

Soil Infiltration and Wetland System to Treat Open Beef Feedlot Runoff

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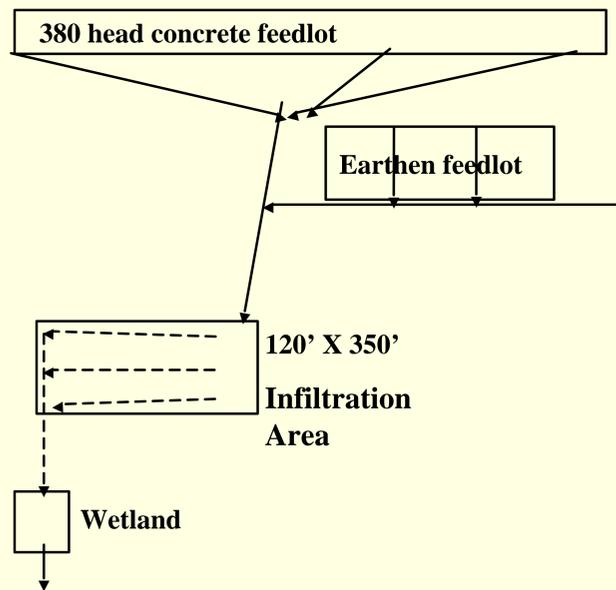
Feedlot runoff is held in infiltration area until it soaks into the ground. The soil removes phosphorus and converts ammonia to nitrate. The bermed infiltration area is ~20% of the drainage area. It will hold the 25-yr, 24-hr storm runoff.

Aerial view of overall facility looking Southeast



Summary of constituents from feedlot to edge of Onion Creek

	TKN mg/l	NO3+NO2 mg/l	NH3 mg/l	Total P mg/l	TS mg/l
Infiltration inflow	196.1	0.9	109.0	46.6	3294.1
Wetland inflow	39.6	1.7	20.7	10.5	1149.6
Wetland outflow	30.7	1.3	19.5	8.2	964.8
Edge of Onion Crk	9.7	9.2	3.7	5.4	614.4
Onion Creek	3.3	15.3	0.5	4.1	782.0



Wetlands can tolerate nitrate, but not ammonia. Three tile lines drain from the infiltration area to the small wetland for “polishing” treatment.

Wetland looking West

