1. Introduction

Purpose and Uses of the Plan

DeKalb County recognizes that greenways and trails play an important role in the overall health and vitality of the County. The DeKalb County Greenways and Trails Plan is a long-range, visionary master plan for the green infrastructure of the region. The plan identifies the resources and opportunities for open space and recreational trail systems, linking communities with one another and with locally and regionally significant natural and cultural resources. The plan recognizes the relationship between the environment, recreational needs, economic growth and sustainability.

This Greenways and Trails Plan presents the results of a planning process that was initiated by the DeKalb County Greenways and Trails Coalition, which includes members of the Kishwaukee Kiwanis Club Pathway Committee and the DeKalb County Forest Preserve District, and includes representation by individuals, businesses and government bodies from throughout the County. The planning process involved a thorough study of the County's existing greenway conditions, a review of planning efforts by the County and municipalities within the County, and public input obtained through a series of meetings and open houses. This plan provides general guidelines that should be followed by municipalities in the County. The DeKalb-Sycamore Area Transportation Study (DSATS) should conduct detailed work building off of the recommendations in this plan.

The primary product of the planning process is a system of proposed greenways and trails depicted on the DeKalb County Greenways and Trails Plan map. The proposed system provides for better overall greenway and trail connections throughout the County and to adjacent counties.

Implementation of the Greenways and Trails Plan will occur in phases (if supported by public agencies and private partnerships), and will ultimately improve connections for a variety of trail users within the County. It will also provide important environmental and ecological functions.

What are Greenways and Trails?

Prairie habitat along the Great Western Trail.

A **greenway** is a corridor of open space. Greenways vary greatly in scale, from narrow ribbons of undeveloped landscape that run through urban and suburban development, to wide corridors that incorporate diverse natural and cultural features. A greenway can be land or water based. It can incorporate both public and private property, but always provides benefits for the larger community. Some greenways are primarily recreational corridors, while others function almost

exclusively for environmental protection and are not necessarily intended for human passage. Some greenways run along stream corridors, shorelines or wetlands; others follow railway tracks, roads or other land-based features.

Greenways differ in their location and function, but overall a greenway network will protect natural and cultural resources; provide recreational opportunities; improve and sustain hydrological functions; provide flood control and groundwater aquifer recharge; and enhance the natural beauty and the quality of life in neighborhoods and communities.

William T. Spitzer of the National Park Service said of greenways, "Greenways connect. They tie together people, parks, historic sites and natural areas. They follow streams and rivers, ridgelines, abandoned rail lines, hedgerows, canals and other transportation corridors. All are unique, created through local initiative and reflecting a consensus of community needs and concerns" (How Greenways Work, J.M. Labaree, 1992).

The greenways of DeKalb County will serve to connect open space destinations with the population centers of communities within the County and the communities to each other; allow for the passage of wildlife from one habitat area to another; provide vegetation buffers to protect water quality; and provide routes for a variety of modes of human travel.

Trail at Knute Olson Jr. Forest Preserve.

A **trail** or path is a type of greenway that is separated from vehicular traffic and is dedicated to the use of pedestrians, bicyclists, in-line skaters, roller skaters, wheelchair users, horseback riders, canoeists, cross-country skiers, hikers, snowmobilers and others. Trails can be used for recreational purposes as well as to connect different land uses and facilities.

In addition to the types of trails described above, other bike routes are depicted on the Greenways and Trails map. These routes follow existing and planned roads and allow bicyclists to safely and efficiently access areas throughout the County.

What Makes a Good Greenway?

Each greenway facility offers some combination of the following characteristics:

- Benefits a large population in many communities;
- Bridges gaps to help complete existing greenways;
- Creates new connections between existing greenways;
- Provides wildlife (plant and animal) migration paths between isolated natural areas;
- Protects tributary streams to preserve water quality and ecological value in main regional waterways;
- Protects residential and commercial areas threatened by flood damage;
- Improves access to recreational trails where it is currently lacking;
- Protects high quality natural areas threatened by development;
- Provides flood control and aquifer recharge;
- Offers a variety of recreational uses; and
- Provides alternative transportation routes (e.g., walking and bicycling) and improves access to public transportation systems.

Background on Greenway Functions and Design

Greenways serve a variety of functions. The discussion below reviews the various greenway functions and identifies which functions may apply to DeKalb County.

Greenways have a number of transportation related functions. They may provide a travel corridor for bicyclists, pedestrians, canoeists, in-line skaters, cross country skiers, snowmobilers or horseback riders. The proposed function must be taken into account during trail design. The trail system may be a worn path just wide enough for a person, an eight (8) foot wide mowed lawn, a boardwalk, a graveled surface, or a paved surface.

Which transportation functions would the proposed DeKalb County greenways and trails serve? Actually, each of these various trail experiences will occur somewhere in the County-wide system. For example, recreational facilities will allow residents to enjoy forest preserves and open spaces; commuter facilities will allow residents to access work, shopping areas, or other community destinations; and some facilities will be used for physical fitness opportunities to allow residents to walk or bike for exercise.

The recreational and educational functions of greenways include exercise, wildlife observation, water access and activities, bird watching, stargazing, and nature study. The recreational and educational function is dependent on the existing landscape the greenway passes through and the design of the greenway. Again, each of these functions will be addressed within the County-wide system.

Much of the following discussion of the ecological functions of greenway corridors comes from *How Greenways Work: A Handbook on Ecology* by J.M. Labaree, 1992. This book, published by the National Park Service, is an excellent source of information for greenway planners, managers, advocates, and interested citizens.

Greenways may serve a number of ecological functions. The functions they serve are dependent on the type of landscape they contain as well as how they are designed and managed. There are six (6) possible ecological functions of greenway corridors:

- **Greenways as habitat**
  The ability of a greenway to serve as habitat depends on its size, location and the needs of the native species it is intended to serve. A 200 foot wide greenway offers less habitat than a half mile wide greenway. A 200 foot wide greenway along a river will provide more diversity of plant life and therefore more habitat than one in an uplands area.

Eastern Bluebird, a visitor to DeKalb County greenways.

- **Greenways as conduits**
  Conduits are areas along which water, animals, plants and people move. A river is an obvious example; a deer path through a forest is another example. Greenways may act as a conduit to connect isolated pieces of habitat.

- **Greenways as barriers**
  As much as they are conduits, greenways can be barriers. An example would be mice and other small mammals that cannot cross rivers.

- **Greenways as a source**
  Greenways may provide the surrounding landscape with a variety of things; seeds, water, the weather mitigation of shade or windbreak are all examples.

- **Greenways as filters**
  Greenways can protect waterways. For example, buffer strips of tall, rough vegetation on either side of a streambed can filter nutrients and sedimentation out of stormwater before it enters the stream. This vegetation should be native to DeKalb County and/or Northern Illinois. Studies noted in the J.M. Labaree book have indicated the optimum width of the riparian buffer zone as 250 to 300 feet; a narrower width may be acceptable depending on the site.

- **Greenways as sinks**
  Some things may move into a greenway and not travel back out again. The trapping of sediments and nutrients in vegetation is an example.

Why is this Plan Important?

Greenways are important because they connect natural areas, cultural and historic sites, cities, villages, townships, State Parks, County Forest Preserves, neighborhoods, and communities. They are our "Green Infrastructure" and are essential for the health, safety, and general welfare of the public, similar to a community's roads and utilities. Just as communities create plans for future roads and utilities, they must also create plans for their greenways to ensure greenways are protected and maintained for both the human and the natural environment. Without careful planning, greenways can easily be compromised or destroyed by careless or haphazard development. This plan helps ensure that the greenways and trails in DeKalb County will continue to be maintained and improved, as necessary.

How was the Plan Developed?

The DeKalb County Greenways and Trails Plan was initiated by a joint effort between the DeKalb County Greenways and Trails Coalition (DCGTC) and the DeKalb County Forest Preserve District. This group applied for and subsequently received a greenways and trails planning grant from the Illinois Department of Natural Resources in November of 2003. This planning grant program is designed to assist communities with greenway and trail planning and to encourage and facilitate comprehensive, cooperative, and coordinated planning to protect high priority greenways and, where appropriate, provide public access to them by developing trails. Communities that have a plan in place are more likely to receive state and federal grant money for greenway and trail planning projects.

Prairie at Afton Forest Preserve.

The consulting firm of Schreiber/Anderson Associates was hired to work with the DCGTC, the DeKalb County Forest Preserve District, other public agencies, and the public in a coordinated effort to create a detailed plan for the preservation and development of greenways and trails, including on-road and off-road facilities, throughout DeKalb County.

For planning purposes, the County was divided into three (3) planning areas. The Northern Corridor Planning Area includes the northern quarter of the County. The Central Corridor Planning Area includes the DeKalb/Sycamore area and the central part of the County. The Southern Corridor Planning Area consists of the southern half of the County.

The plan was developed through significant input from the coalition and from citizens who attended public meetings (or provided input through other measures) for each planning area. Also, the coalition, the DSATS, and the public carefully reviewed the plan and provided comments that were incorporated for the final draft of the plan.

Project Goal and Objectives

The overall goal of the DeKalb County Greenways and Trails Plan is to **provide general guidance in the selection, acquisition, and development of trails and greenway corridors within the County**. It should be noted that the following objectives are not prioritized, and it is recognized that priorities for implementation of the objectives are not static, but will change depending on grant funding, partnerships, willing landowners, and political will.

Plan Objectives

1. Identify greenway open space to preserve.
2. Preserve and improve the quality and biodiversity of existing open space, including greenways.
3. Improve the effectiveness and use of trails.
4. Expand the existing regional trail system and create linkages.
5. Expand the region's efforts to protect, restore and utilize water-based greenways.
6. Improve the transportation benefits of trails.
7. Sustain and strengthen the funding base for trails and greenways.
8. Continue the tradition of innovative trail and greenway planning in DeKalb County and work to connect County greenways to regional greenway systems.
9. Improve the existing roadway system for walking and bicycling.

Artist at Afton Forest Preserve.

Public Input Objectives

1. Work with broad-based community interest groups that speak effectively for greenway and trail interests.
2. Obtain public participation in the planning process to build consensus and to encourage plan implementation and use by the public.
3. Encourage local "buy-in" to the plan by dividing the County into thirds for the planning process to encourage more local participation.

System Development Objectives

1. Preserve remaining key open spaces and open space corridors in DeKalb County.

2. Develop greenway and trail facilities that link major destinations, such as parks, community centers, libraries, shopping centers, forest preserves, schools, Northern Illinois University, Kishwaukee College, employment centers, and government centers.

3. Emphasize connectivity of the system to neighboring counties, as well as to regional trail systems, such as the Great Western Trail in DeKalb and Kane Counties, and to population centers.

4. Identify short-term and long-term improvements to greenway corridors to create a County-wide greenways and trails system that will protect greenways and provide trail experiences for current and future residents to enjoy.

5. Preserve existing natural habitats for DeKalb County's unique flora and fauna and promote the value of flood control and aquifer recharge that greenways can provide.

6. Instill awareness amongst landowners to work together to restore degraded portions of the County's important habitat areas.

2. EXISTING CONDITIONS IN DEKALB COUNTY

DeKalb County is located west of the Chicago metropolitan area and southeast of the Rockford urban area. Its proximity to Chicago is central to the County's future and nearby growth will likely impact development and land use in the County.

The size and layout of DeKalb County is rectangular, with the north/south dimension 36 miles long and the east/west dimension 18 miles wide. The County is bordered by LaSalle County to the south, Ogle and Lee Counties to the west, Boone and McHenry Counties to the north, and Kane and Kendall Counties to the east. The County contains approximately 636 square miles (406,151 acres) and is comprised of 19 Townships.

Much of the following text of existing conditions in DeKalb County is taken from the DeKalb County Unified Comprehensive Plan.

County Land Use Patterns

According to the DeKalb County Unified Comprehensive Plan, the predominant land use in DeKalb County is agriculture, which comprises nearly 90 percent of the County's land area. When farm houses are included, the ratio increases to 91 percent.

Of the remaining nine (9) percent of land area in the County, more than half (57 percent) is under the jurisdiction of one (1) of the 14 municipalities that are located wholly or in part within the County's borders. The combined area of the incorporated communities accounts for only five (5) percent of the total land area in the County.

Typical rural, agricultural landscape pattern in DeKalb County.

