

39th meeting of the
IOWA FREIGHT ADVISORY COUNCIL

December 16, 2022
10:00 AM to 2:00 PM
Courtyard by Marriot
2405 SE Creekview Dr, Ankeny, IA 50021

Meeting input objectives

1. Provide questions and comments for Iowa DOT related to the upcoming legislative session.
2. Provide comments on state freight plan implementation activities.
3. Discuss ongoing inland waterway challenges and identify any actions moving forward.

10:00 AM Safety Briefing

Amanda Martin
Iowa DOT

Welcome & Introductions

Ice breaker: Provide any comments, updates, notable items, etc. related to your business since the last meeting.

Mike Steenhoek, Chair
Soy Transportation
Coalition

10:30 AM Iowa DOT Update

General update from the Department, including the 2023 legislative session and continued implementation of the Infrastructure Investment and Jobs Act (IIJA) by Iowa DOT and FHWA.

Stu Anderson
Iowa DOT

10:55 AM Iowa DOT Freight Update

Updates on the FAC Chair and Vice Chair positions, FAC membership, and implementation of the Iowa State Freight Plan.

Sam Hiscocks
Iowa DOT

11:10 AM AG Processing (AGP)

Overview of current soybean processing trends and activities, including growing markets, new facilities, and expanding exports.

Craig Pietig
AGP

12:00 PM Lunch

1:00 PM Panel: Inland Waterways

A discussion of the current status of the inland waterways, including low water levels, impacts to navigation, harvest challenges, etc.

Mike Steenhoek, Chair
Soy Transportation
Coalition

- Justin Glisan, Iowa Department of Agriculture and Land Stewardship
- Thomas Heinold, U.S. Army Corps of Engineers
- Jeff Woods, Traverro

2:00 PM Adjourn

Future meetings:

- March 10, 2023
- June 16, 2023
- September 8, 2023
- December 15, 2023

39th meeting of the
IOWA FREIGHT ADVISORY COUNCIL

December 16, 2022
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Members

x	Mike Steenhoek (Chair), Soy Transportation Coalition	x	Jillian Walsh (Vice Chair), Travero
x	Gabe Claypool, Des Moines Industrial	x	Tom Determann, Clinton Regional Development
x	Greg Dickinson, Ten D, Inc. Companies	x	Jackson Doud, Iowa Farm Bureau
	Doug Martin, Amazon DSM5		Allison Meiners, Iowa Motor Truck Association
x	Delia Moon-Meier, Iowa 80 Group		James Niffenegger, Landus Cooperative
x	Joe Parsons, Iowa Interstate Railroad		Dan Sabin, Iowa Northern Railroad
	Jody Sandy, Hy-Vee	x	Reilly Vaughan, Agribusiness Association of Iowa
x	Marty Wadle, Ruan		Ron White, Artco Fleeting Service
	Tim Woods, Woods Development, LLC		

Ex-Officio Members

x	Zhi Chen, Des Moines MPO		Colonel Jesse Curry, USACE Rock Island District
	Andrew Goodall, USACE Rock Island District	x	Mike Hadley, Keokuk County Board of Supervisors
x	Mike Harrington, IDALS	x	Todd Valentine, Iowa DPS (for Michael Kober)
x	Sean Litteral, FHWA Iowa Division	x	Scott Marler, Director, Iowa DOT
	Tim Marshall, FHWA Iowa Division		Shirley McGuire, Federal Motor Carrier Safety
	Mike Norris, Southeast Iowa Regional Planning		Joseph Rude, IEDA
	Louis Vander Streek, Iowa Utilities Board	x	Jennifer Wright, Iowa DNR

Iowa DOT

x	Stu Andreson	x	Tom Bruun
	Mikel Derby		Brenda Freshour-Johnston
x	Jim Glaspie	x	Sam Hiscocks
x	Maria Hobbs	x	Alex Jansen
	Renee Jerman		Craig Markley
	Amanda Martin	x	Tammy Nicholson
x	Garrett Pedersen	x	Charlie Purcell
x	Sam Sturtz		Jeff von Brown
x	Caleb Whitehouse		

Guests

x	Justin Glisan, IDALS	x	Jeff Woods, Travero
x	Thomas Heinold, USACE	x	Craig Pietig, AG Processing
x	Paul Kirpes, Ten D, Inc. Companies	x	Will Feucht, AG Processing

Meeting input objectives

1. Provide questions and comments for Iowa DOT related to the upcoming legislative session.
2. Provide comments on state freight plan implementation activities.
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10:00 AM Safety Briefing

Tammy Nicholson
Iowa DOT

Welcome & Introductions

Ice breaker: Provide any comments, updates, notable items, etc. related to your business since the last meeting.

Mike Steenhoek, Chair
Soy Transportation
Coalition

- COO of Ruan voted Chairman of the ATA.
- Meier sees that people are tightening their belts financially. Same number of trucks at truck stops by spending is down.
- Determann introduces himself as a new house member.
- Hadley says that we need to look at increasing the gas tax and reexamining funding for the secondary roads.
- Harrington says IDALS is getting ready to become the regulatory body for electric vehicle charging infrastructure.
- Claypool says that concerns about the rail strike are not gone, and labor action will continue.
- Steenhoek says that his organization's focus was to avert the strike and that we are not out of the woods yet. Also, Steenhoek is focused on the low water level on the inland waterways.
- Marler thanks the FAC members for coming today. The DOT's perspective is focused on the next legislative session and budget request to the legislature. Three of five legislative proposals are related to CDLs.
- Vaughan thanks various people for leadership; mentioned heavier weight permit issue.
- Wright is appreciative of the roadway safety on the way to the meeting.
- Dickinson is concerned today about the safety of the roads for his company's trucks and the rail strike.
- Steenhoek returns to Mike Hadley and asks about concerns on the secondary road network. Hadley says that the Governor's annual waiving of weight limits on secondary roads for the harvest causes infrastructure to deteriorate. Steenhoek also stresses the impacts of inflation and difficulty finding workers.

10:30 AM Iowa DOT Update

General update from the Department, including the 2023 legislative session and continued implementation of the Infrastructure Investment and Jobs Act (IIJA) by Iowa DOT and FHWA.

Stu Anderson
Iowa DOT

Anderson says that 40 percent of the funding increase from IIJA/BIL has been negated by inflated prices on projects that were already in the Five-Year Program. Recent lettings have done okay, but the biggest lettings are still incoming. DOT is expecting increased revenue next year from the increase in car prices.

Federal Funding Update

Operating on a continuing resolution until 12/16 (House and Senate gave it a one-week extension) with full appropriation anticipated by 12/23.

INFRA, no Iowa awards

Mega/Rural, Still waiting on announcement for:

- Iowa 9 Lansing – Mississippi River Bridge replacement
- I-380 – Wright Brothers Boulevard
- US 63 Super-2 in Tama County

RAISE, 2022 announced in September:

- Waterloo Construction: La Porte Road Revitalization
- Dubuque Planning Study: Rebuilding Bridges to Employment and Equity
- Muscatine Planning Study: Developing Connection: Isett Avenue and Cypress Street Reconstruction

Safe Streets and Roads for All (SS4A)

- A lot of local jurisdiction applications to develop safety action plans.
- Expected announcement soon.

CRISI (Rail Infrastructure) – Several applications from Iowa railroads were submitted.

Railroad Crossing Elimination Program – Several applications were submitted by Iowa communities.

2023 Legislative Session

FY 2024 Budget

Potential Legislative Priorities

- Overweight permits in special or emergency situations
- Federal CDL compliance
- Driver's Education – Behind-the-wheel instructors to provide final driver's education drive test
- CDL Third-Party tester expansion
- Expansion of restricted CDL for agricultural purposes

All-Systems Overweight Permit

- Allows unlimited trips on non-Interstate highways (US and Iowa routes) and certain city and county roads at 12 percent over current maximum legal weight based on number of axles and distance.
- Cost: \$500 per truck and valid for 12 months from issuance.
- Valid for both divisible and non-divisible loads.
- Counties designate which roads that this permit will apply for.
- Different from existing All-Systems Oversize Permit.
- Both permits require individual cities and counties to determine which, if any, roads are allowed to be part of permitted travel.

Mike Hadley contests that the \$500 permit is not enough to offset the damage to the secondary roads. Alex Jansen responds that DOT wants to hear feedback on the fee to get the best possible return from the idea.

Steenhoek asks how this will change the Governor's annual harvest weight exemption proclamation. Jansen says that the Governor will likely continue issuing the weight exemption. Reilly Vaughan asks if the permit will be in the truck cab or a tag on the vehicle. Jansen says that it will be in the cab and electronic.

Anderson concludes his presentation by announcing that Craig Markley is retiring at the end of December. Craig couldn't make it to this meeting.

Updates on the FAC Chair and Vice Chair positions, FAC membership, **Iowa DOT** and implementation of the Iowa State Freight Plan.

Hiscocks announces that Mike Steenhoek will continue serving as Chair and Jillian Walsh will serve as Vice Chair. Hiscocks also announces a member refresh, giving everyone the opportunity to either continue on the group or privately back out of participating. Members who wish to step away are given the chance to nominate someone else from their organization to participate.

Additionally, all members are requested to submit suggestions for new members.

2023 meetings:

- March
- June
- September
- December

State Freight Plan

Hiscocks outlines 5 strategies from the State Freight Plan that DOT is focusing on.

1. Support the development and adoption of emerging freight technologies to increase safety and efficiency.

Operationalize Iowa's 511 data for truck drivers to receive in the cab.

2. Target investment to address mobility issues that impact freight movements.

Surveying districts for projects at bottleneck locations identified in the SFP.

3. Advocate for the funding and improvement of the inland waterway system.

Contributing funds agreement is seeking approval at USACE headquarters in DC.

4. Target investment in the Iowa Multimodal Freight Network (IMFN) at a level that reflects the importance of this system for moving freight.

Bottleneck relief.

5. Work with partners to address increasing truck parking demand.

DOT is looking at updating their truck parking study from 2018 using new data. There is also a bill going through congress now that includes a grant program to address truck parking.

Anderson refers to the SFP performance report that the “-13 truck parking spaces” could be misinterpreted as more truck parking is programmed for next year.

Steenhoek asks why truck parking isn't a private sector concern and completely a part of the private domain. Moon-Meier says that the issue is entirely a private sector concern. Moon-Meier says that DOT parking is focused on shorter stops and private truck stops are for overnight stops.

Steenhoek asks if other state DOTs are involved in truck parking. Moon-Meier says that other DOTs don't like spending money on truck parking. Anderson says that the focus of the DOT is on safety and truck parking stops improve safety. Litteral points out that truck parking backing up onto the ramps is a safety issue.

Hiscocks directs the FAC to look review the Annual Implementation and Performance Report and provide any comments via email following the meeting.

Steenhoek thanks the FAC for nominating him as chair and reiterates that he is open to suggestions for improvements or criticisms (topics, speakers, etc.).

11:10 AM AG Processing (AGP)

Overview of current soybean processing trends and activities, including growing markets, new facilities, and expanding exports.

**Craig Pietig
AGP**

Steenhoek introduces Craig Pietig to the group.

Pietig introduces himself and Will Feucht from AGP's Eagle Grove office.

- Iowa-based cooperative headquartered in Omaha.
- AGP has a heavy truck footprint in Iowa.
- Two new Iowa crush plants coming online: Shell Rock and Alta
- Previously, expansion in crush market was limited due to slow growth in animal feed. Recently, huge growth due to renewable fuels as animal feed demand is stable, biofuels industry is growing, and exports are decreasing.
- Renewable diesel is chemically identical to petroleum diesel.
- Noted a lot of demand driven by west coast.
- AGP port in Pacific Northwest is 1.5 hours to open water (One day shorter in/out than competing ports) which saves transportation costs.
- Southeast Asian countries are biggest customers because of transit time advantages compared to other producing countries (biggest export competitor is Argentina, but it takes them 2 additional weeks to come around tip of South America).
- Noted AGP Eagle Grove and Hastings, NE plants are embargoed by UP.
- Noted freight rates starting to come down with crude oil prices.
- Investment is "stroke of the pen economics," meaning progress in the industry can be undone with the stroke of a pen.

Lunch

1:00 PM Panel: Inland Waterways

A discussion of the current status of the inland waterways, including low water levels, impacts to navigation, harvest challenges, etc.

**Mike Steenhoek, Chair
Soy Transportation
Coalition**

- Thomas Heinold, U.S. Army Corps of Engineers
- Justin Glisan, Iowa Department of Agriculture and Land Stewardship
- Jeff Woods, Traverro

Heinold introduces himself to the group and explains the Rock Island District boundaries, which includes 12 locks and dams in Iowa and five river basins. USACE funding comes from energy and water funding, not transportation. The expansion of the Panama Canal has made using the inland waterways more and more economical in Iowa. Mississippi River navigation infrastructure is very old.

- 17 dams and 20 locks
- 582 miles of navigation channel
- 755 million tons of cargo

Industry encouraged lock closures in the summer of 2020 to inspect and repair locks. Heinold explains the maintenance and upgrades completed in the Rock Island District.

Glisan introduces himself to the group. Glisan is the only state climatologist at a state department of agriculture. 2022 was the 18th driest year for the state of Iowa since 1895.

Woods introduces himself to the group. Woods operates a barge facility in the Dubuque market. Woods welcomes all the snow we can get in order to raise the water level of the Mississippi River. Woods says the river may rise eight feet in Memphis by January. Woods notes that there has been low waters globally including the Rhine and Yangtze rivers.

Steenhoek opens the panel up to discussion. Steenhoek asks Woods to talk about how Travero was specifically impacted by the lower water level. Woods says they notice changes in shipping patterns to distribute commodities between modes, as well as increased shipping prices.

Steenhoek notes that while we can't do much to influence the weather, we can do things to change how we respond to the weather. Steenhoek asks the panelists how they communicate with each other and how they make decisions.

Glisan responds that there are climate models that incorporate periodic events such as la niña and el niño.

Heinold says that USACE has a weeks' notice of flood events when they can preemptively dredge the river. USACE received funding in late 2019 that allowed them to do the work they needed to keep the river open this year. In summary, Heinold says there is not much that USACE can do to predict flood or drought events within a single season.

Steenhoek pointed out that emergency flood relief from flood events can be used to respond to droughts after the fact.

Heinold says that contingency planning is not part of their annual budget. Flood relief is provided through supplemental funding. USACE can't be as forward looking as they'd like because of limitations imposed by congressional funding cycles.

Heinold asks Woods what Travero is planning to do to provide fertilizer due to inland waterway limitations. Woods says that their facility has a record number of railcars.

