

## CHAPTER 4 - REFUGE GOALS AND OBJECTIVES

This section presents long-term guidance for the Refuge in the form of goals, objectives and strategies. Refuge goals are qualitative statements that define what the Refuge must be to satisfy the Refuge purpose, legal mandates, and the needs of citizens and agencies having a vital interest in what and how the Refuge performs. Objectives provide quantitative benchmarks that indicate progress toward achieving the Refuge purposes and goals. Strategies are specific actions or projects that will lead to the accomplishment of the management objectives.

Cypress Creek National Wildlife Refuge was established June 26, 1990, through an Environmental Assessment, under authority of the Emergency Wetland Resources Act of 1986. The legally described purpose of the Refuge is:

*"...the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions..." 16 U.S.C. 3901 (b) 100 Stat. 3583 (Emergency Wetlands Resources Act of 1986)*

Defining this purpose further, the Refuge exists:

*"... to protect, restore and manage wetlands and bottomland forest habitats in support of the North American Waterfowl Management Plan; provide resting, nesting, feeding and wintering habitat for waterfowl and other migratory birds; protect endangered and threatened species and their habitats; provide for biodiversity; protect a National Natural Landmark; and increase public opportunities for outdoor recreation and environmental education."*

Based upon the guidance provided by the Emergency Wetland Resources Act and the 1990 Environmental Assessment, six goal statements were formulated as part of the Plan. Each goal is supported by a series of specific objectives, strategies and projects that will guide management activities and funding over the next 15 years. The six Refuge goals are:

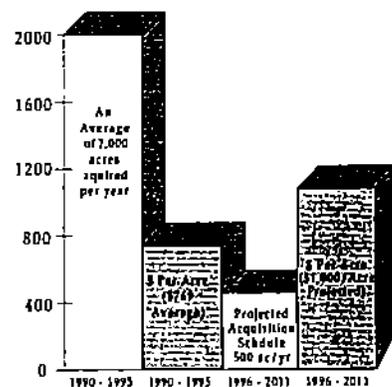
1. *Resource Protection*
2. *Habitat Restoration*
3. *Resource Management*
4. *Dynamic Partnering/Cooperative Action*
5. *Environmental Education, and*
6. *Wildlife Dependent Recreation*

## **RESOURCE PROTECTION**

The Cache River Basin and the Cypress Creek National Wildlife Refuge will be managed to protect federally listed species, state threatened and endangered species and many other resident and migrant wildlife species. The Ramsar designation of the Cache River wetlands clearly demonstrates the true significance of the area and the important role that the Refuge staff and its partners will have in protecting and restoring wetlands to further enhance habitat for waterfowl. The unique natural landscapes and cultural resources require protection. The Service will play an active role in protecting and managing these resources within and, in some cases, beyond the limits of Refuge-owned lands.

### GOAL I. RESOURCE PROTECTION

Through continued land acquisition, protect the Refuge to ensure the integrity of the areas' natural and cultural resources and help fulfill the goals of the North American Waterfowl Management Plan.



*Acquisition of Land for Cypress Creek*

*OBJECTIVE A: LAND ACQUISITION*

By the year 2011, acquire 7,500 additional acres within the Refuge purchase boundary to protect valuable wetlands and bottomland hardwoods within the middle Mississippi and lower Ohio River area drainage and contribute to efforts of the New Madrid Project initiative.

*OBJECTIVE B: PROTECTION OF NATURAL LANDSCAPES*

Protect significant natural landscapes and features on the Refuge (i.e. Buttonland Swamp, Hogue Woods).

- ❖ Through land acquisition, purchase property surrounding significant natural areas.
- ❖ Identify priority tracts surrounding significant natural areas and implement restoration procedures to protect and buffer these sites.
- ❖ Identify, along with Joint Venture partners, a means to implement a long-term study to monitor and collect baseline data on water quality throughout the Cache River Wetlands.

*OBJECTIVE C: PROTECTION OF CULTURAL RESOURCES*

Protect significant cultural resources on the Refuge from inadvertent damage that could occur as a result of Refuge undertakings.

