

Improving User Interactivity with Climate Tools at HPRCC

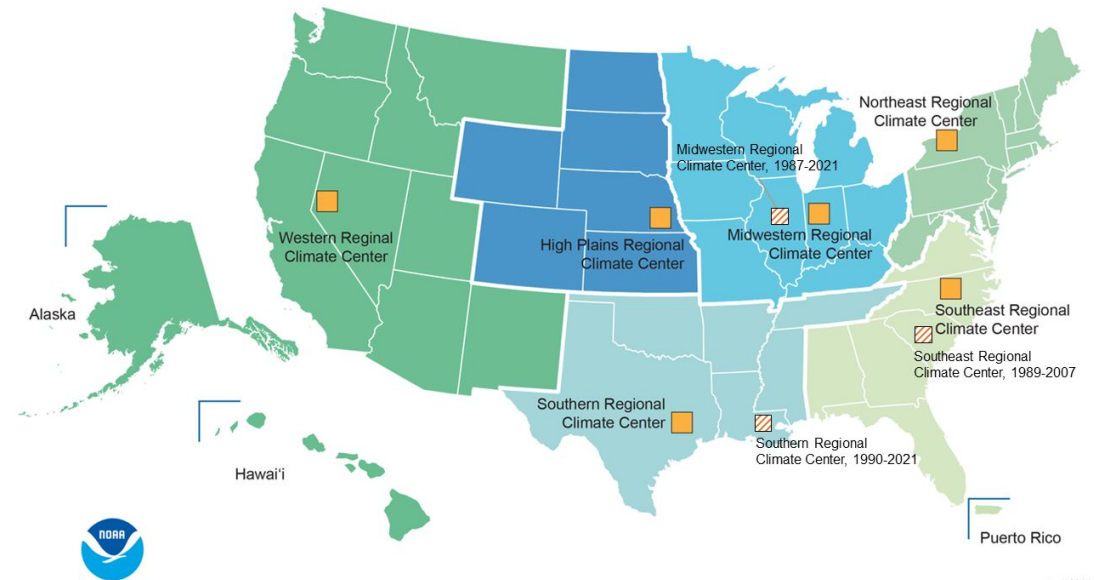
Gannon Rush

High Plains Regional Climate Center

University of Nebraska-Lincoln

Regional Climate Centers

- **MISSION:** Increase use and availability of climate data and information
- 6 Centers cover the U.S.
 - Each has a regional focus
- 40th Anniversary

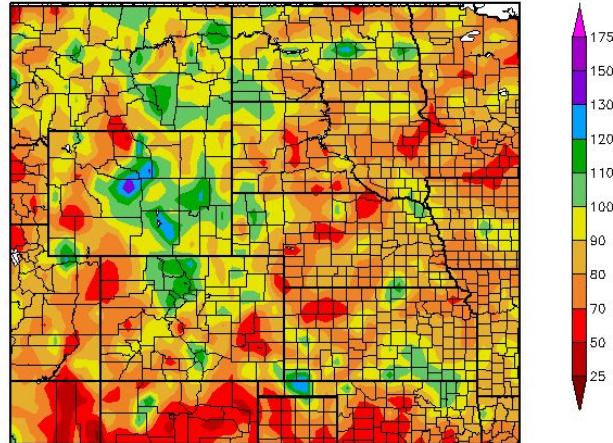


April 2021

Spurring Change

- ACIS Maps
 - Over 20 years old!
- Technology Changes
 - Static vs. Dynamic
- How can we benefit users?