Marler asks Heinold about the USACE's stance on not building locks and dams on the lower Mississippi and if there is an overall plan for the inland waterways.

Heinold says there is a navigability study of the inland waterway system and USACE is taking steps to implement that plan. Heinold says there will be no other reexamination of the system until after the 1200' locks are built. USACE will require 20-30 years of analysis to make new determinations for future investments. The past flood events are not enough to make determinations in the grand scheme of things.

Vaughan asks Glisan about an 89-year drought cycle theory. Glisan says there is no scientific literature that supports it.

2:00 PM Adjourn

Future meetings:

- March 10, 2023
- June 16, 2023
- September 8, 2023
- December 15, 2023

IOWA DOT UPDATE

Iowa Freight Advisory Council

December 16, 2022



Topics

- Federal Funding Update
- 2023 Legislative Session

Federal Funding Update

- FY 2023 Appropriation
 - Operating under a continuing resolution until Dec. 16
 - House passed a one-week extension to Dec. 23
 - Senate action expected by Friday (if not already done)
 - Full appropriation anticipated by Dec. 23
- Discretionary Programs
 - INFRA/Mega/Rural
 - INFRA: Announced in September – no Iowa awards
 - Mega/Rural: Still waiting announcement
 - Iowa 9 Lansing – Mississippi River Bridge
 - I-380 – Wright Brothers Boulevard
 - US 63 Super-2 in Tama County
 - Expect another round of funding availability for INFRA/Mega/Rural to be announced in January

Federal Funding Update

- Discretionary Programs (continued)
 - RAISE
 - 2022 announced in September
 - Waterloo Construction: La Porte Road Revitalization (\$20.5 million)
 - Dubuque Planning Study: Rebuilding Bridges to Employment and Equity (\$2.3 million)
 - Muscatine Planning Study: Developing Connection: Isett Avenue and Cypress Street Reconstruction (\$2.0 million)
 - 2023 Notice of Funding Availability
 - Applications due Feb. 28, 2023
 - Safe Streets and Roads for All (SS4A)
 - A lot of local jurisdiction applications to develop safety action plans.
 - Expect announcement soon

Federal Funding Update

- Discretionary Programs (continued)
 - CRISI – Rail Infrastructure
 - Applications were due Dec. 1, 2022
 - Several applications from Iowa railroads submitted
 - Railroad Crossing Elimination Program
 - Applications were due October 4, 2022
 - Several applications were submitted by Iowa communities

2023 Legislative Session

- FY 2024 Budget
- Potential Legislative Priorities
 - Overweight Permits in Special or Emergency Situations
 - Federal CDL Compliance
 - Driver's Education – Behind-the-Wheel Instructors to provide final driver's education drive test
 - CDL Third-Party Tester Expansion
 - Expansion of Restricted CDL for Agricultural Purposes

All-Systems Overweight Permit

- Established in 2022 Legislative session
- Effective January 1, 2023
- Allows unlimited trips on **non-Interstate state highways** (US and Iowa routes) and certain city and county roads at 12 percent over current maximum legal weight based on number of axles and distance
 - 5 axle maximum: 89,600 pounds
 - 6 axle maximum: 100,800 pounds
 - 7 axle maximum: 107,520 pounds
 - Maximum axle weight of 20,000 pounds applies
- Cost: \$500 per truck and valid for 12 months from issuance
- Valid for both divisible and non-divisible loads

All-Systems Overweight Permit (cont.)

- Counties have until July 1, 2025, to identify which roads are included in permitted travel
- Counties that designate permitted roads receive a portion of the permit fee for bridge inspection, maintenance, repair, or construction.

All-Systems Overweight Permit (cont.)

- This is different from the already existing All-Systems Oversize Permit
- Both permits require individual cities and counties to determine which, if any, roads are allowed to part of permitted travel.
- The eligible city/county roads are different for the two permits
 - All-Systems **Overweight** Permit Map:
<https://iowadot.gov/mvd/motorcarriers/motorcarriers/All-Systems-Overweight-permit>
 - All-Systems **Oversize** Permit Map:
<https://iowadot.gov/mvd/motorcarriers/motorcarriers/systemmap>

All-Systems Overweight Permit Map

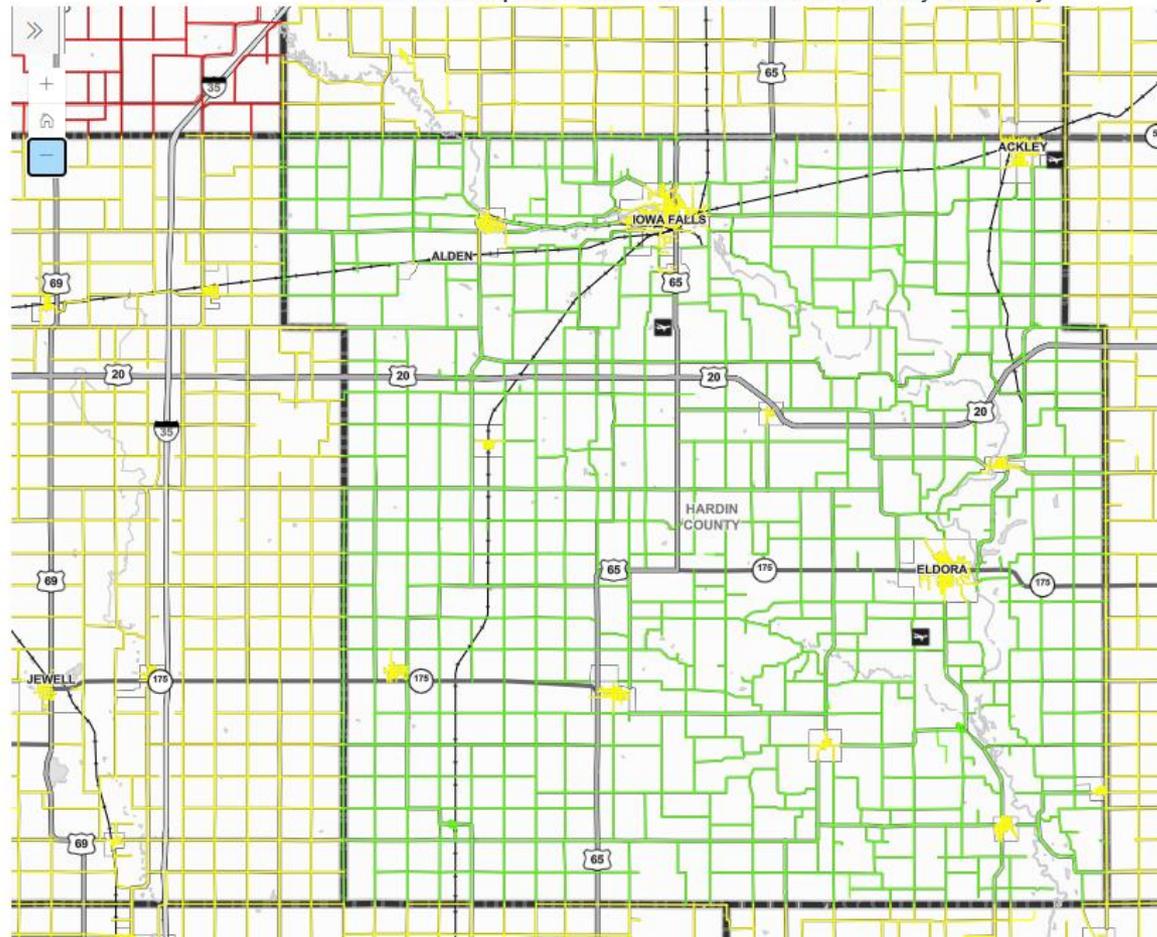
COUNTY/CITY ROUTES

— Restricted routes

— No restrictions

— Check with local contact - Not reported

Zoom in to the map to see restricted route details for each city and county



Questions?

Stu Anderson

stuart.anderson@iowadot.us

515-239-1661



Iowa DOT Freight Update

Freight Advisory Council | December 16, 2022



Freight Advisory Council

- Chair and Vice Chair
 - Mike Steenhoek, Soy Transportation Coalition
 - Jillian Walsh, Traverro
- Member refresh
- 2023 meetings
 - March 10th
 - June 16th
 - September 8th
 - December 15th

State Freight Plan implementation strategies

- (2) Support the development and adoption of **emerging freight technologies** to increase safety and efficiency.
- (10) Target investment to address **mobility issues** that impact freight movements.
- (12) Advocate for the funding and improvement of the **inland waterway system** and explore ways to expand Iowa's role.
- (16) Target investment in the **Iowa Multimodal Freight Network (IMFN)** at a level that reflects the importance of this system for moving freight.
- (19) Work with partners to address increasing **truck parking** demand.



ANNUAL IMPLEMENTATION AND PERFORMANCE REPORT | 2022

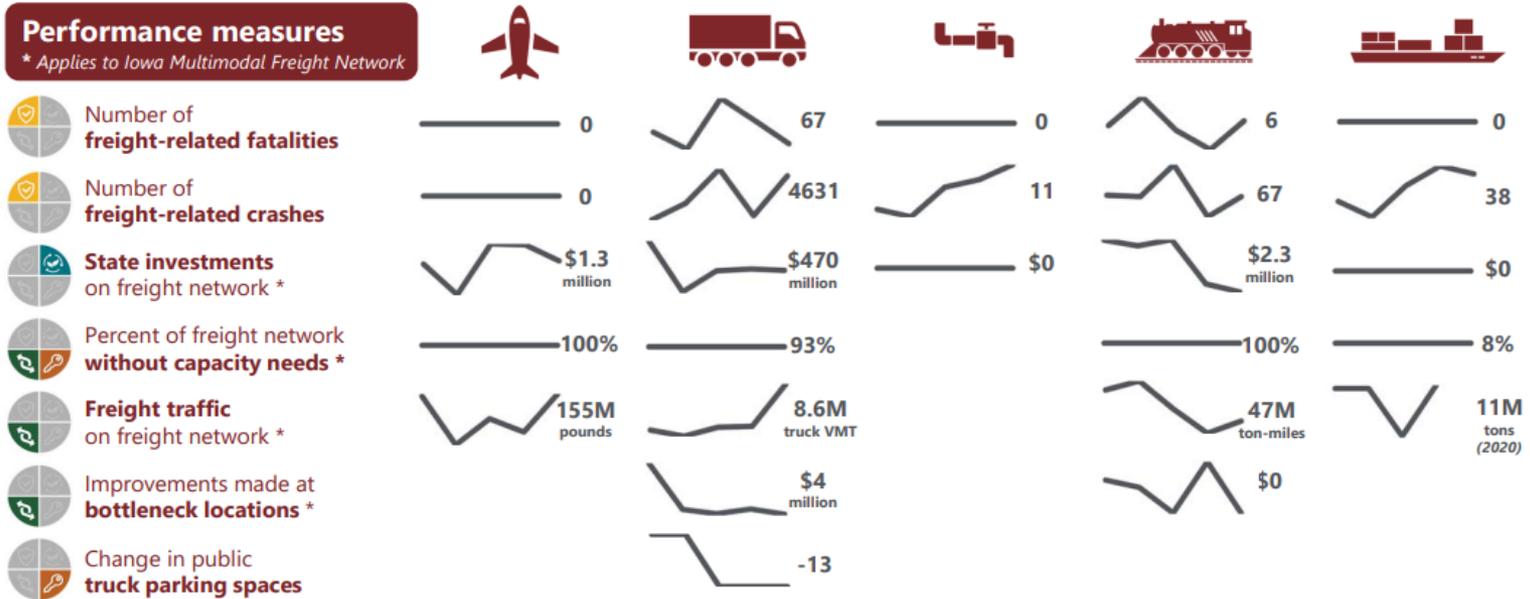


Noteworthy accomplishments

- The Iowa State Freight Plan (SFP) update was approved on August 18, 2022.
- The SFP Freight Investment Plan programs nearly \$87 million for freight projects over the next five years.
- Another round of the Linking Iowa's Freight Transportation System (LIFTS) program funding is being distributed.
- Implementation of the SFP improvements and strategies is now underway.
- The Iowa Freight Advisory Council continues to meet quarterly, focusing on pressing freight issues such as SFP development, labor, supply chain disruptions, Infrastructure Investment and Jobs Act, and other developing trends.

Performance measures

* Applies to Iowa Multimodal Freight Network



The trend line applies to the latest five-year period (2017-2021). The number applies to the latest annual figure (2021). See reverse side for performance measure descriptions.

FREIGHT UPDATE

IOWA IN MOTION 2050 STATE FREIGHT PLAN



Performance measure descriptions

** Applies to Iowa Multimodal Freight Network*

Number of freight-related fatalities

Includes fatalities resulting from aviation crashes; highway crashes; pipeline incidents (including leaks); railroad crashes and derailments; and waterway allissions, collisions, and groundings

Number of freight-related crashes

Includes aviation crashes; highway crashes; pipeline incidents (including leaks); railroad crashes and derailments; and waterway allissions, collisions, and groundings

State investments on freight network *

Investments funded by Iowa DOT through various federal and state programs

Percent of freight network without capacity needs *

Considers the cargo-handling capacity at the two Iowa Multimodal Freight Network airports, highways with an adequate volume-to-capacity ratio, rail lines that can handle 286k-pound rail cars, and 1200-foot river locks

Freight traffic on freight network *

Includes total air cargo, truck vehicle miles traveled, rail tons per mile, and barge tonnage/traffic

Improvements made at bottleneck locations *

Public and private investments at highway bottlenecks, railroad chokepoints, and inland waterway infrastructure bottlenecks identified in the Iowa State Freight Plan

Change in public truck parking spaces

Cumulative increase or decrease in truck parking spaces at rest areas, weigh stations, etc. as a result of the Iowa DOT Rest Area Management Plan

Iowa Multimodal Freight Network



	Designation requirement(s)	Iowa designations
	Top cargo airports	Des Moines International and Eastern Iowa (Cedar Rapids)
	30% truck traffic, 1,000 average annual daily truck traffic, or 1,000 oversize/overweight permitted loads annually	4,027 miles of Interstate, U.S., and Iowa routes
	5 million tons per mile or direct connection to intermodal container facility	Roughly 2,400 miles of Class I and II rail lines
	Marine highways	M-29 (Missouri River) and M-35 (Mississippi River)



THANK YOU FOR YOUR TIME AND ATTENTION



Sam Hiscocks
Freight Planning Coordinator
515-239-1004
samuel.hiscocks@iowadot.us



