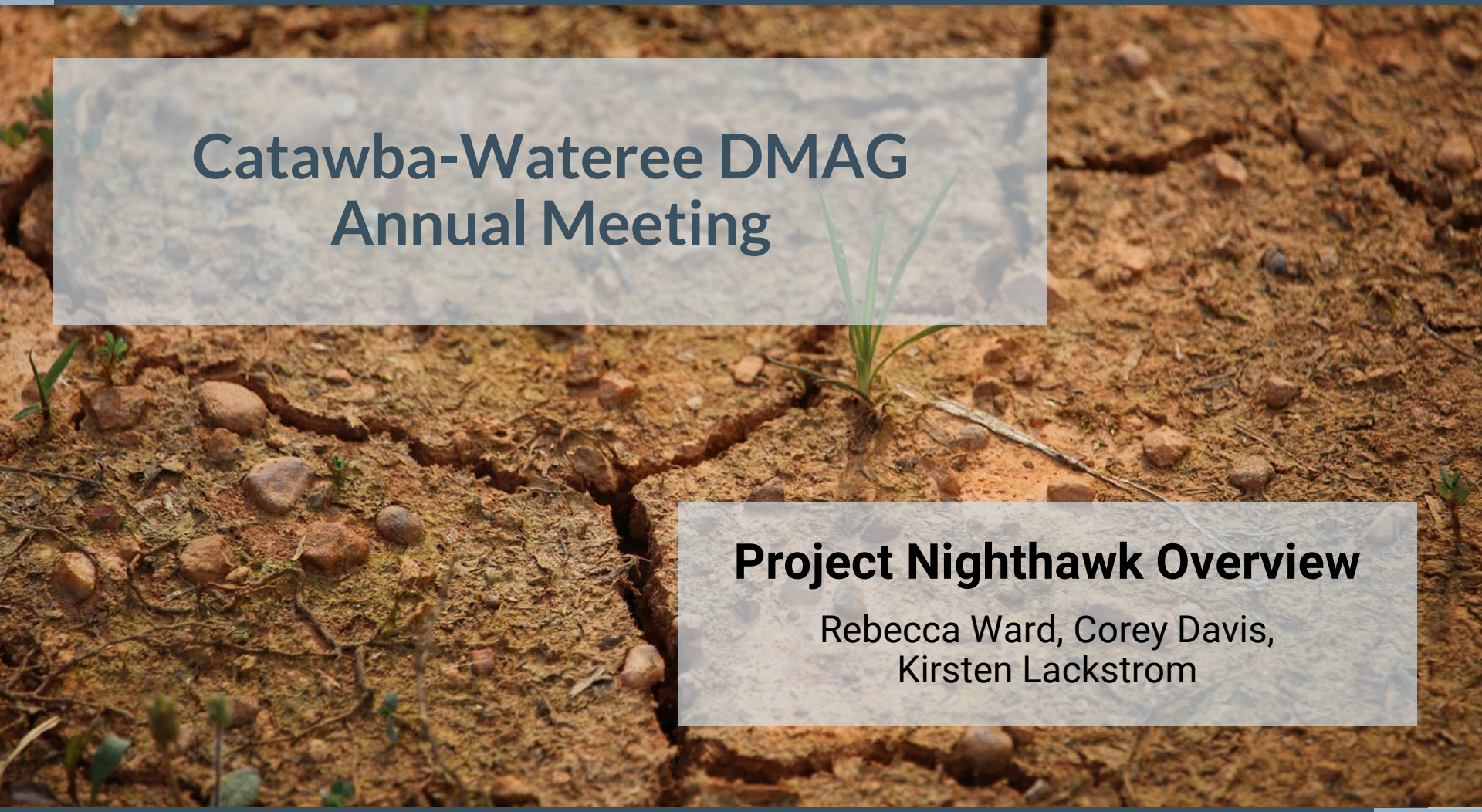


Catawba-Wateree DMAG Annual Meeting

Project Nighthawk Overview

Rebecca Ward, Corey Davis,
Kirsten Lackstrom

Project Team

North Carolina Climate Office, NOAA's Carolinas Integrated Sciences and Assessments

NOAA's Sectoral Applications Research Program (SARP)
"Coping with Drought in Support of the National Integrated Drought Information System (NIDIS)" Competition

