

Playa Lakes Help Recharge Ogallala Aquifer

Aquifer recharge is the process by which rainwater seeps down through the soil into an underlying aquifer. There are many natural and unnatural processes that occur to help replenish the aquifer. Scientist and land owners are becoming more aware of the benefits that playa lakes have when freshwater collects in the round depressions of the otherwise flat landscape of West Texas.

Playas are temporary, closed-basin wetlands that are important zones of recharge to the Ogallala aquifer. These lakes vary in size from less than an acre to more than 250 acres in size and annually collect between two and three million acre- feet of water. Studies show that 15 to 57 percent of this water percolates back underground from basin edges into the Aquifer.

Playas are important because they store water in a part of the country that receives as little as twenty inches of rain a year and where there are no permanent rivers or streams. Playas help support the surrounding agriculture by seasonally recharging the Ogallala Aquifer for irrigation pumping. Playas' provide between 10 and 25 percent of the annual irrigation water in some counties.

Today, some playas are appreciated and protected because some scientists suggest that playa wetlands as the primary, and some say the exclusive, source of recharge for the Ogallala Aquifer. Researchers continue to work on methods to increase natural recharge to the aquifer and to improve water-use efficiency. The prospects for the future of the Ogallala aquifer ultimately depend upon its management by each of its water users.

The Permian Basin Underground Water Conservation District invites you to view their website at www.pbuwcd.com for more information on Recharge Enhancement. You can also call their office at 432-756-2136 or email them at permianbasin@sbcglobal.net.