

Office of Resource Conservation

State of Illinois

Grant Segment

Project Number: T-43-D-1

Project Title: Hill Prairie/Bluff Habitat Restoration

Objectives

Work will begin on the following objectives according to the Federal approved start date, which is anticipated to be May 15, 2007. However the time frames given for the following objectives are given in quarters and years (e.g. 1st Q, 1st Y) in case the start date is sooner or later than anticipated.

Objective 1. Identify Work Sites and Restoration Needs. The majority of the following specific tasks will be accomplished during the 1st year of the project and will use approximately \$25,000 in staff time. Time lines for each of the tasks listed are given in the Project Schedule table on pages 11-12. There are approximately 90 potential work sites that have been identified. We intend to work on at least 45. These will be the sites addressed in Objectives 2 and 3 also. Specific acreage for each site has not been determined yet, but through objective 3, we intend to determine acreage figures.

Category 1 sites (sites with existing management agreements or plans)

- 1.1 Develop a management plan and cost estimate for each site chosen.
- 1.2 Determine what work items will be done by contractors and what will be done by IDNR and INPC staff.
- 1.3 Confirm landowner approval of management plan

Category 2 sites: (sites with no existing management agreements or plans)

- 1.1 Meet with landowners
- 1.2 Develop a management plan and cost estimate for each site chosen.
- 1.3 Determine what work items will be done by contractors and what will be done by IDNR and INPC staff.
- 1.4 Get landowner approval of 3 year plan

Objective 2. Restoration and Management. The majority of the following specific tasks will begin during the 1st year of the project and will continue through the 4th year. Time lines for each of the tasks listed are given in the Project Schedule table on pages 11-12. This is the main focus of the project and will use approximately \$545,198.00 in contractual services, commodities, and staff time.

- 2.1 Group the chosen sites into sub-project areas by location.
- 2.2 Develop project specifications and bid packages for each sub-project area.
- 2.3 Follow appropriate administrative procedure to hire a contractor for each sub-project area.

- 2.4 Sub-project managers meet with contractor to discuss details of project on sites.
- 2.5 Contractor completes work as specified and discussed over the three year period.
- 2.6 IDNR and INPC staff complete planned work items on project sites over three year period.
- 2.7 IDNR and INPC staff inspect contractor work to assure adequate completion.

Objective 3. Monitoring. The following tasks will be accomplished. During the 1st year of the project (task 3.1), during the 3rd-4th Q of the 3rd year and the 1st-2nd Q of the 4th year (task 3.2), and during the 4th Q of the 1st - 3rd year and the 1st & 2nd Q of the 4th year (task 3.3). Monitoring will use approximately \$10,000 in staff time. Time lines for each of the tasks listed are given in the Project Schedule table on pages 11-12.

- 3.1 Determine extent of prairie and other target communities before any restoration work for the grant is started, using GIS or GPS technology.
- 3.2 Determine extent of prairie and other target communities after restoration work for the grant is completed, using GIS or GPS technology, and compare with baseline data. The final report may take longer because of the reassessment of sites, so an additional 6 months was added to the time line to accommodate that possibility.
- 3.3 Develop an annual report each year of the grant to determine overall status and progress.

Objective 4. Education and Training. The following tasks will be begin during the 2nd Q of the 1st year and will continue through the 2nd Q of the 3rd year. These tasks will use approximately \$15,000 total in contractual services and staff time. Time lines for each of the tasks listed are given in the Project Schedule table on pages 11-13.

- 4.1 Contact other local agencies and organizations to identify opportunities to host training workshops.
- 4.2 Complete at least two prescribed burning or management workshops in two different sub-project areas.
- 4.3 Develop literature on prescribed burning or other management of hill prairies and bluffs for distribution to landowners and organizations that would have an interest in this work.
- 4.4 Coordinate other possible activities and outreach opportunities with the Hill Prairie Initiative being developed by the IDNR.