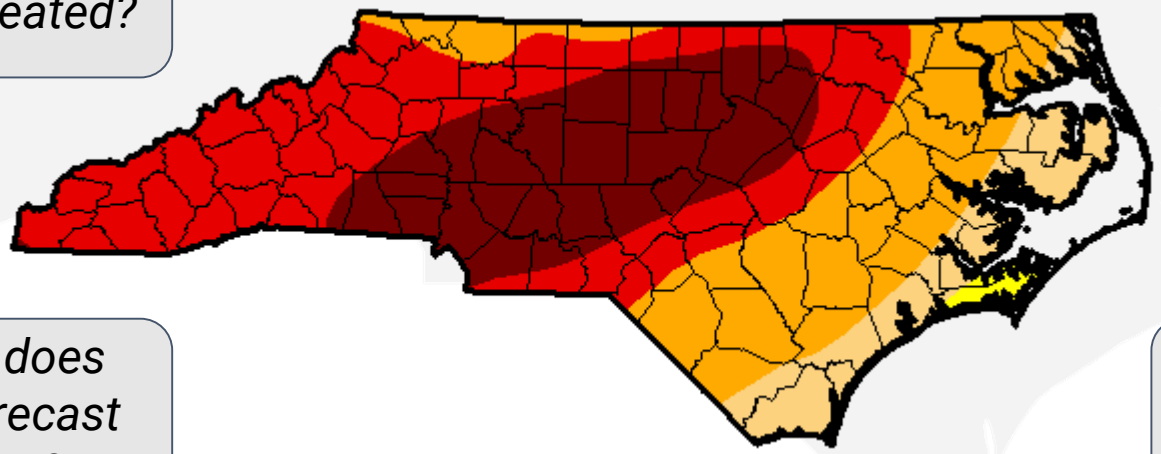
Project Partners

Project Background

How was this map created?

Who is discussing drought in NC, and how often?

*How is this affecting **my** sector?*



What does the forecast show?

*Why doesn't this map reflect conditions I'm seeing in **my** area?*

How can I find out about local conditions?

Project Background

Goal: Provide ***relevant***, ***accessible***, and ***actionable*** drought-related information to decision makers tailored to specific sectors

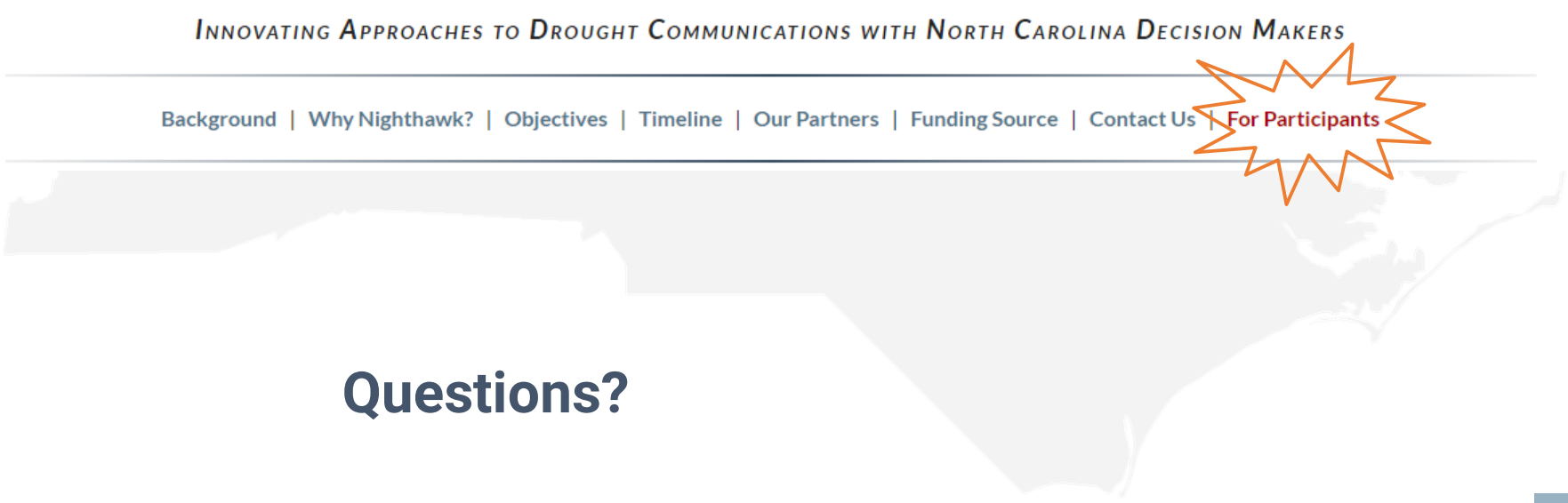
Official Title: *"Innovating Approaches to Drought Communications with North Carolina Decision Makers"*

Code Name: *Project Nighthawk*

The common nighthawk. Photo by Andy Reago and Chrissy McClarren, shared under CC BY 2.0.

