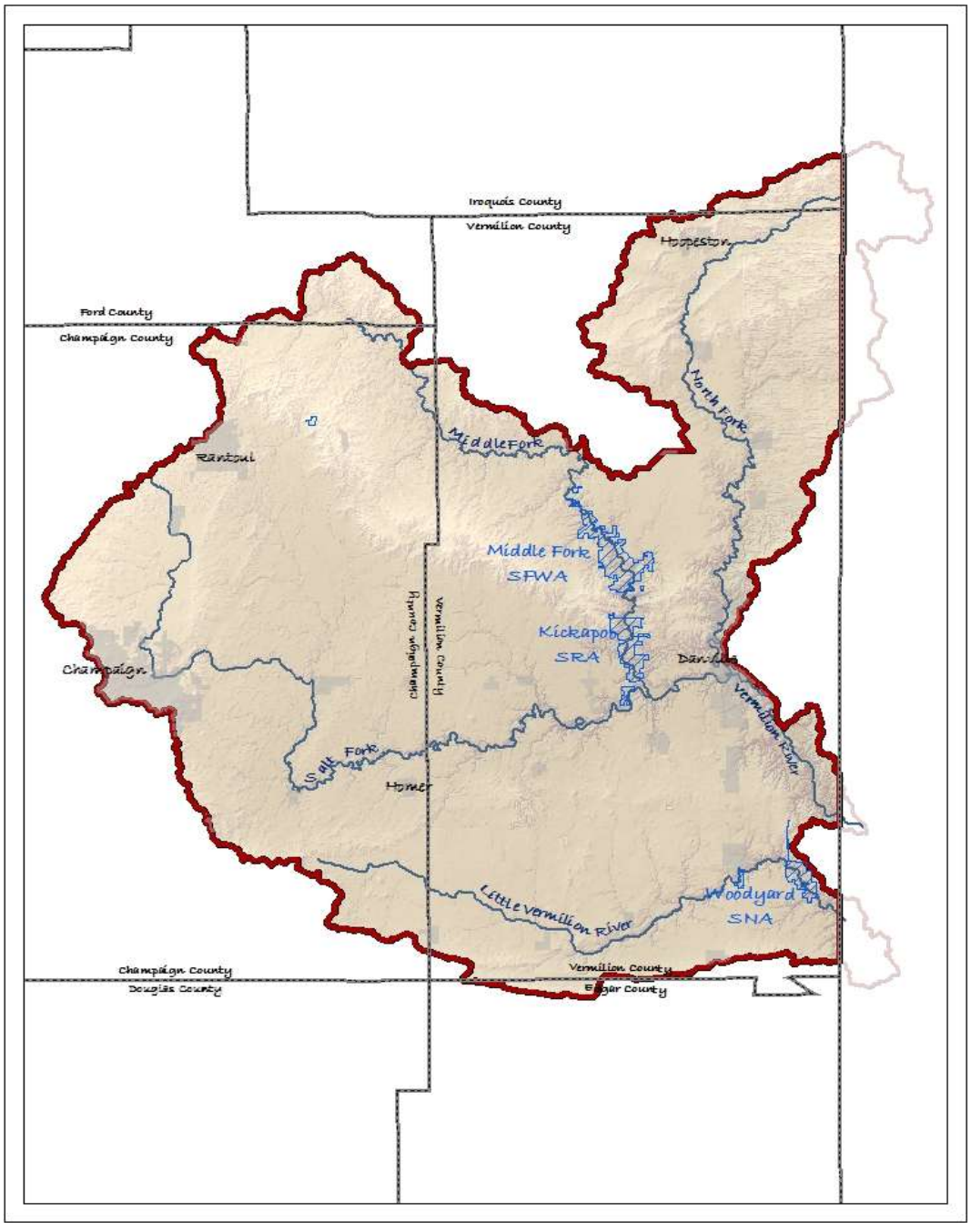
Vermilion River (Middle Fork, North Fork, & Salt Fork) & Little Vermilion River Conservation Opportunity Area Wildlife Action Plan



A cooperative agreement for collaboration between conservation-minded partners from the region.

Prepared by the Vermilion River Wildlife Conservation Partnership

March 2011

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Acronym List

AFS	American Fisheries Society
BMP	Best Management Practices
CCFPD	Champaign County Forest Preserve District
COA	Conservation Opportunity Area
CREP	Conservation Reserve Enhancement Program
CRP	Conservation Reserve Program
EPA	Environmental Protection Agency
FSA	Farm Service Agency
GIS	Geographic Information System
IDNR	Illinois Department of Natural Resources
INPC	Illinois Nature Preserves Commission
IWAP	Illinois Wildlife Action Plan
NFLVWQC	North Fork Lake Vermilion Water Quality Coalition
NFRM	North Fork River Maintenance group
NRCS	Natural Resources Conservation Service
PF	Pheasants Forever
PRN	Prairie Rivers Network
SAFE	State Acres for Wildlife Enhancement
SGNC	Species in Greatest Need of Conservation
SSRP	Streambank Stabilization and Restoration Program
SWCD	Soil and Water Conservation District
SWG	State Wildlife Grants Program
UPD	Urbana Park District
USDA	United States Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
VCCD	Vermilion County Conservation District
VCCDF	Vermilion County Conservation District Foundation
VRCOA	Vermilion River Conservation Opportunity Area
WCRP	Wildlife Conservation and Restoration Program
WHIP	Wildlife Habitat Incentive Program

Introduction

The Illinois Comprehensive Conservation Plan & Strategy

In the year 2000, recognizing that there was a gap in federal fish and wildlife conservation funding between sport fish and game funding and the endangered species programs, Congress authorized the Wildlife Conservation and Restoration Program (WCRP) and the State Wildlife Grants Program (SWG) as part of the annual federal budget. These programs were designed to provide conservation funding for species that are neither generally thought of as sport animals nor in immediate need of protection from extinction. The U.S. Fish and Wildlife Service (USFWS) was designated as the lead agency to manage distribution of funds.

In order to ensure that the funds were used in the manner they were intended, Congress identified eight required elements for each state to include in a Comprehensive Wildlife Conservation Plan & Strategy, with the expectation that "species in greatest need of conservation" would be identified, and the full array of wildlife and wildlife-related issues would be addressed. However, this effort became much more than an avenue to disperse federal conservation dollars to the states. Along with the required elements set forth by Congress, many states, including Illinois, made the decision to use the planning process to produce a document that could serve not only as a guide to state conservation priorities, but also as a filter through which all conservation partners (federal, state, and private) could better focus resources to the benefit of all.

The Illinois Comprehensive Conservation Plan & Strategy, otherwise known as the Illinois Wildlife Action Plan (IWAP) was written by the Illinois Department of Natural Resources (IDNR) and partners. The IWAP was approved by the FWS in 2005. The planning process (including a full list of partners involved in the development of the plan) is detailed in the introduction of the IWAP. The full text of the IWAP is available for download from the Association of Fish and Wildlife Agencies website: *http://www.wildlifeactionplans.org/illinois.html*
The IWAP lays out conservation priorities at three scales:

> ***The Statewide Scale**:*
>
> *The "Campaigns for Conservation Success" address the most widespread and urgent issues affecting wildlife and habitats.*
>
> ***The Regional Scale:***
>
> *The "Natural Division Assessments" focus on the major habitats and conservation challenges in the 15 natural divisions of Illinois.*
>
> ***The Local Scale:***
>
> *Conservation Opportunity Areas are locations identified by available data and conservation partners as high importance for conserving species in greatest need of conservation.*

Conservation Opportunity Areas

The IWAP identified 32 Conservation Opportunity Areas (COAs) within Illinois. COAs are defined as:

> *…locations with significant existing or potential wildlife habitat resources, where partners are willing to plan, implement and evaluate conservation actions, where financial and human resources are available, and where conservation is motivated by an agreed-upon conservation philosophy and set of objectives. (IWAP, pg. 18)*

Although the IWAP addressed some conservation needs within the COAs, the IDNR recognized that local expertise is the key to understanding conservation at the local scale and that local partners' knowledge would help direct resources to where they would do the most good.

One of the COAs identified in the IWAP is the Vermilion River (Middle Fork, North Fork, & Salt Fork) and Little Vermilion River COA. The proposed border of this COA encompasses large portions of Vermilion and Champaign counties and also crosses into sections of Ford, Iroquois, and Edgar counties (Figure 1).

In May of 2009, stakeholders with conservation interests in the area covered by the Vermilion River COA met to discuss forming a coalition to asses the gaps and overlaps between local conservation efforts and the objectives of the IWAP. Three meetings were held in 2010, and potential partners worked together to assess how local efforts could help support the implementation of the IWAP within the Vermilion River COA. An initial group of 27 individuals, representing interests of private landowners, local NGOs, and natural resource professionals, developed a list of priorities (n = 17) and challenges (n = 18) for wildlife habitat management in the COA. Understanding landowner concerns, attitudes, and values was ranked as the main challenge to conservation efforts within the VR COA and improving outreach to landowners and stakeholders was ranked as the group's priority goal. The list of priorities and challenges was refined and used to develop the group's main goals. Prairie Rivers Network and David Myers, IDNR COA project coordinator, put together an initial action plan based on the group's discussions. At the second meeting, the group began to refine the plan by beginning to set goals and objectives. At the third meeting the group discussed the strategies that would be taken to implement the VR COA action plan. The VR COA action plan was accepted by all partners in March 2011. The VR COA action plan is a working document that will be revised yearly. Anyone is welcome to participate.

Figure 1. Vermilion River Conservation Opportunity Area

Conservation in the Vermilion River COA

Description of the Vermilion River Conservation Opportunity Area

The Vermilion River Conservation Opportunity Area (VR COA) covers 791,665 acres (1,231 square miles) in Champaign, Vermilion, Ford, Edgar, and Iroquois Counties. The VR COA lies within both the Grand Prairie Natural Division and the Vermilion River section of the Wabash Border Natural Division described in the IWAP. The majority of the land is privately owned and monoculture agricultural production dominates the landscape. The Vermilion River (Salt Fork, Middle Fork, and North Fork) as well as the Little Vermilion River lie within the boundaries of the VR COA. The Middle Fork is the only designated National Wild and Scenic River in Illinois. Additionally, parts of the VRCOA area include portions of Indiana in Warren, Benton, and Vermillion counties.

Illinois Wildlife Action Plan and the Vermilion River Conservation Opportunity Area

Protected Lands—Kickapoo State Recreation Area, Middlefork State Fish & Wildlife Area, Kennekuk Cove County Park, Harry "Babe" Woodyard State Natural Area, Fleirman's River Nature Preserve, Horseshoe Bottom Nature Preserve, Windfall Prairie Nature Preserve, Fairchild Cemetery Savanna Nature Preserve, Forest Glen Preserve, Doris Westfall Prairie Restoration Nature Preserve, Howards Hollow Seep Nature Preserve, Russell M. Duffin Nature Preserve, Lake Vermilion County Park, Heron County Park, Busey Woods, Meadowbrook Prairie, Perkins Road Wet Prairie, Weaver Park, Homer Lake Forest Preserve, Middlefork River Preserve

A more complete list of protected properties can be found in Appendix I.

Conservation Partners—The Vermilion River COA has a long history of engagement from organizations and individuals with interest in natural areas and stewardship activities. The area has strong county conservation agencies, active state and federal agricultural agencies, university research projects, and active grassroots conservation groups, all of which have played key roles in conservation, recreation, and preservation of natural areas throughout the region. See page 19 for a list of the Vermilion River COA partners.

