

**Project Location:** Lytton, Iowa

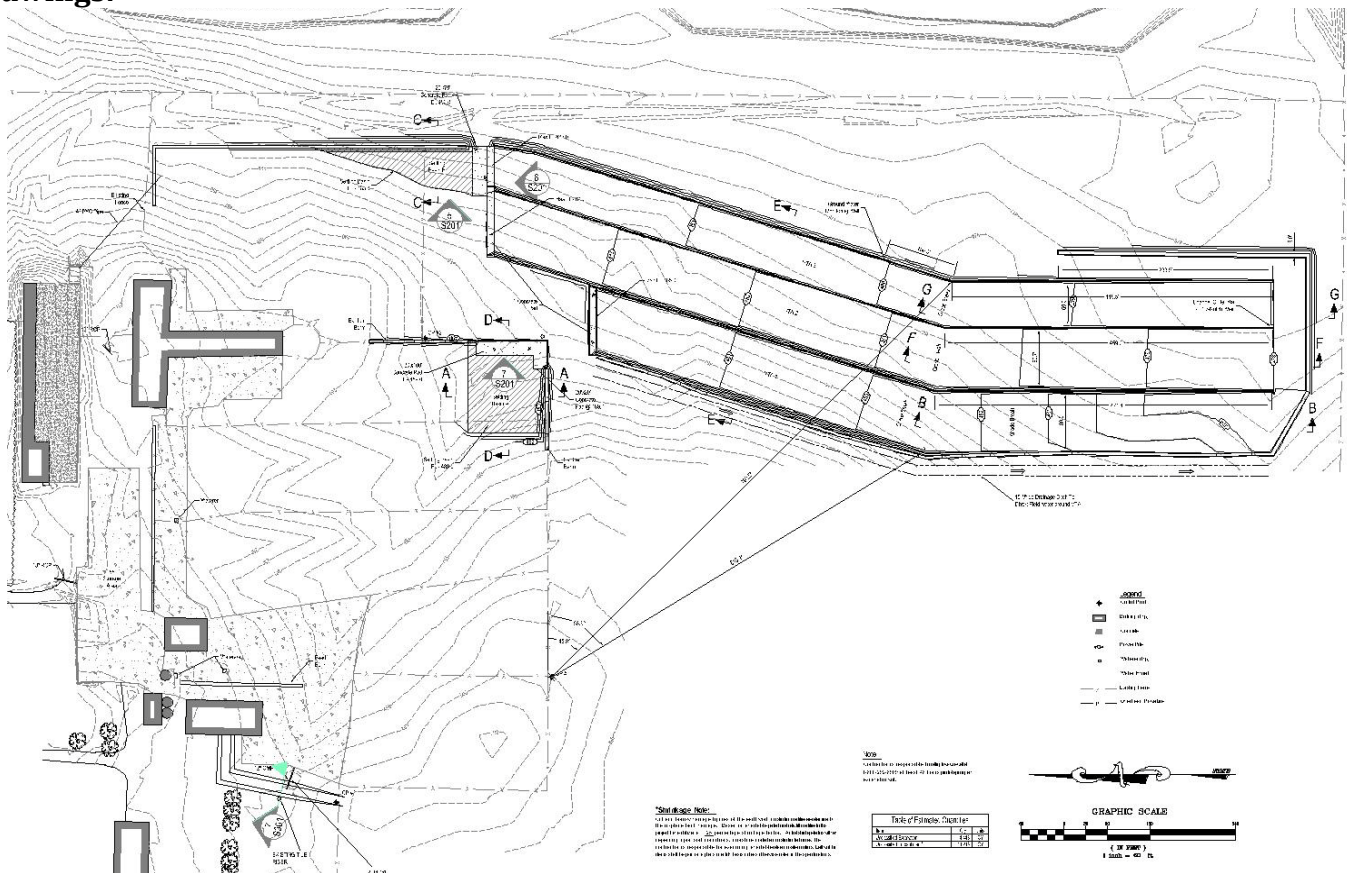
**Project Overview: Feedlot Alternative Technology Runoff Control System**

- A feedlot runoff control system for an established CAFO was needed to protect a nearby stream.
- The project consisted of capturing the feedlot runoff, and construction two solids settling basins, one utilizing concrete walls, one utilizing earthen berm walls. Both basins had concrete bottoms designed to facilitate solids removal. Settled effluent from the basins fed an alternative technology treatment area below.
- Below the solids settling basins, a “Vegetative Treatment Area” alternative runoff control system was constructed. The system included three channels, each approximately 80 feet wide and 1000 feet long, on 0.5 – 1.5% slopes. The channels were seeded to brome grass and Reeds Canary grass to retard flow, and increase infiltration. Below the channels a small berm diverted any remaining runoff to maintain the required separation distance from the nearby creek.

**Project Services:**

- Curry-Wille and designed the system, and worked with the Iowa Department of Natural Resources and the EPA to get all necessary permits.

**Drawings:**



Construction Document -Site Plan

**Photos:**



Open beef cattle lot next to stream. Before project runoff went directly from feedlot into nearby stream.



Solids settling walls & outlet. After catching runoff, solids are settled on the lot, and settled effluent is released.



Concrete spreader between SS basin and VTA channel distributes the settled effluent across the entire width of the channel.



Vegetation in VTA channel. Thick vegetation is necessary to enhance infiltration into the soil, and to utilize nutrients.



Aerial of overall VTA system after completion. Crops are now grown east of the VTA channels in what used to be an unusable swamp. The stream is protected.