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DENNIS KNOBLOCH MONROE COUNTY RECORDER WATERLOO, IL

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# REGISTRATION AGREEMENT

# ANGELA'S PRAIRIE LAND AND WATER RESERVE

KNOW ALL PEOPLE BY THESE PRESENTS, that this Registration Agreement in the form of a Grant of Conservation Right and Easement pursuant to the Real Property Conservation Rights Act, 765 ILCS 120, as amended, is made this 9th day of OCT

### WITNESSETH:

WHEREAS, Charles W. and Joan L. Frederick, whose address is 700 N. Main Street, Dupo, Illinois, 62239 (hereinafter with their heirs and assigns, called the "Grantors"), are the owners in fee simple of certain real property (hereinafter called "Registered Reserve") which supports natural heritage resources or archaeological resources of Statewide significance and is described as follows:

A tract of land being part of Section 6 in Township 5 South, Range 9 West, of the Third Principal Meridian, Monroe County, Illinois and being more fully described as follows: Beginning at a #1 square iron bar set at the junction of R-O-W line of F.A.S. #1857 a.k.a Bluff Road and the west line of the northwest quarter of Section 6, thence along said west line of Section 6, North 00 Degrees, 34 Minutes, 25 Seconds West, for a distance of 1867.53 feet to a stone which marks the northwest corner of Section 6; thence on assumed bearing of North 89 Degrees, 51 Minutes, 52 Seconds East, for a distance of 2635.45 feet to a stone marking the northwest corner of the northeast quarter of said Section 6; thence South 00 Degrees, 35 Minutes, 22 Seconds East along the west line of the said northeast quarter, a distance of 447.35 feet to a #5 bar set; thence South 89 Degrees, 55 Minutes, 11 Seconds East, for a distance of 2000 feet to a point; thence south along a line parallel to the west line of said Section 6 to the intersection of the south line of the northeast guarter of said Section 6, thence west to the southwest corner of the northeast quarter of said Section 6; thence south along the west line of the southeast quarter of said Section 6, to the intersection of the R-O-W line of F.A.S. #1857 a.k.a Bluff Road; thence northwesterly along said R-O-W line to the Point of Beginning. Permanent Parcel # 18-06-100-001-000.

PLEASE RETURN TO:

PREPARED BY: Randy Heidorn IL Nature Preserves Commission One Natural Resources Way Springfield, IL 62702

### and

WHEREAS, The Illinois Department of Natural Resources and the Illinois Nature Preserves Commission (hereinafter with their successors and assigns, called "Grantees"), are agencies of the State of Illinois with offices at One Natural Resources Way, Springfield, Illinois; and

WHEREAS, The Grantors and Grantees, by this Registration Agreement and Conveyance to the Grantees of a Conservation Right and Easement on, over, and across the Registered Reserve, desire to conserve the natural heritage resources or archaeological resources thereof and prevent the use or development of the Registered Area for any purpose or in any manner that would conflict with the maintenance of the significant natural features and associated ecological processes thereof; and

WHEREAS, The Grantees are willing to accept this Grant of Conservation Right and Easement subject to the reservations and to the covenants, terms, conditions, and restrictions set out herein and imposed hereby; and

WHEREAS, The Registered Reserve is registered for the purposes, and shall be held, maintained and used, as provided for in the Illinois Natural Areas Preservation Act and the rules entitled the Register of Land and Water Reserves (17 Ill. Adm. Code, Part 4010) and as provided for in any amendment to that Act or rule, but no such amendment shall alter the commitment to the preservation of natural conditions of the Registered Reserve by the Grantors as of the date of this Registration Agreement;

NOW THEREFORE, The Grantors, for and in consideration of the above recitations and of the mutual covenants, terms, conditions, and restrictions hereinafter contained, and as an absolute and unconditional gift, do hereby give, grant, bargain, sell, and convey unto the Grantees forever, a Conservation Right and Easement in perpetuity on, over, and across the Registered Reserve, consisting of the following:

- 1. The right to view the Registered Reserve in its natural, scenic, and open condition;
- 2. The right to enter the Registered Reserve at reasonable times upon reasonable notice to inspect the condition of the Registered Reserve; and
- 3. The right to enforce by proceedings at law or in equity the covenants set forth below, it being agreed that there shall be no waiver or forfeiture of the Grantees' right to ensure compliance with the covenants and conditions of this grant by reason of any prior failure to act.

