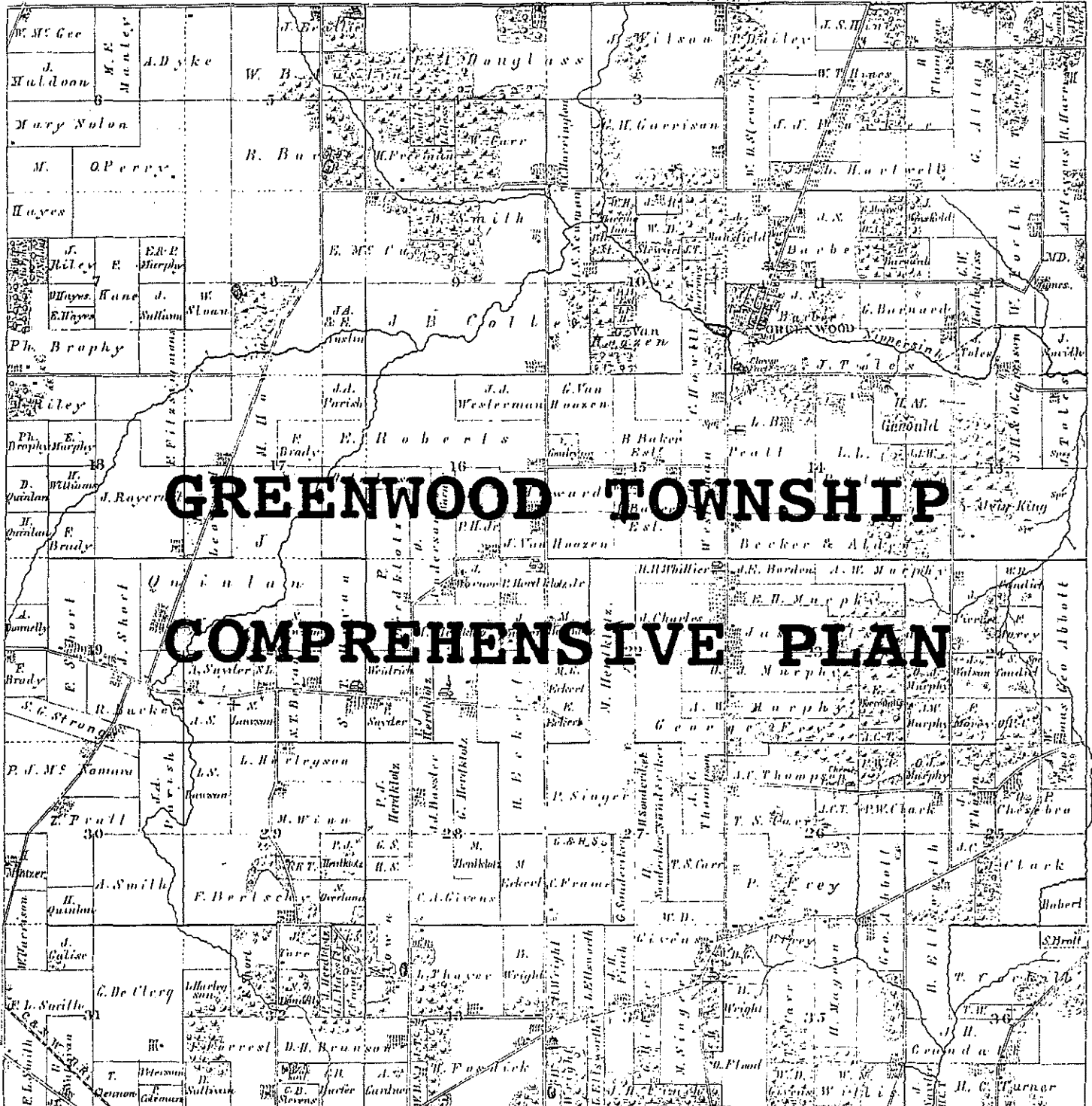


MAP OF GREENWOOD TOWNSHIP

TOWN 45 N. RANGE 7 E.



Drawn and compiled by C. Smith

HISTORICAL.

This is one of the finest agricultural townships in McHenry County, and in point of improvement and wealth compares favorably with others of the county. The timber is well distributed over the township. Being well watered, it is adapted to stock raising, and many of the leading farmers are turning their attention in that direction. Considerable cheese and butter are manufactured. The earliest settlement of which we can learn anything definite was in 1837, by James Watson and Franklin Griffing, from New York. In 1838 quite a number moved into the township, among which we might name Jacob Eckert, Wm. Girvin, Andrew Murphy, and O. J. Murphy.

GREENWOOD TOWNSHIP COMPREHENSIVE PLAN

Prepared by the
GREENWOOD TOWNSHIP PLAN COMMISSION
MCHENRY COUNTY, ILLINOIS

Final Draft
October 14, 1996

GREENWOOD TOWNSHIP COMPREHENSIVE PLAN

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GREENWOOD TOWNSHIP COMPREHENSIVE PLAN

The overall goal of this plan is to protect the rural character of Greenwood Township.

"Rural" = room, space; having to do with farming or agriculture.

TOWNSHIP AUTHORITY FOR PLANNING

Recent enabling legislation permits a township in the State of Illinois to prepare and adopt a Comprehensive Plan. Under Chapter 139, Section 126.27 of the Illinois Compiled Statutes, a township board was authorized to create a township plan commission. One of the powers that may be conferred on the commission pursuant to 60 ILCS 1/105-35 is the preparation and recommendation to the Board of "a comprehensive plan for the present and future development or redevelopment of the unincorporated areas of the township." Greenwood Township adopted a resolution creating a Township Plan Commission on November 8, 1993, which was given responsibility for the preparation and implementation of a Comprehensive Plan for adoption by the Township Board. This plan is prepared pursuant to that resolution.

The 1994 McHenry County Zoning Ordinance provides that any amendment to the county's zoning map must be passed by three-fourth (3/4) of the members of the County Board, "If a township plan commission objects to a text or map amendment affecting an unincorporated area of the township and the township board of trustees submits its written objection to the County Board within thirty days after the Zoning Board of Appeals hearing." (Sec. 807.3(4)). This ordinance gives the township plan significant weight in making land use decisions in unincorporated areas of the county.

This comprehensive plan should be continually reviewed, and should be formally updated every five years.

Greenwood Township Planning Commission
5211 Miller Road
Wonder Lake, Illinois 60097
(815) 648-4653

PLANNING BACKGROUND AND POLICIES

This Comprehensive Plan for Greenwood Township has been created with the recognition of both the township's past and future. Greenwood Township has a rich agricultural history, many important natural resources, and a strong sense of community. The path to its future is open, and will largely be determined by the current residents.

Rather than proscribe the location of future development in the township, this plan describes the agricultural, historical, and economic context in which decisions about future development should be made. The intent of this plan is to give some shape and direction to that future, so that these decisions can be as well informed as possible.

A comprehensive plan is a dynamic, living thing and thus should be periodically reviewed and updated. The commission recognizes this fundamental, and has prepared this document based thereon.

Determining goals and objectives is one of the first steps in developing a Comprehensive Plan. Goals are usually expressed in broad statements which deal with topics such as the local economy, agriculture and farmland, commerce and industry, environment and natural resources, transportation, utilities, urban development and land use and zoning. Objectives are usually more specific projects, programs or accomplishments which need to be achieved, implemented or initiated to pursue the stated goal. Objectives relate more specifically to local perceptions of the best way to serve the public interest by preserving, maintaining and improving living conditions at the local level. Toward this end, the objectives assist local evaluations of conditions and needs as they relate to the attainment of the stated goals of the Comprehensive Plan.

Protecting the rural character of Greenwood Township is the broad overall goal of this plan.

This will be accomplished by:

- Respecting the lay of the land in all planning decisions;
- Enhancing the diversity and stability of agriculture;
- Protecting important agricultural lands;
- Protecting and enhancing natural resources;
- Preserving significant historic and cultural resources;
- Requiring safe and compatible mining operations;
- Permitting limited, creative and responsible siting and design of residential development;
- Encouraging economic development that is balanced and efficient;
- Protecting public utilities from encroachment;
- Monitoring and protecting drainage ways;

- Analyzing the fiscal impact of all planning decisions;
- Reviewing all proposed zoning and land use changes to insure compatibility with this Comprehensive Plan; and
- Promoting open communication with other public and private entities, and with all township residents.

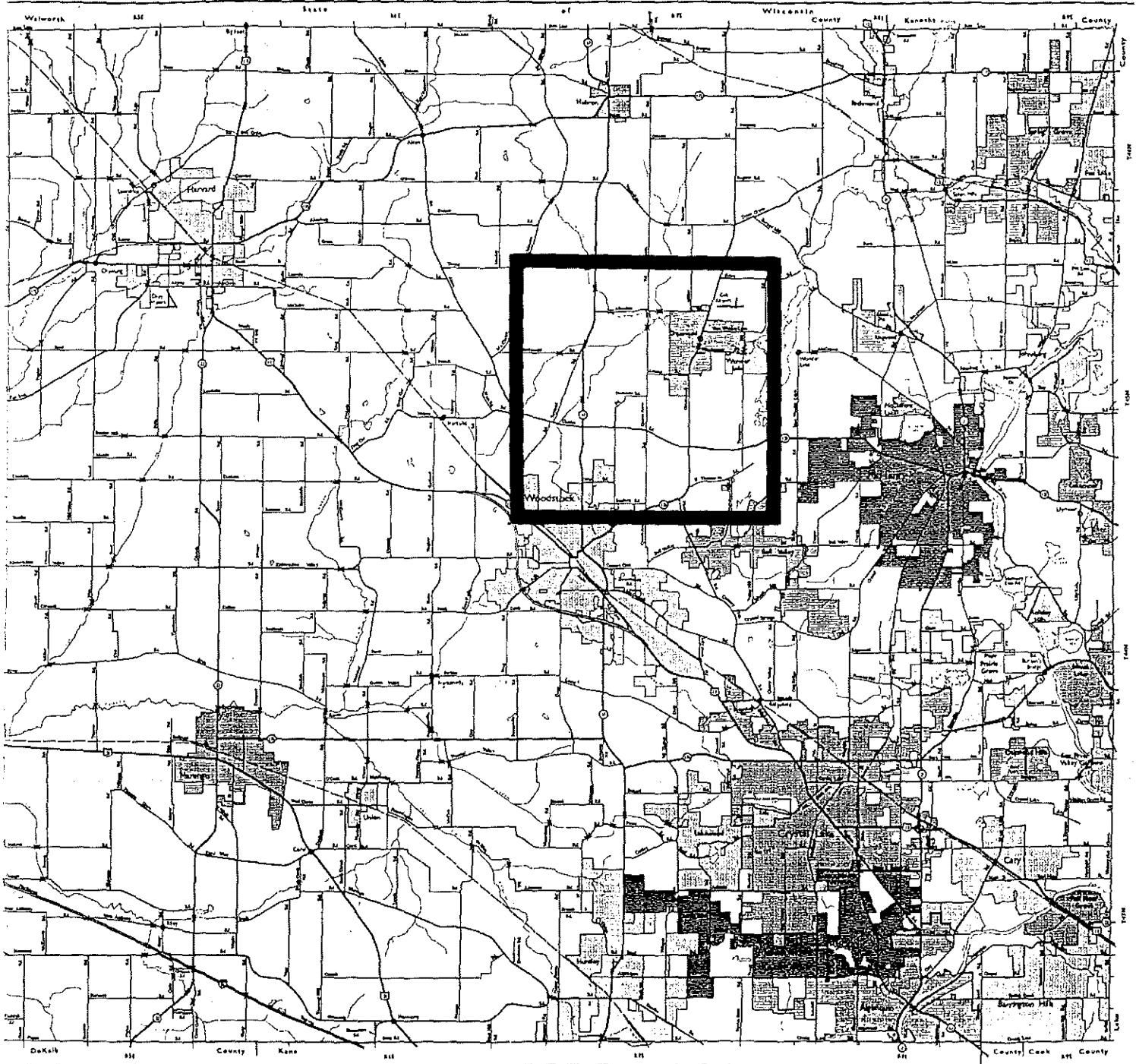


Figure 1 - Location of Greenwood Township in McHenry County, IL.

PLANNING WITH THE LAND

Greenwood Township lies near the center of McHenry County in a broad valley bounded on the south, west and east by rolling glacial ridges (figure 1). Residential development is mostly confined to the higher ground, while row-crop agriculture predominates between the ridges.

The low ground was once very wet until drainage activities lowered the water table and allowed cultivation of the land. These soils are now some of the most productive cropland in the Midwest. The township also supports a number of nurseries, vegetable growers, livestock and game farms, and specialty crops. These add to the diversity and economic value of agricultural activities in the township.

Although only 36 square miles in size, Greenwood Township contains within its borders some very significant natural areas, wetlands, and aquatic ecosystems. Nippersink Creek and its tributaries cut from west to east across the township (figure 2). This high-quality, spring-fed creek flows into Wonder Lake, an artificial impoundment formed in the creek valley that is a major recreational resource for the people who live around the lake. Streams in the southeast corner of the township drain into an artificial impoundment in the Bull Valley Hunt Club, formed by a dam on Boone Creek. Another shallow lake is located in the southwest corner of the township in the headwaters of Silver Creek. Both shallow lakes are important sites for migratory waterfowl, sandhill cranes, swans, and other birds. Silver Creek serves as the outlet ditch for the Greenwood Drainage District.

This plan adopts several general planning policies based upon the need to protect the natural resources of the township:

- The natural resources and physical features of Greenwood Township should be given primary consideration in planning decisions. Ideally, the lay of the land should be respected when making changes to the built environment.

- This plan acknowledges the importance of evaluating the impact of development on natural resources, and the potential effect one land use may have on the resources of adjacent properties and of the area as a whole.

- The Greenwood Township Plan will utilize the definitions and priorities of the McHenry County Land Use Plan: Year 2010 Update in defining and determining locations of natural resources. It will also incorporate and make use of subsequent studies and data as they are made available.

- Water is perhaps our most vital resource, and its quality must be protected. When reviewing any proposed land use change, every

attempt will be made to anticipate the effect of development on the area's groundwater resources and on the flow of surface water in developed and non-developed areas.

Much of the southern half of the township is artificially drained, and has severe limitations for development because of the high water table.

The 1994 study by the Illinois State Geological Survey, entitled "Geologic Aspects of a Groundwater Protection Needs Assessment for Woodstock, Illinois: A Case Study", provides a detailed analysis of existing groundwater resources in much of Greenwood Township. This document will be used as a defining source when determining the location and vulnerability of ground water resources.

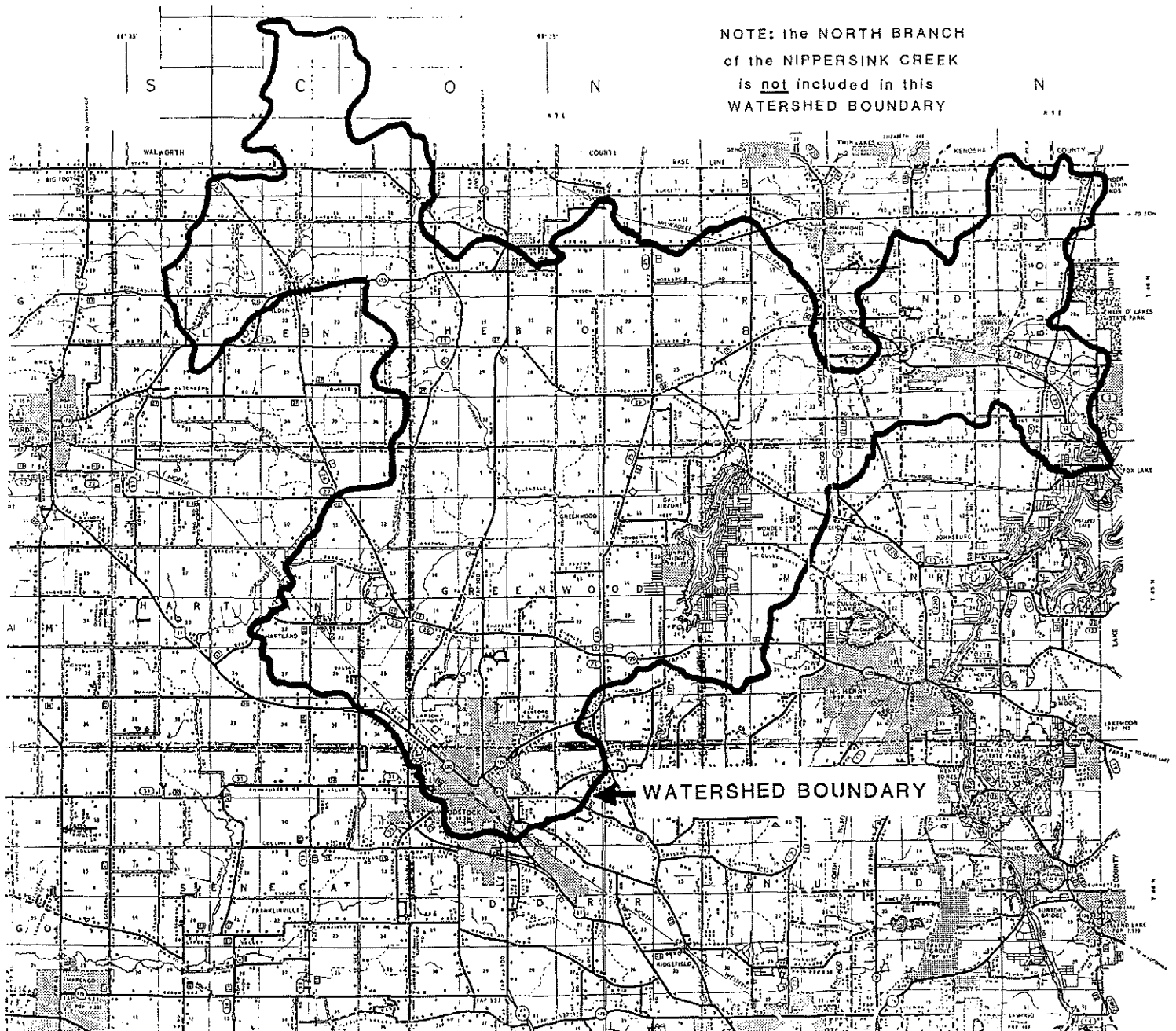
Because water is mobile, decisions affecting ground water in the Township are likely to affect other areas. To ensure the continued quality of drinking water in Greenwood Township and surrounding areas, each new development proposal should be evaluated for its potential effect on groundwater.

Since a good portion of Greenwood Township residences are currently on well and septic, the opportunities to protect groundwater are limited. To encourage individual awareness of the importance of protecting water supplies, the Township should make sure that pertinent information is accessible to Township residents.

There are a number of existing programs which, if well-utilized, could help to anticipate and head-off future water problems. For example: The McHenry County Department of Health has established a water sample drop-off program, which allows private well owners to have their water analyzed for bacteria and nitrates. Greenwood Township should participate in this program as a drop-off site, and should encourage Township residents to have their well water analyzed.

In addition, there is a wealth of printed information available through various County, State, and Federal agencies. The township should maintain an inventory of this material, and should actively encourage people to educate themselves.

Figure 2. Nippersink Creek Watershed



HISTORY OF GREENWOOD TOWNSHIP

Greenwood Township was organized in 1850. According to the 1885 *History of McHenry County*,

"Greenwood Township, (like most of the townships of McHenry County) cannot be excelled for rich soil and surface features. No pleasanter landscape was ever beheld than is presented to the eye of the person riding over the township of Greenwood."

Henry Weston was the first white man to settle in the township, in 1833. At that time, most of the township was covered by prairie. After settlement, this prairie was named Queen Anne Prairie, in honor of Miss Ann McQuinn, the sister of Weston's wife, and first white woman in the township, who accompanied him to the area. She is buried in the Greenwood Cemetery.

Matthew Howard came from Ireland to settle on wooded land along Nippersink Creek in 1838. The area became known as "Howard's Grove". In 1847 he purchased a piece of prairie that was never plowed. This land was passed on to his son James, who died in 1921, and then his son Clarence, who sold it to the Bystricky family, who still own it. One of only a few remnants of blacksoil prairie left in Illinois, the land has been dedicated as an Illinois Nature Preserve.

The township contains four cemeteries: The Greenwood Cemetery, on Greenwood Road, was the first in the township, and is still in use. The Scandinavian Cemetery is on Charles Road, west of Route 47. The Fairview Cemetery on Route 120 abuts the Givens farm, one of the early farmsteads in the township. Queen Anne-Eckert Cemetery on Queen Anne Road, has been designated a county conservation area (figure 3).

Queen Anne Prairie-Eckert Cemetery-1839, located at 2335 North Queen Anne Road, Woodstock, was first settled by Thomas Safford in September of 1839. He sold this portion of his 160 acres to Jacob Eckert in May of 1852. It was the reservation of this one-acre plot as a cemetery by the Eckert and Herdklotz families that saved it from the plow and preserved it as natural prairie. The McHenry County Conservation District maintains the plot as a small remnant of the prairie that once covered more than half of Illinois. (from *History of McHenry County*)

Historical accounts also mention a Norwegian cemetery, located somewhere in the middle of the township. This cemetery was evidently located behind a once-active Norwegian church of which there remains no trace.

An early settlement, called Ostend, was located near the intersections of Route 120 and Thompson Road in the southeast

corner of the township. A post office was established on the farm on Hogback Road owned by George Abbott on February 3, 1846. When Abbott sold the land in December 1852, the post office was moved to McHenry Township opposite what was to become Ostend's brick school. In a few years the settlement disappeared.

Historically the village of Greenwood was the commercial center of the township. The village was laid out in lots in 1842 by Job Toles, but the plat was never registered. Finally, an addition platted in 1845 went on the county record books. In 1845 C.M. Goodsell opened the first store in the village (figure 4). The store also served as a hotel, and post office. The first school was built in the village in 1845. By 1885 the village had a church, a blacksmith, carpenter, butter and cheese maker, wagon manufacturing company, a lumberyard, flour mill, and a lawyer, doctor, and veterinarian. On April 4, 1995, the residents passed a referendum to incorporate as the Village of Greenwood, with the purpose of providing greater protection for the unique community.

