North Central Texas Council of Governments

Community Drought Planning

NCTCOG Webinar
July 14, 2025

Alyssa Knox, NCTCOG
aknox@nctcog.org

EPA United States Environmental Protection Agency

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

North Central Texas Council of Governments
Environment & Development

www.nctcog.org/WaterResources

This project was funded by the U.S. Environmental Protection Agency through the Texas Commission on Environmental Quality.

Webinar Procedures

- The webinar is being recorded and will be posted to NCTCOG's website under the green banner called "Webinars" here:

  https://www.nctcog.org/envir/natural-resources/water-resources

- If you submitted an RSVP for this webinar, you will receive an email with the presentation slides and a link to the recording. If you did not RSVP and would like these webinar materials, please email aknox@nctcog.org.
- Please keep your microphone on mute until the Question-and-Answer period at the end of the presentations.
- Thank you!

Welcome and Introduction of Speakers

Webinar Agenda

- Audience Polling Questions
- **"Texas Drought Planning Tools" –** John Nielsen-Gammon, Ph. D.
- "**Collaborative Drought Planning Using Scenario Exercises" –** Deborah Batke, Ph. D.
- Discussion and Q & A

Audience Polls

Speaker Introduction

John Nielsen-Gammon

Texas State Climatologist

Department of Atmospheric Sciences

Texas Drought Planning Tools

John W. Nielsen-Gammon
Texas State Climatologist
Department of Atmospheric Sciences

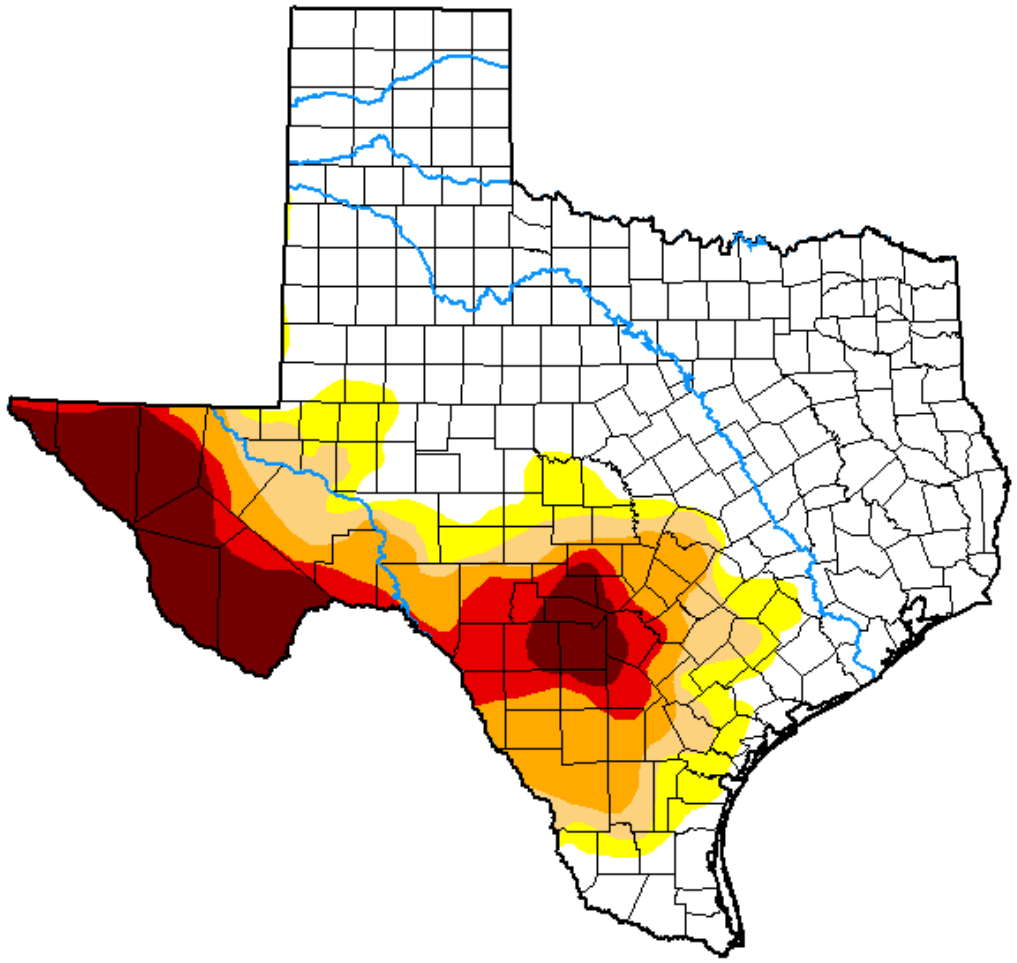
https://srcc.tamu.edu

Drought Q&A

- Where's it happening?
  - Integrated Water Portal
- What's happening?
  - Drought Fingerprint Plot
- What will happen?
  - …get serious…
- What might happen?
  - CPC seasonal outlooks

U.S. Drought Monitor

Texas



June 17, 2025

(Released Thursday, Jun. 19, 2025)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	62.34	37.66	29.66	23.26	14.61	9.06
Last Week *06-10-2025*	58.51	41.49	34.11	25.58	16.47	10.07
3 Months Ago *03-18-2025*	14.56	85.44	62.46	43.44	26.05	13.76
Start of Calendar Year *01-07-2025*	36.81	63.19	43.63	21.45	13.26	6.30
Start of Water Year *10-01-2024*	26.09	73.91	34.39	16.62	8.91	3.36
One Year Ago *06-18-2024*	50.99	49.01	29.61	12.33	2.40	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:

Brad Rippey

U.S. Department of Agriculture

droughtmonitor.unl.edu

SRCC SOUTHERN REGIONAL CLIMATE CENTER

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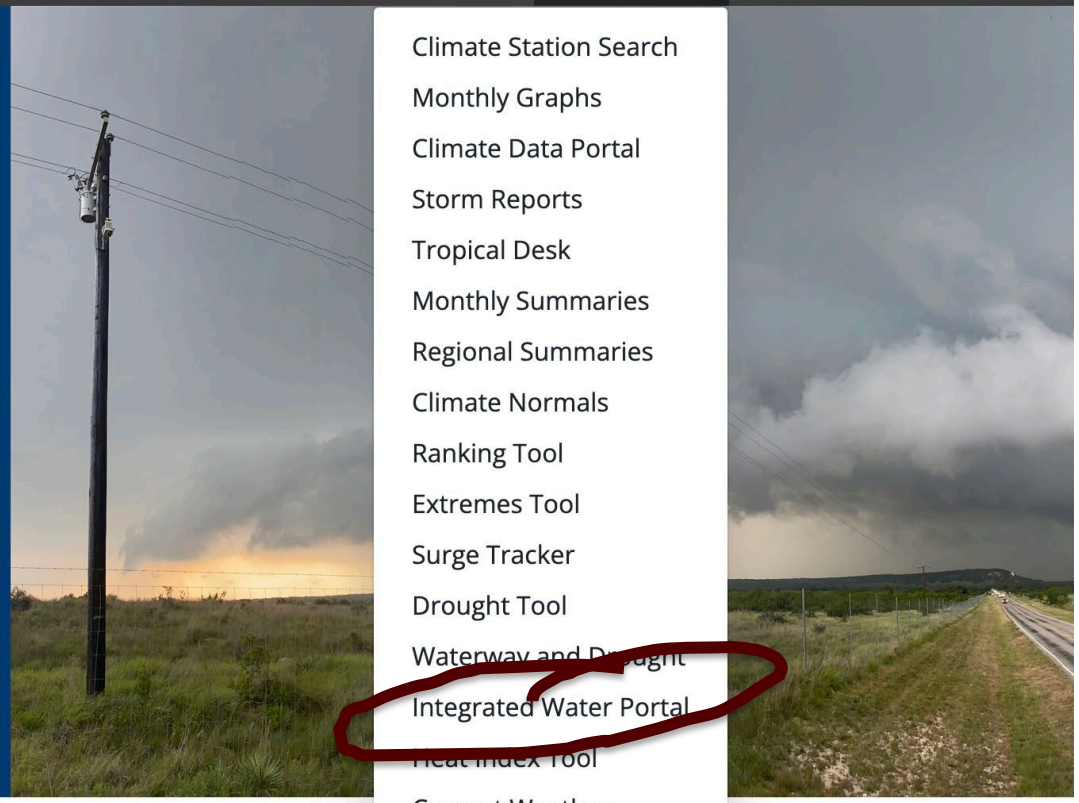
The Southern Regional Climate Center works to provide climate data services to fulfill a wide range of applications for the States of Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, and Texas.

We are on Facebook and X, and BlueSky! Please like our Southern Regional Climate Center page and follow us @srclimatecenter for weekly information on drought, climate, weather and more.

Read More



- Climate Station Search
- Monthly Graphs
- Climate Data Portal
- Storm Reports
- Tropical Desk
- Monthly Summaries
- Regional Summaries
- Climate Normals
- Ranking Tool
- Extremes Tool
- Surge Tracker
- Drought Tool
- Waterway and Drought
- Integrated Water Portal
- Heat Index Tool
- Current Weather

Temperature (F)

Map Options

Date:

2025-06-25

Gridded Data:

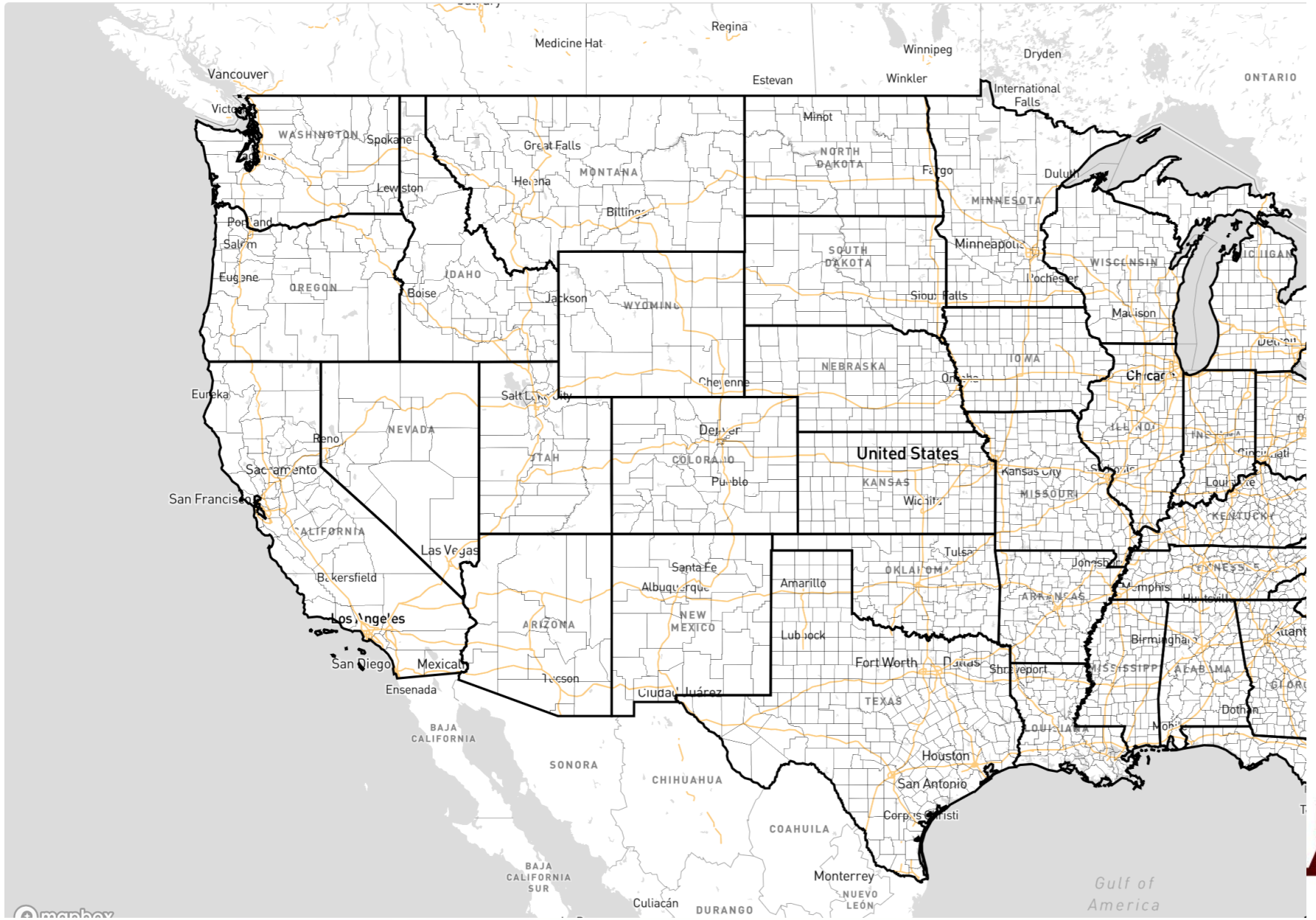
Zoom To:

View all states

Map Layers:

- [x] States
- [ ] Rivers
- [x] Highways
- [ ] Climate Divisions
- [x] County Boundaries
- [ ] County Labels
- [ ] HUC
- [ ] Radar Coverage
- [ ] USDM

About Tool ⓘ



Map Options

Date:

2025-06-25

Gridded Data:

60 Day Departure From No

Zoom To:

Texas

Map Layers:

- [x] States
- [ ] Rivers
- [x] Highways
- [ ] Climate Divisions
- [x] County Boundaries
- [ ] County Labels
- [ ] HUC
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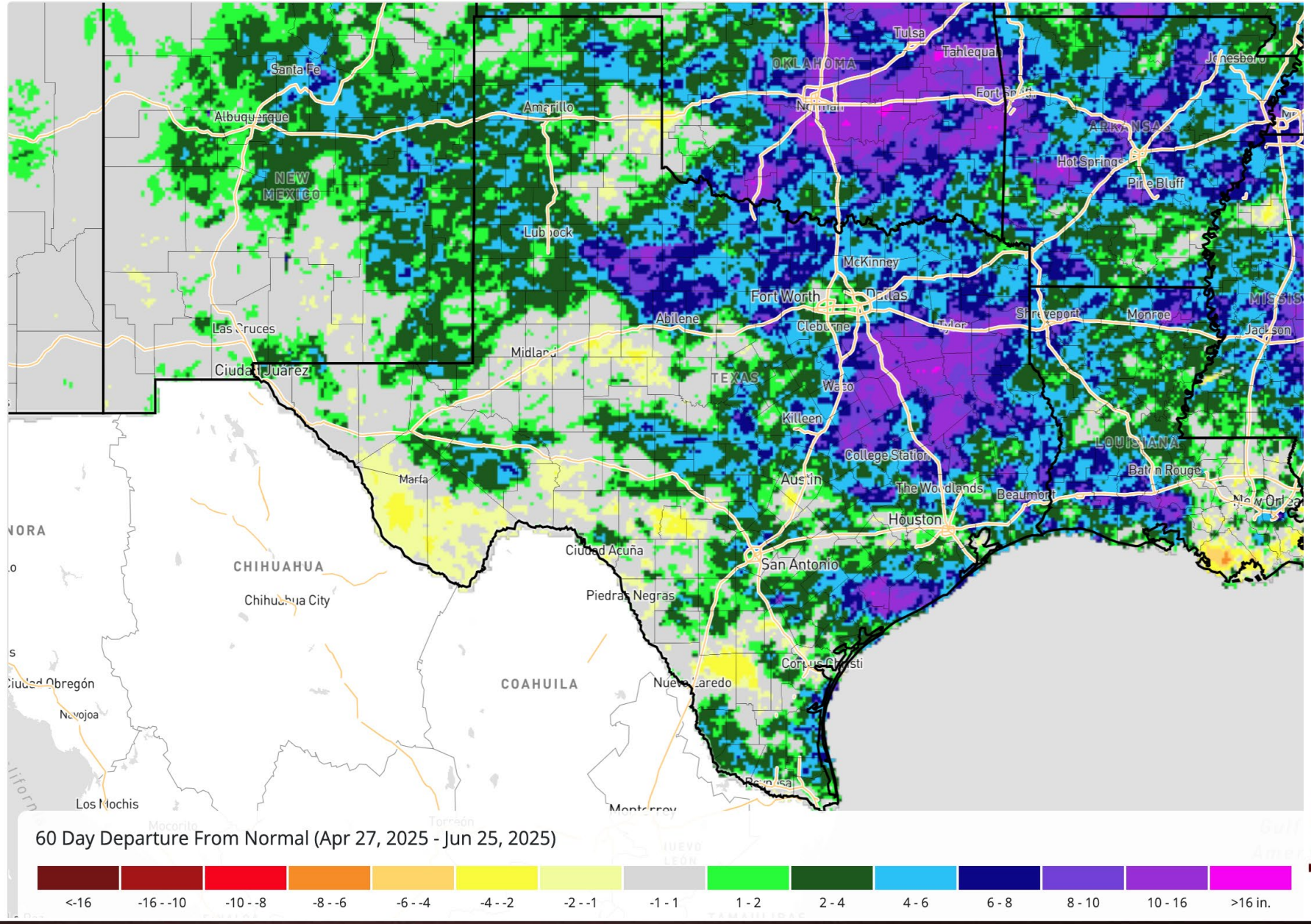

