Restoration Implementation

NRCS Engineers
Application, Ranking, Offers, Restoration – One engineer’s opinion of timeline

• Engineering Schedule
  - ✔ Application phase, fast and furious, ~ 2 months
  - ✔ ACEP Team executes supplement (offers), ~ 6 months
  - ✔ ACEP Team works their magic and easement is closed ~ 1 ½ yr
    - WRPO required to be obligated, 3 yrs after offer
    - Restoration completion, 3 yrs after Easement Closed
Final Design Phase

- Construction Plans & Specs
  - What you want (Plan)
  - When you want it (Sequence)
  - How you want it (Specs)
  - How much of it (Quantities)
Final Design Phase

- **Final Deliverables**
  - Construction Plans
  - Construction Specifications
  - Bid Packet
Bid Opening

• Contracting
  ◦ Low bid higher than the allocated funding (prelim cost estimate)
    • Engineers determine why and if the increase is justified, Team Lead requests current year money for additional overrun
  ◦ Low bid higher than the easement acquisition cost (Rejection)
Bid Acceptance

- Engineering sends Team Lead:
  - Request for CPC
  - Bids including low bid
  - Construction plans/specs
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Wetland Restoration Techniques

- **Sandhills Wetlands/Groundwater Interception**
  - Ditch Plugs
  - Berms
  - Water Control Structures

- **Streams / Rivers**
  - Sheet Pile Weir, Rock Chute, Articulated Concrete Mat
  - Meander Reconstruction
  - Slough Restoration
  - Bank Stabilization

- **Playas**
  - Depression geometry intact? Pits or other excavations?
  - Runoff diverted away from depression?
  - Soils – Sediment, depth to Bt
Wet Meadows, Ditch Plugs
Wet Meadows, Ditch Plugs

https://sandhillstaskforce.org/project/awesome-project-1/
Water Control Structure
Water Control Structure, CMP Weir

Pipe Q >= Channel Q
Water Control Structure, CMP Weir
Water Control Structure, CMP Weir
Sheet Pile Weir
Sheet Pile Weir, Cross Vane
Block Vortex Weir
Rock Chute
Flexamat
Flexamat
Flexamat (1 year)
Flexamat (5-year)
Meander Reconstruction
Meander Reconstruction (1-year)
River Sloughs
Playa Pitfill
Playa Pitfill
Playa Runoff Diversions

Modified Flowpath

Constructed Flowpath
Sediment Removal

7-25-2011

2/23/2011 (post-construction)