

OFFICE OF RESOURCE CONSERVATION

State of Illinois

Grant Segment

PROJECT NUMBER: T-49-D-1

PROJECT TITLE: Southeastern Illinois Prescribed Burn Initiative

OBJECTIVES:

1. Provide funding to support contracts for a part time Coordinator and four part-time Crew Coordinators who will provide planning, organization and coordination of burn projects. (March, 2008 through March 2011, 35 percent of the budget)
2. Purchase Polaris Ranger with a trailer and 50 gallon sprayer to meet a key equipment need that will increase the association's capacity to efficiently transport people and water at the burn site. (March 2008 through June 2008, 5 percent of budget)
3. Burn between 1000 and 1500 acres per year for the length of the grant. Over the three years, at least 2,000 acres of state land will be contained within burn units. (March, 2008 through March 2011, 56 percent of budget)
4. Monitor the effectiveness of prescribed burning, forest stand improvement and related practices through the development and interpretation of a database in order to assess the values of the prescribed burning program for maintenance of oak-dominated habitat types. (July, 2008 through March 2011, 4 percent of budget)

EXPECTED RESULTS AND BENEFITS:

This project will enable the nonprofit Southeastern Illinois Prescribed Burn Association to implement well planned and orchestrated controlled burns between 3000 and 4500 acres of private and public lands, significantly enhancing habitat for wildlife identified as important in the Illinois Wildlife Action Plan (IDNR, 2005, p30-39). If the SIPBA approach is proven successful, and documented by the monitoring aspects of this project, it could serve as a model for initiating similar organizations in other regions.

The proposed project will add much needed resources to reach and assist more landowners in treating and enhancing disturbance dependent communities, thereby directly benefiting the Species in Greatest Need of Conservation in Illinois. Funding will complete the initial establishment phase of the Southeastern IL Prescribed Burn Association and meet a key equipment need that is limiting the Association's ability to operate multiple crews on concurrently timed burns. The grant will purchase a Polaris Ranger with a trailer and 50 gallon sprayer to meet a key equipment need that will increase the association's capacity to efficiently transport people and water at the burn site. The association is currently depending on members who assist with burns to also bring their own ATV equipment, which is limited.

The Southeastern IL Prescribed Burn Association will have the funding stability it needs to become fully established and self-sustaining. The part-time positions of Prescribed Burn Coordinator and four Crew Coordinators are crucial roles that bring organization and focus to bear on a major challenge facing natural

resource managers. Far more progress can be made through this type of collaborative effort than by agency personnel alone. It is anticipated that at least 60 landowners who collectively control 12,000 acres will become members of the SIPBA within 3 years. The number of trained and experienced individuals available for prescribed burning will increase to at least 80.

The funds from this project will maintain the planning, organization and coordination functions that are essential to this prescribed burn program. Specifically, grant funds will allow SIPBA to continue to contract a part-time Prescribed Burn Coordinator and 3 part-time Crew Coordinators for 3 years.

Monitoring and evaluation efforts undertaken through this project will result in formal documentation of specific benefits provided by SIPBA actions. The findings will be used to improve the cost-effectiveness of the SIPBA approach and justify its continuation on a sustained basis. Immediate uses of this information will include number and location of acres impacted. Continued measurement will determine the extent to which treated stands are on a trajectory toward oak ecosystem maintenance, as evidenced by oak regeneration and high quality wildlife habitat development.

It is anticipated that as oak regeneration becomes established and accumulates as a result of fire disturbance, the resilience of oak communities will be enhanced. Hard and soft mast production will increase over time, benefiting mast-dependent species. Declining bird species such as vesper sparrow, lark sparrow, Baltimore oriole, eastern kingbird and red headed woodpecker will benefit from the more open structure created in oak dominated communities and shrub-successional habitats. The increased sunlight, the mosaic of vegetation and soil surface conditions as well as increased prey populations should improve long term habitat conditions for the timber rattlesnake, as well. Conditions for bobwhite quail will be significantly enhanced, since the species is dependent on the types of open land and shrub-successional habitat that are perpetuated by periodic disturbance. And, quail can more easily find their preferred food sources with the leaf litter reduced or removed by fire.