Map Options

Date:

2025-06-25

Gridded Data:

60 Day Percent of Normal

Zoom To:

Texas

Map Layers:

- [x] States
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- [x] Highways
- [ ] Climate Divisions
- [x] County Boundaries
- [ ] County Labels
- [ ] HUC
- [ ] Radar Coverage
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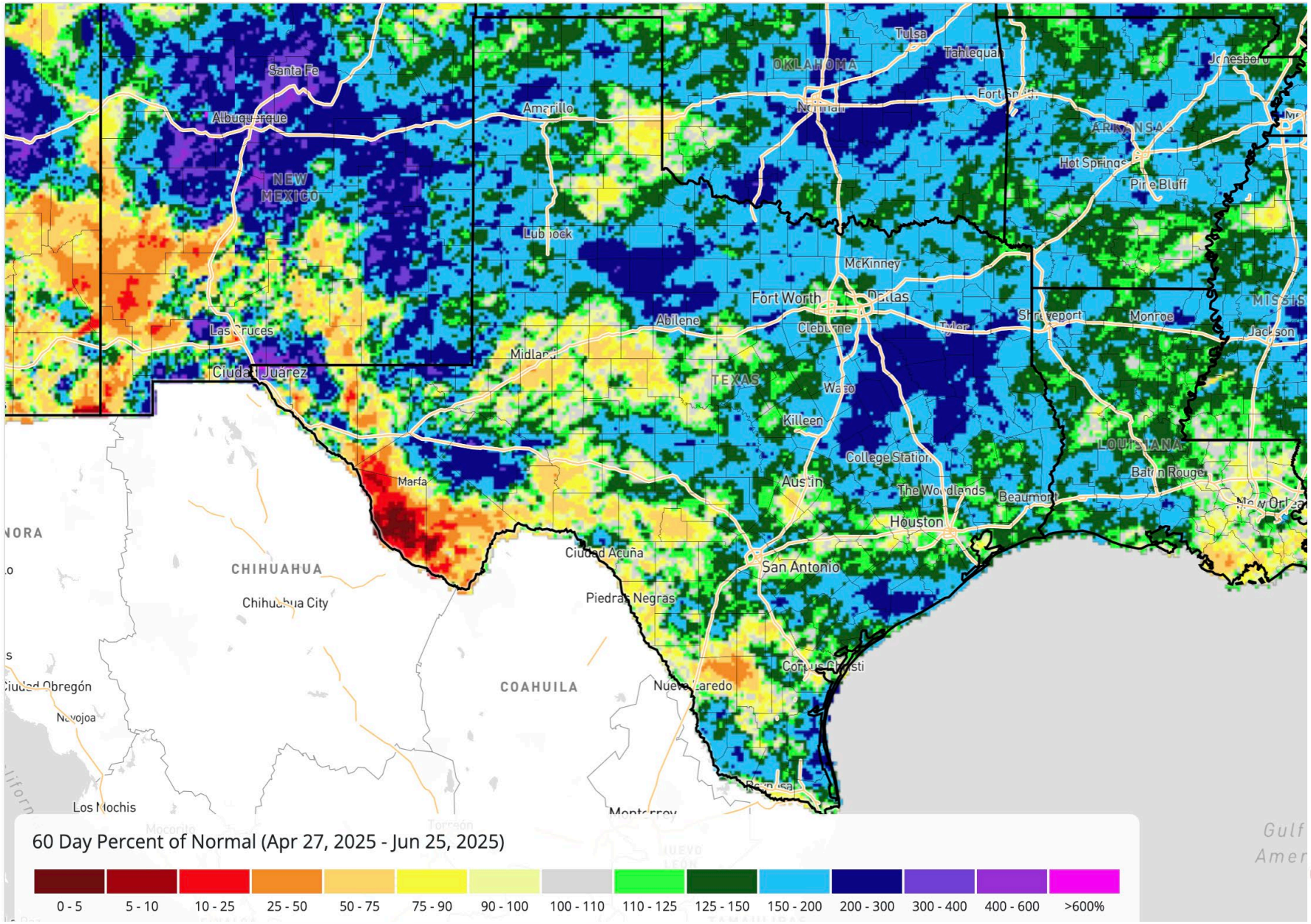

Map Options

Date:

2025-06-25

Gridded Data:

60 Day SPI

Zoom To:

Texas

Map Layers:

- [x] States
- [ ] Rivers
- [x] Highways
- [ ] Climate Divisions
- [x] County Boundaries
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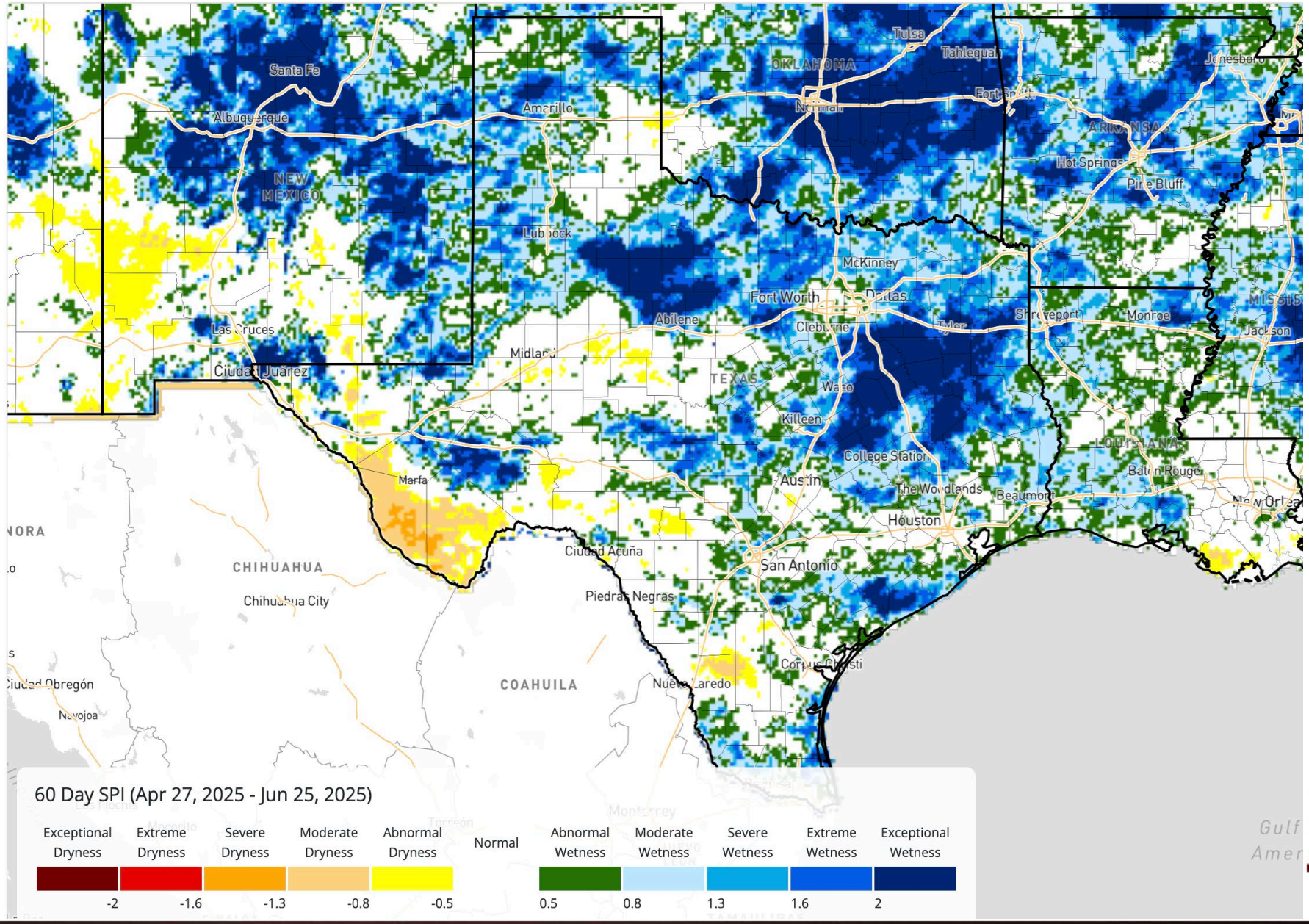

Map Options

Date:

2025-06-25

Gridded Data:

60 Day SPI Blend

Zoom To:

Texas

Map Layers:

- [x] States
- [ ] Rivers
- [x] Highways
- [ ] Climate Divisions
- [x] County Boundaries
- [ ] County Labels
- [ ] HUC
- [ ] Radar Coverage
- [ ] USDM

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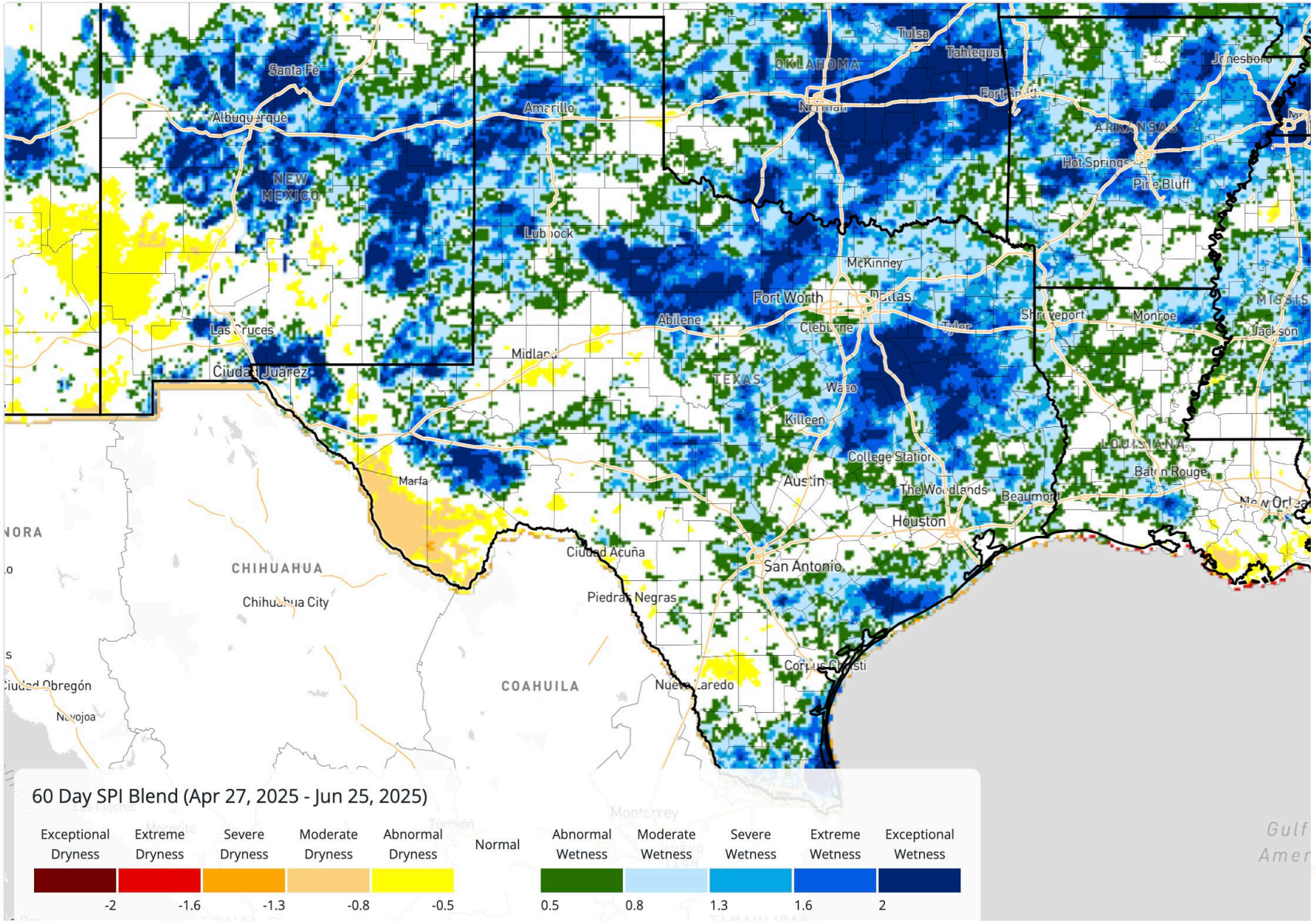

Map Options

Date:

2025-06-25

Gridded Data:

12 Month SPI Blend

Zoom To:

Texas

Map Layers:

- [x] States
- [ ] Rivers
- [x] Highways
- [ ] Climate Divisions
- [x] County Boundaries
- [ ] County Labels
- [ ] HUC
- [ ] Radar Coverage
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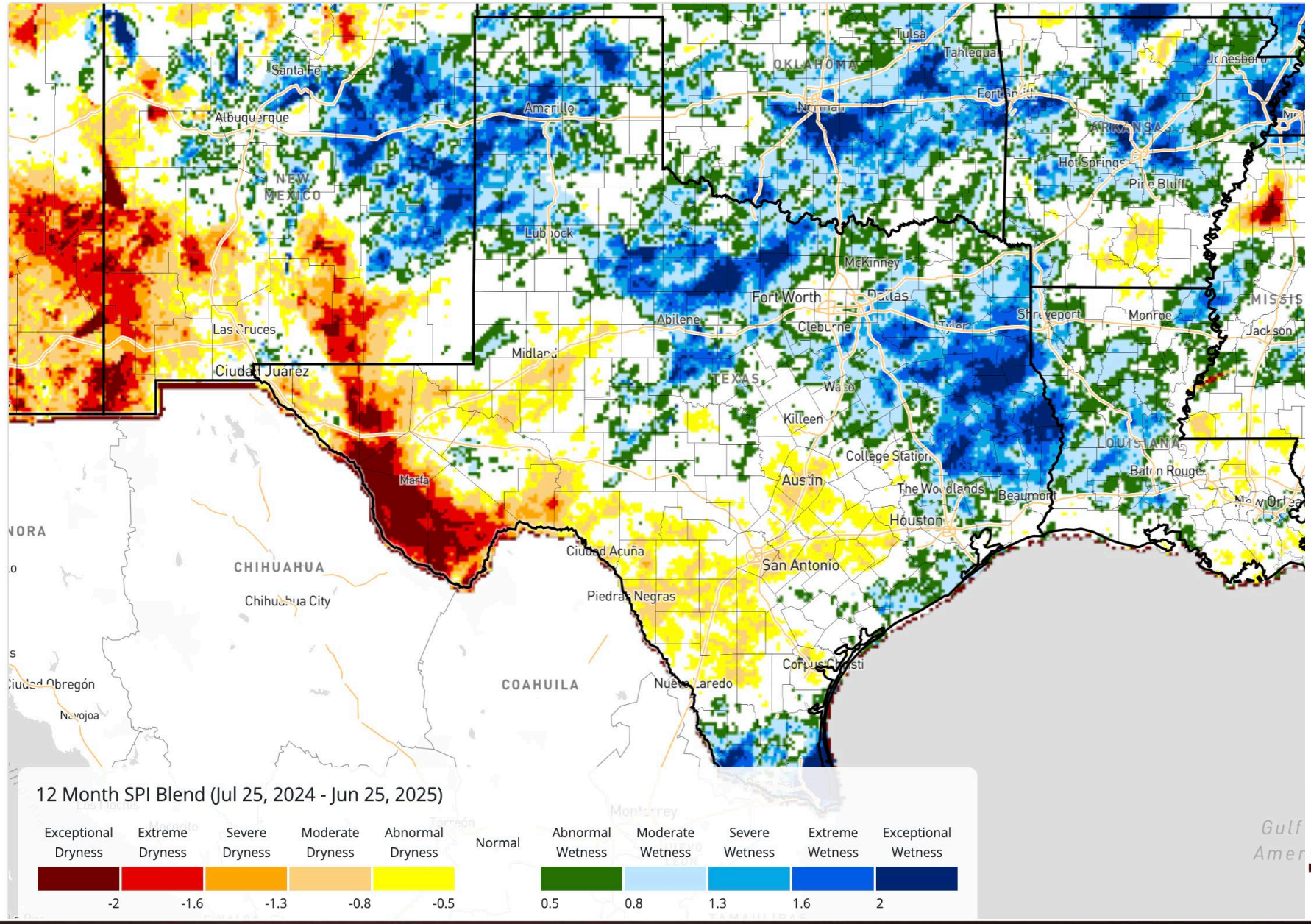
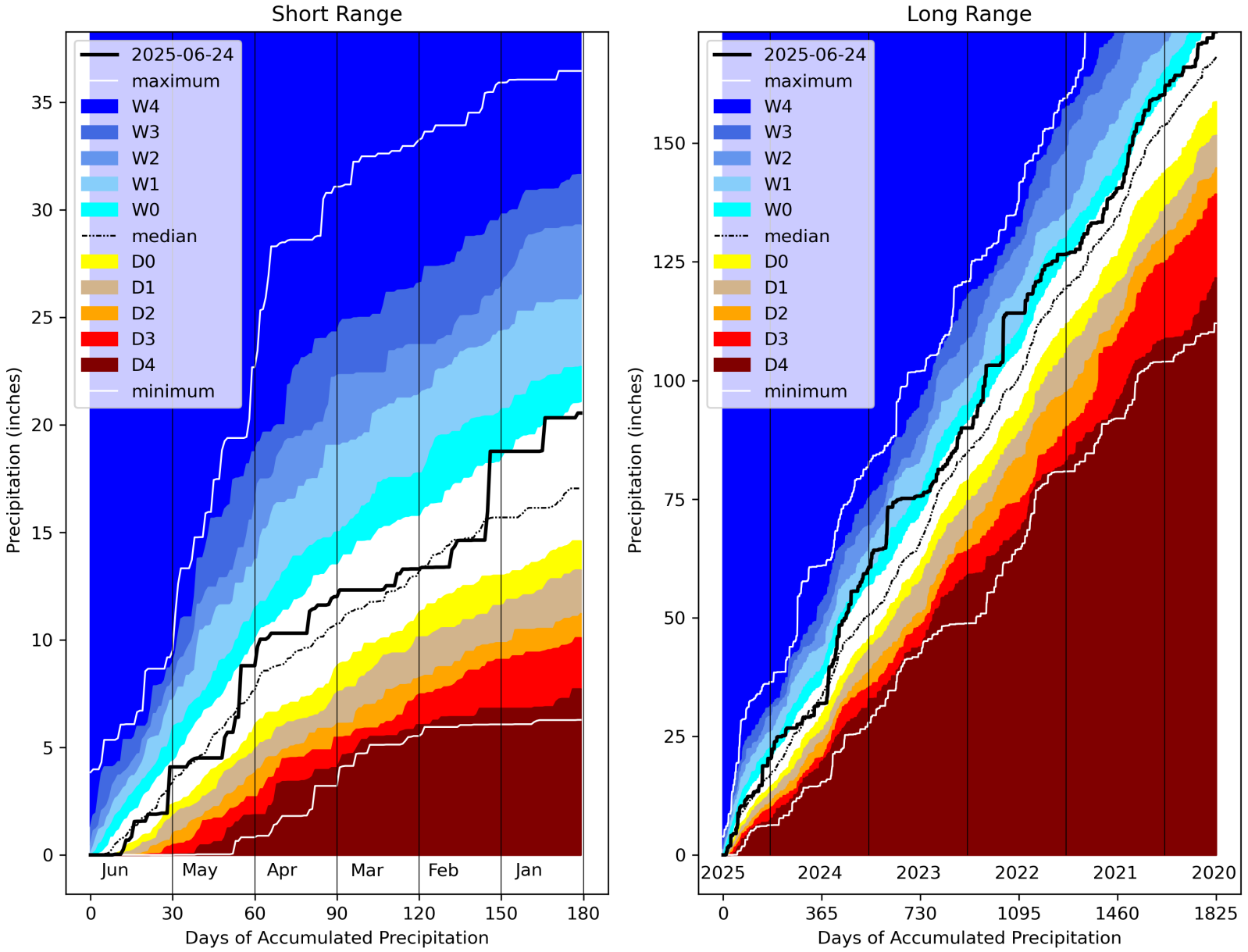
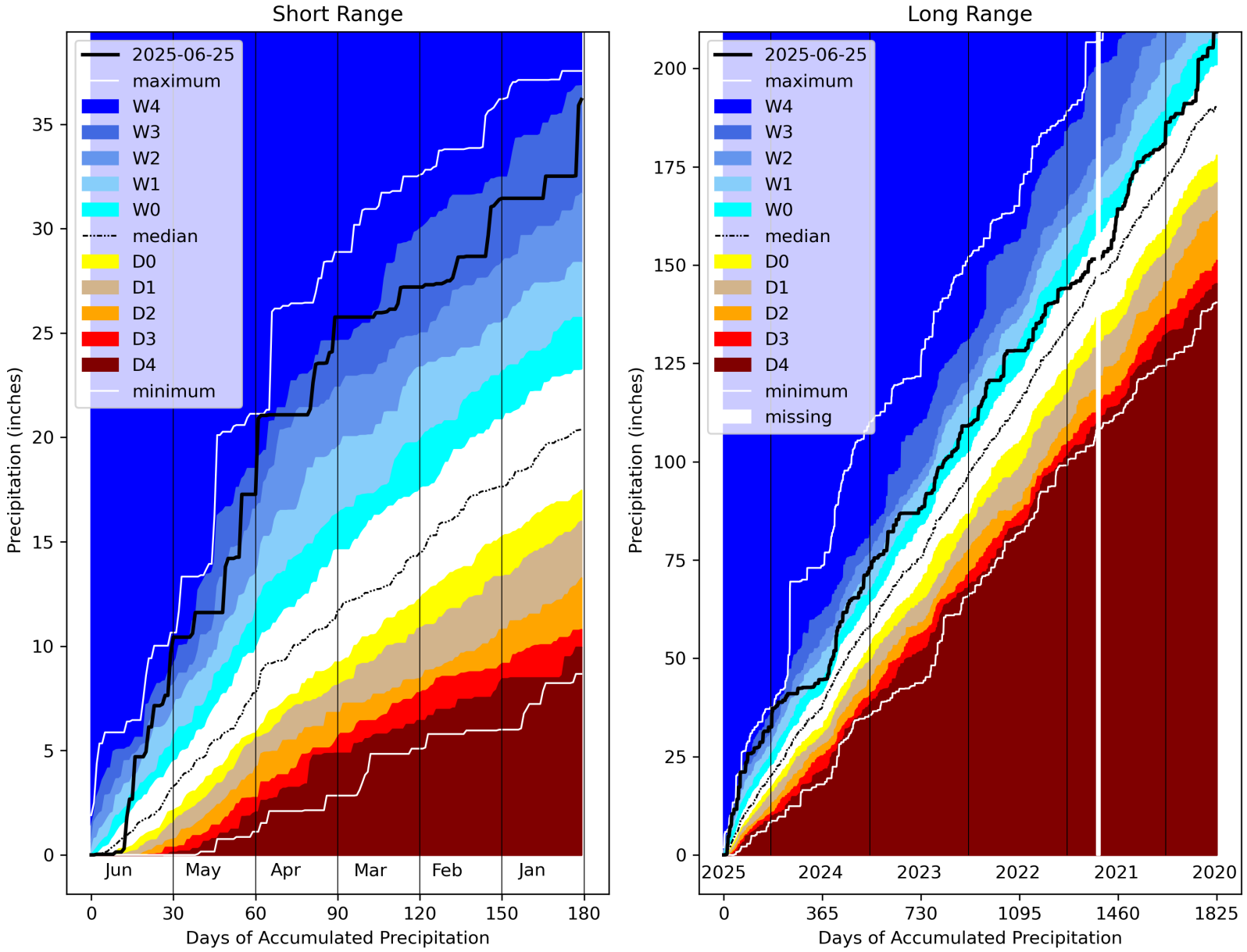
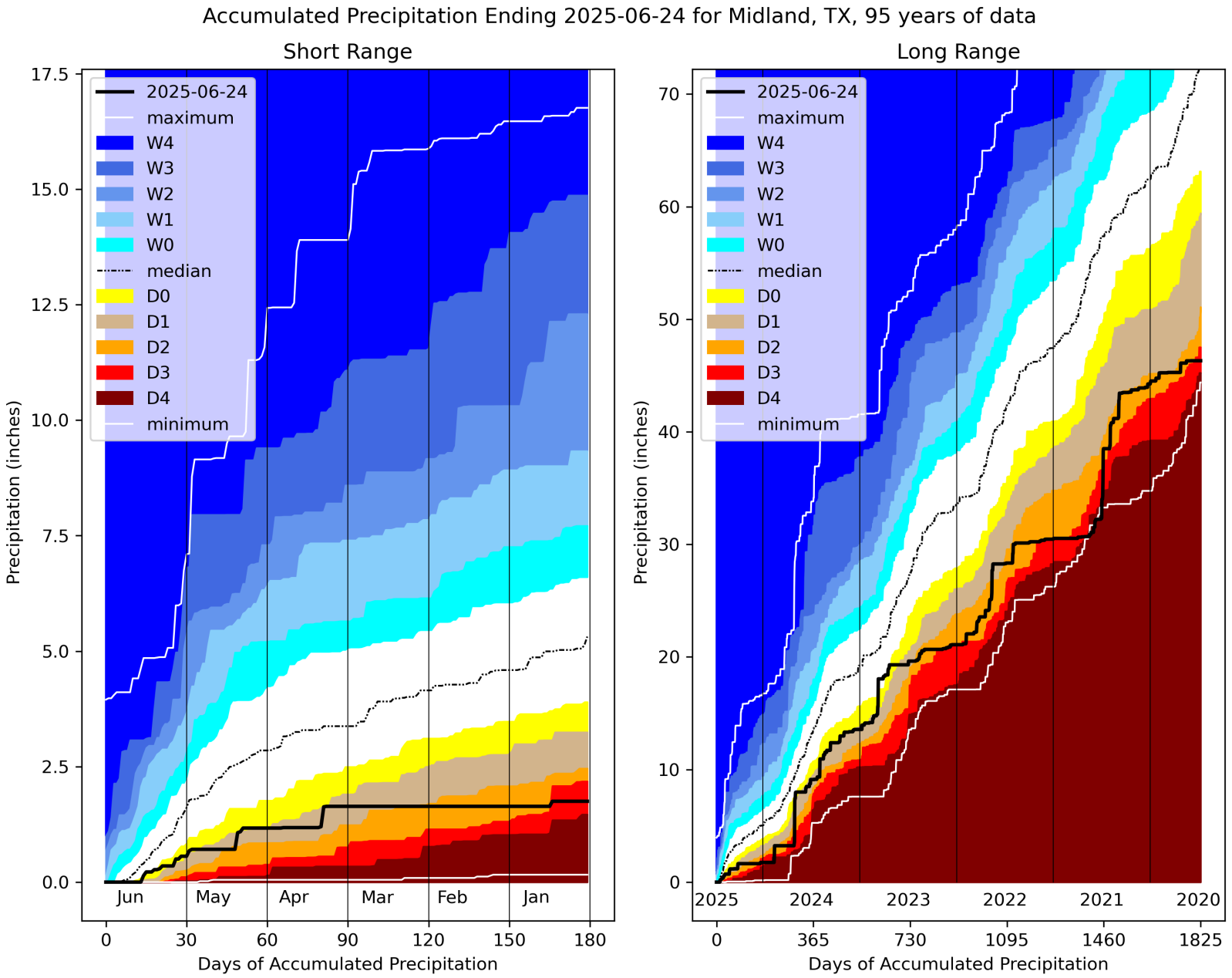


Accumulated Precipitation Ending 2025-06-24 for Dallas-Fort Worth, TX, 126 years of data

