

Survey of Prairie Ecosystems on Corps of Engineers Projects



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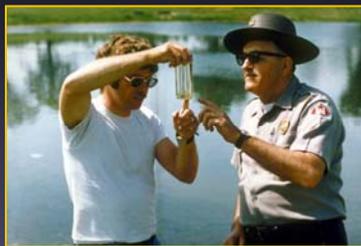
Background

- Prairie work unit first proposed to the Corps Ecosystem Management and Restoration Research Program (EMRRP) in 2002, but not accepted for funding
- Strong support for the study voiced by the Corps Stewardship Advisory Team (SAT)
- Proposal revised and resubmitted to the EMRRP in 2004
- One-year effort funded in 2005 to evaluate the status of prairie ecosystems on Corps lands
- Multi-year project approved in 2006

Problem

- From an ecological perspective, native grasslands are one of the most important ecosystems in North America.
- Native prairies are among the most endangered ecosystems (1-3% remaining in most regions).
- Prairie/grassland vegetation contributes significantly to the control of non-point source pollution and sedimentation in watersheds throughout the United States.
- Both groundwater and surface water that drain through prairie regions can affect the performance of flood control, navigation, and hydropower projects.
- Prairie-dependent species, including numerous Federal and state protected species of plants and animals, suffer from isolation and limited gene exchange.

Corps Relevance



Study Objectives

- Evaluate the status of existing prairie restoration and management efforts on Corps projects
- Determine the Corps' role in prairie restoration and management
- Provide guidelines for prairie restoration and management that will serve to maintain Corps natural resources in a healthy and sustainable condition and provide habitat for a diversity of plant and animal species

Approach

- Assess the status of grassland ecosystems on Corps lands
- Conduct site visits to selected projects
- Coordinate with the Stewardship Advisory Team (SAT) and Headquarters USACE
- Develop research elements for further investigation
- Sponsor Corps Prairie Workshop to optimize input from District and Project personnel
- Prepare Tech Notes on topics approved by the SAT
- Develop implementation guidelines for operational projects

Prairie Data Call

- Mid-continent prairie
 - Tallgrass
 - Midgrass/mixed
 - Shortgrass
- Coastal prairie
- Longleaf pine/wiregrass savannah
- Sagebrush grasslands
- Rangeland
- Meadows
- Other



Corp Divisions



Prairie/Grassland Acreage

Corps Division	Number of Projects	Acreage
NWD (5 Dist)	37	603,416
SWD (3 Dist)	46	95,037
SPD (3 Dist)	11	21,295
ORD (3 Dist)	16	2,821
MVD (2 Dist)	8	22,205
SAD (2 Dist)	7	3,048
NAD (1 Dist)	26	790
Total = 19 Dist	151 Projects	748,612 acres

Acreage by Grassland Type

Mid-continent prairie	612,291 acres
Rangeland	60,418 acres
Sagebrush grassland	9,978 acres
Pine/ savannah	2,993 acres
Meadow	1,309 acres
Other	61,623 acres

Research Elements

- Planting techniques/maintenance requirements
- Regional availability of plant materials
- Prairie establishment related to water quality and quantity, sediment control, and water retention



Research Elements

- Restoration of unique prairie types such as wet prairies/meadows/riparian pasture
- Minimum size requirements for sustaining functional prairies
- Fire management/noxious vegetation control



Progress/Accomplishments

- **Presentations at FY04, FY05, and FY06 SAT meetings, and FY05 and FY06 NWD Wildlife and Natural Resources Workshops**
- **Participated in FY05 National Prairie Conference**
- **Site visits made to selected projects to examine prairie restoration efforts**
- **TN on prairie status completed; two additional reports in review**
- **Paper presented at the 20th North American Prairie Conference**
- **FY06 Corps Prairie Workshop**

Corps Prairie Workshop

15-16 August 2006, Manhattan, KS

- **50+ Corps personnel scheduled to attend**
- **Co-sponsored by ERDC and the Kansas City District**
- **14 presentations (includes featured presentations by prairie specialists and case studies by Corps personnel)**
- **Field visits to Tuttle Creek and Milford Lake projects, Fort Riley, and the Konza Prairie Biological Research Station**

Products

- TN: “The Status and Importance of Prairie Ecosystems on Corps of Engineers Projects”
- TN: “Regional Availability of Plants for Prairie Restoration” (in press)
- TN: “Overview of Prairie Planting Techniques and Maintenance Requirements” (draft - in review)

Tasks for FY 07

- Prairie Workshop Proceedings
- Additional site visits to selected Corps projects
- Publication in North American Prairie Conference Proceedings
- Completion of Tech Notes on restoration techniques, watershed management, and guidelines for community types