Informed Consent

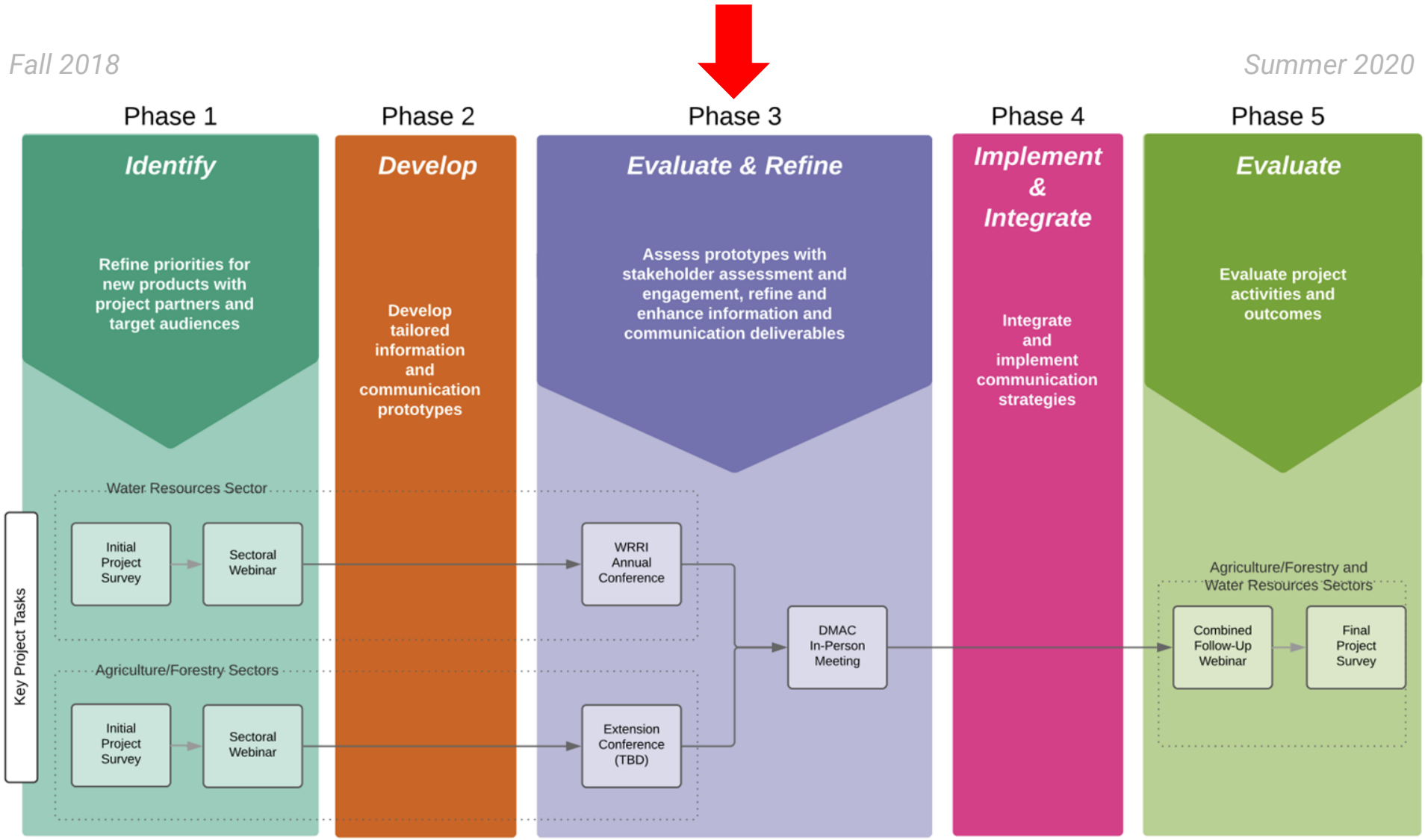
More information at ***http://climate.ncsu.edu/nighthawk***



Questions?

