ABSTRACT

TITLE:	Great Plains Farming and the Depletion of the Ogallala Aquifer
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ABSTRACT: The Ogallala aquifer is the largest source of groundwater in the U.S and one of the largest in the world. It covers more than 450,000 square kilometers and spans across eight states including Wyoming, South Dakota, Nebraska, Colorado, Kansas, New Mexico, Oklahoma, and Texas. The aquifer is situated under the Great Plains, also known as the breadbasket of the United States. Irrigation from the Ogallala supplies 20 billion U.S dollars worth of food and fiber annually. The aquifer is currently depleted every year at the water equivalent of 18 Colorado Rivers. Since this aquifer is non-renewable on a human time-scale, the vast reliance on it for feeding the world is a cause for concern and must be addressed. The land above the Ogallala aquifer has a rich history of land use from various settlers in the area. Currently, the majority of water from the Ogallala aquifer is being used for agriculture. There exists a multitude of alternative land practices that, if applied, could help to reduce depletion and use of the Ogallala aquifer. These alternatives include government programs such as the Soil Conservation Service and the Conservation Reserve Program, more efficient water usage through dry land farming and improve irrigation, and the Buffalo Commons proposal. All of these alternatives have different implications for the environment and for the populations which live on the land above the Ogallala.