A resort community grew up on the west side of Wonder Lake after it was created by damming the Nippersink Creek in 1929. Sunrise Ridge, a subdivision on the west side of the lake, incorporated as a village on November 23, 1974, and became the Village of Wonder Lake.

The McHenry County Historical Society has designated four historic landmarks in the township:

- | | |
|---|------|
| 1. Greenwood School, 4617 Greenwood Road | 1859 |
| 2. L.B. Peatt Home, 3920 Greenwood Road | 1862 |
| 3. Greenwood Town Hall, 4314 Greenwood Road | 1887 |
| 4. Windhill Farm, Greenwood Road | 1850 |

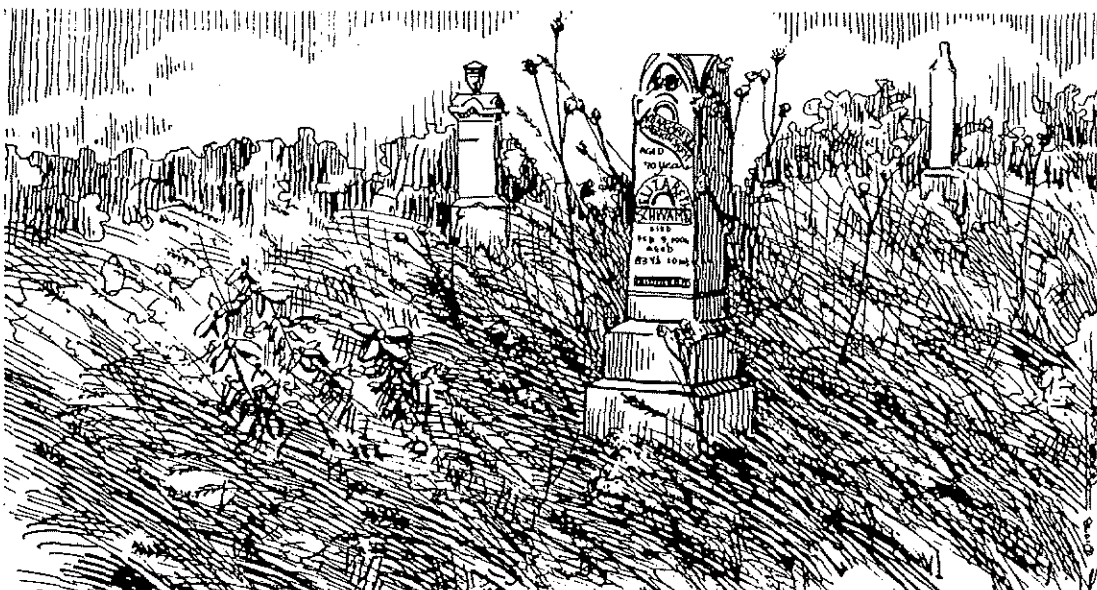
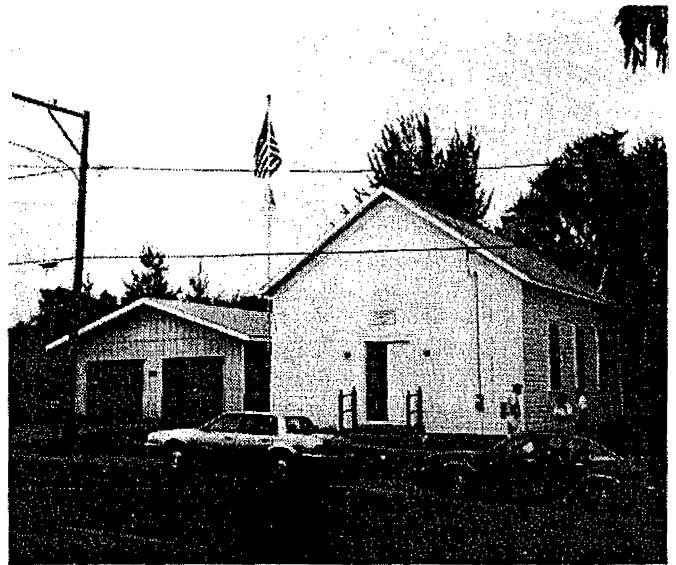


Figure 3. Queen Anne Prairie-Eckert Cemetery

FIGURE 4



Greenwood General Store—1894, at 4409 Greenwood Road, Greenwood, Illinois. The Greenwood General Store was built by Will Westerman in 1894. Elmer Westerman, his son, operated the business after his father. Subsequent owners were Frank Rawson, John Harrison and Glen Harrison.



Old Greenwood Township Hall plaqued in 1987 by the McHenry County Historical Society.

GREENWOOD TOWNSHIP TODAY

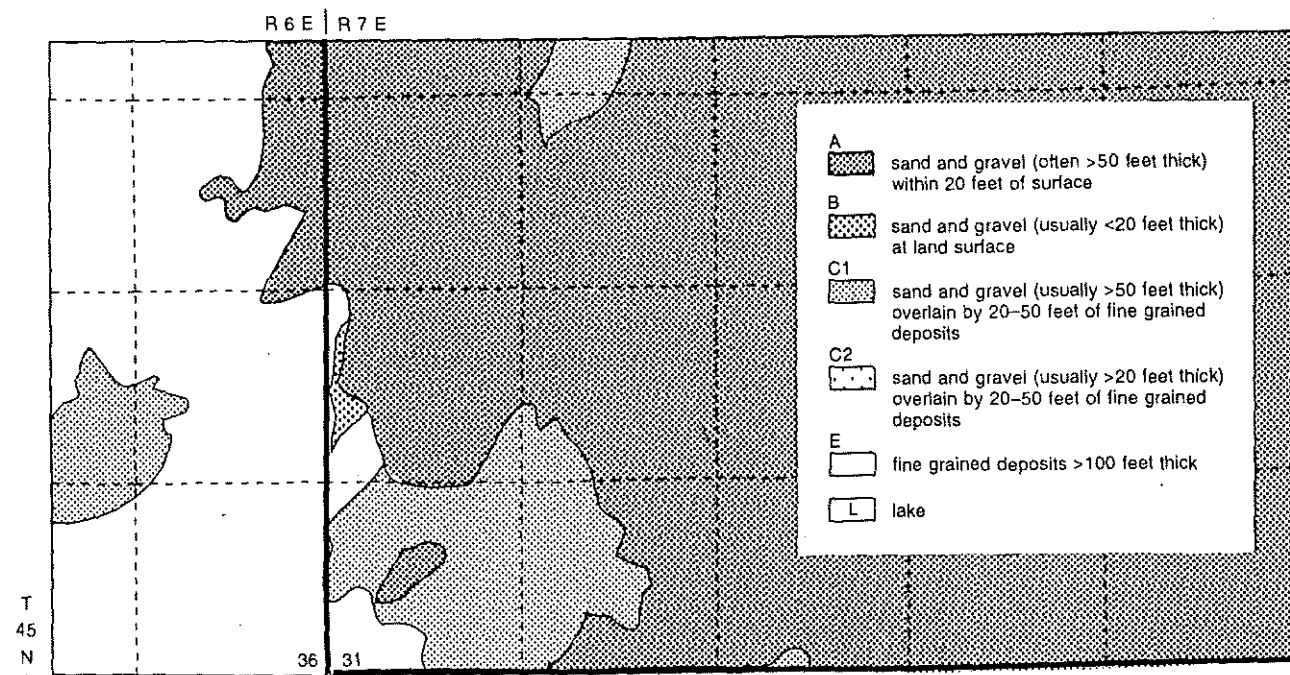
LAND USE IN GREENWOOD TOWNSHIP

Today, most of the land in unincorporated Greenwood Township is still being used for agricultural purposes. But, the township is changing as McHenry County grows.

Expansion of commercial and residential development from Woodstock and Wonder Lake into the rural areas of the township is expected as McHenry County continues to be one of the fastest growing areas of the region. At the same time there are increasing demands for rural residential development in the township as more people can afford to own a "place in the country." Demand for houses on larger lots has stimulated several estate developments, like Crestview Estates on the west side of the township and Thoroughbred Estates on the west side of Greenwood Road.

Underlying the farms and subdivisions is a vast sand and gravel aquifer that provides the drinking water for everyone in the township. This aquifer (figure 5) is extremely vulnerable to contamination by septic systems, fertilizers and pesticides, road salt, oil and other chemicals used by government, industry, businesses and homeowners, or stored in underground tanks. Protecting the groundwater resource is a primary consideration in developing this plan.

Figure 5. Aquifer contamination potential map of part of Greenwood Township (source IL. State Geological Survey, 1994)



Mining of gravel, topsoil and peat has taken place in the township in the past, but there are currently no active mines registered with the county. The potential for conflicts between mining and other land uses exists in the township, and all mining proposals should be carefully evaluated. There are a number of abandoned borrow pits in the township that should be reclaimed.

A major high-pressure oil pipeline cuts across the township (figure 6). The pipeline is more than thirty years old. It carries crude oil from Canada to refineries south of Chicago. The pipeline presents a potential safety and environmental hazard that must be considered in future development plans. There are two natural gas pipelines traversing the township, and other public utility lines criss-cross the township.

The township is crossed by two major highways and several important county roads (figure 7). Illinois Route 47, a State highway, runs north-south through the western half of the township, and Illinois Route 120 cuts through the southeastern corner, connecting the cities of McHenry and Woodstock. Greenwood Road provides a major north-south route through the eastern half of the township, and Charles Road serves as an east-west connector between Rt 120 and Rt. 47. The Illinois Department of Transportation plans to widen Routes 120 and 47 at some time in the future.

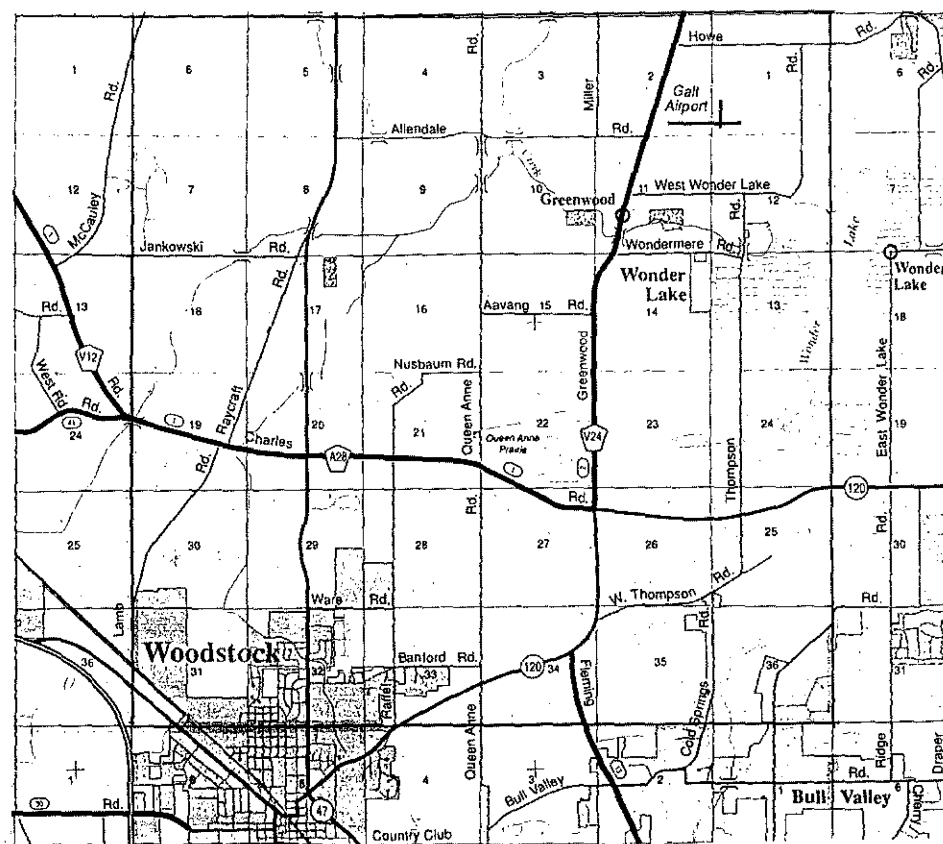
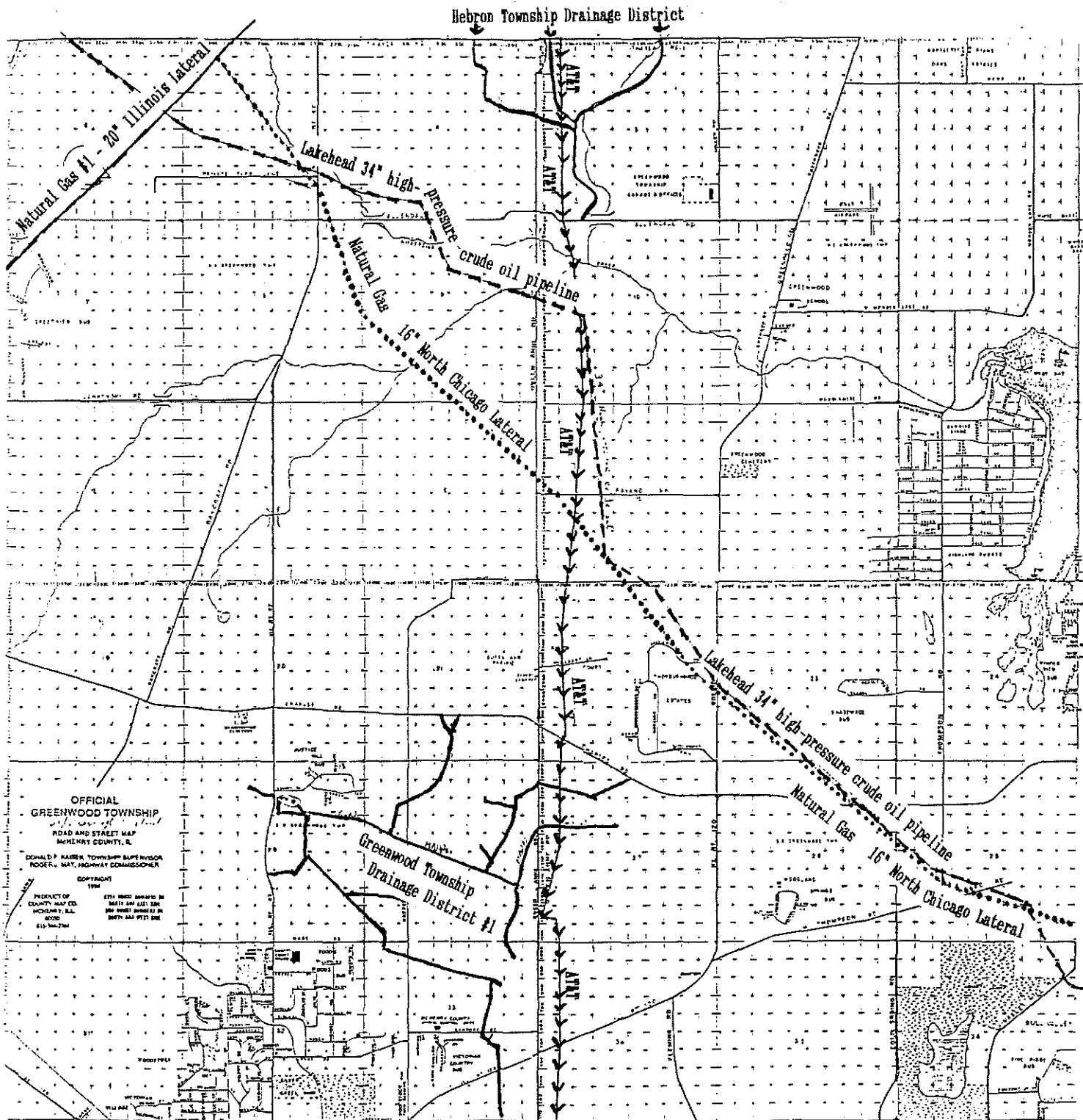


Figure 7. Highway map of Greenwood Township

Figure 6. Underground Utilities in Greenwood Township



Utility locations are approximate. For exact locations, please refer to the official map of the utility concerned.

AGRICULTURE IN GREENWOOD TOWNSHIP

Since the establishment of Greenwood Township in 1850, agriculture has been the Township's primary land use. Early records indicate a large number of sizable farms operated by individual landowners. (see plat maps included in the appendix.)

Recent trends in the Township and elsewhere in the County appear to indicate smaller numbers of family-owned farms and larger numbers of non-farm owners of cropland that is rented.

Statistical information gathering differs among the Federal, State, and County departments, so it is difficult to obtain accurate information on past agriculture trends in the Township. However, a system employed in 1995 should provide accurate comparisons for the future. According to the McHenry County Department of Planning and Development, Assessor's data for Greenwood Township indicates the following statistics for calendar year 1995 (the Township may use these statistics as a base year for future comparison):

<u>No. of Acres</u>	<u>Agricultural Use</u>
13,764.97	Cropland
1,334.11	Permanent pasture
2,261.81	All other farmland
106.89	Farm home sites
<u>384.96</u>	Wasteland/no value
17,852.74	

One Agricultural Protection Area has been designated by the McHenry County Board in the township. (figure 8) Agricultural Protection Areas are allowed by Chapter 505 ILCS 5/1. They must be at least 350 acres in size and consist of farmland which is contiguous and as compact as possible. The designation protects the area initially for 10 years and is reviewed every 8 years after that.

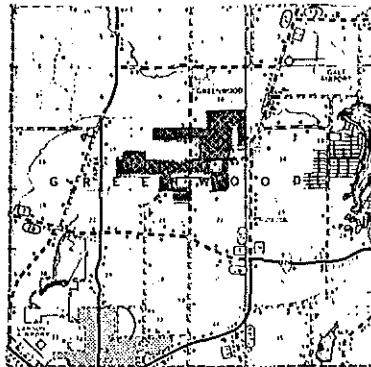


Figure 8. Agricultural Protection Areas in Greenwood Township

RECENT GROWTH IN GREENWOOD TOWNSHIP

Recent census figures indicate significant population increases in the recent past, and census forecasts anticipate continued growth:

POPULATION GROWTH OF GREENWOOD TOWNSHIP

1960 census figure =	3,067
1970 census figure =	4,777 (+36%)
1980 census figure =	6,965 (+31%)
1990 census figure =	8,317 (+16%)
2010 NIPC forecast =	11,000 (+24%)

Source: Yearbook, McHenry Co., IL 1995-1996

There are four municipalities within or partially within the Township: the City of Woodstock (population 16,137), the Village of Bull Valley (population 574), the Village of Wonder Lake (population 1,024), and the Village of Greenwood (population 224). A fifth municipality -- the Village of Barnard Mill -- was incorporated briefly in 1995, but was dissolved in a subsequent referendum.

Greenwood Township is experiencing various rates of growth pressure from each of these municipalities. Of the four, only the City of Woodstock currently has municipal sewer and water capability, which typically facilitates higher-density development.

Since 1990, Woodstock has annexed fewer than 20 acres of land in Greenwood Township. However, one Woodstock subdivision (Victorian Country) is currently building on previously-annexed land, and a second subdivision (Settlers' Home Estates) was recently approved for 139 acres of previously annexed land.

The Village of Bull Valley presently requires a minimum of five acres for residential lots. A recent contested annexation by Bull Valley affects a small portion of the Township's southern edge. This annexation is presently in litigation and its status is undetermined at this point.

The Village of Wonder Lake has shown recent activity in annexation and development within the Township, and is currently working on a new Comprehensive Plan. From 1990 - 1995, Wonder Lake annexed just over one acre of land within the Township. So far in 1996, Wonder Lake has annexed an additional 178+/- acres for a subdivision abutting the new Village of Greenwood.

Additional building is occurring on previously annexed land in Wonder Lake.

Incorporation of the Village of Greenwood resulted in an initial 1,494 acres in the village. Since then, some of the land has been de-annexed. The Village of Greenwood is presently completing its first Comprehensive Plan. In the McHenry County Land Use Plan/Year 2010 Update, the Village of Greenwood is designated as a "Unique Area". By definition in that plan, a unique area is agricultural - rural and is not destined to become a major node of development. It is characterized as an area lacking transportation arteries and commercial resources. The McHenry County Plan indicates that "Unique Areas" should allow development "only when it will not interfere with the active or potential use of such areas for efficient agricultural production. Development should be allowed only if it places minimal demands on services." (p. 31, McHenry County Land Use Plan, Year 2010 Update). The Greenwood Township Comprehensive Plan supports this designation.

RESIDENTIAL DEVELOPMENT IN UNINCORPORATED GREENWOOD TOWNSHIP

McHenry County statistics from Spring, 1991 indicate the following vacant parcels in Greenwood Township. These parcels represent potential new residences.