Project Nighthawk Phases

Fall 2018 *Summer 2020*



Key Takeaways from Phase 1

- Users prefer at least partially translated information
- Current and short-range forecasts at county and basin scales are very useful for a majority of respondents
- Drought Monitor maps are widely used, but lots of uncertainty surrounds the drought monitoring process and its accuracy
- Room for improvement among current drought communications

Priorities for Prototype Development

01	Narratives to accompany NC Drought Map
02	Resources that relate anticipated short- and long-range conditions to drought conditions and local- and sector-specific effects in NC
03	Resources that aggregate statewide or basin-wide conditions
04	Resources that describe the NC DMAC, its purpose, its weekly drought monitoring process, and how this relates to the USDM

Priority 1

Narratives to Accompany the NC Drought Map

Examples

North Carolina Drought Update

For the month of March 2017

Drought Monitor of NC Map, Released Mar. 28, 2017

From the US Drought Monitor, authored by Eric Luebehusen (USDA) with input from the North Carolina Drought Management Advisory Council

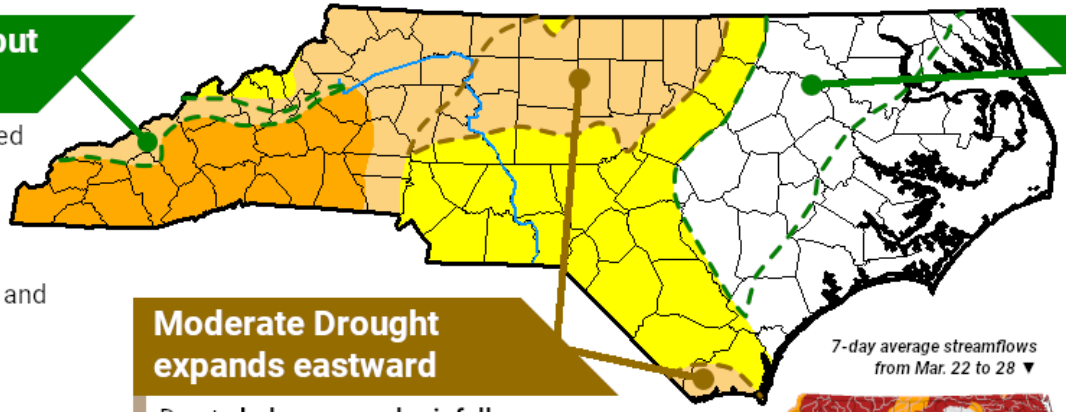
Current Coverage and Changes Since Feb. 28

	DROUGHT			
Abnormally Dry (D0)	Moderate (D1)	Severe (D2)	Extreme (D3)	Exceptional (D4)
27.24% (-28.17%)	25.83% (+15.08%)	13.35% (-2.42%)	0.00%	0.00%

Mountains improve, but drought persists

Severe Drought was upgraded to Moderate Drought in parts of the Mountains that received up to **3 inches of rain** last week, including northern Haywood and Swain counties.

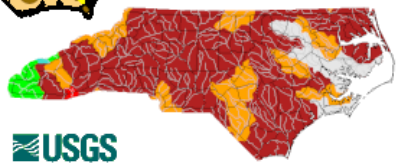
However, Severe Drought remains in the southern Mountains, which have seen **precipitation deficits of 4 or more inches** over the past 3 months and continue to have **near-record low monthly streamflow levels**.



Moderate Drought expands eastward

Due to **below-normal rainfall** over the past 1 to 3 months, **streamflows** have dropped much below normal in many areas, leading to **drought development** in the northern Piedmont and in Brunswick County

7-day average streamflows from Mar. 22 to 28 ▼



Northern coast no longer Abnormally Dry

A **wet start to March** replenished **soil moisture** and **groundwater** levels, especially north and east of Rocky Mount