And in furtherance of the above affirmative rights of the Grantees, the Grantors make the following covenants which shall run with and bind the Registered Reserve, the Grantors shall not

Angela's Prairie Land and Water Reserve Page 3

commit any act or omission in violation of the rules entitled the Register of Land and Water Reserves, as amended (17 Ill. Adm. Code, Part 4010).

Grantors shall have prepared a Management Program in accordance with the Register of Land and Water Reserves, as amended. The Management Program is attached hereto and hereby approved by Grantees.

Grantees shall be subject to the provisions of the Illinois Natural Areas Preservation Act, as amended, as that Act relates to registered areas, and the Register of Land and Water Reserves, as amended, and shall hold and exercise the rights and responsibilities described therein.

Grantors agree to incorporate this Grant of Conservation Right and Easement by reference in any deed or other legal instrument by which they divest themselves of any interest in all or a portion of the Registered Reserve and to use reasonable efforts to notify Grantees of any such transaction.

The Grantors intend that this Easement shall qualify for treatment as a "qualified conservation contribution" under Section 170(h) of the Internal Revenue Code of 1986 (hereinafter referred to as the "Code"). The Grantees are authorized hereby and under the Act and the Real Property Conservation Rights Act to enforce this Easement on behalf of the public and to take such other action as may be provided herein or under these Acts. The Grantees are governmental units described in Section 170(b)(1)(A)(v) of the Code.

If circumstances arise in the future which render the purpose of this Easement impossible to accomplish, this Easement can only be terminated or extinguished, with respect to the entire Registered Reserve or any portion thereof, by a written instrument executed on behalf of the Grantees. Any taking of the Registered Reserve or any portion thereof, under power of eminent domain, may occur only as provided in the Act and rules governing Registered Reserves. Upon such extinguishment, whether through eminent domain or otherwise, the Grantees shall be entitled, after the satisfaction of prior claims, to their share of the proceeds from any sale, exchange, financing, or involuntary conversion of all or any portion of the Registered Reserve subsequent to such termination or extinguishment, equal to the value of this Easement. The value of this Easement at the time of such extinguishment, shall be determined as provided below. The Grantees shall use all such proceeds in a manner consistent with the conservation purposes of this grant, provided, however, that such use shall not be limited to the Registered Reserve.

This Easement constitutes a real property interest immediately vested in Grantees, which has a fair market value determined by multiplying the fair market value of the Registered Reserve unencumbered by this Easement by a fraction, of which the numerator shall be the value of the Easement at the time of this grant and the denominator shall be the value of the Registered Reserve, without deduction for the value of this Easement, at the time of this grant. The values

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at the time of this grant shall be those values used to calculate the deduction for federal income tax purposes allowable by reason of this grant, pursuant to Section 170(h) of the Code, as amended. For the purposes of this paragraph, the ratio of the value of the Easement to the value of the Registered Reserve unencumbered by this Easement shall remain constant, and the value of this Easement shall be equal to the difference in value between the Registered Reserve, without diminution attributable to this Easement, and the value of the Registered Reserve as encumbered by this Easement.

In the event Grantors claim a federal income tax deduction for donation of a "qualified conservation contribution" as that term is defined in Section 170(h) of the Internal Revenue Code, Grantors shall provide the Grantees with a copy of all appraisals of the fair market value of this Easement. Upon receipt of all such appraisals and this fully executed instrument, the Grantees shall sign any appraisal summary form prepared by the Internal Revenue Service and submitted to the Grantees by Grantors.

By their acceptance hereof the Grantees also agree to be bound by the covenants binding on the Grantors as set forth above.