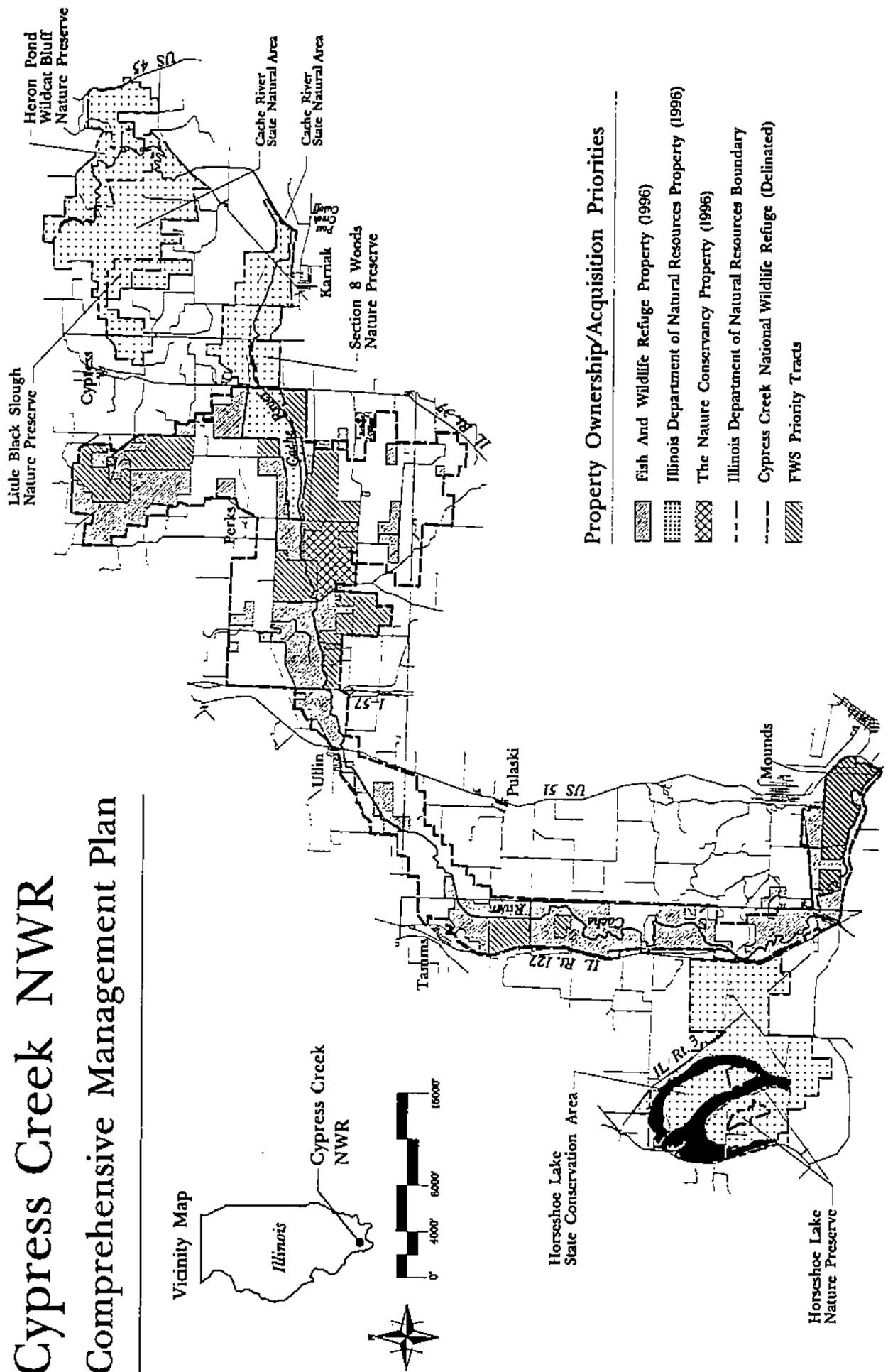
*IMPLEMENTATION STRATEGIES FOR OBJECTIVES*

*I. A, I. B AND I. C*

- ❖ Determine priority tracts for acquisition and focus on contacts with willing sellers only.
- ❖ Focus on securing areas of special interest such as cypress/tupelo swamps that are in imminent danger of being destroyed. Secure at least 1000 acres of these areas during the fifteen year period.

- ❖ Through networking or other appropriate media formats, annually inform land owners located both in and around the Refuge of the Service's land acquisition program and the benefits thereof.
- ❖ Work with TNC to assist in acquisition of targeted tracts of land as they become available, especially those identified in the Cache River Bioreserve Strategic Plan. A property ownership map is provided in this section which illustrates, in a general way, the Service's acquisition priorities.
- ❖ Work with Illinois Department of Natural Resources to identify areas that contain Federal or State listed threatened or endangered species and insure that they have a high land acquisition priority.
- ❖ Provide information to the Citizens Committee to Save the Cache River and other Joint Venture partners so they can in turn work with elected officials to secure adequate land acquisition funding.
- ❖ Work with the 1996 Cultural Resource Study and with the State Historic Preservation office to ensure the preservation of important cultural resources.
- ❖ Collect and compile oral history of the Cache River Wetlands to provide first-hand knowledge of how the land was used and has changed over time.
- ❖ Work in support of the Cache River Watershed Resource Plan recommendations.
- ❖ Work to support the Illinois Department of Natural Resources efforts to monitor silt loads and other abiotic factors within Buttonland Swamp and the Cache River.
- ❖ Work, as a Joint Venture partner, with the Corps of Engineers on recommendations to improve and restore hydrologic functions of and habitats along the Cache River.

# Cypress Creek NWR Comprehensive Management Plan



## *HABITAT RESTORATION*

The Refuge was created to protect, restore and manage the natural resources of the Cache River and to provide habitat for waterfowl and native wildlife. Within the purchase boundary of the Refuge, there are five major existing natural communities. These areas include upland forests, marsh or herbaceous wetlands, swamps, floodplain woods, and lakes or deepwater habitat. The Refuge is restoring habitat as soon as possible after the purchase of land. Special projects are planned for restoring remnant communities of giant cane and natural springs or seeps. Emphasis is also on wetland restoration and the functions and productivity of these natural communities. This effort may involve manipulation of water regimes to emulate what occurred naturally over a much larger Mississippi River ecosystem.

The results of these activities are illustrated on the Restoration Plan: 1996-2011, on the following page. It is also important to recognize that this Restoration Plan assumes completion of the thirty projects identified in Appendix D of this plan.

