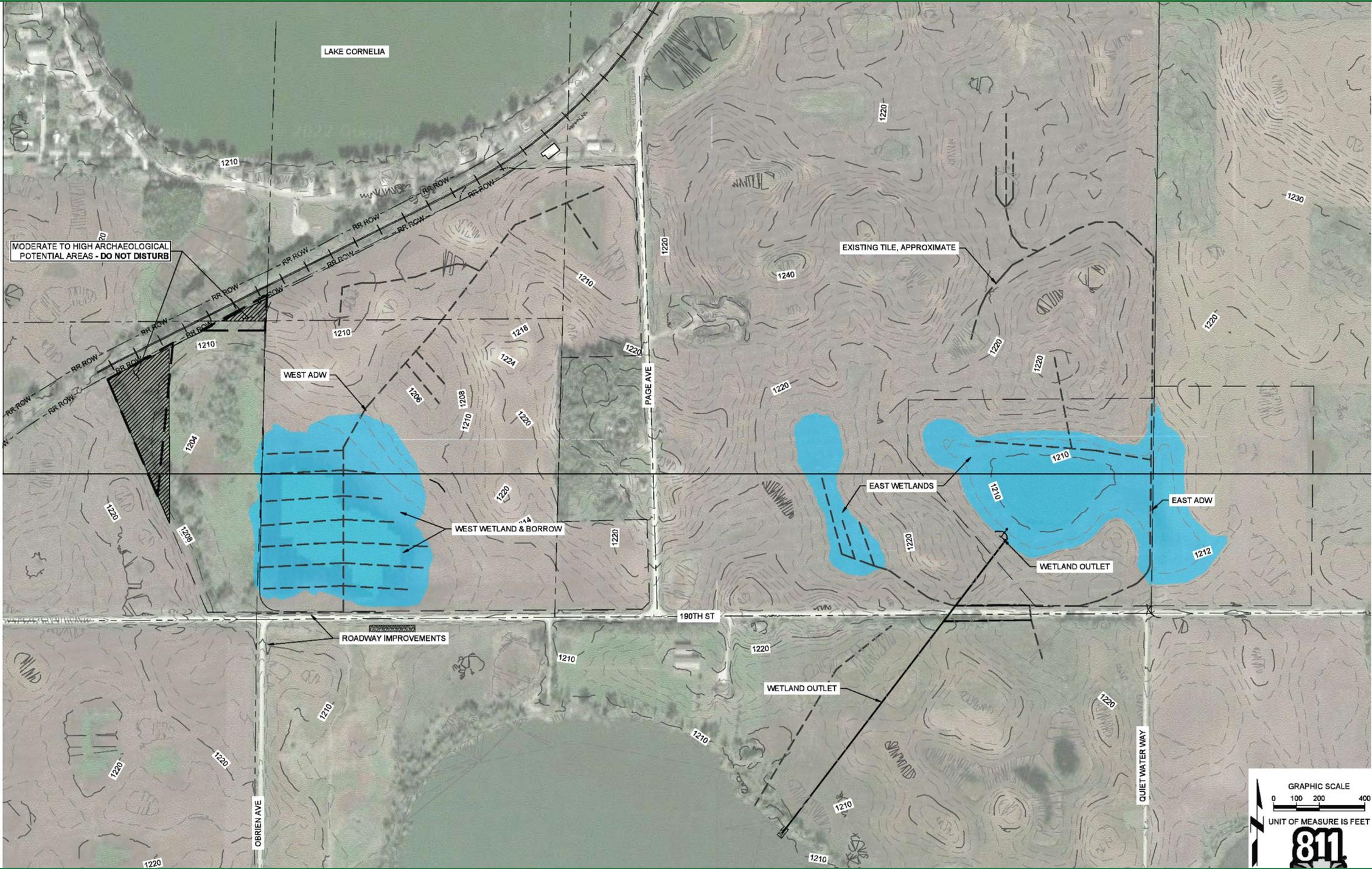
- Modified IAC 27 to allow for closure of ADWs and creation of wetlands.
- Two projects proceeded with wetlands.
- Partnered with Iowa Agriculture Mitigation to use created wetlands as mitigation bank for farmed wetlands.