Expected Results or Benefits:

If this project is funded, we expect the result to be a significant increase in the amount of actual hill prairie habitat in the target project area which includes approximately 20 counties. through active management and restoration we aim to maintain and expand current hill prairie acreage and enhance habitat quality on approximately 40-50 target sites, and increase the size of these areas on average by 20- 25% . The expansion of habitat should also lead to an increase in populations of the species found at these sites

which include over 20 species listed in the IWAP as species in greatest need of conservation(SGNC). The areas targeted also include many high quality natural areas that are among the highest diversity prairies remaining in “The Prairie State.” Management actions on these sites will help to preserve the diversity that is currently threatened by exotic and invasive species encroachment and general lack of management. We also believe that a substantial focus on these community types, especially on private lands, will increase public awareness of, and appreciation for hill prairie and bluff habitats. Additional educational efforts through this project will support this objective.

In addition to specific species benefits, the project addresses the following parts of the IWAP: Actions 1,2,3, and 7 of the Farmland/Prairie Campaign; Actions 1 and 4 of the Forest Campaign; Actions 3 and 4 of the Invasive Species Campaign; Actions 1-4 of the Land and Water Stewardship Campaign; and specific management guidelines for the natural divisions involved in the project(IDNR, 2005).

The Illinois Natural Areas Inventory determined that less than one percent of the original natural habitat prior to Euro-American settlement still existed in 1978, and the remaining hill prairies are a special example of our natural heritage (White, 1978). Today a combination of factors have led to the rapid decline in the amount and size of the remaining hill prairies. By losing these last pieces of native prairie, we continue to erode away our natural biological resources from an already greatly diminished presence. Hill prairies are not only sources of rare native plants, but they support many endangered or threatened species.. They also support many economically important species such as deer, turkey and other upland game. In addition, they offer outstanding opportunities for wildlife watching and general nature study. They hold the soil on the steep terrain, preventing it from settling in places where it is a liability. Under proper management they can serve as pastures like was done in the past. They are significant in historical terms both to recent generations and in their ancient relationship with American Indians.

Approach:

Objective1. Identify Work Sites and Restoration Needs.

IDNR and INPC field staff will prioritize sites for work considering the following factors: presence of high quality remnants, E&T and rare (including SGNC) species habitat, high restoration potential, historical presence (determined by analysis of historical aerial photos), connectivity of habitat, and landowner interest. Main target sites are located along the Mississippi and Illinois River Bluff systems but other sites along smaller stream systems have also been included. In addition, IDNR and INPC field staff will assess the current or potential use of other funding sources, such as LIP, CREP, CRP, or other SWG projects such as the T-5-M and T-28-M Public Lands projects. If other federal funding is already being used on a potential project site, field staff will either avoid using SWG funding at the site or coordinate with staff working on the other program to assure that the two projects have clearly defined scopes (in specific location, time or type of work). Field staff will also consider which program may be best suited to a particular site or landowner, and will accordingly contact program to staff to assure

effective uses of funding sources and avoid duplication of effort. (See Related Programs section).

The sites will fall into two general categories: (1.) sites with previous management history and current management agreement, and (2.) new sites with no current management agreement. Sites in category 1 will be selected according to the above-mentioned factors and restoration needs including a cost estimate will be determined for each by IDNR and INPC staff. Sites in category 2 will likely require additional steps including initial landowner contact and assessment of resource condition, which will also be accomplished by IDNR and INPC field staff. For each chosen project site, they will develop a management plan based on restoration needs and including cost estimates and how the work will be accomplished. For sites that are not under some type of easement or protection program, landowners will be asked to sign an agreement to maintain the site in its natural condition for 10 years.

Identification of work sites and restoration needs will take place during the first year (5/15/07 - 4/30/08) of the grant. For category 1 sites, this may be completed within the first 9 months (5/15/07 - 1/31/08) because no additional landowner contact work is required and some management strategy is already in place.

Objective 2. Restoration and Management Approach including follow-up:

For each site IDNR and INPC field staff will determine what management our staff can complete and what work will be accomplished through contractors. Typical work will include brush control, exotic species control, fireline development, prescribed fire preparation, and prescribed burning. We will follow our standard procedures for hiring a contractor including developing job specifications, soliciting bids, and getting necessary approvals and then IDNR/INPC field staff will meet with the successful contractor to make a field visit to each site to explain site specific work and details of the job site. Contractor will complete the designated work within the remaining grant period. IDNR/INPC field staff will complete their management work as outlined in the management plan. IDNR/INPC field staff will meet with contractors as needed to inspect the work and provide any additional guidance. Because prescribed burning is such an important component to hill prairie management, we will pursue using contractors to complete prescribed burns and/or assist on burn crews.