TO HAVE AND TO HOLD the said Conservation Easement unto the Grantees forever.

Except as expressly limited herein, the Grantors reserve all rights as owners of the Registered Reserve, including the right to use the Registered Reserve for purposes not inconsistent with this Grant.

The terms hereof shall be deemed to run with the land and be binding upon all successors and assigns of both the Grantors and the Grantees.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this  $9^{th}$  day of 0.000 of 0.0000 of 0.0000 of 0.0000 of 0.0000 of 0.0000 of

**GRANTORS:** 

Charles W. Frederick

Jaan L. Frederick

Angela's Prairie Land and Water Reserve Page 5

STATE OF ILLINOIS ) SS COUNTY OF ST. CLAIR)

I, the undersigned, a Notary Public, in and for the County and State aforesaid, Do HEREBY CERTIFY that Charles W. Frederick and Joan L. Frederick, personally known to me to be the same persons whose names are subscribed to the foregoing Instrument, appeared before me this day in person and acknowledged that they signed, sealed, and delivered the said Instrument as their free and voluntary act, for the uses and purposes herein set forth.

GIVEN under my hand and notarial seal, this <u>9th</u>day of <u>October</u>, 2006.

Notary Public

My Commission expires:

OFFICIAL SEAL
SHARON R. HESTERBERG
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 3-26-2009

3-26-2009

# Angela's Prairie Land and Water Reserve Page 6

# ACCEPTANCE BY GRANTEES:

Sam Hood
Acting Director, Illinois Department of
Natural Resources

11/14/06

Bren I an. / Shown

Chair, Illinois Nature Preserves Commission

W/24/06

Attest:

Secretary, Illinois Nature Preserves Commission

10/24/66

# Illinois Nature Preserve Commission Management Schedule

RESERVE NAME: Angela's Prairie Land and Water Reserve

INPC Approval Expires:\_\_

B: Prairie Unit 1	A: General	A: General	A: General	Management Unit
Control exotic herbaceous vegetation	Monitor populations of endangered, threatened, & rare herpetofauna, as possible	Post and maintain boundaries	Identify ecological changes and management concerns	Management Objective
Hand pull sweet clover where feasible, in late spring/early summer when ground is moist. For larger amounts Transline may be used	Conduct biennial search, submit appropriate Element Occurrence Records	Maintain boundary signs as needed. Boundary signs should be place every 330', with rectangles on all corners.	Conduct general surveillance on a biennial basis	Management Action
5/15/07 5/15/08 5/15/09	4/1/07 4/1/09	12/1/06 12/1/08	3/1/2007 3/1/2009	Start Date
6/30/07 6/30/08 6/30/09	10/31/07 10/31/10	11/30/07 11/30/09	2/28/2008 2/28/2010	End Date
INPC, Contractor	INPC, IDNR	INPC	INPC, IDNR	Lead Agency(s)
Newman, Contractor	Newman, DHB	Newman	Newman, DHB	Lead Person(s)

B: Prairie Unit 1	Control invasive and	Cut cedars, dogwood,	3/1/07	2/28/08	INPC, Contractor	Newman, Contractor
	exotic woody	sumac, tree-of-heaven,	3/1/08	2/28/09		
	vegetation	and other invasive	3/1/9	2/28/10	100	
		species. Cut surfaces				
		should be treated with				
		20% Roundup in				
		water solution or 50%				
		Garlon 3A in water.				
		Cedar stumps do not				
		need to be treated.				
		Tree-of-heaven may				
	9	also be basal bark				
		sprayed with 25%				
		Garlon 4 in carrier oil.				
		Japanese honeysuckle				
		may be foliar sprayed				
		with 2% solution of				
B: Prairie Unit I	Restore/maintain	Conduct one	12/15/06	3/31/07	INPC, IDNR	Newman, DRB
	natural community	prescribed burn during 3 year period	12/15/08	3/31/08		
C: Prairie Unit 2	Control exotic	Hand pull sweet clover	5/15/07	6/30/07	INPC, Contractor	Newman, Contractor
	herbaceous vegetation	where feasible, in late spring/early summer	5/15/08	6/30/08		
		when ground is moist.				
		For larger amounts				
		I ransline may be used				

