

## 2011 unlikely to be a water-short year as well

***By Russ Pankonin***

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With the Nebraska Department of Natural Resources (DNR) seeking regulatory options for compliance in water-short years, irrigators in the Republican Basin will delight knowing that 2010 will not be a water-short year.

DNR announced their projections during a meeting in Curtis early last week.

A water-short year occurs when the amount of water available for irrigation behind Harlan County Dam falls below 119,000 acre feet.

Fortunately, that's far from the case as Harlan County Reservoir stands near capacity.

What this means is that Nebraska can use the past five-year consumptive use average for figuring compact compliance with Kansas.

Jim Schneider, chief water modeler for DNR, said that will be beneficial in 2010 calculations because overuse that occurred in 2005 will drop out of the averages.

The same will be true in 2011 when the overage in 2006 also drops out of the averages.

In a water-short year, a more stringent formula is followed. Instead of averaging over five years, compliance is figured over a two-year period—the previous year's consumption, along with consumption in the water-short year.

Any water-short year in the future could be quite detrimental to the basin. As it stands now, DNR will implement regulatory measures to keep the state in compliance with Kansas.

DNR expects natural resources districts in the basin to indicate this month which one of three regulatory options they favor.

DNR has said regulatory measures will be used only as a last resort if other compliance measures are not possible.

The NRDs are looking to develop some type of constitutional funding mechanism to pay for compliance projects and efforts.

### **2011 looking good so far**

Schneider said it looks like 2011 will not be a water-short year either, based on the amount of water in Harlan County Reservoir.

Even if 2010 would turn out to be a dry year, typically the decline in Harlan under those conditions is about 16 percent.

Presently, there is 309,346 acre feet of irrigation water stored in Harlan, according to the Bureau of Reclamation.

Water-short year administration begins when that total falls under 119,000 acre feet.

Schneider warned that if 2010 turns off dry next summer, based on current consumption, the state would be facing a compliance deficit of between 20-27,000 acre feet.

Going forward, Schneider said it's hard to forecast whether the next 10 years will be dry, wet or just average.

If the next 10 years goes dry like in 2005 and 2006, Nebraska's supply of water would drop to around 200,000 acre feet.

This compares to the last two years (2008 and 2009), when the water supply exceeded 300,000 acre feet and compliance with Kansas was met.

### **Red Willow water into Harlan**

Harlan County Reservoir has seen an increase of nearly 17,000 acre feet over the last several weeks due to releases from the Red Willow Dam north of McCook.

Recently, the Bureau discovered a small hole recently in the downstream side of the Red Willow Dam.

Upon further investigation, the Bureau's engineers found additional vertical cracks in the embankment near the downstream side of the outlet pipe area.

As a result, a decision was made to draw down Red Willow to a level that was believed to be safe and to where the Bureau could more thoroughly inspect the upstream side.

As a result, more than 17,000 acre feet of irrigation water stored for the Frenchman-Cambridge Irrigation District had to be released for capture in Harlan County Reservoir.

That represents about two year's worth of irrigation delivery for the irrigation district.

Brad Edgerton, manager of the district, said they are just sick about losing the water and the ability to sell and deliver it to their ditch customers.

However, he said there's little that can be done about their situation because the water's already gone downstream.

Presently, Harlan Reservoir stands just 4/10ths of a foot from being full.

The Bureau indicated Harlan, which is operated by the Army Corps of Engineers, can hold another foot or so of water in what is termed flood pool. At that point, releases from the dam are likely.

A small release from Harlan is presently underway, the Bureau said.