If open space (woods, lakes, parks) is omitted from the unincorporated non-farm land area, the resulting urbanized area outside the jurisdiction of the municipalities accounts for only one (1) percent of the County's land area. However, of the 5,121 acres of "urbanized lands" outside of the municipalities, residential land use accounts for 65 percent of the total. The unincorporated residential development was primarily approved by the County prior to 1993. Since that year, the County has discouraged residential development in unincorporated areas. Haphazard rural development can break up contiguous habitat and make it difficult to protect greenways and provide trail systems.

In 1997, the County contained 828 farms averaging 445 acres each. DeKalb's agricultural environment is very diverse and contains many rivers and creeks, lakes and wooded areas. The County's largest natural parks are Shabbona Lake State Park and the Kishwaukee River State Fish and Wildlife Area. These two (2) parks contain approximately 2,370 acres of woodlands, lake, river floodplain, wetlands, prairie, and conservation areas. There are also 14 forest preserves scattered throughout the County. Woodlands comprise about two (2) percent of the County and are predominantly located along Somonauk Creek and the Kishwaukee River. Both agricultural and residential land uses are found along these rivers.

Resource Inventory and Analysis

Existing resources in the study area will impact which types of greenways and trails will exist and where. The following summarizes general resource conditions in DeKalb County.

- **Topography**
  Much of the land in DeKalb County is flat or slightly rolling, which is a result of years of glacial movement across the great plains of the northern United States. The highest elevation in the County is 977 feet above sea level. This point is located in the western portion of the County near the intersection of Tower and McGirr Roads. The lowest point in the County is 645 feet above sea level, where Somonauk Creek crosses the County line in the southeastern section of the County. The County's elevation generally ranges between 700 and 950 feet.

- **Soils**
  Accompanying the flat topography of the County are the rich soils that are the source of the well established farming economy of the area. Approximately 98 percent of the farmland in the County is classified as prime, according to the U.S. Department of Agriculture Soil Conservation Service. The soils of the County are generally grouped into six (6) associations. A soil association is a landscape that contains distinctive proportional patterns of soils, with each association usually containing several major soils and at least one (1) minor soil. The soils are described in the DeKalb County Unified Development Plan.

- **Floodplains and Drainage**
  DeKalb County typically receives between 35 and 48 inches of precipitation each year and the combination of flat land and rich fertile soil creates drainage problems in some areas. The major drainage channel for the northern half of the County is the South Branch of the Kishwaukee River. The southern half of the County is drained by several small tributaries that eventually flow into the Fox River. Associated with these natural drainage patterns are several floodplains that are natural barriers to land development, but provide possible opportunities for greenways and habitat restoration, and possibly trails. These flood prone areas are generally associated with narrow bands of low lying land located near the Kishwaukee River and several smaller creeks. These areas are well established and recorded by the Federal Emergency Management Administration (FEMA).

- **Woodlands**
  According to the U.S. Department of Agriculture, DeKalb County's inventory of existing stands of timber is significantly lower than in other areas of Illinois. In the 1987 Illinois Forest Resources report, DeKalb County was listed as having 5,300 acres of forest land. This acreage accounts for only 1.2 percent of the total land area of the County. Forest land, as described by the Department of Agriculture, is "land at least 16.7 percent stocked by forest trees of any size, or formerly having had such tree cover, and not currently developed for non-forest use. The minimum area for classification of forest land is one (1) acre. Roadside, streamside and shelterbelt strips of timber must have crown width of at least 120 feet to qualify as forest land." The limited forested areas of the County are a reflection of the agricultural dominance of the County's land usage. Because woodlands in the County are scarce, it is critical to protect existing wooded areas.

Woodlands at Knute Olson Jr. Forest Preserve.

- **Natural Areas**
  According to the Illinois Nature Preserves Commission, DeKalb County contains one (1) publicly held nature preserve, the Wilkinson-Renwick Marsh. This preserve is located west of Annie Glidden Road and north of Illinois Route 64, approximately five (5) miles north of the City of DeKalb. This medium quality marsh is one of the very few undisturbed marshes remaining in the Grand Prairie Section. The marsh is a prairie pothole that was large enough to escape being tilled and converted to farmland.

The Wilkinson-Renwick Marsh.

  Emergent native vegetation surrounds an area of open water. The native vegetation consists predominantly of two (2) species of cattails with sandbar willow along the margins of the open water. The marsh provides resting habitat for migrating waterfowl and over 115 species of birds have been documented in this area. The nature preserve also includes an ongoing prairie restoration bordering Annie Glidden Road. This preserve is owned and managed by the DeKalb County Forest Preserve.

  Information from the Illinois Department of Natural Resources indicates that DeKalb County also contains two (2) privately held natural areas. Neither is protected by the owner or lessee. The Afton Cemetery Prairie is a grade "B" mesic prairie, located on Perry Road between the Union Pacific Railroad rail line and Waterman Road. An outstanding example of a ring mound is also found on private land, southwest of the intersection of Nelson and Twombley Roads. Further protection of these natural areas is needed and could be achieved by acquiring easements from the landowners or by non-profits or government agencies purchasing the properties if the landowner is favorably disposed to doing so.

Existing Greenways and Trails in DeKalb County

In addition to the greenways mentioned above in the Resource Inventory and Analysis section, other formal greenways and trails are located in DeKalb County and are described below.

- **Great Western Trail**
  The Great Western Trail extends approximately 17 miles from the trailhead in St. Charles (Kane County) to Sycamore in DeKalb County. The trail connects to the Fox River Trail in Kane County and to a larger regional trail system.

  The Great Western Trail crosses small streams and wetlands where duck, coot, and Great Blue Heron nest and raise their young. Shrubs, including Dogwood, Blackberry, and Hazelnut exist in the few remaining patches of native prairie along the trail. The trail is a place of quiet beauty, a linear wildlife refuge, and truly one of the finer trail experiences available in DeKalb County.

  The Great Western Trail is surfaced with limestone screenings and allows a smooth bicycle riding surface. Also, horseback riding is allowed on mowed shoulders along the Great Western Trail through DeKalb County.

The Great Western Trail.

- **DeKalb Park District**
  The DeKalb Park District owns and manages 44 parks in the City of DeKalb, including approximately seven (7) miles of trail. Much of the parkland and the existing trails are located along the Kishwaukee River and therefore, supports this greenway facility.

  - **Kiwanis Parkway Bike Path**
    The Kiwanis Parkway Bike Path is a 6.5 mile path that is owned and managed by the DeKalb Park District. The path begins at Lions Park and generally follows the Kishwaukee River north to Hopkins Park before connecting with the DeKalb/Sycamore Bike Path and the DeKalb Nature Trail.

Bicyclists on the Great Western Trail.

  - **DeKalb Nature Trail**
    The DeKalb Nature Trail is a one (1) mile paved trail that extends from the IL23, Kiwanis Parkway Bike Path, and the DeKalb/Sycamore Bike Path junction north to 1st Street. The Trail is owned and managed by the DeKalb Park District.

- **DeKalb/Sycamore Bike Path**
  The DeKalb/Sycamore Bike Path starts at Pleasant Street in Dekalb and extends north and east into the City of Sycamore. The paved trail is six (6) miles in length with wooded and prairie features and follows along the east side of Peace Road for several miles before winding its way to the Sycamore Community Park. Trail users include bicyclists, hikers, joggers, and cross-country skiers. There are areas where this trail system could be improved, especially areas with gaps and poor street labeling, which currently makes it difficult for trail users to navigate.

Bicyclists on the DeKalb/Sycamore Trail.

- **Clear Water Legacy Project**
  The Clear Water Legacy Project consists of privately owned conservation easements along the South Branch of the Kishwaukee River downstream from Kirkland. The entire easement encompasses 563 acres of reforested agricultural fields, mature floodplain forests, and associated uplands along a four (4) mile stretch of the South Branch of the Kishwaukee River, a Biologically Significant Stream according to the Illinois Department of Natural Resources (IDNR).

  The project abuts 297 acres of existing easements and public conservation land one (1) mile upstream and 2.5 miles downstream from the project area, therefore creating a well-connected public/private greenway system.

- **South Branch of the Kishwaukee River**
  Although not currently a dedicated greenway or trail, the South Branch of the Kishwaukee River flows from the central part of DeKalb County to the northwest corner of the County. The river is part of the Kishwaukee River watershed, which flows into the Rock River in Winnebago County. Outstanding natural resources exist along this greenway corridor, and much of it flows through undeveloped farmland and rural areas. It is important to plan now to protect this important riparian system and this plan incorporates the river into the DeKalb County greenways and trails system to provide both recreational and ecological benefits.

South Branch of the Kishwaukee River near Kirkland.

- **Other DeKalb County Greenways**
  In addition to the South Branch of the Kishwaukee River, other important greenway and stream corridors exist in DeKalb County. Two (2) regional organizations focus on protecting these corridors: the Kishwaukee River Ecosystem Partnership (KREP) and the Fox River Ecosystem Partnership (FREP). KREP monitors, maps, and strives to protect the Kishwaukee River watershed, including the south branch, which generally encompasses the northern and central portions of DeKalb County. Important greenway/riparian corridors in this watershed that are located in DeKalb County include:

- Upper South Branch of the Kishwaukee River
  (*considered by KREP to be subject to the greatest degree of watershed degradation)*
- Central South Branch of the Kishwaukee River
  (*considered by KREP to be under great threat of becoming severely impacted by future development*)
- East Branch of the Kishwaukee River
  (*considered by KREP to be subject to the greatest degree of watershed degradation)*
- Deer Creek
  (*considered by KREP to be subject to the greatest degree of watershed degradation)*
- Union Ditch
  (*considered by KREP to be subject to the greatest degree of watershed degradation)*
- Owens Creek
- Trimble Run
- Kingsbury Creek
- Bull Run
- Lee Slough Creek
- East Branch of the Killbuck River

FREP works to protect the Fox River watershed, part of which is located in the southern part of DeKalb County. Important Fox River watershed greenway/riparian corridors located in DeKalb County include:

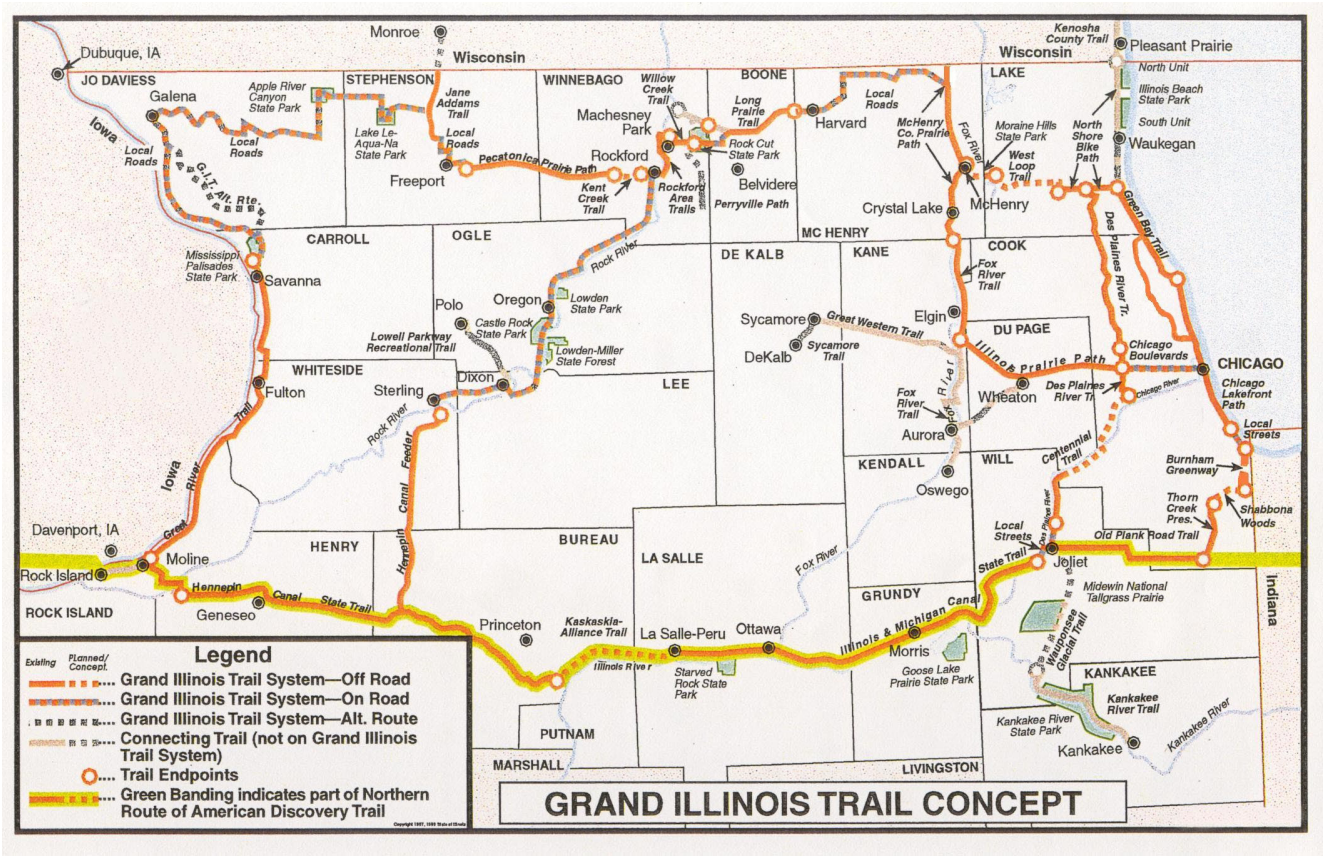
- Indian Creek
- Little Indian Creek
- Somonauk Creek
- Little Rock Creek
- Battle Creek
- Big Rock Creek
- Buck Branch

Winter trail hikers.

