

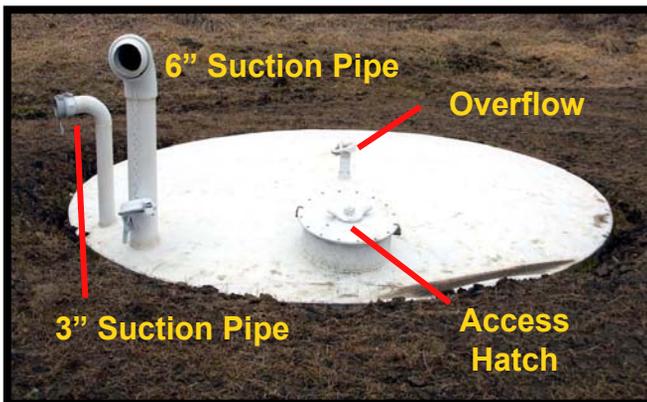
RFI411.org — Subject: **Rural Water Storage Tanks**

Elk Horn VFD (Iowa) Rural Water Supply Innovation Underground Tanks Filled by Agricultural Run-off



The Elk Horn VFD protects a rural area in which there are limited static water sources and one that requires the use of tankers for water supply operations. To improve water sources, department is installing 10 underground storage tanks of 6,000- to 15,000- gal capacities.

Storage tanks are in various configurations but are all filled by run-off from farm field tile drainage systems. Tanks are located so no area is more than 3 miles from a tank. In the past FD had to travel up to 8 miles one way to get water.



While tanks vary in design (metal, concrete, horizontal, vertical), since they were acquired for no cost, they all have the same features: a 3" and a 6" suction pipe, an overflow pipe, and an access hatch.

6" suction used for pumpers

3" suction used for portable pumps on brush trucks

Each tank has a fill pipe that collects run-off from tiles installed under farmer's fields and drains into the storage tank. Excess water flows from the tank overflow.

Tanks can refill in from 12 to 24 hours.

The water flowing into the tanks is crystal clear and free of any debris.



Tanks Reduce Distances to Water from 8 to 3 Miles



All storage tanks, such as this horizontal tank are located near a good road to allow apparatus access.



The 6" suction pipes are equipped with irrigation type connections to facilitate quick and easy suction hose hook-up.

The 3" suction pipes are equipped with camlock connections.



Elk Horn pumpers and mutual-aid departments carry 6" irrigation connection x suction hose adapters to allow connection to the 6" suction pipes.

For additional information, contact:

Chief Mark Paulsen via email:

mpaulsen@metc.net