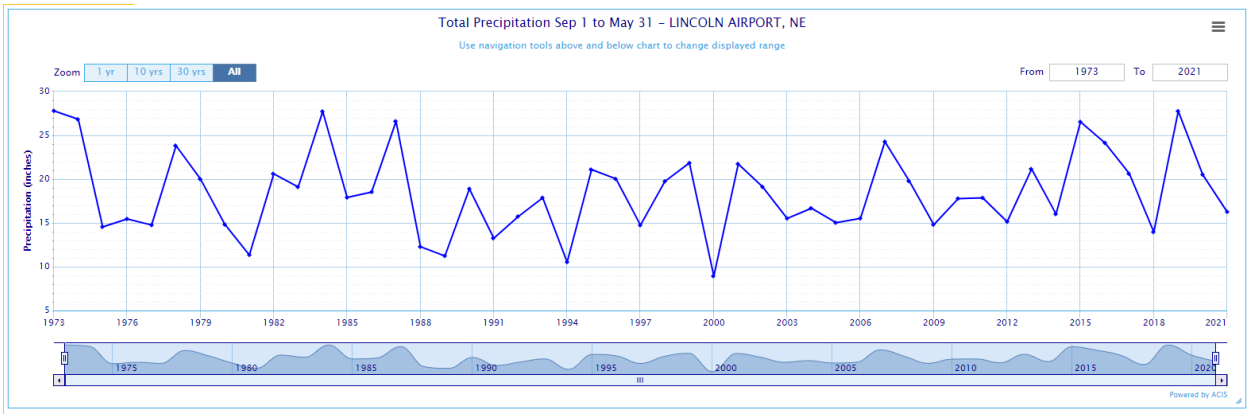
WEATHER/PRECIPITATION OUTLOOK
2021 GROWING SEASON
ISSUE #4—June, 2021

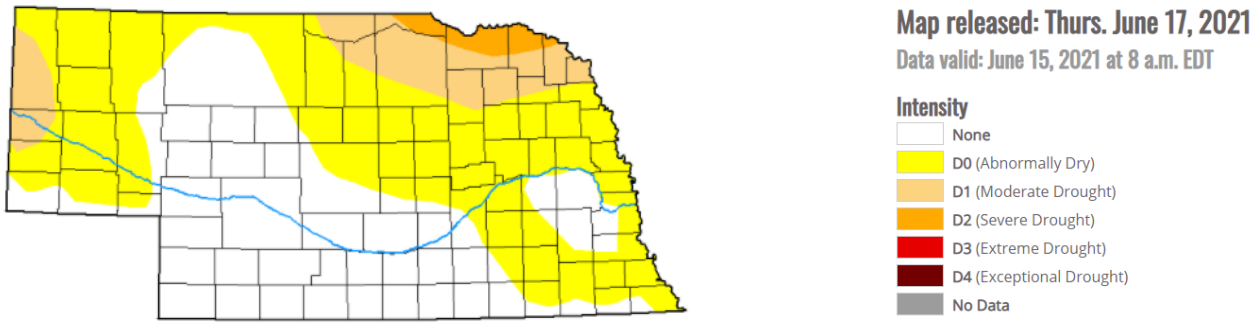
Background

This is the fourth in an annual series of outlooks for weather/precipitation for the Lower Platte South Natural Resources District and surrounding area. These outlooks will be produced at least annually, usually in May or June, and will be updated throughout the growing season (i.e. May through September) as warranted.

Current Conditions as of June 2021

As is shown in the graph below, precipitation during the fall and winter of 2020-2021 was below normal. For example, from September 2020 through May 2021, Lincoln received 16.26 inches of precipitation, compared to the 1973-2021 average of 18.49 inches for that same time period. Lincoln set a new record for winter (December-February) snowfall, and this wet pattern continued into the early spring. In 2020-2021, over 30% of the precipitation that fell during the September through May time period occurred in March 2021, with 5.23 inches falling. However, April and May were considerably drier; May (typically the wettest month of the year) precipitation in Lincoln was over two inches below normal, and recent weeks have been warm and dry, resulting in rapidly drying soil conditions going into the growing season. These conditions are expected to persist for at least the near future. As a result, the Drought Monitor for June 17, 2021 shows that portions of LPSNRD are abnormally dry, and areas further north, west, and east of the District show D0 to D2 intensity.





Outlook

Based on the sources cited below, a general outlook for the LPSNRD and vicinity for the remainder of the growing season of 2021 is **NORMAL TO BELOW NORMAL**. Although, as noted above, winter and early spring precipitation for the area surrounding Lincoln was considerable, recent conditions have been favorable to drying, and this warmth and dryness is expected to persist for at least the near future. But as of this writing, the seasonal outlook (through September 30) is for a chance of above normal temperatures with near normal precipitation through that period, and so it's not certain whether conditions will stay dry or improve throughout the growing season. As always, conditions can change rapidly, and should the conditions described above change significantly during the season, LPSNRD will issue an update to this outlook as soon as possible.

For Further Information:

- National Weather Service—Climate Prediction Center: http://www.cpc.ncep.noaa.gov/
- National Weather Service—Missouri River Basin Water Supply Statement: https://www.weather.gov/mbrfc/water_supply
- National Weather Service--Missouri Basin River Forecast Center Ensemble Streamflow Outlook: https://www.weather.gov/mbrfc/ensemble
- National Drought Mitigation Center: http://drought.unl.edu/
- National Integrated Drought Information System: http://www.drought.gov
- United States Drought Monitor: http://droughtmonitor.unl.edu
- CLIMOD (temperature and precipitation data): http://climod.unl.edu/
- High Plains Regional Climate Center: https://hprcc.unl.edu/

Specific Questions?

- Climate Science, Drought, Research:
  - Natalie Umphlett, Regional Climatologist
    High Plains Regional Climate Center
    402-472-6764; numphlett2@unl.edu
- Lower Platte South NRD Programs; Questions on this Publication:
  - Dick Ehrman, Water Resources Specialist
    Lower Platte South Natural Resources District
    402-476-2729; dehrman@lpsnrd.org
  - Likewise, the Lower Platte South NRD is always interested in personal reports of drought or precipitation effects anywhere in the District, so feel free to call or email if you'd like to check in!

Additional Information:

These outlooks will be generated with input from the following entities:

- High Plains Regional Climate Center
- National Drought Mitigation Center
- Nebraska State Climate Office
- University of Nebraska Extension
- University of Nebraska School of Natural Resources

Going forward, additional entities with relevant information for the region will be also be consulted as necessary for these outlooks.

In generating this outlook, the team assembled by LPSNRD utilized the following resources:

- Short- and long-term outlooks from the National Weather Service Climate Prediction Center (CPC)
- Short- and long-term precipitation analyses
- Palmer Drought Severity Indices
- Soil Moisture Indices
- United States Drought Monitor
- National Integrated Drought Information System (NIDIS); most relevant information for the LPSNRD area can be found in the Missouri River Basin Quarterly Climate Impacts and Outlook as well as the section on Nebraska.