Priority Resources—streams (National Wild and Scenic River), fishes, mussels, geographically restricted amphibians

Current Status—The majority of land in the VR COA has been radically altered from its natural state. Land that was historically prairie is now utilized for agricultural production of corn and soybeans. Prairie restorations are small, and there is a lack of resources to provide adequate management against woody invasion and exotics. Most of the wetlands have been drained for agriculture or damaged by development. The streams within the VR COA have reduced natural function due to erosion, increased sedimentation, altered water flows, and nutrient loads. Forested areas are fragmented, and most have been invaded by bush honeysuckle, multiflora rose, garlic mustard, and other exotic invasive plant species.

Additionally, there has been an increase in maples with an accompanying decline in oak abundance. There is little open woodland/savanna left in the VR COA.

However, the VR COA does have significant natural resources remaining. The VR COA is home to many of the species listed as Species in Greatest Need of Conservation in the IWAP as well as the recently reintroduced Federally Endangered Northern Riffleshell (*Epioblasma rangiana*) (see Appendix II). The Vermilion River and its tributaries provide habitat for: 97 species of fish, 46 species of mussels, 16 species of large crustaceans, and 540 species of aquatic macroinvertebrates. The rivers support many state listed fish and mussels species. In fact, the North Fork of the Vermilion River supports the greatest concentration of rare, threatened, or endangered mussels in Illinois. The COA supports at least 270 bird species, 46 species of mammals, 23 species of amphibians, and 27 species of reptiles. The VR COA includes the State's first prairie restoration to be designated as a nature preserve (Doris Westfall Prairie), the State's first river nature preserve (Carl Fliermans' River Nature Preserve), and Kickapoo State Park which was the first park in the United States to be built on reclaimed strip-mined land. Additionally the VR COA encompasses seeps and eroding bluff communities.

Conservation Philosophy—Maintain and enhance the Middle Fork corridor, including the Scenic River Corridor, the Salt Fork corridor, the North Fork corridor, and their buffer areas; utilize historic vegetation conditions as a guide for a mosaic of prairie, shrubland, savanna, and open woodland on sandy terraces and flat uplands and dry-mesic and mesic forest in ravines; and emphasize forest establishment and enhancement.

Objectives—Assess streambank erosion and stabilization needs; protect and restore terrace wetlands and all seeps; maintain 3-5 forested tracts >200 acres; develop channel evolution model for river to help identify future management needs; enhance oak recruitment in existing wooded tracts; decrease amount of "hard" habitat edges through burning, invasive species control, and planting.

Priority Actions—Hydrologic analysis and plan (especially vis-à-vis streambanks and channel stability); restoration of degraded habitats using historical vegetation conditions as a guide; landowner contact for all rare resources in database; establish amphibian breeding habitat adjacent to existing woodlands, forests, and woodland/forest restorations; control/remove exotic species; reduce hard habitat edges; increase prescribed burning, especially in oak woodlands and forests; and perform biotic inventories and establish monitoring protocols.

Conservation Goals for Vermilion River COA

Conservation partners identified the following goals for the COA. These goals are listed in order of priority as identified by a majority of the conservation partners.

***Goal 1*: Improve outreach to landowners and stakeholders**

***Objective 1*:** *Work to address and understand landowner concerns, attitudes and values*

Challenges: Improving outreach to landowners and stakeholders was identified as the most significant challenge to, and priority for, conserving and managing wildlife habitat in the VR COA. Partners recognize that landowners have different needs and concerns about their land (economics, "fear" of conservation and losing control over their land, concern about damage caused by wildlife or trespassers, reduced recreational access because of liability concerns, etc). These issues must be addressed. Additionally, landowner levels of awareness, motivations, and philosophies are important, and the group recognizes that we do not always know what the landowner needs or wants. To effectively target education and assistance, it is critical to know the needs of the audience.

***Strategy 1*:** Identify geographic groupings of land that can most affect the goals of the IWAP.

> ***Action a:*** Landowner contact has historically been done through SWCD/NRCS with support and direction from IDNR. Landowner contact has been conducted along all or portions of the North Fork, Salt Fork, and Little Vermilion River from 1990- 2004. Follow-up should be conducted to determine the response of previous contact and to update landowners on information and assistance options. The Vermilion County SWCD, North Fork River Maintenance group (NFRM), North Fork Lake Vermilion Water Quality Coalition (NFLVWQC), and Pheasants Forever have contact programs with landowners on the North Fork.
>
> ***Action b:*** Future conservation efforts in the VRCOA should encourage increased connectivity between publically protected properties and privately owned properties that provide quality habitat for wildlife. The SWCD has a list of properties where the SWCD owns development rights. NRCS has a list of properties enrolled in CRP. Pheasants Forever has a list of properties where they have cost shared on establishing habitat.
>
> ***Action c*:** Building upon information collected by the partners above, create a GIS database with additional layers collected from various agencies, counties, and watersheds within the VRCOA. This has proven too difficult to achieve in the past. Having access to one source of info for the VRCOA and making this information available to partners involved in VRCOA conservation planning efforts would be beneficial to prioritizing efforts for protection, conservation, and outreach. This effort will require the hire of a GIS professional to consolidate existing data from agencies and organizations throughout the VRCOA. Vermilion County government has a GIS division, and technicians. A working arrangement could be developed with Vermilion County to achieve this goal.

***Strategy 2*:** Contact owners/operators of identified lands (see above) with information about the importance of the natural resources on their properties and how their land relates to other properties within the VRCOA.

> ***Action*:** IDNR, NRCS, and SWCDs currently supply landowners with maps and information about the forms of assistance that are available to them. For future efforts, ask if the landowner/operator is interested in managing for wildlife on their property. If they are not interested in managing part of their property as wildlife habitat, try to learn why they have made that decision. If they are interested, review protection options available for their land.

***Strategy 3*:** Contact stakeholders (municipalities, industry, developers/ developments- both urban and rural, county boards, drainage districts, township road districts/Department of Transportation, water treatment facilities, zoning boards) of the identified lands (see above).

> ***Action*:** Supply them with info about the natural areas within the VRCOA and their relationship to them. Review government rules and regulations as they pertain to environmental protection and conservation and help them to coordinate their efforts with other agencies when possible. Provide assistance opportunities, both financial and technical, and review protection options available for their site(s) when needed. Determine their level of interest in managing for wildlife on their property, and if they are not interested in managing part of their property as wildlife habitat try to understand why they have made that decision. Partners that could be involved include: SWCDs, NRCS, IL Environmental Protection Agency, IL Department of Health, County Boards (Champaign County Land Resource Management Plan), and Prairie Rivers Network (PRN).

***Objective 2*:** *Share information about best management practices and local technical and financial resources available to manage wildlife habitat*

***Challenges*:** Multiple partners have hosted workshops, tours and programs, and hired private contractors for landowner contact in the past, but new approaches and wider audiences must be reached. Finding new ways to draw interest from private citizens and groups is becoming a greater challenge as competition for their time increases. Incorporating new technology and social networking will be necessary to reach a broader audience.

***Strategy*:** Provide easily accessed information about BMPS for wildlife management.

> ***Action a*:** Develop a web-based clearinghouse to provide easy access to information. In addition to county, state, and federal natural resources/ wildlife agencies (IDNR, SWCDs, NRCS, CCFPD, UPD, VCCD), there are several organizations that maintain chapters within the VRCOA that conduct habitat management programs and provide technical assistance, equipment, and

some financial support. Examples of organizations include: Pheasants Forever, Ducks Unlimited, Whitetail Unlimited, and Smallmouth Alliance.

***Action b*:** Publicize the website to conservation groups and the general public to increase awareness of the agencies and organizations providing education and technical and financial assistance for wildlife habitat management.

***Action c*:** Education related to conservation, preservation, and stewardship and natural resource awareness are provided on an ongoing basis by IDNR, County Soil and Water Conservation Districts, NRCS, Champaign County Forest Preserve District, Vermilion County Conservation District, Urbana Park District, University of Illinois Extension Master Naturalist Program, and others. For example, homeowner outreach was done north of Homer Lake to address sedimentation and nitrogen issues.

***Action d*:** Write articles in local papers to educate the general public about basic wildlife habitat management topics and make them more aware of the efforts and resources available through partner organizations.

<u>Goal 2</u>: Improve aquatic wildlife habitat quality

Objective 1: *Reduce excess nutrients, pesticides, and sediment loads in the rivers.*

Challenges: Excess nutrients and pesticides applied by homeowners and agricultural producers negatively impact water quality which in turn negatively impacts aquatic plants and wildlife. Farming practices and land use patterns have eliminated permanent vegetation cover along many rivers and streams. Maintenance of drainage ditches that do not use BMPs can cause erosion, loss of riparian vegetation, and streambank destabilization which all contribute to increase sediment loads. Improper sediment control practices at construction sites also add to sediment loads.

Strategy 1: Promote improved management of urban stormwater

Action: Prairie Rivers Network will engage municipalities and homeowners to increase urban stormwater detention by promoting support of green infrastructure (e.g., permeable pavement, rain gardens). Soil and Water Conservation Districts, Champaign County Forest Preserve District, and Urbana Park District also support such measures. The state Partners for Conservation Program offers cost share for the establishment of rain gardens.

Strategy 2: *Increase acreage of natural vegetation along waterways*

Action a: Restore up to 100% permanent native riparian land cover inclusive of the 100 year floodplain. IDNR is currently working on restoration of bottomland fields/forests using the Natural Areas Inventory Funds. For examples of current IDNR projects see Appendices III, IV, and V. The Farm Services Agency (FSA) is also working on riparian restorations by implementing programs such as the Conservation Reserve Program (CRP) and The Conservation Reserve Enhancement Program (CREP).

Action b: NRCS encourages landowner participation in conservation programs such as CRP, WHIP, etc. Other partners such as Vermilion County and Champaign County Pheasants Forever (can provide cost share), Vermilion and Champaign County SWCDs, Vermilion County Farm Bureau Conservation Committee, Lake Vermilion North Fork River Water Quality Coalition also encourage landowners to participate in these programs.

Action c: Pursue opportunities to encourage private conservation easements. Partners that could potentially pursue this action on private lands include the Vermilion County SWCD, Champaign County SWCD, Grand Prairie Friends and the Land Conservation Foundation. The Vermilion County SWCD currently holds development rights on about 600 acres along Jordan Creek, a tributary of the North Fork.

Strategy 3**:** Increase participation in upland best management practices (e.g., appropriate application of fertilizer, etc.)

Action a**:** Encourage and promote landowner participation in conservation programs offered by the Department of Agriculture: the NRCS and FSA administer many of these programs and are partners in the Vermilion River COA, NRCS' efforts will take into account the expertise of the COA partners when targeting landowners for outreach.

Action b: Implement riparian wetlands that intersect field tile to reduce nutrient concentrations of runoff waters. In the Wetlands Campaign of the IWAP the plan calls for the restoration of "basin marshes in the Northeastern Morainal and Grand Prairie natural divisions and stream-side marshes in floodplain areas." The partners support this action and will continue to seek out opportunities to fund streamside wetland restoration efforts.

Strategy 4: Support in-stream measures to reduce sedimentation and nutrient concentrations that also benefit aquatic wildlife

Action a**:** Implement 2-stage ditch design on channelized stream reaches. The IWAP Streams Campaign calls for the protection, restoration and enhancement of near-stream and in-stream habitats and processes, and for projects to "re-meander channelized streams; provide technical assistance, publish and market to drainage districts best practices that reduce erosion

and improve habitat while lowering costs." 2-stage ditches are an example of a conservation practice that would fit this charge, and the partners will seek opportunities to promote the design.

***Action b*:** Implement bank stabilization at sites of severe erosion. SWCD offers cost sharing for such projects through EQIP and the Streambank Stabilization and Restoration Program (SSRP). Other funding sources for this type of work could include Environmental Protection Agency 319 grants and IDNR State Wildlife Grants. The partners will seek funding to implement bank stabilization when needed.