### *GOAL II. HABITAT RESTORATION*

Through ecological restoration, re-establish native plant communities throughout the Refuge for wildlife and for educational and recreational opportunities.

*By the Year 2011:*

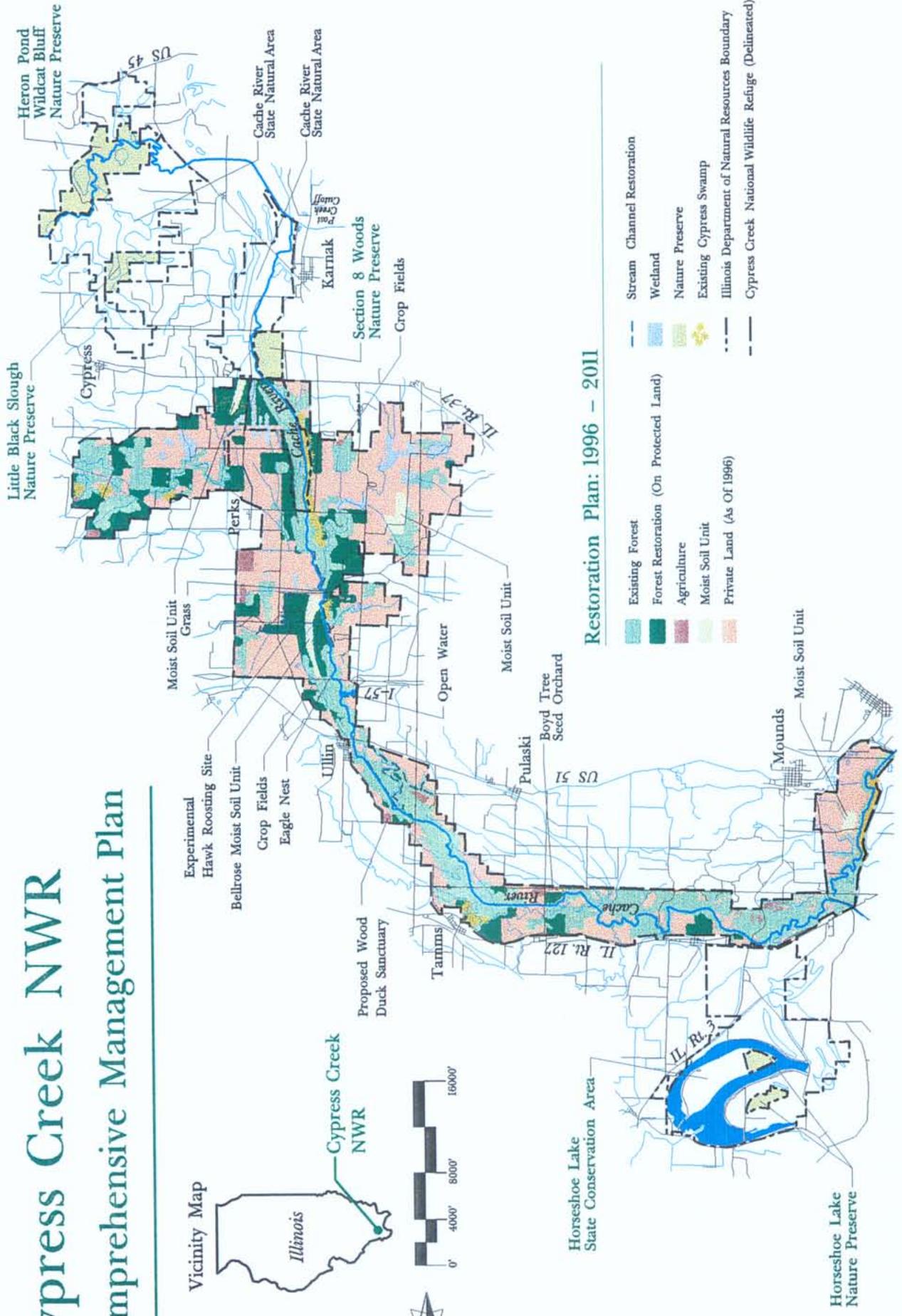
#### *OBJECTIVE A: REFORESTATION*

Restore 5,250 acres (350 acres annually) to native hardwoods on both upland and bottomland sites using planting stock indigenous to the area. (Projects A1, B1 and C1)

#### *OBJECTIVE B: NATURAL WETLAND RESTORATION*

Restore 1500 acres of Refuge wetlands to provide habitat for waterfowl, wading birds, shorebirds and other resident and migratory wildlife. (Projects A2, B2 and C2)  
Restore deepwater habitat through Joint Venture partnership.

# Cypress Creek NWR Comprehensive Management Plan





**OBJECTIVE C: HERBACEOUS WETLAND AND MOIST  
SOIL UNITS**

Restore 100 acres of herbaceous wetlands and construct 330 acres of additional moist soil units for a Refuge total of 800 acres as proposed in the Biological Concept Plan. (Project B4)

**OBJECTIVE D: RESTORATION OF SENSITIVE/UNIQUE  
NATURAL COMMUNITIES**

Restore, as nearly as possible, sensitive or unique areas (100 acres total) such as spring cover and canebrakes, which provide highly specialized habitats for rare and/or sensitive species of plants and animals. Restoration efforts will emphasize the least possible disturbance (Project A3, B 3 and C3).