C: Prairie Unit 2	Control invasive and	Cut cedars, dogwood,	3/1/07	2/28/08	INPC, Contractor	Newman, Contractor
	exotic woody	sumac, tree-of-heaven,	3/1/08	2/28/09		
	vegetation	and other invasive	3/1/9	2/28/10		
		should be treated with				
		20% Roundup in				
		water solution or 50%				
		Garlon 3A in water.				
		Cedar stumps do not				
		need to be treated.				
		Tree-of-heaven may				
		also be basal bark				
		sprayed with 25%				
		Garlon 4 in carrier oil.				
		Japanese honeysuckle				
		may be foliar sprayed with 2% solution of				
		Roundup				
C: Prairie Unit 2	Restore/maintain	Conduct one	12/15/06	3/31/07	INPC, IDNR	Newman, DRB
	natural community	3 year period	12/15/08	3/31/09		
D: Prairie Unit 3	Control exotic	Hand pull sweet clover where feasible, in late	5/15/07 5/15/08	6/30/07 6/30/08	INPC, Contractor	Newman, Contractor
		spring/early summer	5/15/09	6/30/09		
		For larger amounts				
		Transline may be used				

E: Forest Unit 1	E: Forest Unit 1	D: Prairie Unit 3	D: Prairie Unit 3
Restore/maintain natural community	Control invasive and exotic woody vegetation in forest	Restore/maintain natural community	Control invasive and exotic woody vegetation
Conduct one prescribed burn during 3 year period.	Cut bush honeysuckle, tree-of- heaven, multiflora rose in forest and treat the stumps with 50% Roundup solution. Japanese honeysuckle may be foliar sprayed with a 2% Roundup solution.	Conduct one prescribed burn during 3 year period	Cut cedars, dogwood, sumac, tree-of-heaven, and other invasive species. Cut surfaces should be treated with 20% Roundup in water solution or 50% Garlon 3A in water. Cedar stumps do not need to be treated. Tree-of-heaven may also be basal bark sprayed with 25% Garlon 4 in carrier oil. Japanese honeysuckle may be foliar sprayed with 2% solution of Roundup
11/1/07 11/1/08 11/1/09	3/1/07 3/1/08 3/1/9	12/15/07 12/15/08	3/1/07 3/1/08 3/1/9
3/31/08 3/31/09 3/31/10	2/28/08 2/28/09 2/28/10	3/31/08 3/31/09	2/28/08 2/28/09 2/28/10
INPC, IDNR	INPC, IDNR	INPC, IDNR	INPC, Contractor
Newman, DHB	Newman, DHB Contractor	Newman, DRB	Newman, Contractor

E: Forest Unit 1	Provide wildlife habitat & reduce erosion in agricultural fields	Assist landowner with planting grass/forb border strips as appropriate along cropfield edges	4/1/07 4/1/08	10/15/07 10/15/08	INPC, IDNR	Newman, Mahan
F: Forest Unit 2	Control invasive and exotic woody vegetation in forest	Cut bush honeysuckle, tree-of-heaven, multiflora rose in forest and treat the stumps with 50% Roundup solution.  Japanese honeysuckle may be foliar sprayed with a 2% Roundup solution.	3/1/07 3/1/08 3/1/9	2/28/08 2/28/09 2/28/10	INPC, IDNR	Newman, DHB Contractor
F: Forest Unit 2	Restore/maintain natural community	Conduct one prescribed burn during 3 year period.	11/1/07 11/1/08 11/1/09	3/31/08 3/31/09 3/31/10	INPC, IDNR	Newman, DHB
G: Talus Unit	Protecting herpetofauna from trash & associated mortality	Locate and remove litter	3/1/07 3/1/08 3/1/9	2/28/08 2/28/09 2/28/10	INPC, IDNR Landowner	Newman, DHB Landowner
G: Talus Unit	Control invasive and exotic woody vegetation in forest	Cut bush honeysuckle, tree-of- heaven and other exotics in forest and treat the stumps with 50% Roundup solution. Japanese honeysuckle & hops may be foliar sprayed with a 2% Roundup solution.	3/1/07 3/1/08 3/1/9	2/28/08 2/28/09 2/28/10	INPC, IDNR	Newman, DHB Contractor
G: Talus Unit	Restore/maintain natural community	Conduct one prescribed burn during 3 year period	12/15/06 12/15/07 12/15/08	3/31/07 3/31/08 3/31/09	INPC, IDNR	Newman, DRB