Action c: Implement grade control to arrest sediment bed loads and down-cutting: The IWAP calls for similar action in the streams campaign through "development and promotion of upland agricultural practices and developed land practices that decrease the energy, sediment load, temperature, and pollutant load of drainage waters. Streambed grade control is part of this effort and the partners will continue to seek opportunities to fund these efforts. EPA 319 grants and SWG grants can also be used for this purpose.

Objective 2: *Protect the natural processes of the rivers*

Challenges: Certain stream maintenance activities designed to improve drainage such as dredging, channelization, and installing riprap can have negative impacts on the river's natural processes and on the animals and plants dependent on healthy river systems.

Strategy: Enlarge or enhance protected core aquatic areas, which function as long-term, quality aquatic wildlife habitat

Action a: Many of the above upland and riparian actions.

Action b: Pursue opportunities for conservation easements (see also: Goal 2, Objective 1).

Action c: encourage protection and sound stewardship of riparian corridors and associated lands in a natural condition through voluntary landowner efforts with an emphasis on maintaining, restoring, and connecting natural habitats along all streams recognized by the Illinois Natural Areas Inventory within the COA.

Objective 3: *Increase populations of Species in Greatest Need of Conservation*

Challenges: Species are threatened by the loss of habitat, and habitat fragmentation and degradation.

Strategy 1: Maintain existing habitat, restore or enhance degraded habitat

Action: Protect existing riparian forests and replant trees into riparian areas previously cleared to allow shading of waterways. Many of the habitat protection practices mentioned above promote these actions. Private landowners, forest preserve district partners and other land protection partners continue to protect and enhance streamside forest areas.

Strategy 2: Allow unobtrusive large woody debris to remain intact for habitat in the stream channels

Action: Work with landowners and drainage districts to promote undisturbed in stream habitat. This action corresponds closely with landowner outreach and BMPs (see also: Goal 1, Objective 1, Strategies 1 and 2) for streams. The American Fisheries Society (AFS) "Stream Obstruction Removal Guidelines" (AFS, 1983) provides an overview on how targeted stream obstruction removal can permit some habitat to remain relatively intact while still allowing for proper drainage (see also: Appendix VI).

Strategy 3: Increase accessible habitat to migrating species

Action: Remove obstructions such as low head dams and poorly constructed culverts and road crossings. The IWAP Streams Campaign calls for removal of "unnecessary dams" and fitting "necessary dams with effective fish passage structures". The partnership supports this action and will continue to seek opportunities to fulfill it.

Strategy 4: Improve degraded aquatic habitat

Action a: Implement in-stream habitat enhancement measures. The IWAP Streams Campaign has a similar action "protect, restore and enhance near-stream and in-stream habitats and processes," although specific measures are not mentioned. The partnership will continue to seek opportunities to implement this action. Examples of stream enhancement measures that could be pursued in degraded stream segments are artificial riffles, rock weirs and lunker structures.

Action b: Promote native aquatic vegetation. Although the IWAP does not explicitly call for the promotion of native aquatic vegetation in streams, the partnership will continue to seek avenues of support for this effort in our area.

Objective 4: *Correct situations that negatively affected the natural processes of the rivers or are likely to do so*

Challenges: Land-use practices that promote rapid drainage and flashy flow such as cropping on or near banks of waterways, excessive paving, etc.

Strategy 1: Dam removal and/or enhancement

Action: There are plans to remove the low head dam on the Vermilion River at Danville below Elsworth Park (not the dam on the North Fork). The IWAP Streams Campaign calls for removal of "unnecessary dams" and fitting "necessary dams with effective fish passage structures". The partnership supports this action and will continue to seek opportunities to promote it.

Strategy 2: Slow the delivery of floodwaters to minimize flashy stream channels

Action a: Promote projects that increase the water holding and filtering capacity of the uplands adjacent to streams. This would include encouraging landowners to participate in wetland easement programs to help mitigate flashy drainage (see also: Goal 2, Objective 1).

Action b: Encourage permanent vegetative cover, preferably native, along streams where cover is absent to slow the rate of water movement from uplands to streams. This would include encouraging landowner participation in programs to help pay for streambank re-vegetation and agricultural buffer programs (see also: Goal 2, Objective 1 and 2).

Action c: Restore riparian and bottomland wetlands to reduce delivery rates and increase retention of runoff waters. This would include encouraging landowners to participate in wetland easement programs to help mitigate flashy drainage (see also: Goal 2, Objective 1 and 2).

***Goal 3*: Increase the amount and quality of terrestrial wildlife habitat**

Objective 1: *Protect biodiversity and increase populations of Species in Greatest Need of Conservation*

Challenges: The quantity of habitat available does not ensure quality of the sites. Many acres of habitat are not managed effectively due to lack of resources or know-how, and isolated parcels essentially function as islands of habitat. These patches of habitat do not realize their full potential benefit for wildlife.

Strategy 1: Improve existing sites. Enlarge and/or enhance protected conservation sites such as nature preserves, land and water reserves, natural heritage landmarks, easement sites, and sites owned by various conservation agencies and organizations.

Action: Work with owners or managers of protected sites 1) to identify adjacent areas that might be acquired to add to the protected area, and 2) to identify ways in which the protected site might be improved or enhanced to

make it a better site for wildlife, particularly for Species in Greatest Need of Conservation and T&E species.

Strategy 2: Acquire new sites. Build corridors for wildlife by connecting currently isolated protected areas with new protected areas.

Action: Develop an action plan for connecting isolated protected areas by identifying properties that public agencies such as park districts or conservation organizations could acquire. Work with owners of these properties to make them aware of the advantages of conservation of their land either through conservation easements or outright sale to a conservation organization. USDA programs are available.

Objective 2: *Restore native plant communities*

Challenges: Many patches of protected land at present support only a small proportion of the native plants that once lived there. A plant community consisting of a more diverse population of native species would support a more diverse wildlife community, whether the protected land is forest, savanna, barrens, grassland, or wetlands.

Strategy: Where practical, restore native plant communities within the VRCOA.

Action a: Work with land owners to identify the native species currently present on protected land and develop a list of suggested species that might be planted to improve the biodiversity of the land and hence its usefulness to wildlife.

Action b: There is a State Acres for Wildlife Enhancement (SAFE) area in the VRCOA. SAFE is a USDA program. In Illinois, the guidelines for the program were developed by IDNR, Pheasants Forever, The Nature Conservancy, and Illinois Audubon Society. While the focus is habitat for grassland birds, other species also benefit.

Action c: Illinois Nature Preserves Commission and Illinois Department of Natural Resources staff restore forest, grassland, open woodlands, and wetlands. See Appendices III, IV, and V for examples of work.

Forest: ongoing reforestation at Babe Woodyard State Natural Area, including the Georgetown addition (IDNR staff is doing reforestation)

Grassland: hill prairie restoration at Dynegy Tract of Kickapoo State Park will continue (IDNR staff and volunteers conduct this work)

Open woodland, savanna, barrens: open woodland restoration at Orchid Hill Natural Heritage Landmark

Wetlands: Illinois Nature Preserves Commission will continue efforts to control exotic species on natural areas within INPC programs

<u>Goal 4:</u> Control invasive plant species

Objective: *Practice exotic/invasive plant species management on lands within the VR COA*

Challenges**:** Non-native plants are outcompeting native plants and degrading the quality of wildlife habitat within the VR COA. There is a shortage of adequately trained people and labor to control the invasives. Landowners may not be able to do the work themselves or may not be aware of volunteer groups that could help them. Additionally, there are limits on the kinds of activities volunteers can perform on public lands.

Strategy 1: Educate landowners and urban homeowners on the identification of invasive plants and on the importance and benefits of removing them and not introducing them to the landscape. Engage landscape and garden center professionals to increase awareness of the problem and to identify and provide suitable alternative plants for garden and landscape applications.

Action: Work with conservation groups to develop educational programs aimed at landowners for the identification and control of invasive species and the benefits of keeping them out of natural areas and residential/commercial landscaping.

Strategy 2: Educate landowners on techniques that can be used to eradicate invasive plant species that have already been established.

Action: Work with conservation groups to develop educational programs aimed at landowners for the control and eradication of invasive species.

Strategy 3: Promote the use of volunteer workers to help control invasive species from remnant or restored natural areas.

Action*:* Partner with existing conservation groups and natural areas managers to coordinate volunteer workers to aid in removal of invasive species from existing, restored or remnant natural areas. Facilitate volunteers to assist private landowners willing to control invasive plants.

Goal 5: **Provide educational and recreational opportunities that are concerned with the natural resource issues of the VRCOA**

Objective 1: *Support the construction of an Environmental Education Center at Kennekuk County Park, adjacent to the Middle Fork River.*

Challenge: Public knowledge about wildlife and wildlife management is severely lacking, and there is a public disconnect from nature.

Strategy: Promote and support the efforts of the Vermilion County Conservation District Foundation and Board, in their project to construct an education center. The proposed "Environmental Education Center" at Kennekuk, will incorporate all available green technologies, and will serve as a showcase for such technologies.

Action: Support complete funding. The VCCDF has developed a video presentation to provide information about the project and to solicit donations. Blue prints have been drawn, and financial pledges are being tabulated.

Objective 2: Creating a wildlife/ recreation/ habitat corridor from Urbana to the Environmental Center, beginning in Urbana with the rail trail, connecting with Kickapoo State Park, and hiking along the Middle Fork River to Kennekuk County Park.

Strategy: Promote the efforts of the Champaign County Design & Conservation (CCDC) group, VCCD and the Champaign County Forest Preserve District in their efforts to create a rail trail.

Action a: CCDC is in negotiations with CSX Railroad to purchase rail right of way to convert to a trail. The CCDC is currently seeking partners for this funding and this effort will continue.

Action b: Sodemann and Associates (Champaign) produced a feasibility study. The trail is also heavily mentioned in the Westgate Land Use Plan produced by the Champaign County Regional Planning Commission. The partnership will use these reports and partner expertise to continue to promote the trail for habitat, educational and recreational benefits.

Objective 3: Educate the public about outdoor recreational activities that are ecologically responsible, and promote outdoor recreation.

Challenges: The public is not fully aware of the outdoor recreational activities within the VR COA. And access is limiting in some cases.

Strategy: Cooperate with other entities within our COA that promote and provide outdoor recreation. Illinois PF has such a program in place, working within the Grand Prairie area.

Action: Encourage environmentally responsible development of motorless river access areas.

Action: Kickapoo Landing currently focuses its non-internet promotion on Vermilion and Champaign Counties. Pursue cooperative promotional

opportunities with other entities interested in drawing the public to the VRCOA region. Create advertising, notify media. The Middlefork Outfitters, Keep Vermilion County Beautiful, Vermilion Advantage, and the Vermilion County Convention and Visitors Bureau all have such programs.

Objective 4: Educate the public on the importance of wildlife corridors & connecting areas of habitat.

Strategy: Public outreach through presentations and articles in local newspapers and conservation newsletters.

Action: East Central Illinois Master Naturalists will be engaged to educate the public about these topics.

Objective 5: Educate the public on easements, mining rights, windmill siting, and other technical issues.

Strategy: Public outreach through presentations and articles in local newspapers and conservation newsletters.

Action: Vermilion County Farm Bureau periodically has forums to address these issues.

This document outlines the conservation philosophy of the Vermilion River Conservation Opportunity Area partners. New partners are welcome. This document will be revised on an annual basis by the partnership.

List of Partners

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Appendix I: List of properties currently protected with the Vermilion River Conservation Opportunity Area.