**IMPLEMENTATION STRATEGIES - II.A (REFORESTATION)**

- ❖ Create large unbroken tracts of timber to offset the negative impacts of forest fragmentation.
- ❖ Select restoration areas that provide transitional travel zones from lowland to upland habitats.
- ❖ Select restoration sites along the Cache River channel and its major tributaries that provide wooded migrational corridors of at least ½ mile in width.
- ❖ Select restoration areas adjacent to existing bald cypress stands (similar to those at the Bellrose Waterfowl Reserve) that can serve as additional greentree reservoirs for waterfowl and wading birds.
- ❖ Reforest stream banks to reduce erosion and subsequent sedimentation.
- ❖ Select restoration sites that are on or near wetlands restoration sites that will provide additional forested wetlands in future years.

- ❖ Use cooperative farming program to prepare areas for tree plantings by increasing fertility or reducing noxious weeds.
- ❖ Continue operation of the Boyd Seed Orchard to insure future availability of genetically adapted seed stock for production of seedlings that will be used throughout the Refuge during annual plantings.

**IMPLEMENTATION STRATEGIES - II.B  
(NATURAL WETLAND RESTORATION)**

- ❖ Revegetate and restore native wetlands at Bellrose that are not part of the moist soil management program.
- ❖ Implement Fredrickson short-term recommendations at Bellrose Waterfowl Reserve.
- ❖ Work with private landowners to restore wetland areas around the proposed visitor center site.
- ❖ Use the 1938 aerial photo series to identify Refuge wetlands for restoration.
- ❖ Emphasize and assign high priority to seasonal wetlands.
- ❖ On Refuge owned lands, reverse small drainage developments that were used to drain wetlands originally.
- ❖ Ensure that at least 5% of wetlands restored meet criteria for deepwater habitat and aquatic birds.

**IMPLEMENTATION STRATEGIES - II.C  
(HERBACEOUS WETLANDS AND MOIST SOIL UNITS)**

- ❖ Encourage the Corps of Engineers to help fund a feasibility study on the Boyd area wetland restoration.
- ❖ Work with NRCS to construct or restore herbaceous wetlands on Kerley, Boutwell, Ray, and Earnhart parcels with minimal maintenance requirements.

- ❖ Construct an additional 330 acres of moist soil units at Juncker, Boyd, Greenberg, and Delta Lands parcels. These units will have dewatering capability during appropriate times of the year. (Project B4)
- ❖ Moist soil units will be placed on continued disturbance rotations to control succession and to provide maximum benefit to migratory waterfowl and shorebirds.
- ❖ Provide for at least 25% of the moist soil units to be annually flooded by October 15.
- ❖ Provide at least 150 acres of mudflat habitat for spring migrating shorebird use.
- ❖ Encourage restoration of 15 to 20 acres of deepwater habitat through the Illinois Department of Natural Resources and the Corps of Engineers.

**IMPLEMENTATION STRATEGIES - II.D  
(RESTORATION OF REMNANT NATURAL  
COMMUNITIES)**

- ❖ Initiate survey of purchase boundary to delineate unique and sensitive areas with IDNR Heritage Biologist.
- ❖ Improve flow of water in spring communities where man-made changes have attempted to redirect flows.
- ❖ Transplant five acres of giant cane (*Arundinaria gigantea*) along Cache River channel annually.
- ❖ Limit public usage near limestone caves at the Mason area which may be used as a bat hibernation area.
- ❖ Develop GIS system to display inventory locations of specialized habitat sites and animals that have been identified on The Nature Conservancy intern studies dealing with springs, rare and endangered species inventories and the coordinated study with the IDNR Heritage Biologist.

## *RESOURCE MANAGEMENT*

Ecosystem management plays a strong role in decisions regarding the Refuge. Management decisions are made based upon several factors including biodiversity and the ecological context of the Cache River Watershed. Managing the resource can have many components. For the Refuge, it means providing staff and capital resources to effectively control activities within the boundaries. Numerous other commitments must be made by the Service outside of the Refuge boundaries as well.

### *GOAL III. RESOURCE MANAGEMENT*

Maintain the Refuge through active management programs including fire protection, law enforcement, cooperative farming, water management, cooperative wildlife surveys, hunting and cultural resource monitoring and research. Coordinate management programs with partners and continue work in the larger watershed landscape.

#### *OBJECTIVE A: ONGOING MANAGEMENT*

Evaluate and monitor Refuge programs and public use. At five year intervals, review and update Refuge management plans to assure consistency with new information.

#### *OBJECTIVE B: WATERSHED STEWARDSHIP*

Support and participate in watershed planning and implementation of projects which protect resources within the Refuge, the Cache River Wetlands and/or the Cache River Watershed.

#### *OBJECTIVE C: PRIVATE LANDS EROSION/SEDIMENTATION CONTROL*

Promote a cooperative relationship and provide assistance to landowners that encourages citizen stewardship and action to reduce erosion and sedimentation.

**OBJECTIVE D: WETLAND RESTORATION ON PRIVATE LANDS**

Assist with wetland restoration on private land within the watershed at the rate of at least 10 acres per year for the purpose of improving water quality through nutrient retention, sediment control, and water storage for flood control.

