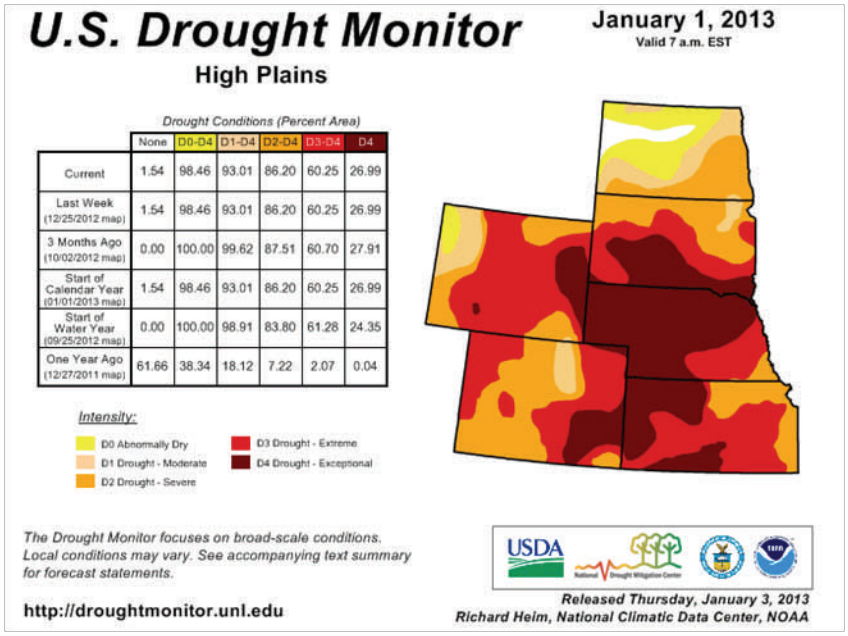
Little Blue Natural Resources District

"Serving The Public Since 1972"

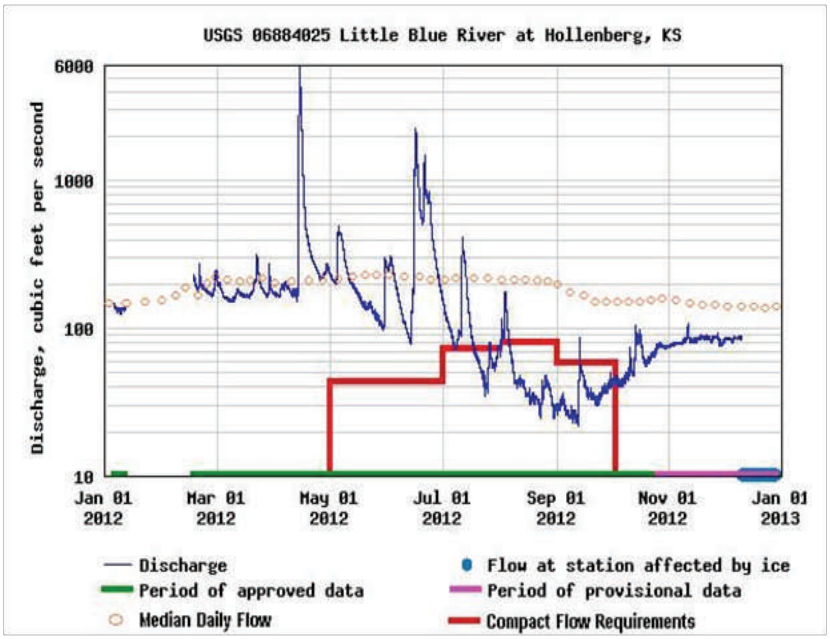


January 14, 2013

Dear Producer

Currently, the National Weather Service has all of Nebraska in some stage of drought. That office classifies droughts on a scale from None through D-4; in January of this year the Little Blue NRD is classified as being at a stage D-3. This is a culmination of a year in which most of the District only received 50% to 80% of Normal Precipitation. The effects of this drought are many.

Flows in the Little Blue River, as measured by a stream gage at Hollenberg, KS; fell to levels this summer where surface water irrigators were shut down for 67 days. This is allowed through an agreement between Kansas and Nebraska. Average flows at the Hollenberg station for the month of December are 150 cubic feet per second, for that month in 2012 the flows hovered around 83 cfs. The chart below shows the actual flows, historical flows, and the compact flow requirements. The agreement between Kansas & Nebraska for the Little Blue River only requires minimum flows for 5 months of the year, surface water irrigators were shut down when the blue line of actual flow fell below the red line of compact compliance.