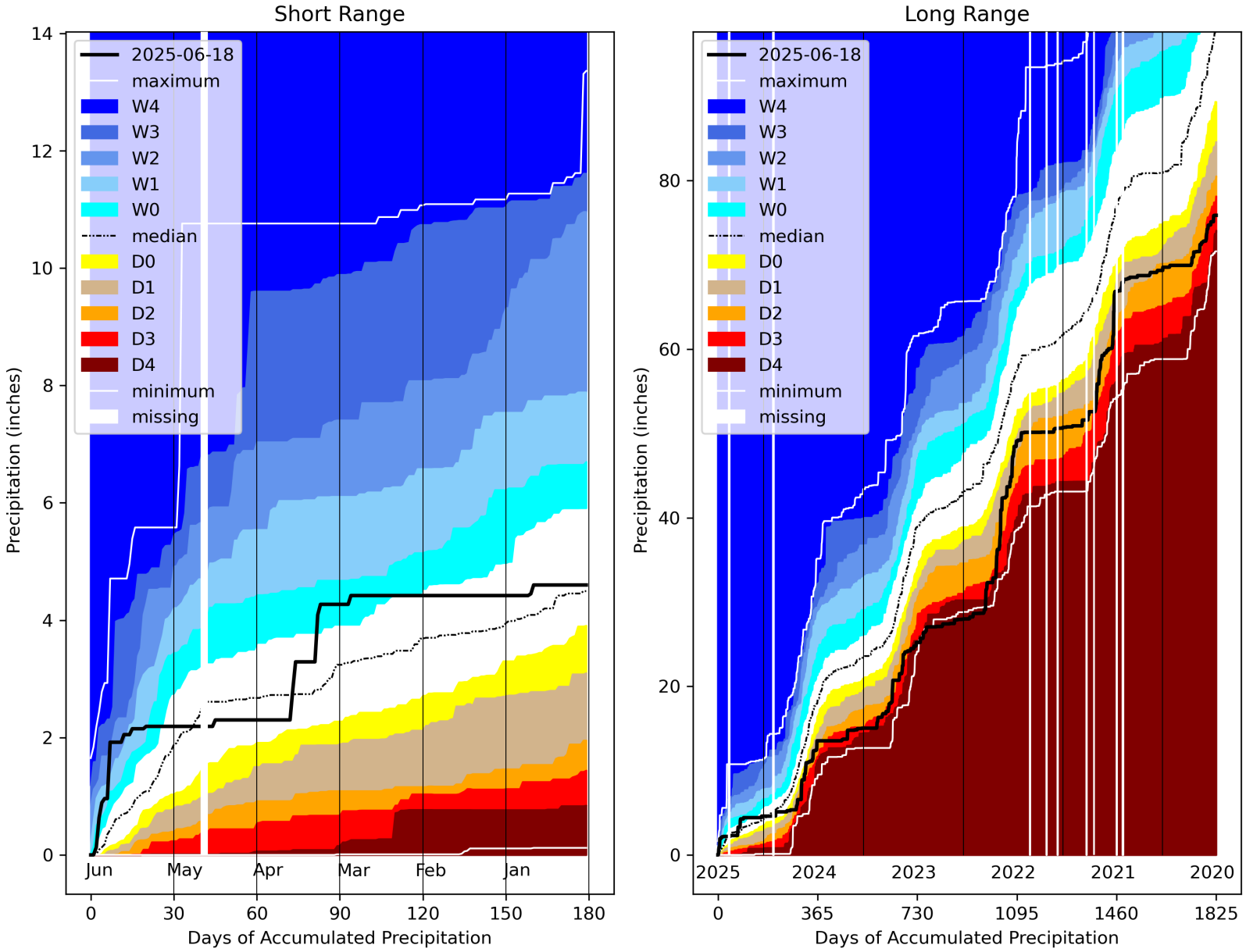


Accumulated Precipitation Ending 2025-06-25 for Corsicana, TX, 123 years of data

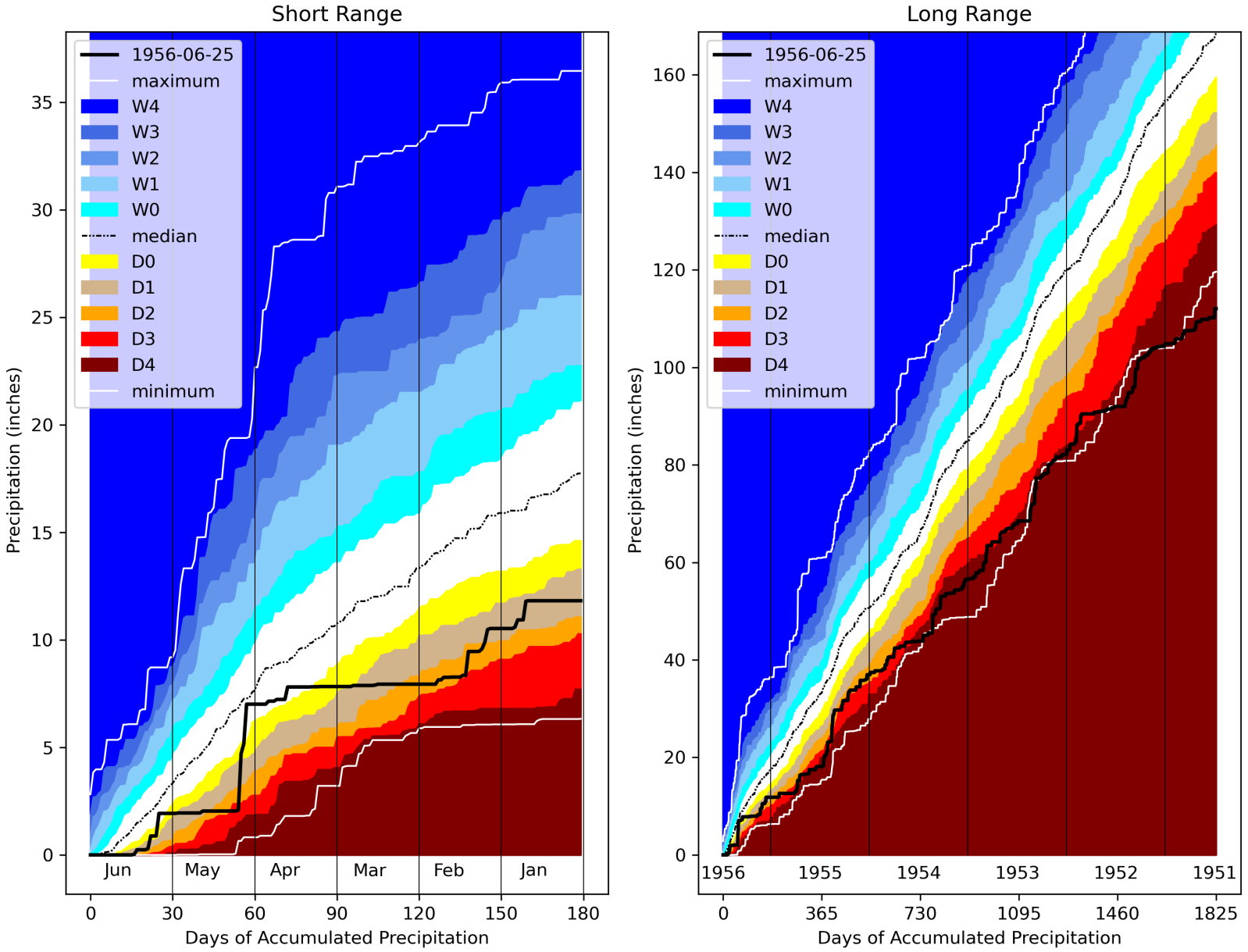



Accumulated Precipitation Ending 2025-06-24 for Midland, TX, 95 years of data
Short Range
Long Range
2025-06-24
maximum
W4
W3
W2
W1
W0
median
D0
D1
D2
D3
D4
minimum
Precipitation (inches)
Days of Accumulated Precipitation
Jun
May
Apr
Mar
Feb
Jan
2025
2024
2023
2022
2021
2020

Accumulated Precipitation Ending 2025-06-18 for Mount Locke, TX, 90 years of data

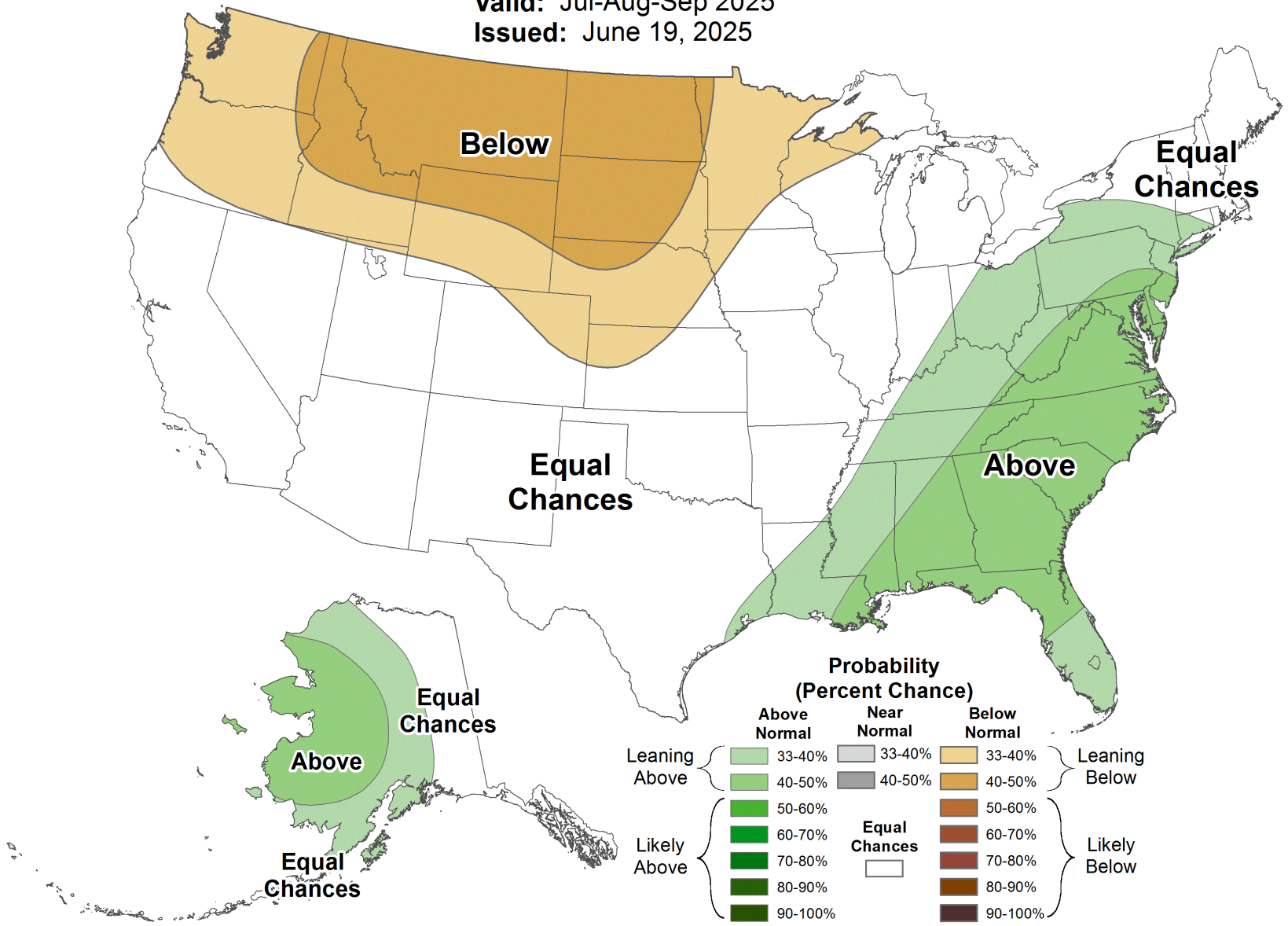


Accumulated Precipitation Ending 1956-06-25 for Dallas-Fort Worth, TX, 126 years of data



Seasonal Precipitation Outlook

Valid: Jul-Aug-Sep 2025
Issued: June 19, 2025



www.cpc.ncep.noaa.gov/products/predictions/90day/

National Weather Service

Climate Prediction Center

Site Map | News

HOME > Outlook Maps > Monthly to Seasonal Outlooks > Seasonal Outlooks

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CPC search Go

Map Explanations
Official Fcsts
Fcst Tools

Past Forecasts
Archives/ Verifications

Seasonal Postmortem

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CPC Information
CPC Web Team

USA.gov Government Made Easy

Three-Month Outlooks

OFFICIAL Forecasts

Click below for archives of past outlooks (data & graphics), verifications of past outlooks, and GIS data for current outlooks

Archives Verifications GIS Data

Text-Format Discussions

Prognostic Discussion

Tools Discussion

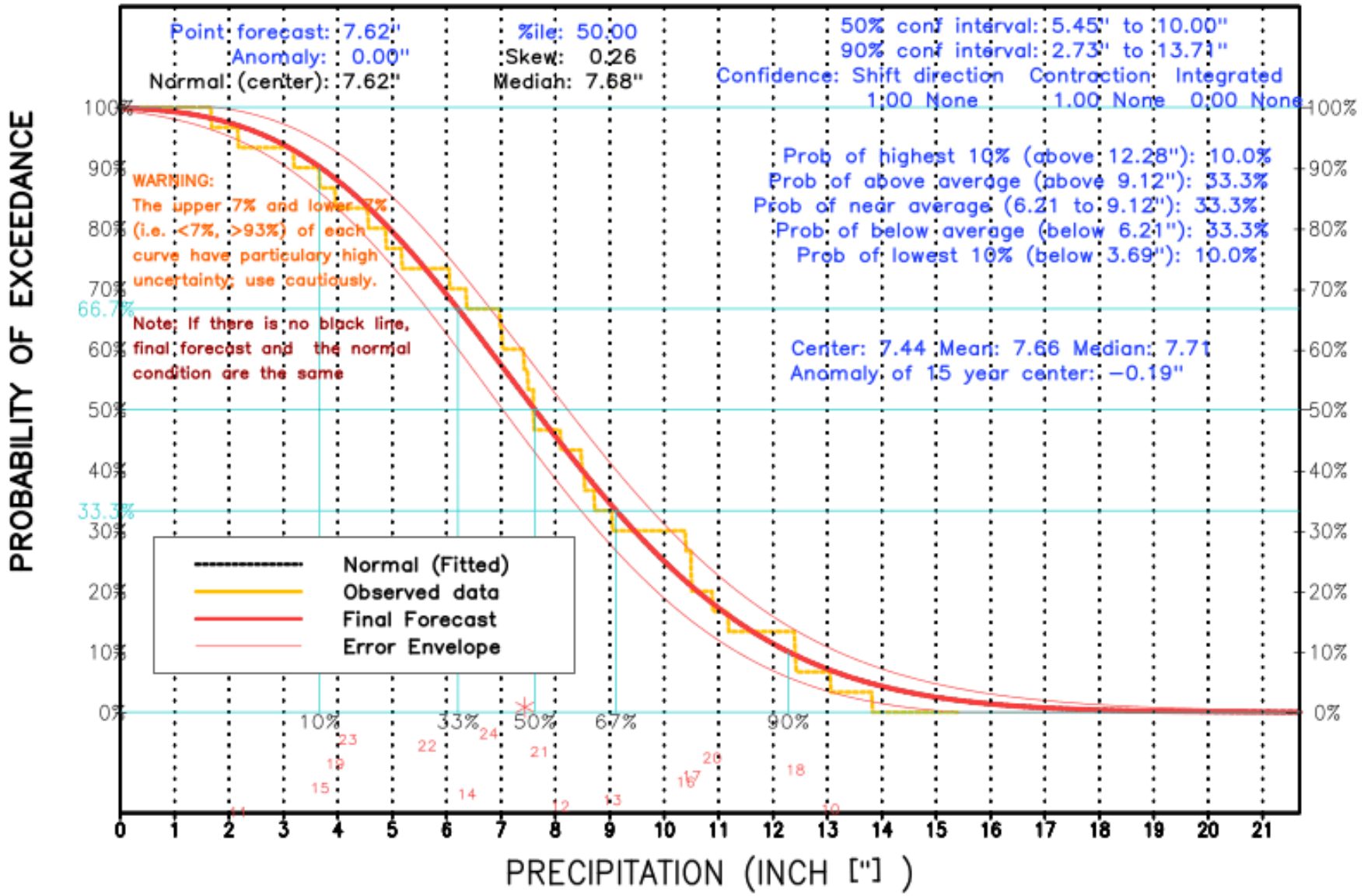
30-& 90-Day Hawaiian Discussion

OUTLOOKS (click title for maps)	Norm	Prob of Exceed (Interactive)	
		T	P
0.5 Month Outlook for Jul-Aug-Sep 2025	N	T	P
1.5 Month Outlook for Aug-Sep-Oct 2025	N	T	P
2.5 Month Outlook for Sep-Oct-Nov 2025	N	T	P
3.5 Month Outlook for Oct-Nov-Dec 2025	N	T	P
4.5 Month Outlook for Nov-Dec-Jan 2025 - 26	N	T	P

PRECIPITATION OUTLOOK FOR JAS 2025

0.5 MONTH LEAD OUTLOOK – MADE Jun 19 2025

Climate Division 61 (Dallas Region, Texas)



MEAN TEMPERATURE OUTLOOK FOR JAS 2025

0.5 MONTH LEAD OUTLOOK – MADE Jun 19 2025

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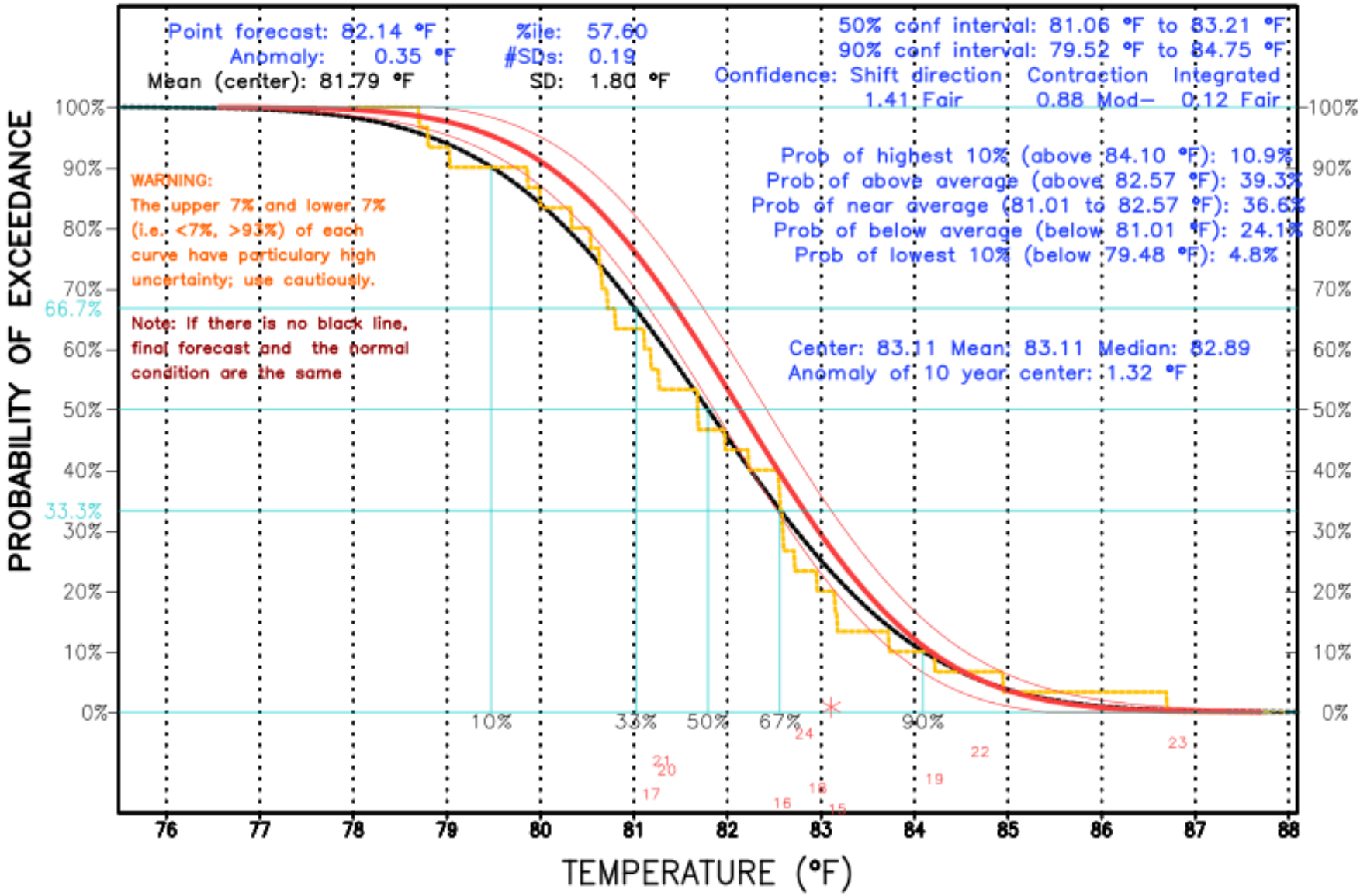


Contact Info

- John Nielsen-Gammon, n-g@tamu.edu
- https://climatexas.tamu.edu
- https://srcc.tamu.edu
- https://www.cpc.ncep.noaa.gov

Speaker Introduction

Deborah Bathke

Nebraska State Climatologist

Research Associate Professor at the University of Nebraska–Lincoln

Collaborative Drought Planning Using Drought Scenario Exercises

Collaborative Drought Planning Using Scenario Exercises is an interactive website that provides information and tools to help plan drought scenario-based exercises — structured, interactive activities designed for engaging decision-makers, stakeholders, planners, emergency managers, and others in the process of planning and managing a hypothetical drought.