The proposed project addresses numerous priority conservation actions prescribed in the Illinois Wildlife Action Plan (Illinois Department of Natural Resources, 2005) under the Forests Campaign (Actions 1, 3, 4, 6 and 7), Farmland and Prairie Campaign (Actions 2 and 6), and the Land & Water Stewardship Campaign (Actions 1 and 2). The following section summarizes the relevant action items from the Wildlife Action Plan that will be addressed by the proposed project:

Forests Campaign (pages 66-70)

Action 1 – Maintain and enhance the composition of Illinois’ forested habitats. Reintroduce natural disturbances or suitable substitutes on a large scale. Prescribed fire should be applied, where appropriate, to maintain or restore open woodland habitats (e.g. savanna, barren), promote oak-hickory regeneration, stimulate the germination and production of native ground-layer plants and control invasive species.

Action 3 – Develop and expand programs to assist private forest owners in managing forest resources. Incentives and technical assistance should be provided to encourage the conservation and wise management of forest habitat.

Action 4 – Promote the increased use of prescribed fire and sustainable forestry practices through a campaign of marketing and demonstration areas on public and private forests, technical assistance, professional training, access to fire equipment, cooperation with fire districts, and reform or clarification of liability issues.

Action 6 – Fill information gaps and develop conservation actions to address stresses. Degraded savannas and barrens are identified for restoration with cutting of undesirable plants, prescribed fire and invasive species control.

Action 7 – Restore and manage high quality examples of all forest, savanna and barrens communities.

Farmland and Prairie Campaign (pages 71-76)

Action 2 – Through incentives-based programs and technical assistance, moderate disturbance regimes and enhance the condition of farmland habitats. Use soil disturbance, prescribed fire and managed grazing to enhance grassland structure and floral diversity, and to control woody vegetation.

Action 6 – Fill information gaps and develop conservation actions to reduce stresses. A comprehensive program for preventing, eliminating and controlling invasive species is essential.

Land & Water Stewardship Campaign (pages 84-87)

Action 1 – Improve the stewardship of private land and water resources. Provide technical assistance, cost-sharing and incentives for habitat restoration and management, invasive species control, use of prescribed fire and sustainable forestry techniques, and other forms of land stewardship on private lands.

Action 2 – Improve the stewardship of public land and water resources through inter-agency cooperation and coordination for habitat management, including prescribed fire teams and education and training of staff in stewardship techniques.

This project will further the IDNR’s long term action goals for the area while complementing those of the U.S. Fish and Wildlife Service, and the nonprofit organizations involved in the area.

APPROACH:

The IDNR will enter into an agreement with the Southeastern Illinois Regional Planning and Development Commission (SIRPDC). SIRPC will in turn work with SIPBA to implement the goals and objectives of this SWG grant.

SIPBA members pay \$25.00/yr dues and are encouraged to attend at least one of the bi-annual, one-day training courses offered by the Association. Membership benefits include access to specialized safety clothing and prescribed burn equipment, help on burns from experienced and well-trained crews, and professional guidance and assistance in preparing for burns. Each member is required to help out on at least one burn in addition to his own each year a burn is conducted on the member’s property. If a land owner is not able to help out on his burn, he has the option of either paying \$100/day for a contractor to take his or her place or he can designate his own replacement, whether a family member, neighbor, or hired consulting forester or technician. The grant will provide for contract day workers, as the need arises, to supplement the association’s volunteer workforce.

Nearly 50 landowners who collectively control over 11,000 acres of land in the Saline River Basin (Southern Till Plain) and the east half of the Shawnee Hills Natural Divisions already belong to the SIPBA. The goal is to make the Association self-sustaining within 5 years by reducing costs and developing additional partnerships and revenue sources.

Objective 1. *Provide funding to support contracts for a part time Coordinator and four part-time Crew Coordinators who will provide planning, organization and coordination of burn projects.*

The proposed grant will support a part time Coordinator and four part-time Crew Coordinators for a three-year period. Funds will also be used to provide modest daily stipends to dedicated volunteers to help offset their expenses for participating in burns. A key piece of equipment – a Ranger-type ATV with 50 gallon sprayer – will be purchased with grant funds. The ATV will be used to more efficiently transport crew members and water on burn sites. Contract cost for coordinators is displayed in the Budget Justification section under Contractual Services.

The SIPBA Coordinator organizes meetings, coordinates training, maintains records, develops burn plans, works with landowners to implement burns, recruits new landowners, develops and maintains support of partners, and develops grant proposals.