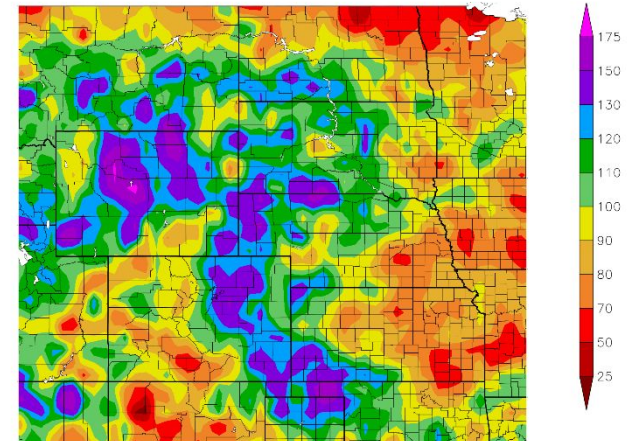
Percent of Normal Precipitation (%)
1/1/2003 – 12/31/2003



Generated 6/21/2012 at HPRCC using provisional data.

Regional Climate Centers

Percent of Normal Precipitation (%)
1/1/2023 – 12/31/2023



Generated 1/20/2024 at HPRCC using provisional data.

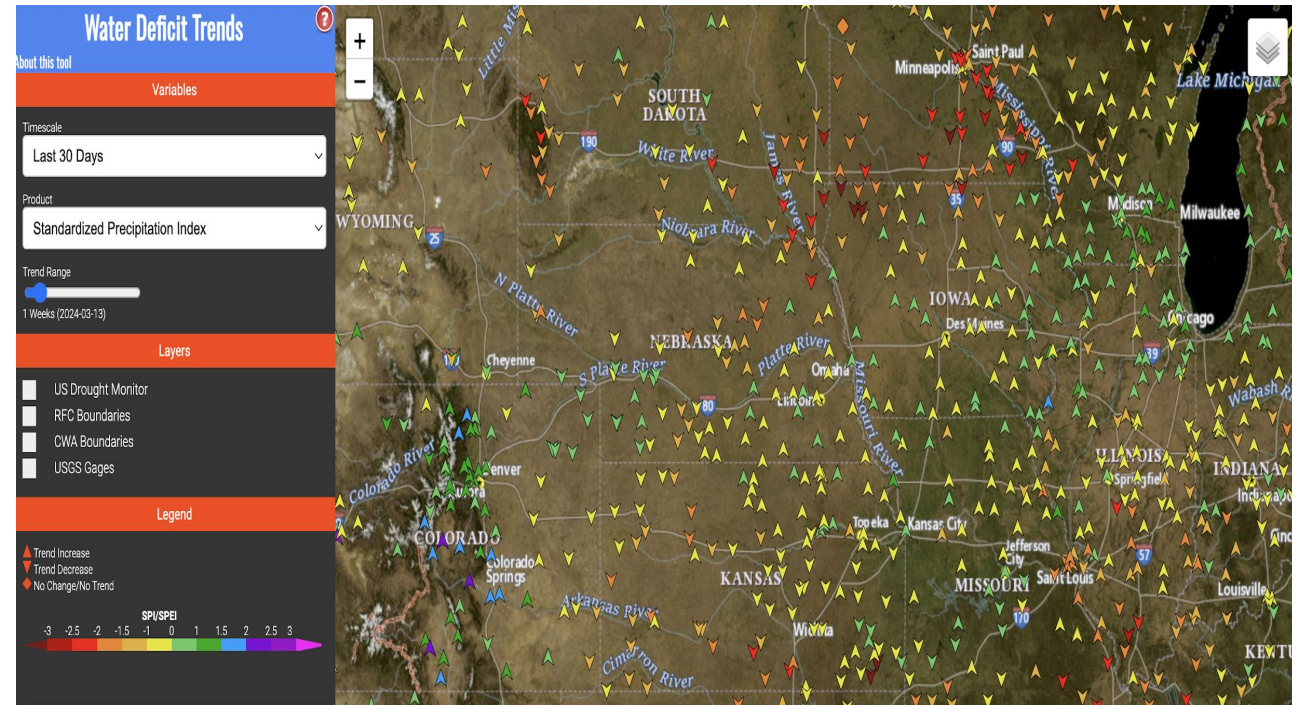
NOAA Regional Climate Centers

What to Incorporate?