ANNUAL IMPLEMENTATION AND PERFORMANCE REPORT | 2022

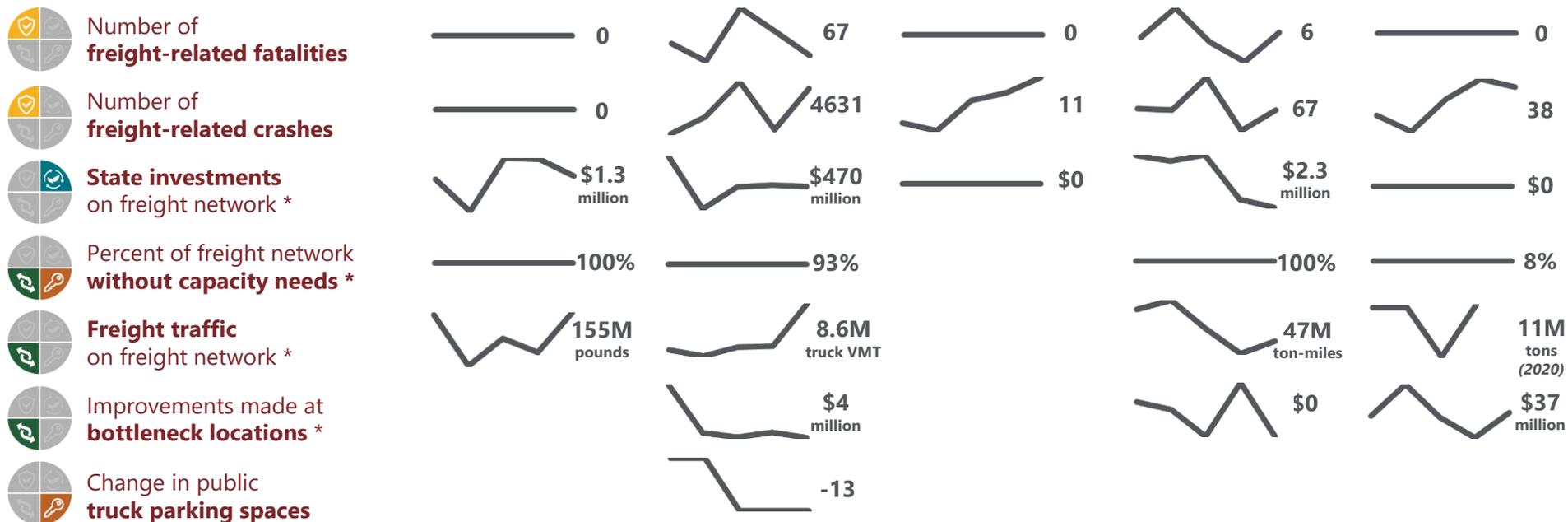


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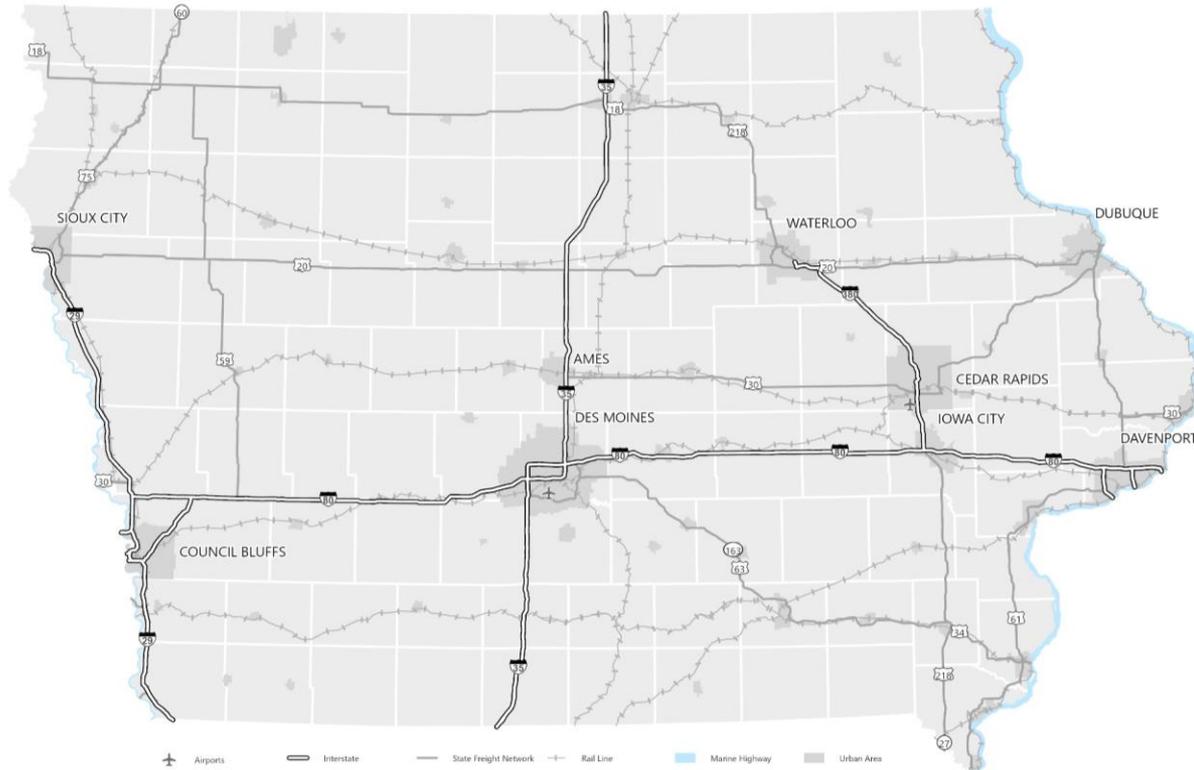
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Iowa Multimodal Freight Network



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	5 million tons per mile or direct connection to intermodal container facility	Roughly 2,400 miles of Class I and II rail lines
	Marine highways	M-29 (Missouri River) and M-35 (Mississippi River)

Current Conditions Across the Upper Midwest and Implications on Inland Waterways

Justin Glisan, Ph.D.
State Climatologist of Iowa
Iowa Department of Agriculture and Land Stewardship
Climatology Bureau



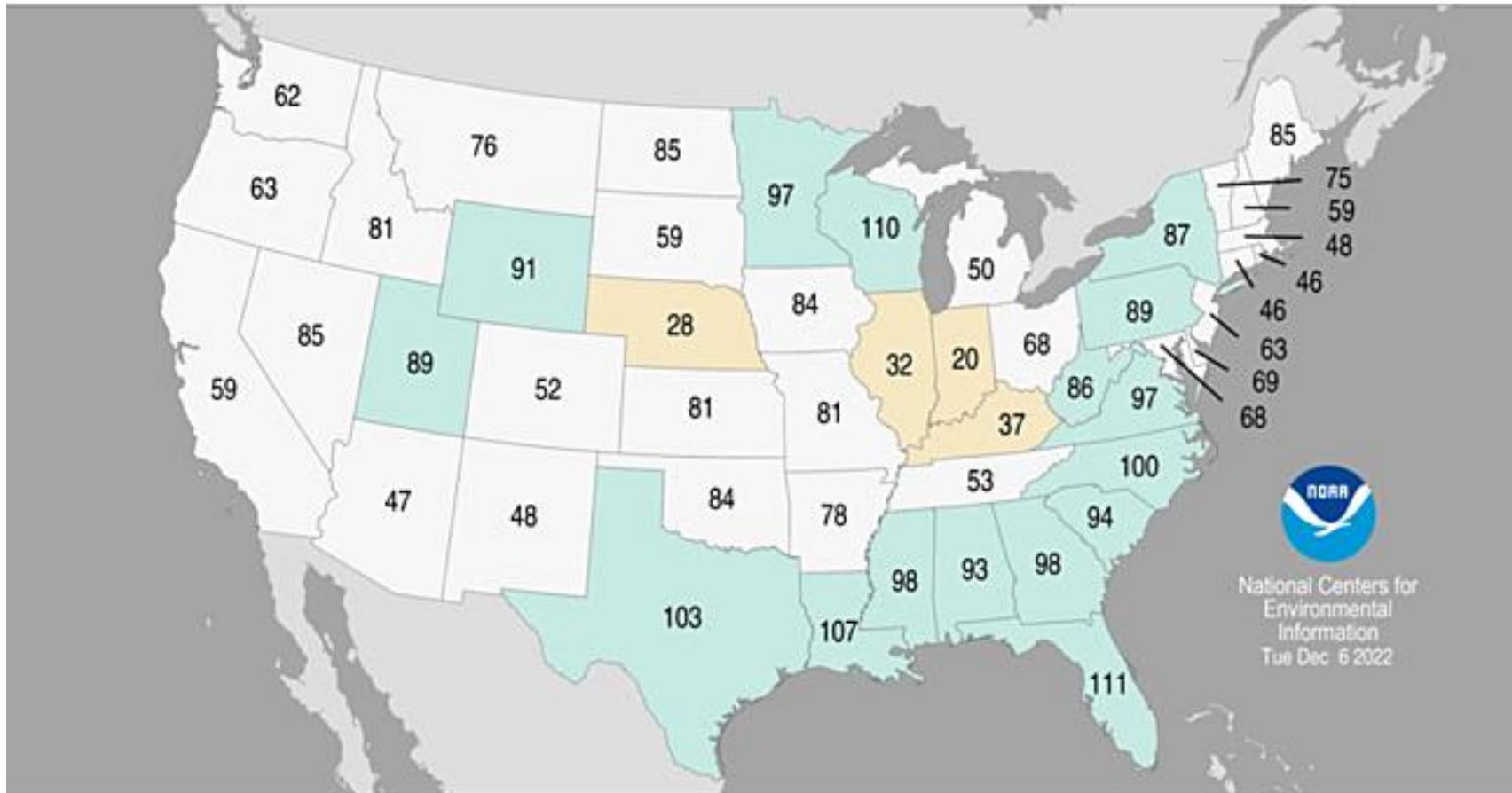
IOWA DEPARTMENT OF
**AGRICULTURE &
LAND STEWARDSHIP**

November Precipitation Ranks

Statewide Precipitation Ranks

November 2022

Period: 1895-2022



National Centers for
Environmental
Information
Tue Dec 6 2022



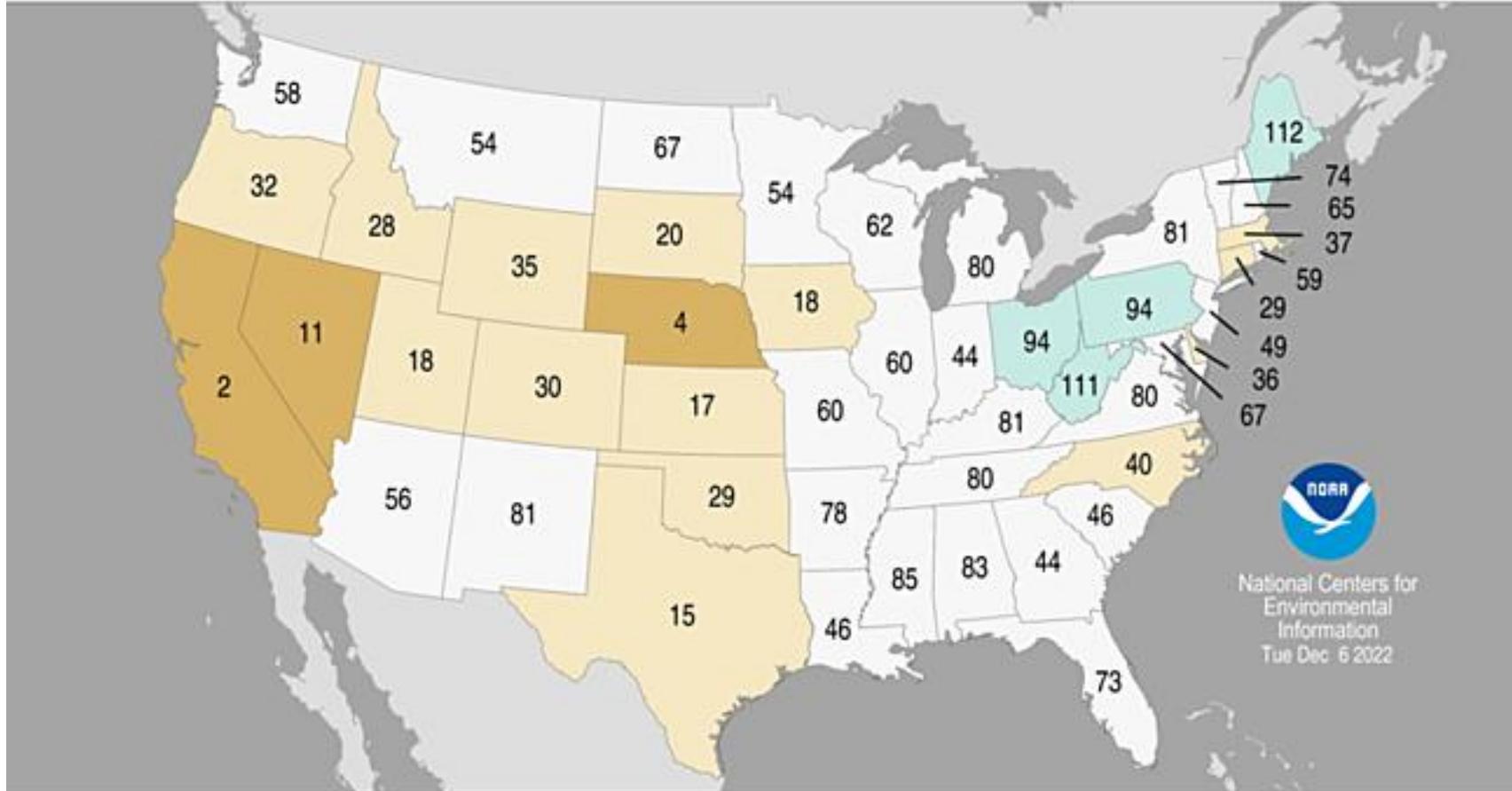
<http://www.ncdc.noaa.gov/temp-and-precip/us-maps/>