Overall, this objective will be the longest part of the grant and will run from the start of year one to the end of the first quarter in year four (5/15/07 - 7/31/10). For Category 1 sites, restoration and management work can begin immediately after the grant is approved and the management needs are identified. For Category 2 sites, actual restoration and management actions will not begin until after initial landowner contact and resource assessment is completed. Therefore management work may not begin on these sites until year two of the grant.

Objective 3. Monitoring:

In order to adequately gauge the impact of the project on our chosen sites we will use

either GIS or GPS technology to determine the baseline (beginning) condition of all project sites. This is planned for the first year of the grant (5/15/07 - 4/30/08). After the restoration work is completed, each site will be assessed again in comparison to the baseline condition to determine to amount of area restored. This is planned for the last year of the grant (5/1/09 - 10/31/10).

Objective 4. Education and Training:

Outreach is critical to generate awareness and interest in hill prairies and develop a foundation of support. IDNR staff in cooperation with private groups and other government agencies (local, state, federal) will initiate an awareness campaign through media outlets, public open houses, or field trips designed to introduce people to the prairie. IDNR will produce or contract out development of informational material to go to various targeted audiences. This will have a dual role of presenting the problem of the loss of hill prairie and the development of a network to address the problem.

Fire is a fundamental force in the maintenance of these grassland ecosystems. While it is an effective and cost efficient management practice, safety is the primary concern. Prescribed fire requires careful planning and proper training. The IDNR and INPC staff have training, can plan burns, and write burn prescriptions, but often there is more burning needed than can be accomplished by staff. Development of a coordinated team of trained landowners, volunteers, and professional fire practitioners for hill prairies and other natural areas is an additional objective of this project. We will partner with other agencies, organizations and local fire departments and plan to provide training opportunities to landowners interested in conducting prescribed burns.

This is planned for the last 6 months of year 1 and the first 6 months of year 2 (11/1/07 - 10/31/08)

Location:

Project location includes the major bluff systems along the Mississippi River, Illinois River, and areas along other stream systems with significant hill prairie and bluff resources. An overall map of the potential project sites is attached along with individual maps of sites, or grouped sites.

Related Grants:

There are several other grants and programs that will be concurrent with this project and may have similar goals and objectives. The federal Landowner Incentive Program (LIP) has the potential to overlap with the private land sites that are targeted with this project. Because the LIP is administered through IDNR, we have already done some coordination between the program and project to see how we can best complement each others work to get the most resource work out of these funding mechanisms. Initially, we will attempt to keep project sites separate, but if both funding sources are desired for a single landowner, the field staff of both programs will work together to coordinate the work and define what areas or type of work will be completed with each program, and assure that

matching funds are sufficient for both programs. In nearly all cases, the staff working on LIP projects will also be working on this hill prairie project, so they will be aware of any potential overlap. By using programmatic timekeeping we will accurately reflect time spent on each of the projects so the corresponding match from salaries will go to the correct project. We also plan to assess some of our potential privately-owned project sites to determine if LIP is more suitable for various reasons. If this is the case, staff will coordinate so that we can achieve the best success with the programs and avoid any duplication of efforts. This project has initially identified many Illinois Natural Area Inventory (INAI) sites as potential work sites. These areas may and often do include multiple landowners. At this stage, the exact work site will not be determined until we have assessed the site. After assessment we will designate a more specific work site for this grant, leaving the rest of the INAI site open for other program work.

Other potential programs and projects that may overlap the target areas include CRP, WHIP, CREP and other State Wildlife Grant (SWG) projects including the T-5-M and T-28-M Public Lands grants. If these other grant programs or projects overlap this project in location or timing, we plan to coordinate with the administrators of the other grant/program to assure that each remains well defined and fully and legitimately matched.

Compliance

The IDNR will use its CERP (Comprehensive Environmental Review Process) as a tool to aid the Department in meeting NEPA compliance for the project outlined under this grant proposal. It is the Department's policy to require CERP applications for all land disturbing activities unless those activities are covered by CERP exemptions.