Presenters

Deborah Bathke
Education & Outreach Coordinator,
National Drought Mitigation Center,
University of Nebraska – Lincoln

Tonya Bernadt
Education and Outreach Specialist,
National Drought Mitigation Center,
University of Nebraska – Lincoln

WEBINAR • MARCH 6, 2024 • 1:00 PM - 2:00 PM (ET)

ncrcrd
NORTH CENTRAL
REGIONAL CENTER
FOR RURAL DEVELOPMENT

Climbing the IAP2 Ladder with Marketing Hometown America

Marketing Hometown America (MHA) is a community-based people attraction program that incorporates IAP2 levels of public participation. IAP2 is an internationally recognized framework that helps practitioners determine the public's role and level of participation in any deliberative engagement process. The MHA curriculum has integrated various engagement tools and tactics that move decision-makers through the IAP2 levels, from inform to empower.

Presenters:

Lynn Adams
Field Specialist, Community Economic Development, Iowa State University Extension and Outreach

Dr. Cheryl Burkhart-Kriesel
Extension Specialist, Rural Prosperity Nebraska, Department of Agricultural Economics, University of Nebraska-Lincoln

Marilyn Schlake
Extension Educator, Rural Prosperity Nebraska, Department of Agricultural Economics, University of Nebraska-Lincoln

WEBINAR • APRIL 29, 2024 • 3:00 PM - 4:00 PM (ET)

ncrcrd
NORTH CENTRAL REGIONAL CENTER FOR RURAL DEVELOPMENT

Deborah Bathke, Ph.D., Education Coordinator
Tonya Bernadt, M.S., Education and Outreach Specialist

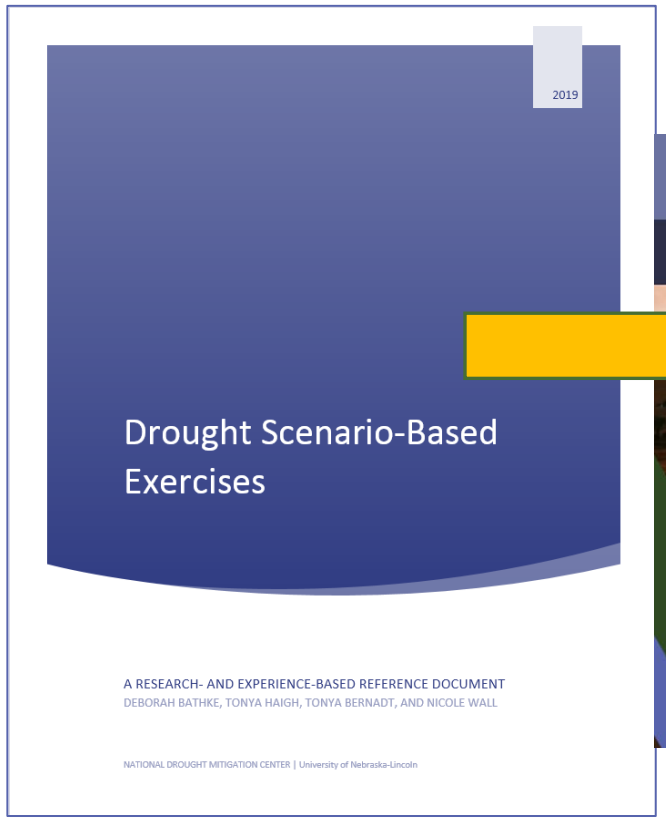
NORTH CENTRAL REGION WATER NETWORK

NDMC NATIONAL DROUGHT MITIGATION CENTER UNIVERSITY OF NEBRASKA

NCRCRD North Central Regional Center for Rural Development

Funding support provided by the North Central Region Water Network and North Central Regional Center for Rural Development

https://drought.unl.edu/scenarioguide



NATIONAL DROUGHT MITIGATION CENTER
UNIVERSITY OF NEBRASKA

NORTH CENTRAL REGION WATER NETWORK

NDMC NATIONAL DROUGHT MITIGATION CENTER UNIVERSITY OF NEBRASKA

NCRCRD North Central Regional Center for Rural Development

Funding support provided by the North Central Region Water Network and North Central Regional Center for Rural Development

NCRWN & NCRCD Project

Interactive Extension guide on using scenario exercises for collaborative drought planning

Mark Svoboda

NDMC NATIONAL DROUGHT MITIGATION CENTER UNIVERSITY OF NEBRASKA

Miranda Meehan

NDSU EXTENSION SERVICE

Tyler Williams

N EXTENSION

Laura Edwards

SDSU Extension

Peter Tomlinson

K-STATE Research and Extension

Hans Schmitz

PURDUE EXTENSION

Project Team - Extension

Question #1

How familiar are you with drought-based scenario exercises?

HTTPS://POLLEV.COM/TONYAB436

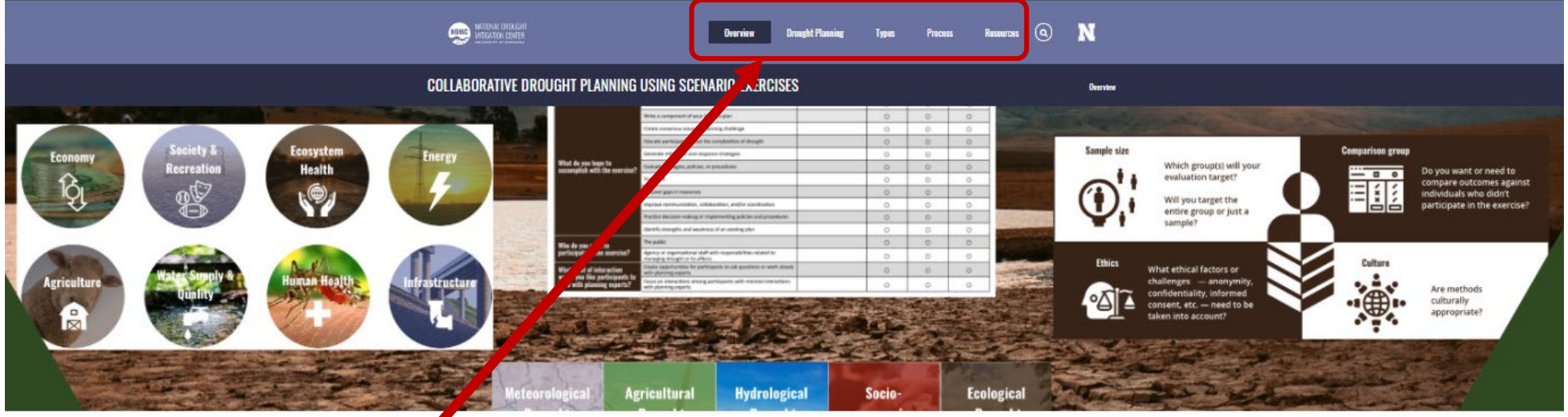
What are scenario exercises?

Activities used to plan & manage a hypothetical disaster

Bridgelyn

Challenge: During a drought, the demand for water is higher than usual. As the drought progresses, the water demand increases and leads to a pump failure in one of your municipal wells, which leads to a reduction of water supply to some communities. The pump repair will take 3 days. Ensure that people will have enough drinking water during those days.

Option A **Decrease water demand** Implement conservation practices and decrease demand on other pumps in the city.	Option B **Increase water supply** Bring more water into the area affected by pump failure.
MONITORING	**MONITORING**
Water use maps	Groundwater maps & Information about vulnerable populations
PUBLIC INFORMATION AND WARNING	**TRANSPORTATION**
Prepared public information messages OR Education on conservation practices	Water supply tanks



Collaborative Drought Planning Using Scenario Exercises provides information and tools to help plan drought scenario-based exercises — structured, interactive activities designed for engaging decision-makers, stakeholders, planners, and emergency managers in the process of planning and managing mitigation and response activities for a hypothetical drought.

The guide has been broken down into four sections, each with background information, tips, examples, and tools to help you understand roles that scenario-based exercises can play in reducing drought risk and to select and begin planning an exercise for your community or organization. Consider the information and approaches presented here as guidance based on research and experience rather than as a fixed set of steps and procedures. The goal is to present previously successful strategies you can employ to design the right exercise for your group.

Website sections

Drought Planning

Introduces drought planning and the role that scenario-based exercises play in preparedness.

Types

Describes the three forms of exercises and presents information to aid selection.

Process

Lays the groundwork for designing a successful drought scenario-based exercise.

Resources

Provides resources including case studies, research findings, a glossary, and references.

https://drought.unl.edu/scenarioguide

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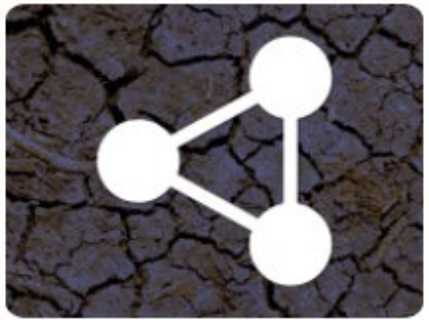

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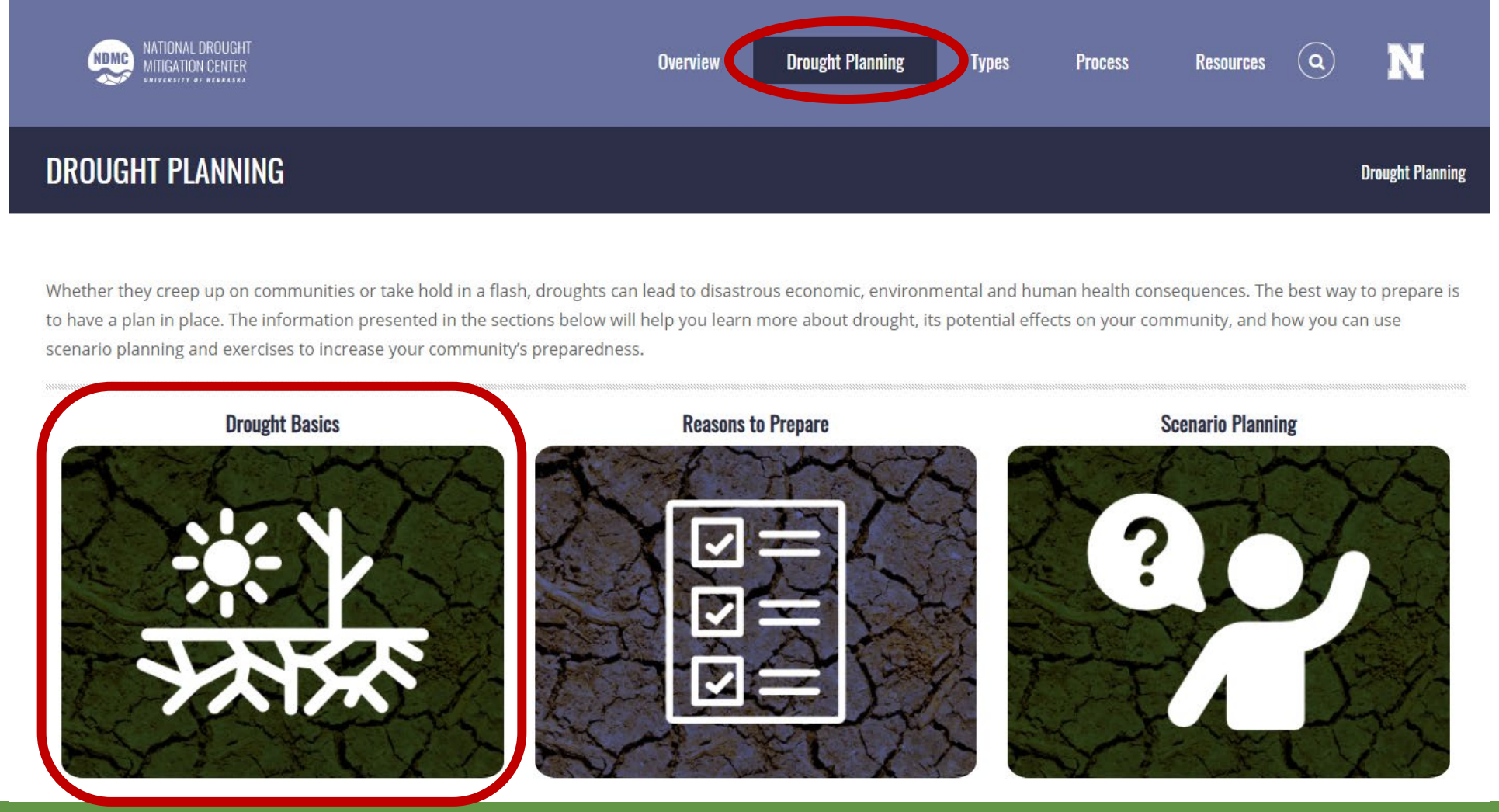


Scenario exercises and their contribution to drought planning

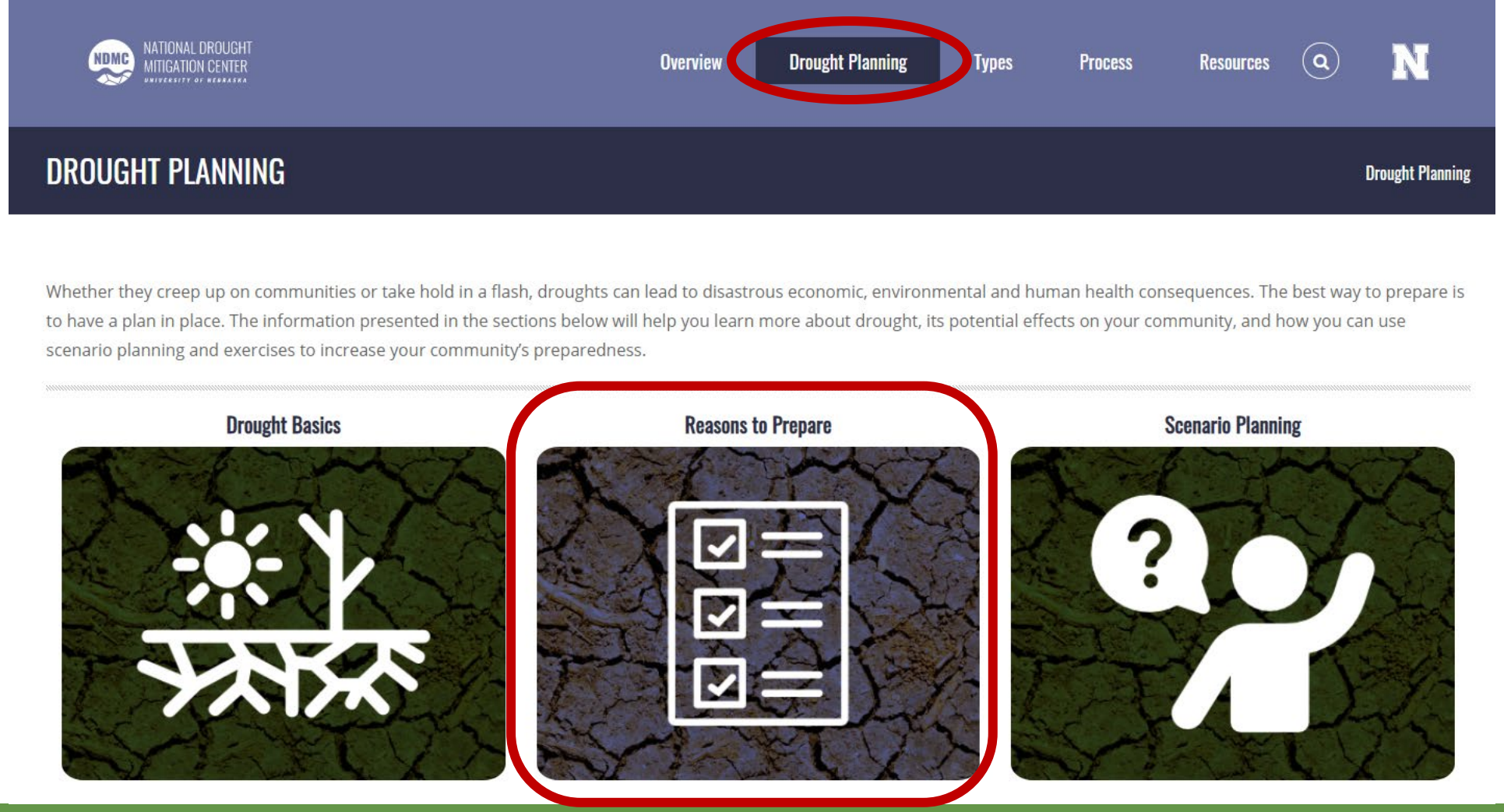
Defining Drought

Key point

Drought can mean different things to different people.
Click on a perspective to learn more.