- Products from HPRCC
 - GIS Portal
- Outside Sources
 - Drought Monitor
 - USGS
- Questions we asked:
 - Can the different data sources be cohesive?
 - Will this overwhelm users?
 - Is the information being portrayed simple enough to understand?

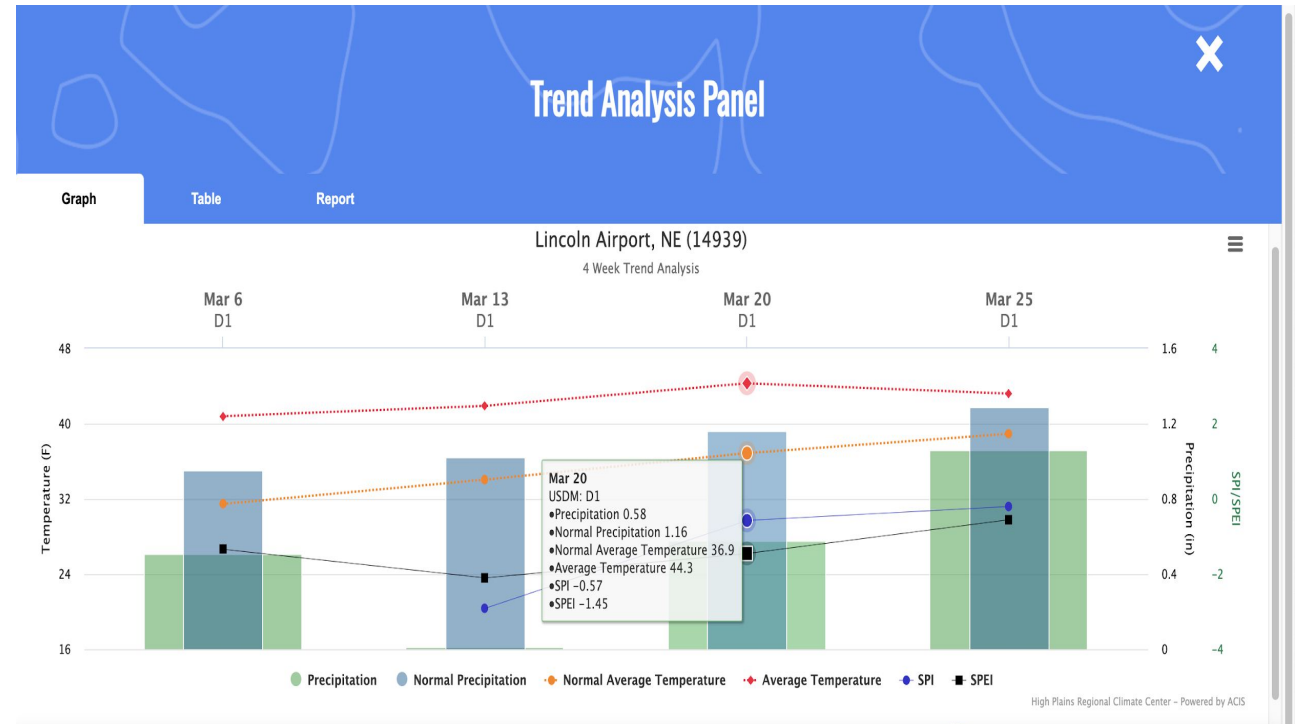
Water Deficit Trends

- “Test” for ideas
- Used for Drought Monitoring
 - Trends based on SPI and SPEI
 - Used Arrows to simplify
- GIS Layers
 - Drought Monitor
 - Boundaries
- hprcc.unl.edu/wdt



Features Included

- Trend Analysis Panel
 - Drought Category
 - Precipitation, Temperature, SPI, and SPEI
- Site Report/Water Trend Report
 - Nearby Stream gauges
 - Weekly Report of variables