All planned activities will also be in compliance with the Endangered Species Act. All determinations and documentation will be in accordance with the current established U.S. Fish and Wildlife Service protocols for section 7.

All planned activities will be in compliance with the National Historic Preservation Act and the Council on Historic Preservation Act. All determinations and documentation will be in accordance with the terms of the Programmatic Agreement, as amended, effective September 23, 2002.

When applicable, those planned activities which involve a floodplain and/or jurisdiction wetlands will be done in accordance with Presidential Executive Orders 11988 and 11990.

When applicable, those planned activities which involve programs and/or site improvements will be done in accordance with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act.

When applicable, those planned activities which involve the use of pesticides, herbicides or other comparable chemicals will be done in accordance with current state and federal

4.1 Contact other local agencies and organizations to identify opportunities to host training workshops.		X	X	X										
4.2 Complete at least two prescribed burning or management workshops in two different sub-project areas.				X	X	X	X	X	X	X				
4.3 Develop literature on prescribed burning or other management of hill prairies/bluffs for distribution to landowners and organizations that have an interest.		X	X	X	X	X								
4.4 Coordinate other possible activities and outreach opportunities with the Hill Prairie Initiative being developed by the IDNR.		X	X	X	X	X	X	X	X	X				

Project Budget - Total

Hill Prairie/Bluff Habitat Restoration
Effective Dates: 5/15/07 - 10/31/10

Object Categories	Federal Request	IDNR Cost share	Total
Salaries and wages			
District Heritage Biologists (approx \$27,000)			
INPC field staff (approx \$27,000)			
Regional Administrator-Natural Heritage (approx 6241.00)			
Activities include landowner contact, management planning, contractor coordination, project administration and actual management activities including burning and invasive control	\$0.00	\$60241.00	\$60241.00
Fringe Benefits			
included in salaries above (15.4%)			
Total Salaries and Fringe Benefits	\$0.00	\$60241.00	\$60241.00
Travel			
None	\$0.00	\$0.00	\$0.00
Supplies (Commodities)			
Chemicals for exotic and invasive control	\$0.00	\$42,599.00	\$42,599.00
Contractual Services			
Contractors to accomplish exotic and invasive species control, burning and burn prep, etc on identified project sites. Also will include paying contractors to provide workshops for landowners and managers and production and printing of educational materials to support and promote the effort.	\$297,599.00	\$180,000.00	\$480,000.00
Equipment			
none			

Total Direct Costs	\$297,599.00	\$282,840.00	\$580,439.00
Indirect Costs			
IDNR administrative costs @ 24.5%	\$0.00	\$14,759.00	\$14,759.00
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Totals	\$297,599.00	\$297,599.00	\$595,198.00

Personnel:

The following IDNR/INPC personnel will be the primary staff implementing the hill prairie/bluff restoration project. They will be doing the administration and direct contact with landowners, managers, and contractors. Other Office of Resource Conservation and Land Management staff may be involved in site specific project implementation as their time permits.

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Literature Cited:

Illinois Department of Natural Resources. Illinois Comprehensive Wildlife Conservation Plan. 2005. <http://dnr.state.il.us/orc/wildliferesources/theplan/> .

McClain W.E., and E.A. Anderson. 1990. Loss of hill prairie through woody plant invasion at Pere Marquette State Park. Jersey County, Illinois. *Natural Areas Journal* 10:69-75.

Robertson, K.R., M.N. Schwartz, J.W. Olson, B.K. Dunphy, and H.D. Clarke. 1995. 50 years of change in Illinois Hill Prairie. *Erigenia* 14:41-52.

Schwartz, M.W., K.R. Robertson, B.K. Dunphy, J.W. Olson, and A.M. Trame. 1997. The biogeography of and habitat loss on hill prairies. In M.W. Schwartz, ed. *Conservation in highly fragmented landscapes*. Chapman and Hall, New York NY.

White, J. 1978. Illinois Natural Areas Inventory technical report, Vol 1. Survey methods and results. Illinois Natural Areas Survey, Urbana IL.