- 103 Undeveloped 5-10 acre parcels
- 9 Vacant, platted LOW DENSITY subdivision lots
- 142 Vacant, platted MEDIUM DENSITY subdivision lots
- 13 Vacant, platted HIGH DENSITY subdivision lots

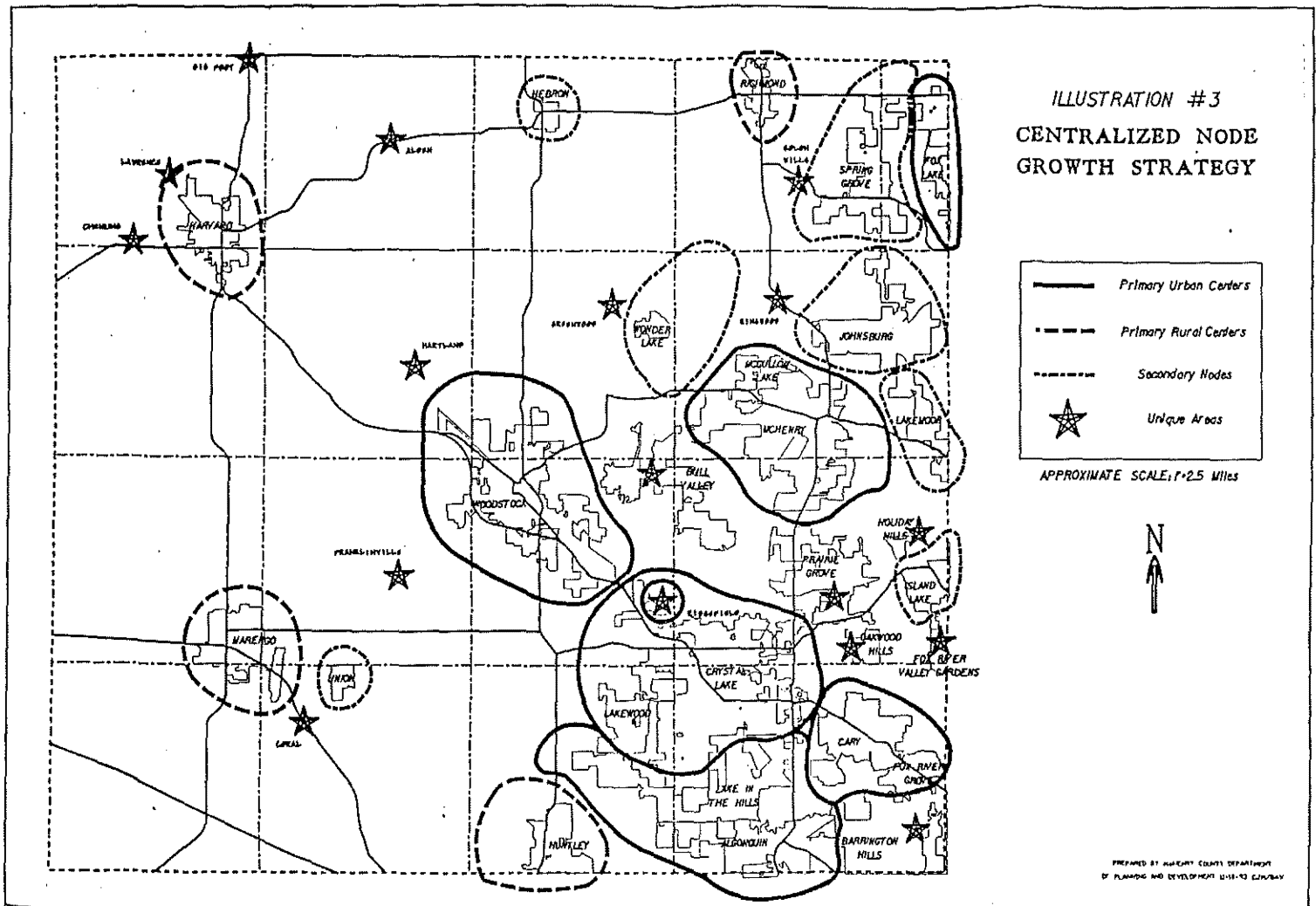
267 Total vacant parcels in unincorporated area of township

Most of the unincorporated land in Greenwood Township is zoned for agricultural use. The McHenry County Year 2010 Land Use Plan envisions that most of the southwest quadrant of the township will become commercial and residential as Woodstock expands to the north, and the southeast and northeast quadrants will become residential as Wonder Lake and Bull Valley expand. The northwest quadrant will remain agricultural, except for expansion of estate development on the western edge along McCauley Road. The Northeastern Illinois Planning Commission has designated a large part of the township as an "Agricultural Protection Area" in its guidelines for review of amendments to Facility Planning Areas (figure 9).

The McHenry County Land Use Plan/Year 2010 Update operates using the "Centralized Node Concept." (figure 10) This identifies three

basic classifications of growth areas where adjacent development should occur: Primary Centers (Woodstock), Secondary Nodes (Wonder Lake), and Unique Areas (Greenwood). It also promotes contiguous, compact development. This concept is recognized by the Greenwood Township Comprehensive Plan.

Figure 10. Centralized Node Growth Strategy



PLANNING GOALS AND OBJECTIVES

Township goals and objectives should be established as a response to local needs and should represent widely accepted, well recognized desires for a better community for both urban and rural constituents.

Goals and objectives are often interrelated and will often interact with each other. Some goals reflect immediate solutions and require the same type of action. Other goals may involve a future action and these may require long-range, perhaps "visionary" solutions. Goals should always be evaluated, approved and enacted within the larger context of the commonly understood needs of the local residents.

The goals reflect a current evaluation of existing needs of Greenwood Township, which will be accomplished by attaining the objectives appended to each goal. In the current dynamic development of McHenry County, it should be recognized that the objectives may shift rather quickly. Hopefully, the goals will remain more constant.

Ten separate goals and sets of objectives have been adopted for:

1. Agricultural Uses
2. Natural Resources
3. Historical and Cultural Resources
4. Extractive Uses
5. Residential Development
6. Economic Development
7. Transportation and Public Utilities
8. Drainage Systems
9. Fiscal Responsibility
10. Intergovernmental Cooperation

The specific goals and objectives are described on the following pages.

GOAL 1 - AGRICULTURAL USES

Maintain a wide variety of agricultural uses within the Township, and avoid conflicts between agriculture and other potential uses of the land.

- Objective: Foster a better understanding of the significant role that agriculture has played in the history of the Township and should play in the future.
- Objective: Promote a better understanding of the great value of agriculture and agribusiness to the local, State, national and world economies.
- Objective: Encourage and facilitate the formation of more Agricultural Protection Areas as defined by Illinois law.
- Objective: Work with local farmers to provide information and assistance for those who wish to continue or begin farming, or want to ensure that their land remains in agricultural use.
- Objective: Encourage and facilitate registry of intensive agricultural uses with the County.
- Objective: Develop a farmland preservation plan for the township in order to preserve agricultural land and prevent inappropriate development.
- Objective: Give priority to existing agricultural uses when considering potential conflicts with proposed land use changes.
- Objective: *Use the Land Evaluation and Site Assessment (LESA) system to determine the suitability of proposed land use changes in agricultural areas of the township.*

GOAL 2 - NATURAL RESOURCES

Protect and restore prime agricultural soils, groundwater, wetlands, woodlands, natural areas, fish and wildlife habitat, threatened and endangered species, and the water quality of the Township's rivers, lakes and streams.

- Objective: Conserve prime agricultural soils so that this natural resource will not be lost due to erosion or development.
- Objective: Recognize the importance of County, State and Federal agencies that provide consultation and advisory services on the suitability of soils for a wide variety of uses, and encourage the utilization of these information resources.
- Objective: Request that the McHenry County Health Department require groundwater impact studies for any proposed subdivisions overlying vulnerable aquifers in the township.
- Objective: Work with landowners to preserve natural areas steep slopes, woodlands, or wetlands that provide wildlife habitat and add interest and natural beauty to the environment.
- Objective: Support *public and private* efforts to create a *corridor of open space, or "greenway"* along Nippersink Creek and Boone Creek.
- Objective: Work with the McHenry County Health Dept. to develop a groundwater protection plan for the township.
- Objective: Maintain a continually updated map of prime and important agricultural soils in the township.
- Objective: Maintain an inventory of natural areas and high quality aquatic habitats.
- Objective: Request and review Natural Resource Information (NRI) reports *produced by the Soil and Water Conservation District* for all proposed developments in the township.
- Objective: *Use the information from the McHenry County Wetlands Inventory, when completed, to protect wetlands in the township.*

GOAL 3 - HISTORICAL AND CULTURAL FEATURES

Protect historic, archeological, unique and cultural features in the Township, including early settlements, cemeteries, farmsteads, buildings, bridges, woodlots and remnants of native vegetation.

- Objective: Recognize those sites which are currently designated as historically significant.
- Objective: Research and inventory sites and buildings which have historic and/or cultural significance, and work with local agencies to afford relevant protection for those sites.
- Objective: Increase public knowledge of the significance of historic preservation and its impact on the quality of life in the Township.
- Objective: Promote maintenance and rehabilitation of historic areas and sites.
- Objective: Assist in registration procedures for sites which may be potentially designated as historic.
- Objective: Designate all cemeteries in the township older than 50 years as historic sites and assist in their preservation and management.

GOAL 4 - EXTRACTIVE USES

Prevent conflicts between gravel extraction and other mining activities on one hand, and other land uses on the other, and assure that any mined lands are reclaimed for compatible use.

- Objective: Maintain an inventory of active and abandoned gravel pits and gravel mines.
- Objective: Indicate areas of known, unmined deposits of gravel and peat in the township.
- Objective: Insist on enforcement of all reclamation laws and ordinances.
- Objective: Ensure that any township roads used by extraction enterprises are upgraded to County *and Township* standards.
- Objective: *Protect nearby wells, sensitive natural areas and residents from any adverse impacts of mining activities in the township.*
- Objective: Work with the County to clean up and close any abandoned, private mines which may have become dump sites.

GOAL 5 - RESIDENTIAL DEVELOPMENT

Permit limited, creative and responsible residential development on suitable sites that protects the rural character of the township.

- Objective: Review and comment on all *residential* development projects proposed for the unincorporated areas of the Township.
- Objective: Review and comment on all proposed annexations to municipalities within the Township.
- Objective: Where appropriate, work with public and private agencies and landowners to secure agricultural and conservation easements to establish "greenbelts" around and between municipalities in the Township.
- Objective: Encourage the negotiation of intergovernmental boundary agreements between municipalities in the Township.
- Objective: Abide by the NIPC guidelines regarding prime farmland by discouraging extension of public sewers into agricultural protection areas.
- Objective: Discourage the location of residential development in areas where soils are not suitable for roads, streets, or building foundations, and where proper drainage, wastewater disposal systems, water supplies and community services will be threatened or unavailable.
- Objective: Recognize Greenwood Village as an "unique area", as defined by the McHenry County Land Use Plan/Year 2010 update.
- Objective: Continue to explore new methods of preserving the rural environment, such as "countryside zoning," "cluster development," etc.
- Objective: Carefully review any requests for Planned Unit Development (P.U.D.) zoning in the *unincorporated areas of the township* to ensure that approval of such requests will not compromise the overall goals of the Greenwood Township plan.

GOAL 6 - ECONOMIC DEVELOPMENT

Allow commercial, industrial and recreational development within the township that maintains the rural character of the area, diversifies the property tax base, and does not put a burden on township roads or services.

- Objective: Direct new commerce or industry to areas with access to existing municipal services.
- Objective: Recognize the potential of agriculture to make a significant contribution to economic development in the township.
- Objective: Encourage home-based businesses, recreational development, and alternative agricultural enterprises within the township.
- Objective: Allow development of businesses in the township that serve agriculture, or are of an agricultural nature (e.g. nursery centers).
- Objective: *Discourage inappropriate use of signage and lighting in commercial, industrial, and recreational developments within the township.*
- Objective: *Encourage the use of landscaping in all commercial, industrial, and recreational development that is in keeping with the rural setting.*

GOAL 7 - TRANSPORTATION SYSTEMS AND PUBLIC UTILITIES

Maintain the smooth flow of traffic on major arterials and township roads, prevent new highways that encourage premature development, encourage alternative forms of transportation, and monitor public utilities to avoid encroachment of urban uses onto rights-of-way and prevent service interruptions.

Objective: Participate in review and development of the McHenry County Transportation Plan to ensure that it does not conflict with the goals of this plan.

Objective: Cooperate with the Greenwood Township Road District to maintain the integrity of township roads and to uphold District standards for new roads within the township.

Objective: Discourage "strip" commercial development along Illinois Routes 47 and 120.

Objective: Require adequate set-backs from all underground pipelines to prevent damage to the pipe and ensure public safety.

Objective: Develop and maintain a comprehensive listing of all major underground utilities in the township.

Objective: Support the Greenwood Township Road District's enforcement of high standards for construction of roadways and culverts, and protection of roadway easements.

Objective: Encourage the Galt Airport to remain in operation as a general aviation airport for use by light aircraft.

Objective: Promote the designation of "Scenic" or "Rural" roadways in the township and work to retain their rural character.

Objective: Support designation of "bikeways" on township roads.

Objective: Require a traffic impact study for all subdivisions proposed for the unincorporated areas of Greenwood Township.

GOAL 8 - DRAINAGE SYSTEMS

Maintain existing drainage systems and properly manage stormwater to avoid damaging, overloading, or clogging natural and artificial drainage ways.

- Objective: Carefully review drainage plans for all proposed developments to ensure that the release rate of water is adequate to prevent downstream flooding and erosion.
- Objective: Cooperate with the Greenwood Township Drainage District and the Hebron Township Drainage District, to enforce appropriate requirements for any developments intending to utilize district tiles, and to prevent pollution in their districts.
- Objective: Maintain and update a detailed set of maps of drainage tiles within the Greenwood Township and Hebron Township Drainage Districts.
- Objective: Establish ample buffers along drainage systems to ensure that the drainage ways are accessible for maintenance and improvements, and to prevent silt and sediments from entering the system.
- Objective: Support the passage of Countywide stormwater management ordinances, and work with the County to implement a stormwater management plan.
- Objective: Consider the impact on existing drainage systems of any new development in the Township.
- Objective: Discourage the use of stormwater injection wells ("French drains" and "filter pits") in the township.
- Objective: Participate in and coordinate with the Nippersink Creek Watershed Management Committee.
- Objective: Educate the public about the need to maintain and protect the existing drainage systems.

GOAL 9 - FISCAL RESPONSIBILITY

Assure that new developments do not place an undue burden on roads, public services, schools, and taxpayers in the township.

- Objective: Analyze the costs of community services provided by the township with respect to new developments, and work with other authorities to protect existing residents of the township by appropriate impact fees, property dedications or other mechanisms.
- Objective: Maintain an ongoing dialogue with the various taxing bodies in the township to determine the fiscal impact of planning decisions on the residents of the township.
- Objective: Require fiscal impact analysis from petitioners for all subdivision requests in unincorporated areas of the township, and arrange for independent review of the data.
- Objective: Request statements of fiscal impact from Community Unit School District #200 for any proposed developments or special service areas in the township, and consider such statements when reviewing proposals for zoning changes in the township.
- Objective: Work with the Greenwood Township Assessor to review annual changes in property assessments in the township.
- Objective: *Develop a "Community Impact Checklist" to help review the fiscal impact of new developments in the township.*

GOAL 10 - INTERGOVERNMENTAL COOPERATION

Pursue intergovernmental coordination and communication with other public and private agencies and organizations involved with planning for the use of land in the Township, including the County, municipalities, regional planning commissions, and the Illinois Department of Transportation.

Objective: Remain fully informed concerning all changes in zoning in the unincorporated and incorporated areas of the Township.

Objective: Develop an intergovernmental agreement with McHenry County to establish procedures for the Greenwood Township Planning Commission's review of proposed zoning change in the Township.

Objective: Cooperate with the Northeastern Illinois Planning Commission (NIPC), The McHenry County Department of Planning & Development, the McHenry County Conservation District, and other public agencies whose work may interface with land use decisions in the Township.

Objective: Provide copies of this Plan, and any future updates, to NIPC, the County, and adjoining municipalities.

Objective: Investigate the Township's joining of NIPC.

Objective: Maintain consistent communication with the following public agencies, and any others with whom planning coordination is advisable:

- Municipalities: Woodstock, Wonder Lake, Bull Valley, and Greenwood
- McHenry County Historical Society
- McHenry County Farm Bureau
- McHenry County Conservation District
- McHenry Co. Soil & Water Conservation Dist.
- McHenry County Economic Development Corp.
- Northeastern Illinois Planning Commission
- Natural Resources Conservation Service
- University of Ill. Coop. Extension Service
- Greenwood Township Road District
- Greenwood Township Drainage District #1
- Hebron Township Drainage District
- Chicago Area Transportation Study
- Illinois Department of Transportation
- Illinois Environmental Protection Agency
- Federal Environmental Protection Agency
- Land Foundation of McHenry County
- Fire Protection Districts
- Homeowners Associations

NATURAL RESOURCES INVENTORY

I. GEOLOGY

A. SURFICIAL GEOLOGY

The topography of Greenwood Township is indicative of most of McHenry County. The physiography belongs to the Kettle Moraine section of the Morainal Natural Division of the interior plains of North America. The glaciers during the last Ice Age (Wisconsinian stage: ending 9,000 years B.C.) left an assorted mixture of rocks, sands, silts, and clays, called glacial drift, over the entire township. The texture of these geological materials vary from well-sorted sands and gravels through loamy gravels to fine silts and clay. From this glacial drift, three general types of landforms were produced and intermixed: outwash plains, drift plains, and the Cary Moraine. Outwash plains, located mostly in the northern, western, and eastern portions of the township, were made by ice melting and water draining away from the front of the glacier. Drift plains, located in the more south-southwestern portions of the township, are composed mostly of materials directly deposited by the glacier when it melted. The Cary Moraine, running north-south in the eastern half of the township, was formed by the bull-dozing effect of a glacier "scouring" the land and depositing the scoured materials at its edge.

After the deposition of glacial drift, wind-borne silts (loess) were deposited over the township, covering the previously deposited materials up to a 2-foot depth. The result of these geological occurrences on the land surface is a gently rolling topography, with intermingled depressions (kettles), mounds (kames) and low, linear hills (moraines), scattered throughout the area. Highest township elevation is over 930 feet in section 23 and the lowest elevation is at 822 feet in section 36. Drainage varies from poor to fair because of its relative youth. A good example of the Knob & Kettle glacial topography in Greenwood Township exists in the vicinity of sections 25 and 26, northwest of the Bull Valley Hunt Club Lake.

B. SUBSURFACE GEOLOGY

The bedrock geology is thickly covered by the glacial drift and loess materials. Depth from the ground surface to bedrock runs from 50 to 400 feet, with the most common depth of about 200 feet. The uppermost layer of bedrock is the Niagaran and Alexandrian dolomite series of the Silurian System; thickness varies from zero to 550 feet. Underneath this layer is the Maquoketa Group of the Ordovician System containing several additional layers of dolomites and shales. In the lower parts of the Ordovician system,

the Glenwood and St. Peter sandstones occur. The Cambrian System contains dolomites and sandstone layers of approximately 3000 to 4000 feet of thickness. Precambrian granite is below this layer many more thousands of feet below the surface.

C. MINERAL RESOURCES

The township, and McHenry County as a whole, contains viable quantities of sand, gravel and peat that has been extracted for commercial use in the past.

D. GEOLOGICAL CONSIDERATIONS FOR THE TOWNSHIP

The township is in a relatively stable geological area with little threat from severe earthquakes. Excavated areas with current or past mining operations are located in the vicinity of sections 3, 17, 21, 26, 28 and 33. These sites should be reclaimed for other productive land use and for preventing groundwater contamination. The porous drift materials at or near the ground surface provide an easy conduit for groundwater contamination. The most vulnerable areas are located mainly in the eastern sections of the township. At the same time, the incomplete drainage system and topography hinders surface water drainage and this should be addressed in detail with future township development. Refer to land use suitability for Septic Systems, NIPC land use planning maps, 1976.

II. SOILS

A. SOIL DESCRIPTIONS

The soils of the township have developed from the combination of parent materials (glacial drift & loess), time (over 11,000 years), climate (hot summers, cold winters, year-round precipitation), organisms (native prairie grasses and scattered groves of trees) and topography (gently rolling hills, flat plains, depressions, poor drainage and sloping ravines). The various combinations of these factors has led to four major soil orders and many dozens of separate soil series within the township. The three most common of the soil orders in the township are the Mollisols, Alfisols, and Histosols. Mollisols were formed over grassy vegetation and are high in organic content near the surface or "A horizon". Mollisols are usually located in upland areas and have a characteristically black in color. Alfisols are brownish soils that were formed under well-drained forest vegetation. These soils may be found in some upland locations and near streams where forest vegetation was present. Histosols were formed in low-lying, poorly-drained areas. Histosols contain large amounts of organic materials, are usually deep black in color, and may also contain fibrous materials from partially decomposed plant materials. Houghton Muck is an example of this type of soil. Other

soil orders that may be found in the township are the Inceptisols, which form on steep-slopes, and Entisols, which form from alluvium deposits along streams.

Greenwood Township soils vary considerably according to their strengths and limitations for various uses. Open space, agriculture, and urban development require different soil types and their associated properties for best use and conservation. Soil types, however, are usually not clear-cut nor large entities. The complexity of soil types usually requires on-site surveys for specific parcel developments. The McHenry County Soil Survey should serve as a guide for determining what soils are suited for a particular use in a particular location. The soil survey is best used for locating areas of where a particular soil type is found and in describing its opportunities or limitations for a particular land use. Resolution of the soil survey, however, is limited. For development on specific parcels, an intensive on-site soil survey should be required to determine if the planned use can be sustained on the soils for that particular site.

B. SOIL SUITABILITIES FOR GENERAL LAND USE

1. OPEN SPACE

Those soils that are classified as having severe or moderate limitations according to the soil survey should be reserved for open space, recreation and wildlife habitat. Typically, these soils will be located along streams, swales or natural drainageways. Wetlands soils or soils that are saturated because of a high water table should also be allocated for open space or recreational uses only. See the Federal Emergency Management Agency's floodplain maps, the National Wetlands inventory (NWI) maps, and USDA, Natural Resources Conservation Service (NRCS) aerial photographs for the most current inventory of floodplains, wetlands, and selected hydric soils that should remain in open space.