**IMPLEMENTATION STRATEGIES - III.A  
(ONGOING MANAGEMENT)**

- ❖ Write and update specific management plans such as; hunting plan, farming plan, public use plan, etc.
- ❖ Continue cooperative farming program (on 10% of Refuge land) in accomplishment of habitat goals to: improve fertility of tree planting sites, provide habitat resources for wildlife, control noxious weeds, and hold land "as is" until appropriate habitat restoration can be carried out.
- ❖ Work to eliminate row cropping adjacent to riparian corridors and on highly erodible land as soon as possible after acquisition.
- ❖ Do not permit livestock grazing or feeding areas on Refuge lands.
- ❖ Coordinate law enforcement with State personnel especially during hunting seasons.
- ❖ Continue hunting program as outlined in the Refuge's Hunting Plan and provide for specialized programs such as the sunflower plantings for resident game species (100 acres annually).
- ❖ Continue to emphasize goose hunting to prevent large wintering concentrations of geese.
- ❖ Fulfill all State and County regulations relative to well and septic closures.

- ❖ Annually coordinate fire control program with eight local fire protection districts.
- ❖ Complete seasonal wildlife surveys for dove, woodcock, raptor, amphibian, shorebird and waterfowl.
- ❖ Participate in U.S. Forest Service's gypsy moth monitoring program.
- ❖ Implement architectural and historical study of Churchill house and Stubblefield cabin.
- ❖ Conduct archaeological/historical studies through registered firm before undertaking any ground disturbing activities.

*IMPLEMENTATION STRATEGIES - III.B  
(WATERSHED STEWARDSHIP)*

- ❖ Continue to attend and support watershed planning functions.
- ❖ Provide appropriate technical advice related to the reduction of erosion and sedimentation to the Natural Resources Conservation Service and landowners.
- ❖ Where appropriate, restore cane along stream banks within the Refuge
- ❖ Have one Refuge staff member serve on the Cache River Watershed Technical Committee.
- ❖ Support the recommendations of the Cache River Watershed Resource Plan ( Chapter I - Introduction).
- ❖ Cooperate with Big Creek #2 Drainage District and comply with legal drainage obligations.

**IMPLEMENTATION STRATEGIES - III.C & D  
(PRIVATE LAND EROSION CONTROL &  
WETLAND RESTORATION)**

- ❖ Utilize the Service's Private Lands Program to increase wetland restoration in the watershed. Priority will be given to the Big Creek sub-watershed.
- ❖ Educate farmers and landowners within the Refuge about problems of sedimentation, chemical use, etc., and provide advice for minimizing those problems.
- ❖ Encourage "no till" farming.
- ❖ Publish the availability of the Service's private lands program through the Refuge newsletter and other local sources.
- ❖ Actively showcase demonstration projects through the media to promote the program.
- ❖ Prepare a slide presentation which features the Refuge, the watershed and recreational opportunities within the Refuge.
- ❖ Continue active communication throughout watershed communities through media, elected officials, citizen activists, etc.
- ❖ Provide a video library with educational and instructional materials for group and individual use.
- ❖ Support outside education programs, such as Touch of Nature and the Illinois State Museum, which promote the goals of the Refuge.
- ❖ Actively pursue support for the development of the Cache River Wetlands Center.
- ❖ Promote environmental education through watershed outreach programs to community members and school students.



Illinois



*The Joint Venture Partners*

## *DYNAMIC PARTNERING*

The Refuge is a key member of the Cache River Joint Venture and seeks opportunities to join with various community groups, agencies, corporations and organizations to work toward advancing the Refuge and the Cache River Wetlands. Generally, the Refuge will strive to combine resources with appropriate entities to expedite and carry out planned projects. This will be done whenever the best interest of the Refuge can be furthered without negatively impacting the mission of the Service.

### GOAL IV. DYNAMIC PARTNERING

Extend the Joint Venture, cooperative action approach to local communities, agencies, and organizations to maintain, enhance, and create new partnerships that are mutually beneficial and further the goals of the Refuge.

"Partners are  
the way of the future."

*Daniel Yoder, Ph.D.  
Department of Recreation,  
Park and Tourism Administration  
Western Illinois Tourism*

#### *OBJECTIVE A: MAINTAIN AND ENHANCE EXISTING PARTNERSHIPS*

Assume a leadership role in maintaining existing cooperative arrangements which are directed toward the achievement of a common set of goals for the preservation and restoration of the Refuge and the Cache River Wetlands.

#### *OBJECTIVE B: FORGE NEW PARTNERSHIPS*

Create new partnerships among federal, state and local agencies, organizations, schools, corporations and communities to promote and sustain the restoration, development and management of the Refuge.

**OBJECTIVE C: VOLUNTEERISM AT CYPRESS CREEK**

Continue, and increase, the volunteer program that promotes citizen involvement in Refuge operations, communicates the benefits of the Cache River Wetlands, and increases community ownership in the Refuge.