This infographic is a product of

PROJECT NIGHTHAWK

http://climate.ncsu.edu/nighthawk

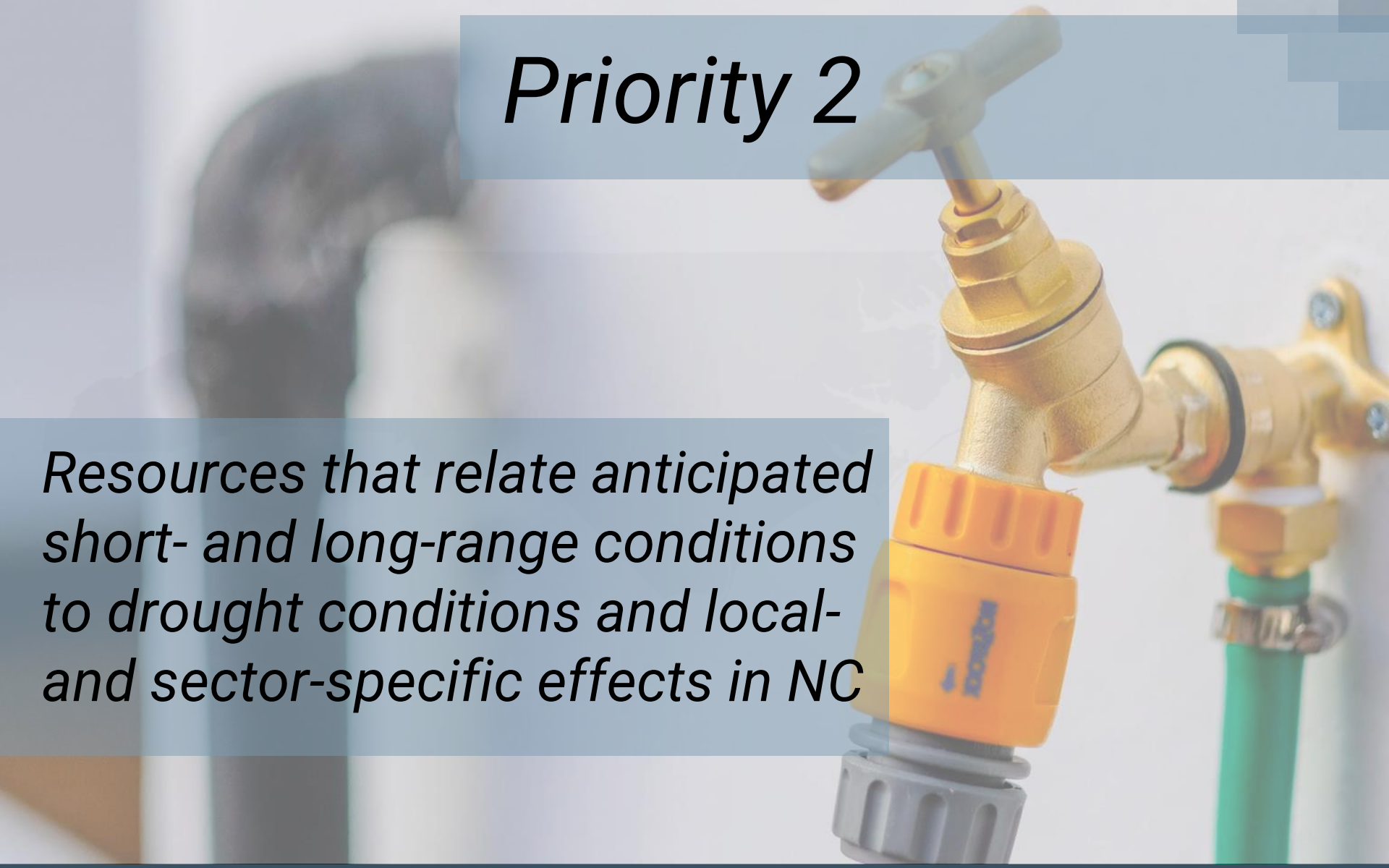
NORTH CAROLINA CLIMATEOFFICE

CISA

Discussion Questions

- How familiar are you with the process by which the USDM is created?
- How much do you use or refer your customers/constituents to the NC DMAC website (ncdrought.org) for drought information?

Priority 2



Resources that relate anticipated short- and long-range conditions to drought conditions and local- and sector-specific effects in NC

Discussion Questions

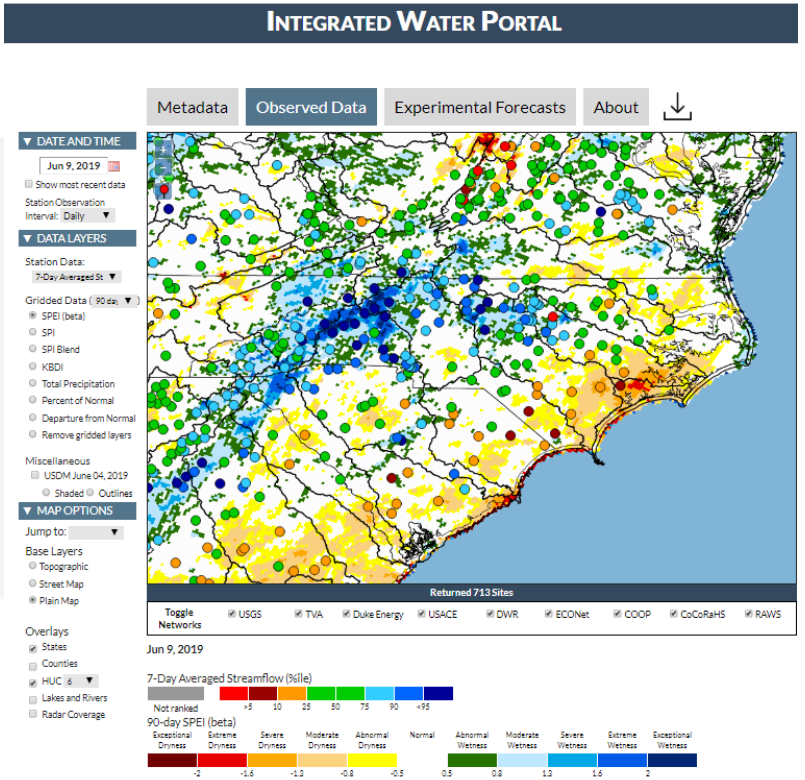
- What drought-related questions and concerns do you hear from your communities and constituents?
- What type of information is requested? Are you able to provide it?
- Is there a need for different types of information or formats than what is currently provided?