2. AGRICULTURAL

A large percentage of Greenwood Township soils are rated by United States Department of Agriculture as Prime or Important soils. Soils that are classified in the soil survey as Prime or Important for agricultural purposes should remain in agriculture. Prime Farmland is defined as having a low erosion potential, a mean annual temperature of 59 degrees Fahrenheit or greater, and as having a use for high value food or fiber crops. Although some Prime Farmland soils may be suitable for development, land uses other than agriculture should be determined by other planning factors, such as proximity to existing urban areas or whether nearby agricultural practices will be hindered by development. As a general rule, Agriculture should remain as the primary land use

in the northern and central areas of the township. Refer to "List of Prime Soils" for Greenwood Township. The Northeastern Illinois Planning Commission (NIPC) has designated an "Agricultural Preservation Area" that includes portions of Greenwood Township. NIPC discourages extension of sewer lines into Ag Preservation Areas.

3. URBAN USES

Soils suitable for urban uses should include upland or naturally well-drained soils located near existing urban areas. This recommendation combines the engineering properties identified in the McHenry County Soil Survey with sound community planning principles. (Refer to "Soils interpretation for urban development in Greenwood Township.")

C. SOIL CONSIDERATIONS FOR THE TOWNSHIP

The McHenry County Soil Survey, published in cooperation with McHenry County, the State of Illinois, and the USDA, Natural Resources Conservation Service (NRCS) should be a critical factor upon which all development decisions are made. The Soil Survey should be used as a part of this planning document to provide guidance on which soils are best suited for open space, agriculture, or urban land use. The recommendations given in the Soil Survey, after verification of soil type by an on-site soil survey, should be used to determine the intensity of development or type of land use for a given area.

As a general rule, development should not be allowed in or on organic or wetland soils. Development should also be avoided on sites where soils are classified as Prime or Important Farmland or where development would unnecessarily interfere with agricultural operations. Development should be directed to soils that are classified as having slight urban development and septic tank filter limitations in the McHenry County Soil Survey. Examples of these soils include Lomax, Onarga, Ringwood, Beecher, Nippersink, McHenry, Lorenzo, Casco, Fox, Lapeer and Griswold. Examples of soils where development needs to be less intensive, or in need of more site-specific planning because of moderate development limitations include Miami, Dickinson, Rodman, Troxel, and Matherton. Examples of soils that should not be used at all for urban development include those soils with severe or very severe limitations such as Harpster, Otter, Houghton Peats and Mucks, Selma Loam, Drummer, Knight, Lena, and Bonpas Silty Clay Loam. (Refer to the Soil Map for Greenwood Township, McHenry County, Illinois.)

III. WATER.

A. WATERSHED DESCRIPTIONS

Most of Greenwood Township is a part of the Fox River Basin by way of the "Nippersink Creek" (USDA Hydrologic Unit Atlas, 1987). A branch of the Nippersink Creek enters the northwest corner of Greenwood Township, from Hebron Township, and continues east into

the Wonder Lake. The Nippersink is joined in Greenwood Township by several intermittent and perennial tributaries that originate from north of Woodstock, including the central and northern portion of the township. The Nippersink Creek's watershed is composed of components of two smaller subwatersheds known as "Middle Wonder Lake" (31,810 acres) and "Lower Wonder Lake" (15,850 acres) respectively.

The Nippersink Creek drains all but sections 35 and 36 and the southern parts of sections 25 & 26 in the southeastern corner of the township. This area belongs to the "Upper Fox River watershed." The water flows due south from Section 25 and 26 and into Boone Creek where an impoundment is located in section 36 near the municipality of Bull Valley. As expected by the Knob and Kettle glacial topography, the natural drainage of the township allows water to flow into and out of various types of wetlands in an erratic pattern. A more developed drainage pattern exists today because of artificial drainage and channelization of streams.

B. SURFACE WATER.

1. STREAMS.

The Nippersink is a perennial prairie stream with many of its original meanders left more or less intact in its downstream reaches before it empties into Wonder Lake. Several tributaries have been highly channelized and the surrounding land has been heavily tilled for agricultural purposes. These alterations to the landscape has contributed to increased stream flows and soil erosion during heavy precipitation. The Nippersink empties into Wonder Lake at the eastern end of the township. The creek then resumes flow downstream of the lake and east of the township through the McHenry County Conservation District's (MCCD) Glacial Park, and the villages of Spring Grove and Fox Lake respectively before it enters the Fox River.

Boone Creek headwaters begin in the southern part of sections 25 & 26 and Section 35 & 36 of Greenwood Township. Boone Creek then flows south of Greenwood Township through the municipalities of Bull Valley, and McHenry before entering the Fox River east of Greenwood Township.

2. PONDS & LAKES

According to the McHenry County Department of Planning's Inventory of Natural Resources (1981), Greenwood Township has 56 ponds less than 2 acres in size and 16 lakes and ponds greater than 2 acres in size. The largest surface water feature in Greenwood Township is Wonder Lake, with a surface area of 730 acres, a maximum depth of 13 feet, and a shoreline length of 12 miles. A reservoir created by an impoundment of Nippersink Creek in the 1930's, Wonder Lake has been plagued by water quality problems such as

sedimentation and eutrophication. At the time of this writing, efforts were underway to address the natural resource issues associated with Wonder Lake and to work towards upgrading Wonder Lake as a natural resource.

Another significant lake in Greenwood Township is the Bull Valley Hunt Club Lake, formed by an impoundment of the headwaters of Boone Creek. This lake has a surface area of 52 acres, a maximum depth of 12 feet, and a shoreline length of 2.3 miles. Other lakes and ponds in Greenwood Township are scattered throughout the township for uses associated with farming, recreation, and stormwater management.

3. WETLANDS

Wetlands are a significant landscape feature in Greenwood Township. Besides the streams, larger ponds and lakes, numerous other areas of the township contain water at certain times of the year. Known as swamps, marshes, bogs, or sloughs, these areas are collectively called wetlands. To be classified as a wetland, these areas must have three components: hydric or wetland soils, hydrophytic vegetation, and water. The glacial topography of Greenwood Township contains many small depressions where wetlands have formed. Wetlands perform several useful functions: Wetlands act as filters for sediments, chemicals and pollution on the landscape, thereby protecting surface and groundwater supplies from contamination. Wetlands also hold stormwater and release it slowly, alleviating the effects of sudden heavy downpours and subsequent flash floods. Undisturbed wetlands are also where concentrations of plant and animal life occur. Most of Illinois' threatened and endangered species rely on wetlands to survive. Wetlands also perform other useful functions, including their use as open space buffers and recreation.

Many of Greenwood Township's wetlands have been drained by tile since settlement. In the past, the hydric soils that they contain were among the most fertile in the world. Currently, the price of land is so high that urban development in a former "swamp" is economically feasible. Although agriculture and urban development uses can be enhanced by wetlands draining, the loss of wetland functions contribute to problems such as downstream and on-site flooding, unsafe buildings and cracked foundations, loss of wildlife habitat, and loss of recreational uses.

In Greenwood Township, most of the wetlands that remain are either concentrated near Nippersink Creek or Boone Creek and their tributaries, or are in isolated upland areas among agricultural fields. Large areas of wetlands are located just south of Wonder Lake, near the Bull Valley Hunt Club Lake, and in the west-central area of the township. According to the National Wetlands Inventory (NWI) maps, most are classified as having seasonally ponded water containing emergent vegetation such as cattails or other grassy

plants. A survey of wetlands in McHenry County is occurring that will identify those wetlands that perform an exceptionally high functional value. Descriptions and locations of those wetlands should be included in the planning of Greenwood Township.

4. FLOODPLAINS

A Floodplain is defined as land temporarily inundated by water. The floodplain is an area, usually dry, that absorbs excess water overflows from wetlands, streams, ponds and lakes. Since floodplains are usually dry, floodplains may not be readily identified or the risk of intensive land use not readily apparent. Man-made structures on them are vulnerable to flood damage. Their study is critical because the exact boundaries of floodplains are not easily identified or can change over time. As a whole, floodplains in McHenry County have wet soils and vegetation adapted to periodical wet conditions. With urban development, however, larger areas may flood that have never flooded before. McHenry County has an ordinance prohibiting urban development in floodplains based on US Geologic Survey (USGS) Maps of flood of record and the US Housing and Urban Development's Flood Insurance Rates Maps (FIRM). The maps define the area where a 100-year flood will occur. (A "100-year flood" is defined as the chance of a flood occurring in that year is 1%. These maps, however, are estimates and do not take into account changes in watershed land use that may affect flooding, such as wetlands filling or urban development.

Greenwood Township's floodplain areas are along the Nippersink Creek and tributaries in the northern and western areas of the township. They are closely correlated to wetlands or former wetlands areas that can be identified as such by their hydric soils. Floods of record occurred during the 1950's in Greenwood Township.

5. DRAINAGE DISTRICTS

Two drainage districts are located in the township. The Greenwood Drainage District is the largest, containing approximately 3300 acres of assessed property. This district is located in the south to western portion of the township just north and east of the City of Woodstock. The Hebron Drainage District extends just into the northwest corner of Greenwood Township. It includes a branch of the Nippersink Creek which drains into Wonder Lake.

C. GROUNDWATER.

Groundwater is an extremely valuable natural resource to Greenwood Township because of the township's dependency on underground aquifers for its drinking water supplies. As a part of McHenry County and northeast Illinois, Greenwood Township can tap into

four separate aquifer systems (water-bearing rock or materials). The first is the sand and gravel aquifer system located in the glacial drift. The depth of wells in McHenry County into these aquifers varies from 47 to 272 feet below the surface. Underneath this system is the Silurian-Dolomite bedrock aquifer. The depth of wells into this system is 120-520 feet below the surface. The deeper Cambrian-Ordovician sandstone aquifer is the third aquifer type with well depths 900 - 1400 feet below the surface. The deepest aquifer is the Mt. Simon aquifer, its water, however, has a very high mineral concentration and is not used for water supplies.

For McHenry County, the sand and gravel aquifers provide the majority of water for both public and private wells. Municipal and industrial wells generally use the deeper aquifers as their water source. The shallow aquifers are renewed locally and rapidly by natural process and are recharged by water seeping into them from the surface. The deeper aquifers are renewed outside the county. Most groundwater near the surface follows the topography and lay of the land. The shallow groundwater flows underground in the rock strata, much like a stream to the lowest point. This lowest point may wind up near the surface at a stream or lake or some other point of discharge. Most groundwater in McHenry County is potable without extensive treatment. In most cases, by the time water has percolated downward to a depth of five to ten feet, bacteria and most suspended solids have been removed. As water continues to move through the ground, however, various minerals are picked up in solution. The deeper water moves, the more minerals will be picked up in solution.

Most of Greenwood Township can be characterized as being a high recharge area. The major discharge area for groundwater is along the Nippersink Creek near the eastern township line, where the land is more dissected. Because most of Greenwood Township is a recharge area, and because residents rely on groundwater, efforts should be made to protect the land from groundwater contamination. Sources of pollution include septic tanks, road salting, and agricultural land and urban runoff. Education of landowners plus working with groups such as the Northern Regional Groundwater Protection Planning Committee of McHenry, Boone and Winnebago counties, as well as with the McHenry County Planning Department will help to protect groundwater supplies.

D. WATER RESOURCE CONSIDERATIONS FOR THE TOWNSHIP

The results of surface stream channelizations, infilling of wetlands, and conventional tilling of the soil in agricultural operations has accelerated soil erosion in the Nippersink watershed, and consequently, excessive sedimentation in Wonder Lake. Increasing urbanization will lead to greater stormwater and flash flooding problems that have led to the creation of the McHenry County Stormwater Management Commission. The loss of

wetlands, in the past and in the present, will continue to have an effect on land use in McHenry County and on the protection of open space, wildlife habitat, and the filtering of pollutants from surface and groundwater. The porous soils and Greenwood Township's need for groundwater and vulnerability to groundwater contamination will require rigorous standards for protection, and partnering with other units of government to implement sound principles for protecting groundwater supplies.

IV. ATMOSPHERE.

A. CLIMATOLOGY

Greenwood Township's position in the eastern interior of North America provides a humid continental type of climate with 30 to 35 inches of precipitation a year. This type of climate has a great temperature and precipitation variability from year-to-year and frequently from day-to-day. Average high temperatures in January are below freezing with occasionally severe winter storms passing through the region from early December to mid-March. Summers are generally hot and humid. The township can expect to see 36-40 inches of snowfall in an average winter. The average last spring frost occurs in early May with the first fall frost in early October. The growing season is from 140 to 180 days.

The Spring season contains highly variable temperatures that can result in both sudden snowstorms and quick snowmelt. The hot humid summers bring more dependable precipitation for crops such as corn and soybeans, however, the weather pattern also can bring severe thunderstorms and tornados with occasional drought. Fall is characterized with drier conditions and milder temperatures.

B. ATMOSPHERIC CONSIDERATIONS FOR THE TOWNSHIP

The prevailing westerly winds and frontal systems from Canada allow for good air circulation and dissipation of air pollution. These same conditions, however, can also contribute to minor wind erosion problems on sites devoid of vegetation and to water pollution by increasing wave action on non-vegetated shorelines. Since winter winds are mainly from the northwest, structures should have windbreaks in that direction for conserving energy. Also for energy conservation, deciduous trees should be planted for shading purposes over or near structures with exposure to the summer sun.

The highly-variable temperatures, especially in the spring and fall, can cause severe freeze/thaw problems. Extra care must be shown to protect cultivated plants sensitive to frost. Roads and structures should be designed to shed water quickly and therefore

avoid freeze/thaw damages. Precipitation during the Spring and Summer frequently comes in the form of quick snowmelt or downpours that can cause flash flooding. Developments should be wary of this factor in lower areas. The higher downpours also greatly enhance the problem of soil erosion.

V. PLANTS & ANIMALS.

A. General Description of plants, animals and biological habitat.

According to the McHenry County Department of Planning's Inventory of Natural Resources, Cultural Features, Open Space & Recreation (1992), before European settlement, McHenry County "Prairie Grasses and deciduous forests have been by far the most important forms of vegetation." Tree groves dominated the hilly regions, stream valleys, and some isolated areas in the middle of the prairie. The primary vegetation in the area, however, was tall-grass prairie or savanna. Prairie occupied the upland areas and consisted of native grasses and wildflowers growing to a ten-foot height. Savannas consisted of a mixture of grasses and scattered trees, forming a ecotone or border area between forest and prairie. This savanna consisted of grasses and trees with up to 30% of the ground covered by tree canopy. This plant ecosystem gave much of pre-settlement Illinois a park-like appearance.

Little is left of this pre-settlement condition. Agriculture has left little more than altered relics of what once existed throughout Greenwood Township. The fertile prairies, savannas and forests were surveyed in the 1840's and eventually converted to agricultural production, making the township part of the world's breadbasket. More recent urbanization in the municipalities of Woodstock, Bull Valley and the creation of Wonder Lake and community in the 1930's had further altered the landscape. At least five natural areas, however, have been formally identified in Greenwood Township by the McHenry County Conservation District that reflect pre-settlement conditions. One is the Queen Anne Prairie, a dry-mesic prairie, one acre in size, located in a cemetery in the middle of the township. Another natural area is a wet-mesic prairie and sedge meadow, 18 acres in size, called the "Bystricky Prairie". This high quality natural area is located east of Illinois Route 47 just south of the creek. A third area, a spring fed prairie and marsh located along the Nippersink Creek, has been dedicated as an Illinois Nature Preserve. The fourth natural area is the 20-acre Lind Forest, an upland forest that contains a seep spring. The fifth, and largest natural area in the township is the 125-acre Greenwood Fen, located along Nippersink Creek northwest of the village of Wonder Lake. This is a complex of sedge meadow, springs, ponds and mesic forest. In other areas, patches of prairie along right-of-ways, scattered oak trees and remnants of ancient oak groves still exist. What's left,

however, is being replaced by both urbanization and introduced plant and animal species that out compete the native vegetation.

Because of the impact of agriculture and urbanization, cultivated or introduced plants and animals are now the major species of Greenwood Township. Corn & soybeans are the primary crops grown. Tree and shrub nurseries for ornamental plants are also significant. In urbanized areas, ornamental trees and bushes with typical lawn-type grasses, are the major vegetation. Animal species that still exist are the ones that can tolerate agricultural activities and urbanization. A disproportionate number of endangered species occur in McHenry County. Most of these are located in wetland habitats. (Refer to the "Endangered and Threatened Species in McHenry County"

B. PLANTS

Corn, soybeans and ornamentals are a large part of the vegetative land cover. Prairie, where it still grows, can contain a number of different species depending on the moisture content of the site. Wet prairies contain such plant species as big bluestem, meadow sedge, wild iris, and ironweed. Less wet prairies include plants such as columbine, black-eyed susans, and smooth Penstemon. Dry prairie sites contain little bluestem, rattlesnake master, and alumroot. Prairie plants typically had deep root systems that once held the soil in place. Now gone and replaced with shallow-rooted cultivated varieties, soils are more prone to erosion without prairie plant cover.

Timber once covered up to 40.6% of the landscape in McHenry County in 1830. Oaks and hickories were the dominant tree species in drier locations and maples and beeches were more common in wet ravines. The remnants of this vegetation is being overrun with exotic species such as eurasian buckthorn and multiflora rose.

C. ANIMALS

Although intense agricultural and urban land use has eradicated many species from the county, enough wetlands, native habitat and created habitat remains to support a variety of animals. Mammals that are typical of McHenry County include White-tailed deer, coyotes, beaver, raccoons, skunks, opossums, cottontail rabbits as well as other small mammals that can tolerate human activity. The McHenry County Conservation District (MCCD) has conducted several wildlife inventories within Greenwood Township and in one location (Greenwood Fen) has identified dozens of bird species such as orioles, meadowlarks, bobolinks, goldfinches, bluebirds, grosbeaks, and vireos. Wetland birds include red-winged blackbirds, herons, wood ducks, and kingfishers. The Nippersink Creek within Greenwood Township contains a variety of fish species such as northern pike,

channel catfish, bullhead, carp, bluegill, green sunfish, large and small mouth bass, yellow bass, striped shiners and creek chub. The Nippersink Creek has one of the few naturally-reproducing small mouth bass streams in Illinois. A butterfly inventory of McHenry County included such butterflies as tiger swallowtail, cabbage white, mulberry wing, coral hairstreak, eastern tailed blue, red admiral, american painted lady, and monarch.

D. SIGNIFICANT WILDLIFE HABITAT AREAS

Significant wildlife habitat areas include the five natural areas previously mentioned, the Nippersink Creek, plus a number of wetlands that have managed to retain numerous plant and animal species. Over 600 wetlands are in McHenry County as a whole, and efforts are currently underway by a team of county, state and federal officials to identify those wetlands, including in Greenwood Township, under the Advanced Identification of Wetlands (ADIDS) project. Those wetlands that are identified as "high-functional value" should be considered significant habitat if they are identified as having a high biological value in the study. A large number of endangered and threatened species live in McHenry County and in any location where these species are located should be considered a significant wildlife habitat.

E. PLANT & ANIMAL CONSIDERATIONS FOR THE TOWNSHIP

McHenry County as a whole retains a higher biological diversity of plant and animals than most of the other counties of Illinois. Most of this biological diversity is located in the wetland and stream habitats that have been relatively undisturbed. Within Greenwood Township, the Nippersink Creek has an official rating by the Illinois Department of Natural Resources (DNR) as a limited to moderate aquatic resource; but other opinions at the MCCD believe the Nippersink should be rated as a highly valued aquatic resource, an opinion that is based on more recently collected data. Wonder Lake, through watershed protection efforts, has the potential to become a significant biological resource. All plants and animal species on the threatened and endangered species list should be given the highest consideration in land use development issue.

APPENDICES

1. List of Resources - Greenwood Township Plan
2. Sensitive Wildlife Areas in Greenwood Township
McHenry County, Illinois
3. Soil Limitations Ratings For Residential Development
4. Enabling Statute - 60 ILCS 1/105-35 - Township Plan
Commissions
5. Functional Maps of Greenwood Township and Surrounding Areas
6. McHenry County Zoning Ordinance as pertinent to zoning
controls applicable to Greenwood Township

Appendix 1.

Greenwood Township Plan
List of Resources

- 1) "Geologic Aspects of a Groundwater Protection Needs Assessment for Woodstock, Illinois: A Case Study", ISGS 1994
- 2) Citizen's Guide to Ground-Water Protection", US EPA, April 1990, EPA 440/6-90-004
- 3) "Tax Policy: The Rules of the Regional Development Game", Metropolitan Planning Council, January 1995
- 4) "A Guide to Federal Environmental Requirements for Small Governments", US EPA, September 1993, EPA 270-i(-93-001
- 5) "Chemicals in Your Community", US EPA, September 1988, EPA 550-K-93-003

Available at Soil & Water Cons. Dist:

- a) Soil map interpretations
- b) Wetlands:
 - 1) Fish & Wildlife
 - 2) SCS/Army Corps maps
- c) ISGS potential contamination stack maps
- d) Sidwell maps - 1991 aerial photos, & recent updates
- e) Aerial photos from 1939, 1954, 1967
- f) Plat maps
- g) Floodplain maps: FEMA USGS flood of record
- h) Hydrologic unit maps
- i) Watershed maps

plus....

- Northeastern Illinois Planning Commission (NIPC) studies
- Comprehensive plans from County & surrounding cities

APPENDIX 2
Sensitive Natural Areas

NIPPERSINK CREEK

Location: Richmond, Burton, Greenwood, Hebron, & Alden Twps.

