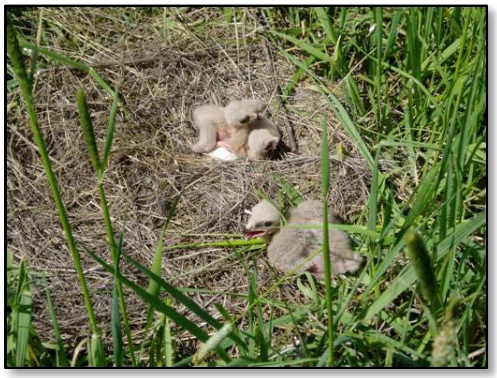
PROJECT DESCRIPTION

RESTORATION ENGINEERING LLC
Aquatic Restoration and Environmental Hydraulics

Wetland Restoration & Enhancement, Stream Restoration

Woodson Creek
Wetland Mitigation Reserve



Location: Ringling, Montana

Client: Montana Department of Transportation

Key Project Elements:

- Comprehensive Feasibility Study & Site Analysis
- Wetland Design & Alternatives Analysis
- Stream Restoration Design
- Construction Oversight
- Revegetation Design & Oversight
- Wetland & Riparian Revegetation

Project Description:

This project involved the initial feasibility study, design, construction, and revegetation on a sixty-acre riparian and emergent wetland restoration and reconstruction project along a 7,680-foot channelized reach of Woodson Creek. This site was converted to farmable land in the late 1960's by channelizing a high sinuosity reach of Woodson Creek and filling old channel meanders. The associated riparian area was cultivated and seeded to non-native cultivars.

Restoration designs included developing appropriate planform, profile and cross-section for the creek and development of floodplain grading and revegetation plan. Work tasks included aerial photo interpretation, geomorphic assessments and Rosgen Level III analysis, reference reach characterization, flood frequency analysis, bedload characterization, and hydraulic modeling. In addition, we performed a detailed baseline site assessment which included research and on-site analysis of the soils, hydrology, floral communities, faunal communities, as well as site topography, historic climate data and water right investigation.

A pre-construction wetland delineation and functional assessment was verified by Montana Department of Transportation and Army Corps of Engineers personnel. All applicable federal, state and local permits were obtained by the design team.

In addition to relying on natural recolonization of native wetland plant species, a combination of wetland seed, containerized wetland plugs, and willow cuttings were utilized to facilitate wetland and riparian revegetation. Shallow areas of inundation created by low-head berms, shallow excavations, and restored hydrology has created an exceptionally diverse wetland which is inhabited by an abundance of birds, fish, insects, amphibians and mammals.