Priority 3

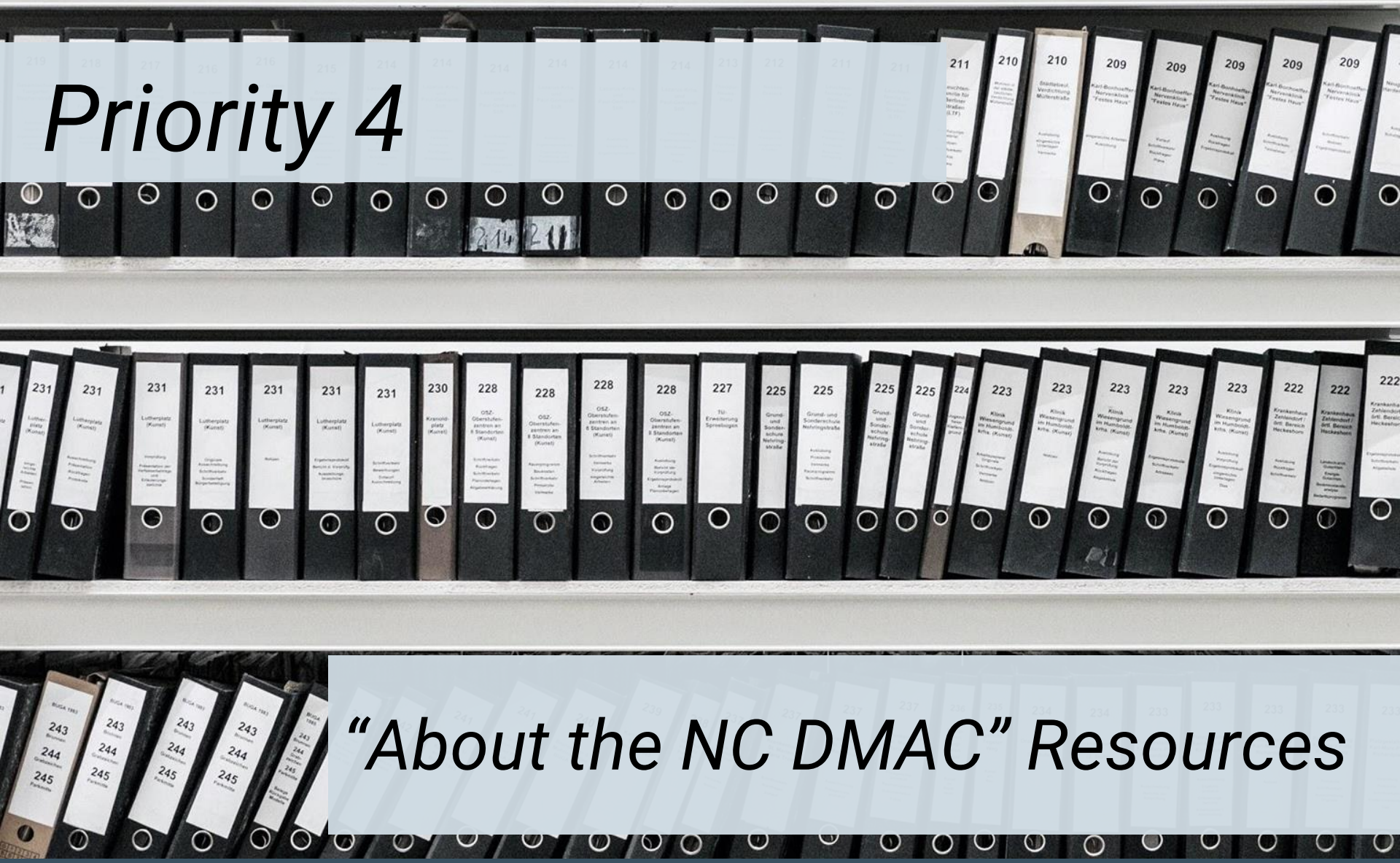
Resources that aggregate statewide or basin-wide conditions

Discussion Questions

Would a resource that shows or aggregates a range of indicators be useful for communicating about drought for the Catawba-Wateree basin?



