



LOWER PLATTE SOUTH
natural resources district

WEATHER/PRECIPITATION OUTLOOK
2019 GROWING SEASON
ISSUE #2—June, 2019

Background

In today's digital world, there are many sources of information on weather, climate, precipitation, temperature, and related data. Many of these sources are focused on national, regional, or state scales. While such sources are useful, the Lower Platte South Natural Resources District, as part of its ongoing Drought Response Plan, has committed to providing information more specifically focused on the District itself to help farmers, businesspeople, and citizens be more aware of and prepared for weather-related events, especially during the growing season (roughly May through September). However, it's important to realize that weather patterns can change quickly in Nebraska. Should this seasonal outlook change significantly over the 2019 growing season, LPSNRD will make every attempt to update this outlook as conditions change.

Current Conditions as of May 2019

Moisture during the fall and winter of 2018-2019 was above normal. For example, from September 2018 through May 2019, Lincoln received 27.76 inches of precipitation, compared to the 1981-2010 average of 17.71 inches for that same time period. Much of this precipitation in the winter months came as snowfall; the winter of 2018-2019 ranked as the second snowiest winter on record in Lincoln. As a result of snow cover and cool conditions, soil moisture in general in the Lower Platte South NRD is above normal going into the 2019 growing season, and these wet conditions contributed substantially to the major flooding episodes in parts of LPSNRD as well as much of eastern Nebraska in March 2019.

Outlook

Based on the sources cited below, a general outlook for the LPSNRD and vicinity for the growing season of 2019 is **NORMAL TO WETTER THAN NORMAL**. At present, the Climate Prediction Center (CPC) is indicating that the odds are shifting toward better chances of below normal temperatures and above normal precipitation for the growing season across Nebraska and the areas to the southwest of the state. In addition, the seasonal drought outlook indicates that Nebraska will continue to avoid drought conditions, and areas to the south and west of the state are predicted to avoid drought or improve in that regard. Finally, the snowpack in the Rocky Mountains feeding the Platte River Basin is slightly above average for this time of year, and precipitation in the recent months has been about normal. This has led the National Weather Service to predict stream flow in the Platte River Basin to be near to above normal for the upcoming spring and summer months, with chances of minor to moderate flooding through mid-August. It's also worth noting that the crest of 13.75 feet on March 16, 2019 at the Louisville gage was the highest on record, again highlighting the flood conditions occurring in March. Once again, 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?

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- Drought Effects on Agriculture; Dealing with Drought:
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- Lower Platte South NRD Programs; Questions on this Publication:
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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.