Year-To-Date Precipitation Ranks

Statewide Precipitation Ranks

January – November 2022

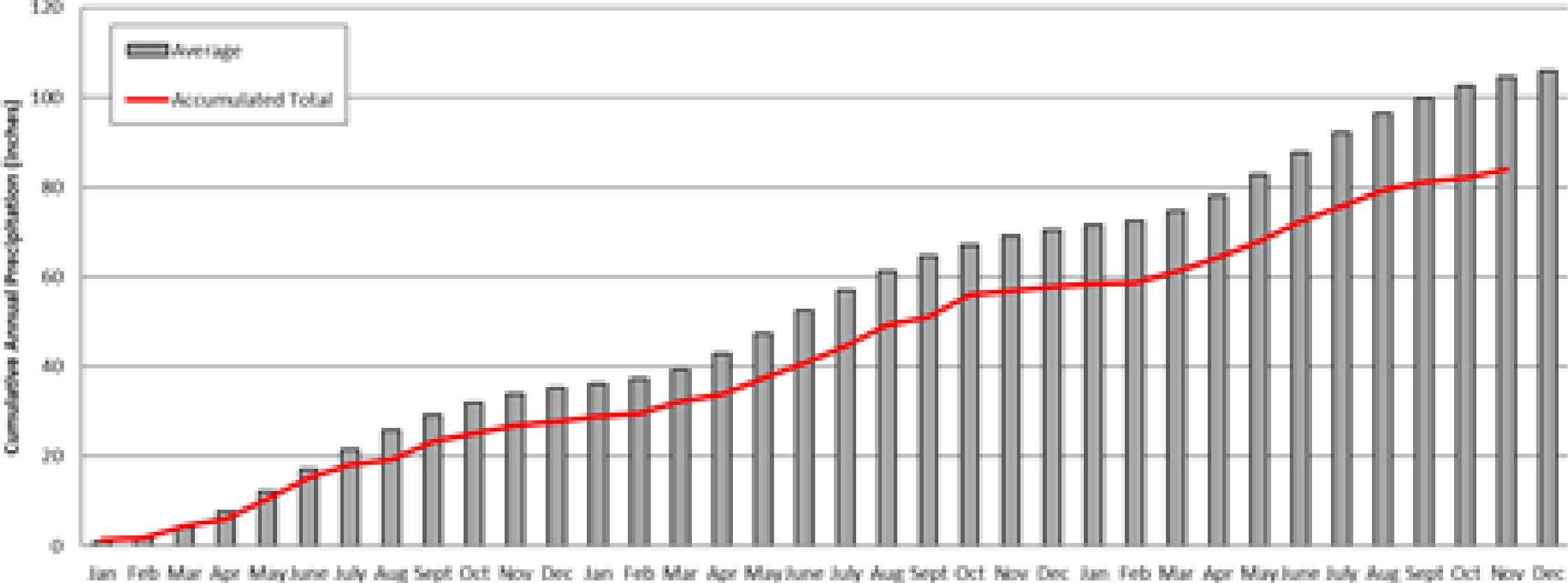
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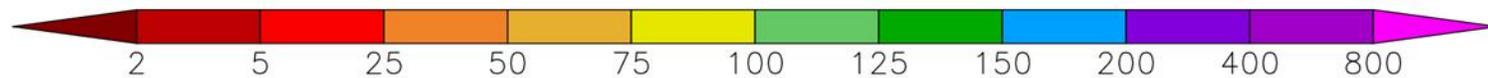
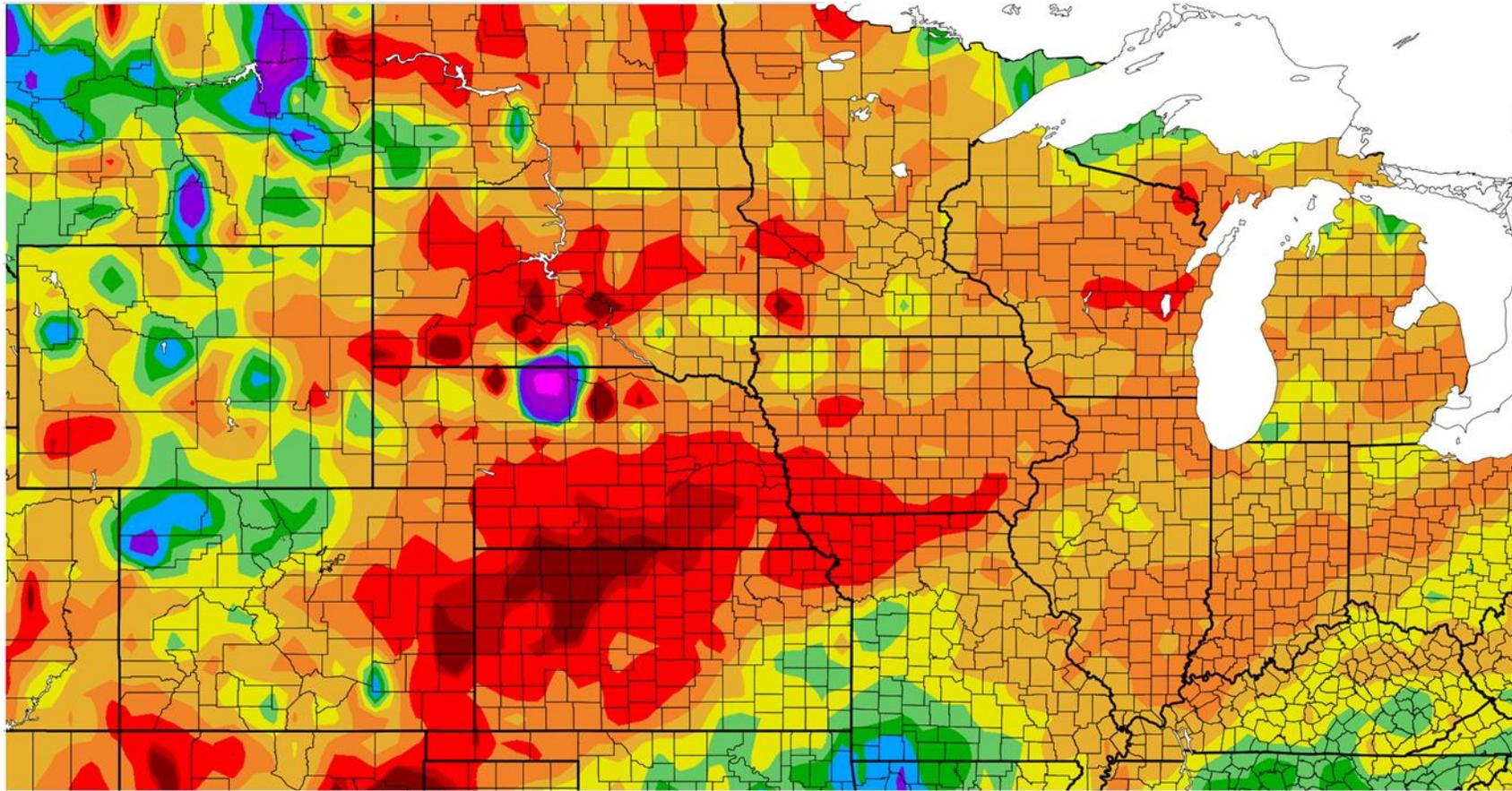
2020, 2021, and 2022 Water Year Accumulated Precipitation

January 2020 to Present Iowa Statewide Cumulative Precipitation



Percent of Normal Precipitation (%)

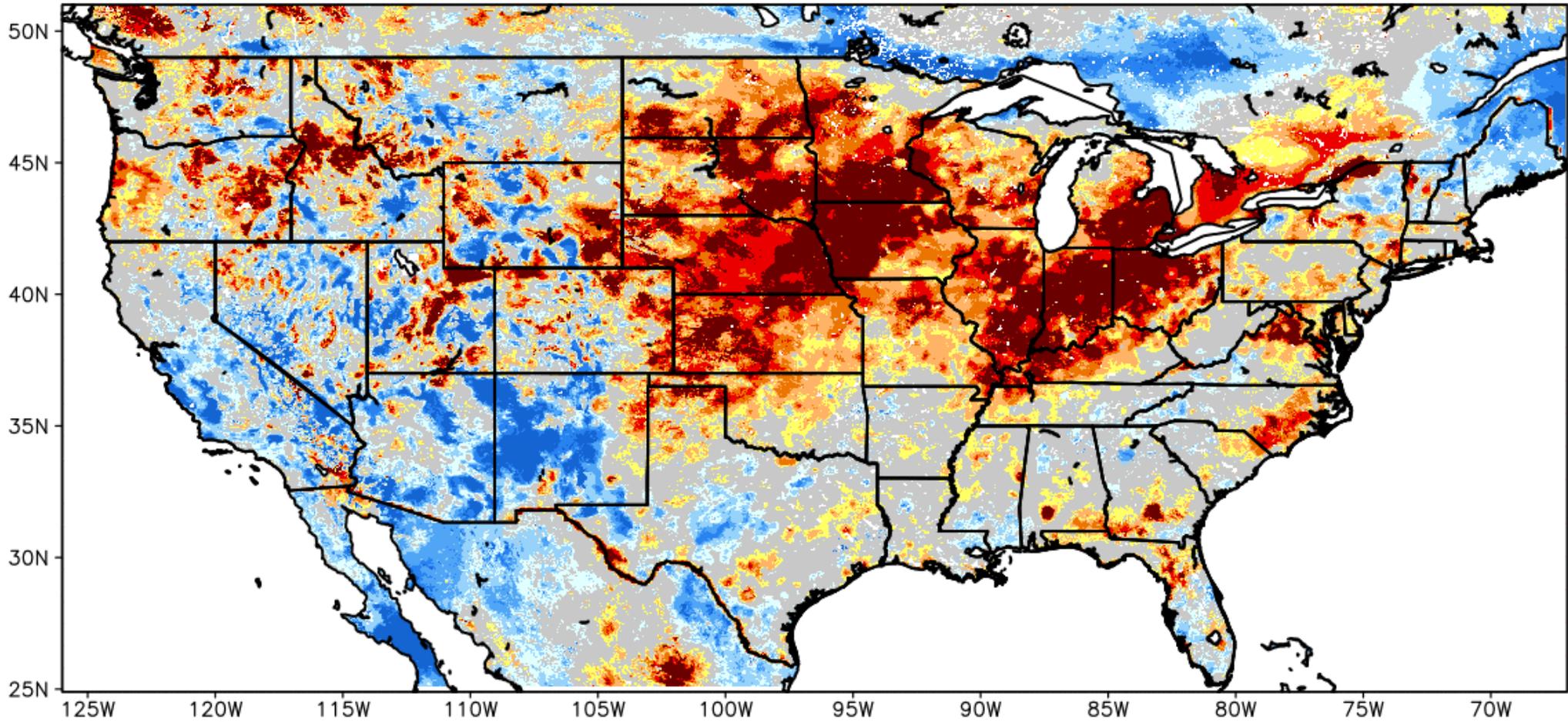
11/13/2022 – 12/12/2022



Generated 12/13/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

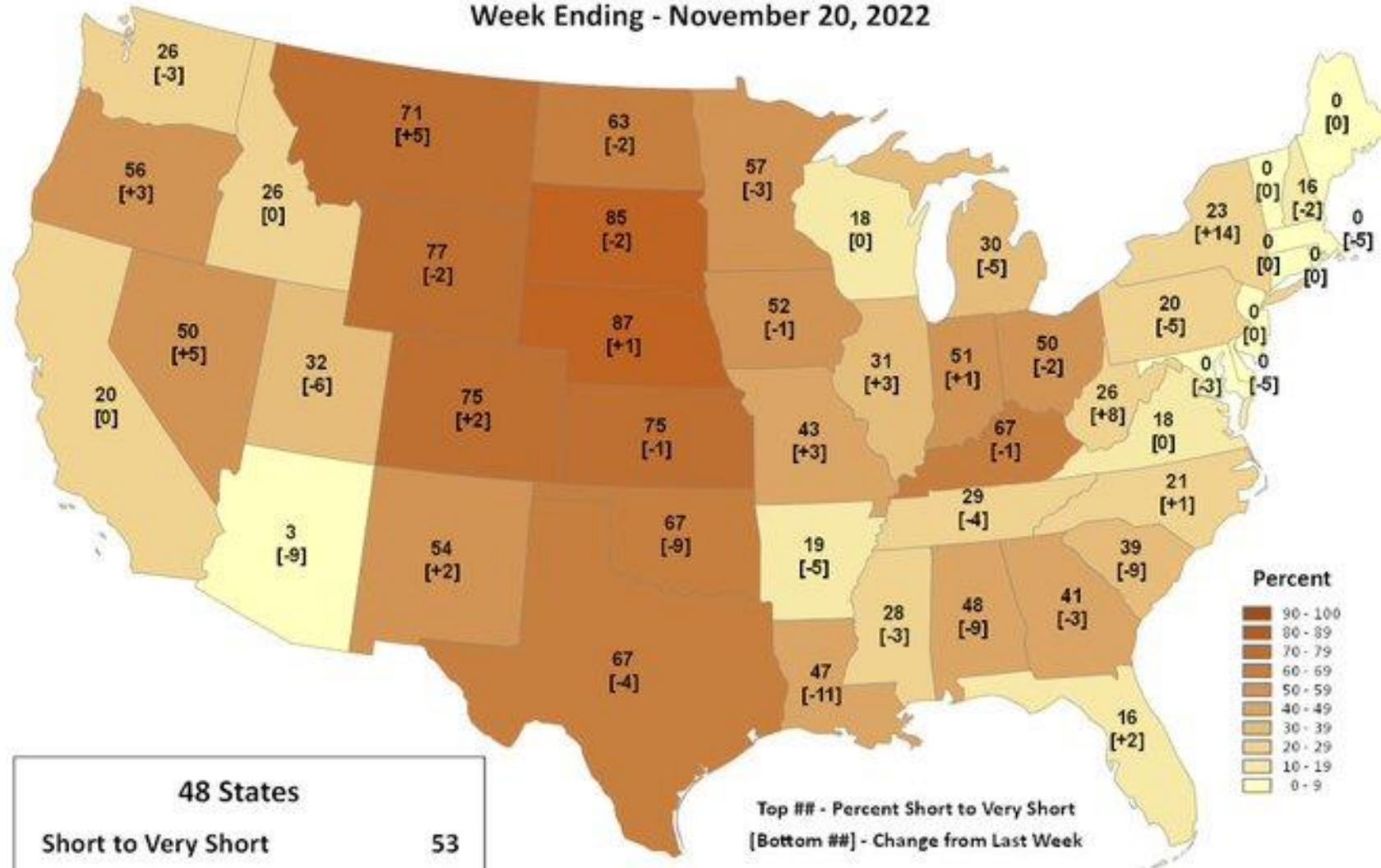
SPoRT-LIS 0-200 cm Soil Moisture percentile valid 13 Dec 2022