The Little Blue River flows into the Big Blue River, and then into a reservoir at Manhattan, KS called Tuttle Creek. Currently the water level in that reservoir is at 1062.26; 13 feet below normal. This is the lowest level in January for the last 12 years. The previous lowest level in January was 1068.41 in 2001; the highest has been 1077.75 in 2009.

over

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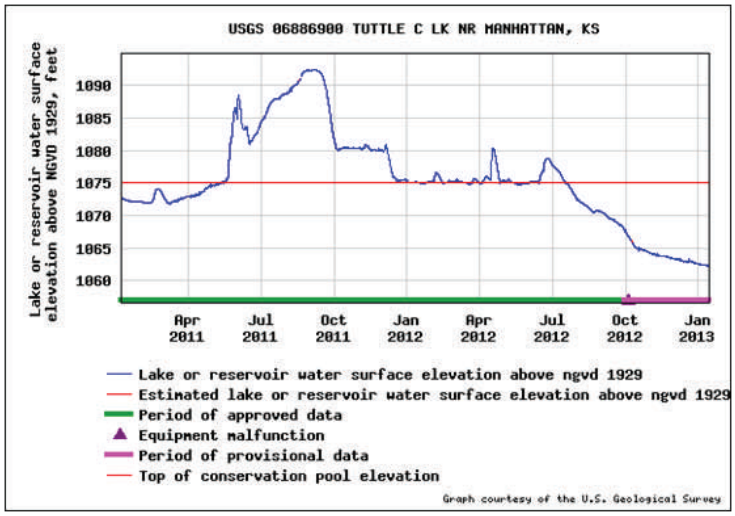
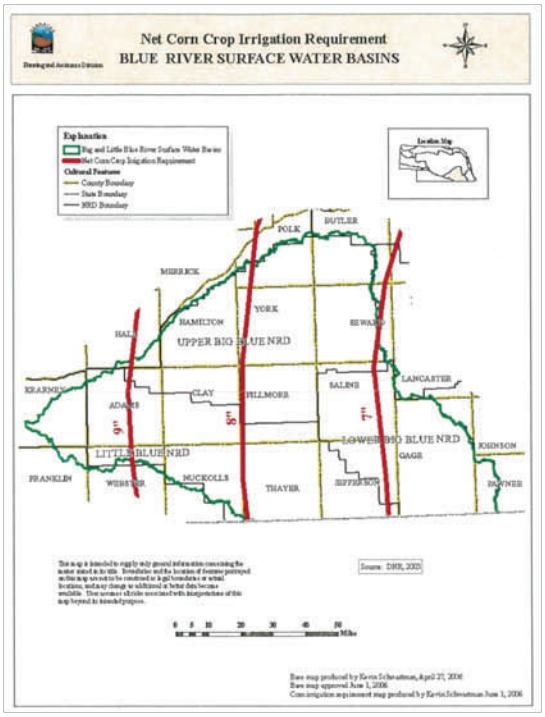
Kansas uses the stored water in Tuttle Creek, Milford Reservoir, Perry Lake and others for municipal drinking water. The chart below tracks the water level in Tuttle Creek Reservoir for the last two years.



The District also has a network of groundwater wells where the depths to water are measured twice a year, in the spring and fall. The fall levels for 2012, when compared to the fall of 2011, averaged a record decline of 2.44 feet; some areas of the District experienced 4 and 5 feet of groundwater declines. The township map for fall static water levels was recently published in "Out of the Blue".

And as water levels have fallen, nitrate levels have risen. Natural Resources Districts across the State sample groundwater for nitrate levels. Nitrates above 10 ppm in drinking water is considered a health hazard by Federal standards. A contributing factor to rising nitrate levels can be over irrigation, which carries nitrogen below the root zone of a growing plant.



However; how much groundwater fluctuations affect river flows is still under review in the Little Blue NRD. The Nebraska Department of Natural Resources issues an annual report for the Little Blue Basin with their opinion if the District is fully appropriated for surface and groundwater needs. The Department has a formula using stream-flows, groundwater withdrawals, and estimates of future development to reach their opinion. The LBNRD has not been considered fully appropriated, and the conclusion to date has been that this declaration will not occur for many years. However; the net use per acre they plug into their formula to raise an irrigated corn crop is 7 to 9 inches per acre. Forty-Five percent of the use reported this year in the pumping program was above 12 inches per acre.

The overall conditions across the District last year was very dry, and those conditions persist through today. If it doesn't rain, the water balance between ground and surface water will continue to move further apart. The greatest practice that can be done to lessen impacts within the District from the situations mentioned above, if it doesn't rain, is by reducing groundwater withdrawals.

Other Districts surrounding the Little Blue NRD are experiencing difficulties, and legal battles, in balancing their water needs. You're sure to have read of them in the news. To avoid the possibilities of future controls, everyone needs to be as efficient as possible with their groundwater uses. Good irrigation practices, over time, will also lessen the impacts of nitrate contamination for the cities, villages, and personal homes of the District.

Please feel free to contact the office if you'd like to discuss practices such as irrigation soil moisture sensors, sub-surface drip developments, gravity conversions to pivot, drop nozzle conversions; or, with other questions.