Size: 24 mi. (est., main branch) + 6 mi. (north branch)

Natural ResourcesCommunities

Creek (B) (main branch)

(low to medium gradient creek with very diverse stream structure and gravel bottom; recognized in 1986 FAP 420 study as a high quality stream based on diversity and composition of fish community; status supported by MCCD data, 1991-1994; IBI values generally from 40 to 48; east reach from Solon Mills to Fox Lake classified as grade B by IEPA/IDOC in 1989)

Creek (A) (north branch)

(low gradient meandering creek with very diverse riffle-and-pool structure and bottom types; abundant gravel beds and extensive stands of aquatic vegetation; recognized in 1986 FAP 420 study as a high quality stream based on diversity and composition of fish community; status supported by MCCD data, 1994; IBI values generally from 48 to 52)

Rare Animals

Elliptio dilatatus/Spike (T)

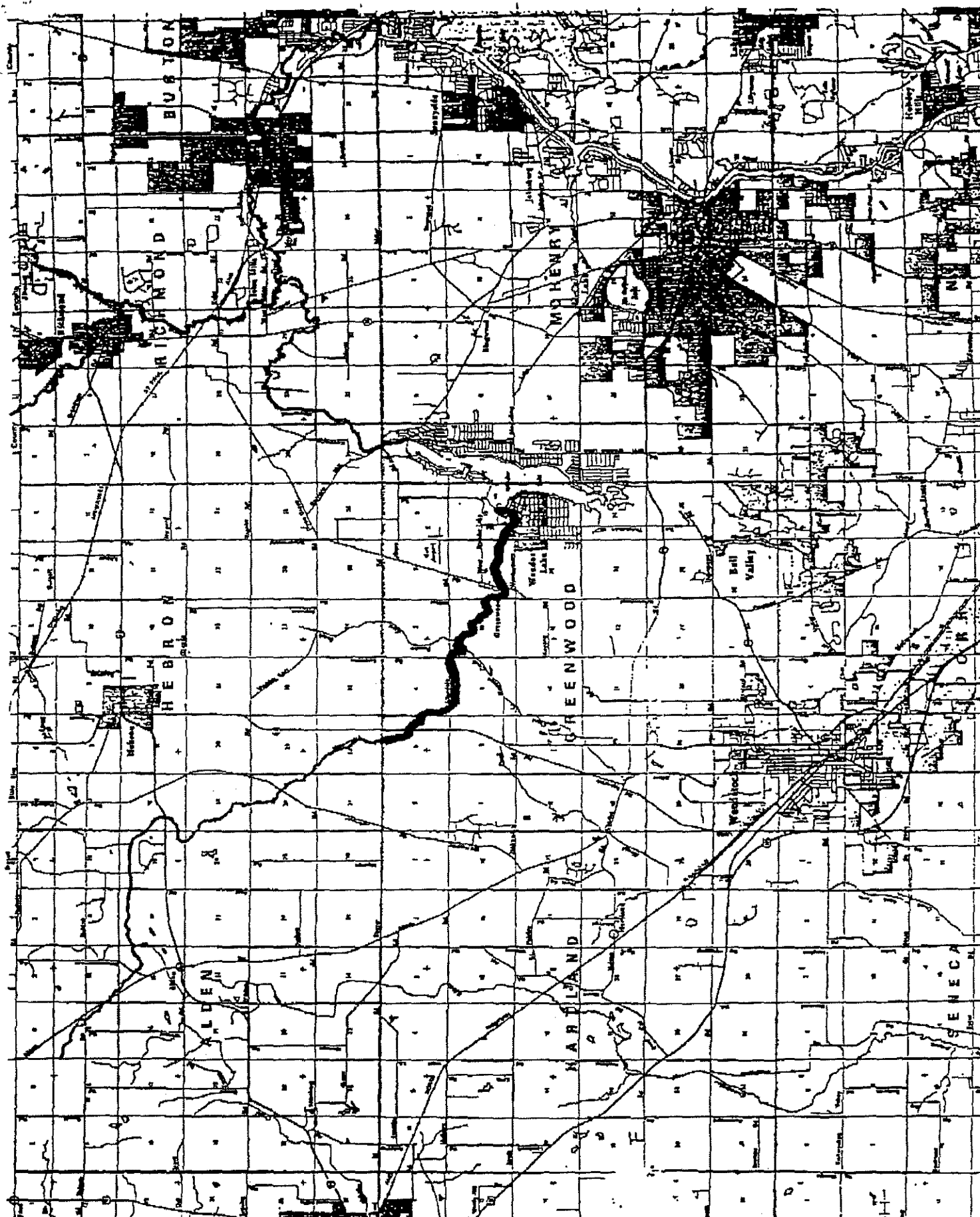
Lasmigona compressa/Creek heelsplitter (W)

Protection Status

Protected in part by MCCD; most unprotected

Management Problems

Water table alteration (Wonder Lake dam), agricultural run-off, some channelization, urbanization of east part of watershed



WONDER LAKE PRAIRIE

Location: Greenwood Township, Section 12

Size: 30 acres

Natural Resources

Communities

Gravel hill prairie (C)

Rare Plants

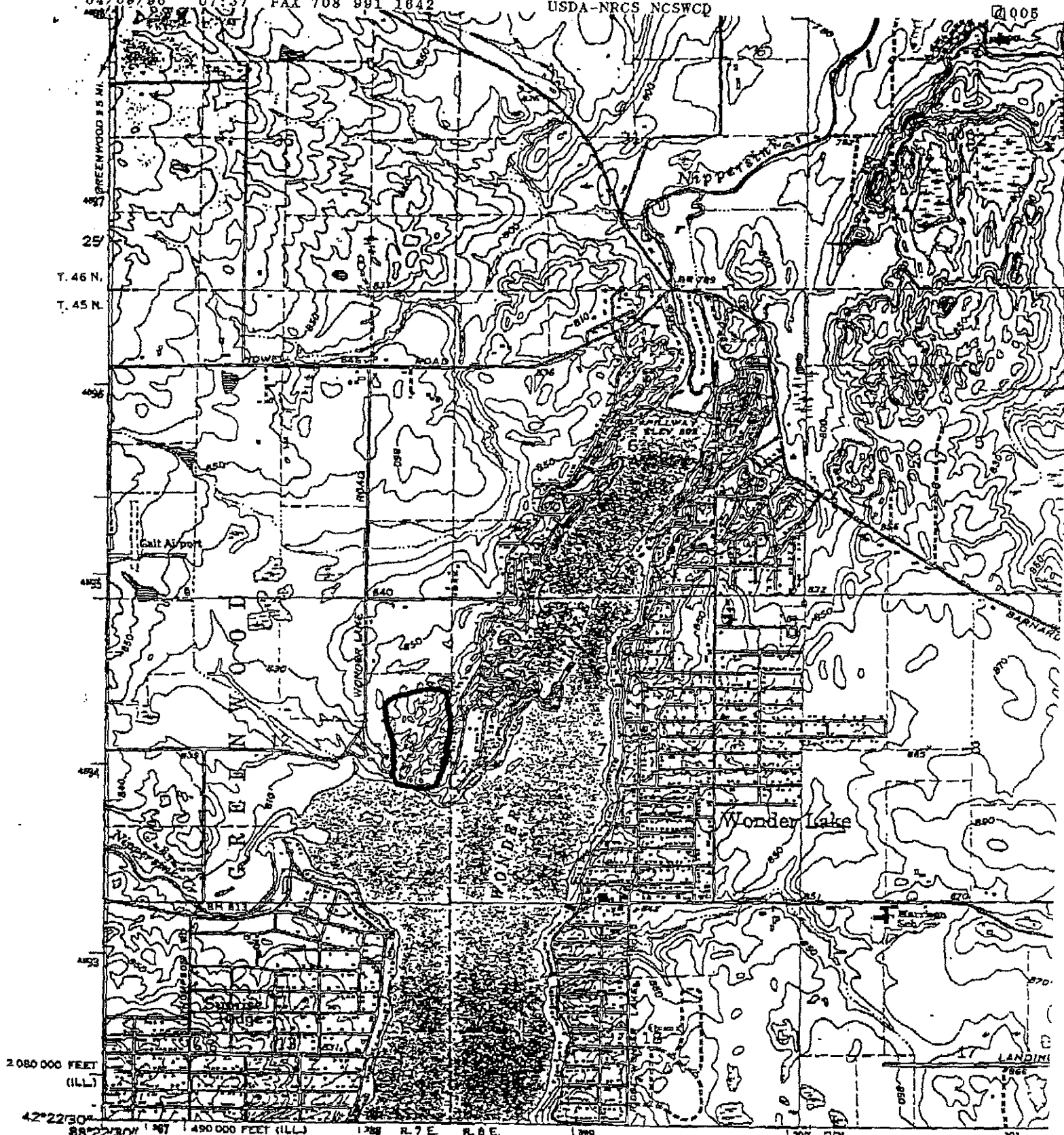
Lechea intermedia/Pinweed (E)

Protection Status

Unprotected

Management Problems

Off-road vehicles, soil erosion, dumping, brush
encroachment, lack of forbs, development

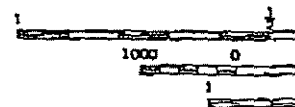
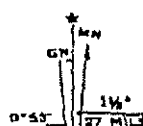


Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1961. Field checked 1963

Polyconic projection. 1927 North American datum



GREENWOOD FEN

Location: Greenwood Township, Section 11

Size: 125 Acres

Natural ResourcesCommunities

Graminoid fen (B,C)
Sedge meadow (B,C)
Low-gradient creek (B)
Pond (B)
Mesic forest (C)

Rare Plants

Carex rostrata/Beaked sedge (E)
Trillium erectum/Ill-scented trillium (E)
Cacalia suaveolens/Sweet Indian plantain (R)

Rare Animals

Buteo lineatus/Red-shouldered hawk (E)
Emydoidea blandingii/Blanding's turtle (R)
Poanes viator/Broad-winged skipper (W)
Poanes massasoit/Mulberry wing (W)

Other Significant Features

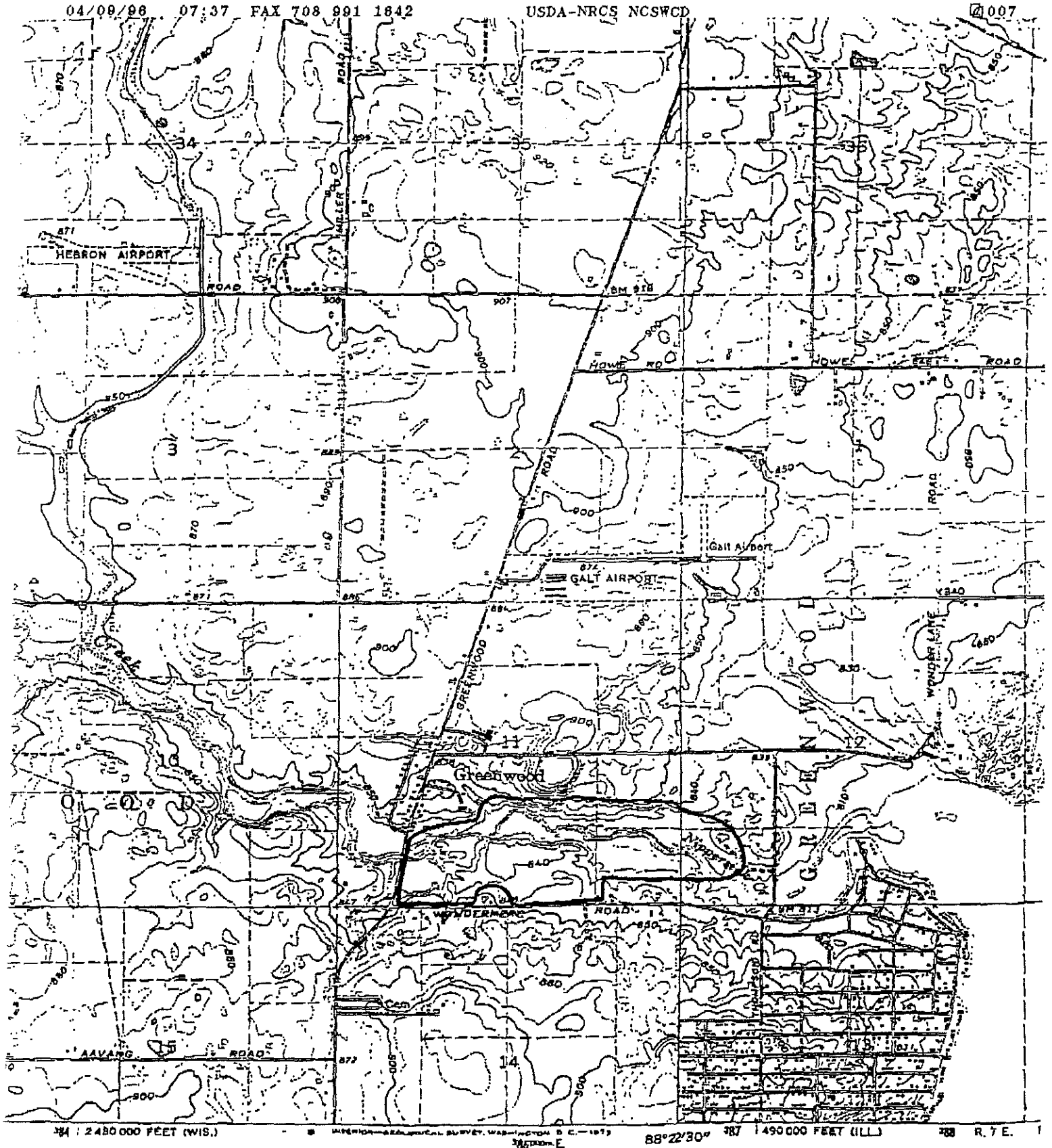
Large segment of well-buffered, meandering, gravel-bottom stream; spring runs

Protection Status

Part protected by private owner (dedicated nature preserve); part unprotected

Management Problems

Water cress in spring runs; brush encroachment; some runoff impacts from bordering heavily-grazed uplands



ROAD CLASSIFICATION

Heavy-duty ——— Light-duty - - - - -
 Medium-duty ——— Unimproved dirt - - - - -
 State Route

Mapped, edited, and published by the Geological
 Control by USGS and USC&GS

Topography by photogrammetric methods from aerial
 photographs taken 1961. Field checked 1963

Polyconic projection. 1927 North American datum
 10 000-foot grid based on Illinois coordinate system

AAVANG-LIND WOODLAND

Location: Greenwood Township, Section 10

Size: 60 Acres

Natural ResourcesCommunities

Mesic upland forest (B)
Seep (B)
Low gradient creek (B)

Rare Plants

Trillium erectum/Ill-scented trillium (E)
Lathyrus ochroleucus/Pale vetchling (T)
Cacalia suaveolens/Sweet Indian plantain (W)

Rare Animals

Buteo lineatus/Red-shouldered hawk (E)
(in vicinity)
Hylocichla mustelina/Wood thrush (W)

Other Significant Features

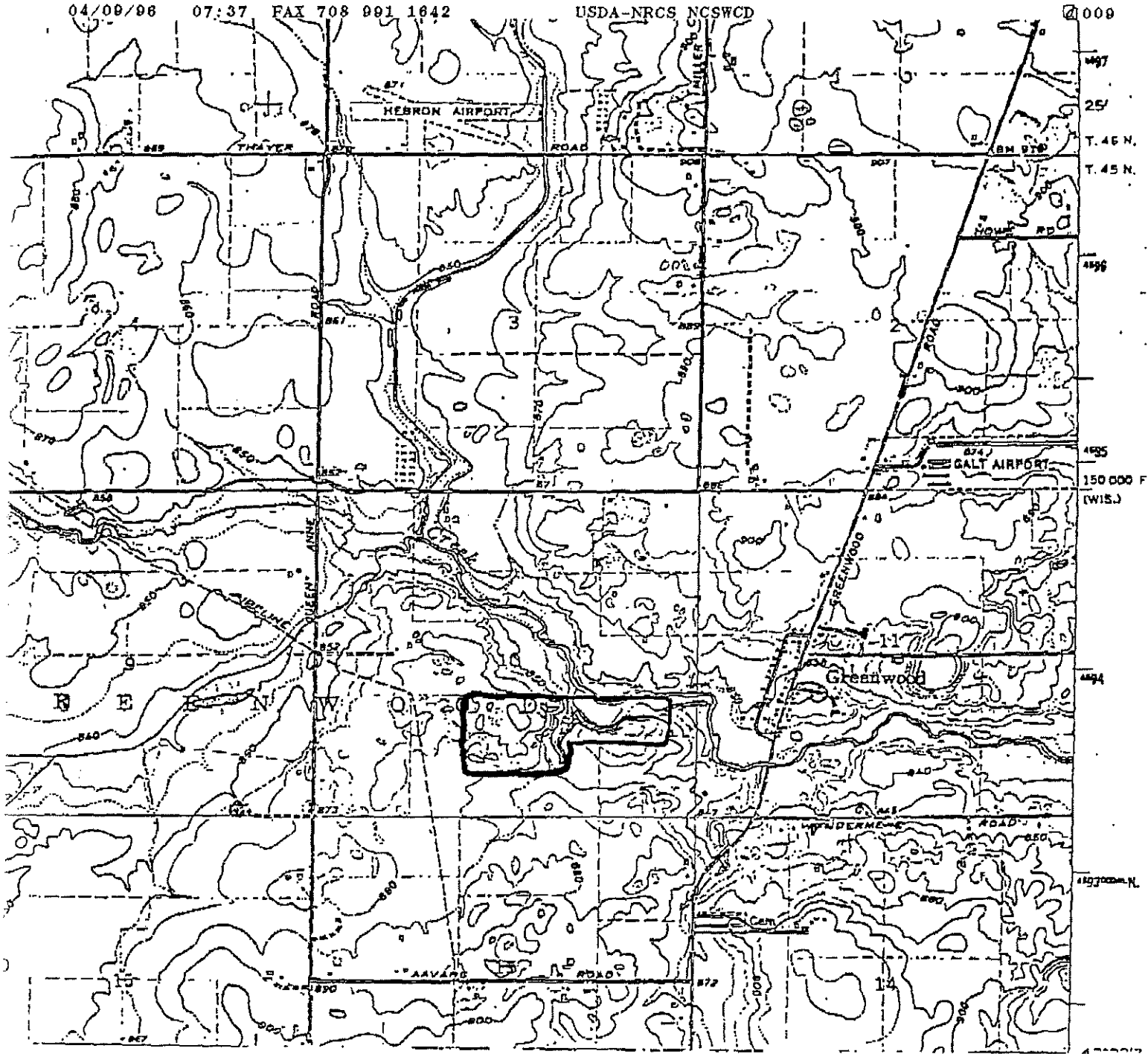
Small segment of well-buffered, meandering, gravel-bottom stream

Protection Status

Protected by private owners (part dedicated nature preserve; part informally protected by private owner)

Management Problems

Buckthorn invasion; possible erosion caused by run-off from adjacent cropland; resprouts of cut invasive woody plants; exotic forb and grass invasion



QUEEN ANNE PRAIRIE

Location: Greenwood Township, Section 21

Size: 1 Acre

Natural Resources

Communities

Dry mesic prairie (C)

Protection Status

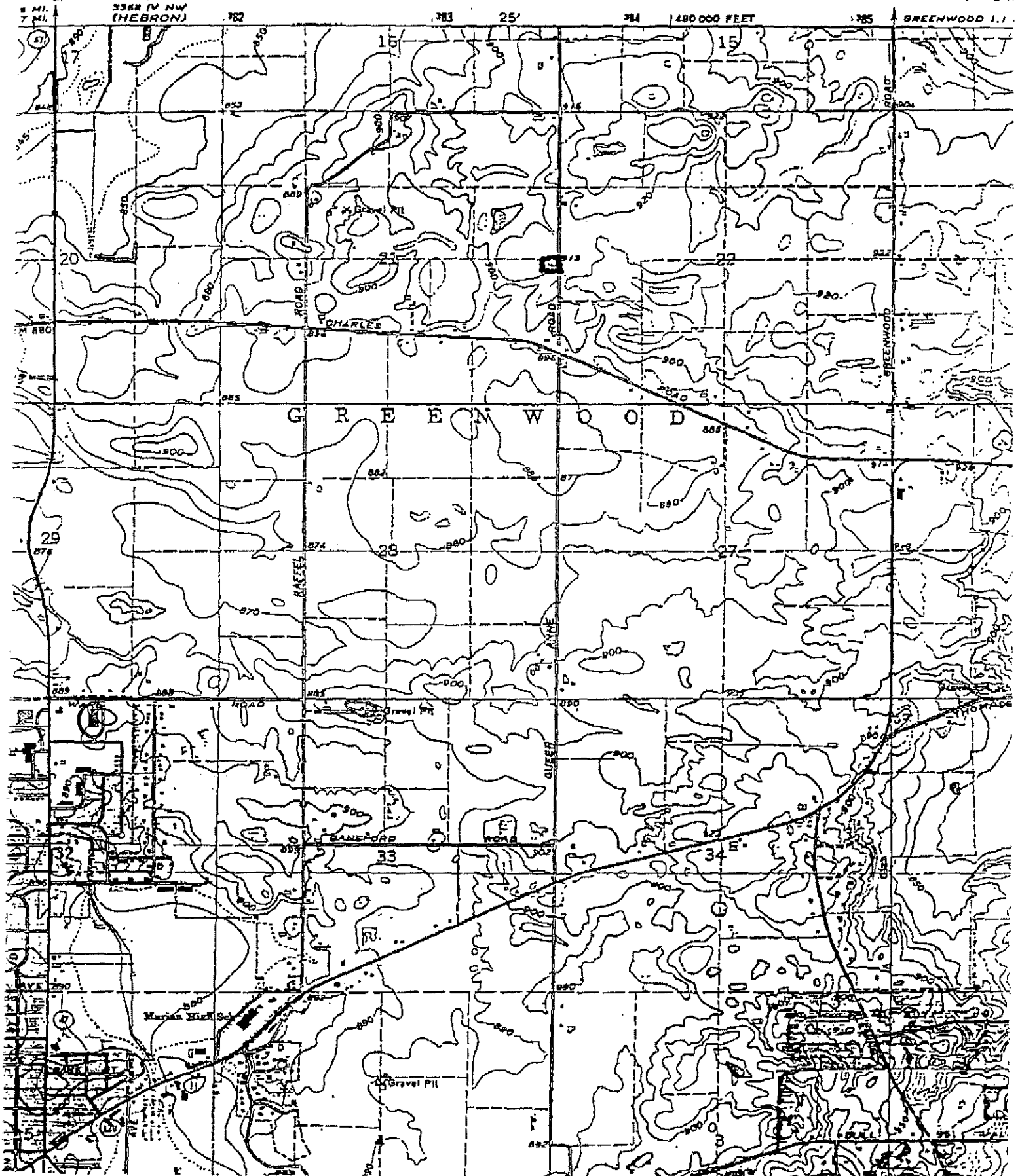
Protected informally by private owners as Illinois
Natural Heritage Landmark