Topsoil Moisture

Percent Short to Very Short

Week Ending - November 20, 2022



48 States	
Short to Very Short	53
Change from Last Week	-1

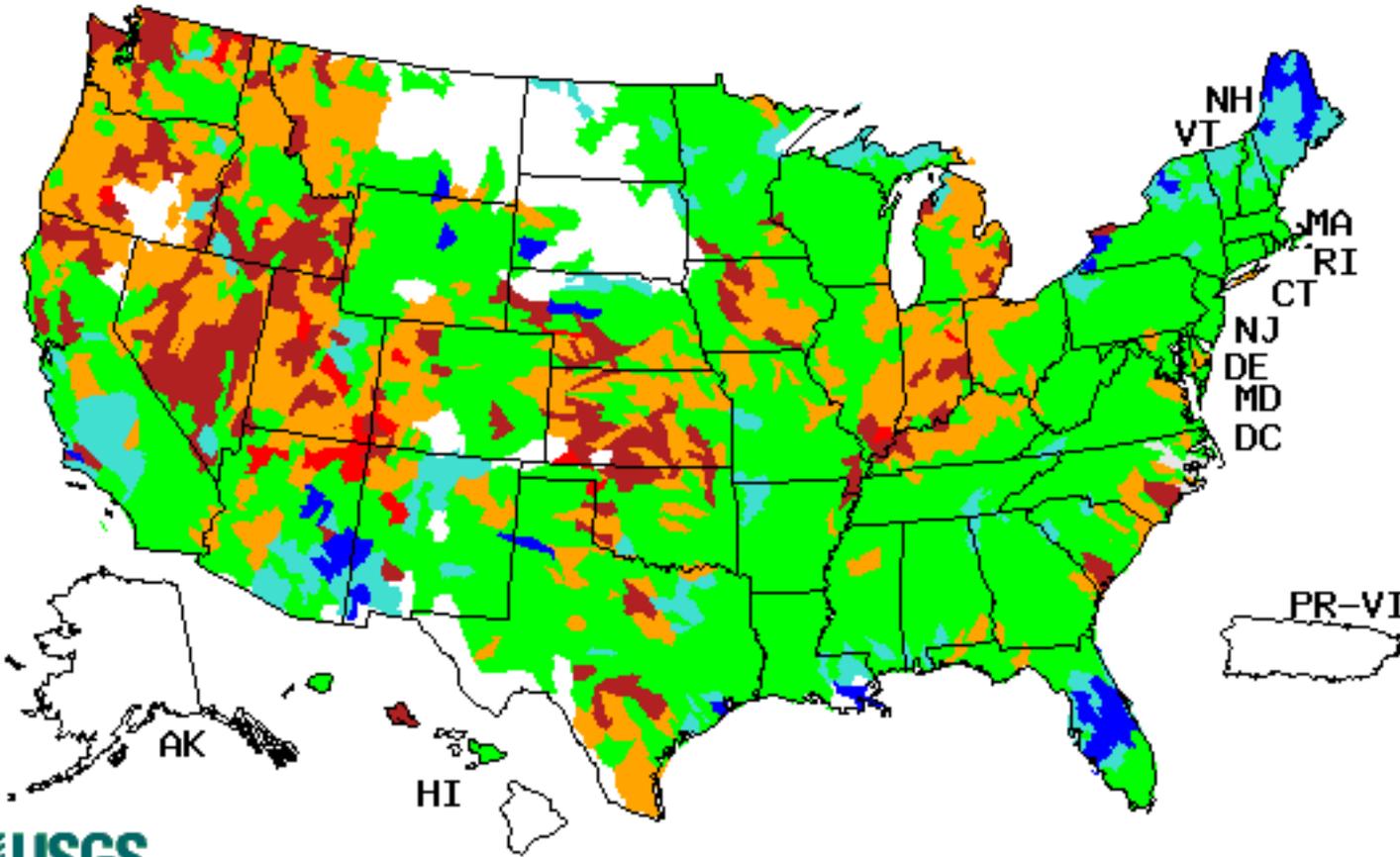
Top ## - Percent Short to Very Short
 [Bottom ##] - Change from Last Week

Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

Figure Credit: Brad Rippey – USDA OCE/USDA NASS Data

28-day Average Streamflow

Monday, December 12, 2022



- Although streamflows are below average overall, ice-over is expected on most Upper Plains streams over the next two weeks with the forecasted cold snap.
- Again, don't expect much in way of hydrologic hazards associated with the impending freeze-up.

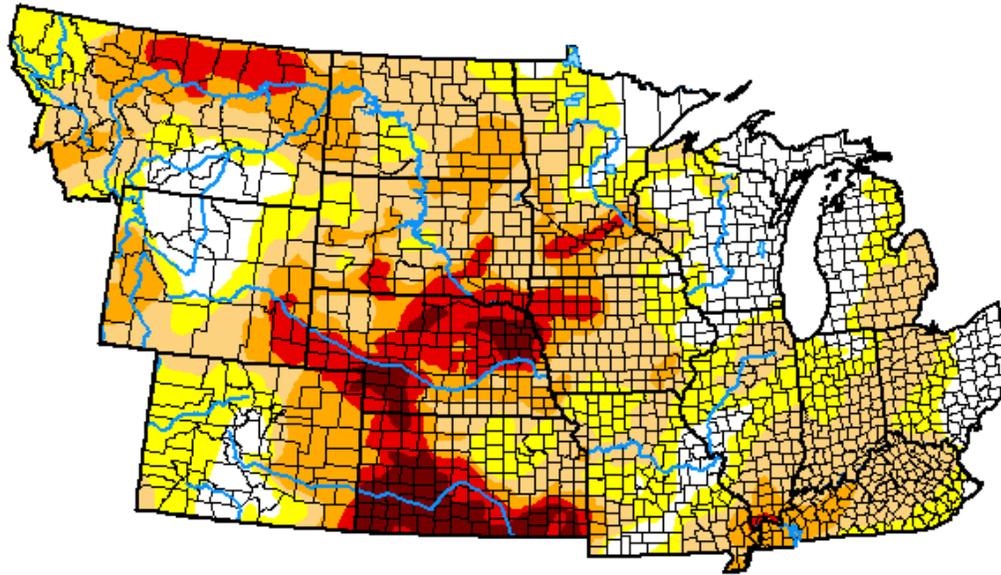


Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

<http://waterwatch.usgs.gov/index.php?id=pa07d>

U.S. Drought Monitor NWS Central

December 6, 2022
(Released Thursday, Dec. 8, 2022)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	17.10	82.90	60.12	29.70	12.37	3.80
Last Week <i>11-29-2022</i>	16.53	83.47	60.87	29.71	12.27	3.72
3 Months Ago <i>09-06-2022</i>	42.42	57.58	32.56	16.75	6.15	1.51
Start of Calendar Year <i>01-04-2022</i>	33.94	66.06	46.53	27.27	10.67	1.77
Start of Water Year <i>09-27-2022</i>	27.00	73.00	47.70	23.08	8.80	2.73
One Year Ago <i>12-07-2021</i>	33.81	66.19	48.99	30.10	12.71	4.21

Intensity:



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>

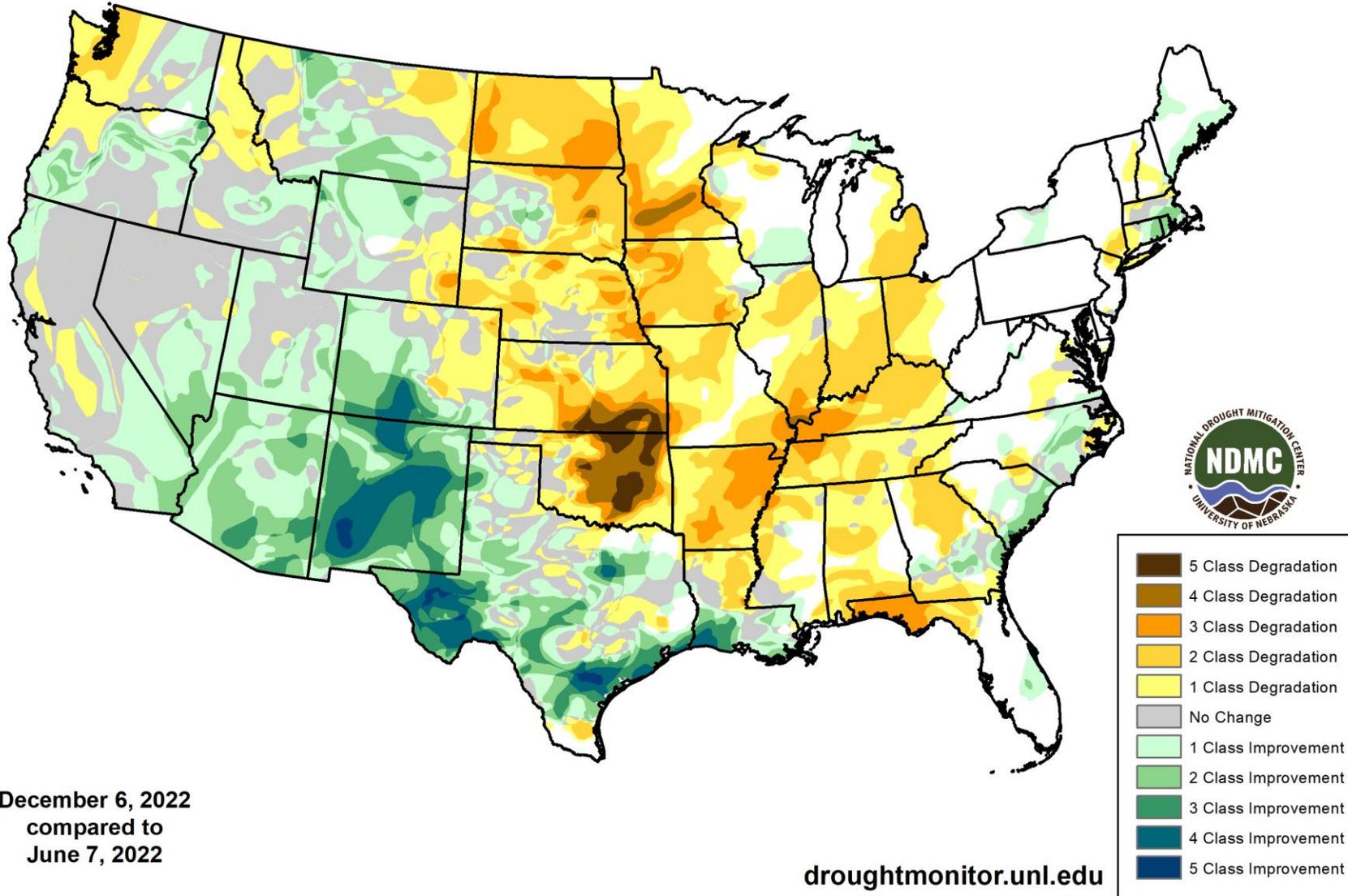
Author:

David Simeral
Western Regional Climate Center



U.S. Drought Monitor Class Change - CONUS

26 Week



December 6, 2022
compared to
June 7, 2022

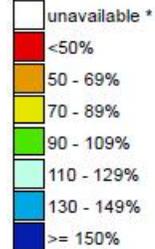
droughtmonitor.unl.edu



Westwide SNOTEL Current Snow Water Equivalent (SWE) % of Normal

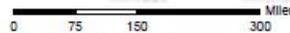
Dec 13, 2022

Current Snow Water Equivalent (SWE) Basin-wide Percent of 1991-2020 Median



* Data unavailable at time of posting or measurement is not representative at this time of year

Provisional data subject to revision



The snow water equivalent percent of normal represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by:
USDA/NRCS National Water and Climate Center
Portland, Oregon
<https://www.nrcs.usda.gov/wps/portal/wcc/home/>

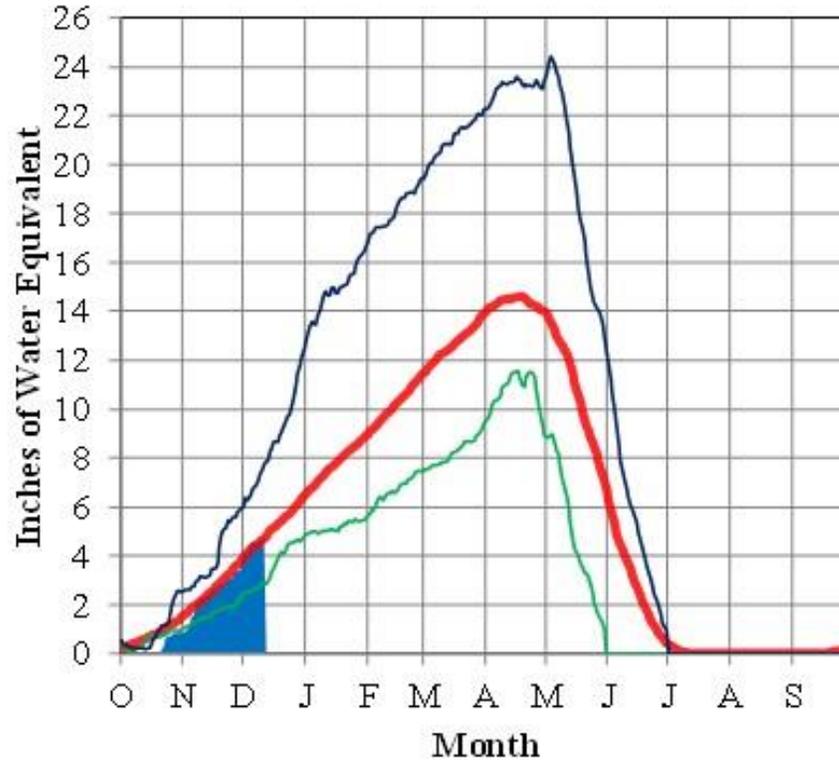
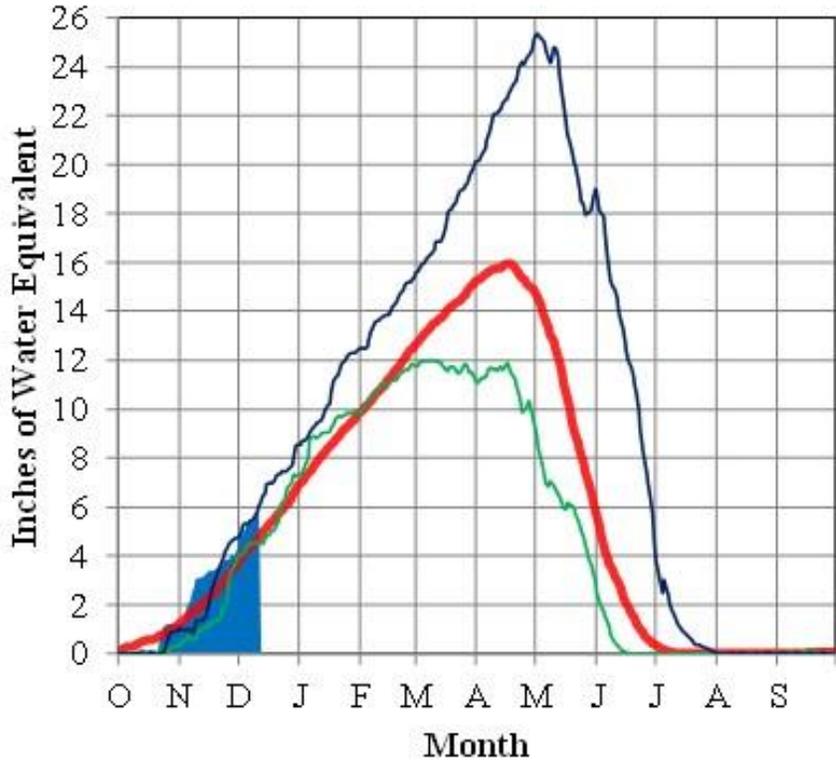
Missouri River Basin – Mountain Snowpack Water Content

2022-2023 with comparison plots from recent high and low years

11-Dec-2022

Total above Fort Peck

Total Fort Peck to Garrison



■ 2022-2023 ■ 1991-2020 Ave ■ *Minimum ■ *Maximum

■ 2022-2023 ■ 1991-2020 Ave ■ *Minimum ■ *Maximum

- Mountain SWE is at 123% of normal above Fort Peck and near the 1991-2020 average from Fort Peck to Garrison
- Both reaches normally reach peak on April 17.

