



USDA-CSREES 2007 National Water Quality Conference

[Northwest Wetland Conversion Projects: Approaches for Varying Water Sources](#)

This paper presents four case studies of wetland conversion projects on private agricultural lands. Two of the projects restore wetland areas in previously farmed areas using available natural water sources, while the other two projects create new wetlands in historical upland areas using irrigation and site grading. Varying approaches are presented, as well as differences in vegetation zones required to accommodate the availability of irrigation water and wastewater effluent. The watersheds range in size from 50 to 100 acres. Issues common to the projects are presented in terms of engineering and biological perspectives, including: * measured fluctuations in groundwater table * water supply hydrographs * inundation frequencies of vegetation zones * balancing cuts and fills in site grading * analysis of historical aerial photographs * use of appropriate reference sites Wetland conversion projects take place under geographical and funding constraints that do not necessarily allow the optimal candidate sites to be restored; however, through proper analysis, design, and construction techniques, the project configuration can be adapted to the available water supply and site topography to attain desired benefits.

Author: Krey H. Price

University Affiliation: Tetra Tech Inc.

Co-Author(s): Merri Martz