Management Problems

Brome, exotic forb prevalence, ornamental plants, shading
and invasion by fencerow trees

URBANA, ILLINOIS

SW/4 MC H



BYSTRICKY PRAIRIE

Location: Greenwood Township, Section 17

Size: 18 Acres

Natural ResourcesCommunities

Dry mesic/mesic prairie (A)
Mesic/wet mesic prairie (A)
Wet prairie/sedge meadow (A,B)
Marsh (B,C)

Rare Plants

Cypripedium candidum/Small white lady's slipper (E)
Cypripedium parviflorum/Small yellow lady's slipper (E)

Rare Animals

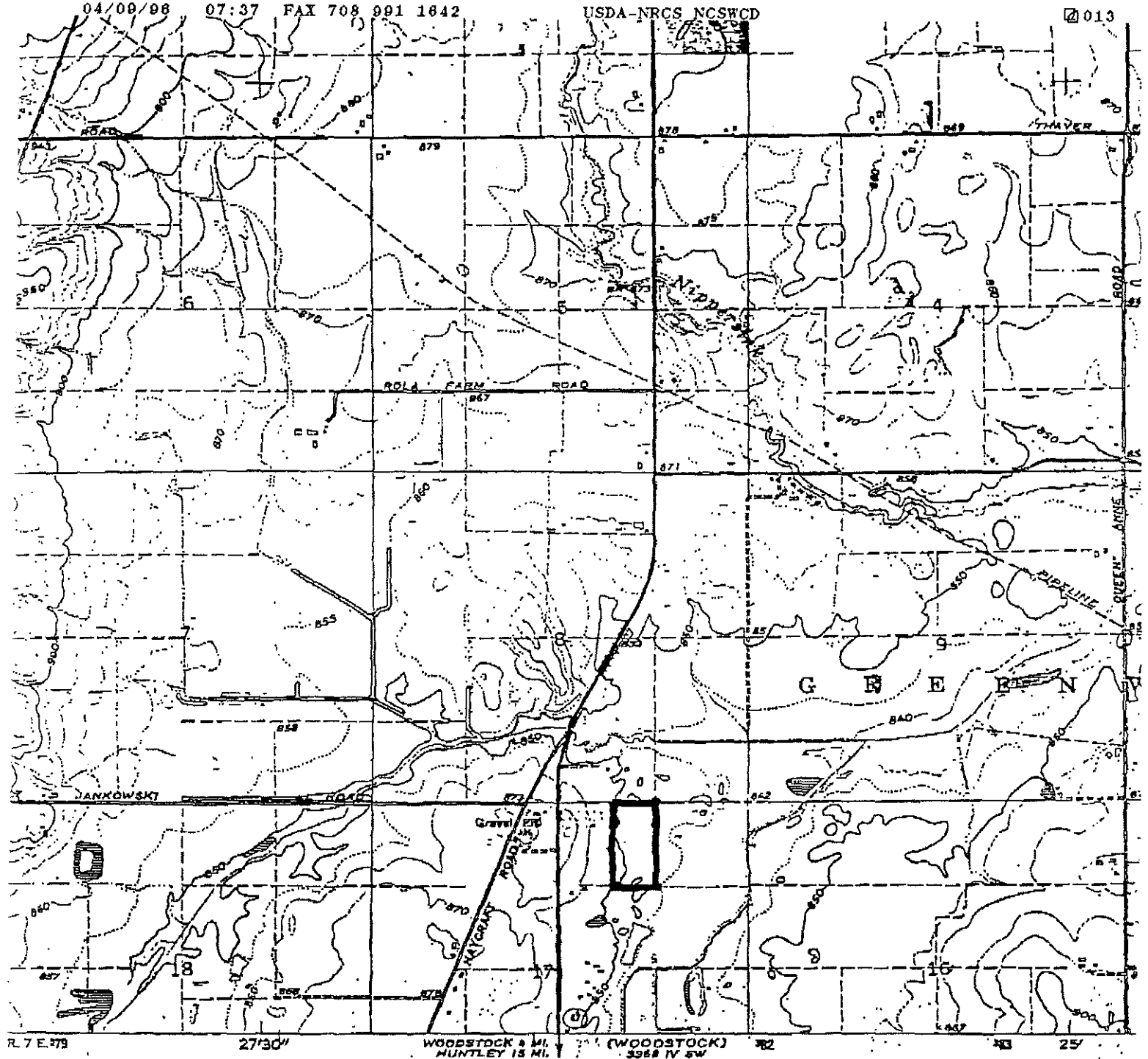
Poanes massasoit/Mulberry wing (W)

Protection Status

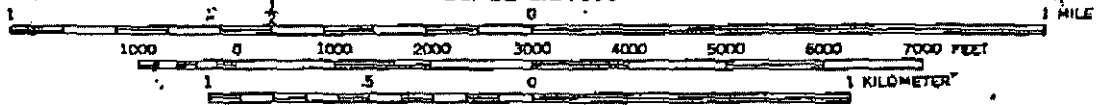
Protected by private owner (dedicated nature preserve)

Management Problems

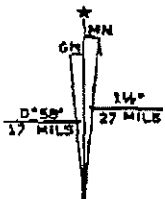
Brush and tree encroachment, soil erosion from adjacent cropland



SCALE 1:24 000



CONTOUR INTERVAL 10 FEET
 DOTTED LINES REPRESENT 5-FOOT CONTOURS
 NATIONAL GEODETIC VERTICAL DATUM OF 1929



GRID AND 1972 MAGNETIC NORTH
 DECLINATION AT CENTER OF SHEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
 FOR SALE BY U.S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
 STATE GEOLOGICAL SURVEY, URBANA, ILLINOIS 61801,
 AND WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY, MADISON, WISCONSIN 53706
 A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

RTE 47 BALSAM POPLAR SITE

Location: Greenwood Township, Section 8

Size: 20 Acres

Natural ResourcesCommunities

Wet-mesic prairie (C)

Sedge meadow (C)

Rare Plants

Populus balsamifera/Balsam poplar (E)

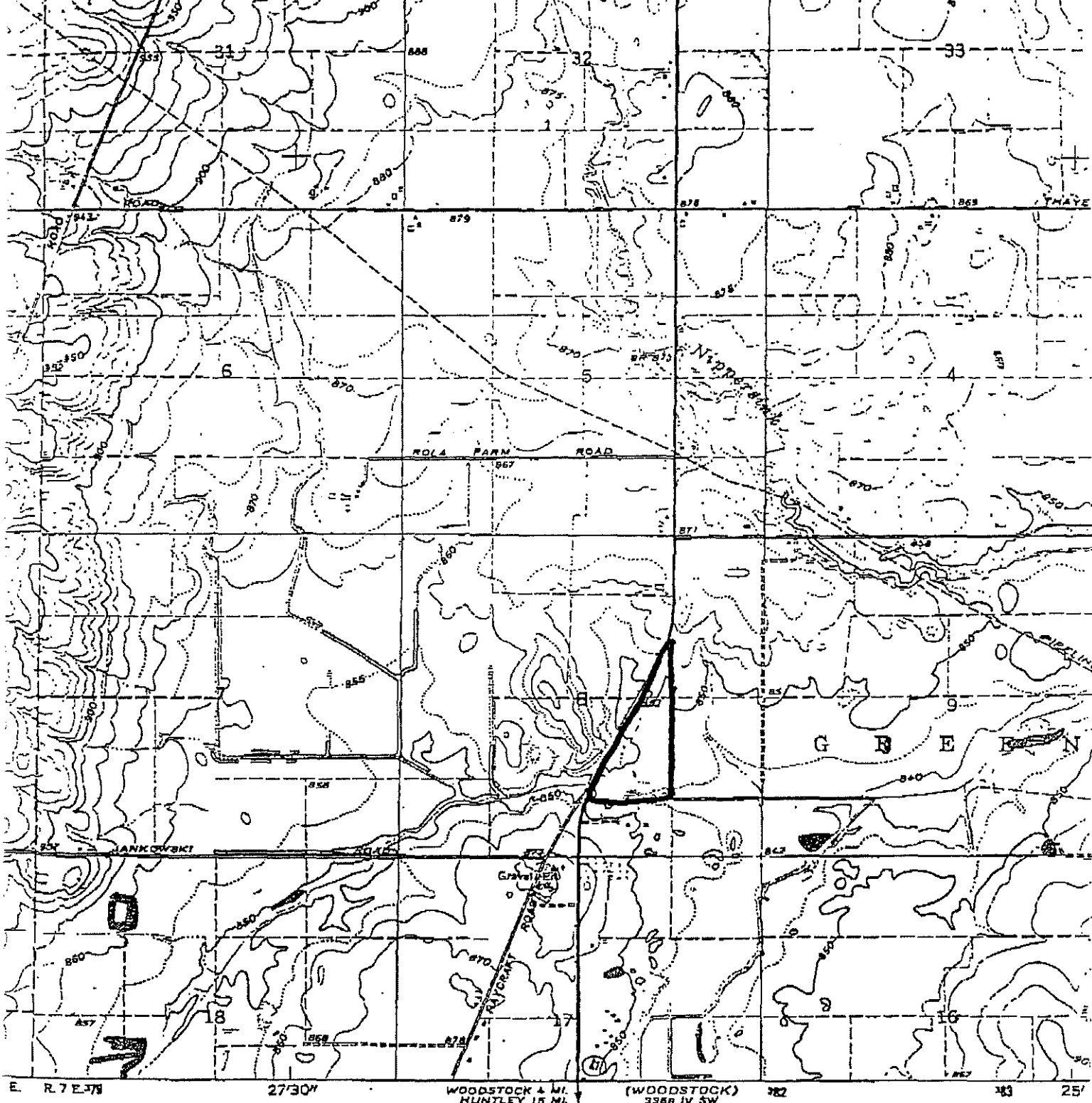
Carex crawei/Sedge (T)

Protection Status

Protected informally by private owner as Illinois Natural
Heritage Landmark

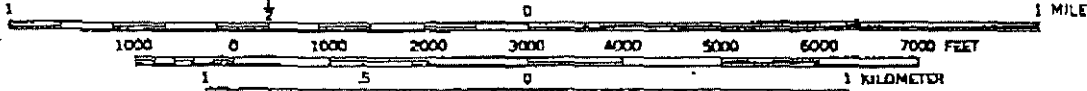
Management Problems

Brush encroachment

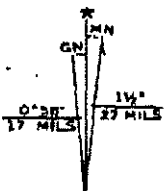


E. R. 7 E. 37 27'30" WOODSTOCK & MI. HUNTLEY 15 MI. (WOODSTOCK) 3568 IV SW 782 783 25'

SCALE 1:24 000



CONTOUR INTERVAL 10 FEET
 DOTTED LINES REPRESENT 5-FOOT CONTOURS
 DATUM IS MEAN SEA LEVEL



UTM GRID AND 1972 MAGNETIC NORTH
 DECLINATION AT CENTER OF SHEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
 FOR SALE BY U. S. GEOLOGICAL SURVEY, WASHINGTON, D. C. 20242.

Appendix 3.

SOIL LIMITATIONS RATINGS FOR
RESIDENTIAL DEVELOPMENT

RESIDENTIAL DEVELOPMENT

SOIL SERIES & <u>MAP NUMBER</u>	LIMITATIONS FOR SEPTIC TANK <u>ABSORPTION FIELDS</u>	DWELLINGS WITHOUT <u>BASEMENTS</u>	DWELLINGS WITH <u>BASEMENTS</u>
RODMAN 93	MODERATE	MODERATE	MODERATE
CAMDEN 134A	SLIGHT	MODERATE	SLIGHT
CAMDEN 134B	SLIGHT	MODERATE	SLIGHT
PROCTOR 148A	SLIGHT	MODERATE	MODERATE
PROCTOR 148B	SLIGHT	MODERATE	MODERATE
BRENTON 149	SEVERE	SEVERE	SEVERE
ONARGA 150B	SLIGHT	SLIGHT	SLIGHT
ONARGA 150C	SLIGHT	SLIGHT	SLIGHT
DRUMMER 152	VERY SEVERE	SEVERE	SEVERE
DRUMMER W152	VERY SEVERE	SEVERE	SEVERE
RIDGEVILLE156	SEVERE	SEVERE	SEVERE
KNIGHT 191	VERY SEVERE	SEVERE	SEVERE
MORLEY 194B	SEVERE	MODERATE	MODERATE
MORLEY 194E2	VERY SEVERE	SEVERE	SEVERE
TROXEL 197	SEVERE	SEVERE	SEVERE
ELBURN 198	SEVERE	SEVERE	SEVERE
THORP 206	VERY SEVERE	SEVERE	SEVERE
LENA 210	VERY SEVERE	SEVERE	SEVERE
LENA W210	VERY SEVERE	SEVERE	SEVERE
MILLBROOK 219	SEVERE	SEVERE	SEVERE

VARNA 223C2	SEVERE	MODERATE	MODERATE
VARNA 223C3	SEVERE	MODERATE	MODERATE
VARNA 223D2	SEVERE	MODERATE	MODERATE
VARNA 223D3	SEVERE	MODERATE	MODERATE
STRAWN 224C2	MODERATE-SEVERE	SLIGHT	SLIGHT
STRAWN 224D	MODERATE-SEVERE	MODERATE	MODERATE
STRAWN 224D2	MODERATE-SEVERE	MODERATE	MODERATE
STRAWN 224D3	MODERATE-SEVERE	MODERATE	MODERATE
STRAWN 224E2	VERY SEVERE	SEVERE	SEVERE
STRAWN 224E3	VERY SEVERE	SEVERE	SEVERE
NAPPANEE 228C3	VERY SEVERE	SEVERE	SEVERE
ASHKUM 232	VERY SEVERE	SEVERE	SEVERE
LOMAX 265C2	SLIGHT	SLIGHT	SLIGHT
WARSAW 290B	SLIGHT	SLIGHT	SLIGHT
WARSAW 290C2	SLIGHT	SLIGHT	SLIGHT
XENIA 291B	SEVERE	MODERATE	SEVERE
WASHTENAW 296	VERY SEVERE	SEVERE	SEVERE
RINGWOOD 297B	SLIGHT	MODERATE	SLIGHT
RINGWOOD 297C2	SLIGHT	MODERATE	SLIGHT
BEECHER 298B	VERY SEVERE	SEVERE	SEVERE
MCHENRY 299B	SLIGHT	MODERATE	SLIGHT
MCHENRY 310B	SLIGHT	MODERATE	SLIGHT
MCHENRY 310C2	SLIGHT	MODERATE	SLIGHT
LORENZO 318B	SLIGHT	SLIGHT	SLIGHT
LORENZO 318C2	SLIGHT	SLIGHT	SLIGHT
LORENZO 318D3	MODERATE	MODERATE	MODERATE
CASCO 323B	SLIGHT	SLIGHT	SLIGHT

CASCO 323C2	SLIGHT	SLIGHT	SLIGHT
CASCO 323C3	SLIGHT	SLIGHT	SLIGHT
CASCO 323D	MODERATE	MODERATE	MODERATE
CASCO 323D2	MODERATE	MODERATE	MODERATE
CASCO 323D3	MODERATE	MODERATE	MODERATE
CASCO 323E3	VERY SEVERE	SEVERE	SEVERE
DRESDEN 325A	SLIGHT	MODERATE	SLIGHT
DRESDEN 325C2	SLIGHT	MODERATE	SLIGHT
FOX 327B	SLIGHT	MODERATE	SLIGHT
FOX 327C2	SLIGHT	MODERATE	SLIGHT
FOX 327E2	VERY SEVERE	SEVERE	SEVERE
FOX 327E3	VERY SEVERE	SEVERE	SEVERE
WILL 329	VERY SEVERE	SEVERE	SEVERE
WILL W329	VERY SEVERE	SEVERE	SEVERE
PEOTONE 330	VERY SEVERE	SEVERE	SEVERE
PEOTONE W330	VERY SEVERE	SEVERE	SEVERE
KANE 343	SEVERE	SEVERE	SEVERE
HARVARD 344A	SLIGHT	MODERATE	MODERATE
HARVARD 344B	SLIGHT	MODERATE	MODERATE
HARVARD 344C2	SLIGHT	MODERATE	MODERATE
CANISTEO 347	VERY SEVERE	SEVERE	SEVERE
CANISTEO W347	VERY SEVERE	SEVERE	SEVERE
KIDDER 361C2	SLIGHT	MODERATE	SLIGHT
KIDDER 361D	MODERATE	MODERATE	MODERATE
KIDDER 361D2	MODERATE	MODERATE	MODERATE
KIDDER 361D3	MODERATE	MODERATE	MODERATE
KIDDER 361E2	VERY SEVERE	SEVERE	SEVERE

KIDDER 361E3	VERY SEVERE	SEVERE	SEVERE
GRISWOLD 363C2	SLIGHT	SLIGHT	SLIGHT
GRISWOLD 363C3	SLIGHT	SLIGHT	SLIGHT
GRISWOLD 363D2	MODERATE	MODERATE	MODERATE
GRISWOLD 363D3	MODERATE	MODERATE	MODERATE
ORION 364	SEVERE	SEVERE	

APPENDIX 4
Enabling Statute

ENABLING STATUTE

60 ILCS 1/105-35

1/105-35. Township plan commission

§ 105-35. Township plan commission.

(a) In townships with a population of more than 500 located in counties with a population of less than 600,000, the township board may by resolution create a township plan commission. The commission shall consist of 5 members appointed by the township supervisor with the advice and consent of the township board. Their terms of office shall be prescribed by the township board. The township supervisor shall designate one of the members as chairman, and the plan commission may appoint other officers it deems necessary and appropriate. The township board may authorize a plan commission to have necessary staff and shall pay the expenses of that staff.

(b) Every township plan commission may have the following powers and duties:

(1) The commission may prepare and recommend to the township board a comprehensive plan for the present and future development or redevelopment of the unincorporated areas of the township. The plan may be adopted in whole or in separate geographical or functional parts, each of which, when adopted, shall be the official plan, or part of the official plan, of that township. The plan may include reasonable requirements with reference to streets, alleys, public grounds, and other improvements specified in this Section. The plan may recommend (i) establishing reasonable standards of design for subdivisions and for resubdivisions of unimproved land and of areas subject to redevelopment with respect to public improvements as defined in this Section and (ii) establishing reasonable requirements governing the location, width, course, and surfacing of public streets and highways, alleys, ways for public service facilities, curbs, gutters, sidewalks, street lights, parks, playgrounds, school grounds, size of lots to be used for residential purposes, storm water drainage, water supply and distribution, sanitary sewers, and sewage collection and treatment.

(2) The commission may from time to time recommend changes in the official comprehensive plan.

(3) The commission may from time to time prepare and recommend to the township authorities plans for specific improvements in pursuance of the official comprehensive plan.

(4) The commission may give aid to the officials charged with the direction of projects for improvements embraced within the official plan to further the making of these projects and, generally, may promote the realization of the official comprehensive plan.

(5) The commission may prepare and recommend to the township board schemes for regulating or forbidding structures or activities in unincorporated areas that may hinder access to solar energy necessary for the proper functioning of solar energy systems, as defined in Section 1.2 of the Comprehensive Solar Energy Act of 1977,¹ or may recommend changes in those schemes.

(6) The commission may exercise other powers germane to the powers granted by this Section that are conferred by the township board.

(c) If the county in which the township is located has adopted a county zoning ordinance under Division 5-12 of the Counties Code,² the recommendations of the township plan commission may be presented by the township board to the county board of that county.

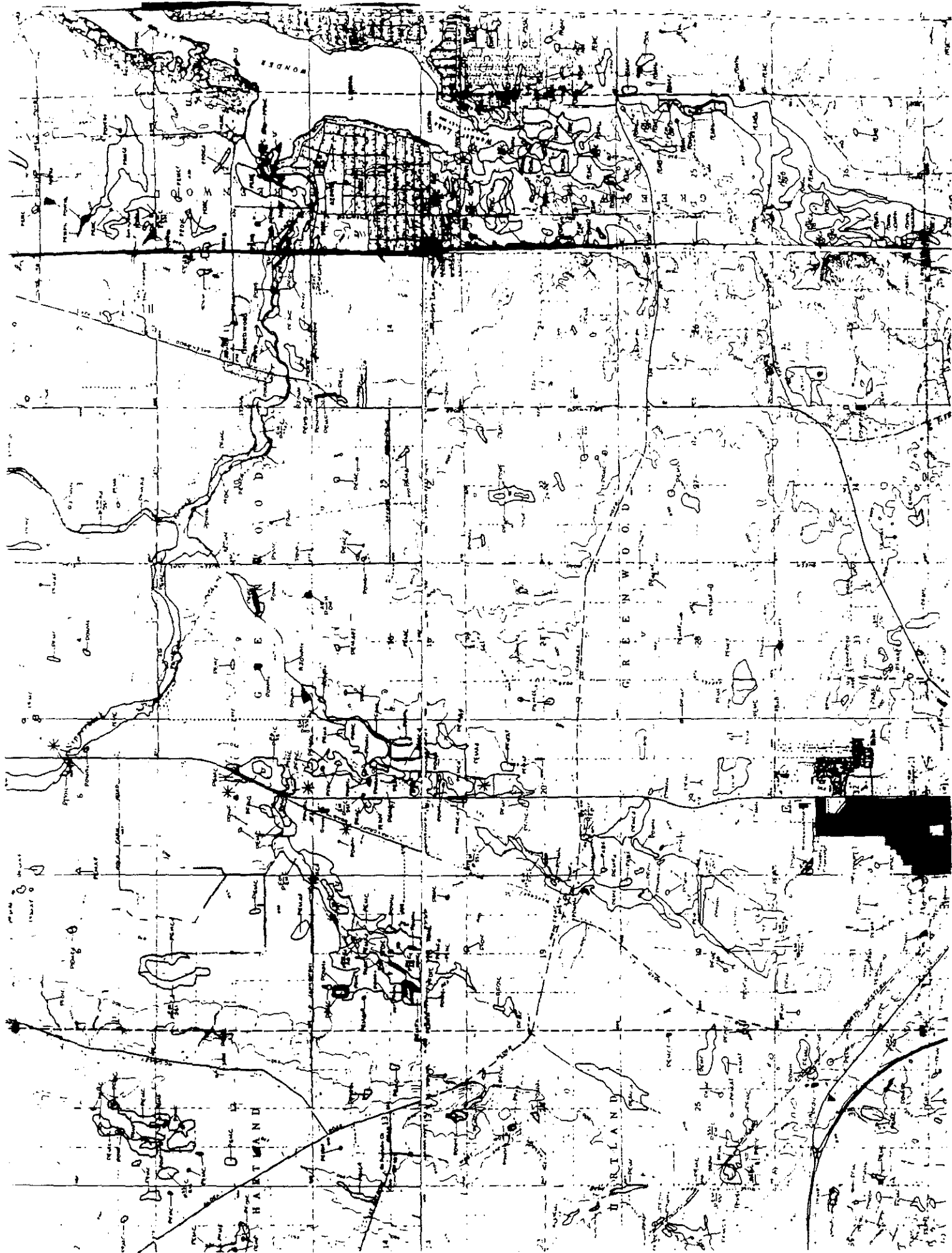
P.A. 88-62, Art. 105, § 105-35, eff. Jan. 1, 1994.