Agricultural Drought
Effects of rain/snow deficits on crop and forage growth

Hydrological Drought
Effects of rain/snow deficits on streamflow, lakes and reservoirs, and groundwater



Scenario exercises and their contribution to drought planning

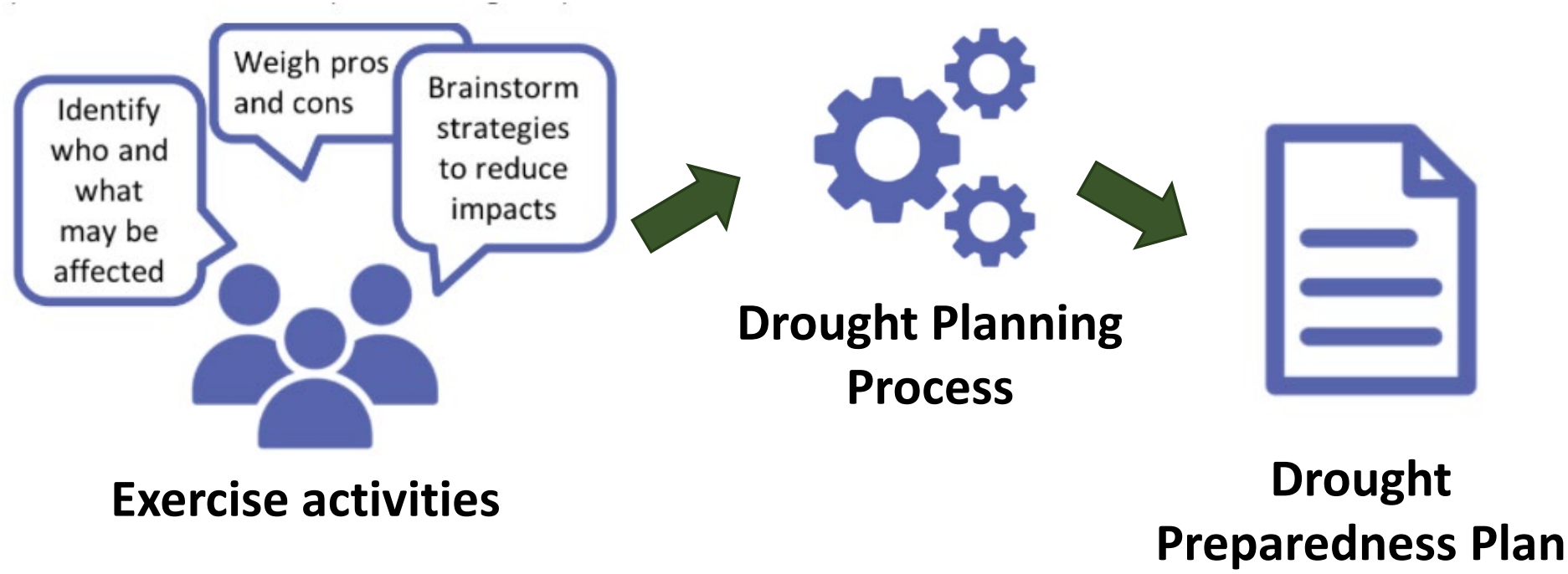
Drought Impacts

Click on a sector to see examples of recent drought impacts.

- Decreased air and water quality can cause respiratory issues, skin irritation, or gastrointestinal problems.
- Stagnant water can lead to increased West Nile case numbers.
- Financial burdens experienced during drought can escalate mental health issues.

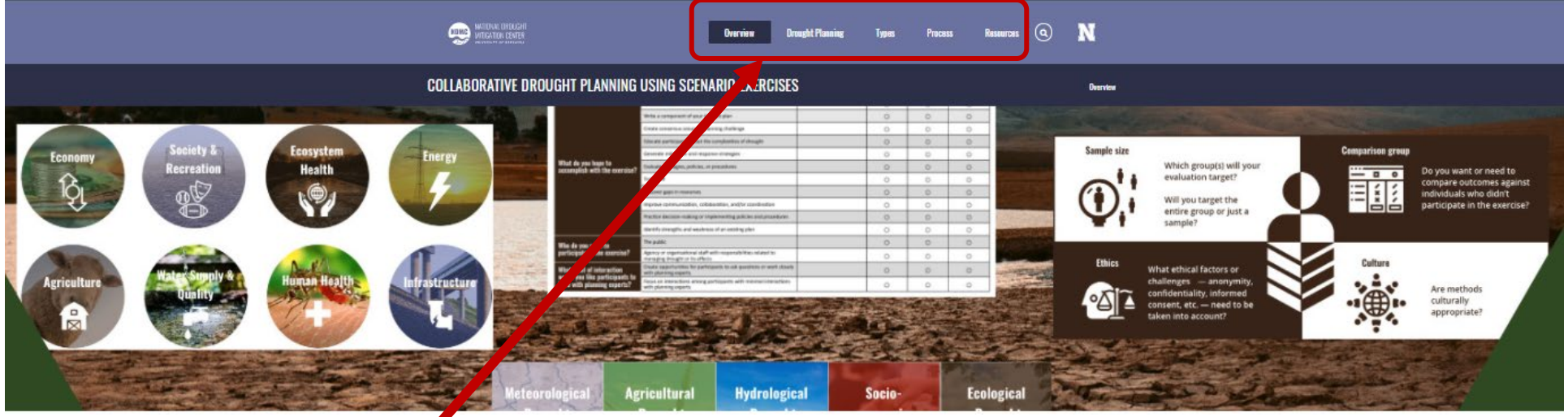
Prepare for impacts

Scenario-based exercises offer opportunities to address and plan for drought impacts before they happen. Here's how:



Drought Planning Process

No matter where you are in the drought planning process, scenario-based exercises can make a contribution.



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https://drought.unl.edu/scenarioguide

NATIONAL DROUGHT MITIGATION CENTER
UNIVERSITY OF NEBRASKA

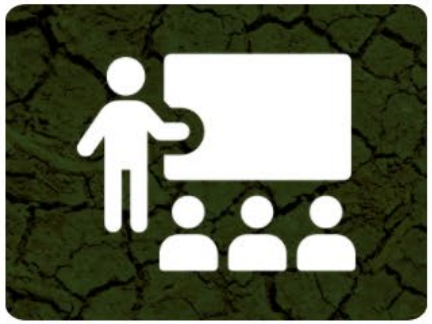
Overview | Drought Planning | Types | Process | Resources

TYPES

Types

Discussion-based drought scenario exercises offer an innovative way to actively engage your community or organization in conversations related to planning for and responding to drought. They can take the form of a workshop, tabletop exercise, or a game. Explore how these exercise types are used.

Workshops



Informal discussions with presentations and breakout groups.

Games

Friendly competition with teams and interactive learning.

Tabletop Exercises

Low-stress walk-through of plan implementation.

Compare Exercises

Compare key characteristics of all exercise types.

3 types of discussion-based exercises

Comparison chart

Workshops

Focus:

Gathering information, sharing or generating new knowledge, and building products.

Workshops

CASE STUDY: WORKSHOP

North Platte River Basin Drought THIRA

Kearney, Nebraska • April 2017

NDMC NATIONAL DROUGHT MITIGATION CENTER UNIVERSITY OF NEBRASKA

TYPE	Workshop
DURATION	1 day
SCOPE	Sub-state, multi-sector
PARTICIPANTS	• Stakeholders and decision-makers in: natural resources energy, municipalities, emergency management, and recreation and tourism sectors • Facilitators • Coordinators • Developers
PARTICIPANT COUNT	40
PARTICIPANT ROLE	• Discussion group member • Facilitators • Drought experts
MATERIALS	• Hydrologic, climatic, and socio-economic data • GIS • Expert opinion • Flipcharts
DEVELOPMENT TEAM	• University of Nebraska Public Policy Center • National Drought Mitigation Center • High Plains Regional Climate Center
APPROXIMATE COST	$3,000 for catering, facilities, and staff travel. Excludes staff time for exercise development
FUNDING SOURCE	NOAA Sectoral Applications Research Program (SARP)

SCENARIO

The scenario was set in the North Platte River Basin with participants engaging in group discussions focused on 16 of the 32 core capabilities identified in the National Preparedness Goal.

Participants could attend four groups, with each group focusing on a different core capability. Based on a scenario consisting of a 5-year drought with challenges such as wildfires, dust storms, West Nile, water supply and quality, decreased agricultural production, heatwaves, and power outages, participants identified desired preparedness, response, and recovery capabilities.

OBJECTIVES

- Determine the usefulness of the Department of Homeland Security's THIRA process for drought planning
- Educate participants on the multi-sector impacts of drought
- Identify drought preparedness capabilities and required resources
- Increase collaboration in the planning process

Games

Focus:

Collective learning in a friendly, competitive environment.

Games

CASE STUDY: GAME

Iowa Multi-hazard Tournament

Cedar Rapids, Iowa • September 2016

NDMC NATIONAL DROUGHT MITIGATION CENTER UNIVERSITY OF NEBRASKA

TYPE	Game
DURATION	1 day
SCOPE	Sub-state, multi-sector
PARTICIPANTS	Representatives of: • Federal, state, and local governments • Non-governmental organizations • Farmers • Academics
PARTICIPANT COUNT	60
PARTICIPANT ROLE	• Multi-sector team player • Team facilitator • Announcer • Referee
MATERIALS	• Hydrologic, climatic, and drought impact data • Hydrologic model • Web based decision-support system • Expert knowledge • Play book • Computers and monitors
DEVELOPMENT TEAM	• U.S. Army Corps of Engineers Institute for Water Resources and Rock Island District • Iowa State University, University of Iowa, University of Nebraska, Lincoln • Natural Resources Conservation Service • USDA, NOAA, USGS • The City of Cedar Rapids • UNESCO HELP • The Nature Conservancy • Sandia Labs
APPROXIMATE COST	$200,000
FUNDING SOURCE	U.S. Army Corps of Engineers of City of Cedar Rapids, IA

SCENARIO

Participants worked within teams to select appropriate adaptation options for the scenarios under the constraints of time, budgets, state and municipal regulations, and technical aspects.

Game challenges took place over four rounds and included: (1) the selection of water management strategies and adaptation options for a 20-year planning period for a (2) flood, (3) drought, and (4) climate change. The scenario was set in the Cedar River Basin and was based upon hydrologic modeling and climate information.

OBJECTIVES

- Increase the participants' awareness of policies, strategies, and resources to reduce drought, flood, and water quality risks
- Evaluate the impacts of mitigation strategies for different climate conditions
- Build relationships and potential partnerships between stakeholders

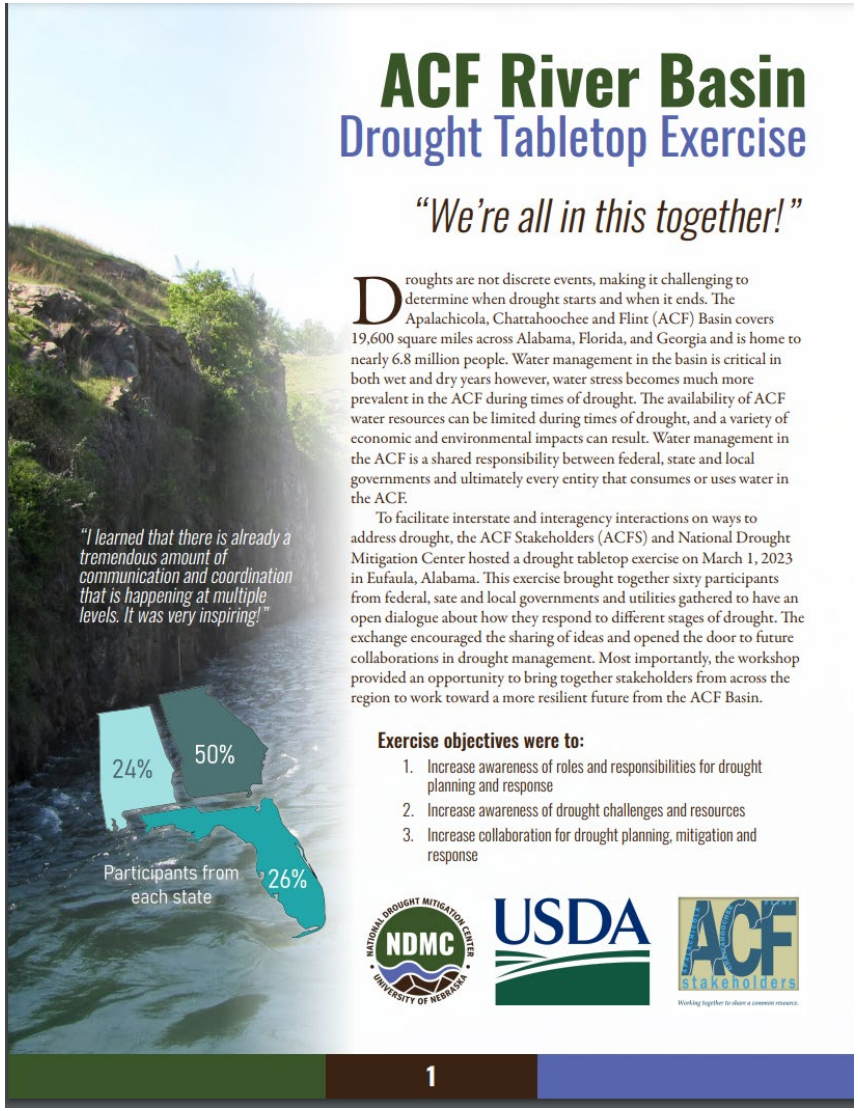
Players use the context of a scenario to evaluate and select potential drought management strategies

Tabletop exercises

Focus:

Low stress walk through of an existing drought plan

Tabletop exercises



ACF River Basin
Drought Tabletop Exercise

"We're all in this together!"

"I learned that there is already a tremendous amount of communication and coordination that is happening at multiple levels. It was very inspiring!"

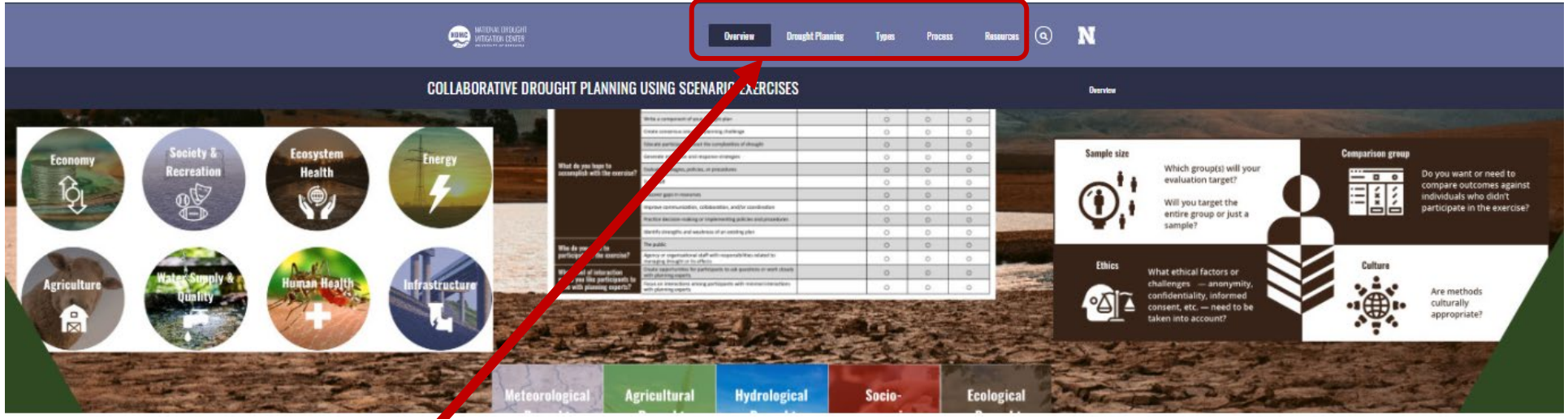
Droughts are not discrete events, making it challenging to determine when drought starts and when it ends. The Apalachicola, Chattahoochee and Flint (ACF) Basin covers 19,600 square miles across Alabama, Florida, and Georgia and is home to nearly 6.8 million people. Water management in the basin is critical in both wet and dry years however, water stress becomes much more prevalent in the ACF during times of drought. The availability of ACF water resources can be limited during times of drought, and a variety of economic and environmental impacts can result. Water management in the ACF is a shared responsibility between federal, state and local governments and ultimately every entity that consumes or uses water in the ACF.