Site Name	Classification	Owned/Assist with Management	Approximate Total Area (acres)
Middle Fork	State Fish & Wildlife Area	IDNR	4,125.59
Kinney's Ford Seep	Land & Water Reserve	IDNR	37.6
Collison Marsh			
Middle Fork Restoration (w/in Middle Fork SF&WA??)			
Kickapoo	State Recreation Area	IDNR	2,907.13
Middle Fork Woods	Nature Preserve		79
Middle Fork Bluffs			
Gifford Pheasant Habitat Area	State Habitat Area	IDNR/Champaign Pheasants Forever	103.42
Harry "Babe" Woodyard	State Natural Area	IDNR	1,350.59
Little Vermilion River	Land & Water Reserve	IDNR	1098.2
Carl Flierman's River	Nature Preserve	IDNR	23.4
Kennekuk Cove County Park		Vermilion County Conservation District	
Windfall Prairie	Nature Preserve	Vermilion County Conservation Distri	61.29
Horseshoe Bottom	Nature Preserve	Vermilion County Conservation Distri	98.09
Fairchild Cemetery Prairie/Savanna	Nature Preserve	Grand Prairie Friends	1.4
Forest Glen Preserve		Vermilion County Conservation District	
Forest Glen Savanna		Illinois Native Plant Society and Eastern Ill	22
Russell M. Duffin	Nature Preserve	Vermilion County Conservation Distri	73.45
Forest Glen Seep	Nature Preserve	Vermilion County Conservation Distri	15
Howard's Hollow Seep	Nature Preserve	Vermilion County Conservation Distri	30
Doris Westfall Prairie Restoration	Nature Preserve	Vermilion County Conservation Distri	40
Lake Vermilion County Park			
Heron County Park			
Jordan Creek Wildlife Preserve		Vermilion County Conservation Distri	535.00
Jordan Creek of the North Fork	Nature Preserve		46.8
Ems Tract		Grand Prairie Friends	1.7
Patton Woods		Parkland College	14.00
Shortline RR Prairie		Grand Prairie Friends	6
Welles Cemetary Prairie			1
Burr Oak Grove		William Gillespie	40
Edgewood Farm	Land & Water Reserve	Jim & Eleanor Smith	157.2
Collie-Flower Acres	Natural Heritage Landmark	Private landowner	5
Orchid Hill	Natural Heritage Landmark	Dynegy Corp.	122

Appendix I Cont.: List of properties currently protected with the Vermilion River Conservation Opportunity Area.

Larimore 40 NHL	Natural Heritage Landmark	Private landowner	40
East Conkeytown NHL	Natural Heritage Landmark	Private landowner	46
Jordan Creek of the Salt Fork NHL	Natural Heritage Landmark	Private landowner	44
K. Green property	Private	Private landowner	
L & J Lane property	Private	Private landowner	
D McCollum property	Private	Private landowner	~200
M Heggarty property	Private	Private landowner	214
R Russian property	Private	Private landowner	20
Unity East Elementary School prairie restoration	Unit 7 School District		3
St. Joseph Wetland Restoration on the Salt Fork	Champaign SWCD		
9-13 tracts with permanent conservation easements on North Fork and tributaries (Middle Branch and Jordan Creek)	Vermilion County SWCD holds easements		
Brownfield Woods	University of Illinois Natural Area	University of Illinois	64.6
CCDC Collins Woods	University of Illinois Natural Area	University of Illinois	13.1
Phillips Tract	University of Illinois Natural Area	University of Illinois	52.6
Edgar and Sophia Richter Research Area	University of Illinois Natural Area	University of Illinois	22.5
Rutan Research Area	University of Illinois Natural Area	University of Illinois	25.6
Trelease Woods (and buffers)	University of Illinois Natural Area	University of Illinois	60.5 (71.2 with buffers)
Trealease Prairie	University of Illinois Natural Area	University of Illinois	19.9
Vermilion River Observatory	University of Illinois Natural Area	University of Illinois	477
Busey Woods		Urbana Park District	59
Meadowbrook Prairie		Urbana Park District	80
Perkins Road Wet Prairie		Urbana Park District	35
Weaver Park		Urbana Park District	60
Homer Lake Forest Preserve		Champaign County Forest Preserve	828
Middlefork River Preserve		Champaign County Forest Preserve	1702
Tomlinson Pioneer Cemetery Prairie	Nature Preserve	Champaign County Forest Preserve/GPF	1
Potomac City Park	City Park		
Camp Drake on the Salt Fork	Camp Ground	Prairieland Boy Scout Council #117	200

Appendix II: Species in Greatest Need of Conservation found in the Vermilion River Conservation Opportunity Area.

SE = State Endangered; ST = State Threatened; FE = Federally Endangered; FT = Federally Threatened (August 2010 list)
**** Not currently listed as SGNC in IWAP**

Mollusks	***(Reviewed by Bob Szafoni, Kevin Cummings, and Chris Phillips)***		
slippershell mussel	*Alasmidonta viridis*	ST	
	*Amnicola limosa***		
	*Campeloma decisum***		
midland slitsnail	*Cincinnatia integra*		
purple wartyback	*Cyclonaias tuberculata*	ST	
	*Elimia livescens***		
Northern riffleshell	*Epioblasma rangiana***	FE SE	(Reintroduced 2010 as part of federal recovery plan)
	*Ferrissia rivularis***		
	*Fossaria modicella***		
	*Fossaria parva***		
	*Gyraulus parvus***		
	*Helisoma anceps***		
	*Helisoma pseudotrivolvis***		
wavy-rayed lampmussel	*Lampsilis fasciola*	SE	
creek heelspliter	*Lasmigona compressa*		
fluted shell	*Lasmigona costata*		
black sandshell	*Ligumia recta*	ST	
	*Planorbella trivolvis***		
clubshell	*Pleurobema clava*	FE SE	
	*Pomatiopsis lapidaria***		
kidneyshell mussel	*Ptychobranchus fasciolaris*	SE	
rabbitsfoot mussel	*Quadrula cylindrica*	SE	
monkeyface	*Quadrula metanerva*		
salamander mussel	*Simpsonaias ambigua*	SE	
	*Stagnicola caperata***		
eightfold pinecone	*Strobilops affinis*		
spotted ambersmail	*Succinea forsheyi*		
purple lilliput mussel	*Toxolasma lividus*	SE	
multirib vallonia	*Vallonia gracilicosa*		
rainbow mussel	*Villosa iris*	SE	
little spectacle case mussel	*Villosa lienosa*	ST	
sharp wedge	*Xolotrema obstrictum*		
dull gloss	*Zonitoides limatulus*		

Crustaceans	***(Reviewed by ChrisTaylor)***	
a cave obligate isopod	*Caecidotea beattyi*	
Packard's cave amphipod	*Crangonyx packardi*	SE
Fishes	***(Reviewed by Trent Thomas and Jeremy Tiemann)***	
American eel	*Anguilla rostrata*	
eastern sand darter	*Ammocrypta pellucida*	ST
largescale stoneroller	*Campostoma oligolepis*	
highfin carpsucker	*Carpoides velifer*	
mottled sculpin	*Cottus bairdi*	
gravel chub	*Erimystax x-punctatus*	ST
lake chubsucker	*Erimyzon sucetta*	
northern pike - native stocks	*Esox lucius*	
muskellunge - native stocks	*Esox masquinongy*	
bluebreast darter	*Etheostoma camurum*	SE
Iowa darter	*Etheostoma exile*	ST
bigeye chub	*Hybopsis amblops*	SE
silver lamprey	*Ichthyomyzon unicuspis*	
ribbon shiner	*Lythrurus fumeus*	
smallmouth bass	*Micropterus dolomieu*	
spotted bass	*Micropterus punctulatus*	
river redhorse	*Moxostoma carinatum*	ST
black redhorse	*Moxostoma duquesnei*	
river chub	*Nocomis micropogon*	SE
bigeye shiner	*Notropis boops*	SE
rosyface shiner	*Notropis rubellus*	
mountain madtom	*Noturus eleutherus*	
northern madtom	*Noturus stigmosus*	SE
southern redbelly dace	*Phoxinus erythrogaster*	
blacknose dace	*Rhyinichthys atratulus*	
shovelnose sturgeon	*Scaphirhynchus platorhynchus*	FT
sauger	*Stizostedion canadense*	
walleye	*Stizostedion vitreum*	
Amphibians	***(Reviewed by Chris Phillips and Steve Buck)***	
spotted salamander	*Ambystoma maculatum***	
marbled salamander	*Ambystoma opacum***	

silvery salamander	*Ambystoma platineum*	SE
tiger salamander	*Ambystoma tigrinum***	
Fowler's toad	*Bufo fowleri***	
five-lined skink	*Eumeces fasciatus***	
southern two-lined salamander	*Eurycea cirrigera***	
four-toed salamander	*Hemidactylium scutatum*	ST
mudpuppy	*Necturus maculosus*	
redback salamander	*Plethedon cinereus***	
zig-zag salamander	*Plethedon dorsalis***	
northern slimy salamander	*Plethedon glutinosus***	
crayfish frog	*Rana areolata*	
pickerel frog	*Rana palustris*	
wood frog	*Rana sylvatica*	
Reptiles	***(Reviewed by Chris Phillips)***	
smooth softshell turtle	*Apalone mutica*	SE
Kirtland's snake	*Clonophis kirtlandii*	ST
Blanding's turtle	*Emydoidea blandingii*	SE
smooth green snake	*Liochlorophis vernalis*	
lined snake	*Tropidoclonion lineatum*	ST
Birds	***(Reviewed by Jeff Walk)***	
Henslow's sparrow	Ammodramus henslowii	
LeConte's sparrow	Ammodramus leconteii	
Nelson's sharp-tailed sparrow	Ammodramus nelsoni	
grasshopper sparrow	Ammodramus savannarum	
American black duck	Anas rubripes	
great egret	Ardea alba	
short-eared owl	Asio flammeus	SE
lesser scaup	Aythya affinis	
canvasback	Aythya valisineria	
upland sandpiper	Bartramia longicauda	SE
American bittern	Botaurus lentiginosus	SE
red-shouldered hawk	Buteo lineatus	
broad-winged hawk	Buteo platypterus	
Smith's longspur	Calcarius pictus	
stilt sandpiper	Calidris himantopus	
chuck-will's-widow	Caprimulgus carolinensis	

whip-poor-will	Caprimulgus vociferus	
brown creeper	Certhia americana	
chimney swift	Chaetura pelagica	
black tern	Chlidonias niger	SE
common nighthawk	Chordeiles minor	
northern harrier	Circus cyaneus	SE
marsh wren	Cistothorus palustris	
sedge wren	Cistothorus platensis	
yellow-billed cuckoo	Coccyzus americanus	
black-billed cuckoo	Coccyzus erythropthalmus	ST
northern flicker	Colaptes auratus	
northern bobwhite	Colinus virginianus	
yellow rail	Coturnicops noveboracensis	
trumpeter swan	Cygnus buccinator	
cerulean warbler	Dendroica cerulea	ST
prairie warbler	Dendroica discolor	
bobolink	Dolichonyx oryzivorus	
little blue heron	Egretta caerulea	SE
snowy egret	Egretta thula	SE
willow flycatcher	Empidonax trailli	
Acadian flycatcher	Empidonax virescens	
rusty blackbird	Euphagus carolinus	
peregrine falcon	Falco peregrinus	ST
common moorhen	Gallinula chloropus	SE
Wilson's snipe	Gallinago delicatata	
whooping crane	Grus americana	
sandhill crane	Grus canadensis	
bald eagle	Haliaeetus leucocephalus	
worm-eating warbler	Helmitheros vermiforma	
wood thrush	Hylocichla mustelina	
yellow-breasted chat	Icteria virens	
Mississippi kite	Ictinia mississippiensis	ST
least bittern	Ixobrychus exilis	ST
loggerhead shrike	Lanius ludovicianus	SE
black rail	Laterallus jamaicensis	SE
short-billed dowitcher	Limnodromus griseus	
hooded merganser	Lophodytes cucullatus	
red-headed woodpecker	Melanerpes erythrocephalus	
yellow-crowned night-heron	Nyctanassa violacea	SE

black-crowned night-heron	Nycticorax nycticorax	SE
Connecticut Warbler	Oporornis agilis	
Kentucky warbler	Oporornis formosus	
osprey	Pandion haliaetus	SE
savannah sparrow	Passerculus sandwichensis	
Wilson's phalarope	Phalaropus tricolor	SE
American golden-plover	Pluvialis dominica	
pied-billed grebe	Podilymbus podiceps	
prothonotary warbler	Protonotaria citrea	
king rail	Rallus elegans	SE
American woodcock	Scolopax minor	
ovenbird	Seiurus aurocapillus	
dickcissel	Spiza americana	
field sparrow	Spizella pusilla	
least tern	Sterna antillarum	FE SE
Forster's tern	Sterna forsteri	SE
common tern	Sterna hirundo	SE
brown thrasher	Toxostoma rufum	
greater yellowlegs	Tringa melanoleuca	
buff-breasted sandpiper	Tryngites subruficollis	
barn owl	Tyto alba	SE
blue-winged warbler	Vermiforma pinus	
Bell's vireo	Vireo belli	