Four Crew Coordinators maintain the equipment assigned to them, help landowners prepare for burns and ensure that adequate equipment and labor is present for each burn. A trained labor pool has been developed. SIPBA membership dues and other income are sufficient to maintain the equipment and a basic training program. The federal funding through the State Wildlife Grant will provide funding for salary.

Objective 2. *Purchase Polaris Ranger with a trailer and 50 gallon sprayer to meet a key equipment need that will increase the association's capacity to efficiently transport people and water at the burn site.*

The procedure for purchasing the all terrain vehicle, sprayer, and trailer is to acquire at least three bids by telephone. Equipment will be purchased from the retailer with the lowest of these bids.

ATV's are used to carry water sprayer units, hand tools, chainsaws, and fuel for drip torches and power equipment. These functions are critical to the safe implementation of a prescribed burn. The Polaris Ranger type of ATV is larger than standard ATV's and carries two or three people as opposed to one and a 50 gallon spray unit as opposed to a 15 or 20 gallon unit.

ATV's equipped with water sprayers are used to suppress "spot fires" which occasionally occur outside control lines. It is critically important to suppress spot fires in short order to prevent escape fires which could damage property. ATV's with water sprayers are also used in a procedure called "wet lining" in which the exterior portion of the fire is extinguished with water soon after lighting to insure that the fire stays within planned boundaries. This is used where control lines have been prepared with a "bush hog" type mower but fuel remains within the control line.

To this point the Prescribed Burn Association (SIPBA) has relied on landowners and Association members to provide their own ATV's. These vehicles are generally smaller than the Polaris Ranger type which means they carry less water, tools, and people than the Ranger size. The larger ATV is more effective in controlling spot fires and wet lining due to greater water capacity and ability to carry more people and tools. The result is that a Polaris Ranger type ATV will help the Association burn more acres in a safe manner.

Objective 3. *Burn between 1000 and 1500 acres per year for the length of the grant. Over the three years, at least 2,000 acres of state land will be contained within burn units.*

Safety is top priority in carrying out prescribed burns. A qualified burn boss is required to be on each prescribed burn. Proof of liability insurance is provided to the burn coordinator prior to execution of the burn. The burn coordinator or a qualified Illinois Department of Natural Resources (IDNR) person meets the member on his land and discusses options, special needs, potential problems and owner objectives. The burn coordinator or IDNR person then prepares a burn plan for the property.

Landowners prepare their own control lines which are approved by crew coordinators prior to scheduling the burn. The burn coordinator and crew coordinator work with members to provide enough qualified crew

members to insure a safe and effective burn. The crew coordinator assigned to each burn provides all necessary equipment. Drip torch fuel is provided by the crew coordinator and then charged to the Association member at the end of the burning season.

Volunteers will be used to help prepare control lines using hand tools, power tools and equipment before burn day. In addition volunteers will help implement the burn by lighting, watching for and extinguishing slop-overs outside the control line, and putting out smokes near the control lines to ensure proper control. Volunteers, both SIPBA members and non-members will attend the Association's safety, training, and informational meetings to facilitate a safe and effective burning program. The Volunteer Time Documentation Report form will be used to document volunteer's time.

Member's objectives, the Association's priorities, and weather conditions will all play a part in determining burn area location each burn season. When applicable, planned activities which involve prescribed burning will be conducted in accordance to IDNR's Prescribed Burn Policy and Procedures found in the Policy and Procedure Manual, Chapter 5, Subchapter D, Section 5D-2: Prescribed Burns. Revised January 1, 2006.

Objective 4. *Monitor the effectiveness of prescribed burning, forest stand improvement and related practices through the development and interpretation of a database in order to assess the values of the prescribed burning program for maintenance of oak-dominated habitat types.*

Monitoring the effectiveness of prescribed burning and related activities will determine whether program objectives are being met. Records for treated stands and, where possible, untreated reference sites, will be developed and maintained by IDNR and SIU. Site and pertinent vegetation characteristics will be monitored to serve as a baseline for subsequent post-treatment evaluations. Special attention will be paid to the impacts of treatments on the health and regeneration of keystone tree species, wildlife habitat values, and status of invasive exotic plant species.