# SITE MANAGEMENT SCHEDULE FOR ILLINOIS LAND AND WATER RESERVE

# **Management Goals**

## **RESERVE NUMBER:**

PREPARED BY: Debbie S. Newman

**SITE NAME:** Angela's Prairie Land & Water Reserve & Angela's Prairie Natural Heritage Landmark (hereafter collectively referred to as the reserve.)

LANDOWNERS: Charles and Joan Frederick

MANAGERS: Charles and Joan Frederick

# **OBJECTIVES FOR ESTABLISHING THE RESERVE:**

This reserve is part of the Renault Herpetological Area (RHA), and protects several endangered, threatened and rare herpetofauna. The reserve also protects extensive Grade C loess hill prairie, Grade A limestone cliff, and Grade C dry, dry-mesic and mesic upland forest.

# STATUS OF CONDITIONS OF NATURAL FEATURES PRESENT:

The Renault Herpetological Area is included on the Illinois Natural Areas Inventory (INAI #761) as a Category II, Habitat for Endangered and Threatened Species. Four Illinois threatened or endangered snakes occur on the reserve. Timber rattlesnake (*Crotalus horridus*) and flathead snake (*Tantillia gracilis*) are Illinois-threatened. The coachwhip snake (*Masticophis flagellum*) and Great Plains rat snake (*Elaphe emoryi*) are state-endangered. In addition, the reserve provides habitat for the state-threatened eastern narrowmouth toad (*Gastrophryne carolinensis*) and the rare pickerel frog (*Rana palustris*). Another rare animal, the common striped or "Plains" scorpion (*Centruroides vittatus*) is found on the reserve.

The INAI also recognized the limestone cliff as Grade A. The loess hill prairie, dry, drymesic, and mesic upland forest were all included as Grade C on the inventory although some sections of prairie should be evaluated for upgrading to B.

# TYPES AND EXTENT OF DEGRADATION; POTENTIAL FOR RESTORATION:

Angela's Prairie is comprised of Grade C loess hill prairie, Grade A limestone cliff community, and Grade C dry, dry-mesic, and mesic upland forest, and agricultural fields. The prairie runs in a nearly continuous stretch across the slope for 3,400 feet in the reserve and another 800 feet in the landmark, and historical photos shows the bluff as one long stretch of grassland. In a section of about 600 feet, the prairie has been invaded, and in some areas completely eliminated by woody encroachment. However, brushcutting and controlled burning

has been occurring on the site since 2002, opening some of these prairie pockets up to sunlight, with the long-term goal of one day reclaiming the continuous stretch of prairie across the bluff. The prairie on the Renault Herp Area INAI site was determined to be Grade C because of past grazing. Some area of prairie retain a moderately good mixture of forbs and grasses but are currently infested with sweet clover (*Melilotus alba*). Other sections of the prairie on the northwest and southeast ends of the reserve and on the landmark are in good shape and should eventually be evaluated for upgrading to B. Approximately 3 acres of prairie adjacent to the cropfield is a mixture of prairie species (dominant) and pasture grasses, such as brome (*Bromus sp.*) Apparently the site was planted to pasture grasses at one time in decades past, but the harsh conditions for the pasture grasses has allowed the prairie to retain or regain dominance in the stand. This prairie stand has a remarkable number of conservative prairie plants in it, despite its apparent past history. Recovery will occur but will take effort over a long period of time.

