

## Role #8—Economist from South Dakota

Concern #8—Conserving the Ogallala Aquifer is essential to the economy of the High Plains.

The economy of the High Plains is centered on three sectors: crops, livestock, and meat processing. Each of those sectors is highly dependent on water drawn from the Ogallala Aquifer. Irrigated crops provide food for livestock, which, in turn, is the primary input for meat-processing plants. Because of the aquifer's slow rate of recharge, the High Plains economy relies on a finite resource.

Water is fundamental to the region's livelihood, and policies affecting water use ultimately change the scope and distribution of economic activity, plus the use of land and other natural resources. For instance, the U.S. Department of Agriculture's Farm Service Agency instituted the Conservation Reserve Program in 1985. This voluntary program, which is available to agricultural producers, helps protect environmentally sensitive land. Participants plant long-term, resource-conserving groundcover to improve water quality, to control soil erosion, and to enhance wildlife habitat. This method reduces water runoff and sedimentation and, therefore,

protects both groundwater and water on the surface. In return, participants receive rental payments and other financial assistance.

Legislators should focus on the economics of water conservation when drafting new policy initiatives. We must conserve for economic efficiency, which means that resource use should yield the greatest net benefit to society. However, private costs of pumping are less than the social costs of withdrawing water—so excessive pumping occurs. Colorado, Kansas, and New Mexico have adopted policies to deny new water permits if water availability in surrounding wells would be significantly reduced. However, no such restrictions occur in Texas, where the Texas Supreme Court ruled that "the owner of the land is the absolute owner of the soil and percolating water."

### Sources:

Peterson, Marsh, and Williams 2003 (B).  
U.S. Department of Agriculture Farm Service Agency 2003 (E).