Existing Regional Trails

DeKalb County is located on the periphery of the Chicago Metropolitan Area. It is connected to neighboring Kane County to the east by the Great Western Trail. Additionally, the County is located in the center of the regional Grand Illinois Trail System. This system was first conceived of in the mid 1990s. The IDNR proposed the creation of the trail, knowing that northern Illinois had a rich network of off-road bicycle trails. The trail concept was published in the Illinois State Trails Plan and was widely supported by all parties involved. The off-road trails and on-road routes are slowly being implemented. As of 2004, approximately 500 miles of trails and designated road routes stretch from the shores of Lake Michigan to the banks of the Mississippi and back again. The trail travels through large metropolitan cities and small rural towns. DeKalb County is located in the center of this trail system, and in the future, it will be important to consider linkages between the County, neighboring counties, and the larger regional trail network. Figure 1 depicts the Grand Illinois Trail Concept.

Figure 1: Grand Illinois Trail Concept



Summary of Recent Related Planning Efforts

Numerous planning efforts are recently completed and on-going in DeKalb County and surrounding areas. In order to plan effectively and efficiently for greenways and trails in the County, it is necessary to review other plans and to examine other local and regional planning strategies that could impact DeKalb County's greenways and trails planning efforts. A summary of those plans and planning efforts is included below.

Regional Greenway Plans

Regional plans have been completed recently in several neighboring counties with funding support from the IDNR Greenways & Trails Program. These plans were reviewed to examine opportunities to align DeKalb County's proposed trails and greenways across their shared borders. It should be noted that no plan has been or is in the process of being created for La Salle County, which borders DeKalb County to the south.

Boone & Winnebago Regional Greenway Plan (1997)

This plan "serves to…create a vision of a regional greenway network and provide a framework for coordinated greenway and trail preservation and development." No trails in this plan border DeKalb County. However, the South Branch of the Kishwaukee River and Coon Creek do connect these counties to DeKalb County and these connections must be considered when planning for DeKalb County's greenways.

Ogle County Regional Greenways and Trails Plan (2003)
This long-range visionary master plan for the green infrastructure of the region identifies the resources and opportunities for open space and recreational trail systems, linking communities with one another and with natural and cultural resource sites. The plan also focuses on the area's important historic resources. Two (2) proposed trails connect Ogle County to DeKalb County; one (1) trail generally follows IL 38 and the other runs east-west between IL 64 and IL 72. The first proposed trail would connect DeKalb County to Rochelle and the Kyte River system; the second trail would connect DeKalb County to Byron and the Rock River system.

Lee County Greenways and Trails Plan (2002)
This plan inventoried the greenway resources that correspond with the County's pre-settlement streams, groves, marshes, and prominent moraine system. The plan seeks to link communities with a system of shared-use trails, preferring local roads that reflect important historic travel routes between early settlements and river crossings. Lee County is connected to DeKalb County by the Indian Creek greenway, which flows through Shabbona Lake State Park into Shabbona Lake. The Counties are also connected by the Burlington Northern Railway that connects Hinckley, Waterman, and Shabbona to Lee in Lee County.

Kendall County (Forest Preserve District 2004)
The Kendall County Forest Preserve District created the County Trails and Greenways Plan in 2004. The County has a significant amount of funding available to assist in purchasing greenways because voters in Kendall County approved $5 million in general obligation bonds to purchase open space in 2002. The Kendall County Forest Preserve District is now able to protect 400 to 600 acres of high quality natural areas, nearly doubling the size of their existing forest preserve system. This was the first time an open space referendum has been proposed to the voters in Kendall County, which is losing open space to development at an astonishing rate. The key greenway that connects Kendall and DeKalb Counties is Little Rock Creek, which flows into the Fox River at Silver Springs State Park. This was identified as an important Southern Corridor Planning Area trail connection by the DeKalb County Greenways and Trails Coalition.

Kane County and McHenry County
Kane County is located east of DeKalb County and the Counties are connected by the Great Western Trail. The Kane County Bicycle and Pedestrian Plan was adopted in December 2002 and is a comprehensive document for bikeway and pedestrian routes throughout the County. McHenry County abuts the northeast corner of DeKalb and the Counties are not significantly connected via any greenway or trail system.

Both Kane and McHenry Counties are included in the Northeastern Illinois Regional Greenways and Trails Implementation Program, which was developed by the Northeastern Illinois Planning Commission and Openlands Project for the six (6) county Chicago area. The plan objectives are to 1) preserve additional greenway open space; 2) preserve and improve the quality and biodiversity of existing open space, including greenways; 3) improve the effectiveness and use of trails; 4) expand the existing regional trail system and create linkages; 5) expand the region's efforts to protect, restore and utilize water-based greenways; 6) improve the transportation benefits of trails; 7) sustain and strengthen the funding base for trails and greenways; and 8) continue the tradition of innovative trail and greenway planning in Northeastern Illinois.

Other Planning Efforts

Other plans and planning efforts in DeKalb County have the potential to significantly impact greenways and trails. A summary of relevant plans is included below.

DeKalb County Unified Comprehensive Plan

DeKalb County has long recognized the importance of planning for future growth and development, and the County adopted its first Comprehensive Plan in 1972. The plan was updated in 1981, 1991, and 2000.

The County also recognized the need to work cooperatively with all municipalities within its borders, and initiated the DeKalb County Regional Planning Commission (RPC) in 2002. The RPC is comprised of one (1) representative from the County and one (1) from each of thirteen of the fourteen municipalities that are entirely or partially within the County. The RPCs first task was the development of the DeKalb County Comprehensive Plan, which combines the comprehensive plans of each of the municipalities with that of unincorporated DeKalb County, thus creating a uniform and coordinated vision for the future of the region as a whole. The plan was adopted by the County Board on December 17, 2003.

The Comprehensive Plan identifies proposed trail network expansions from DeKalb and Sycamore to other areas of the County. Existing trails include the DeKalb Nature Trail, the Kiwanis Bike Path, the DeKalb/Sycamore Bike Path, and the Great Western Trail. The 2000 DeKalb County Comprehensive Plan identified a proposed trail system that would connect the existing trails with many of the forest preserves in the County and would follow roads, rivers, and some railroads. Desirable hiking and/or biking trail locations proposed in the plan include:

1. Along the Union Pacific Railroad Spring Valley line extending from the City of DeKalb southwest to the County line;
2. A link from the City of DeKalb to Afton Forest Preserve, and then generally south/southeast into Sandwich and Somonauk;
3. A link from the proposed Union Pacific trail to the Peace Road Trail;
4. An extension of the Peace Road Trail north along the proposed Airport Road extension;
5. Along the Kishwaukee River north from DeKalb and Sycamore, through Genoa, Kingston and Kirkland west to the edge of the County;
6. A link from Kishwaukee College through Malta to the City of DeKalb;
7. A link from the City of DeKalb to the Town of Cortland along Loves Road and Barber Greene Road; and
8. A link from Shabbona to Waterman to Hinckley.

These proposed trails are very conceptual and there is no commitment to the exact trail location nor is there a specific timeframe in which the trails will be built. There has been strong support by residents for such a trail system and each community that participated in the Unified Comprehensive Plan identified trail development and linkages to locations throughout the County as a high priority.

Snowmobilers on the Great Western Trail.

DSATS (DeKalb-Sycamore Area Transportation Study) Public Involvement Policy

The DeKalb-Sycamore Area Transportation Study (DSATS) was created to comply with federal regulations that call for the establishment of a metropolitan planning organization (MPO) for urban areas with a combined population exceeding 50,000. The principal purpose of all MPOs is to provide "comprehensive, cooperative and continuing" transportation planning for the regions they serve. The DSATS serves the City of DeKalb, the City of Sycamore, the Town of Cortland, DeKalb County, and Northern Illinois University.

The DSATS is made up of the following committees:

- The Policy Committee, the decision-making body for the DSATS, consists of eight (8) representatives from the Cities of DeKalb and Sycamore, DeKalb County, Northern Illinois University, and the Illinois Department of Transportation.

- The Technical Committee is the principal workgroup for DSATS and includes administrators, planners, and engineers from the cities, County, Northern Illinois University, and the Illinois Department of Transportation, as well as the Town of Cortland, Voluntary Action Center, and Kishwaukee College.

- The City of DeKalb provides staff for the MPO program including a part-time Study Director and a full-time Transportation Planner.

The DSATS is responsible for a variety of functions, including:

- *Programs federal transportation dollars* through the Transportation Improvement Program. This money is generally allocated to road improvements.

- *Manages the federal transit grant*, Section 5307. This grant provides operating assistance to the Voluntary Action Center for services such as the Green Line and demand response service. DSATS is working with the State of Illinois to secure another transit grant, the Downstate Operating Assistance Program (DOAP). If secured, DSATS would also administer this grant.

- *Develops transportation plans.* At the time of this writing, DSATS is working on the area's first Long Range Transportation Plan. The plan will consider transportation needs for the next 25-30 years. DSATS is also working on the Transit Study. This Study examines items such as operating efficiency, unmet need, and funding options for the area's public transit.

- *Keeps abreast of local transportation issues.* Recently, the Tollway proposed the 10-year, $5.3 billion dollar "Open Roads for a Faster Future" plan. DSATS staff analyzed possible effects of the plan on the area, and provided information to area businesses and government officials.

- *New Initiatives.* The DSATS has been working with Illinois Convenience and Safety Corporation to bring bus shelters to the DeKalb area at no cost to property owners or respective governments. They are also investigating new technologies, like the i-STOP. The i-STOP is a solar powered unit that provides security lighting, an alert system, and illuminated schedule to transit users. These new amenities will make the area's public transportation safer and more user-friendly.

DSATS supported the creation of this Greenways and Trails Plan by providing data on the urbanized area and sending a staff representative to the Central Corridor public involvement meetings. The DSATS was also involved in the plan review process. DSATS intends, pending the availability of funds, to pursue a more in-depth bikeways plan for the DeKalb-Sycamore area in 2005.

DeKalb County Forest Preserve

The DeKalb County Forest Preserve was established in 1940 to provide recreational opportunities, to preserve and restore natural resources for public enjoyment and education, and to protect the County's natural heritage. The Forest Preserve owns and manages 14 properties in DeKalb County and will acquire additional parcels with public support as the County's population continues to grow.

MacQueen Forest Preserve

Genoa Township Park District Plan of Action

Genoa is a small northern Illinois farm community that is located in northeastern DeKalb County. The Park District serves 6,600 people (as of 2003) and owns 66 acres. A survey was conducted in 2004, which showed that residents desire more land for parks and want additional biking and walking trails in the community. In fact, trail development was a consistent and strong recommendation from all groups providing input for the plan of action. Genoa is connected to the rest of the County by the South Branch of the Kishwaukee River.

Sycamore Park District Master Plan

The Sycamore Park District was established in 1923 and continues to acquire and develop a number of park sites and open spaces to serve the growing community. Park sites include neighborhood parks, community parks, athletic fields, wetlands, woodlands, and high-quality natural areas. At the time of this writing, the Park District is planning to create a trail from the southeast corner of Stanley Larson Park to the north side of Sycamore Lake along the Kishwaukee River.

In total, the Park District owns or manages hundreds of existing acres of park land where residents can enjoy leisurely walks, running, bicycling, golfing, picnicking, boating, fishing, skating, soccer, basketball, baseball, softball, tennis, and swimming.