On December 11, 2022 the mountain Snow Water Equivalent (SWE) in the "Total above Fort Peck" reach is 5.8" and 123% of the (1991-2020) average. The mountain SWE in the "Fort Peck to Garrison" reach is 4.8" and 102% of the (1991-2020) average. The normal peak for both reaches occurs near April 17.

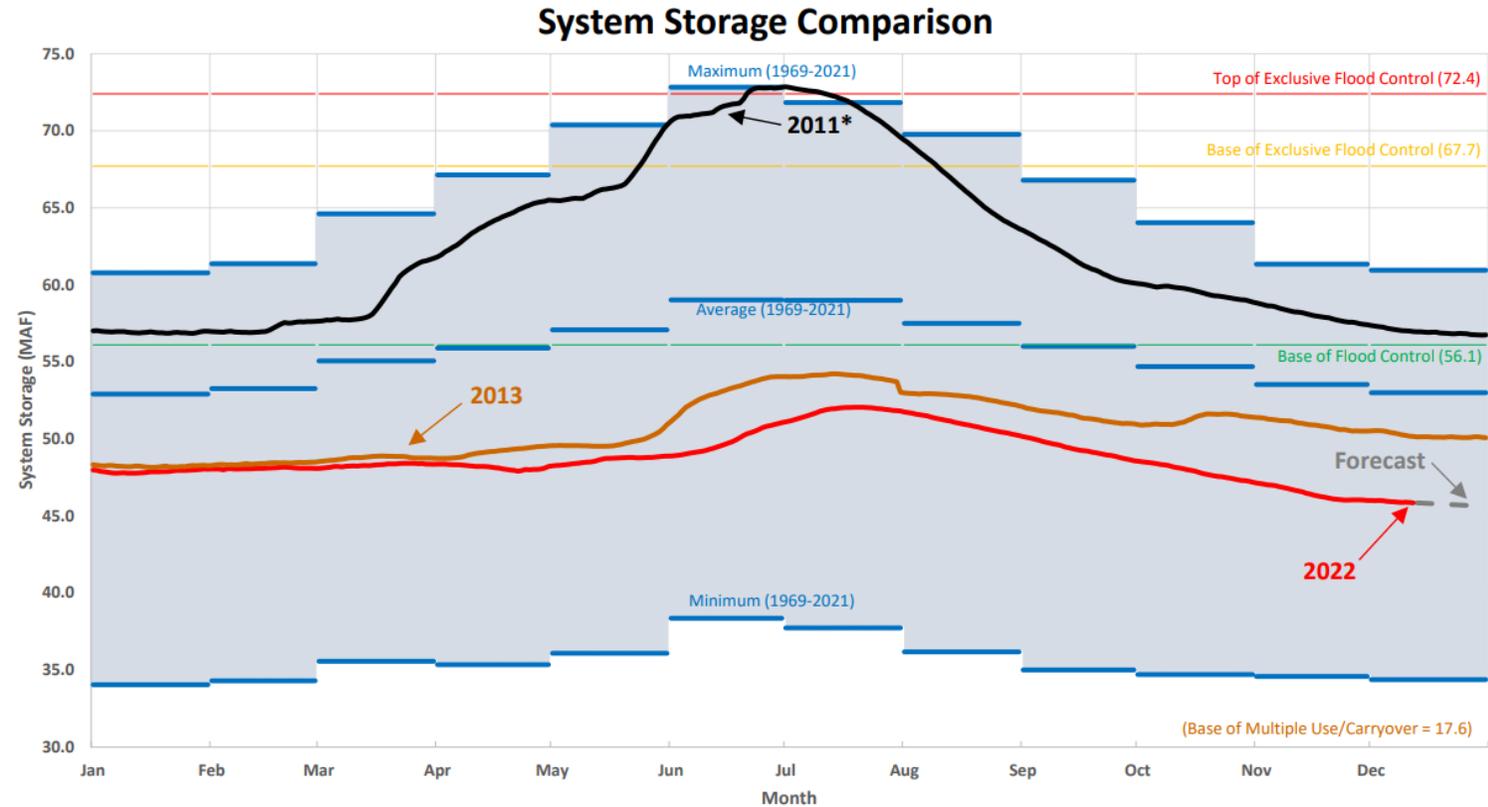
*Minimum peak SWE between 1991-2020 occurred in 2015 above Fort Peck, and in 2001 between Fort Peck and Garrison.
 Maximum peak SWE between 1991-2020 occurred in 2011 above Fort Peck, and in 1997 between Fort Peck and Garrison.

Provisional data. Subject to revision.

Missouri River System Storage

Missouri Mainstem Reservoir Status (as of 12/6/22):

- System storage is 46.0 million-acre feet, below the 2013 minimum[?]
- The Gavins Point release is currently 13,000 cfs and forecasted to reach 12,000 cfs on Dec. 11.



*In January 2011, the Base of Flood Control was 56.8 MAF, and the Top of Exclusive Flood Control was 73.1 MAF.

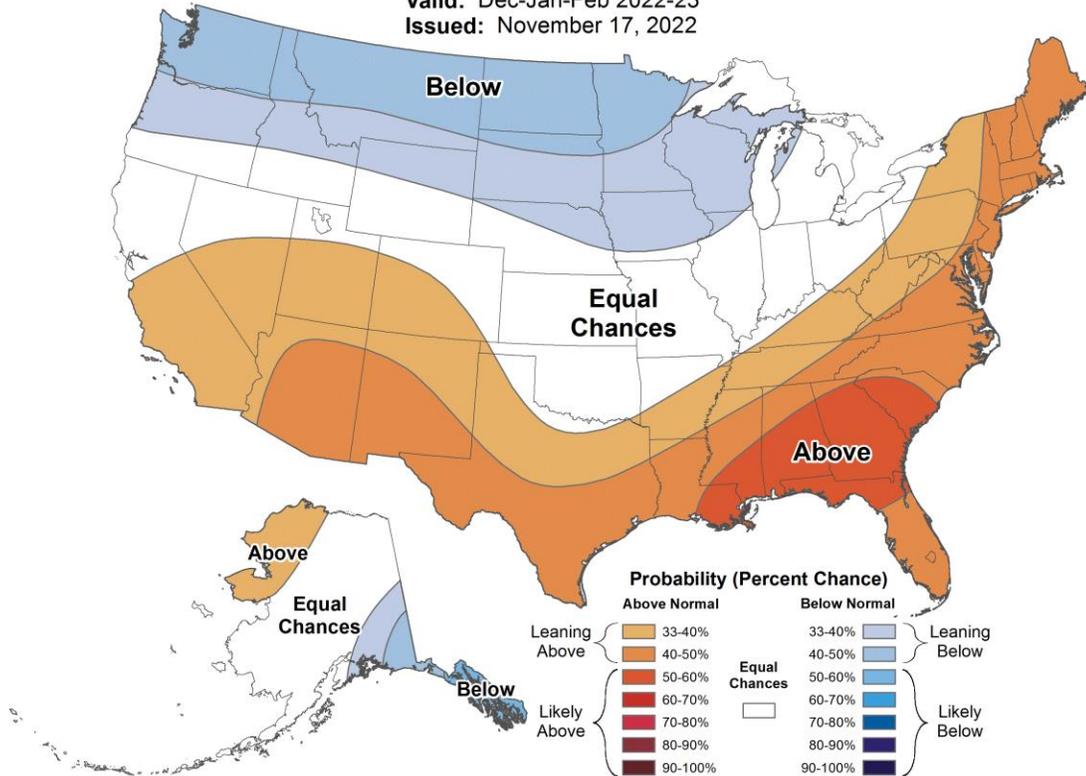
December-January-February



Seasonal Temperature Outlook



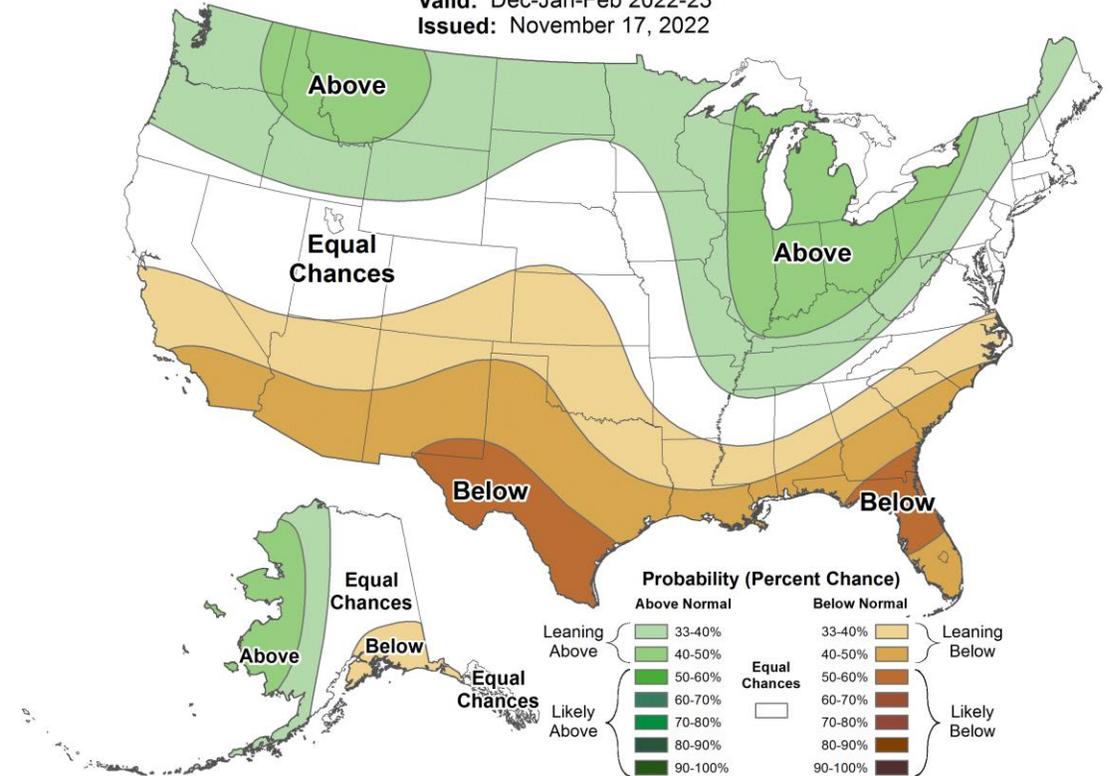
Valid: Dec-Jan-Feb 2022-23
 Issued: November 17, 2022