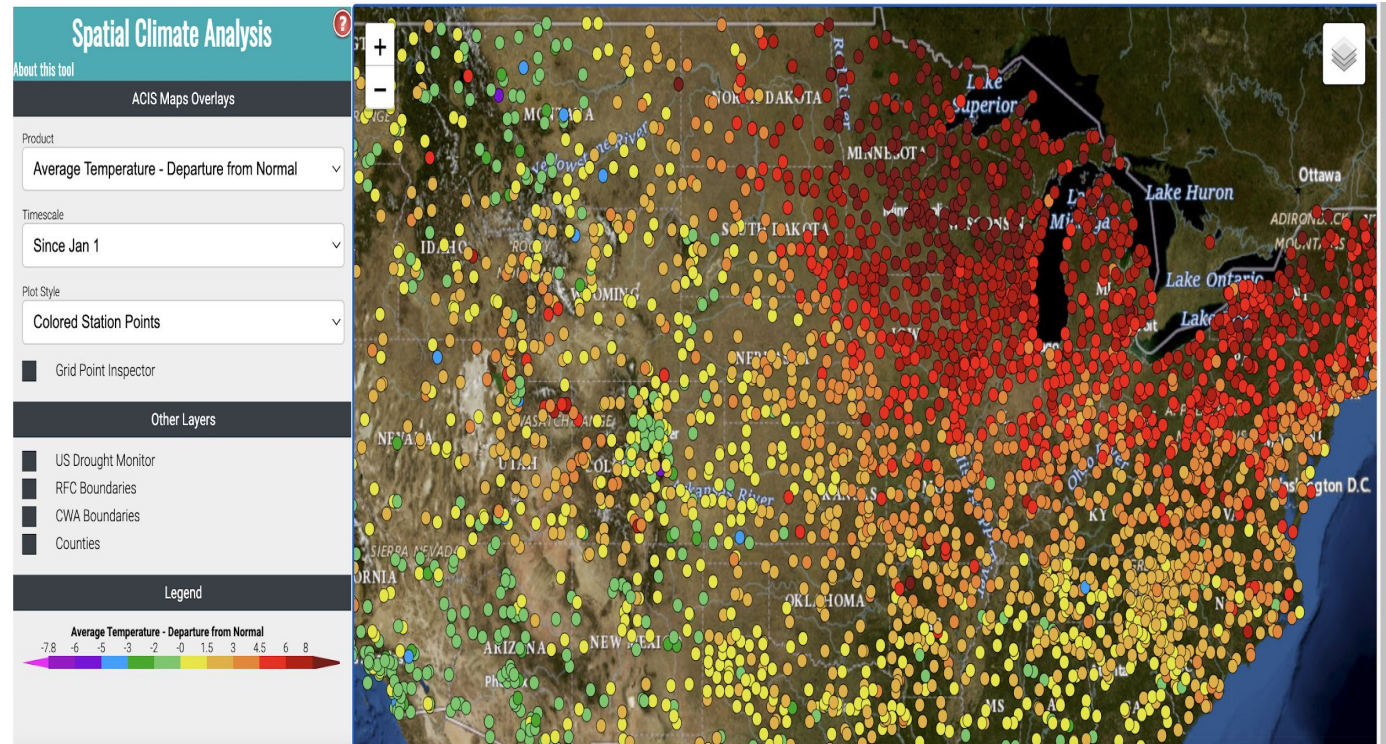


Finding a Balance

- How much is too much?
- What else can we include?
- Other features in ACIS

Spatial Climate Analysis

- Dynamic ACIS Maps
- Includes gridded data
- Different layers from GIS Portal
- <https://hprcc.unl.edu/sca/index.php>



Current Direction

- Dynamic/GIS
 - CliGrow
 - Wind Climatology
- Gridded Data
 - ET Data
- Opportunities with ACIS
 - Hourly Data
 - Climate Projections

Questions?

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