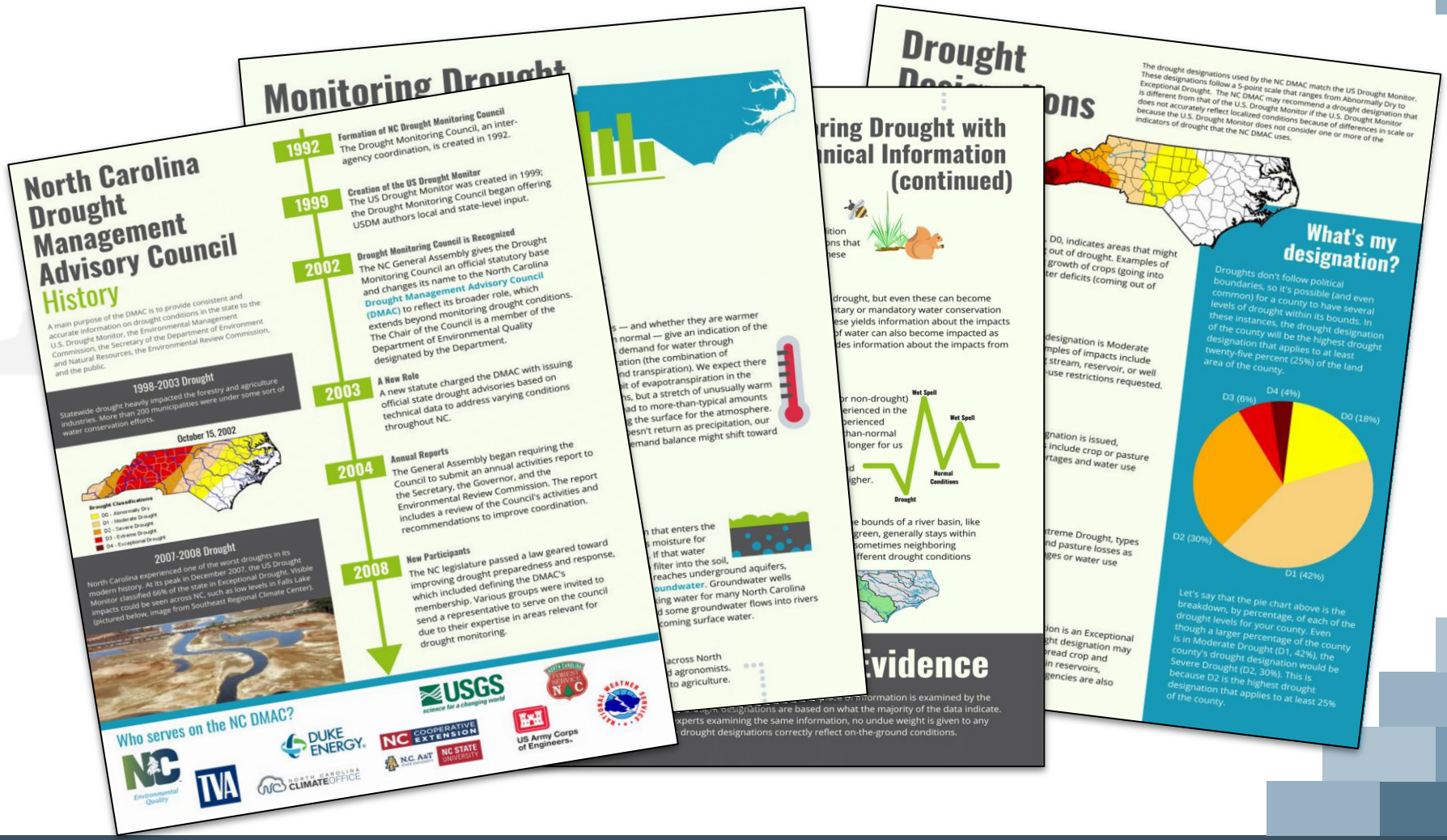
Example of existing resource that could be modified/tweaked: Integrated Water Portal (http://climate.ncsu.edu/water/map)



Priority 4

"About the NC DMAC" Resources

“About the DMAC” Resources



Discussion Questions

- CW-DMAG Communications - What works? What doesn't work?
- How will or can Nighthawk products assist?