Seasonal Precipitation Outlook



Valid: Dec-Jan-Feb 2022-23
 Issued: November 17, 2022



<http://www.cpc.ncep.noaa.gov/>

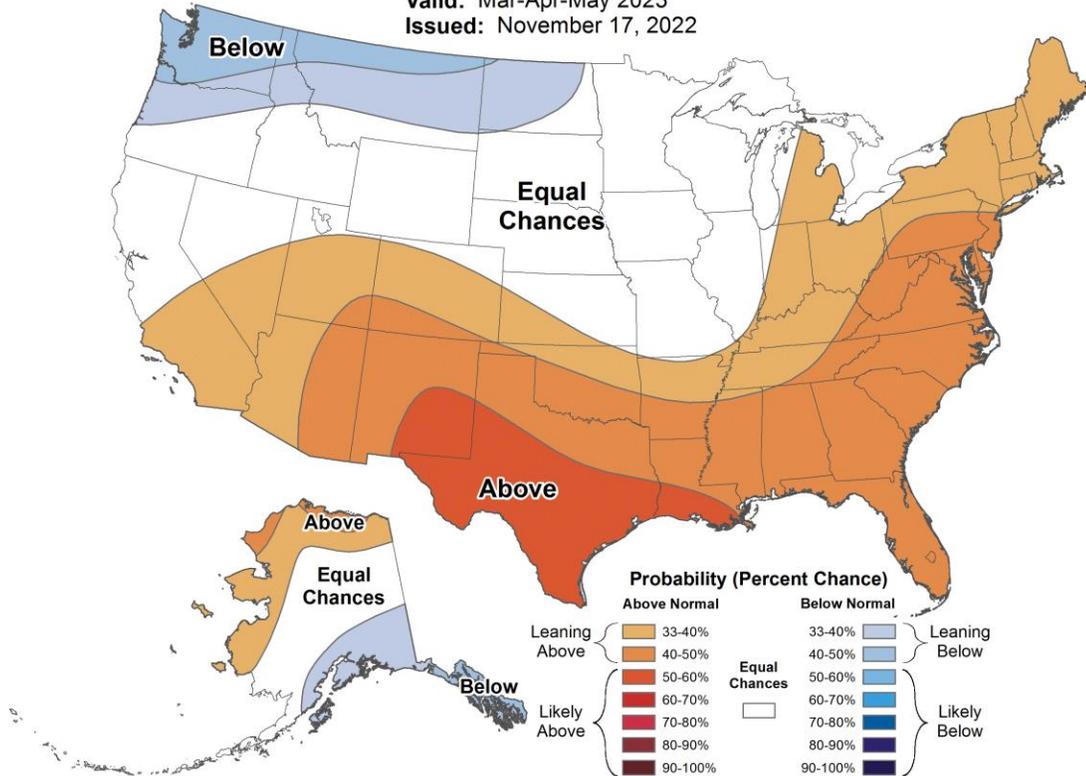
March-April-May 2023



Seasonal Temperature Outlook



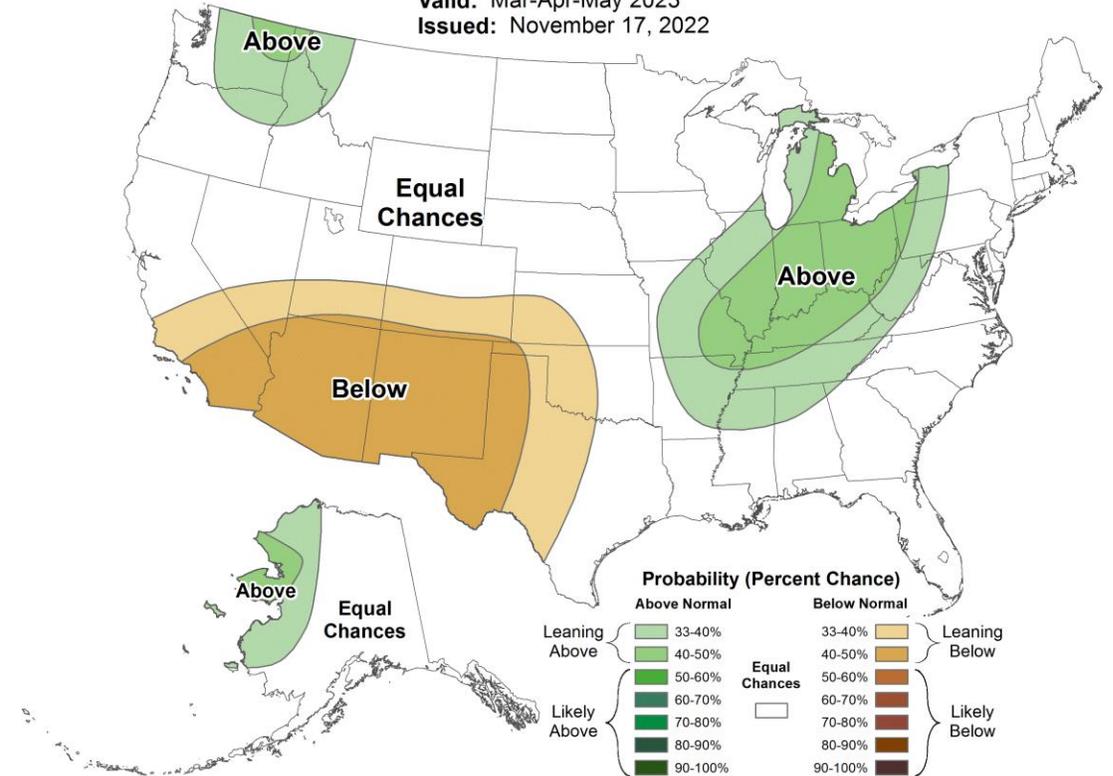
Valid: Mar-Apr-May 2023
Issued: November 17, 2022



Seasonal Precipitation Outlook



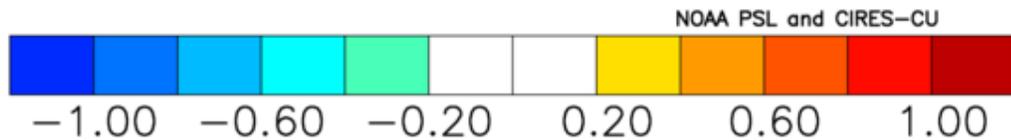
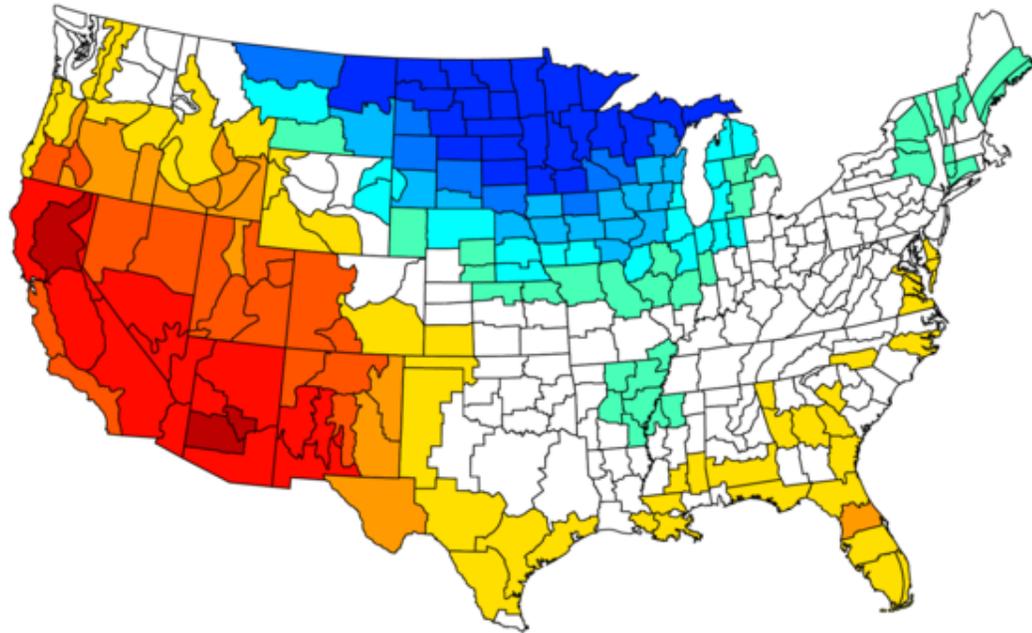
Valid: Mar-Apr-May 2023
Issued: November 17, 2022



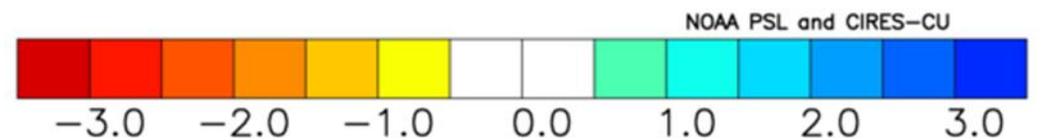
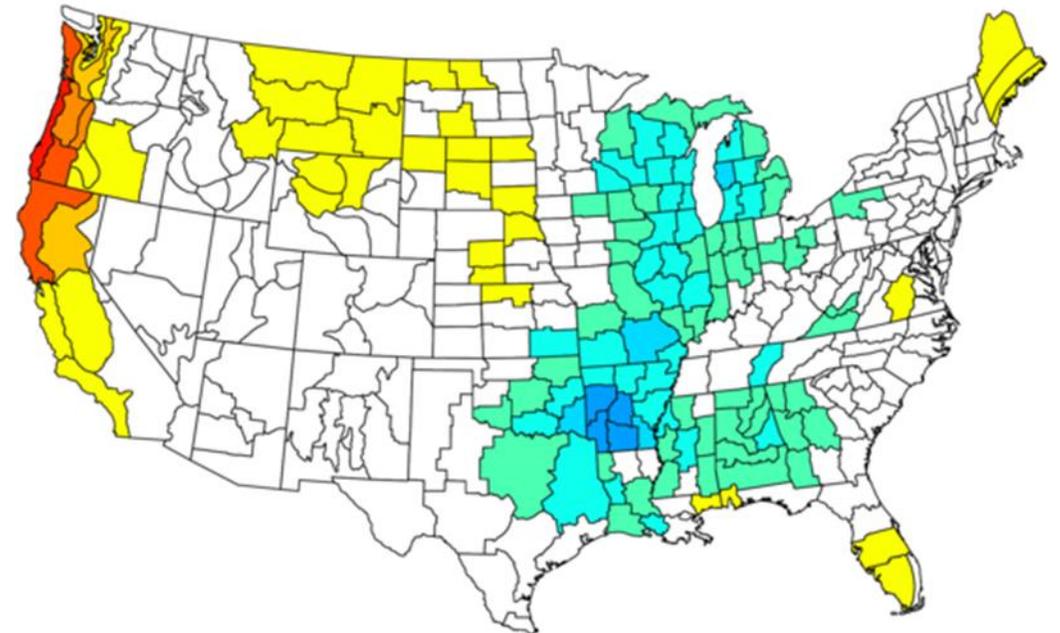
<http://www.cpc.ncep.noaa.gov/>

ENSO-Neutral Spring Analogs

NOAA/NCEI Climate Division Composite Temperature Anomalies (F)
Versus 1991–2020 Longterm Average
Mar to May 2001,2002,2004,2006,2009,2013,2014,2015,2017,2018
2019,2020



NOAA/NCEI Climate Division Composite Precipitation Anomalies (in)
Versus 1991–2020 Longterm Average
Mar to May 2001,2002,2004,2006,2009,2013,2014,2015,2017,2018
2019,2020



Outlook Summary

- The La Niña signal persist through Winter 2022/2023
 - Widespread precipitation variability of the wintertime LN pattern
 - Dominant behavior in precipitation shifting west into Midwest
 - Strength of LN will be a good indicator of snowpack potential
- Higher chances of a transition to ENSO-neutral into spring
 - This will be a slow transition as the atmosphere respond to oceanic behavior
 - Climatology and recent trends will provide better guidance as opposed to an EN/LN phase.



IOWA DEPARTMENT OF
**AGRICULTURE &
LAND STEWARDSHIP**

Thank you!

Justin.Glisan@IowaAgriculture.gov

Tel: 515-281-8981

<https://iowaagriculture.gov/climatology-bureau>

US ARMY CORPS OF ENGINEERS ROCK ISLAND DISTRICT

Navigation System Operation and Maintenance

Tom Heinold, Chief of Operations Division
16 DEC 2021



US Army Corps
of Engineers®



AREA OF RESPONSIBILITY



Parts of five states

- Three state capitols
- Lead Corps district for Regulatory issues in Iowa

Five river basins

- Upper Mississippi, Illinois, Des Moines, Iowa/Cedar and Rock

Twelve locks and dams on the Mississippi River

- Dubuque, IA to Hannibal, MO

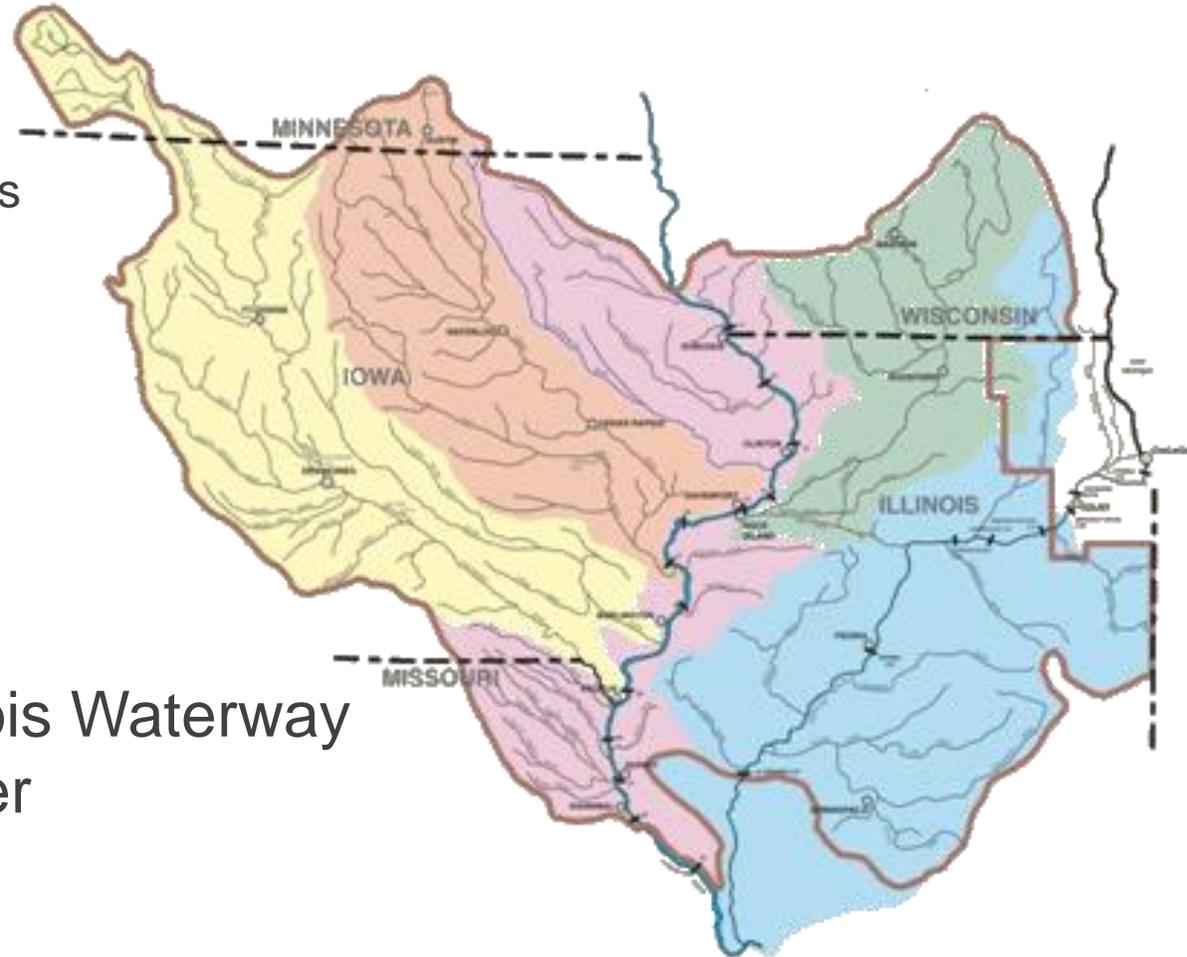
Six locks and dams on the Illinois Waterway

Inland Navigation Design Center

- Nationwide support

National Flood Fight Center

- Nationwide support





ROCK ISLAND DISTRICT'S CIVIL WORKS AUTHORITIES



- Flood Risk Management
- Regulatory
- Environmental Stewardship
- Ecosystem Restoration
- Natural Resource Management
- Emergency Management
- Water Supply
- Recreation
- Navigation
- Continuing Authorities Program



WHY DO WE CARE ABOUT INLAND WATERWAYS?

