

# Water policy: Get it right, and conserve

**LUBBOCK** - "The High Plains is running out of water" was the often quoted refrain years ago. But what was really meant was "The High Plains is running out of water that can be economically used to irrigate crops." The City of Amarillo has been proactive in securing water for the future, and, at present, has sufficient water resources to serve public and industrial needs long after irrigation becomes unprofitable.

So residents can breathe a little easier about water availability.

But availability is not the only issue of concern. Irrigated crop agriculture alone generates \$1.6 billion to \$3.2 billion per year in economic activity in the Texas Panhandle (all of agriculture in total represents somewhere around 40 percent of total economic activity in the area). Irrigation is at a critical juncture. We know that this economic engine will decline over time if we do nothing. The Ogallala aquifer is a mined resource. We are simply taking out more than is returned through natural recharge. So how do we manage this depletion for the future?

One might be tempted to say: "Well, if agriculture uses 90 percent of the water and we are using more than the recharge, just shut the wells down." The problem with this approach is it fails to recognize the interconnectedness between the economic activity and irrigation. Shutting down the wells would almost instantly shrink the local economy by around 8.5 percent and result in the loss of over 16,000 jobs. There are less draconian methods of reaching our goals.

Proposed groundwater regulation is developed locally by groundwater conservation districts. These districts are now bound by state law to develop "desired future conditions" (DFCs) for the aquifer under their districts in the coming year. Most districts have adopted or are leaning toward adopting "50/50" rules, or 50 percent of the aquifer must be available for use in 50 years. How to achieve these goals is still a matter of debate. But research shows that in some areas of the region, simply limiting pumping to current levels along with continuing advancements in water use efficiency will achieve the 50/50 goal. Other areas may require more reductions in water pumping to reach stated goals.

The upshot is that with careful water management and allowing for only modest growth in technology in water use efficiency and dryland crop profitability, water districts may be able to meet 50/50 goals. Of course, there will be a decline in irrigated crop production and a subsequent drop in regional

economic activity. But the decline will be more modest - only a 1 percent and 3 percent drop in activity during the next 50 years. The technological growth "softens the blow" of declining irrigated crop production for the region.

We are all in this issue together - from the long-term economic viability of the region's farmers and ranchers, to rural landowners, property values and rural schools, to bankers, car dealers, and restaurants and retailers in Amarillo (and yes, even stodgy college professors). We are, whether we like it or not, tied to the fate of agricultural production in the region.

What can we all do to help manage this resource? First, everyone can continue to support local control of water regulation. While you might think this is a "fox guarding the hen house" management scheme, most groundwater conservation districts have been historically very aggressive about water management and conservation. These districts are made up of local managers with real experience in local problems, and the public has an influence on choices made at the local level. If we fail to reach workable solutions at the local level, have no fear that legislators from Dallas and other urban centers will be happy to take over ... but their objective will not likely include the long-run economic impacts on residents of Amarillo.

Second, the public can continue to support policies and programs that assist farmers in developing and adopting new conservation practices and technologies. Great strides have been made in technological development and adoption that improve productivity with a given amount of water. We need to continue to develop these technologies to both work to improve water use efficiency, but also technologies that improve productivity with less water like drought tolerant varieties.

There is no such thing as a free lunch. Long-term declines in irrigated agriculture are inevitable. But, technology and conservation will certainly extend the life of the aquifer and soften the blow of the transition to the economy along the way.

Getting the policy right, however, will require careful thought, patience, and a cooperative commitment among all involved.

*Darren Hudson occupies the Larry Combest Chair of Agricultural Competitiveness at Texas Tech University's Department of Agricultural and Applied Economics.*

## OPINION



**GUEST COLUMN**  
**DARREN HUDSON**