DeKalb Park District Master Plan

The DeKalb Park District keeps an updated master plan of its parks and trail facilities. The trail facilities that are located wholly or partially within the DeKalb Park District are the Kiwanis Parkway Bike Path and the DeKalb/Sycamore Bike Path, which is managed by DeKalb County and others. The Park District has acquired land along the Kishwaukee River and incorporated this into its parks system. The District has long-range plans to install pathways along Dresser Road (west of Katz Park) and through the Hoger Farm Park parcel, which will connect IL 23 and Pleasant Street. The City of DeKalb also plans to install a pathway in conjunction with the Annie Glidden road improvement project, which runs south of IL 38 to Fairview Drive.

DeKalb County Highway Five-Year Capital Improvement Plan

DeKalb County maintains a five (5) year transportation improvement program to budget for annual improvements. Several road segments that are identified as potential routes in the Greenways and Trails Plan are scheduled for improvements over the next five (5) years. The County should integrate the recommended trail facilities identified in this plan as the streets are improved. Also, it would be beneficial for the DeKalb County Greenways and Trails Coalition to appoint a liaison to coordinate with the County to ensure that facilities identified in this plan are included with projects that are identified in the County's Capital Improvement Plan. Notable projects include:

- Peace Road-right of way expansions in 2004
- Peace Road-Bethany traffic signals in 2004 (should be timed for bicyclists and pedestrians)
- Peace Road-Improvements between Rt. 23 and Rt. 64 in 2004 and 2006 (implement sidepath)
- Somonauk Road-Increasing right of way from I-88 to Perry Road and from Rt. 30 to Suydam Road in 2006
- Somonauk Road-Improvements between Rt. 30 and Suydam Road in 2008
- Somonauk Road-Increasing right of way from Perry Road to Rt. 30 in 2008
- Somonauk Road-Increasing right of way from North Street to Bethany Road in 2007
- Somonauk Road-Improvements between Rt. 38 and I-88 in 2007
- Annie Glidden Road-Increasing right of way between Rt. 64 and Rt. 72 in 2007 and south of Rt. 64 in 2005
- Annie Glidden Road-Improving shoulders between Rt. 64 and Rt. 72 in 2008 and south of Rt. 64 in 2006
- Plank Road-Airport Road intersection in 2006 (should be designed for bicyclists and pedestrians)
- Malta Road-Improvements between Rt. 64 and Rt. 72 in 2006
- Malta Road-Bridge over Union Pacific RR
- Suydam Road-Bridge over Somonauk Creek in 2007
- Kirkland Road-Bridge over Kishwaukee River in 2005
- Shabbona Road-Improvements from Rt. 30 to Chicago Road
- Airport Road-Extend right of way between Rt. 64 and Plank Road in 2007/2008
- Airport Road-Build road between Rt. 64 and Plank Road

3. RECOMMENDATIONS FOR DEKALB COUNTY GREENWAYS & TRAILS

Greenways Selection

A greenway is a linear open space located along a natural or man-made corridor; it may or may not contain a trail for human use. Potential greenways were identified by mapping a number of landscape characteristics in DeKalb County. This information was combined with requested connections collected from a series of meetings with the DeKalb County Greenways and Trails Coalition and other residents. The mapping was conducted by the use of a Geographic Information System (GIS).

Planning Area Maps were created for the Northern, Central and Southern Corridor Planning Areas of DeKalb County. The maps include corporate boundaries, roads, highways, water bodies, and railroads. Based on requests made by the Greenways and Trails Coalition and the public for connections in the three (3) planning areas, the greenways, on-road, and rail line connections are also included on the Planning Area Maps.

The requested connections were made using four (4) basic corridor types:

Greenways- river and stream corridors or natural area corridors
Rail Right of Ways - active or abandoned rail line corridors
Road Right of Ways - local, county, or state highway corridors
Utility Right of Ways – may include sewer, water, and/or electric corridors

The characteristics found on the Planning Area Maps included the following:

Critical and Sensitive Land
These areas show where habitat is located that is suitable for those species in the County at greatest risk of harm from human encroachment. It is important to note that these areas should not be interpreted as parcels targeted for acquisition or condemnation, but rather they are intended to help both public and private stakeholders identify which areas are critical to supporting the variety of plant and animal life needed to maintain biodiversity in the County. The goal is to protect these areas through both public and private land stewardship to ensure the long-term preservation of these habitats and the species they support.

Cone flowers in DeKalb County.

This map layer was created using the Kishwaukee River Ecosystem Partnership (KREP) GIS database layers, and specifically the 1999 Land Cover file from the Illinois Department of Natural Resources (IDNR). Forest areas, rural grassland areas, and wetland areas were merged together to create larger contiguous tracks that accurately reflect the size of the habitat area. The layers were then selected by the following:

- Forest areas greater than 100 acres
- Rural Grassland areas greater than 100 acres
- Wetland areas greater than 10 acres

Additional information about this GIS analysis and the species and habitats that are included within these areas can be found in the Report on the Natural Resources and Habitat in the Kishwaukee River Watershed, prepared by the Kishwaukee River Ecosystem Partnership in April 2004.

Stream Buffer Zones and Conservation Areas
DeKalb County has mapped a 500 foot area on either side of the major streams and rivers in the County and called these the "stream buffer zones". The stream buffer zones, if managed properly, can significantly improve water quality. A properly managed stream buffer zone would have native grasses and forbs planted for the entire width of the zone. This vegetation will act as a screen to remove sediment and chemicals from runoff before it drains into the stream. In addition, the sturdy roots of the native vegetation do an excellent job of holding the soil and preventing erosion along stream banks. It is important to note that for all streams, a minimum buffer of 100 feet is recommended by the Kishwaukee River Ecosystem Partnership to protect the stream bank and aquatic habitat. However, the Natural Resources Conservation Service recommends a range of 36 to 212 feet for the stream buffer zone, depending on the slope of the land surrounding the stream. These recommendations should be integrated into a County-wide stream corridor protection program to preserve the natural integrity of stream corridors in urbanizing watersheds, such as those in DeKalb County.

In addition to the stream buffer areas, this map layer depicts areas that the County determined should be designated for conservation. These areas show land suited for the protection of natural resources, including floodplains and woodlands.

Habitat Connector
This map designation is shown on the Southern Corridor Planning Area Map and provides a connection between the northern reach of Indian Creek and Shabbona Lake. The County did not include this stretch of Indian Creek within its stream buffer zone mapping. This habitat connector will provide a wildlife corridor between Shabbona Lake and the surrounding State Park, and Indian Creek.

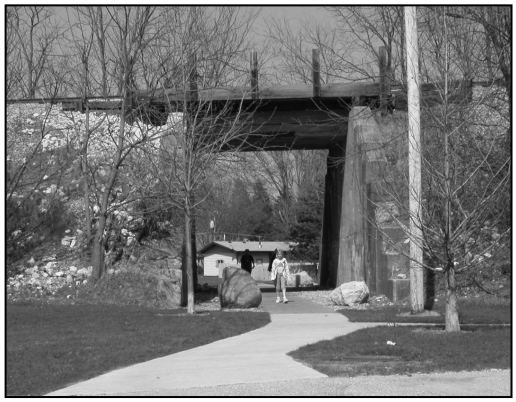
Existing Public Park/Open Space
Existing public park and open space areas include Forest Preserve land, Park District land, State Park land, School District land, and any other lands owned by a public entity and managed (at least in part) as an open space or recreational area.

Existing Private Park/Open Space
Existing private parks and open spaces include private golf courses, campgrounds, parks, and other lands owned by private entities and managed (at least in part) as an open space or recreational area.

Playground and soccer fields at Kiernan Park in Genoa.

Proposed Sycamore/Genoa Greenbelt
This 500 foot greenbelt is proposed to function as a development limit along Aldrich Road on the north to the Henderson Road area on the east. This proposed greenbelt resulted from the 2004 Intergovernmental Boundary Line Agreement ordinance between the City of Sycamore, the City of Genoa, and DeKalb County. The term of this boundary agreement is for 20 years, with the possibility of extending it for one (1) additional 20 year period. This boundary agreement/greenbelt strategy could be used in other areas of the County to preserve critical and sensitive habitat areas and to set aside space for potential future greenway or trail systems.

Important Crossing
This designation on the map refers to an important crossing area for greenways or trails. These crossings should be carefully considered during the implementation phase of this planning process as they are vital links in the overall greenway and trail network.



Girl walking under the railroad bridge in Genoa, an important crossing from the downtown area to residential areas and the high school.

Trail Options for Greenways

As mentioned above, a greenway may or may not have a trail for human travel associated with it. This should be determined at the time the specific greenway is designed. It may be that a specific greenway or segment of a greenway is too sensitive to allow human traffic, or the right of public access may not have been included in the easement agreement. However, most of DeKalb's greenways will be suitable for trails depending on land owner or sellers intentions and several trail surfacing types are discussed below.

The simplest and least expensive trail surface is **mowed grass**, which can also serve as a fire break if fire management is used. This surface does not provide wheelchair accessibility and is not useable during wetter times of the year. Regular maintenance is required. Mowed grass is appropriate for trails on uplands that are not expected to carry much traffic. This report assumes $5 per linear foot to install.

Example segment in DeKalb County: This surface may be appropriate for the nature trails through Afton Forest Preserve.

Wood chip surfacing can be wheelchair accessible depending on how well the wood chips used "knit" together, which varies by wood chip type. This surface is more usable in wet seasons than mowed grass, but still may not be usable year round. Regular maintenance is required. Wood chip surfacing is appropriate in uplands and lowlands. This report assumes $12 per linear foot to install.

Example segment in DeKalb County: This surface may be appropriate in the South Branch Kishwaukee Greenway.

Stone path refers to a path built with a base course of gravel and a surface course of limestone screenings. The screenings, when compacted, knit together to provide a smooth, wheelchair-accessible surface. This surface is usable during all but the wettest months of the year, and is appropriate for pedestrians, baby strollers, bicycles, and wheelchairs. Maintenance, such as grading and resurfacing, is required yearly or every other year. This report assumes $35 per linear foot to install.

Example segment in DeKalb County: This surface may be appropriate along the proposed rails with trails facilities.

Both the stone path and the wood chip trail surface will periodically need to be replenished with new materials. These costs can be assumed to be about half of the costs of installation.

There are two (2) types of **boardwalks**. The elevated boardwalk is built on posts, and the regular boardwalk is placed directly on the ground or elevated slightly (two (2) to four (4) inches) on adjustable posts. The elevated boardwalk is useful in areas where there is flowing water and/or the

water level fluctuates seasonally. The boardwalk trail placed on the ground is useful where water is not moving and never exceeds three (3) to four (4) inches in depth.

Both boardwalk types are accessible for most of the year by pedestrians and wheelchairs. Bicycle use is not recommended unless the boardwalk is at least eight (8) feet wide and even then the boards may be slippery when wet or icy. Maintenance will be required every eight (8) to 10 years depending on the materials used to construct the boardwalk and the amount of water the boardwalk is exposed to regularly. The elevated boardwalk is estimated at $125 per linear foot to install, and the regular boardwalk is estimated at $65 per linear foot.

Example segment in DeKalb County: Boardwalks may be appropriate along portions of the Kishwaukee River, the Little Rock Creek, and/or the Somonauk Creek greenway trails.

A **Water trail** refers to a trail used by watercraft. In DeKalb County this typically means canoes, and the South Branch of the Kishwaukee River exhibits great potential for canoeing. It is important to note that water trails involve coordinated access on a water body, including designating a system of sites, signs, information and users. Also, in order for the South Branch of the Kishwaukee to be designated as a water trail, public access will be needed and Illinois laws will need to be followed.

The Northeastern Illinois Planning Commission, in conjunction with the Openlands Project and Illinois Paddling Council, created the Northeastern Illinois Regional Water Trail Plan in 1999. The plan identifies water trails in the Chicagoland area. If the public and political will supports the effort, the South Branch of the Kishwaukee could possibly be designated as part of the regional water trails system. The County should look to the Nippersink River and McHenry County as examples.

Example segment in DeKalb County: An excellent opportunity for a water trail in DeKalb County is the South Branch of the Kishwaukee River from the City of DeKalb downstream to the western County line, where the river enters Ogle County.

Canoers on the South Branch of the Kishwaukee River

Facility Options for On-Road Facilities

Schreiber/Anderson Associates developed a set of guidelines to determine the facility recommendations for the on-road sections of the DeKalb County greenways and trails system.