Sites will be selected to represent the range of stand density, composition, soil conditions and treatment intensity in consultation with the District Forester. A total of 30 stands will be sampled in the project area, each with 8 sampling points per stand. Overstory composition and structure, health (dbh, species, crown class and evidence of basal wounding) will be determined on a 1/100 ac plot at each sample point. Four regeneration plots 1/735 ac each will be established within each overstory plot to determine species, height, and basal diameter of tree regeneration. Species and percent cover of other vegetation occurring on the regeneration plots will also be recorded. Incidence of invasive exotic species will be noted throughout the stand. Adjacent, untreated stands will be sampled following the same procedure where these are available. A database will be developed and interpreted to assess the values of the prescribed burning program for maintenance of oak-dominated habitat.

LOCATION: Prescribed burn areas are located primarily on member owned lands within the Southeastern Illinois Prescribed Burn Association boundary (see Appendix). This boundary covers the Saline River Watershed and the eastern portion of the Shawnee Hills. The exact location of areas to be burned during this three year time period is impossible to predict. Member's objectives, the Association's priorities, and weather conditions will all play a part in determining burn area location each burn season. In addition to private lands, Association members are active on State burns. At times Association members take part in cooperative projects where the burn area crosses private/federal (Shawnee National Forest) boundaries.

PROJECT SCHEDULE:

Time Period	Task Description
Mar 1-Mar 31, 2008	Order Equipment, carry out prescribed burns, training
Apr 1-Jun 30, 2008	Carry out prescribed burns, accomplishment report, develop burn plans
Jul 1-Sep 30, 2008	Develop burn plans, collect sample data
Oct 1-Dec 31, 2008	Develop burn plans, carry out prescribed burns, annual reports, training
Jan 1-Mar 31, 2009	Training, carry out prescribed burns, annual meeting, training
Apr 1-Jun 30, 2009	Carry out prescribed burns, accomplishment report, develop burn plans
Jul 1-Sep 30, 2009	Develop burn plans
Oct 1-Dec 31, 2009	Develop burn plans, carry out prescribed burns, annual reports, training
Jan 1-Mar 31, 2010	Training, carry out prescribed burns, annual meeting, training
Apr 1-Jun 30, 2010	Carry out prescribed burns, accomplishment report, develop burn plans
Jul 1-Sep 30, 2010	Develop burn plans, collect sample data
Oct 1-Dec 31, 2010	Develop burn plans, carry out prescribed burns, annual reports, training
Jan 1-Mar 31, 2011	Training, carry out prescribed burns

RELATED GRANTS: We will be using an Illinois Department of Natural Resources (IDNR) C2000 grant to provide a portion of the non-Federal 50% match to our project. We are committing funds from a 2006 C2000 grant award, SBP 001-06 as a portion of the match for the State Wildlife Grant. The balance of this grant award is \$39,238.96. Although we must continue to pay general expenses and monthly wages to our crew coordinator, approximately \$30,000 will not be spent until an executed SWG '07 contract is on file. In addition, Association members' time and Illinois Department of Natural Resources employees' time served on burning, training, and meetings will provide a portion of the match. Only funds spent after the initiation of this grant will be counted as matching funds.

ESTIMATED COSTS:

General Three Year Budget

Objective Category	Federal Request	Match	Total
Salaries & Wages	\$0	\$113,488	\$113,488
Mileage	\$8,720	\$2,100	\$10,820
Equipment	\$21,000	\$2,988	\$23,988
Supplies	\$2,180	\$0	\$2,180
Contractual Services	\$94,500	\$19,200	\$113,700
Total Projects Costs	\$126,400	\$137,776	\$264,176
Indirect Admin Cost – 9%	\$11,376	\$0	\$11,376
Grand Total	\$137,776	\$137,776	\$275,552
Percentages	50%	50%	100%

Salaries & Wages Breakdown

The following is a breakdown of costs for Illinois Department of Natural Resources employees as well as volunteer costs. Contractual costs are displayed below in the contractual services segment.

