

## Platte River system makes key gains, future depends on snowfall

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While the Platte River system had big gains in the last year, this season's snow pack will make all the difference if that continues, the state climatologist at the University of Nebraska-Lincoln said.

Current Platte River reservoir storage, which includes the Seminole, Pathfinder, Glendo and McConaughy reservoirs, is at 2.6 million acre feet. When the system is full, the reservoirs hold 4.5 million acre feet. The system peaked just shy of 3 million acre feet this year, compared to 2.2 last year, said Al Dutcher, state climatologist in the university's Institute of Agriculture and Natural Resources.

"We had a big gain last year and significant recovery in the last two years, but if there is below normal snow pack this season we could see a reduction in the reservoirs next growing season," Dutcher said. "As weather patterns move from La Nina into El Nino, typically there are sub par snow packs during El Nino winters."

Late season snowfalls in El Nino years depend on whether the system dies down or disappears, Dutcher said.

Models predict a 90 percent chance that it will carry through March, a 70 percent chance through April and a 40 percent through May.

"It does appear this event will be of moderate strength, with a 30 percent likelihood it could obtain strong status," Dutcher said. "The longevity of the event will determine how much runoff we'll get in the Platte River system."

One thing the state already has going for it is the abnormally wet spring 2009.

"Fortunately there was enough moisture falling during the April and May period that the Central Platte Power and Irrigation District was able to take natural flows on the southern branch of the Platte and divert those into irrigation canals instead of tapping McConaughy," Dutcher said.

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McConaughy got 940,000 acre feet at its peak this year.

“It’s amazing. Because of the wet weather its only drop since the irrigation peak was approximately 60,000 acre feet. Current levels are 300,000 acre feet above last year’s levels.

“We have the opportunity to really get McConaughy back in decent shape barring a complete lack of snow pack, which is why El Nino is so concerning,” he said.

In El Nino years, the northern jet stream is not a dominant factor. Instead, the southern/tropical jet is dominant and most active systems pass through the southern third of the state.

“We won’t know what things will be like until that jet stream is set up and we won’t know that until the late fall period,” he said. The most likely scenario is that the southern one-third of the United States will have above normal precipitation, unless the jet stream comes farther north. If the jet stream remains farther south, then the state won’t see a lot of precipitation and it won’t be as cold.

“But it’s a bit far in advance right now, and we can only use statistical probabilities.”

Typically Kansas, Oklahoma and Texas wheat farmers see a positive precipitation pattern develop in El Nino years, with good fall/winter moisture.

As for the drought situation across Nebraska, significant rainfalls last week put many areas that were abnormally dry back to normal. For more information, visit the U.S. Drought Monitor at <http://drought.unl.edu/dm/monitor.html>.

An area of D-1 drought condition was expanded last week to include south central Nebraska along the Kansas border, including Nuckolls and Franklin counties, that extended northeast to include Lincoln north to Saunders County and west to north of York, Dutcher said.

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“The core area of concern continues to be the Interstate 80 corridor, from Seward westward to York to the Kansas border,” he said.

Cool July temperatures saved crops from extreme damage, Dutcher said.

July came in at 71.1 degrees, making it the sixth coolest on record. That may drop down to the fifth position, depending on how much data come in from western Nebraska. The coldest statewide July on record was in 1992 at an average of 68.8 degrees.

Iowa, North Dakota, Minnesota, Wisconsin, Illinois, Michigan and Indiana all recorded their coldest July on record, exceeding 1992 levels.

“What really saved us was we only had a few days in July where temperatures exceeded 90 degrees,” he said.

The state’s corn crop is running seven to 10 days behind normal, but still ahead of last year’s and states to the north and east of Nebraska.

Current statistics indicate only a 30 percent chance of a hard freeze before projected crop maturity in Nebraska, Dutcher said.

Areas of the cornbelt that show the most significant likelihood of freeze damage include the Dakotas, Minnesota, Wisconsin and Michigan.

“They need to see a freeze two to three weeks past their mean freeze date,” he said.

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However, since 1950 five of the seven times an El Nino event immediately followed a La Nina event the average freeze fell after the mean freeze date.

Future forecasts indicate equal chances for above normal, normal or below normal precipitation and temperatures for September across the state.

The 90-day forecast also shows equal chances for above normal, normal or below normal temperatures. The 90-day forecast for precipitation is for above normal for the western half of the state. In the eastern half, there are equal chances.

“The forecast success for the Central Plains on these long range outlooks has been consistently too warm during the last three months, meaning the actually forecasts have come in colder than actually indicated,” Dutcher said. “The recent trend has been colder than normal.”

Models also are attempting to bring in freezing temperatures almost to the U.S./Canada border by mid-September.