Parts of the prairies have been extensively invaded by red cedar (Juniperus virginiana), smooth sumac (Rhus glabra), winged sumac (Rhus copallina), rough-leaved dogwood (Cornus drummondii), and various deciduous trees. A considerable amount of woody removal has occurred on the prairies over the last four years as part of ongoing C2000 grants aimed at improving several hill prairies in the bluff corridor. In addition, two prescribed burns, one in 2002 and one in 2006 have occurred on southern ½ of the prairie. Sideoats grama (Bouteloua curtipendula) and little bluestem (Schizachyrium scoparium) are dominant grasses on the prairies. Many conservative forbs are found on the proposed reserve, but are scattered, with locally abundant pockets. Species include white and purple prairie clover (Dalea candida and purpureum), round-headed bush clover (Lespedeza capitata), pale purple coneflower (Echinacea pallida), and goat's rue (Tephrosia virginiana), rough and cylindric blazing star (Liatris aspera and cylindracea), rattlesnake master (Eryngium yuccifolium) and green milkweed (Asclepias viridiflora). With continued management, eventually doing seed collection from existing forb populations and scattering them in treated areas will help improve plant diversity across the prairie community.

The limestone cliff community remains undisturbed on the proposed reserve. The cliff is comprised of a series of large ledges in some areas. The ledges are inaccessible without ropes, but should someday be examined, as their undisturbed character and extensive nature makes them likely to harbor some of the threatened and endangered plants found in the area, such as slender heliotrope (*Heliotropium tenellum*) and dwarf bedstraw (*Galium virgatum*). Most of the talus slope remains undisturbed, although a small area was quarried (approximately 20' x 50') in the past adjacent to Bluff Road. In addition, county road maintenance has occasionally included pushing back some of the talus piles along the road. The talus slope presumably has not been logged, as access with steep 60-70% slopes would be prohibitive. However, with the lack of disturbance such as logging or fire, this dry, southwest-facing slope is converting from an oak forest to a maple-dominated forest. In addition to this, large sections of the talus forest are being invaded by tree-of-heaven (*Ailanthus altissima*). A combination of prescribed fire and some mechanical thinning of tree-of-heaven and maples on the talus slopes will improve the habitat.

The dry-mesic and mesic upland forests are recovering second-growth. On steep, south to west facing interior slopes the forest are comprised primarily of black oak (*Quercus velutina*), chinquapin oak (*Quercus muhlenbergii*), white oak (*Quercus alba*), and various hickories (*Carya*)

sp.) although oaks are being replaced in some areas by white ash (Fraxinus americana), black cherry (Prunus serotina) and other species. In deep wooded ravines the proposed reserve is composed of sugar maple (Acer saccharum), white ash, and elm (Ulmus sp.), with only occasional red oak (Quercus rubra). Many areas of the forest have a very small percentage of oak in the overall stand mix. The forests suffered damage from a straight-line windstorm in the mid-1990s and a heavy salvage logging occurred subsequently. This affected species composition, and also resulted in a significant invasion of exotics in the forest, particularly bush honeysuckle (Lonicera sp.) Japanese honeysuckle (Lonicera japonica), and tree-of-heaven. Exotics control is a priority for most of the forested areas, although with this extensive forest exotics control will be a slow process. Timber stand improvement under the direction of the district forester will work to improve the composition of the forests and encourage oaks to regain more dominance in the forests. Some prescribed burning will assist also with exotics control and oak regeneration; however, in order to not inflict significant fire scarring on desirable trees, prescribed burns should consist of burning smaller units with cooler fuel loads and/or some fuel clearing around particularly desirable trees.

The agricultural fields are being cropped. The landowners are considering installing some field borders to improve wildlife habitat and reduce erosion. The INPC and/or IDNR will assist with this project.