	Hrly Rate	Hours	Annual
Dave Allen	\$ 40.67	300	\$12,201
Chris Walker	\$ 31.32	300	\$9,396
Kurt Daine	\$ 40.42	64	\$2,587
Bob Lindsay	\$ 40.55	180	\$7,299
Chuck Zeiler	\$ 40.47	120	\$4,856
Site staff	\$ 31.00	120	\$3,720
Other ORC			
Subtotal			\$40,059
Volunteers	\$ 16.17	2365	\$38,242
Total Burn Labor			\$77,715
Training	\$ 16.17	1405	\$22,719
Meetings	\$ 16.17	326	\$5,272
Line Prep	\$ 16.17	445	\$7,196
Total match			\$113,488

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BUDGET JUSTIFICATION:

Mileage:

Since the SIPBA covers all or parts of eight (8) counties in southeastern Illinois, mileage reimbursement is necessary to cover the travel costs of the coordinators and crew members. It is estimated that an average of 7,400 miles will be driven each year for three years. With over 30 burns to be completed in the project area each year, 7,400 miles is possible underestimated. Mileage will be reimbursed at the current Illinois Department of Central Management Services' rate obtained from "A Travel Guide for State of Illinois Employees." The published rate will be used as updated. All mileage will be recorded using the Volunteer Time Sheet & Mileage Record attached to the grant.

Equipment:

Equipment purchased with these grant funds consists of a Polaris Ranger type ATV, a trailer to haul the ATV, and a spray unit for the ATV. These three items will cost about \$15,000.

A sum of \$9000 (including the State match) is being designated for equipment purchase and replacement. Items to be purchased include chainsaws, leaf blowers, and two types of water sprayers as well as repairs. Because it is difficult to predict our replacement needs, the exact number of each item to be purchased is difficult to predict. The proposed equipment budget includes our best estimate. These are all items that are needed to carry out prescribed burns, both in the preparation and implementation stages.

Commodities: Supplies

Supplies will consist of items needed for prescribed burning such as gloves, hard hats, Nomex fire shirts and pants, axes, shovels, flappers, fuel cans, chain saw parts and repair, leaf blower parts and repair, tags and flagging to mark plots, etc. Funding for these items will be shared between the SWG funds, C2000 grant and SIPBA funds. The primary concern for these grant funds will be replacement of worn or lost items.

Contractual Services:

Contracts for this project include the Prescribed Burn Coordinator, Crew Coordinators, Southern Illinois University personnel for monitoring, and day workers to supplement the burning crews.

Contractual Services	Units	# Of Units	\$/Unit	Federal Request	C2000 Match	Total
Prescribed Burn Coordinator	Month	22	\$2,600	\$ 57,200	\$15,600	\$72,800
Crew Coordinators (3)	Man	9	\$2,500	\$21,300	\$1,200	\$22,500
Contract Labor	Years	75	\$100	\$6,000	\$2,400	\$8,400
SIU Monitoring	Day	1	\$10,000	\$10,000	\$0	\$10,000
	Contract					
			\$15,200	\$94,500	\$19,200	\$113,700

A part time Prescribed Burn Coordinator is needed to organize annual meetings, organize board of directors meetings, plan training sessions, prepare burn plans, maintain accomplishment records, and maintain communication with Association members regarding relevant issues. Other duties include overseeing the formation of the not-for-profit corporation, forming partnerships with other government agencies and

organizations such as Quail Unlimited and the National Wild Turkey Federation.

Three part time crew coordinators are needed to maintain and utilize burning equipment assigned to them, work with landowners and the prescribed burn coordinator to see that firebreaks are established prior to burn day, and assist in assembling equipment and crews for the prescribed burns. Contract day workers are sometimes needed to supplement volunteer crew members to insure safety.

Southern Illinois University personnel, including Dr. Charles Ruffner, Dr. John Groninger and their graduate students will be contracted to carry out monitoring activities. This will include selection of sample stands, setting up sample procedures, taking plot information and summarizing the results. This project will yield valuable information as to the effects of prescribed burning completed by the Association members in Southeastern Illinois.

Volunteers

As explained in the Approach section above, volunteers will assist in control line preparation and implementing prescribed burns. Volunteer time attending Association meetings including board of directors meetings, safety, training, and organizational meetings will be included in matching fund documentation. Volunteer time will be documented in the Volunteer Time Documentation Report. The Volunteer rate of \$16.17/hour (effective 1/1/08) is based on like work performed under the IDNR job classification of Natural Resources Technician I, with no benefits allowed, as specified in the Labor Agreement between American Federation of State, County, and Municipal Employees (AFSCME), Council 31, AFL-CIO and the State of Illinois, Dept of Central Management Service, 7/1/04 - 6/30/08.