¹ 30 ILCS 725/1.2.

² 55 ILCS 5/5-12000 et seq.

APPENDIX 5

National Wetlands Inventory Map



APPENDIX 6

County Gravel Pit Inventory Sheets

x Borrow Pit
 Gravel Pit

Sect. 3 T 45 R 7 NE 1/4
Sect. T R 1/4
Sect. T R 1/4

OWNER: Chris Dahm
5707 Miller Road
Wonder Lake, IL.

PPI#'S
08-03-200-003

ACTIVE INACTIVE x
INCORPORATED UNINCORPORATED x

PREVIOUS PPI#'S

	<u>1954</u>	<u>1964</u>	<u>1973</u>	<u>1979</u>	<u>1986</u>
AERIAL PHOTO IDENTIFICATION:	<u>x</u>	<u>x</u>	<u>x</u>	<u>x</u>	<u>x</u>
ACREAGE AFFECTED:			<u>.50</u>	<u>.50</u>	<u>.50</u>
SIZE OF PARCEL:			<u>81.50</u>	<u>81.50</u>	<u>81.50</u>

ZONING: A-1 ZONING FILE #(s): N/A

COMMENTS: This use would have been permitted under the 1946 Ord.
It was much larger in 1954 and 1964. It is partially
overgrown. If it was inactive prior to 1979, no
affidavit would have been required.

x Borrow Pit
 Gravel Pit

Sect. 3 T 45 R 7 SE 1/4
Sect. T R 1/4
Sect. T R 1/4

OWNER: Dorothy Crabtree
337 Krenz
Cary, IL 60013

PPI #'S
08-03-400-005

ACTIVE x INACTIVE
INCORPORATED UNINCORPORATED x

PREVIOUS PPI #'S

	<u>1954</u>	<u>1964</u>	<u>1973</u>	<u>1979</u>	<u>1986</u>
AERIAL PHOTO IDENTIFICATION:	<u> x </u>	<u> x </u>	<u> x </u>	<u> x </u>	<u> x </u>
ACREAGE AFFECTED:			<u> 2 </u>	<u> 2 </u>	<u> 2 </u>
SIZE OF PARCEL:			<u>96.36</u>	<u>96.36</u>	<u>96.36</u>

ZONING: A-1 ZONING FILE #(s): N/A

COMMENTS: This use would have been permitted under the 1946 Ord.
The area was much larger in 1954 and 1964. It is
partially overgrown and some dumping is evident. If
it was inactive prior to 1979, no affidavit would have
been required.

x Borrow Pit
 Gravel Pit

Sect. 12 T 45 R 7 SW 1/4
Sect. T R 1/4
Sect. T R 1/4

OWNER: George Thompson
4301 Sioux Lane, Apt. 4
McHenry, IL 60050

PPI #'S
08-12-301-001

ACTIVE INACTIVE x
INCORPORATED UNINCORPORATED x

PREVIOUS PPI #'S

	<u>1954</u>	<u>1964</u>	<u>1973</u>	<u>1979</u>	<u>1986</u>
AERIAL PHOTO IDENTIFICATION:	<u>x</u>	<u>x</u>	<u>x</u>	<u>x</u>	<u>x</u>
ACREAGE AFFECTED:			<u>.50</u>	<u>.50</u>	<u>.50</u>
SIZE OF PARCEL:			<u>40</u>	<u>40</u>	<u>40</u>

ZONING: A-1 ZONING FILE #(s): N/A

COMMENTS: This use would have been permitted under the 1946 Ord.
It was much larger in 1954 and 1964. It is partially
overgrown. If it was inactive prior to 1979, no affidavit
would have been required.

Borrow Pit
 x Gravel Pit

Sect. 17 T 45 R 7 NW 1/4
Sect. T R 1/4
Sect. T R 1/4

OWNER: Edward Marsh
3918 Raycraft Road
Woodstock, IL 60098

Steven Schall
3913 Route 47
Woodstock, IL 60098

PPI#'S
08-17-127-013
08-17-127-014

ACTIVE INACTIVE x
INCORPORATED UNINCORPORATED x

PREVIOUS PPI#'S
08-17-127-001
08-17-127-011

	<u>1954</u>	<u>1964</u>	<u>1973</u>	<u>1979</u>	<u>1986</u>
AERIAL PHOTO IDENTIFICATION:	<u> </u>	<u> x </u>	<u> x </u>	<u> x </u>	<u> x </u>
ACREAGE AFFECTED:			<u> 5 </u>	<u> 4 </u>	<u> 4 </u>
SIZE OF PARCEL:			<u>11.56</u>	<u>10.21</u>	<u>10.21</u>

ZONING: A-1/E-1 ZONING FILE #(s): N/A / Pet. #77-42

COMMENTS: This use would have been permitted under the 1955 Ord.
It was much larger in 1954 and 1964. It is partially
reclaimed, and has been split into two five acre and
one (1) one acre parcels. All have single family
residences on them. If inactive prior to 1979, no
affidavit would have been required.

X Borrow Pit
 Gravel Pit

Sect. 20 T 45 R 7 SW 1/4
Sect. T R 1/4
Sect. T R 1/4

OWNER: Dale Melzer
3720 Glenview Road
Glenview, IL 60025

PPI#'S

08-20-300-010

ACTIVE INACTIVE X
INCORPORATED UNINCORPORATED X

PREVIOUS PPI#'S

	<u>1954</u>	<u>1964</u>	<u>1973</u>	<u>1979</u>	<u>1986</u>
AERIAL PHOTO IDENTIFICATION:	<u>--</u>	<u>--</u>	<u>--</u>	<u> X </u>	<u> X </u>
ACREAGE AFFECTED:			<u>--</u>	<u>.25</u>	<u>.25</u>
SIZE OF PARCEL:			<u>--</u>	<u>17.77</u>	<u>17.77</u>

ZONING: A-1 ZONING FILE #(s): N/A

COMMENTS: This use would have been permitted by 1968 Ord. It
appears overgrown. If it was inactive prior to 1979,
no affidavit would have been required.

x Borrow Pit
 Gravel Pit

Sect. 23 T 45 R 7 SE 1/4
Sect. T R 1/4
Sect. T R 1/4

OWNER: Harold Bornhoff
1905 Greenwood Road
Woodstock, IL 60098

PPI#'S
08-23-400-004

ACTIVE x INACTIVE
INCORPORATED UNINCORPORATED x

PREVIOUS PPI#'S

	<u>1954</u>	<u>1964</u>	<u>1973</u>	<u>1979</u>	<u>1986</u>
AERIAL PHOTO IDENTIFICATION:	<u> -- </u>	<u> x </u>	<u> x </u>	<u> x </u>	<u> x </u>
ACREAGE AFFECTED:			<u> .50 </u>	<u> .50 </u>	<u> .50 </u>
SIZE OF PARCEL:			<u> 12.40 </u>	<u> 12.40 </u>	<u> 12.40 </u>

ZONING: A-1 ZONING FILE #(s): N/A

COMMENTS: This use would have been permitted under the 1968 Ord.

 It appears to still be in use with some evidence of
 dumping.

Borrow Pit
 x Gravel Pit

Sect. 26 T 45 R 7 NW 1/4
Sect. T R 1/4
Sect. T R 1/4

OWNER: Yvonne Charles
864 Oak
Woodstock, IL 60098

PPI#'S
08-26-100-004

ACTIVE INACTIVE x
INCORPORATED UNINCORPORATED x

PREVIOUS PPI#'S

	<u> 1954 </u>	<u> 1964 </u>	<u> 1973 </u>	<u> 1979 </u>	<u> 1986 </u>
AERIAL PHOTO IDENTIFICATION:	<u> x </u>	<u> x </u>	<u> x </u>	<u> x </u>	<u> x </u>
ACREAGE AFFECTED:			<u> 3 </u>	<u> 2 </u>	<u> 2 </u>
SIZE OF PARCEL:			<u> 33.50 </u>	<u> 33.50 </u>	<u> 33.50 </u>

ZONING: A-1 ZONING FILE #(s): N/A

COMMENTS: This use would have been permitted under the 1946 Ord.

 It appears to be most extensive in 1964. It is partially
 reclaimed and overgrown. If it was inactive prior to
 1979, no affidavit would have been required.

Borrow Pit
 x Gravel Pit

Sect. 31 T 45 R 7 SE 1/4
Sect. T R 1/4
Sect. T R 1/4

OWNER: Donald Gavers
1100 Borden Lane
Woodstock, IL 60098

PPI#'S
08-31-400-002

ACTIVE INACTIVE ?
INCORPORATED x UNINCORPORATED

PREVIOUS PPI#'S

	<u>1954</u>	<u>1964</u>	<u>1973</u>	<u>1979</u>	<u>1986</u>
AERIAL PHOTO IDENTIFICATION:	<u>--</u>	<u>--</u>	<u> x </u>	<u> x </u>	<u> x </u>
ACREAGE AFFECTED:			<u> 7 </u>	<u> 10 </u>	<u> 10 </u>
SIZE OF PARCEL:			<u>37.64</u>	<u>37.64</u>	<u>37.64</u>

ZONING: N/A ZONING FILE #(s): N/A

COMMENTS: This use would have been permitted under the 1968 Ord.

It appears that there has been some earth movement and
possible extraction. There have been relatively few
changes seen in recent years. It is incorporated;
therefore, the County has no jurisdiction.

Borrow Pit
 x Gravel Pit

Sect. 33 T 45 R 7 NW 1/4
Sect. T R 1/4
Sect. T R 1/4

OWNER: Edwin Voss
10110 Lucas Road
Woodstock, IL 60098

PPI #'S
08-33-100-010

ACTIVE x INACTIVE
INCORPORATED UNINCORPORATED x

PREVIOUS PPI #'S
08-33-100-002

	<u>1954</u>	<u>1964</u>	<u>1973</u>	<u>1979</u>	<u>1986</u>
AERIAL PHOTO IDENTIFICATION:	<u> x </u>	<u> x </u>	<u> x </u>	<u> x </u>	<u> x </u>
ACREAGE AFFECTED:			<u> 4 </u>	<u> 4 </u>	<u> 6 </u>
SIZE OF PARCEL:			<u> 20 </u>	<u>11.36</u>	<u>11.36</u>

ZONING: A-1 ZONING FILE #(s): N/A

COMMENTS: This use would have been permitted under the 1946 Ord.

 It was much larger and more extensive in 1964. It is
 partially overgrown and reclaimed. There is some
 storage and dumping evident.

APPENDIX 7
Regional Greenways Map

APPENDIX 8

Assesses Values for Greenwood Township

1995 - DISTRIBUTION OF EQUALIZED ASSESSED VALUES BY PROPERTY CLASS

	Chemung	Alden	Hebron	Richmond	Burton	Dunham	Hartland	Greenwood	McHenry
RESIDENTIAL									
Total No. Parcels	2,270	434	599	1,822	2,219	481	625	3,807	20,090
Total equalized assessed value	62,785,691	17,129,744	21,966,738	64,904,213	53,046,861	16,774,485	30,044,246	125,496,132	563,663,062
Percentage of total	70.90%	53.35%	60.26%	63.53%	92.95%	45.51%	68.50%	88.14%	86.39%
COMMERCIAL									
Total No. Parcels	249	18	70	225	33	94	23	54	900
Total equalized assessed value	13,252,816	392,144	2,688,615	11,256,136	1,702,209	7,067,309	2,223,844	6,953,393	72,004,638
Percentage of total	14.97%	1.22%	7.38%	11.02%	2.98%	19.18%	5.07%	4.88%	11.04%
INDUSTRIAL									
Total No. Parcels	69	0	18	101	0	11	7	0	68
Total equalized assessed value	4,455,702	0	2,187,787	15,847,582	0	3,138,551	1,458,870	0	7,310,572
Percentage of total	5.03%	0.00%	6.00%	15.51%	0.00%	8.52%	3.33%	0.00%	1.12%
FARM									
Total parcels	559	651	635	515	352	547	601	603	474
Total parcels with farm dwelling	138	230	129	163	30	132	170	144	94
Total Acreage	17,577.35	19,404.50	19,618.26	14620.41	3,694.47	20,388.61	19,197.41	17,938.34	13,973.80
Total AIV	8,000,937	14,584,851	9,602,726	10,003,634	1,966,067	9,612,748	10,133,506	9,936,585	6,681,558
AIV per acre	455.18	751.62	489.48	684.22	532.16	471.48	527.86	553.93	478.15
Percentage of total	9.03%	45.43%	26.34%	9.79%	3.45%	26.08%	23.10%	6.98%	1.02%
RAILROADS (locally assessed)									
Total No. Parcels	1	0	10	21	8	0	0	0	1
Total Eq. Assd. Value	3,215	0	9,610	58,469	6,286	0	0	0	31
Percentage of total	0.00%	0.00%	0.03%	0.06%	0.01%	0.00%	0.00%	0.00%	0.00%
Minerals									
Total No. Parcels	4	0	0	3	11	7	0	0	30
Total Eq. Assessed Value	56,574	0	0	99,945	348,597	262,264	0	0	2819886
Percentage of total	0.06%	0.00%	0.00%	0.10%	0.61%	0.71%	0.00%	0.00%	0.43%
TOTALS									
Total EAV per Township	88,554,935	32,106,739	36,455,476	102,169,979	57,070,020	36,855,357	43,860,466	142,386,110	652,479,747
Total Assessed Parcels	3152	1103	1332	2687	2623	1140	1256	4464	21563
Non-Homestead Exempt Parcel	89	21	44	163	80	31	29	46	404
TWP Parcel Totals	3241	1124	1376	2850	2703	1171	1285	4510	21967

Appendix VII

Procedures and Criteria for proposed FPA Expansions Affecting Identified Agricultural Preservation Areas

It is the policy of the Commission to maintain areas designated as "agricultural preservation" in the *Strategic Plan for Land Resources Management* for farming and uses ancillary to and supportive of the farming economy and community.

Agricultural preservation areas also include agriculture areas cited in officially-adopted county or municipal land use plans, as well as all areas designated by the State of Illinois through the Illinois Agricultural Area Conservation and Protection Act. Agricultural preservation areas are regarded as inappropriate for estate, suburban and urban-type development. Only under special conditions, defined by adopted criteria, will designations of agricultural preservation be modified to accommodate development not related to farming.

All amendment requests impacting Agricultural Preservation Areas exceeding one hundred acres require a full "Level I" plan amendment process including a public hearing and action by the full Commission.

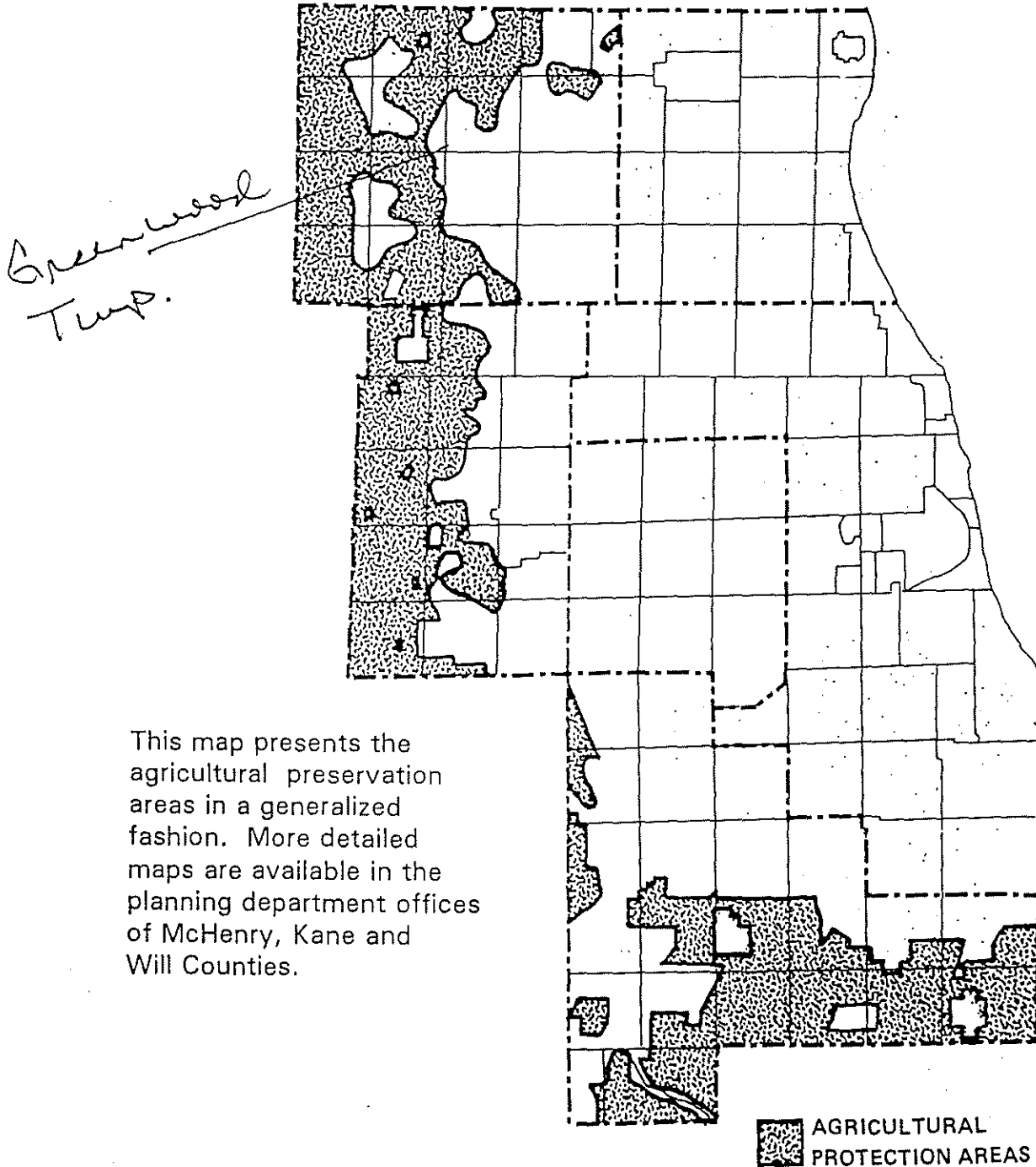
When Facility Planning Areas are proposed to be extended into an agricultural preservation area, the applicant must demonstrate that the proposed FPA amendment, which includes areas in the Agricultural Preservation Area, has been planned in a manner that will minimize adverse impacts on agricultural resources and farming operations. A recommendation by the Commission will be based on the degree to which the proposal satisfies all of the following criteria:

- (1) a minimum amount of Agricultural Preservation Area is included in the FPA amendment;
- (2) expansion of the FPA into the Agricultural Preservation Area is necessary in order to accommodate growth consistent in amount with Commission forecasts;
- (3) the FPA expansion is based upon a comprehensive planning process which considers farmland preservation;
- (4) the FPA expansion is required in order to accommodate an economic development opportunity of regional significance not provided for in a county or municipal plan;
- (5) and the applicant provides assurances that the proposed wastewater treatment and development regulations will protect water quality in the

expanded FPA and in Agricultural Preservation Area that could be affected by development within an expanded FPA.

These criteria do not preclude the use of other, general criteria used by the Commission in reviewing proposed amendments to wastewater Facility Planning Areas. An extension of an FPA into the Agricultural Preservation Area cannot be approved without amendment of the Agricultural Preservation Area to remove this designation from area within the extended FPA.

Agricultural Preservation Areas



AGRICULTURE INTENSIVE USE
AFFIDAVITS INFORMATION SHEET

Q. What is an Agriculture Intensive Use Affidavit?

A. It is a form filed with the McHenry County Building and Zoning Enforcement Officer for purposes of notifying interested persons that an agricultural use is present which may negatively influence surrounding properties. (See attached form.)

Q. How do I file an agriculture intensive use affidavit?

A. If you have a feedlot or a covered confinement livestock or dairy facility which accommodates one hundred animal units or more, a grain handling, conditioning, or drying operation, or other agricultural use which might negatively influence surrounding properties, fill out the attached form and return it to the Building and Zoning Department. That's all!

Q. What happens after an intensive use affidavit has been filed?

A. The location of the intensive use(s) is marked on the appropriate township zoning map. The original affidavit is then placed on file.

