

Lowry Pond Renovation & Nutrient Utilization



Size:

Varies with number of cattle in pasture

Challenge:

Solids and nutrients from a neighboring feedlot and surrounding cropfields had been collecting in this pond for over 30 years. As a result, the pond was very shallow, high in nutrients, and not suitable for livestock. The producer requested assistance to remove the accumulated sediment and restore the capacity and water quality of the existing farm pond.



Demonstrated Practices:

- Partial Pond Renovation and Nutrient Utilization

EIF Contribution	Producer Contribution	Total Project Cost
\$15,000	\$16,000	\$31,000
Demonstrated Practices: Partial Pond Renovation and Nutrient Utilization		

Description:

The existing pond was partially renovated by removing all the liquids and dredging the solid accumulation. Renovation improved the water quality for the livestock and increased the storage capacity. Sludge was stockpiled and land-applied at agronomic rates to adjacent crop production fields. The application of sludge was done at the producer's expense. The producer had a strong desire to utilize accumulated nutrients in the sludge. The removal of the sludge restored the capacity of the farm pond. Renovation yielded a cleaner drinking water source for the producer's cattle and for crop production.

Environmental Benefits:

With the solids and nutrients removed, the dam's capacity was restored. Additionally, the water is now suitable for livestock to drink. Nutrients that were contaminating surface water have been used in place of commercial fertilizer (approximately \$30/acre in fertilizer value).



The average depth of excavation was 12 feet.



Solids were loaded into trucks and box spreaders.



Most of the solids were stockpiled for application in the fall.



Solids were land-applied to over 500 acres.