Mammals	***(Reviewed by Dan Newhouse)***	
river otter	*Lontra canadensis*	
bobcat	*Lynx rufus*	
woodland vole	*Microtus pinetorum*	
least weasel	*Mustela nivalis*	
gray bat	*Myotis grisescens*	FE SE
Indiana bat	*Myotis sodalis*	FE SE
muskrat	*Ondatra zibethicus*	
Franklin's ground squirrel	*Spermophilus franklinii*	ST
American badger	*Taxidea taxus*	
gray fox	*Urocyon cinereoargenteus*	

Appendix III: Proposal for Illinois Department of Natural Resources' State Wildlife Grant prepared by Roger Jansen, 2011.

Job Title: Middlefork Woods Nature Preserve, Dynegy Tract, and Woodyard State Natural Area Habitat Restoration in the Vermilion River Conservation Opportunity Area

Job Leader: Roger Jansen
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217-345-2420

Purpose/need:

Dynegy Tract

The Dynegy tract is located in Vermilion County northwest of Danville, Illinois (Figure Y1). The 1,100 tract was transferred to the IDNR in 2008. The tract links Kickapoo State Recreation Area (2,800 acres), Kennekuk Cove County Park (3,000 acres) and Middlefork State Fish and Wildlife Area (2,700 acre). Combined, these 9,600 acres of publicly owned land are managed for natural resources, compatible recreation, and buffer to the Middlefork River, Illinois' only National Wild and Scenic River. The Dynegy tract provides habitat for several species that are threatened and endangered and conservation priority. The buffered Middlefork River also has several threatened and endangered and conservation priority species (Table Y).

The upland forest community is the dominant forest type on the Dynegy tract and is characterized by oak hickory associations with herbaceous characteristics suggesting a past history of open woodland. The ravine forest community consists of beech-maple forest associations. Ravine forest community consists of cottonwood, sycamore, and maple associations. Several seeps occur at various sites throughout the property. Exotic and invasive species removal and periodic prescribed fire could help to maintain these various community types. Open fields will be planted to trees to reduce edge and create larger blocks of forested tracks for forest interior breeding birds. See Figures 1, 1A

Middlefork Nature Preserve

The 87 acre Middlefork Woods Nature Preserve (MWNP) was dedicated as a Nature Preserve in 1979. The site represents a high quality upland forest and provides critical breeding habitat for the state endangered silvery salamander (*Ambystoma platineum*). MWNP buffers the Middlefork of the Vermilion River, the only National Scenic River in Illinois. MWNP and adjacent State Park property have exotic and invasive species which threaten the integrity of the Nature Preserve. Those exotic species include garlic mustard (*Alleria petiolata*), autumn olive (*Eleagnus umbilata*), bush honeysuckle (*Lonicera sp.*), etc. A 4 acre section of MWNP needs native upland trees planted into the openings. Prescribed fire will be applied to selected sites. See Figures 2, 2A

Woodyard State Natural Area (SNA)

Woodyard SNA is 1300 acres located in Vermilion County east of Georgetown, Illinois. The site is an outstanding representation of terrestrial and aquatic diversity in the Vermilion River Watershed. The Little Vermilion River is included in the Illinois Natural Areas Inventory as an outstanding example of a river system in the Wabash River drainage. The river is largely unmodified and is of very high natural quality.

Upland forest communities are scattered throughout the area mostly on west- to south-facing slopes and level uplands. The dominant trees include oak/hickory association. The shrub layer is generally

sparse and the herbaceous layer is characterized by open woodland species. Ravine forests include maple/beech, and red oak association. Flowering dogwood, spicebush, and sassafras are common shrubs. There is a high diversity of ferns and wildflowers in these forests. Floodplain forests are present along the Little Vermilion River. These forests are dominated by silver maple, sycamore, Ohio buckeye, green ash, and cottonwood. Shrubs are very rare in this forest type. Wildflowers such as goldenglow, wing stem, ironweed, and nettle are common. Seeps and streams are common throughout all the mesic forest ravines. Exotic and invasive species removal and prescribed fire will help to maintain these various community types including reforestation fields. See Figures 3, 3A

Site Significance:
This project falls within the Vermilion River Conservation Opportunity Area and will address the following IWAP Campaigns with priority actions to be implemented.

Forestry Campaign
Actions
- Reintroduction of prescribed fire
- Increase in forest acreage
- Restore high quality forest, savanna and barrens communities

Wetlands Campaign
Actions
- Develop and manage additional wetland habitat. Recreate ephemeral and semipermanent wetlands for amphibians in the Wabash Border Division

Invasive Species Campaign
Actions
- Invasive control in high quality natural areas, large habitat patches, and other key locations. Maintain on-going control of invasive species.

Land and Water Stewardship Campaign
Actions
- Improve the stewardship of public land and water resources.

Threatened and Endangered species and Species in Greatest Need of Conservation are listed in Table 1 below. The species listed will benefit directly from this project.

Objectives:
Dynegy Tract
This project will accomplish the removal of exotic species and subsequent restoration of the same tracts to open woodland/savanna to create a larger woodland block and decrease fragmentation. Prescribed fire will be reintroduced to portions of the tract to improve the woodland communities. Ephemeral/semi-permanent wetlands will be created primarily in forested upland habitats to benefit amphibian species. See Figures 1, 1A

Middlefork Woods NP
We will accomplish control of exotic species (garlic mustard, autumn olive, etc) with in the boundaries and adjacent public land of the Nature Preserve. The control effort will be a multiple year effort to bring exotic species to a level of annual maintenance. This project will also reforest a small portion of the

Nature Preserve. See Figures 2, 2A

Woodyard SNA
This project will accomplish the removal of exotic species from reforestation tracts (former agricultural fields) in upland and bottomland areas to maintain the integrity of tree plantings. Prescribed fire will be reintroduced to portions of the tract to improve the woodland communities. See Figures 3, 3A

Approach:

IDNR personnel and contractors will implement projects to eliminate invasive and exotic plant species, restore open woodland/savanna, and encourage oak regeneration through forest management throughout the tracts. Primary practices to be applied will include prescribed fire, invasive woody plant control, invasive exotic species control, and habitat creation/restoration.

Budget:

Line Item	Federal Share	State Share	Project Total
Contractual	$73,600.00	$11,000.00	$84,600.00
Commodities	$0.00	$2,500.00	$2,500.00
Personnel	$0.00	$26,420.00	$26,420.00
Total	$73,600.00	$39,920.00	$113,520.00

Table 1: Species in Greatest Need of Conservation at Kickapoo State Park and Woodyard State Natural Area

Common Name	Scientific Name	Status
Indiana Bat	*Myotis sodalis*	E, FE
Henslow's sparrow	*Ammodramus henslowii*	CP
Red-shouldered hawk	*Buteo lineatus*	CP
Chimney Swift	*Chaetura pelagica*	CP
Yellow-billed Cuckoo	*Coccyzus americanus*	CP
Black-bill Cuckoo	*Cossyzus erythropthalumus*	CP
Northern Flicker	*Colaptes auratus*	CP
Northern Bobwhite	*Colinus virginianus*	CP
Cerulean Warbler	*Dendroica cerulea*	T
Acadian Flycatcher	*Empidonax virescens*	CP
Wood Thrush	*Hylocichla mustelina*	CP
Yellow-breasted Chat	*Icteria virens*	CP

Red-headed Woodpecker	*Melanerpes erythrocephalus*	CP
Kentucky Warbler	*Oporomis formosus*	CP
Ovenbird	*Seiurus aurocapillus*	CP
Blue-winged warbler	*Vermiforma pinus*	CP
Silver Salamander	*Ambystoma platineum*	E
Pickerel Frog	*Rana palustris*	CP
Wood Frog	*Rana sylvatica*	CP
Eastern sand darter	*Ammocrypta pellucidum*	T
Bluebreasted darter	*Etheostoma camurum*	E
Bigeyed Chub	*Hybosis amblops*	E
River redhorse	*Moxostoma carinatum*	T
River Chub	*Nocomis micropogon*	E
Bigeye Shiner	*Notropis boops*	E
Slippershell Mussel	*Alasmidonta viridis*	T
Wavy-rayed lampmussel	*Lampsilis fasciola*	E
Little Spectaclecase Mussel	*Villosa lienosa*	T
Drooping Sedge	*Carex prasina*	T
Fibrous-rooted Sedge	*Carex Communis*	T

CP = Conservation Priority
FE = Federally Endangered
E = State Endangered
T = State Threatened