Shared Lane

In situations where the traffic count is less than 5,000 ADT (average daily traffic, or average number of vehicles per day) and the traffic speeds are low (these conditions exits on most local roads in DeKalb County), it is recommended that bicycles and cars share the road. The only recommended improvement in these areas is wayfinding signage to help bicyclists and motorists find important destinations such as shopping districts, the library, Northern Illinois University, Kishwaukee College, community parks, and regional trails.

Example segment in DeKalb County: Connection from Kirkland to Kingston via Kirkland Road, Wolf Road, and Rebecca Road.

Paved Shoulders and Improved Pavement Markings

Cyclists using a paved shoulder.

Many on-road bicycle facilities in the County will involve the use of a paved shoulder. A paved shoulder refers to the part of the roadway that is adjacent to the regularly traveled portion of the roadway and is on the same level. Ideally, paved shoulders should be included in the construction of new roadways and the upgrade of existing roadways where there is a significant level of current or potential bicycle travel. Fog lines (white striping) should be provided to help designate where bicyclists should ride. Also, it is important to note that existing roads can be retrofitted with fog lines to provide a designated space for automobiles and a designated space for pedestrians and bicyclists. If a four (4) inch white stripe is painted on the road pavement, with a minimum four (4) foot shoulder area, this can potentially provide traffic calming effects by slowing automobile traffic and also providing a space for pedestrians and bicyclists that is separated from the automobile traffic. This is also a very inexpensive and easy way to allow bicyclists, pedestrians, and automobiles to share the road.

Example segment in DeKalb County: This plan proposes several paved shoulders, including along Annie Glidden Road from the City of DeKalb north to the County line; along South Malta Road from the west County line to DeKalb; along IL 23 from DeKalb to IL 30; and along several other road segments.

Sidewalks

Gaps in sidewalks should be filled, especially within a half mile radius of schools, parks, and other popular walking destinations. The crosswalks in these areas should also be improved and maintained. While the sidewalks may be used by children and inexperienced adult cyclists, they should not be signed as bike routes.

Sidepaths

Sidepaths are facilities that are located adjacent to roads in the road right-of-way, but are separated from the road facility. Sidepath gaps should be filled, especially if they connect residential areas to popular destinations. On collector or arterial roads with sidepaths, it is recommended that an on-road facility be provided also. Experienced cyclists will prefer to ride on the road even if a sidepath is provided as it is usually faster and there are fewer potential conflicts with cars.

<u>New Sidepaths</u>

If a sidepath is being considered for installation, several site conditions should be studied.

- A sidepath should have as few crossroad and driveway intersections as possible. Each time a sidepath is crossed by traffic, it represents serious hazards for the cyclists with several opportunities for conflict with automobile traffic.
- There must be a sufficient terrace area between the edge of traffic lanes and the sidepath.
- Wherever the sidepath begins or ends the cyclists needs to be provided with instructions on how to continue safely on the route.

Example segment in DeKalb County: Along the road that connects Chamberlain Park to Kiernan Park.

Conversions

Rails to Trails

This popular conversion has been used across the U.S. to create an extensive and popular system of greenways and multi-use trails on abandoned rail corridors. The Great Western Trail is a local example of such a conversion.

Railroad corridor between Shabbona and Hinckley.

Example segment in DeKalb: None at this time but if a railroad should abandon a segment of rail in the future, the land should be land banked immediately for future use as a greenway and/or trail facility. If abandoned, the Union Pacific Rail from DeKalb to Shabbona State Park and ultimately the County line could be converted to a trail/greenway.

Roads to Trails

This conversion is used in certain urbanized areas where a road may play a key role in rush hour traffic but carries little traffic during the day. Perhaps the most well known road to trail is the Rock Creek Parkway in Washington DC. The Parkway is open to traffic during the rush hours and closed to automobiles during the mid day and on weekends when it becomes a very popular trail for bikes, walking, and in-line skating.

Example segment in DeKalb County: None at this time.

Rails with Trails

Rails with trails means that the rail line is active and includes a multi-use trail within the rail right-of-way. This type of facility is in place in over 60 locations in the U.S. Three (3) of these are located in northern Illinois. It is difficult to reach agreements with railroads to allow such facilities, however it can be done and the connections provided can be key in building infrastructure for greenways and alternative travel.

Railway corridor between Genoa, Kirkland, and Kingston.

Example segment in DeKalb County: A rail with trail along the Union Pacific Rail Line from the western County line to DeKalb would provide an important connection to Malta and to Ogle County. Also, the Union Pacific Rail from DeKalb to Shabbona State Park and eventually to the LaSalle County Line could potentially be converted to a rail with trail facility, as could the rail line between Genoa and Kirkland/Potawatomi Woods/Kishwaukee River State Fish and Wildlife Area.

Utility Right-of-Way

Utility right-of-ways, such as overhead wires, sewer easements, gas easements, water easements, and others can be an excellent way to provide public trails. The County will need to work with the utility provider and adjacent landowners to secure this access, but these types of trail facilities should be pursued as they can be a very efficient and cost effective way to provide public trail facilities.

Example segment in DeKalb County: The ComEd overhead electric line easement from IL 72 south and east to Sycamore.

Means of Acquiring Greenways

While it is important to identify and map the greenways in DeKalb County, they can only be successfully protected through implementation and acquisition strategies. Many consider outright acquisition of greenways by a public agency or private entity to be the only way to acquire greenways, but this is just one of the many options available. Several common acquisition strategies are identified below.

Developer Land Dedication

As a condition of obtaining subdivision approval, a local government can require developers to pay a fee (fee in lieu of) to a land acquisition fund or dedicate land to a municipal trust for open space. This is a common way for communities to acquire open space and parklands, and if properly planned for, these land dedications can help contribute to acquiring land for a greater greenway or trail network. Advantages of this type of acquisition are that new construction and development pays for its impact on open space and this acquisition strategy works well during high growth periods. Disadvantages are that the acquisition funds are dependent on specific developments, it is often difficult to calculate the fair costs of fees that should be paid in lieu of land dedication, and this is not an effective means of acquiring greenways and open spaces during periods of low growth.

Several communities in DeKalb County have developer land dedication ordinances, including those listed in Table 1. It should be noted that other communities in DeKalb County may also have land dedication ordinances, but when contacted for this report, they did not respond.

Table 1. Developer Land Dedication Ordinances in DeKalb County

Municipality	Ratio (acres of park space per person)	Size	Fee in Lieu of
City of DeKalb	5.5/1,000	Minimum 1 acre	Ranges between $412.50 and $1,822.84 per housing unit depending on the type of residence.
City of Genoa	12/1,000	Minimum 1 acre	Ranges between $1,380.97 and $4,357.07 per housing unit depending on the type of residence.
City of Sycamore	11.5/1,000	Minimum 1.5 acre	Ranges between $395 and $921 per housing unit depending on the type of residence.
DeKalb County	10/1,000 5/1,000 (for subdivisions comprised entirely of single family detached houses with gross buildable density less than 0.8 dua)	None given	Fair market value as determined in Section 62-153 for cash contributions in lieu of a school site

Source: Municipalities. All data current as of 2004

It is recommended that a model ordinance be created to help municipalities in DeKalb County when requesting land from developers for trails and greenways. The City of Sycamore and the City of Genoa both have land dedication ordinances and the best features from these ordinances could be combined to develop the model ordinance. This ordinance, when combined with master trail plans for each community, would facilitate the future growth of an interconnected greenways and trails network throughout the cities, towns, and rural areas in DeKalb County. The following features should be included in the model ordinance:

- Land dedications for greenways and trail facilities shall be made based on the community's goals for its greenways and trails system.
- Land set aside by developers for greenway and trail purposes shall not be what is "left over" after residential, commercial and industrial development.
- The total requirement shall be 12 acres of land per 1,000 population.
- The DeKalb County Greenways and Trails Plan shall be used as a guideline in locating sites.
- When possible, land to be set aside for greenways and trails should be designated prior to any development so that the municipality ensures the proper areas are protected.
- If the site is too small to be practical, or is not an important link in the regional greenway and trail network, the municipality shall require the subdivider or developer to pay a cash contribution in lieu of the land dedication.
- All cash contributions should be designated for acquiring land that is part of the regional greenway and trail network.

DeKalb County prairie vegetation.

- When the Greenways and Trails Plan, the community's Comprehensive Plan or the community standards call for a larger greenway, trail or open space site in a particular subdivision or planned development than the developer is required to dedicate, the land needed beyond the developer's dedication shall be set aside and reserved by the developer for subsequent purchase by the municipality (at a price determined at the time of reservation) provided that such acquisition is made within five years from the date of approval of the final plat.
- When possible, as land develops, preserve areas along water features (such as the Kishwaukee River) for public access. This space can also provide an important water quality and habitat buffer between development (which increases stormwater runoff and decreases water quality) and the water feature. A buffer at least 50 feet in width should be preserved along lakes, streams, and/or river banks. This land should be of an elevation that is dry enough to support trail facilities.
- Where appropriate, a site to be dedicated should, if possible, be combined with dedications from adjoining developments.
- The municipality reserves the right to accept in whole or in part, certain areas such as, but not limited to, tree massings, prairie remnants, high quality or unique wetlands, or other natural features as all or part of the required park site dedication in furtherance of open space preservation that may be unique to a given parcel or development.
- The dedication of land or cash contributions in lieu of land dedications shall be required as a condition to the annexation of any land to the municipality, and provisions shall at a minimum be incorporated in any annexation or pre-annexation agreement governing such land.
- If a development is planned adjacent to an existing or planned forest preserve, land joining the forest preserve should be considered for dedication as a buffer between the forest preserve and subdivision or as an off-road trail connection between the forest preserve and the subdivision.

Illinois Nature Preserves
Very high-quality natural land in private, corporate, or public ownership may qualify to become a dedicated Illinois Nature Preserve. This is a legal process whereby the landowner voluntarily restricts future uses of the land in perpetuity for the purpose of preserving the land in its natural state and to perpetuate natural conditions. The owner retains custody but gives up the right to develop the land or make changes that negatively affect the natural qualities. It does not require the owner to take any measure to protect the dedicated property against the action of nature or of third parties.

Dedication is the strongest protection that can be given to land in Illinois. It even protects an area from the threat of condemnation. The permanent protection continues through future conveyances of the land. The process is administered by a state agency, the Illinois Nature Preserves Commission in Springfield.

There is one (1) existing Illinois Nature Preserve in DeKalb County. The Wilkinson-Renwick Marsh Nature Preserve is located approximately five (5) miles north of the City of DeKalb and is owned by the DeKalb County Forest Preserve District.

Fee Simple Acquisition
One of the most common methods of acquiring full rights and title to a parcel of land is fee simple acquisition, through which the landowner holds all rights to the property without restriction or reservation. When purchasing a piece of property fee simple, a lump sum fee for the title is negotiated between seller and buyer through a *standard contract* (the buyer and seller agree on the conditions of sale and the buyer pays the seller in full upon the close of the sale); a *contingency contract* (the buyer and seller agree on the conditions of the sale, but the sale is not binding until all contingencies are satisfied; otherwise, the buyer can back out of the contract); or an *installment contract* (the buyer and seller agree on conditions of the sale, but the seller retains title and use of property until the purchase price is paid in full). Advantages of this type of acquisition are that the new landowner has full control of the land and this allows for permanent protection and public access. Disadvantages are that the cost of the purchase may be prohibitive and once the land is purchased it is then removed from the tax rolls, which has implications for the local economy.

Conservation Easement/Access Easement
An easement is a legal agreement a property owner makes to restrict the type and amount of development that may take place on his or her property.

To understand this concept, it may be helpful to think of owning land as holding a bundle of rights. A landowner may sell or give away the whole bundle or just one (1) or two (2) of those rights. These may include, for example, the right to construct buildings on the land, to subdivide, to restrict access, or to harvest timber. To give away certain rights, while retaining others, a property owner grants an easement to an appropriate third party.

Great Horned Owl-an indicator of a healthy, diverse habitat.

Conservation easements are one of the primary tools used to protect greenways because public funding for land acquisition is scarce. Easements work because they provide potential benefits to both the landowner and the public, they are negotiated with the landowner, the easement does not entail a management expense to the State, and the easement property remains on the tax rolls. However, the real estate taxes may be reduced if the property is encumbered and provides a public benefit. Public benefit certification is determined by the Illinois Department of Natural Resources (IDNR) in accordance with criteria established by law.

Any property with significant conservation or historic preservation values can be protected by an easement. This includes trails, forests, wetlands, farms, endangered species habitat, scenic areas, historic sites, and more. Landowners who grant conservation easements on their property must decide if they want to open their property to the public. Some convey certain public access rights, such as allowing fishing or hiking in specified locations or permitting guided tours. Others do not allow any public access.