SIU Monitoring Contract Breakdown

	Unit	# of Units	\$/Unit	Total
John Groninger	Day	5	\$400	\$2,000
Charles Ruffner	Day	4	\$375	\$1,500
Grad Student	Day	77	\$65	\$5,005
Mileage	Mile	2,500	\$0.48	\$1,200
Supplies				\$295
			Grand Total	\$10,000

PERSONNEL: The following are key project personnel. The Southeastern Illinois Regional Planning and Development Commission (SIRPDC) are receiving a 9% indirect payment to administer this grant. Julie Patera is the Executive Director for the SIRPDC. Sarah Farmer is the Project Coordinator for SIRPDC. David Allen is involved with the Illinois Department of Natural Resources (IDNR) prescribed burning program in the effected counties. Chris Walker is the crew coordinator for IDNR and is very active on this project. Both Dr. John Groninger and Dr. Charles Ruffner are Professors at Southern Illinois University and will be performing the monitoring task on this project. They will be paid using federal finds under a contract with matching State funds. The addresses are as follows:

Julie Patera (federal-overhead)
 Southeastern Illinois Regional Planning &
 Development Commission
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COMPLIANCE:

The IDNR will use its CERP (Comprehensive Environmental Review Process) as a tool to aid the Department in meeting NEPA compliance for the projects 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 (see the enclosed Comprehensive Environmental Review Process documents).

All work identified in this proposal is believed to be addressed by categorical exclusion(s). If exceptions are identified or the scope of the work changes during the execution of the proposed projects, the Federal Aid Division of the USFWS will be contacted to determine if additional NEPA compliance actions are needed.

All planned activities will also be in compliance with the Endangered Species Act. All determinations and documentation will 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, planned activities which involve prescribed burning will be conducted in accordance to IDNR's Prescribed Burn Policy and Procedures found in the Policy and Procedure Manual, Chapter 5, Subchapter D, Section 5D-2: Prescribed Burns. Revised January 1, 2006.

DOCUMENTS SUPPORTING THE GRANT PROPOSAL:

The following documents are attached in support of this grant proposal.

- Application for Federal Assistance (Standard Form 424)
- Comprehensive Environmental Review Process
- Federal Aid Section 7 Evaluation form
- Grant Proposal Budget
- Illinois Clearinghouse Response per Federal Executive Order 12372
- NEPA Compliance Checklist
- Site Map

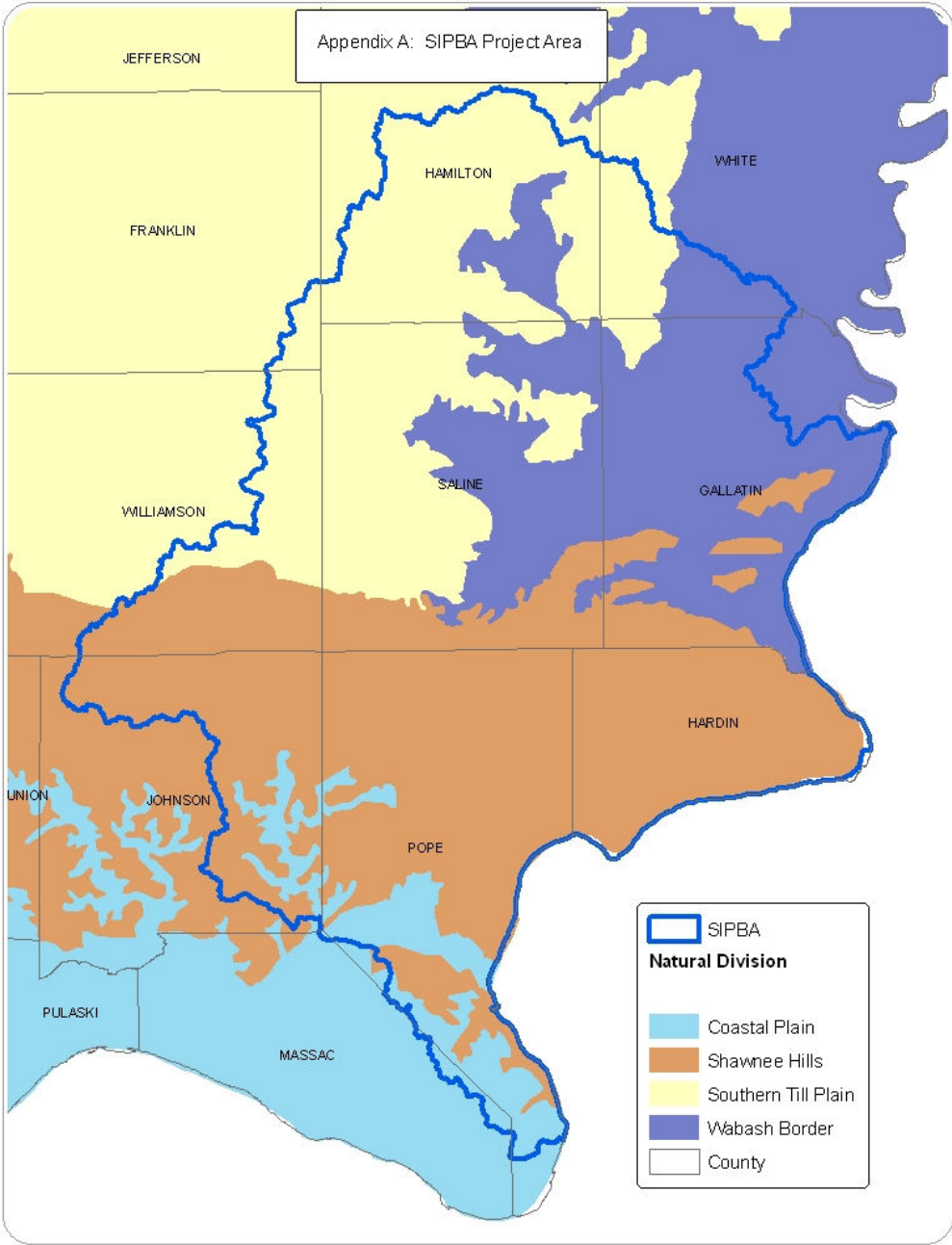
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Appendix B – Species Lists