Figure 1: Map showing location of Dynegy Tract of Kickapoo State Park

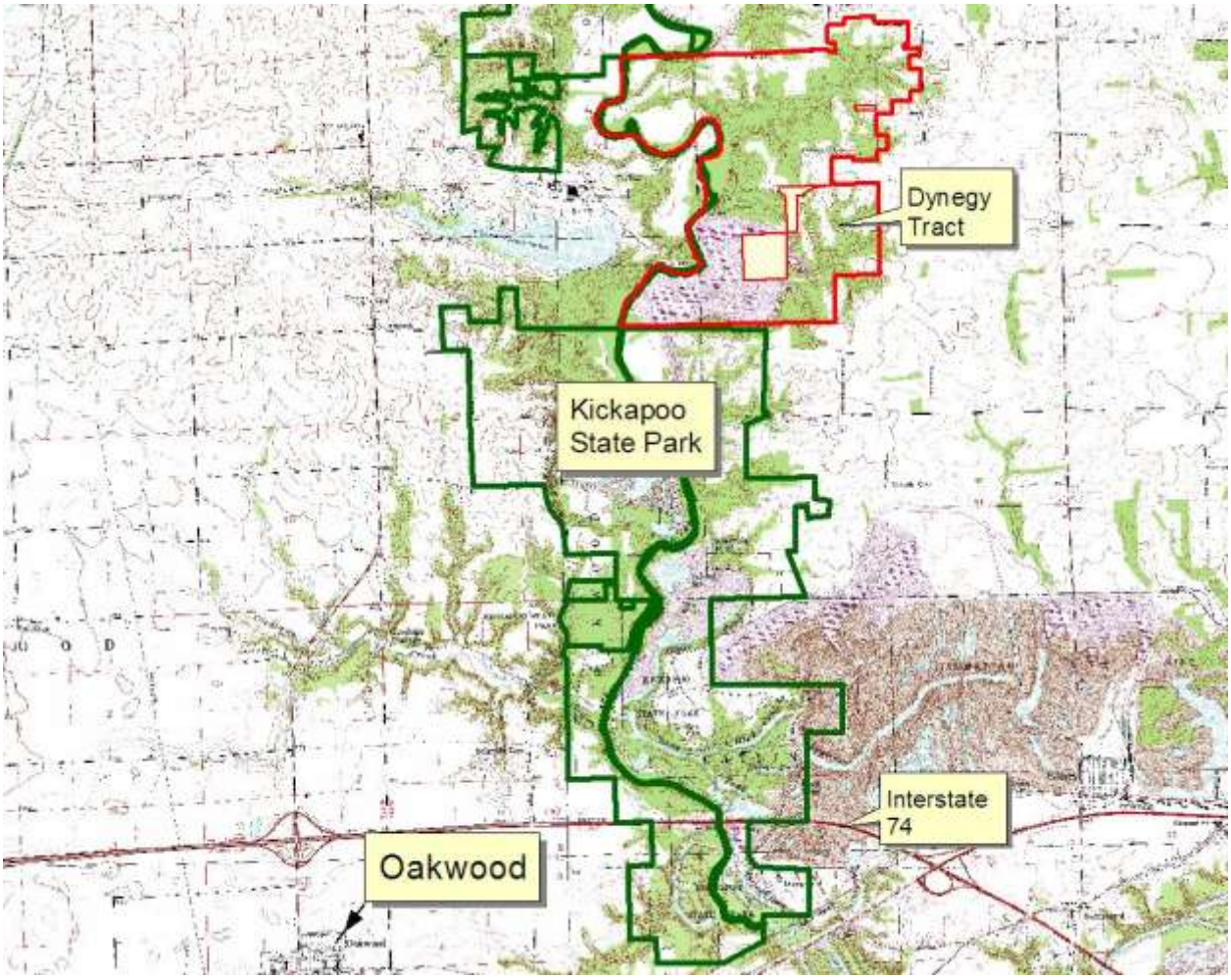


Figure 1A: Dynegy Tract work units

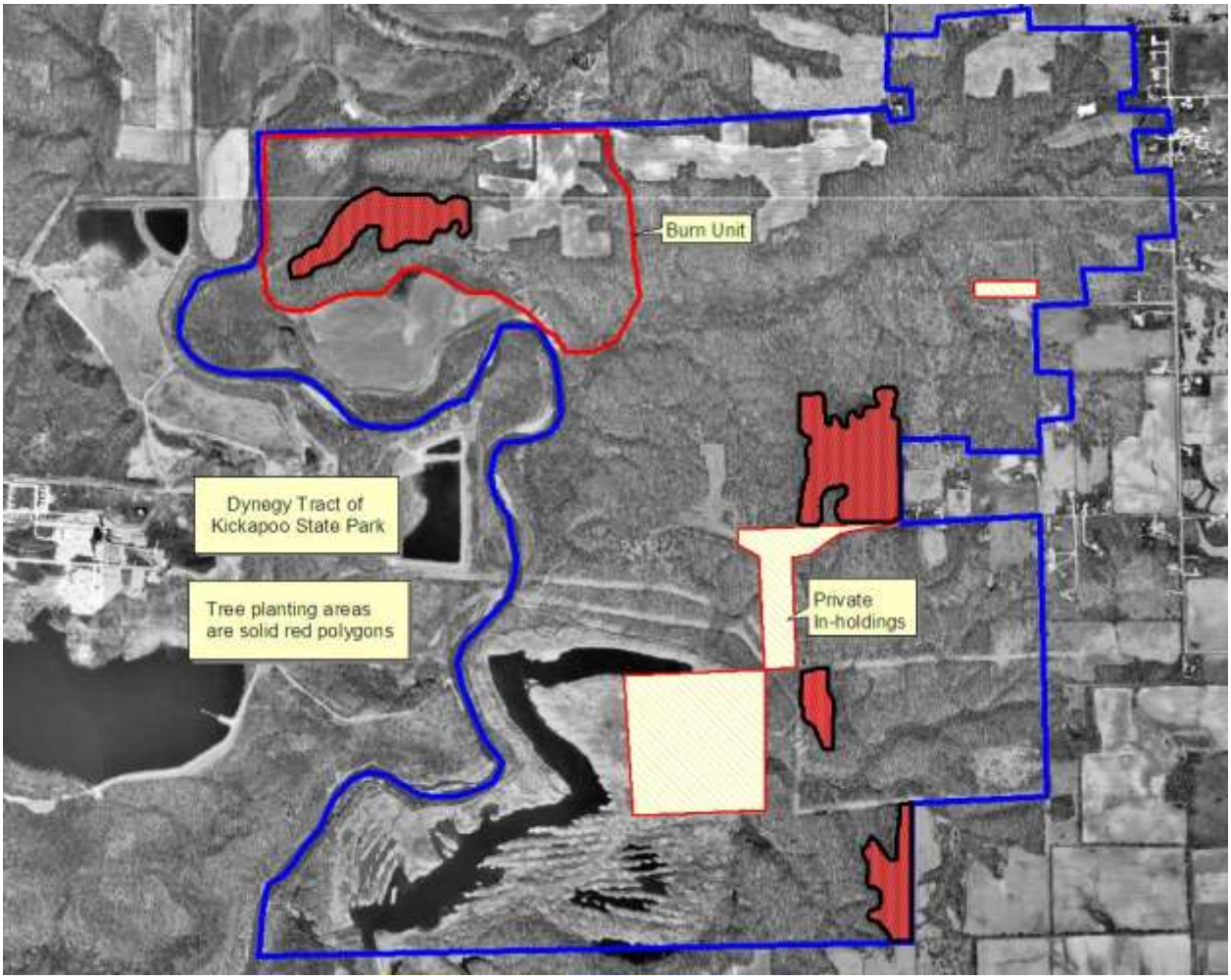


Figure 2: Map showing location of Middlefork Woods Nature Preserve at Kickapoo State Park