Q. Is there a cost involved?

A. No.

Q. How long is an affidavit valid?

A. An affidavit is valid until such time as the property owner (who filed the affidavit) notifies the Building and Zoning Enforcement Officer that the intensive use activity has ceased.

Q. What protection will a filed affidavit offer me?

A. Intensive use affidavits are part of the criteria considered by the Zoning Board of Appeals and the County Board in any rezoning decisions. They may also help to defend the farm in the event of a nuisance suit, filed by nearby residents, particularly if the affidavit was filed prior to the establishment of a new residence.

Q. Where can I obtain more information or answers about Agriculture Intensive Use Affidavits?

A. For more information contact the McHenry County Building and Zoning Department, 2200 N. Seminary Avenue, Woodstock. Phone: 815-338-2040, ext. 160.

OFFICIAL FORM
AGRICULTURE INTENSIVE USE AFFIDAVIT

NAME _____ PHONE _____

ADDRESS _____

ZIP CODE _____

SIZE OF FARMING OPERATION _____

NUMBER OF ANIMALS (If any) _____

TAX NUMBER _____

LOCATION-Legal Description (get this from your tax bill) _____

Describe below (possibly with a diagram and brief description) the Agricultural Intensive use area in relationship to the operation and road frontage:

Date _____

Signature _____

MAIL TO: **Building and Zoning Department**
McHenry County Courthouse
2200 North Seminary Street
Woodstock, Illinois 60098

.....
P.S. If you need help in filling out this form, bring it to the Farm Bureau building.

PLANNING & DEVELOPMENT INFORMATION SERIES

Bulletin #1

Prime Farmland

The United States Department of Agriculture-Natural Resource Conservation Service defines prime farmland as,

“land best suited for producing food, feed, forage, fiber, and oilseed crops, and also available for these uses. The land currently could be cropland, pasture land, range land, forest land, or other land but not urban build-up land or water. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops economically when treated and managed, including water management, according to modern farming methods. The criteria for identification of prime farmlands is entirely related to soil characteristics and other physical criteria.”

By definition, prime farmland may be covered with row crops, trees, bushes, grasses, pasture vegetation, or weeds. Areas of urban/build-up, land greater than 10 acres in size, are not considered prime farmland regardless of soil type and/or proficiency.

Based on physical characteristics of the soil (moisture supply, temperature, soil pH, water table, ion exchange, flooding, erodibility, permeability, and coarseness of rocks) the NRCS' definition is beneficial from a national or state perspective because it can be used to tabulate the quantity and quality of the United States' agricultural land base. Furthermore, because the term “prime farmland” has come into common usage among soil scientists, planners, and government officials, it likewise provides a starting point for understanding and identifying the best farmland, and forges a foundation for making land use decisions at the local level.

In McHenry County, the distribution of farmland soils is very complex. McHenry County's *Land Use Plan Year 2010 Update*, considers prime farmland to be all **available** land which has the soil qualities and moisture supply to produce sustained high yields of crops when adequately treated and managed. In addition to the USDA criteria, the County also uses a Land Evaluation and Site Assessment (LESA) Quarter Section Analysis to identify areas which should be protected from all nonfarm activities.

Full Definition of Prime Farmland

Currently, the USDA-NRCS identifies Prime Farmland in Illinois with the following criteria:

- A. The soils have sufficient available water capacity within the depth of 40 inches, or in the root zone if it is less than 40 inches deep, (a minimum of 4 inches of available water in the upper 40 inches), to produce the commonly grown crops 7 or more years out of 10.
- B. The soils have a mean annual soil temperature at a depth of 20 inches higher than 32 degrees Fahrenheit. In addition, the mean summer temperature at 20 inches is higher than 59 degrees.
- C. The soils have a pH between 4.5 and 8.4 in all horizons within a depth of 40 inches or in the root zone if the root zone is less than 40 inches deep.
- D. The soils have no water table or a water table that is maintained at a sufficient depth to allow crops common to the area to be grown.
- E. The soils have in all horizons within a depth of 40 inches or in the root zone if the root zone is less than 40 inches deep, an exchangeable sodium percentage of less than 15.
- F. The soils flood less often than once in two years during the growing season.
- G. The soils have a product K (erodibility factor) X percent slope of less than 2.0.
- H. The soils have a permeability rate of at least 0.006 inches per hour in the upper 20 inches.
- I. Less than ten percent of the surface layer in these soils consists of rock fragments coarser than three inches.

PRIME FARMLAND

Survey Area- MCHENRY COUNTY, ILLINOIS

Map Symbol	Prime Farmland Code	Soil Mapunit Name
23B	1	BLOUNT SILT LOAM, 1 TO 4 PERCENT SLOPES
27B	1	MIAMI SILT LOAM, 1 TO 4 PERCENT SLOPES
55B	1	SIDELL SILT LOAM, 1 TO 4 PERCENT SLOPES
55C2	1	SIDELL SILT LOAM, 4 TO 7 PERCENT SLOPES, ERODED
56B	1	DANA SILT LOAM, 1 TO 4 PERCENT SLOPES
57B	1	MONTMORENCI SILT LOAM, 1 TO 4 PERCENT SLOPES
57C2	1	MONTMORENCI SILT LOAM, 4 TO 7 PERCENT SLOPES, ERODED
59	1	LISBON SILT LOAM
60B	1	LA ROSE SILT LOAM, 2 TO 4 PERCENT SLOPES
60C2	1	LA ROSE SILT LOAM, 4 TO 7 PERCENT SLOPES, ERODED
62	2	HERBERT SILT LOAM
67	2	HARPSTER SILTY CLAY LOAM
79A	1	DAKOTA SILT LOAM, 0 TO 2 PERCENT SLOPES
79B	1	DAKOTA SILT LOAM, 2 TO 4 PERCENT SLOPES
79C2	1	DAKOTA SILT LOAM, 4 TO 7 PERCENT SLOPES, ERODED
87B	1	DICKINSON SANDY LOAM, 1 TO 4 PERCENT SLOPES
87C2	1	DICKINSON SANDY LOAM, 4 TO 7 PERCENT SLOPES, ERODED
102	1	LA HOGUE LOAM
104	2	VIRGIL SILT LOAM
125	2	SELMA LOAM
132	2	STARKS SILT LOAM
134A	1	CAMDEN SILT LOAM, 0 TO 2 PERCENT SLOPES
134B	1	CAMDEN SILT LOAM, 2 TO 4 PERCENT SLOPES
144B	1	ALVIN SANDY LOAM, 1 TO 4 PERCENT SLOPES
144C2	1	ALVIN SANDY LOAM, 4 TO 7 PERCENT SLOPES, ERODED
145B	1	SAYBROOK SILT LOAM, 1 TO 4 PERCENT SLOPES
145C2	1	SAYBROOK SILT LOAM, 4 TO 7 PERCENT SLOPES, ERODED
146B	1	ELLIOTT SILT LOAM, 1 TO 4 PERCENT SLOPES
146C	1	ELLIOTT SILT LOAM, 4 TO 7 PERCENT SLOPES
148A	1	PROCTOR SILT LOAM, 0 TO 2 PERCENT SLOPES
148B	1	PROCTOR SILT LOAM, 2 TO 4 PERCENT SLOPES
148C2	1	PROCTOR SILT LOAM, 4 TO 7 PERCENT SLOPES, ERODED
149	1	BRENTON SILT LOAM
150B	1	ONARGA SANDY LOAM, 1 TO 4 PERCENT SLOPES
150C2	1	ONARGA SANDY LOAM, 4 TO 7 PERCENT SLOPES, ERODED
152	2	DRUMMER SILTY CLAY LOAM
156	1	RIDGEVILLE SANDY LOAM
191	2	KNIGHT SILT LOAM
194B	1	MORLEY SILT LOAM, 2 TO 4 PERCENT SLOPES
197	1	TROXEL SILT LOAM
198	1	ELBURN SILT LOAM
205B	1	METEA LOAMY SAND, 1 TO 4 PERCENT SLOPES
205C2	1	METEA LOAMY SAND, 4 TO 7 PERCENT SLOPES, ERODED
206	2	THORP SILT LOAM
219	1	MILLBROOK SILT LOAM, 1 TO 4 PERCENT SLOPES
223B	1	VARNA SILT LOAM, 1 TO 4 PERCENT SLOPES

PRIME FARMLAND

Survey Area- MCHENRY COUNTY, ILLINOIS

Map Symbol	Prime Farmland Code	Soil Mapunit Name
223C2	1	VARNA SILT LOAM, 4 TO 7 PERCENT SLOPES, ERODED
228B	1	NAPPANEE SILT LOAM, 2 TO 4 PERCENT SLOPES
232	2	ASHKUM SILTY CLAY LOAM
240B	1	PLATTVILLE SILT LOAM, 1 TO 4 PERCENT SLOPES
265B	1	LOMAX LOAM, 1 TO 4 PERCENT SLOPES
290A	1	WARSAW SILT LOAM, 0 TO 2 PERCENT SLOPES
290B	1	WARSAW SILT LOAM, 2 TO 4 PERCENT SLOPES
290C2	1	WARSAW SILT LOAM, 4 TO 7 PERCENT SLOPES, ERODED
291B	1	XENIA SILT LOAM, 1 TO 4 PERCENT SLOPES
292	2	WALLKILL SILT LOAM
296	2	WASHTENAW SILT LOAM
297A	1	RINGWOOD SILT LOAM, 0 TO 2 PERCENT SLOPES
297B	1	RINGWOOD SILT LOAM, 2 TO 4 PERCENT SLOPES
297C2	1	RINGWOOD SILT LOAM, 4 TO 7 PERCENT SLOPES, ERODED
298B	1	BEECHER SILT LOAM, 1 TO 4 PERCENT SLOPES
3076	5	OTTER SILT LOAM, FREQUENTLY FLOODED
3082	5	MILLINGTON LOAM, FREQUENTLY FLOODED
310B	1	MCHENRY SILT LOAM, 1 TO 4 PERCENT SLOPES
322B	1	RUSSELL SILT LOAM, 1 TO 4 PERCENT SLOPES
325A	1	DRESDEN SILT LOAM, 0 TO 2 PERCENT SLOPES
325B	1	DRESDEN SILT LOAM, 2 TO 4 PERCENT SLOPES
325C2	1	DRESDEN SILT LOAM, 4 TO 7 PERCENT SLOPES, ERODED
327A	1	FOX SILT LOAM, 0 TO 2 PERCENT SLOPES
327B	1	FOX SILT LOAM, 2 TO 4 PERCENT SLOPES
327C2	1	FOX SILT LOAM, 4 TO 7 PERCENT SLOPES, ERODED
329	2	WILL SILTY CLAY LOAM
330	2	PEOTONE SILTY CLAY LOAM
342	2	MATHERTON SILT LOAM
343	1	KANE SILT LOAM
344A	1	HARVARD SILT LOAM, 0 TO 2 PERCENT SLOPES
344B	1	HARVARD SILT LOAM, 2 TO 4 PERCENT SLOPES
344C2	1	HARVARD SILT LOAM, 4 TO 7 PERCENT SLOPES, ERODED
346B	1	DOWAGIAC SILT LOAM, 1 TO 4 PERCENT SLOPES
346C2	1	DOWAGIAC SILT LOAM, 4 TO 7 PERCENT SLOPES, ERODED
347	2	CANISTEO LOAM
348B	1	WINGATE SILT LOAM, 1 TO 4 PERCENT SLOPES
348C2	1	WINGATE SILT LOAM, 4 TO 7 PERCENT SLOPES, ERODED
353	2	TORONTO SILT LOAM
361B	1	KIDDER LOAM, 1 TO 4 PERCENT SLOPES
363B	1	GRISWOLD LOAM, 2 TO 4 PERCENT SLOPES
363C2	1	GRISWOLD LOAM, 4 TO 7 PERCENT SLOPES, ERODED
7364	1	ORION SILT LOAM, RARELY FLOODED

PRIME FARMLAND

Survey Area- MCHENRY COUNTY, ILLINOIS

Prime
Map Farmland
Symbol Code Soil Mapunit Name

Prime
Farmland
Code Description

- 1 All areas are prime farmland.
- 2 Only drained areas are prime farmland.
- 5 Only drained areas that are either protected from flooding or not frequently flooded during the growing season are prime farmland.

Water Quality Assistance: Who to Contact in Illinois

The potential for water contamination can come from any number of sources—underground storage tanks, septic systems, pesticides on the farm, pesticides at home, or livestock waste, to name a few. Because of the wide range of hazards to water, there is no single organization or government agency that can handle all questions or problems.

The purpose of this publication is to outline which agencies or organizations in Illinois you can contact for assistance on different water-quality issues. The telephone numbers and addresses for state and regional offices can be found on page 3. Unit offices of the Cooperative Extension Service are listed by county on page 4.

WATER TESTING

To locate an EPA-approved water-testing laboratory in your area

- Illinois Environmental Protection Agency
- Illinois Department of Public Health, Division of Environmental Health
- Your local Cooperative Extension Service office

To have your water tested

- Your county or regional Public Health Department
- Illinois State Water Survey

To find out more about drinking water contaminants and to obtain drinking water health advisories (reports that describe drinking water standards and the risks posed by different chemicals)

- Illinois Environmental Protection Agency
- Illinois Department of Public Health, Division of Environmental Health
- The U.S. EPA Safe Drinking Water Hotline

TYPES OF WATER SUPPLIES

In Illinois, water supplies fall into the following four categories.

Community supplies. These are public water supplies that serve residents all year round. A public supply is any well with 15 or more service connections or any well that serves at least 25 people for at least 60 days per year.

Non-community supplies. These are public water supplies that serve non-residents—for instance, wells that serve restaurants and campgrounds.

Semi-private supplies. Although these water supplies are not considered public supplies, they serve more than one single-family dwelling.

Private supplies. These water supplies, usually wells, serve an owner-occupied, single-family dwelling.

In general, if you have concerns about community water supplies, contact the water supplier or the Illinois Environmental Protection Agency. For concerns about any of the other three types of water supplies, contact the Illinois Department of Public Health.

WATER TREATMENT

For information about water-treatment methods

- Illinois Department of Public Health, Division of Environmental Health
- Water Quality Association

To report deceptive sales methods or faulty claims

- Federal Trade Commission Regional Office

To find out more about a water-treatment company or a water-equipment dealer

- Better Business Bureau
- Water Quality Association

WATER SUPPLIES

In Illinois, water supplies are regulated by one of two different agencies, depending on the type of supply.

For information about regulations and contamination standards for *community* water supplies

- Illinois Environmental Protection Agency

For information about regulations and contamination standards for *private, semi-private, or non-community* water supplies

- Illinois Department of Public Health, Division of Environmental Health

SEWAGE

If you experience problems with sewage backflow or sewage infiltration into your community drinking water supply

- Your municipality
- Your regional office of the Illinois Environmental Protection Agency, Division of Water Pollution Control or Division of Public Water Supplies



Cooperative Extension Service
University of Illinois at Urbana-Champaign

➤ WATER QUALITY ASSISTANCE

If you experience problems with sewage backflow or sewage infiltration into your private, semi-private, or non-community water supply

- Your county or regional Public Health Department

WELLS

For information and assistance in sealing abandoned wells

- Illinois Department of Public Health, Division of Environmental Health
- Illinois Department of Energy and Natural Resources

For information about well location, construction, and regulations

- Illinois Department of Public Health, Division of Environmental Health
- Illinois State Geological Survey
- Illinois State Water Survey

For information about testing and disinfecting wells

- Illinois Department of Public Health, Division of Environmental Health
- Illinois State Water Survey

SEPTIC SYSTEMS

For information about septic system construction, operation, maintenance, and regulations

- Illinois Department of Public Health, Division of Environmental Health

HAZARDOUS WASTES

For information about hazardous waste disposal and regulations

- Illinois Environmental Protection Agency
- Hazardous Waste Research and Information Center

INTEGRATED PEST MANAGEMENT

For information about scouting and ways to reduce insecticide use

- Your local Cooperative Extension Service office
- University of Illinois Office of Agricultural Entomology

For information about scouting and ways to reduce herbicide use

- Your local Cooperative Extension Service office
- University of Illinois Department of Agronomy

To have plants tested for insect, weed, or disease damage

- University of Illinois Plant Clinic

The clinic is open from May 1 to mid-September.

HOUSEHOLD PESTICIDES

For information on chemical use and application

- Your local Cooperative Extension Service office

PESTICIDES ON THE FARM

To report a chemical spill

- Illinois Emergency Management Agency

Play it safe. Report all spills.

For information about regulations and requirements for reporting chemical spills

- Illinois Environmental Protection Agency, Emergency Response Unit

For information about chemical storage and disposal—including regulations

- Illinois Environmental Protection Agency

For information about soil types and soil-pesticide interactions

- Illinois State Geological Survey
- Your local Soil Conservation Service office

For information on pesticide label changes and concerns about agricultural chemicals

- Illinois Department of Agriculture, Bureau of Environmental Programs

For information and assistance in establishing atrazine setback zones

- Illinois Department of Agriculture, Bureau of Environmental Programs
- Your local Soil Conservation Service office

- Your local Agricultural Stabilization and Conservation Service office
- Your local Cooperative Extension Service office

CHEMIGATION

For information about chemigation regulations

- Illinois Department of Public Health, Division of Environmental Health
- Illinois Department of Agriculture, Bureau of Environmental Programs

NITROGEN

For information about soil testing

- Illinois State Geological Survey
- Your local Soil Conservation Service office

LIVESTOCK WASTE STORAGE

For information about livestock waste storage regulations

- Illinois Environmental Protection Agency

UNDERGROUND STORAGE TANKS

For information about underground storage tanks

- Illinois Office of the State Fire Marshal, Division of Petroleum and Chemical Safety
- Illinois Environmental Protection Agency

To report a leaking underground storage tank

- Illinois Environmental Protection Agency

SOIL EROSION

For information and assistance in controlling soil erosion

- Your local Soil Conservation Service office
- Your local Soil and Water Conservation District office
- Association of Illinois Soil and Water Conservation Districts
- Your local Cooperative Extension Service office

For financial assistance in implementing conservation measures

- Your local Agricultural Stabilization and Conservation Service office
- Your local Soil and Water Conservation District office

WATER-QUALITY INFORMATION

To obtain educational information about water protection

- Your local Cooperative Extension Service office
- Illinois Department of Energy and Natural Resources
- Your local Farm Bureau office
- American Water Works Association

To obtain a copy of *50 Ways Farmers Can Protect Their Groundwater*

The University of Illinois Cooperative Extension Service has published a comprehensive guide to groundwater protection, *50 Ways Farmers Can Protect Their Groundwater*. This 200-page book provides management tips on fifty important areas of groundwater protection. It also contains several profiles of Midwestern farmers who have protected their groundwater while maintaining and even increasing yields and profits. Order your copy today for only \$5.00.

Call (217)333-2007. Or write to:

Office of Agricultural Communications
and Education
University of Illinois
69RU Mumford Hall
1301 W. Gregory Dr.
Urbana, IL 61801

Make checks payable to University of Illinois.

► RESOURCE UPDATE TWO

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Design

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July 1993/10M

STATE AND REGIONAL ADDRESSES AND PHONE NUMBERS

Agricultural Stabilization and
Conservation Service
USDA—Illinois State ASCS office
3500 Wabash Ave.
Springfield, IL 62794
(217)492-4180

American Water Works Association
6666 W. Quincy Ave.
Denver, CO 80235
(800)926-7337

Association of Illinois Soil and Water
Conservation Districts
40 Adloff Lane, Suite 2
Springfield, IL 62703
(217)529-7788

Better Business Bureau
211 W. Wacker Dr.
Chicago, IL 60606
(312)444-1188

Farm Bureau
1701 Towanda Ave.
Bloomington, IL 61701
(309)557-3271

Federal Trade Commission
Regional Office
55 E. Monroe St., Suite 1437
Chicago, IL 60603
(312)353-4423

Hazardous Waste Research and
Information Center
One East Hazelwood Dr.
Champaign, IL 61820
(217)333-8940

Illinois Department of Agriculture
Bureau of Environmental Programs
P.O. Box 19281
Springfield, IL 62794-9281
(217)785-2427

Illinois Department of Energy and
Natural Resources
325 W. Adams
Springfield, IL 62704
(217)785-8577

Illinois Department of Public Health
Division of Environmental Health
525 W. Jefferson St.
Springfield, IL 62761
(217)782-5830

Illinois Environmental Protection Agency
2200 Churchill Rd.
P.O. Box 19276
Springfield, IL 62761-9276
(217)782-3397

To report a leaking underground storage
tank (217)782-6760
Emergency Response Unit (217)782-3637

Illinois Emergency Management Agency
(800)782-7860

Illinois Office of the State Fire Marshal,
Division of Petroleum and Chemical
Safety
1035 Stevenson Dr.
Springfield, IL 62703-4259
(217)785-5878

Illinois State Geological Survey
615 E. Peabody Dr.
Champaign, IL 61820
(217)333-4747

Illinois State Water Survey
2204 Griffith Dr.
Champaign, IL 61820
(217)333-2210

Soil Conservation Service
Illinois State Office
1902 Fox Dr.
Champaign, IL 61820
(217)398-5265

University of Illinois
Cooperative Extension Service
122 Mumford Hall
1301 W. Gregory Dr.
Urbana, IL 61801

University of Illinois
Department of Agronomy
W 203 Turner Hall
1102 S. Goodwin
Urbana, IL 61801
(217)333-4424

University of Illinois
Office of Agricultural Entomology
172 Natural Resources Building
607 E. Peabody Dr.
Urbana, IL 61801
(217)333-6651

University of Illinois
Plant Clinic
Send samples to:
Plant Clinic
1401 W. Saint Mary's Rd.
Urbana, IL 61801
(217)333-0519

The clinic is open from May 1 to
mid-September.

The U.S. EPA Safe Drinking Water
Hotline
(800)426-4791
Monday through Friday, 8:00 a.m. to
4:30 p.m. Central Standard Time

Water Quality Association
4151 Naperville Rd.
Lisle, IL 60532
(708)505-0160