Many of Illinois natural systems are dependent upon periodic fire for maintenance of their biological integrity. Plant species which occupy biological communities within this project area such as glades and prairies, barrens, oak woodland, and flatwoods, demonstrate the recurring historical presence of fire through their developed "fire tolerant" characteristics. For most such species, fire is required for regeneration and growth, thus demonstrating the essential role of fire in their continued existence. Without fire, shade tolerant species will surpass the and fire tolerant species resulting in a far less diverse plant community. Additionally, many species on federal and state threatened and endangered lists rely on fire for their survival, e.g., Federally endangered *Asclepias meadii*; Illinois State endangered *Bartonia paniculata*, *Hexalectris spicata*, *Lactuca hirsuta*, *Carex willdonowii*, *Eupatorium incarnatum*, *Polygala incarnata*, *Pycnanthemum torrei*, and *Spiranthes vernalis*; and Illinois State threatened, *Aster undulatus*, *Helianthus angustifolius*, *Matelea obliqua*, *Quercus prinus*, and *Scirpus polyphyllus*. If fire were totally excluded from the systems where these species exist, tremendous habitat loss and population declines would be almost certain. The use of prescribed burning is an irreplaceable process in maintaining biological diversity and balance.

Table 1 lists the conservation status (Federal/State threatened, endangered, or a species of special concern) of imperiled species found within the project area. These species are dependent on periodic disturbance processes like fire for the long-term sustainability of the natural communities where they are found. The restoration alternatives proposed by the Southeast Illinois Prescribed Burn Association are intended to restore those processes, allowing for sustainable site-specific management to benefit individual natural communities and/or species.

Species	Common Name	Status (SE,ST, FE, FT, SSC)*
AMPHIBIANS & REPTILES:		
<i>Crotalus Horridus</i>	TimberRattlesnake	ST
BIRDS:		
<i>Ammodramus henslowii</i>	Henslow’s Sparrow	SE
<i>Asio flammeus</i>	Short-eared Owl	SE
<i>Bartramia longicauda</i>	Upland Sandpiper	SE
<i>Circus cyaneus</i>	Northern Harrier	SE
<i>Ictinia mississippiensis</i>	Mississippi Kite	SE
<i>Lanius ludovicianus</i>	Loggerhead Shrike	ST
<i>Limnothlypis swainsonii</i>	Swainson’s Warbler	SE
<i>Thryomanes bewickii</i>	Bewick’s Wren	SE
<i>Tympanuchus cupido</i>	Greater Prairie Chicken	SE
<i>Tyto alba</i>	Barn Owl	SE
MAMMALS:		
<i>Ochrotomys nuttalli</i>	Golden Mouse	ST
<i>Myotis sodalalis</i>	Indiana Bat	FE, SE