Project Nighthawk Next Steps

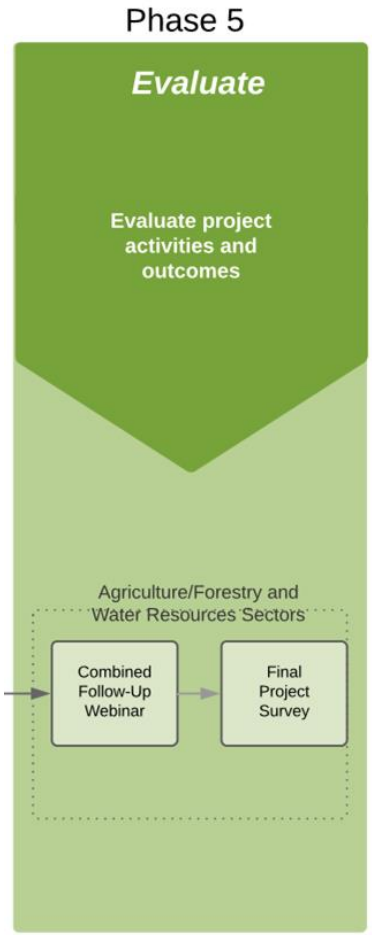
Phase 4

Implement & Integrate

Integrate and implement communication strategies

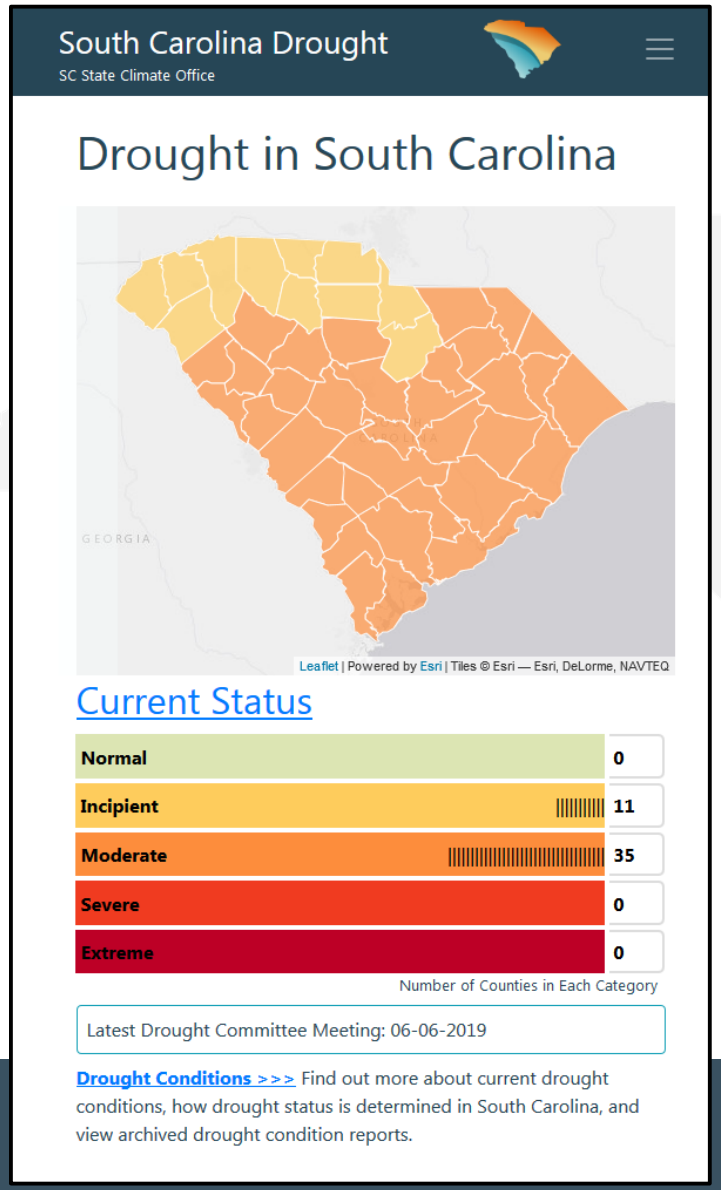
- Revise prototypes based on Phase 3 feedback
- Complete “About the DMAC” resources and share for review
- Begin testing Weekly Drought Updates
  - Seeking representatives from each sector to receive these and share feedback

Project Nighthawk Next Steps



- This fall and winter, we'll evaluate what we've done
- Seeking additional feedback opportunities for ag, forestry, and water resources
  - Could you recommend any conferences or events to attend for *your* sector or organization?

South Carolina Resources



Tabletop Exercise

July 24, 9:30-3:30

SC Emergency Operations Center

Organizers: SC DNR/SCO, CISA, SC EMD, SC Water Resources Center

2019-sc-drought-ttx.eventbrite.com

Questions or Suggestions?

https://climate.ncsu.edu/nighthawk