**IMPLEMENTATION STRATEGIES - IV.A  
(MAINTAIN & ENHANCE EXISTING PARTNERSHIPS)**

- ❖ Continue to meet with Cache Watershed Consortium two times a year to communicate Joint Venture accomplishments and activities.
- ❖ Continue to meet with Joint Venture staff once a month to coordinate activities within the Cache River Watershed.
- ❖ Continue to share resources, expertise, equipment, and office space with The Nature Conservancy and the Illinois Department of Natural Resources.
- ❖ Seek regional support for sharing resources with partners, reducing institutional barriers, and for identifying innovative approaches to accomplish Refuge goals and objectives.
- ❖ Maintain existing signed partnership agreements in which the Refuge will continue its active role including:
  - Joint Venture Partners - 4 agencies and organizations
  - Cache Watershed Consortium - agencies and organizations
  - Shawnee Community College - office space, interns, maintenance operation
  - Boyd Seed Orchard - seedlings most productive to restoration
  - National Tree Trust - seedlings from seed provided
  - Seven County GIS Inventory - 22 agencies, organizations, county boards

- ❖ Continue forest and wetlands restoration of priority tracts, both inside the Refuge boundary and throughout the watershed.
- ❖ Continue to work collectively with TNC on land acquisition where traditional Service acquisition procedures are not successful.
- ❖ Work with all partners, the Citizens Committee to Save the Cache River and the Southernmost Illinois Tourism Bureau to bring financing to construct the proposed Cache River Wetlands Educational Center, Project A6.

**IMPLEMENTATION STRATEGIES - IV.B  
(FORGE NEW PARTNERSHIPS)**

- ❖ Work with the Citizens Committee to Save the Cache River and local municipalities to obtain grants to construct boat access near Tamms, and at the south end of the Refuge near Mounds.
- ❖ Explore potential of supporting a fund-raising effort that allows outside sponsorship to develop and operate a Wetland Education Center with private funds on private land.
- ❖ Assist Shawnee College with the development of a Outdoor Environmental Learning Center on campus.
- ❖ Assist in the coalition of groups to support the development of the Wetlands Education Center (Booker study, 1994) including, but not limited to:
  - Southernmost Illinois Tourism Bureau
  - Citizens Committee to Save the Cache River
  - Joint Venture Partners
  - Dongola/Ullin Civic Group
- ❖ Promote a partnership with another Ramsar site; Caddo Lake, Texas..
- ❖ Work with Touch of Nature to promote and manage public use and interpretation.

- ❖ Work with groups in support of implementing the recommendations in the Cache River Watershed Resource Plan.
- ❖ Engage the Natural Resources Conservation Service to further outreach efforts with targeted landowners in the Cache River Watershed.
- ❖ Cooperate and coordinate with the Illinois Department of Transportation for mitigation banking for trees and wetlands.

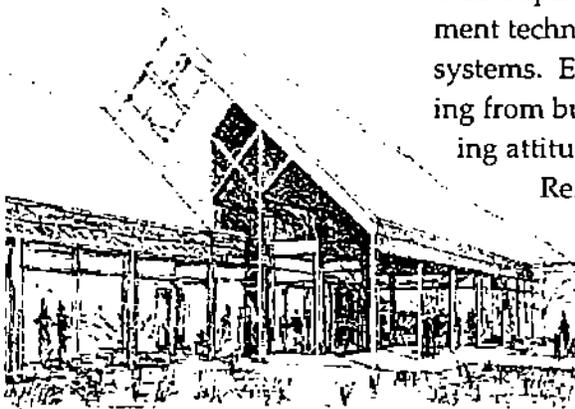
**IMPLEMENTATION STRATEGIES - IV.C  
(VOLUNTEERISM)**

- ❖ Provide opportunities for students and citizens to participate in Refuge programs.
- ❖ Expand internship program.
- ❖ Provide incentive programs for participants.
- ❖ Evaluate Churchill House for volunteers/intern housing.
- ❖ Seek input and volunteer assistance from various sportsmen associations and environmental groups.

***ENVIRONMENTAL EDUCATION***

A crucial component of the Refuge's role to protect this resource is environmental education (EE). Environmental education can help people develop a better understanding of their dependence on the natural environment and management techniques employed to protect and restore natural systems. Environmental education includes objectives ranging from building awareness, knowledge, and skills to changing attitudes and encouraging participation. From the

Refuge's standpoint, the ultimate aim of EE is to promote responsible environmental behavior. It is imperative that efforts go beyond awareness and knowledge and empower citizens to become actively involved in resource issues - issues that affect the Cache River Wetlands.

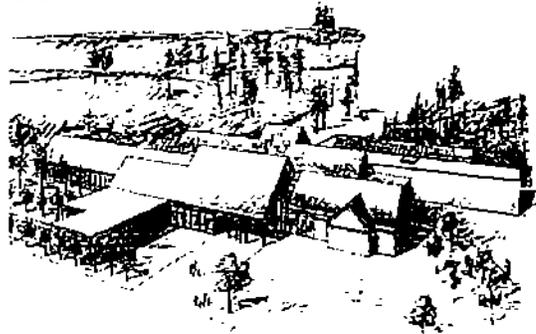


**GOAL V. ENVIRONMENTAL EDUCATION PROGRAM**

Develop public appreciation and understanding of wildlife and plant communities and resource issues within the Cache River Wetlands through a formal, hands-on, educational program that results in environmentally literate and active citizens.

***OBJECTIVE A: ENVIRONMENTAL EDUCATION PROGRAM***

Provide innovative on-site and outreach programs and facilities for a variety of audiences that develops an awareness and appreciation for the Cache River Wetlands and other natural resources.



