



We have promoted the use of soil moisture sensor technology heavily for the past four years and presently have moisture sensors installed on over 160,000 acres. This technology allows the irrigator to water only when the crop needs it, not when his neighbor is watering or when it looks like it needs it. Soil moisture sensors have been proven to lower water usage by 1 to 2 inches per acre per year. It is estimated that the sensors are lowering water usage in the Lower Republican NRD by as much as 26,000 acre-feet per year.

WATER USAGE	
2003 = 13.03 inches per acre	2012 = 11.52 inches per acre
2004 = 11.24 inches per acre	2013 = 8.45 inches per acre
2005 = 7.17 inches per acre	2014 = 5.65 inches per acre
2006 = 7.58 inches per acre	2015 = 7.30 inches per acre
2007 = 6.11 inches per acre	2016 = 7.99 inches per acre
2008 = 5.25 inches per acre	2017 = 6.46 inches per acre
2009 = 5.92 inches per acre	2018 = 4.86 inches per acre
2010 = 4.44 inches per acre	2019 = 3.73 inches per acre
2011 = 5.46 inches per acre	

The Lower Republican NRD has been actively involved in promoting and implementing several conservation programs aimed at improving irrigation efficiency and lowering our overall use of groundwater.

#### Conservation Programs and Acres Involved

EQIP Irrigated to Dryland—1,102 acres

CREP—6,140.49 acres

AWEP—418 acres

Exempt—3589.15 acres

11,249.64 acres permanently or temporarily retired since 2005. This represents over 5% of the total irrigated acres in the LRNRD.

#### FUTURE

LRNRD is actively pursuing projects to assist with our obligations under the IMP that support Interstate Compact Compliance. The LRNRD active efforts include; conjunctive management, interbasin diversion, retirement of irrigated acres, irrigation efficiency improvements, allocation monitoring and modeling. During the last two years the LRNRD has received nearly 3 million dollars in grants to support these existing and future management actions.