An easement may be written so that it lasts forever (a perpetual easement) or for a specified number of years (a term easement). Only gifts of perpetual easements can qualify a donor for income and estate tax benefits. An easement runs with the land; that is, the original owner and all subsequent owners are bound by the restrictions that the easement spells out.

The donation of a perpetual conservation easement is a tax-deductible chartable gift, provided it is donated to a qualified organization or public agency exclusively for conservation purposes and remains undeveloped. The amount of the deduction is based upon the appraised fair market value of the easement.

In recent years there has been a dramatic growth in land trusts, which are not-for-profit organizations set up specifically to acquire and maintain environmentally important lands. Easements are an important method of acquisition for land trusts.

Conservation easements exist along the South Branch of the Kishwaukee River downstream from Kirkland. The entire easement encompasses 563 acres of reforested agricultural fields, mature floodplain forest and associated uplands along a four (4) mile stretch of the South Branch of the Kishwaukee River, a Biologically Significant Stream according to the IDNR. The easement is part of the Clear Water Legacy project.

Access easements are a tangible way to protect greenways in areas where land acquisition is not possible. Public access easements provide the public with the right to access and use a parcel of land for a specified purpose, limited to a defined land area. Advantages of this type of acquisition strategy is that there is no need to purchase the land from the landowner, yet it still provides right of public access and use and is an excellent acquisition strategy for greenways. Disadvantages of this type of acquisition strategy are that the access can be time limited, it usually restricts other uses on the land and it doesn't prevent the landowner from exercising other property rights, which could impact the greenway resource.

Publicly Owned Land

Public ownership is the most common form of ownership for trails and greenways because there is a great deal of publicly owned land that lends itself well to trail and greenway access. Several types of local, state and federal agencies within the United States are empowered to own land. In DeKalb County, most land that is publicly owned is owned by the County or by individual municipalities. Often, this land is owned as a right-of-way on an existing road. Many proposed facilities in this plan are located along existing road right-of-ways; therefore, acquisition of these facilities may be simplified by the fact that the land is already in public ownership.

Trail users at Afton Forest Preserve.

Other Acquisition Strategies

In addition to the land acquisition strategies described above, there are additional options including land donations and gifts, monetary donations for land acquisition, land owners selling at less than fair-market value (bargain sale), partial donation, or gift of land and grants for land acquisition.

Land Donations and Gifts

Before paying cash for property to connect or expand trail or greenway systems, adjacent property owners should be asked if they would be interested in donating land. According to "Trails for the Twenty-First Century", experience has shown that a significant number of adjacent property owners (up to 30 percent) are willing to transfer property interests to their portions of former railroad rights-of-way for the development of trails and preservation of open space. The agency managing the on-going development of a multi-use trail or greenway should set up a property donation function to deal with property owners who are interested in making donations. The advantage of acquiring land this way is that is provides permanent protection without public expenditures. Also, tax benefits are granted to the seller because they made a charitable gift. Disadvantages, or challenges, are that the receiving agency must be able to accept the donation and be capable of managing the land.

Monetary Donations

This type of acquisition strategy is used when a monetary contribution is made by an individual or corporation to purchase land to be used in a greenway or trail system. The donation must be made to an agency or organization that is responsible for ownership and management of this land, and this group must be set up to accept these types of donations. Land Trusts are an example of a non-profit organization that is set up to deal with these types of acquisitions.

Bargain Sale

A bargain sale is part donation, part sale where private property is sold by the landowner at less than fair market value to an agency or organization that will own and manage the land. The advantage of this type of land acquisition is that it provides tax benefits to the seller since the difference in sale price is considered a charitable gift. Potential disadvantages are that the seller must agree to the terms of the sale, and there is a possibility that the bargain price may be inflated.

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4. GREENWAY CORRIDOR DISCUSSION BY PLANNING AREA

For planning purposes, the County is divided into three (3) planning areas. The Northern Corridor Planning Area includes the northern quarter of the County. The Central Corridor Planning Area includes the DeKalb/Sycamore area and the width of the County. The Southern Corridor Planning Area encompasses the southern half of the County.

Northern Corridor Planning Area

The Northern Corridor Planning Area includes the communities along IL 72, including Kirkland, Kingston, and Genoa, as well as the unincorporated areas in the northern quarter of the County.

Typical road segment in the Northern Corridor Planning Area.

A major greenway exists along the South Branch of the Kishwaukee River and its numerous tributaries. Currently, land use along the river consists primarily of agriculture and scattered residential. Most of this greenway is in private ownership, although several public open spaces are located in the greenway, as are several Conservation Reserve Program parcels. The major public open spaces include the Kishwaukee River State Fish and Wildlife Area, Potawatomi Woods, MacQueen Forest Preserve, Russell Forest Preserve, Knute Olson Jr. Forest Preserve, Genoa Park District land, Kingston Township parks, and Kirkland Township parks. There are also two (2) privately owned open spaces in this area, Walcamp in Kingston and the Clear Water Legacy Project land located along the Kishwaukee River between Kingston and Kirkland.

Constraints to greenway and trail facilities in the Northern Corridor Planning Area include IL 72, which runs east/west through the area. Access across this highway is extremely difficult. The I, E, and C railroad also parallels IL 72 and provides an additional crossing barrier. However, the right of way easements associated with both of these features may provide opportunities for trails.

The DeKalb County Greenways and Trails Coalition identified the following priorities for greenways and trails in the Northern Corridor Planning Area:

1. Kirkland to Genoa
2. Trail from Kiernan Park to Chamberlain Park
3. North State Road Connector
4. Genoa to Sycamore
5. Genoa to Potawatomi Woods Forest Preserve
6. Connection to the high school from Genoa and areas to the west of Genoa
7. Kingston – Walcamp to Kingston Park

Please refer to the Northern Corridor Planning Area Greenways and Trails Map and Table 2 for a summary of these recommendations.

Central Corridor Planning Area

The Central Corridor Planning Area includes Sycamore and DeKalb, the most heavily populated cities in DeKalb County. The City of Sycamore has a well-established bicycle facility system, with a main route that extends from IL 64 in the eastern part of the City, through the City to Peace Road and eventually to DeKalb. The City of DeKalb also has a bicycle facility system, with designated trails along the South Branch of the Kishwaukee River.

The Wilkinson-Renwick Marsh Nature Preserve along Annie Glidden Road in the Central Corridor Planning Area.

The DeKalb County Greenways and Trails Coalition identified the following priorities for greenways and trails in the Central Corridor Planning Area:

1. DeKalb to Malta
2. DeKalb to Cortland
3. DeKalb/Sycamore heading north
4. DeKalb/Sycamore heading south
5. Making a connection from the DeKalb Nature Trail to Nehring Forest Preserve
6. The wetland area and flood control area south of DeKalb as a future greenway park or County Forest Preserve
7. Complete trail gaps in existing facilities, including the trail along the South Branch of the Kishwaukee River and the Peace Road Trail

Please refer to the Central Corridor Planning Area Greenways and Trails Map and Table 3 for a summary of the recommendations for greenway and trail facilities in this Planning Area.

Southern Corridor Planning Area

The Southern Corridor Planning Area includes the area of the County south of Keslinger Road. The Cities of Shabbona, Waterman, Hinckley, Somonauk, and Sandwich are included within this planning area, as is Shabbona Lake State Park.

The DeKalb County Greenways and Trails Coalition identified the following priorities for greenways and trails in the Southern Corridor Planning Area:

1. Extend Peace Road south with wide shoulders or sidepath
2. Trail connecting Somonauk, Sandwich, Sannauk Forest Preserve, and Lake Holiday to Silver Springs State Park
3. Trail connecting Shabbona, Waterman, and Hinckley
4. Bike routes in downtown areas
5. Trail to connect Waterman and Shabbona schools
6. Safe paths in Shabbona to the High School and the State Park
7. Trail between IL 30 and the railroad track, or a wide shoulder on IL 30 to connect Shabbona, Waterman, and Hinckley
8. Recreational trails and habitat protection along Somonauk Creek
9. Connect Shabbona to DeKalb
10. Consider continuing the wide shoulder on IL 23 south of IL 30

Please refer to the Central Corridor Planning Area Greenways and Trails Map and Map 4 for a summary of the recommendations for greenway and trail facilities in this Planning Area.

Shabbona Lake State Park in the Southern Corridor Planning Area.

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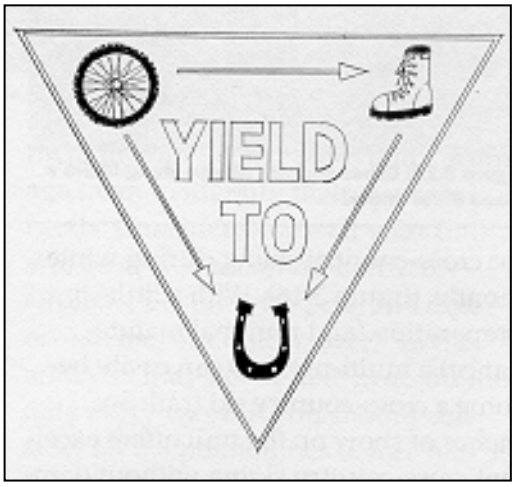
5. TRAIL ETIQUETTE & TYPES OF TRAIL USERS

A variety of trail users will utilize the trails and greenways in DeKalb County. It is important to provide for the safety and enjoyment of all of these users. When considering techniques to provide safe greenways and trails in the County, it may be helpful to reference "Trails for the Twenty-First Century: Planning, Design and Management Manual for Multi-Use Trails", edited by Karen-Lee Ryan.

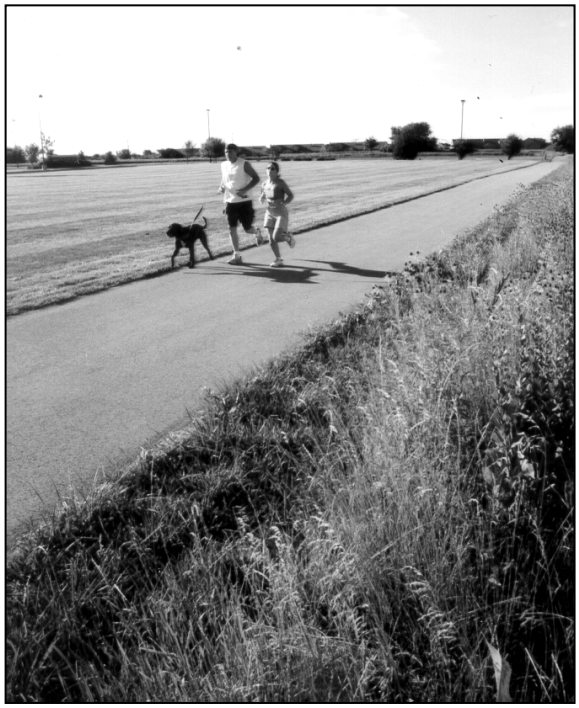
The Multi-Use Trail

Trails in DeKalb County are designed for many users, including hikers, joggers, cyclists, cross-county skiers, snowmobiliers, and horseback riders. For the safety and enjoyment of everyone using the trails, it is important to follow common rules of courtesy, including:

- Only use trails designated for your use (e.g. horseback riders and snowmobilers are only allowed on certain trails).
- Slower traffic should stay to the right. Pass only on the left and only when your line of vision is unrestricted. Passing on a blind curve is risky. A polite call of "Passing on your left" can help warn others of your approach from behind.
- Please leave room on the trail for others to pass. Single file is the best procedure for groups of people on a busy day.



Sign that demonstrates trail etiquette and shows the yield hierarchy on a multi-use trail.



- Be extra careful when approaching horses. They startle easily, so slow down and give them as much room as possible.
- When snow covers the ground, make every effort to avoid walking or riding in ski tracks. Classic cross country skiers are encouraged to use the outside of the trail, with all others using the inside.
- Be aware of wildlife both on and off the trail. Remember, you are a visitor in their habitat.
- Practice "leave no trace" policies by packing out what you pack in.
- To preserve nature's quiet and solitude, refrain from yelling or making any loud sounds.

Special Instructions for Bicyclists

Bicycling can be a great way to enjoy DeKalb County's greenways and trails, but cyclists should observe these special considerations:

- Ride only on multipurpose trails that are at least eight (8) feet wide. If a road or trail is posted with a sign showing a bike symbol with a slash, the trail is off-limits to bicycles due to dangerous conditions or ecologically sensitive areas.
- Always ride single file on the right hand side of the trail except when passing on the left from behind. Always announce yourself by saying "Passing on your left."
- Travel in a consistent manner.
- Do not pass horses on a bridge. A bridge may cause even an experienced horse to be nervous.