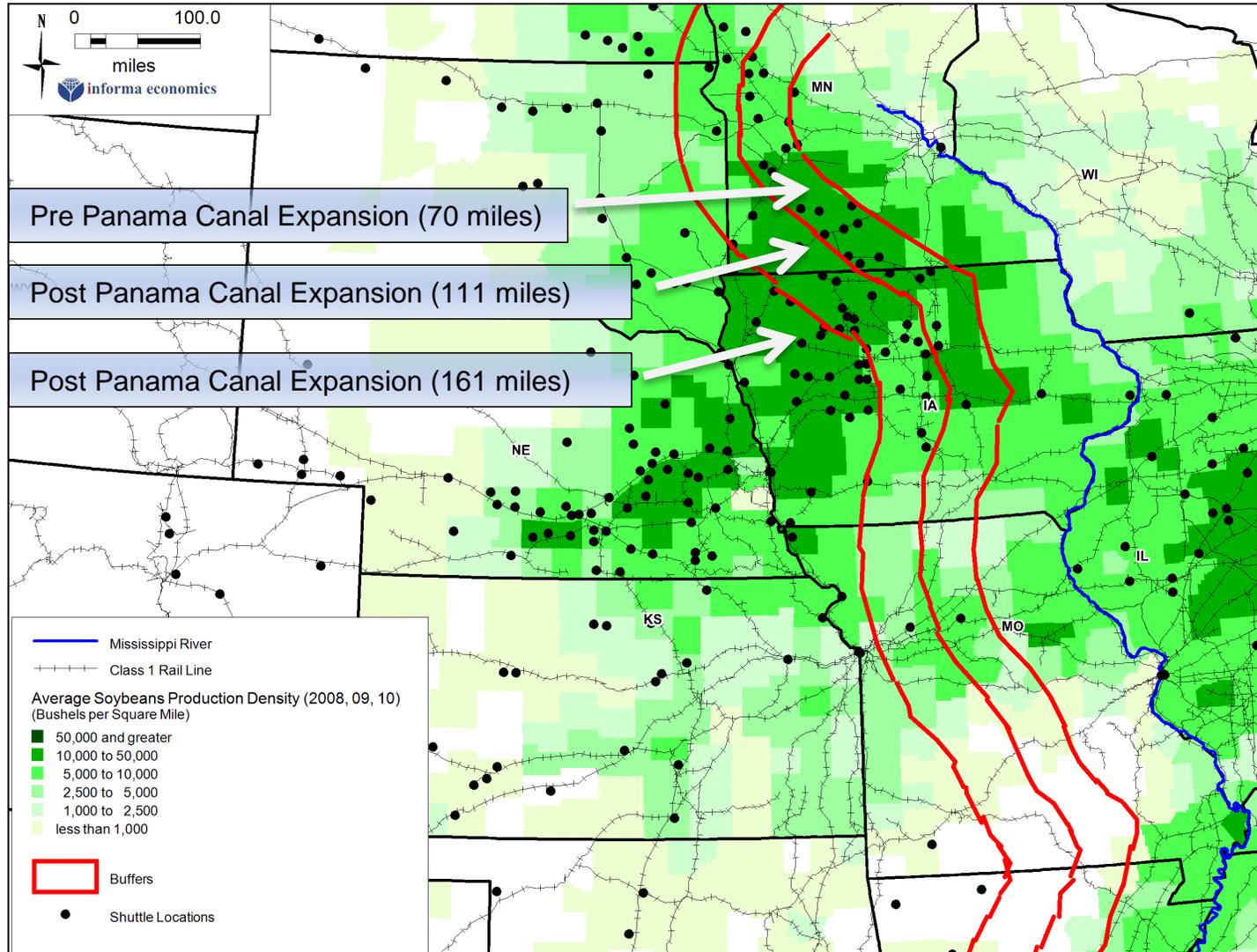


- Save money (least expensive mode)
- Make US commodities more competitive
 - (62% of US grain exports are shipped down the Mississippi on barges)
 - Post-Panamax opened JUN 2016
- Reduce road congestion (and wear)
- Safest
- Least polluting
- Provide alternative to rail (no monopoly)
- Provide ancillary benefits (water supply, cooling water, recreation, improved environmental habitats)
- Our international competitiveness depends on them



PANAMA CANAL EXPANSION

OPPORTUNITY FOR INCREASED EFFICIENCY, OR JUST SHIFTING THE BOTTLENECK?





STATE OF THE DISTRICT'S INFRASTRUCTURE



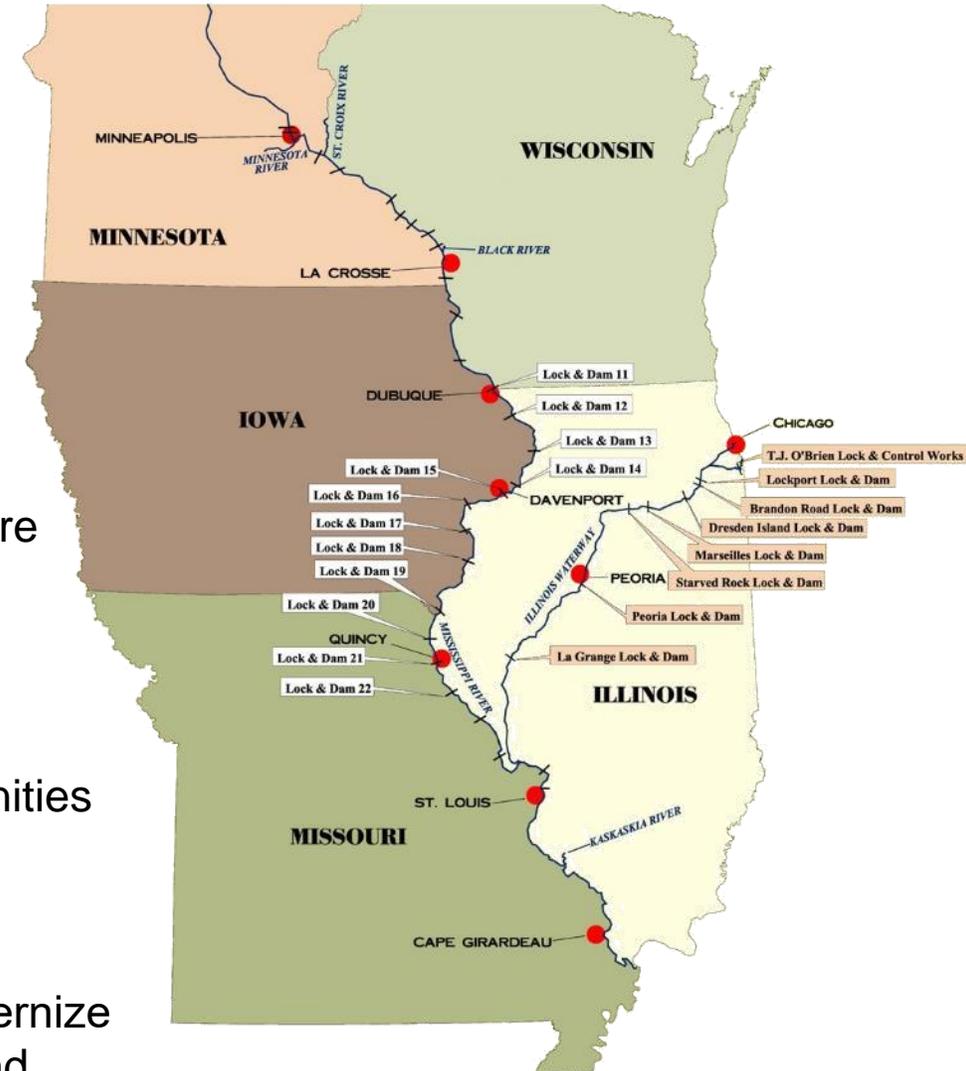
Rock Island District operates and maintains the second longest nine-foot navigation channel in the Corps of Engineers.

- 17 Dams and 20 Locks
- 582 Miles of Navigation Channel
- 755 Million Tons of Cargo Locked in fiscal year 2017
- > \$1 Billion Transportation Annual Cost Benefit

Most locks and dams on the Upper Mississippi and Illinois Waterway were constructed in the 1930s and 40s and have far exceeded their projected 50-year lifespan.

Major rehabilitation and construction is needed to restore these aging facilities to full capability, prevent major disruptions and provide opportunities for growth.

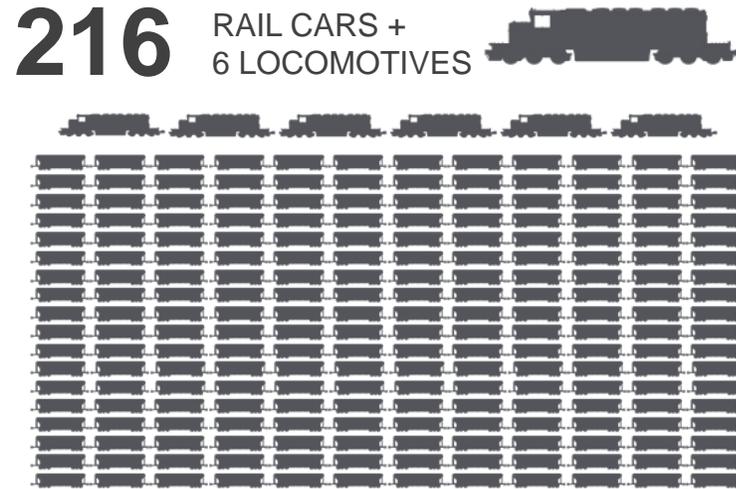
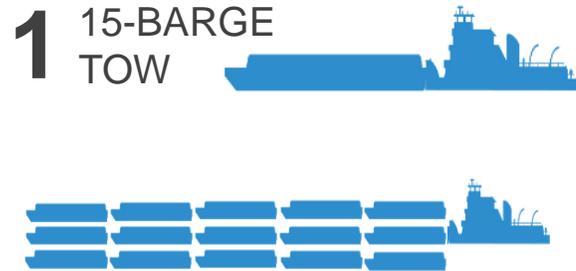
According to the 2019 U.S. Department of Agriculture study titled “**Importance of Inland Waterways to U.S. Agriculture**,” failure to modernize these and other locks and dams increases costs of U.S. farm exports and helps foreign exporters close the cost gap with the United States.





IMPORTANCE OF INLAND NAVIGATION

The inland waterway navigation system, to include the Upper Mississippi River system, saves between \$7 and \$9 billion annually over costs of shipping by other modes. Cargo capacity is a major factor in the system's efficiency.



In 2017, 532.8 million tons of domestic barge traffic worth \$220 billion moved within the system. This includes roughly 57 percent of U.S. corn exports, valued at \$4.8 billion, and 59 percent of U.S. soybean exports, valued at \$12.4 billion.

Barge transportation is also environmentally friendly. On one gallon of fuel, a towboat can move one ton of cargo 647 miles as opposed to rail which can go 477 miles and truck which can only do 145 miles. Inland towing carbon dioxide emissions are also less at 15.62 grams per ton-mile as compared to 21.19 for rail and 154.08 for truck.



FLASHBACK – LAGRANGE LOCK



- Unsafe conditions for both Towing Industry and Lock personnel
- Steeply decreasing reliability of service
- Delays in restoring service after flooding conditions



The Nation's "Poster Child" for decaying infrastructure



ILLINOIS WATERWAY 2020 – THE PLAN



- Upgrade and improve infrastructure on the Illinois Waterway while minimizing the impact on industry
- Consolidate full closures into the same year, rather than closing one or two locks each year
- Work at 6 sites concurrently, with 4 Locks requiring dewatering
- Onsite work to take place during a summer closure / restriction period
 - Mostly July through October to avoid historical spring flooding seasons and fall harvest seasons

LAGRANGE MAJOR REHABILITATION/MAINTENANCE



Vertical concrete pre-cast panel installation



New gate machinery base





Miter gate anchorage repairs



New checkpost





19 MAY 2020 – STARVED ROCK LOCK





STARVED ROCK MAJOR MAINTENANCE





MARSEILLES MAJOR MAINTENANCE





MARSEILLES MAJOR MAINTENANCE





MARSEILLES MAJOR MAINTENANCE





DRESDEN ISLAND BULKHEAD RECESSES





LOCK 15 DEWATERING – WINTER 2021-2022



Typical Dewatering Activities:

- Close 04 JAN 2022
- Clean sills, set bulkheads, pump down the chamber
- Inspect normally-submerged components (and repair what we can)
- Place bulkhead sill beams and encase in concrete
- Repair / replace bubbler systems
- Repair sills
- Repair miter gate seals
- Replace miter gate anchorages
- Repair vertical concrete in the chamber
- Open 01 MAR 2022



LOCK 15 DEWATERING – WINTER 2021-2022





LOCK 15 DEWATERING – WINTER 2021-2022





LOCK 15 DEWATERING – WINTER 2021-2022





National Research Council Findings

- NRC Suggests Appropriate Maintenance Investment Range of 2-4% PRV
- FY 15 USACE Infrastructure Plant Replacement Value* (PRV) = \$268B

Est FY15 PRV = \$268,000,000,000 % PRV

NRC "High" (4%) = \$10,720,000,000 4.00% ← Fiscally Impossible

NRC "Low" (2%) = \$5,360,000,000 2.00% ← Exceeds Corps TOTAL Budget

TOTAL FY15 O&M Budget = \$2,600,000,000 0.97% ← < 1%, Incl "O"

O&M Allocated for Just Maintenance = \$618,500,000 0.23%

← Current Reality and WHY O&M Efficiencies are SO Important

← Akin to buying a \$30,000 car and spending \$69 annually on maintenance and repair for its life, with no warranty service

Like Other Agencies, the Corps is Not Close to NRC Recommendations... EVEN IF O&M is Optimized...this is a National Infrastructure Priority





FUNDING TRENDS



1990's – 2000's: “Fix as it Fails”

- Reliability decreased significantly, things were breaking faster than we could fix them

Early 2010's: Stemmed the Tide

- Got to a “steady state” where we were able to keep up with items that would stop navigation, but the system continued to age and we weren't making any progress)

Late 2010's to the present: Making Progress

- Restoring the reliability, safety and efficiency of the system, and even making progress toward capital reinvestment.



NESP

- **1200' Locks** at Locks 20, 21, 22, 24, and 25 on the Mississippi River along with 1200' Locks at Peoria and LaGrange on the Illinois Waterway + other Navigation & Ecosystem improvements
- FY20: \$4.5M received, \$3M for Navigation, \$1.5M for Ecosystem
 - Funds used to advance designs and ready projects for construction
 - At the end of FY21, over \$20M in construction ready projects
- FY21: No Construction new start, will continue PED
 - \$5M received in Work Plan, \$2.625M for Navigation, \$2.375M for Ecosystem
- FY22: **\$732M for Lock 25**, \$97 for LD22 fish passage



THANK YOU

for the opportunity to speak with you today!

Are there any
QUESTIONS?

Rock Island District's website: www.mvr.usace.army.mil

E-mail: thomas.d.heinold@usace.army.mil

Phone: (309) 794-5401