***OBJECTIVE B: SITE-SPECIFIC CURRICULUM***

Develop and implement a site-specific curriculum which conveys the Refuge is goals and objectives, ecological values and associated issues of the Cache River Wetlands, and includes interactive pre-, post- and on-site activities for students in grades 4-12th.

***OBJECTIVE C: TEACHER TRAINING***

With assistance from Joint Venture Partners, develop and conduct site-specific teacher workshops to orient participants in the Cache River Wetlands, site-specific EE units, and resources available to them and their students.

***OBJECTIVE D: VOLUNTEER STAFF TRAINING***

Perpetuate high quality environmental education through internships and training of students and volunteer staff.

#### IMPLEMENTATION STRATEGIES - V.A, B, C, D

- ❖ Develop series of units that incorporate Refuge themes and apply to lifestyles and issues within the Cache River Watershed.
- ❖ With partners, construct a major wetlands education center at Easter Slough to serve as a focal point for environmental education.
- ❖ Develop a network of students and citizens that assist with monitoring water quality throughout the Cache River Watershed.
- ❖ Develop four EE facilities on the Refuge (i.e. Rolwing Cabin, Bellrose EE site, Hogue Woods and Boyd Seed Orchard).
- ❖ Off-Refuge, support the Shawnee College in developing an outdoor classroom for environmental education.
- ❖ Recruit and coordinate a team of volunteers, staff and partners to develop and implement site-specific curriculum.
- ❖ Incorporate environmental education goals and strategies into public programs.
- ❖ Coordinate programs/opportunities with other entities throughout southern Illinois.
- ❖ Provide training opportunities, through innovative workshops, for teachers of partner schools.
- ❖ Coordinate and recruit participants through the seven county Regional Office of Education of Schools.
- ❖ Evaluate Churchill House for volunteer/intern staff housing.
- ❖ Continue to inform and educate residents within the watershed of issues related to resource protection and habitat restoration. Accomplished through public events, Refuge Advisory Committee, news releases, and public meetings.

## *WILDLIFE-DEPENDENT RECREATION & INTERPRETATION*

Refuge visitors will enjoy recreational and interpretive activities that are compatible with the Refuge's purpose. These activities will be oriented toward interaction with and appreciation of wildlife and their native habitat. Wildlife dependent recreation includes wildlife observation (by hiking and canoeing), hunting, fishing, and photography. In conjunction with recreation, interpretive programs will be developed and implemented to assist visitors in exploring the Cache River Wetlands and associated wildlife through an informal learning experience. These activities will increase visitor use, but not at the expense of the natural environment.



Sensitive sites identified during a Joint Venture workshop in September 1993 include: Eagle Pond-Buttonland Swamp, Goose Pond, south Ullin swamp (wood duck roost), Hogue Woods, Mason Cave, Route 3/127 Cache River area (Swainson's warbler nesting), and lowermost Cache River corridor. Recommendations relative to fishing access, and management of these areas were made. These sensitive sites and any identified in the future, will have limited access, or if necessary be closed, to guard against negative impacts to wildlife and plant communities. Support facilities and access will be sited to disperse visitors and protect ecologically fragile areas.

### GOAL VI. WILDLIFE-DEPENDENT RECREATION & INTERPRETATION

Provide opportunities for visitors to understand, observe, and enjoy wildlife and native habitats of the Cache River Wetlands.

*OBJECTIVE A). FACILITIES*

Establish seven accessible facilities at locations throughout the Refuge by the year 2011, that promote wildlife-dependent recreation, education, interpretation and viewing opportunities year-round. These seven areas are:

- A4 Mounds Access
- A5 Tamms Boat Access
- A6 Cache River Wetlands Education Center
- A7 Shawnee College Outdoor Learning Site
- A8 Bellrose Outdoor Classroom
- A10 Cache Levee Access and Canoe Trail
- A11 Boyd Seed Orchard & EE Site

*OBJECTIVE B). INTERPRETATION*

Establish a series of interpretive programs and publications that reveal the natural and cultural history of the Cache River Wetlands, resource values, and the role of human interaction with the land.

*OBJECTIVE C). RECREATION*

Provide and promote compatible wildlife-dependent recreational experiences through a variety of opportunities and activities year round.

*OBJECTIVE D). MEASURING AND MONITORING*

Monitor public use throughout the Refuge as an ongoing program to determine success of its programming and facilities, and to measure for possible overuse of sensitive sites.

*IMPLEMENTATION STRATEGIES - VII. A, B., C., D.*

- ❖ Implement a customer-oriented approach to promote quality wildlife experiences for all segments of the public throughout the year.

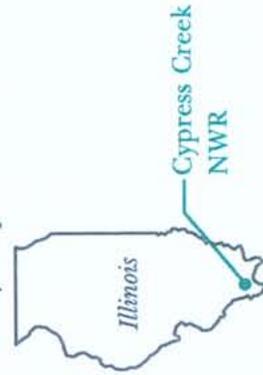
- ❖ Develop a series of interpretive programs and events that incorporate Refuge themes and natural/cultural history of the area with associated issues of the Cache.
- ❖ Develop and implement a sign plan that orients and directs visitors to Refuge facilities and programs.
- ❖ Prepare development plans for the seven high priority facilities to promote partnerships and seek matching funds for development operations and maintenance.
- ❖ Implement a volunteer interpreters program.
- ❖ Expand programming and guided opportunities through an interpretive-naturalist internship program.