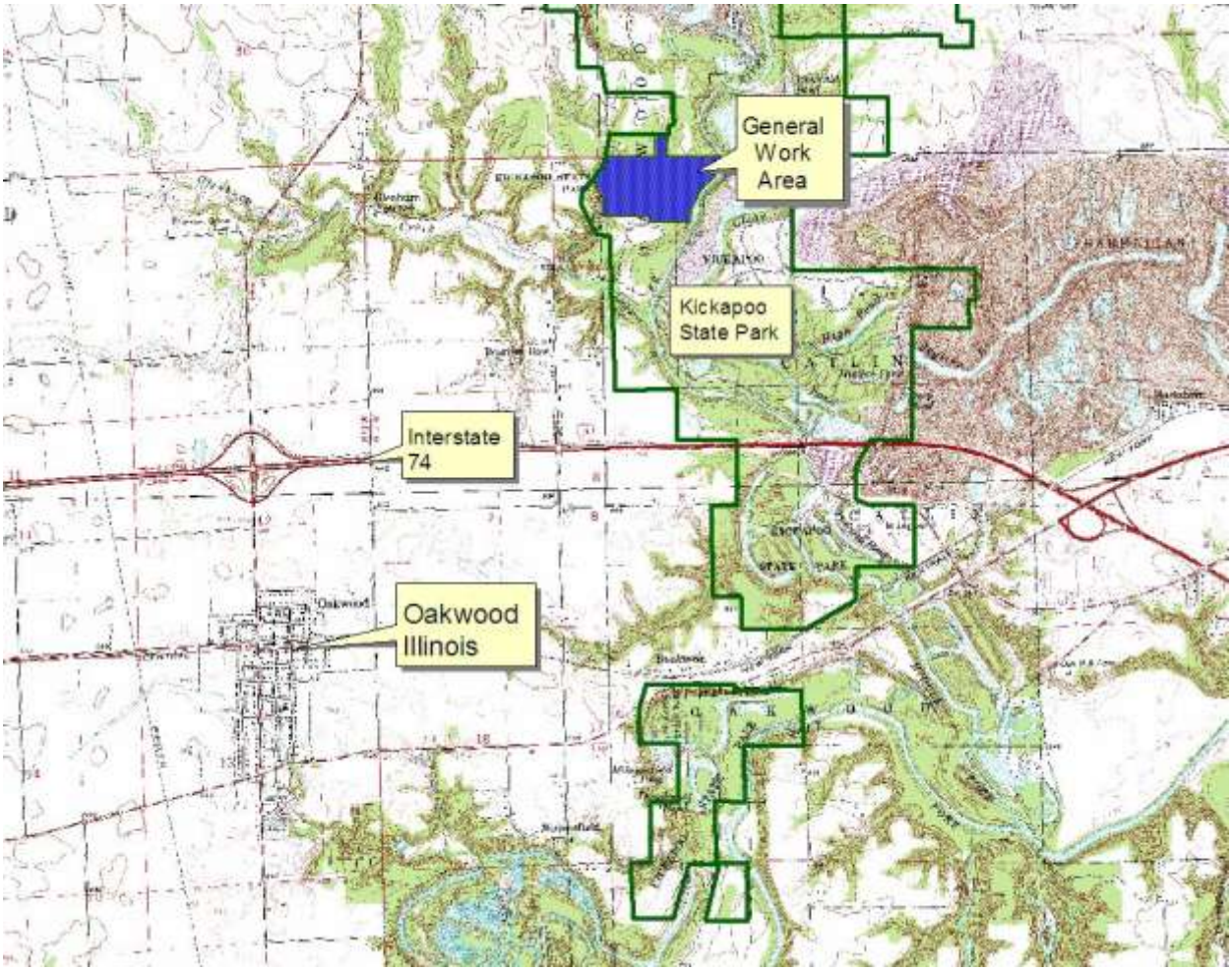


Figure 2A: Middlefork Woods Nature Preserve work units

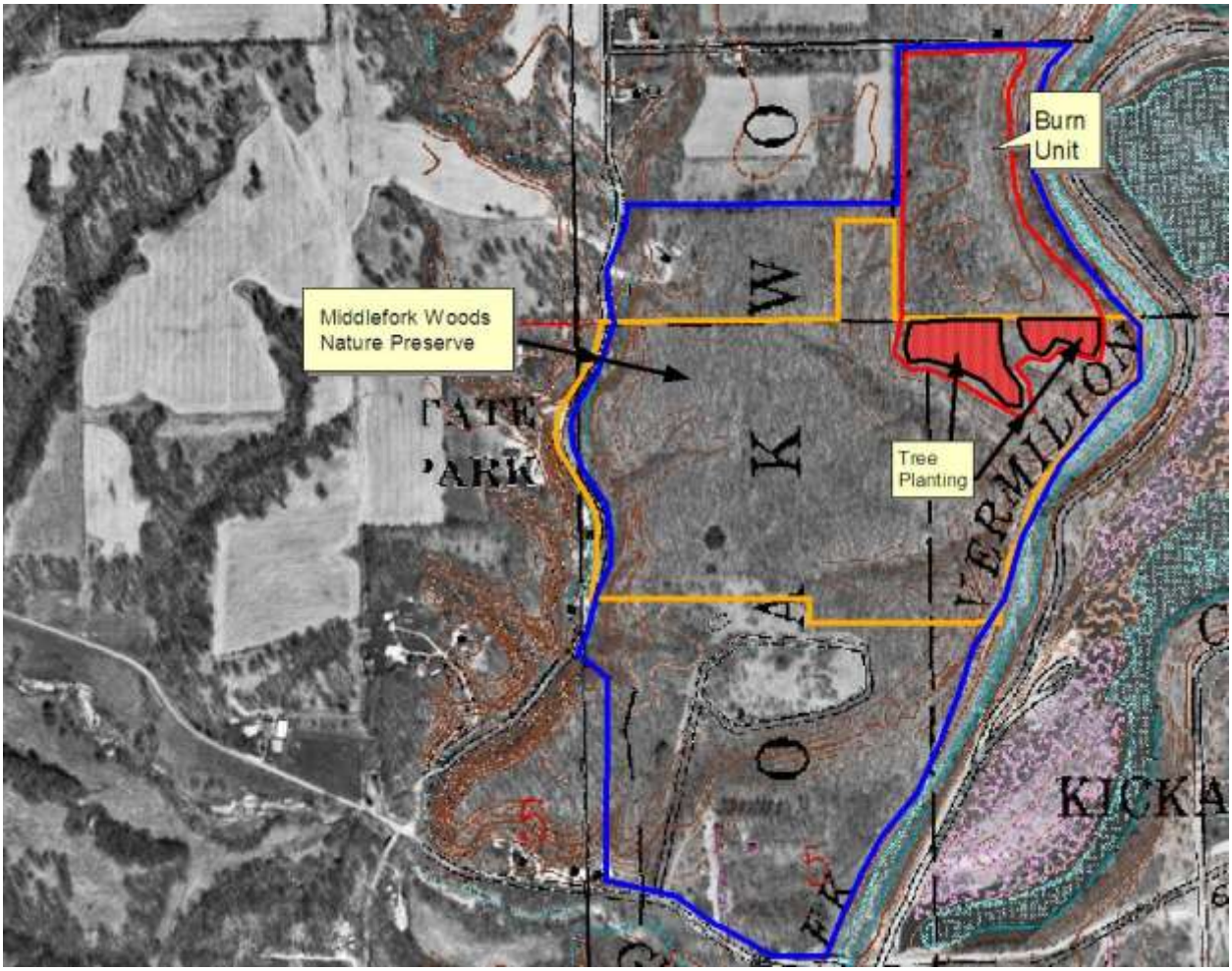


Figure 3: Map showing location of Woodyard State Natural Area

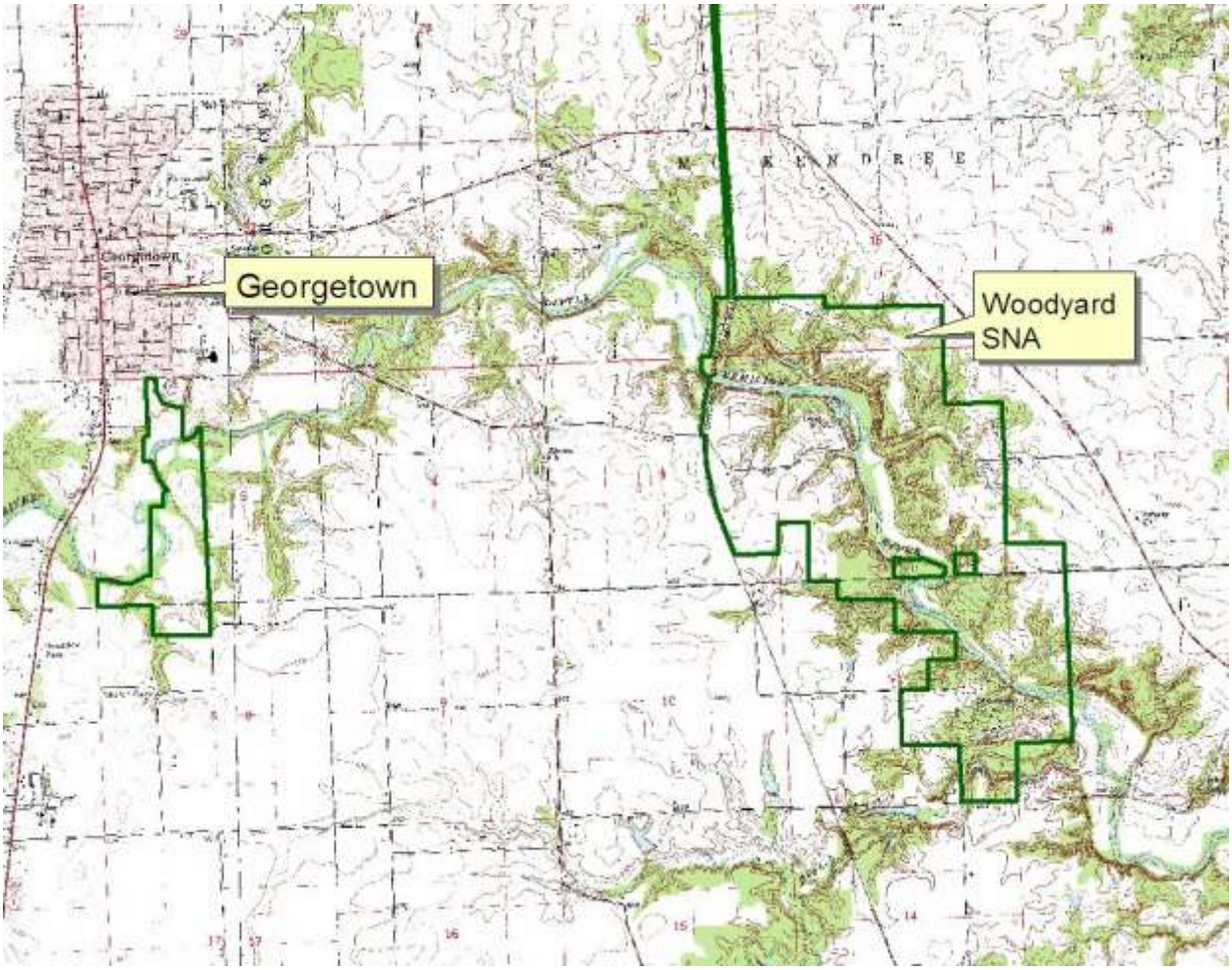
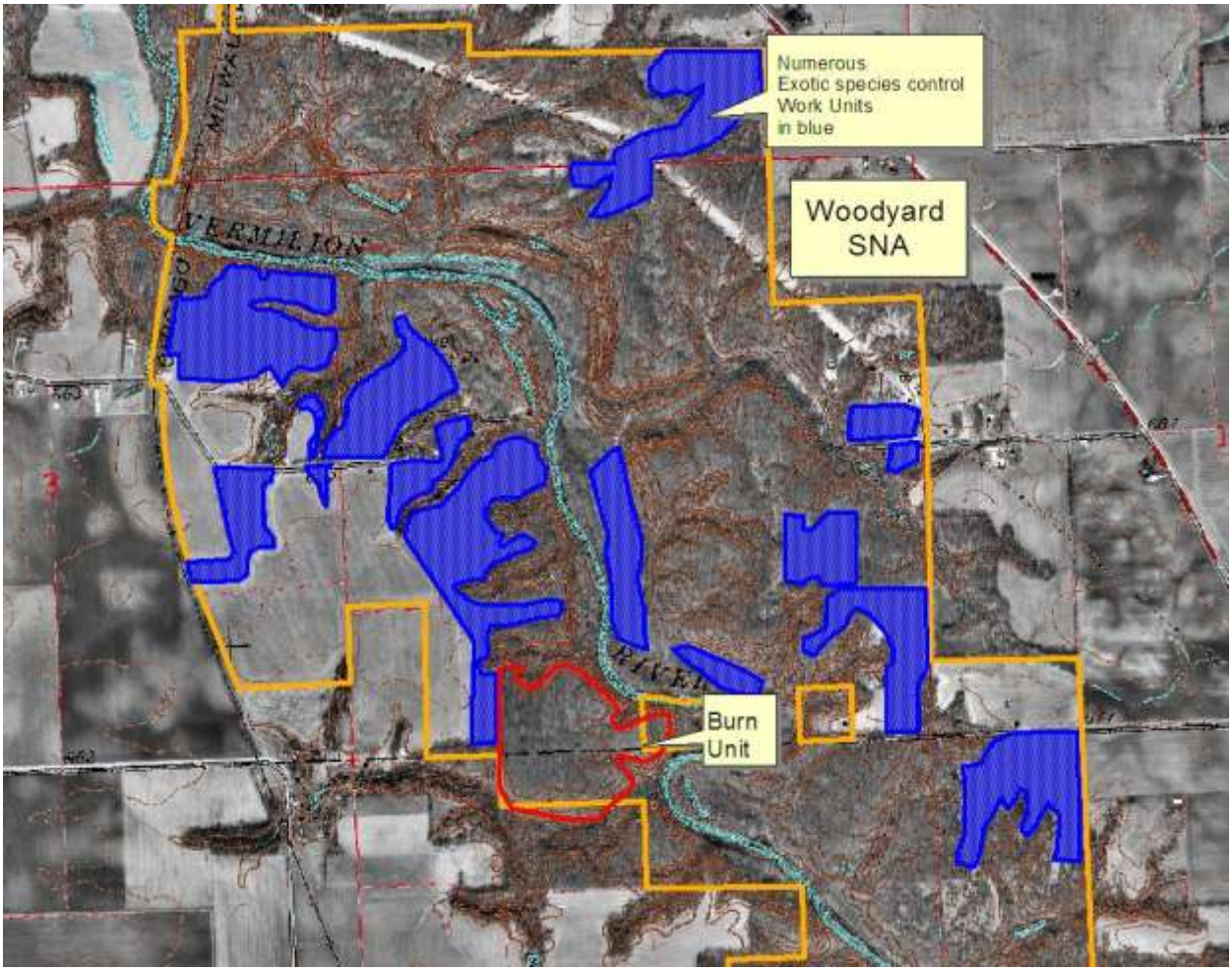


Figure 3A: Woodyard State Natural Area work units



Appendix IV: Vermilion County Conservation District Foundation Wildlife Habitat Incentive Program (WHIP) proposal for Jordan Creek Wildlife Preserve prepared by Roger Jansen, Illinois Department of Natural Resources.

Roger Jansen met with Mark Pittman on September 1, 2009 to look at and discuss options of habitat improvements at Jordan Creek Wildlife Preserve. The site lends itself well to creating habitat which will benefit species that need large blocks of habitat.

WHAT IS THERE

The tract was heavily grazed in the past. A large portion of the site is Osage orange (hedge) and introduced cool season grasses. A woodland of approximately 40 acres has an over story of mature mixed oak species primarily white and bur oak. Under story consists primarily of Osage orange. Herbaceous layer at the time of the visit was mostly smartweed and snakeroot. A seep exists in the west side of the property but was not visited. Jordan Creek runs through the property and is partially wooded along the banks. Balance of the property is in ag. production.

WHAT TO PLANT

According to the Government Land Office (GLO) surveys, the site was forested in some form. This was likely riparian forest near the creek, upland forest, and savanna. The establishment of woodlands and savanna would the optimum practice. The large deer herd, however, negates the planting of trees due to the excessive deer browse that would happen. The establishment of native prairie with wetlands would be the next best practice.

Prairies and wetlands are rare habitats (especially in large contiguous blocks) in the Grand Prairie areas of the State. Prairies and wetlands historically occurred together and provide critical habitat for many endangered and threatened species and species in greatest need of conservation (SGNC). Game species such as pheasant would greatly benefit as well from these grasslands. See attached spreadsheet of potential species that would benefit from prairie and wetland establishment.

All the Osage orange would need to be removed from the site; this would be accomplished by bull dozing and burning brush piles. The cool season grass fields would need to be chemically treated and planted to prairie. Wetlands would be built in various areas depending on topography.

ABOUT WHIP

WHIP is a federal program that is administered by the Natural Resource Conservation Service (NRCS). The program is available to establish wildlife habitat. WHIP is a 75% cost share program. The NRCS will cover 75% of ***maximum allowable costs*** and the landowner is responsible for the remaining 25%. Maximum allowable costs are reflected in the spreadsheet attached. Once approved, the landowner has 10 years to complete the practices. It is important to complete a portion (even if a small portion) in the first year.