# AMOUNT OF CURRENT/POTENTIAL VISITOR USE, AS RELATED TO MANAGEMENT ISSUES.

The reserve is not open to public use. The landowners and friends hunt on the property and the owners have allowed the INPC to take a couple of conservation field trips to the prairie, but otherwise the use of the forest and prairie is minimal. There are no plans to greatly increase the numbers of hunters, and the current number poses no negative impacts to the site. Some ATVs have illegally entered the property via an old logging road that commences on the Brickey Gonterman Nature Preserve. Dropping trees in the path has helped alleviate some of this problem, and if it becomes necessary, the landowners may install a gate or fence to prohibit illegal access. Due to the ruggedness of the terrain and nearly impossible access off of Bluff Road, unauthorized visitor use should otherwise not be a problem.

# POTENTIAL LINKAGE WITH NEARBY NATURAL LANDS; LAND PROTECTION BEING CONSIDERED:

The Illinois Nature Preserves Commission is working to preserve numerous INAI sites up and down the bluff corridor from Prairie du Rocher to Valmeyer, which includes Angela's Prairie. There are 10 protected sites within four miles of Angela's Prairie, with some adjacent or a few hundred feet from the reserve. Efforts will continue to preserve lands in the vicinity of the reserve.

# THREATS TO THE INTEGRITY OF THE LAND AND WATER RESERVE:

There are several threats to the site that need to be monitored/addressed. First is the potential for a 150' wide powerline corridor proposed for this region of the Mississippi River Bluffs. Depending on its proximity to the proposed reserve, the clearing will pose significant

threats of increasing proliferation of non-native exotic plants, and fragmentation of forested habitat. Aside from the potential powerline, exotic plants in the forest and invasive plants in the prairie are primary threats to the site. Of central concern, a population of kudzu (*Pueraria lobata*) was located on the proposed reserve circa 2000. The IDNR has aggressively treated the population and has nearly eradicated it, although followup is critical. The forest and talus slope harbor many exotic species that have exploded in the bluff corridor in the last 5-8 years, including the honeysuckles (*Lonicera japonica* and *Lonicera sp.*), tree-of-heaven (*Ailanthus altissima*), mimosa tree (*Albizia julibrissin*), autumn olive (*Elaeagnus umbellata*), burning bush (*Euonymus alata*), and sweet clover (*Melilotus alba*) in the prairies. The INPC has been working to treat exotics and invasive natives in the vicinity of the prairie for the last 3 years, making some headway. Significant exotics control has also been conducted on the nearby Brickey-Gonterman Nature Preserve and the William A. Demint Nature Preserve. Efforts will continue.

Another threat to the reserve is the occasional bulldozing by local road departments of the talus slope at the base of the bluff. Because this talus slope harbors several of the endangered reptiles and amphibians, and a species of concern, the striped scorpion, efforts will be made to work with the county highway commissioner to minimize or eliminate this activity. In addition to this, a new invasive, Japanese hops ( *Humulus japonicus*) was found in 2006 growing along the road at the edge of the proposed reserve, bringing up the issue of exotics being transported by equipment. Discussions with the road department will also address cleaning equipment tires prior to activity adjacent to this and nearby reserves.

Significant littering appears to be a persistent problem along Bluff Road. Because plastic bags, plastic and glass bottles and other litter pose a threat to birds and herptofauna, efforts will be made to periodically remove litter from the talus slope.

### ALLOWED USES:

The following are allowed uses as part of the registration agreement: Timber harvest with approved IDNR forestry plan (the forester has not recommended a timber harvest for the foreseeable future due to lack of marketable trees), hunting, installation of deer stands, mushroom picking, firewood collection for personal use, maintaining existing trails and roads for access including replacing crushed rock on cropfield roads, use of ATVs for access, maintenance and hunting purposes on existing trails and roads only, and one primitive camp site (tents only). Harvesting of ginseng and goldenseal will be included as an allowed use, only when done in accordance with the Illinois Department of Natural Resources Administrative Rules and after an approved plan has been developed in conjunction with the INPC and IDNR to insure sustainable harvest of the plants. Additionally, this proposed reserve includes 60 acres of fields planted perennially to row crops (corn, soybeans, wheat, milo) and includes wildlife food plots and 12 foot fescue field borders for erosion control and access along some of the edges. Some food plots are semi-permanent cover of ladino clover and grasses, while some are comprised of corn. The agricultural fields are being managed in accordance with a Conservation Plan developed by the Natural Resources Conservation Service (NRCS). The plan includes crop rotation and residue management to reduce erosion, conserve moisture, improve soil condition and improve wildlife habitat. Two areas of cropfield also contains an NRCS-designed silt dam to reduce erosion. The landowners reserve the right to maintain the edges of the cropfields, such as trimming