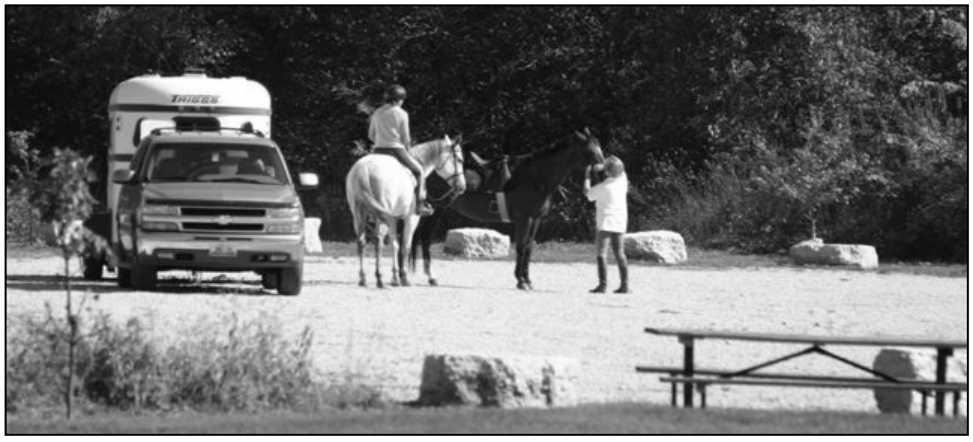
A well cared for bicycle in Shabbona.

- Ride under control. Watch your speed, especially on curves and in parking lots.
- Be aware of changing trail conditions.

Special Instructions for Equestrians

As with cyclists, special care must be taken by horseback riders when using DeKalb County trails:

- Horses must be kept under control at all times. Horse racing is strictly prohibited.
- Horses are prohibited in all picnic areas, campgrounds, off-leash dog areas, and other areas as posted.
- Horse-trailer parking is permitted in designated areas only.
- Please refrain from riding horses on trails during wet or muddy conditions.
- Clean up horse droppings, especially in parking lots.



Equestrians at Potawatomi Woods Forest Preserve.

Trail User Summary

In summary, each type of trail user has different needs and expectations for trail use. Equestrians desire larger areas for day use, with trails that circumnavigate the larger Forest Preserves and/or State Parks. Snowmobilers need trails that cover long distances, such as the snowmobile trail that runs north/south through private property along the eastern edge of DeKalb County. This trail connects snowmobilers from McHenry County in the north to LaSalle County in the south. Snowmobile groups manage and maintain these trails. Snowmobilers are also allowed along the Great Western Trail, but would like additional trail options. Areas that are suitable for snowmobilers include trails around the perimeter of Forest Preserves or State Parks where the trail users are least likely to disturb habitat and wildlife.

Snowmobilers on winter trail through private property access, east side of DeKalb County.

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6. IMPLEMENTATION PLAN

The success of the DeKalb County Greenways and Trails Plan will depend on successful public/private partnerships. Because many of the trails and greenways identified in this plan include public and private properties, cooperation and understanding of the greenway concepts and priorities are critical. To ensure the development of these networks, local governments must prioritize these trails and greenways in their comprehensive plans, park and recreation plans, and long-range transportation plans to locate and preserve these corridors for future greenway and trail use. Utilities and private property owners are asked to incorporate greenways and trails into their developments and future plans, and local communities can help facilitate this by creating and enforcing developer agreements for land dedication or fees in lieu of land dedication. These fees in lieu of land dedication should be designated for acquiring specific parcels that help achieve the County's overall greenways and trails network.

Implementing greenways and trails in DeKalb County will require decisions on preservation, ownership, and management. Some techniques to acquire greenways are identified in Chapter Three. Ownership and management options may include private properties with donated easements, city or county parks with government ownership and management, transportation or utility easements (many of the bicycle facilities fall under this category), land dedication requirements, fee-in-lieu of dedications, etc.

Lions Club trail clean-up volunteers.

A successful greenways and trails network in DeKalb County will require community education and involvement, planning, coordination, and a commitment to implementing County-wide green infrastructure. The Greenways and Trails Coalition is an established group of local citizens who are committed to a successful greenways and trails system. It will be important for this group to continue their efforts in order to successfully implement this plan. The overall benefits of this effort will include increased recreation opportunities and tourism attractions, increased land values for property owners adjacent to the greenways and trails, preserved scenic corridors, improved water quality and wildlife habitat, and improved quality of life for residents and visitors to DeKalb County.

Policy Recommendations

Greenway/Stream Corridor Recommendations

To successfully implement the DeKalb County Greenways and Trails Plan, certain policies should be embraced by both public and private stakeholders. Restoration and management of stream corridors in DeKalb County is essential to providing a healthy, diverse ecosystem and this restoration must be accompanied by a long-term corridor protection program to protect the stream corridor from encroachment following a change in land owner or land use. This is especially important for agricultural parcels near urbanizing areas. The best ways to protect these corridors are:

DeKalb County prairie vegetation.

- **Implementing a County-wide stream corridor protection program**. Existing floodplain regulations in DeKalb County that are designed for the purpose of flood control do not adequately protect the natural features of the floodplain, which provides many more benefits to the stream ecosystem than simply conveying flood waters. While a parcel in a stream corridor is still in agriculture, there is a good possibility that the stream corridor can be restored, as the implementation for this change is largely a matter of landowner education, including planting native vegetation and practicing good agricultural techniques. However, once the land is developed, the stream corridor is usually altered to accommodate stormwater management within the development. The result is a stream corridor that will be permanently altered to serve the drainage needs of the local residents.

- **Placing the stream corridor portion of a parcel into a conservation easement.** An easement is a legally binding document that specifies what can and cannot be done on the land covered by the easement and it remains in effect regardless of ownership transfer. The easement is usually donated or sold by the landowner to a government agency or conservation organization that monitors and enforces the conditions outlined in the easement. Easements exist along stream corridors in DeKalb County, including the Clear Water Legacy easement that protects a four (4) mile, 255-acre, stretch of a Class "B" Biologically Significant Stream on the South Branch of the Kishwaukee River near Potawatomi Woods. It should be noted that this designation was given in 1995, and conditions may have changed over the past 10 years.

- **Acquisition of stream corridor parcels from willing landowners by local forest preserve and park districts or conservation organizations.** This can be a costly way to acquire land along stream corridors, but it ensures that the land is maintained and protected. It is possible to use developer agreements and fees-in-lieu of land dedication to acquire these parcels. These types of acquisition techniques are described in Chapter Three of this plan.

- **Preserve or restore habitat along stream corridors.**
  Because of extensive alterations made to streams in the Kishwaukee Watershed, much of the natural stream corridor has been eliminated. In these areas, it is imperative to restore native grasses and trees along the stream channel. The recommended width of the naturally vegetated stream corridor is ideally the 100-year floodplain, which can vary from 50 to 100 feet on steep-gradient streams to more than one half mile in the flat, low-lying agricultural cropland areas such as those found in DeKalb County.

- **Follow greenway and habitat protection recommendations in existing plans.**
  The Kishwaukee River Ecosystem Partnership (KREP) has identified recommendations to improve stream corridor conditions in DeKalb County; please reference the "Report on the Natural Resources and Habitat in the Kishwaukee River Watershed" to review these recommendations. Additionally, the Fox River Ecosystem Partnership provides recommendations for stream corridor protection for that watershed in the "Management Plan for the Fox River Watershed in Illinois". Another important document to reference is the "Illinois Association of Conservation and Forest Preserve Districts Natural Resource Management Recommendations" created in 1998.

American Egret – a visitor to the County's lakes, rivers, wetlands, and floodplains.

Pedestrian/Bikeway Recommendations

The following policies should be considered by County, local, and regional governmental bodies to promote the improvement of the pedestrian and bikeway infrastructure in DeKalb County.

- **Incorporate bicycle and pedestrian elements into roadway improvements.**
  Bicycle and pedestrian enhancements should be implemented as part of all development and transportation projects. Local jurisdictions should be encouraged to accommodate bicycles when adding or improving roadways by implementing wide outer lanes, bicycle friendly drainage grates, traffic signal actuation devices, paved shoulders, and other amenities.

  Municipal, County and township transportation departments should coordinate with the Illinois Department of Transportation (IDOT) to ensure bicycle and pedestrian accommodations are incorporated into other types of roadway projects, such as bridges, underpasses, arterial intersection improvements, at-grade rail crossings, and highway interchanges. The cost to retrofit these types of facilities can be prohibitively expensive, yet will constitute a small part of the overall cost of a project if initially designed and constructed with consideration of bicycle and pedestrian facilities.

- **Improve or construct rural roads with paved shoulders.**
  The DeKalb County Division of Transportation should create a policy to ensure that all roads that are to be improved (either widened or resurfaced) and all new roads have a paved shoulder to allow for bicycle use, if appropriate. Agencies should seek to provide a four (4) foot wide or greater paved shoulder. Providing a paved shoulder is important for the following reasons:

  - Allows for bicyclists to ride safely along the side of the road
  - Lowers automobile accident rates by providing an area of maneuverability around roadway obstructions or threats
  - Decreases maintenance requirements because road edges deteriorate more slowly

A four (4) foot paved shoulder is the desirable minimum width for providing protection to bicyclists. Due to the existing road structure, roads cannot typically be widened more than four (4) feet without significantly broadening the scope and cost of the project. In those cases where a four (4) foot shoulder can't be achieved, officials may choose to narrow traffic lanes to 11 feet or 11.5 feet to provide an extra 12 or six (6) inches for a shoulder. This extra space will partially alleviate a common problem to bicyclists, which is riding on pavement stripes. These stripes can be slippery and hazardous to bicyclists. The narrower lanes also provide traffic calming. Paved shoulders should also provide fog lines, which help delineate where the bicyclist should ride.

- **Path connectivity to adjacent public spaces or trails.**
  Local agencies should strategize to connect greenways and trails to important community destinations and to other greenway and trail facilities. There are a variety of ways to encourage this, including:

  - Obtain a public access easement and construct trail connections with local funds. Note that the easement may have to be purchased.
  - Encourage transportation agencies to designate easements to reserve corridors.
  - Write development or subdivision ordinances mandating the connectivity of new development to adjacent parks or trails.
  - During the plan review process, seek a set-aside or construction of paths or trails to adjacent public spaces. The advantage of this option is that there is no initial cost to the governing body.
  - Incorporate bikeway rights-of-way on transportation and master plans. This will demonstrate to developers that mandating construction of a multi-use trail or reservation of an easement is not a capricious act. Also, request compliance during the site plan review process.
  - Any road improvements near school zones should employ designs that minimize student-pedestrian /vehicular conflicts by directing students to safer routes along sidewalks or multi-use trails, controlling vehicular traffic, providing traffic calming, and improving motorist awareness of school-aged children. On average, children under the age of 15 have an accident involvement rate twice that of any other age group.
  - New school site plans should be scrutinized for layout, orientation, and connectivity to pedestrian sidewalks, multi-use trails, and neighboring subdivisions. Schools should be designed with safe routes in mind and separate pedestrian, bus, and automobile access.
  - Connect cul-de-sacs between developments by requiring a 20-foot wide public right of way at the end of the cul-de-sac.

Trail accessibility for everyone.

Funding

Funding assistance for greenways and trails projects is available locally through local budgets and land dedication requirements. Funding is also available through grants and programs through the State of Illinois or the federal government.

The level of funding assistance, a sponsor's requirements, and grant administration methodology vary among the programs. Several programs that provide funding assistance are listed below and are broken into categories by the entity that provides the funding. It should be noted that local governments are generally required to provide a certain percentage of matching funds to participate in the state and federal funding programs.

In addition to the funding sources described below, other land acquisition/funding opportunities are available in the form of land donations for greenway and trail corridors and monetary donations to purchase land for these corridors. These acquisition strategies are described in greater detail in Chapter Three of this report, under the "Means of Acquiring Greenways" discussion.

Local Funding Sources

Capital Improvements and Budget
Greenways and trails acquisition and improvements can be funded through local capital improvement budgets, depending on the type of facility. If the facility is a path through a park, then the money should come from the local park budget. Improvements to the roadways to accommodate bicycles such as signs, paved shoulders, or re-striping roads should come from the public works department budget.

Land Dedications from Developers
Land dedication ordinances may require developers to dedicate for public use the future right-of-way for a greenway corridor or bike trail and develop the trail through the corridor as it crosses their development. By indicating the future greenways and trails on the official map, the dedication may be required prior to final action on a subdivision or a development requiring planning action.