Formatted: French (France)

PLANTS:

<i>Asclepias meadii</i>	Mead's Milkweed	SE, FE, SSC
<i>Bartonia paniculata</i>	Screwstem	SE
<i>Berchemia scandens</i>	Supple-jack	SE
<i>Botrchium biternatum</i>	Southern Grape Fern	LT
<i>Calamagrostis inspirata</i>	Bluejoint Grass	SE
<i>Carex arkansana</i>	Arkansas Sedge	SE
<i>Carex communis</i>	Fibrous-rooted Sedge	ST
<i>Carex willdenowii</i>	Wildenow's Sedge	ST
<i>Carex nigromarginata</i>	Black-edged Sedge	SE
<i>Chimpaphila maculate</i>	Spotted Wintergreen	SE
<i>Dichantheium ravenelii</i>	Panic Grass	SE
<i>Helianthus angustifolius</i>	Narrow-leaved Sunflower	ST
<i>Hexalectris spicata</i>	Crested Coralroot Orchid	SE
<i>Isotria verticillata</i>	Whorled Pogonia	SE
<i>Lonicera flava</i>	Yellow Honeysuckle	SE
<i>Lysimachia fraseri</i>	Loosestrife	SE
<i>Melothria pendula</i>	Squirting Cucumber	ST
<i>Matelea obliqua</i>	Climbing Milkweed	ST
<i>Quercus Montana</i>	Rock Chestnut Oak	ST
<i>Penstemon brevisepalus</i>	Short-sepaled Beard Tongue	SE
<i>Polygala incarnate</i>	Pink Milkwort	SE
<i>Rhexia mariana</i>	Dull Meadow Beauty	SE
<i>Salvia azurea ssp. Pitcheri</i>	Blue Sage	SE
<i>Scleria pauciflora</i>	Carolina Whipgrass	SE
<i>Sedum telepioides</i>	American Orpine	ST
<i>Spiranthes vernalis</i>	Spring Ladies' Tresses	SE
<i>Talinum parviflorum</i>	Small Flower-of-an-hour	SE
<i>Trillium viride</i>	Green Trillium	ST
		SE

*SE=State Endangered, ST=State Threatened, FE=Federally Endangered, FT=Federally Threatened, SSC=Species of Special Concern, species of management concern as mentioned in the Illinois Comprehensive Wildlife Conservation Plan & Strategy.

In addition to state or federal threatened, endangered, and species of special concern, prescribed burning has positive effects on other species listed in the Illinois Comprehensive Wildlife Conservation Plan & Strategy as Species in Greatest Need of Conservation. Table 2 below is a list of these species.

Species	Common Name
REPTILES	
<i>Liochlorophis vemalis</i>	Smooth Green Snake
BIRDS	
<i>Ammodramus savannarum</i>	Grasshopper Sparrow
<i>Bonasa umbellus</i>	Ruffed Grouse
<i>Buteo lineatus</i>	Red-Shouldered Hawk
<i>Caprimulgus vociferous</i>	Whip-poor-will
<i>Coccyzus americanus</i>	Yellow-Billed Cuckoo
<i>Colaptes auratus</i>	Northern Flicker
<i>Colinus virginianus</i>	Northern Bobwhite
<i>Icteria virens</i>	Yellow-Breasted Chat
<i>Melanerpes erythrocephalus</i>	Red-Headed Woodpecker
<i>Scolopax minor</i>	American Woodcock
<i>Spiza Americana</i>	Dickcissel
<i>Spizella pusilla</i>	Field Sparrow
<i>Toxostoma rufum</i>	Brown Thrasher
<i>Lynx rufus</i>	Bobcat
<i>Microtus pinetorum</i>	Woodland Vole

Information for these tables was derived from communication with Jody Shimp, Illinois Department of Natural Resources (IDNR) Natural Heritage Regional Administrator, Region 5, and from meetings with Michael Murphy, IDNR District Wildlife Biologist on September 24, 2007 and with Robert Lindsay, IDNR District Natural Heritage Biologist on September 25, 2007.

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