overhanging tree limbs, and removing trees falling into the cropped areas, the right to maintain the silt dams, and to periodically mow fescue border strips. When the landowners make the decision to cease cropping the fields, they will be returned to forested or native prairie habitat with assistance from the Illinois Nature Preserves Commission and/or the Illinois Department of Natural Resources.

# OVERALL MANAGEMENT GOALS (RANKED IN PRIORITY ORDER):

- 1. Eradicate exotic and invasive species in the hill prairies.
- 2. Restore ecological processes, particularly fire, to loess hill prairie community
- 3. Monitor for the continued presence/change in status of the endangered, threatened, and rare herpetofauna of the preserve.
- 4. Assist in revegetation and expanding populations of forbs in the prairies.
- 5. As time allows, eradicate non-native plants from the forests surrounding the prairies
- 6. Periodically remove litter from talus slope on Bluff Road.
- 7. Visit with county road commissioner about activities at the reserve/Bluff Road interface.

# Management Schedule has been reviewed and approved by:

The Landowners:	
Charles Frederick	10 - 8 - 200 6
Name	Date
Vago Frederick	10-8-2006 Date
Name	Date
The Illinois Nature Preserves Commission:	
Trustan. Decen	10/24/06
Name	Date

The Illinois Department of Natural Resources:

Sam Flood

11/14/06 Date

Name

# MANAGEMENT UNIT FEATURES

Angela's Prairie Land and Water Reserve

Author: Debbie S. Newman

# MANAGEMENT UNITS

A: General

# **FEATURES**

Loess hill prairie
Limestone cliff
Dry upland forest/talus slope
Dry-mesic upland forest
Mesic upland forest
Crotalus horridus
Elaphe guttata emoryi
Tantillia gracilis
Masticophis flagellum
Centruroides vittatus
Gastrophryne carolinensis

B: Prairie Unit 1

Loess hill prairie
Limestone cliff
Dry-mesic upland forest
Mesic upland forest
Crotalus horridus
Elaphe guttata emoryi
Tantillia gracilis

# Masticophis flagellum

C: Prairie Unit 2

Loess hill prairie
Limestone cliff
Dry-mesic upland forest
Mesic upland forest
Crotalus horridus
Elaphe guttata emoryi
Tantillia gracilis
Masticophis flagellum

D: Prairie Unit 3

Loess hill prairie
Limestone cliff
Dry-mesic upland forest
Mesic upland forest
Crotalus horridus
Elaphe guttata emoryi
Tantillia gracilis
Masticophis flagellum

E: Forest Unit 1

Dry-mesic upland forest Agricultural fields Crotalus horridus Elaphe guttata emoryi Tantillia gracilis Masticophis flagellum

F: Forest Unit 2

Dry-mesic upland forest Crotalus horridus Elaphe guttata emoryi Tantillia gracilis Masticophis flagellum

D: Talus Unit

Limestone cliff
Dry upland forest
Crotalus horridus
Elaphe guttata emoryi
Tantillia gracilis
Masticophis flagellum
Centruroides vittatus
Gastrophryne carolinensis

# OTHER SITE INFORMATION

Natural Heritage Biologist: Scott Ballard - Acting

Natural Areas Preservation Specialist: Debbie S. Newman

Volunteer Steward: None

Topographic Map: Renault

Location: T5S - R9W, Section 6, 3rdPM

Natural Division: 11a

**Registration Date:** 10-24-2006 **Size:** 283 acres