Russell Woods bridge.

State of Illinois Funding Sources

Illinois Department of Transportation (IDOT)

Congestion Mitigation and Air Quality Improvement Program
The Congestion Mitigation and Air Quality Improvement Program, or CMAQ, was created by the federal transportation bills ISTEA and TEA-21 to fund projects that could mitigate congestion or improve air quality. The funds are administered through the Chicago Area Transportation Study and the deadline is March 1. The annual allocation for bicycle projects in northeastern Illinois in the past few years has been between $5 and $7 million dollars. Projects funded generally involve bike facilities that parallel a major roadway or projects that increase the availability of parking facilities for bicycles and promote the use of bicycles over automobiles.

Illinois Transportation Enhancement Program

The Illinois Transportation Enhancement Program allocates resources to well-planned projects that provide and support alternate modes of transportation, enhance the transportation system through preservation of visual and cultural resources, and improve the quality of life for communities. The deadline for grant submittals will be announced after the next Federal Transportation Act is passed.

Illinois Department of Natural Resources (IDNR)

The Illinois Bicycle Path Grant Program

The Illinois Bicycle Path Grant Program was created in 1990 to financially assist eligible units of government to acquire, construct, and rehabilitate public, non-motorized bicycle paths and directly related support facilities. Grants are available to any local government agency having statutory authority to acquire and develop land for public bicycle path purposes. Financial assistance up to 50 percent of approved project costs is available through the program. Maximum grant awards for development projects are limited to $200,000 per annual request; no maximum exists for acquisition projects. Revenue for the program comes from a percentage of vehicle title fees collected pursuant to Section 3-821(f) of the Illinois vehicle code.

Applications for grant assistance must be received by the IDNR by March 1 of each calendar year. Applications are evaluated on a competitive basis according to criteria set by the Department. Grant awards are generally announced within six (6) months following the application deadline.

Eligible project costs include linear corridor land acquisition costs (including associated appraisal fees) and bicycle path development or renovation including site clearing and grading, drainage, surfacing, bridging, fencing, signage, and directly related support facilities such as potable water and restroom facilities.

National Recreational Trails Program

The federal "Recreational Trails Program" (RTP), was created through the National Recreational Trail Fund Act (NRTFA) as part of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and re-authorized by the Transportation Equity Act for the 21st Century (TEA 21). This program provides funding assistance for acquisition, development, rehabilitation, and maintenance of both motorized and non-motorized recreation trails. By law, 30 percent of each state's RTP funding must be earmarked for motorized trail projects, 30 percent for non-motorized trail projects and the remaining 40 percent for multi-use (diversified) motorized and non-motorized trails or a combination of either. Eligible applicants include federal, state, and local government agencies and not-for-profit organizations.

The RTP program can provide up to 80 percent federal funding on approved projects and requires a minimum 20 percent non-federal funding match. Applications for grant assistance must be received by the IDNR no later than March 1 of each calendar year. Awards are generally announced within 180 days following the application deadline date.

Cross-country skier on a DeKalb County trail.

Examples of eligible project activities include:

- trail construction and rehabilitation;
- restoration of areas adjacent to trails damaged by unauthorized trail uses;
- construction of trail-related support facilities and amenities; and
- acquisition from willing sellers of trail corridors through easements or fee simple title.

Conservation 2000 (C-2000)

To provide a comprehensive ecological approach, the Conservation 2000 (C-2000) initiative consists of nine (9) programs at the Department of Natural Resources (IDNR), Department of Agriculture (IDA), and the Environmental Protection Agency (IEPA). C-2000 focuses on monitoring and preserving the State of Illinois' natural lands and waters, funding high-quality outdoor recreational activities, and promoting sustainable agriculture. Individuals, not-for-profit organizations, and local organizations can apply for grants through one (1) of the nine (9) programs administered by IDNR, IDA, and IEPA.

Great Blue Heron in DeKalb County.

Open Lands Trust Program

The Illinois Open Lands Trust is a four (4) year, $160 million bonding program to set aside land for open space, provide new outdoor recreation opportunities, and promote wildlife habitat. Approximately $40 million is made available each year for state land acquisition, as well as a combination of competitive grants and loans to local governments for open space protection. Maximum grant awards to local governments are $2 million and require a local match. The program also allows for partnerships with non-governmental organizations, provided that lands acquired with state funds remain under governmental ownership. All land acquired through this program will be from willing sellers only. Applications are typically due in November.

Open Space Land Acquisition and Development (OSLAD)

More than $125.3 million has been awarded to nearly 800 local park projects since the OSLAD program began in 1986. OSLAD funds are used to provide competitive grants for projects such as parks, outdoor recreation facilities, and urban forests. The program is funded by a dedicated percentage of the state real estate transfer tax. Maximum grant awards are $750,000 for acquisition and $400,000 for development projects and a local match is required. Written applications must be submitted to the IDNR between May 1 and July 1 of each calendar year, with grant awards typically announced by December or January. Only those local government agencies having statutory authority to acquire and develop land for public park purposes are eligible to apply for and receive assistance under the OSLAD grant program.

Snowmobile Grant Program

The state-funded Snowmobile Grant Program for local governments is financed from the registration fees of snowmobiles and provides up to 50 percent reimbursement of approved facility development/rehabilitation costs and 90 percent of approved trail corridor land acquisition costs for public snowmobile trails and areas in the state. This program is available to any unit of local government located in a region of Illinois with sufficient snow cover and having statutory authority to acquire and develop lands for public park and recreation purposes.

Applications for grant assistance must be received by the IDNR by May 1 of each calendar year. Grants are competitively awarded and typically announced by early fall of each year. Examples of eligible projects include:

- Land acquisition for snowmobile areas/ trail corridors
- Snowmobile trail construction and signage
- Trail grooming equipment
- Parking areas, security lighting, restroom facilities, and warming shelters
- Snowmobiles and communication equipment for local agency patrol use

Snowmobile Trail Establishment Fund Program (STEF)

The Snowmobile Trail Establishment Fund (STEF) Program provides financial assistance to incorporated, private snowmobile clubs in Illinois. The STEF Program provides reimbursement funding assistance up to 100 percent of eligible project costs.

Funds for the program come from a portion of snowmobile registration fees collected by the state. Grants may be obtained by local snowmobile clubs to develop and maintain additional public trails and facilities in the state. Although grants are made to private clubs, STEF-assisted snowmobile trails and facilities must be open and available for general public use.

Applications for grant assistance must be submitted to the IDNR no later than May 1 of each calendar year. Applications are evaluated for funding consideration according to program priorities and criteria established by the Department with grant awards typically announced by early fall.

Grant assistance may be obtained for the following:

- Trail development costs including clearing, grading, and surfacing
- Trail signs and fencing
- Trail groomers
- Bridges or fence traversing ramps (must be portable)
- Parking facilities and warming shelters/restrooms (must be located on public park land)

Federal Funding Sources

Rivers, Trail and Conservation Assistance

Provides staff assistance to partnerships between governments and citizens designed to increase the number of trails. Funds are used to develop new trails and greenways, protect and restore river resources, convert abandoned railways to trails, and conserve open space. The National Park Service administers this program.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)/ Transportation Equity Act for the 21st Century (TEA-21)

These programs provided eligibility for pedestrian and bicycle transportation facilities, including trails. New legislation, titled the Safe, Accountable, Flexible and Efficient Transportation Equity Act of 2003 (SAFETEA) should continue to provide funding for such projects. The logistics and funding levels are still being determined at the time of this writing. This program is administered by the U.S. Department of Transportation.

Surface Transportation Program (STP)

This program provides funding for all types of transportation projects, including pedestrian and bicycle facilities. There are two (2) types of funding programs available under STP:

- Safety programs include railway-highway crossing projects and hazard elimination.
- Transportation enhancement programs include pedestrian and bicycle facilities, education programs, landscaping, and historic preservation projects, among others.

This program is funded by the U.S. Department of Transportation and administered by the Illinois Department of Transportation.

Implementation Strategies

To implement the greenway and trail acquisitions, management and funding strategies identified in this report, specific strategies are needed to ensure success. Examples include:

- Implement land management and maintenance practices using native landscape management techniques (see Illinois Association of Conservation and Forest Preserve Districts Natural Resource Management Recommendations, 1998)
- Create Volunteer Stewardship Programs and volunteer groups to assist public and private stakeholders in conservation work.
- Gather citizen support for responsible land acquisition initiatives.
- Follow ordinances that some cities in DeKalb County have created, such as Sycamore and DeKalb, to require developers to have green corridor connections within their developments and encourage other municipalities to adopt such ordinances.
- Other communities should be encouraged to adopt ordinances similar to the Sycamore/Genoa/DeKalb County intergovernmental boundary line example and create their own greenways around development limits.

Volunteers collecting seed at Afton Forest Preserve.

- Follow examples of other successful land acquisition/easements and trail/greenway projects in DeKalb County, including:
  - DeKalb/Sycamore Trail Project
  - Potawatomi Forest Preserve Land Acquisition
  - Clear Water Legacy (private greenway project described elsewhere in this plan)
- Enhance existing private lands:
  - Promote naturalized plantings in private yards and flower gardens
  - Promote private stewardship of important natural areas on private property
  - Promote installation and maintenance of riparian strips and buffers along streams and rivers, naturalized drainage swales, etc.
  - Promote larger scale reforestation or prairie restoration on private lands, at appropriate locations, to restore the natural ecology of various areas in the County
  - Protect all wetlands and prohibit off-site mitigation
  - Require developers to provide management plans for on-site ecological management areas
  - Protect existing wooded areas
  - Require developers to set aside fragile natural areas, in addition to their recreational park dedication requirements
- Enhance existing and acquire new public lands:
  - Protect existing natural areas located on adjacent properties as much as possible
  - Provide linkages between facilities, through pathways, nature corridors, etc.
  - Acquire through private donation, developer donation, grants, impact fees, or other means:
    - Wetlands
    - Wildlife corridors
    - Railroad or other transportation corridors
    - Former railroad beds
    - Floodplains
    - Land adjacent to the Kishwaukee River
    - Endangered species habitats
  - Enhance existing public lands that are not fully utilized by planting with wetlands, prairie or woodlands as may be appropriate for the location:
    - Vacant railroad right of ways
    - Utility right of ways
    - Railroads, roadsides, and ditches
    - Other transportation corridors

Hikers at the trailhead.

- Recognize different habitat preservation areas may have different intended uses. A biking trail may have small areas of prairie restoration located along the trail, while a large prairie restoration project may be preserved as a natural area where general public access is isolated or prohibited.
- Recognize that different uses may have different needs. Canoeing, biking paths, pedestrian hiking trails, and equestrian trails require different levels of improvements and have differing impacts upon the surrounding habitat.

Winter trail.

- Integrate multiple uses with habitat preservation, where appropriate:
  - Forests
  - Wetlands
  - Corridors (connecting linkages and wildlife corridors)
  - Greenways
  - Equestrian trails
  - Walking
  - Biking
  - Wildlife
  - Recreation (in-line skating, skateboarding, etc.)
  - Floodplains (do not allow paving near the river)
  - Water trails
  - Endangered species habitat
  - Streams
  - Other natural features

Picnickers at Afton Forest Preserve.

- Encourage private landowner conservation practices, including the use of Conservation Reserve Program riparian buffers, filter strips, erosion control measures, tree planting, and other similar techniques. For example, KREP has estimated that approximately 8,500 acres of cropland within the floodplain of the Kishwaukee River Watershed is eligible for Conservation Reserve Program if enrolled as a Riparian Forest Buffer.

Private land riparian buffer. Note the vegetated buffer between the farmland and the stream.

- Follow DeKalb County Soil and Water Conservation District management practices that are available to private and public landowners through their cost-share programs. Examples of these programs include:

Federal Cost Share Programs

- Conservation Reserve Program (CRP)
- Conservation Reserve Enhancement Program (CREP)
- Environmental Quality Incentives Program (EQIP)
- Forestry Incentives Program (FIP)
- Stewardship Incentives Program (SIP)
- Wetlands Reserve Program (WRP)
- Wildlife Habitat Incentives Program (WHIP)

State Cost Share Programs

- Conservation Practices Program (CPP)
- Tax Incentive Filter Strip Program
- Illinois Water Well Abandonment Practice (IWWAP)
- Nutrient Management Plan Practice

Local Cost Share Programs

- Habitat Restoration Program for the Fox and Kishwaukee River Watershed