### *RESTORATION LONG RANGE PLAN*

The attainment of the preceding goals and objectives for the Refuge is critical if the Long Range Vision for this unique natural resource is to become a reality. Eventually, the 35,000 acres of the Refuge will fall under the single ownership of the Fish and Wildlife Service. There is no known time frame for the completion of the Refuge purchase boundary. However, it is possible to predict the long range natural community development of the Refuge. By looking at general topography, existing plant community remnants and hydrology, experts can predict what the ecosystem may look like. The following map illustrates conceptually what the distribution of the major natural community types may be in the distant future. Some refer to this as the 100 year plan.

# Cypress Creek NWR Comprehensive Management Plan

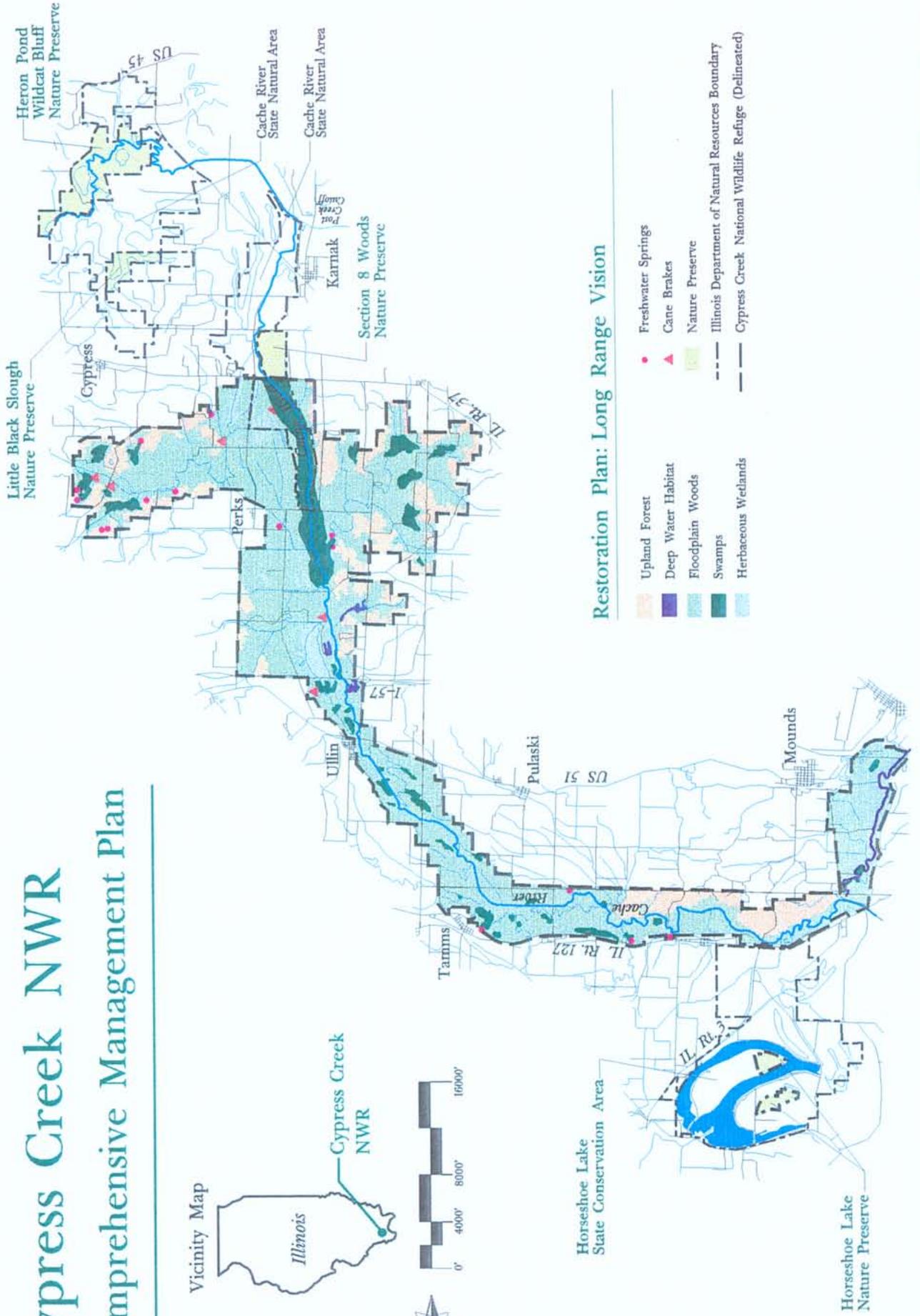
Vicinity Map



Horseshoe Lake  
State Conservation Area



Horseshoe Lake  
Nature Preserve



Restoration Plan: Long Range Vision

- Upland Forest
- Deep Water Habitat
- Floodplain Woods
- Swamps
- Herbaceous Wetlands
- Freshwater Springs
- Cane Brakes
- Nature Preserve
- Illinois Department of Natural Resources Boundary
- Cypress Creek National Wildlife Refuge (Delineated)