Roger Jansen met and talked to the NRCS biologist to discuss WHIP on the property. After doing a brief discussion of possible practices, he determined that the site should have enough points to qualify for WHIP.

THE OPPORTUNITY

This is an opportunity for the Foundation to make a great leap forward in the area of habitat restoration. It is a rare opportunity to convert 150 acres of old pasture to native prairie. When it comes to size of

restorations larger tracts are better. Area sensitive species respond positively to habitat. A site this size would create a "source" area for pheasant that would subsequently supply the surrounding private land with pheasant. WHIP can provide the avenue and means to make this happen provided the request is granted.

VCCDF points to consider at Jordan Creek site

1. If WHIP contract is accepted, the Foundation has 10 years to complete the contract

2. Suggest dividing the site into 8 to 10 subunits. Each subunit represents each year of the contract. Each subunit would then need completed each year of the contract. This would reduce the size and costs of the project and likely make the project easier to deal with from a financial aspect.

3. Suggest the Foundation devote a person and there time (when needed) to implementing the project. The Foundation can turn in a bill for their labor and get reimbursed. For example: Someone could be on a tractor and drill prairie grass and forbs in a field. The Foundation could turn in a bill for labor for planting native grass and forbs and get paid for it. This will reduce costs and help offset the cost of the next subunit.

4. Outside funds could be found at NWTF, Audubon, Pheasants Forever, State Pheasant Funds, Illinois Wildlife Preservation Fund, and any others.

5. Applications for WHIP are accepted year round but will not be acted on till USDA has the next round of selections.

6. The Foundation can explore grant opportunities and determine how much grant money would be available to offset costs (primarily the 25%). Formal WHIP application could be completed this winter perhaps

See the list below for a list of non-game species that would benefit from this project

Potential Species That Would Benefit From WHIP Project

Listed Species

	Status
Franklins Ground Squirrel	T
Barn Owl	E
King Rail	E
Yellow Crown Night Heron	E
Black Crown Night Heron	E
Black Rail	E
Least Bittern	T
Northern Harrier	E
Short-eared Owl	E
American Bittern	E
Henslows Sparrow	T

Species in Greatest Need of Conservation

Grasshopper Sparrow
Marsh Wren
Sedge Wren
Savanna Sparrow
Dickcissel
Field Sparrow

E = Endangered
T = Threatened

Jordan Creek Wildlife Preserve Proposed Budget for WHIP Project

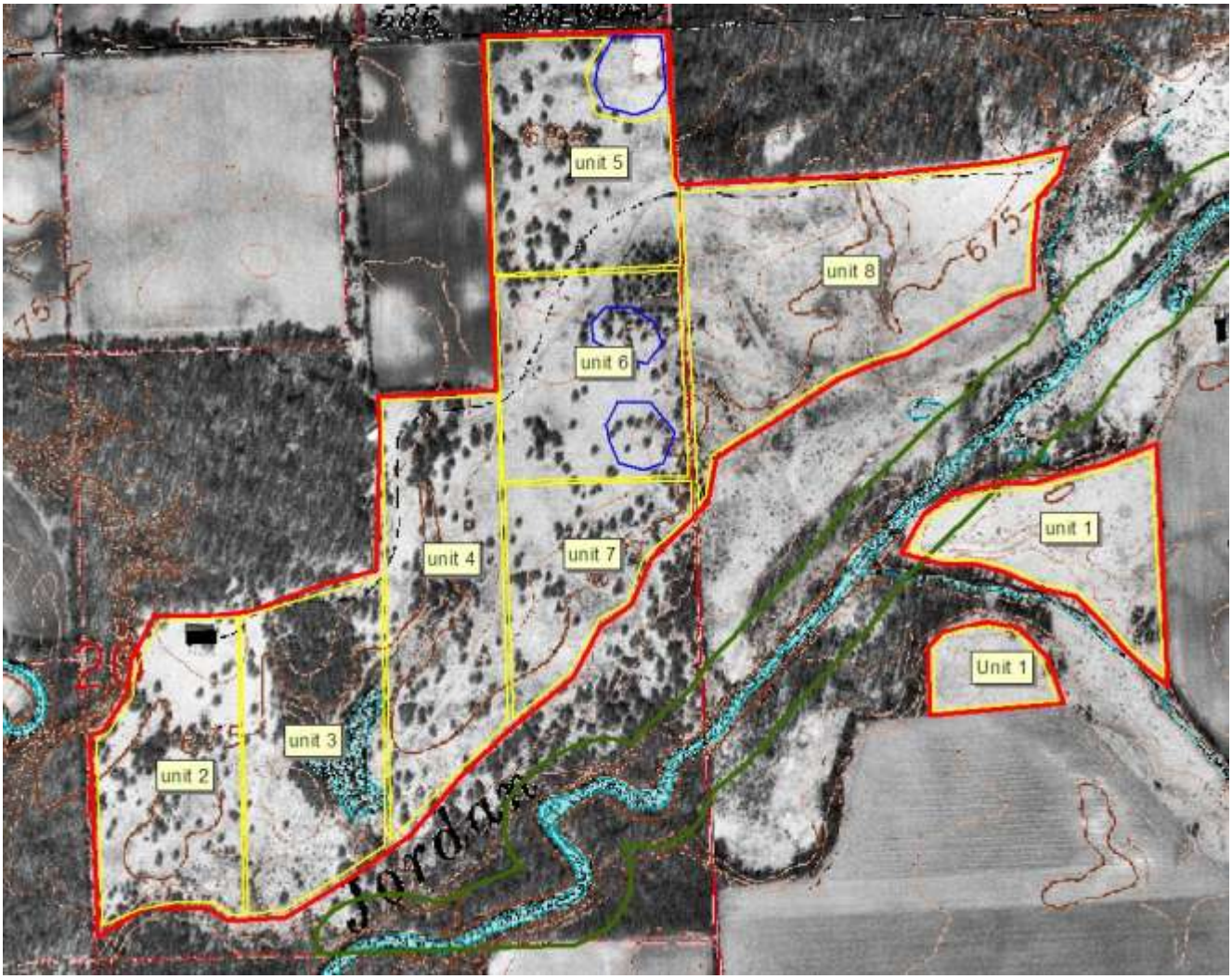
	Acres	Max Cost/ac	Total
Brush Management (314 – very high)			
Unit 1	18	$236.00	$4,248.00
Unit 2	18	$236.00	$4,248.00
Unit 3	18	$236.00	$4,248.00
Unit 4	18	$236.00	$4,248.00
Unit 5	18	$236.00	$4,248.00
Unit 6	18	$236.00	$4,248.00
Unit 7	12	$236.00	$2,832.00
Unit 8	30		
Total acres	150		
Prairie Establishement (327 – native species for pollinators)			
Unit 1	18	$532.00	$9,576.00
Unit 2	18	$532.00	$9,576.00
Unit 3	18	$532.00	$9,576.00
Unit 4	18	$532.00	$9,576.00
Unit 5	18	$532.00	$9,576.00
Unit 6	18	$532.00	$9,576.00
Unit 7	12	$532.00	$6,384.00
Unit 8	30	$532.00	$15,960.00
Total acres	150		
Shallow Water Development (646 – excavated wetlands)			
Excavation/earthmoving	15	$2,314.00	$34,710.00
Water control structure	3	$1,050.00	$3,150.00
		Max Allowable Total Cost	$117,660.00
		Max Allowable Federal	$88,245.00

	Share	
	VCCDF Share	$29,415.00

Maximum Cost Per Unit
For Brush Removal and Prairie Establishment

Unit 1	18	$13,826.00
Unit 2	18	$13,826.00
Unit 3	18	$13,826.00
Unit 4	18	$13,826.00
Unit 5	18	$13,826.00
Unit 6	18	$13,826.00
Unit 7	12	$9,218.00
Unit 8	30	$15,962.00
	150	

Figure 1: Map of Jordan Creek Wildlife Preserve.



Appendix V: Illinois Department of Natural Resources' State Wildlife Grant proposal for Kickapoo State Recreational Area.

Job Title: **Job 25. Community Restoration at Kickapoo State Recreational Area – Dynegy Tract**

Job Leader: Roger Jansen
Natural Heritage Biologist
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Charleston, IL 61920
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Roger.Jansen@illinois.gov

Purpose/Need:
The Dynegy tract is located in Vermilion County northwest of Danville, Illinois (Figure Y1). The 1,100 tract was transferred to the IDNR in 2008. The tract links Kickapoo State Recreation Area (2,800 acres), Kennekuk Cove County Park (3,000 acres) and Middlefork State Fish and Wildlife Area (2,700 acre). Combined, these 9,600 acres of publicly owned land are managed for natural resources and compatible recreation. This tract provides additional buffer to the Middlefork River, Illinois' only National Wild and Scenic River. The Dynegy tract provides habitat for several species that are threatened and endangered and conservation priority. The buffered Middlefork River also has several threatened and endangered and conservation priority species (Table Y).

The dry mesic upland forest community is the dominant forest type on the Dynegy tract. The dry-mesic upland forest on the Dynegy tract has herbaceous characteristics suggesting a past history of open woodland/savanna. The western extent of *Fagus grandifolia* (American beech), and the beech-maple forest association ends in the Vermilion River watershed in east-central Illinois and is present on this tract. Several seeps occur at various sites throughout the property. The largest seep has some uncommon species and is relatively undisturbed and may have been much larger at one time. Swamp wood betony and *Solidago patula* (rough leaf goldenrod) are rare species in the Vermilion River valley. Exotic and invasive species (i.e. maple) removal and periodic prescribed fire could help to maintain these various community types.

Objective:
Restore and manage upland forest and seep communities. Enhance habitats for forest, savanna, and grassland species of conservation concern. Objective is to restore and maintain 50 acres dry-mesic oak woodland, 10 acres open woodland, 3 acres of seep, 16 acre tree planting, and 20 acres of prairie.

Approach:
IDNR personnel and contractors will implement a program to eliminate invasive and exotic plant species, restore prairie, and encourage oak regeneration through forest management throughout the tract. Primary practices to be applied will include prescribed fire, invasive woody plant control, invasive exotic species control, and habitat creation/restoration planting.

Budget:

Line Item	Federal	State	Total
Contractual	$19,500.00	$16,500.00	$36,000.00
Commodities	$2,000.00	$2,000.00	$4,000.00
Personnel	$0.00	$3,000.00	$3,000.00
Total	$21,500.00	$21,500.00	$43,000.00

Table Y. State Endangered (SE), Threatened (ST), and Conservation Priority Species (CP) at the Dynegy tract of the Kickapoo State Recreational Area.

COMMON NAME	SCIENTIFIC NAME	STATUS
Birds		
Henslow's sparrow	***Ammodramus henslowii***	**ST**
Red-shouldered hawk	***Buteo lineatus***	**CP**
Northern flicker	***Colaptes auratus***	**CP**
Yellow-breasted chat	***Icteria virens***	**CP**
Red-headed woodpecker	***Melanerpes erythrocephalus***	**CP**
Kentucky warbler	***Oporornis formosus***	**CP**
Ovenbird	***Seiurus aurocapillus***	**CP**
Blue-winged warbler	***Vermiforma pinus***	**CP**
Fish		
River redhorse	***Moxostoma carinatum***	**ST**
Bluebreasted darter	***Etheostoma camurum***	**SE**
Eastern sand darter	***Ammocrypta pellucidum***	**ST**
Bigeye chub	***Hybopsis amblops***	**SE**
Mollusks		
Wavy-rayed lampmussel	***Lampsilis fasciola***	**SE**
Plants		
Sedge	***Carex communis***	**ST**

Figure Y. The Dynegy Tract links Kickapoo State Recreational Area with the Middlefork Fish and Wildlife Area and Kennekuk Cove County Park in Vermilion County, Illinois.