Wright County ADW Closure-Wetland Creation

- Closes 2 ADWs and creates 23 acres of farmed wetland mitigation credits
- Total of 113 acres in permanent easement
- Construction contract for \$0.5M has been completed
- Three properties owners, along with Secondary Roads, required for approval (not in drainage district)

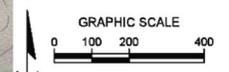




**CONSTRUCTION PLANS FOR
AG DRAIN WELL CLOSURE
WRIGHT COUNTY, IOWA
IOWA AGRICULTURAL MITIGATION, INC**

SITE OVERVIEW

PROJECT NO.	181939.00
DATE	1/5/2024
DRAWN BY	JAA
FILE NAME	S-181939.00-DG/IRX.dwg
FIELD BOOK	115 MISC
FIELD CREW	DJJ
SURVEY FILE NO.	SA-181939.00-1.tpo
PLAN IN HAND	CDR
INITIALS	CDR
DATE	01/02/22
75 PERCENT REVIEW	JAS
INITIALS	JAS
DATE	03/24/2022
85 PERCENT REVIEW	CDR
INITIALS	CDR
DATE	11/01/2022
REVISIONS	

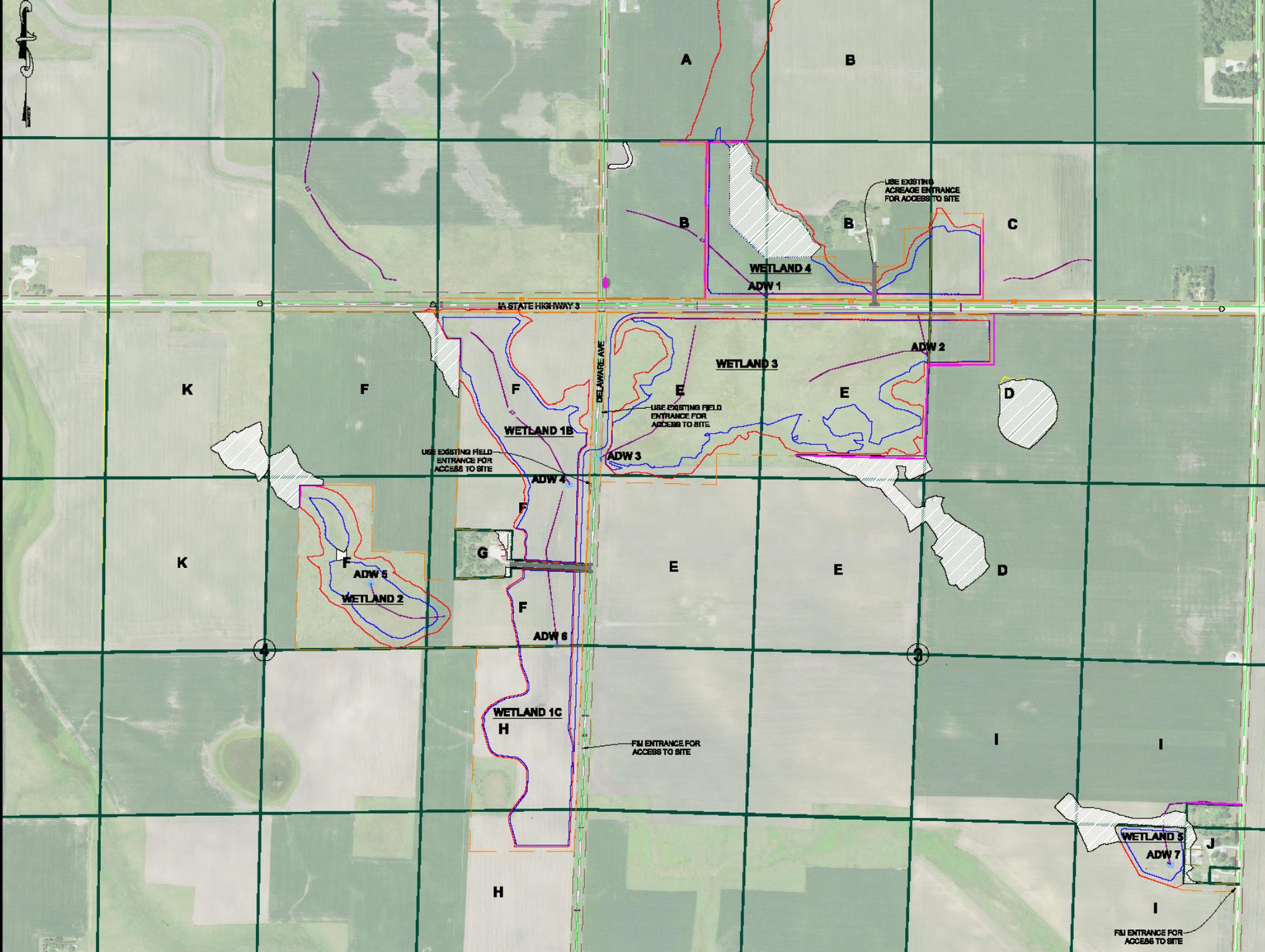


File: S:\181939.dwg, Plot: 181939-00-1.tpo, Date: 1/5/2024, Time: 10:00:00 AM, User: JAA

Humboldt County ADW Closure-Wetland Creation

- Closes 7 ADWs and creates 137 acres of farmed wetland mitigation credits
- Total of 230 acres in permanent easement
- Construction contract for \$2.25M has been completed
- Eight properties owners, along with IDOT and Secondary Roads, required for approval (not in drainage district)





- EXISTING CONTOURS
- PROPOSED CONTOURS
- PERMANENT EASEMENT
- PERMANENT POOL
- 100-YEAR STORM
- TOPSOIL FILL AREAS (OUTSIDE EASEMENT)
- Ⓜ EXISTING ADW TO BE CLOSED
- EXISTING TILE/CULVERTS
- PROPOSED INSPECTION TRENCH