To facilitate interstate and interagency interactions on ways to address drought, the ACF Stakeholders (ACFS) and National Drought Mitigation Center hosted a drought tabletop exercise on March 1, 2023 in Eufaula, Alabama. This exercise brought together sixty participants from federal, sate and local governments and utilities gathered to have an open dialogue about how they respond to different stages of drought. The exchange encouraged the sharing of ideas and opened the door to future collaborations in drought management. Most importantly, the workshop provided an opportunity to bring together stakeholders from across the region to work toward a more resilient future from the ACF Basin.

Exercise objectives were to:

1. Increase awareness of roles and responsibilities for drought planning and response
2. Increase awareness of drought challenges and resources
3. Increase collaboration for drought planning, mitigation and response

	Workshop	Games	Tabletop Exercise
Needs	▪ Write a plan component ▪ Education or training ▪ Knowledge sharing ▪ Build consensus ▪ Improve collaboration and communication ▪ Generate mitigation and response strategies ▪ Identify resource needs	▪ Engage a wide variety of individuals in the planning process ▪ Education ▪ Knowledge sharing ▪ Build consensus ▪ Improve collaboration and communication ▪ Explore and evaluate mitigation and response strategies ▪ Practice resource and/or budget allocation	▪ Promote plan familiarity ▪ Training ▪ Information sharing ▪ Practice group problem solving and decision-making ▪ Evaluate mitigation and response strategies ▪ Identify gaps in resource or staff allocation
Format	Informal discussion with presentations and breakout groups	Friendly competition with teams and interactive learning	Low-stress walk through of plan implementation
Participants	Single- or multi-sector Stakeholder or agency	Multi-sector stakeholder	Anyone with a policy, planning or response role
Time	4 hours to multiple days	2–8 hours	1–4 hours
Planning stage	Developing or existing plan	Developing or existing plan	Existing plan



Collaborative Drought Planning Using Scenario Exercises provides information and tools to help plan drought scenario-based exercises — structured, interactive activities designed for engaging decision-makers, stakeholders, planners, and emergency managers in the process of planning and managing mitigation and response activities for a hypothetical drought.

The guide has been broken down into four sections, each with background information, tips, examples, and tools to help you understand roles that scenario-based exercises can play in reducing drought risk and to select and begin planning an exercise for your community or organization. Consider the information and approaches presented here as guidance based on research and experience rather than as a fixed set of steps and procedures. The goal is to present previously successful strategies you can employ to design the right exercise for your group.

Website sections

Drought Planning

Introduces drought planning and the role that scenario-based exercises play in preparedness.

Types

Describes the three forms of exercises and presents information to aid selection.

Process

Lays the groundwork for designing a successful drought scenario-based exercise.

Resources

Provides resources including case studies, research findings, a glossary, and references.

https://drought.unl.edu/scenarioguide

EXERCISE DEVELOPMENT PROCESS

You'll need to consider a wide range of aspects in the design and development of the scenario-based exercise to ensure that it produces the results, findings, or changes that you hope to achieve. To help approach this complex task, this section breaks down the process into five phases, each with information, tools, and resources to assist you with this process.

Foundation

Lay the groundwork for your exercise by assessing your needs and capabilities, establishing partnerships, and defining the scope and objectives.

Planning

Create a roadmap for design by selecting an exercise type, estimating costs, gaining support, and building work teams.

Design

Transform your plans into the products and materials that will be used to deliver the exercise and assess its effectiveness.

Implementation

Ensure the exercise goes smoothly by holding a pre-event orientation, managing logistics, setting expectations, and collecting data.

Impact

Get the most out of your exercise by assessing what went well and what didn't, planning your next steps, and help others by sharing lessons learned.

Consider Your Needs

The needs assessment is arguably the most important step since it builds the foundation for your entire drought scenario-based exercise. This assessment will help you define the problems, establish the reasons to conduct an exercise, and identify the challenges, functions, or tasks that you will address during the exercise.

Foundation Worksheet #1: Consider Your Needs (pdf)

Questions #3

What are your community's main drought concerns?

HTTPS://POLLEV.COM/TONYAB436

Assess your capacity

Planning, developing, delivering, and evaluating a drought scenario-based exercise takes a commitment of time and resources. Capacity can affect complexity & potential outcomes.

Example capacities for developing, convening, and evaluating a drought scenario-based exercise

Financial

Money that you can commit, leverage, or raise

Knowledge & Skills

Staff expertise, competence, and experience

Time

Preparation time and staff availability

Culture & Climate

Values, attitudes, and relationships

Facility & Materials

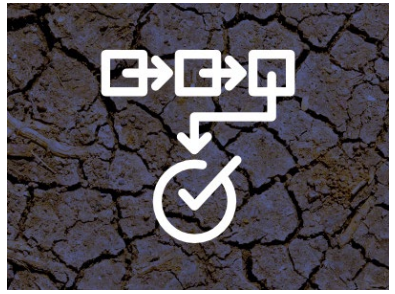
Concrete resources

[Foundation Worksheet #2: Assess Your Capacity (pdf)]

EXERCISE DEVELOPMENT PROCESS

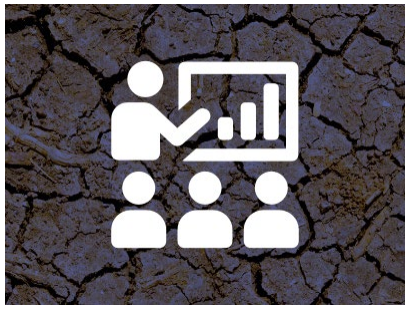
Foundation

Planning



Design

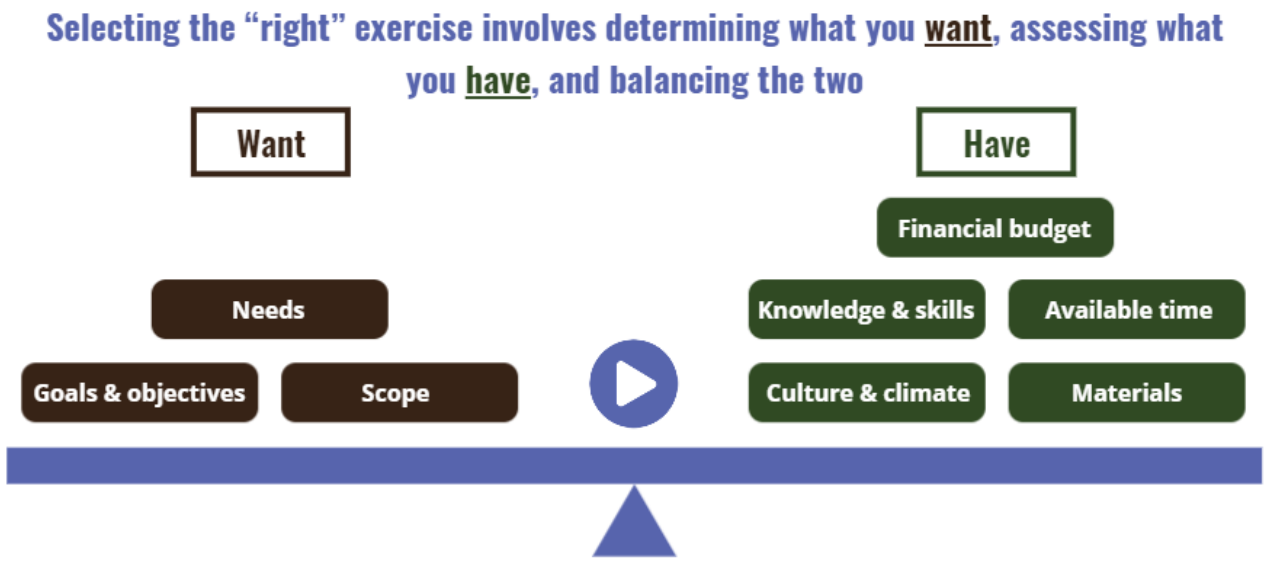
Implementation



Impact

Select an exercise type

There's no single, "best" exercise.



[Planning Worksheet #1: Select an Exercise Type]

Planning Worksheet #1

NATIONAL DROUGHT MITIGATION CENTER
UNIVERSITY OF NEBRASKA

Select an Exercise Type

This worksheet is intended to help you foster discussions with organizers and partners, weigh selection factors, and discover which exercise types are most compatible with your objectives, planning stage, and capacity. Please note: No worksheet can fully capture all of the unique needs and characteristics of your community or organization. This worksheet can help guide you when selecting an exercise.

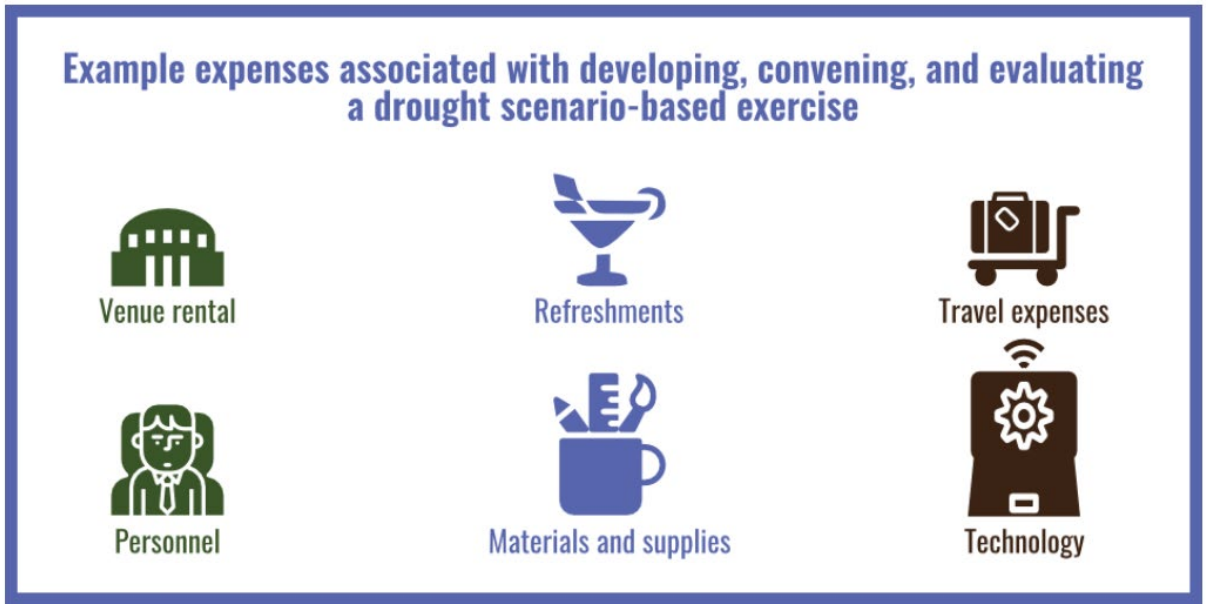
Step 1 Using the results from your needs assessment, identify the factors that are relevant to and a priority for your agency or organization.			**Step 2** Is this type of exercise compatible with the relevant factor? Circle YES responses and cross out NO responses.		
Factors		**Is this relevant and/or a priority? Yes/No**	**Workshop**	**Game**	**Tabletop**
What do you hope to accomplish with the exercise?	Collect or share information		YES	YES	NO
	Write a component of your drought plan		YES	NO	NO
	Create consensus around a planning challenge		YES	YES	NO
	Educate participants about the complexities of drought		YES	YES	YES
	Generate mitigation and response strategies		YES	YES	NO
	Evaluate strategies, policies, or procedures		NO	YES	YES
	Train staff		YES	NO	YES
	Discover gaps in resources		YES	NO	YES
	Improve communication, collaboration, and/or coordination		YES	YES	YES
	Practice decision-making or implementing policies and procedures		NO	YES	YES
	Identify strengths and weakness of an existing plan		NO	NO	YES
Who do you want to participate in the exercise?	The public		YES	YES	NO
	Agency or organizational staff with responsibilities related to managing drought or its effects		NO	NO	YES
What level of interaction would you like participants to have with planning experts?	Create opportunities for participants to ask questions or work closely with planning experts		YES	NO	YES
	Focus on interactions among participants with minimal interactions with planning experts		NO	YES	NO

https://drought.unl.edu/archive/documents/scenarioguide/worksheets/foundation/foundation-worksheet-exercise-scope.pdf

Select an exercise type → Estimate costs → Gain support → Identify working groups

Estimate costs

Costs vary depending on your capacity, the type of exercise and its complexity, your desired outcomes, and the technology and materials used



Planning Worksheet #2: Estimate Costs

Select an exercise type → Estimate costs → Gain support → Identify working groups

Identify Working Groups

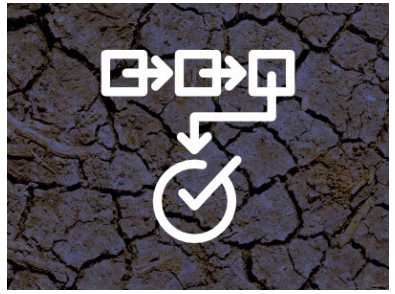
People who create the products needed to design, deliver, and assess the impact of the exercise.

Planning Worksheet #4: Identify Working Groups

EXERCISE DEVELOPMENT PROCESS

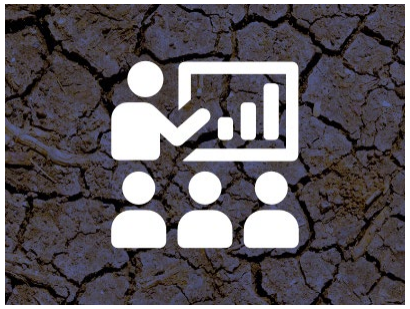
Foundation

Planning



Design

Implementation



Impact

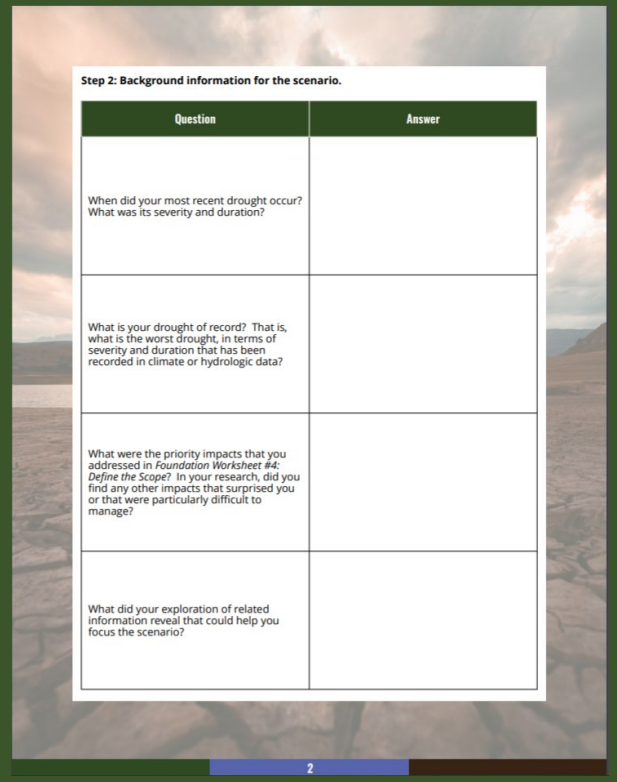
Organize the logistics | Build the scenario | Write the evaluation plan | Outline the facilitation methods

Build the scenario

Practical details that help ensure you exercise runs smoothly

Types	Scripted 	Diagram/storyboard 	Animation/simulation 
Definition	A text that describes the scenario, providing basic information about a drought and its effects.	A sequence of diagrams or other images that supplement the narrative.	A computer-based display of the behavior of multiple variables during a drought.

Collect background information

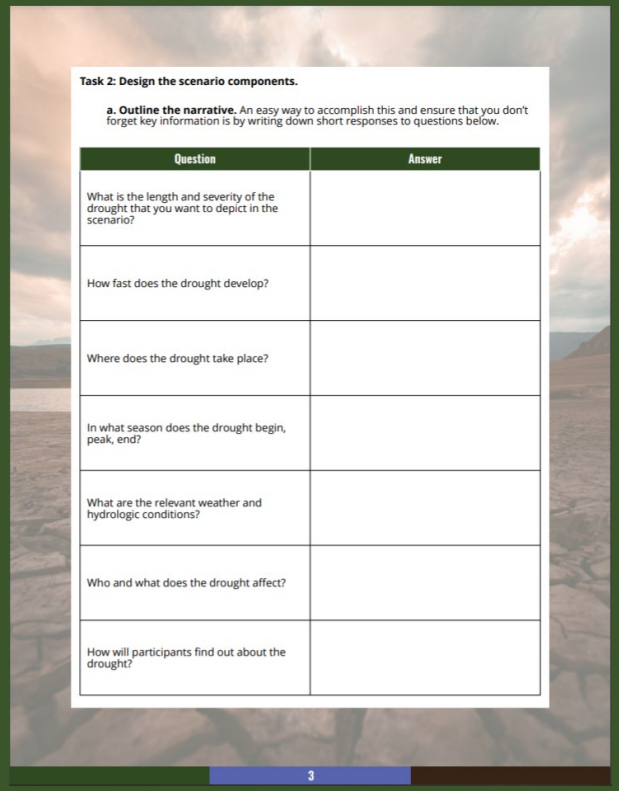


Step 2: Background information for the scenario.

Question	Answer
When did your most recent drought occur? What was its severity and duration?	
What is your drought of record? That is, what is the worst drought, in terms of severity and duration that has been recorded in climate or hydrologic data?	
What were the priority impacts that you addressed in *Foundation Worksheet #4: Define the Scope*? In your research, did you find any other impacts that surprised you or that were particularly difficult to manage?	
What did your exploration of related information reveal that could help you focus the scenario?	

2

Outline the narrative



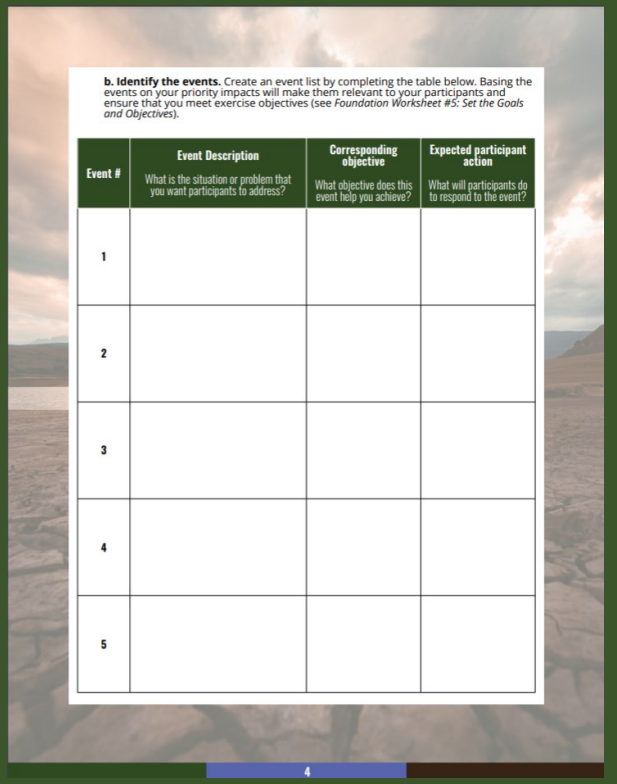
Task 2: Design the scenario components.

a. Outline the narrative. An easy way to accomplish this and ensure that you don't forget key information is by writing down short responses to questions below.

Question	Answer
What is the length and severity of the drought that you want to depict in the scenario?	
How fast does the drought develop?	
Where does the drought take place?	
In what season does the drought begin, peak, end?	
What are the relevant weather and hydrologic conditions?	
Who and what does the drought affect?	
How will participants find out about the drought?	

3

Identify events (challenges)



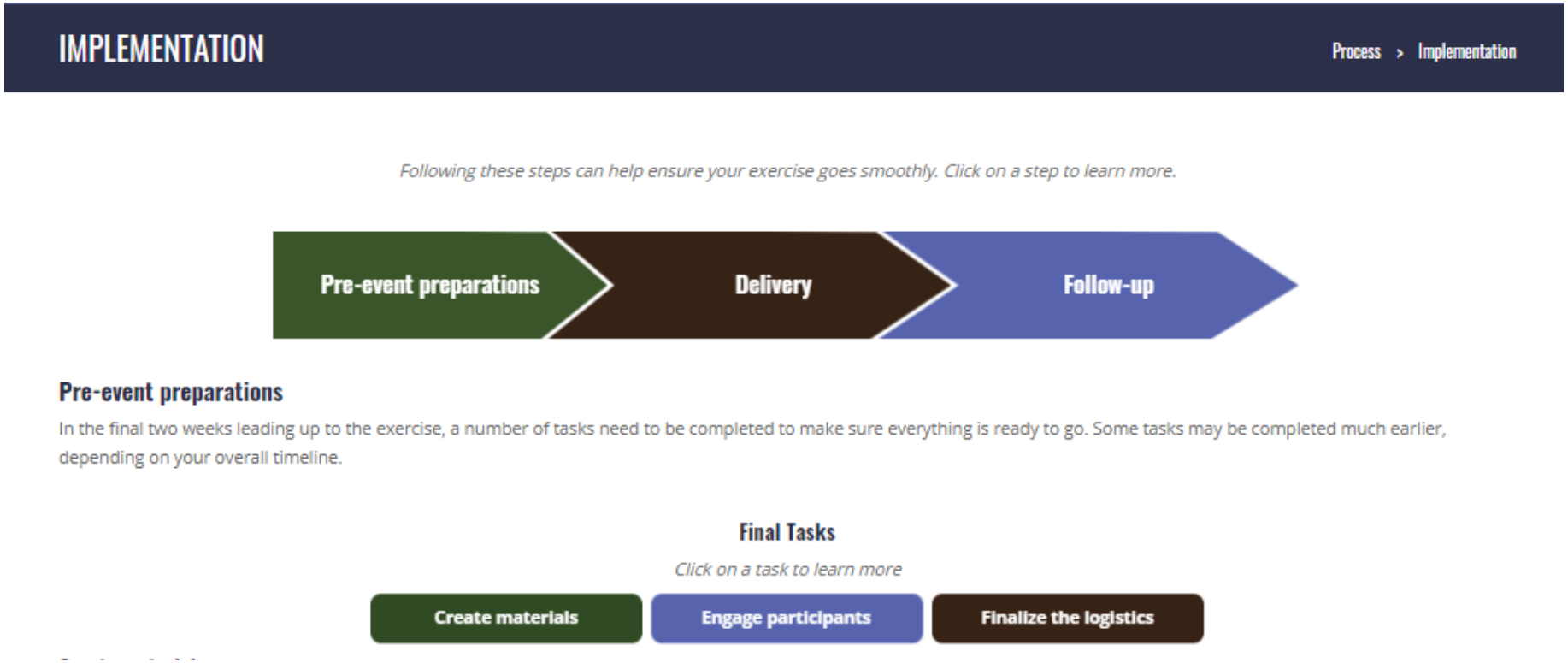
b. Identify the events. Create an event list by completing the table below. Basing the events on your priority impacts will make them relevant to your participants and ensure that you meet exercise objectives (see *Foundation Worksheet #5: Set the Goals and Objectives*).

Event #	Event Description What is the situation or problem that you want participants to address?	Corresponding objective What objective does this event help you achieve?	Expected participant action What will participants do to respond to the event?
1			
2			
3			
4			
5			

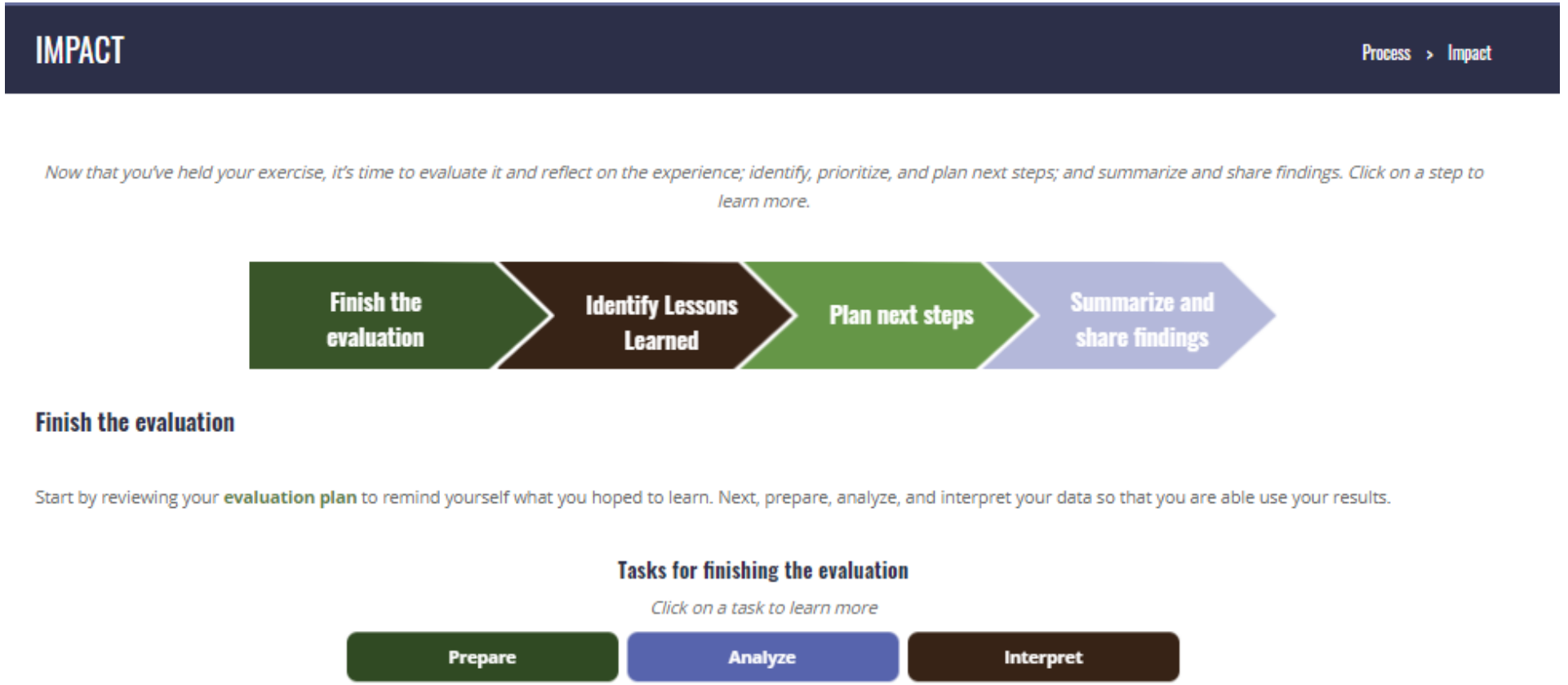
4

Build the scenario

https://drought.unl.edu/archive/documents/scenarioguide/worksheets/design/design-worksheet-build-scenario.pdf



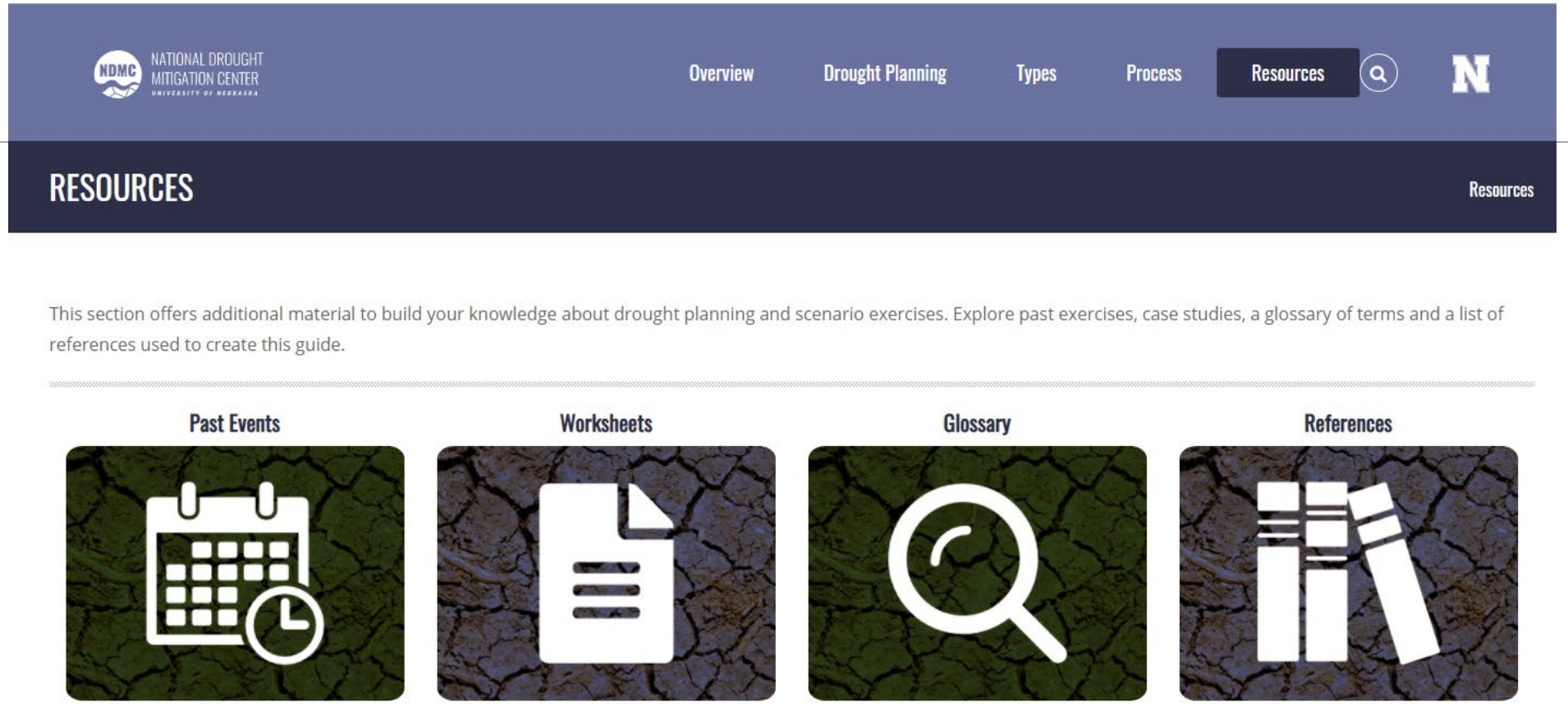
Implementation


IMPACT
Process > Impact
Now that you've held your exercise, it's time to evaluate it and reflect on the experience; identify, prioritize, and plan next steps; and summarize and share findings. Click on a step to learn more.
Finish the evaluation
Identify Lessons Learned
Plan next steps
Summarize and share findings
Finish the evaluation
Start by reviewing your evaluation plan to remind yourself what you hoped to learn. Next, prepare, analyze, and interpret your data so that you are able use your results.
Tasks for finishing the evaluation
Click on a task to learn more
Prepare
Analyze
Interpret

Impact

Question #4

What type of exercise would you be interested in learning more about?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Overview
Drought Planning
Types
Process
Resources
RESOURCES
Resources
This section offers additional material to build your knowledge about drought planning and scenario exercises. Explore past exercises, case studies, a glossary of terms and a list of references used to create this guide.
Past Events
Worksheets
Glossary
References

Thank you!

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DROUGHT.UNL.EDU/SCENARIOGUIDE

Questions & Discussion

Webinar Feedback

- Please provide your feedback on today's webinar in this brief survey. Thank you!

Provide Webinar Feedback Here

Water for North Texas Online Library

- Resources related to today's topic and other water-related subjects can be found on the Water for North Texas Online Library

Wrap-Up

- If you have submitted an RSVP for this webinar, you will receive an email with the presentation slides and a link to the recording.
- All webinar slides and recordings are posted on NCTCOG's website under the green banner, "Webinars" here:
  https://www.nctcog.org/envir/natural-resources/water-resources
- If you did not RSVP and would like these webinar materials, please email aknox@nctcog.org.

North Central Texas Council of Governments

Thank you for attending!

NCTCOG Webinar
July 14, 2025

Alyssa Knox, NCTCOG
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EPA United States Environmental Protection Agency

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

North Central Texas Council of Governments
Environment & Development

www.nctcog.org/WaterResources

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