JACOBSON - WESTERGAARD & ASSOCIATES, INC.
 105 S. SIXTH ST. ESTHERVILLE, IA
 E-MAIL: jacobson@westergaard.com
 PHONE: (712) 382-2647 Toll Free (888) 447-7633
 CONSULTING ENGINEERS



REVISIONS	BY	DATE

HUMBOLDT ADW CLOSURE & WETLAND CREATION
HUMBOLDT Co., IOWA

INSPECTION TRENCH LOCATION PLAN

- CONSTRUCTION NOTE**
- CONTRACTOR SHALL COORDINATE WITH ENGINEER FOR PERIODIC INSPECTION. DURING TILE INVESTIGATION ANY TILE LOCATED SHALL BE MARKED AND REFERENCED FOR ENGINEER TO GATHER LOCATION, DEPTH, AND SIZE OF TILE.
 - INSPECTION TRENCH LOCATIONS SHALL BE WITHIN PERMANENT EASEMENT WHEN POSSIBLE.
 - LANDOWNERS G AND J HAVE BASEMENT FLOOR DRAINS. INSPECTION TRENCHES WILL ALSO BE COMPLETED AS DIRECTED BY ENGINEER TO VERIFY THEY DO NOT DRAIN TO TILE TO BE REMOVED.

Date	By	Checked	Checked
7/5/23	JLR	JLR	DLH

Total IDALS Closure of ADW by County

County	Closed using ADW Closure Assistance Fund	Closed with WRP, WIRB, private funds
Pocahontas	51	
Wright	34	2
Humboldt	93	
Grundy	2	
Floyd	8	3
Kossuth	5	
Webster	1	1
Butler	1	1
Totals	188	7



Program Statistics

- Total Cost for 41 Projects closing 1 to 37 ADWs
\$36,000,000 (estimated)
- Total Payout by IDALS for Cost Share and Easements for Wetland Projects
\$23,500,000 (estimated)
- Average Cost paid by IDALS per ADW (195 total) closed with ADW Assistance Fund
\$120,500 (estimated)



Program Wrap-Up

- Final Inspection of Wetland Sites and Seeding Emergence
- Iowa Agricultural Mitigation Inc working with NRCS to certify mitigation wetland banks and credits

