

DRAFT

***Green Lake County
Land Records
Modernization Plan***

Prepared by the
Green Lake County Land Information Committee
December, 1998

Please Direct Any Questions To:

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Forward (1992)

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REVISION DATE?

Our nation's land records system has remained fairly static for over two hundred years, yet land uses and maintenance of our land resources has dramatically changed since the late eighteenth century. Every year citizens, businesses, and the government all expect better access to public land records, but the demands have only further stymied an inadequate system. Increased needs for efficient natural resource management have also heightened the urgency for the modernization of a system that inherently has extensive inconsistencies and needless records duplication.

These systems inadequacies lead the Wisconsin State Legislature to create the Wisconsin Land Information Program (WLIP) in 1989 in order to assist in the development and implementation of an integrated modern land information system. The Legislature also established the Wisconsin Land Information Board (WLIB) to support local and state governmental units in the implementation of land modernization plans. Financial assistance was built into the WLIP if counties created a Land Information Office (LIO) and produced WLIP approved county-wide plans for land records modernization.

The Green Lake County Board of Supervisors designated a Green Lake County LIO in June, 1990 (Resolution No. 30-90), to coordinate land information projects, develop a county-wide plan for land records modernization, and propose projects for WLIP grants.

This document is the blueprint for Green Lake County land records modernization and is recommended by the LIO and the County Land Information Committee. It was written using guidelines established by the WLIB, and is comprised of an inventory of current county land records activities, a set of goals and objectives for modernization, and an implementation framework and timeline for improving land records during the next five years.

This plan thoroughly reviews all public and private units affected by Green Lake County land records. It establishes objectives and procedures for the improvement of land records accuracy, reliability, and accessibility, and the enhancements of the county's ability to manage its natural resources. Its implementation will benefit Green Lake County citizens through cost savings in land records maintenance and the enhancement of our environmental management systems.

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INTRODUCTION

Background

Located within south-central Wisconsin, Green Lake County has a cornucopia of diverse and stimulating geographic landscapes. It is home to approximately 19,000 citizens and has 530 square miles of land dedicated to agriculture, industry, and tourism.

The geography of the county is colorful and picturesque. One can find phenomenal fishing in lakes, such as, Green Lake - the state's deepest freshwater body, or be surrounded by remarkable carved bluffs near Kingston. Pristine farmland in the north and protected wetlands in the southwest further exemplify the diversity of the county's landscape.

It is also a county of many proud identities: Berlin is the 'fur & leather capital of Wisconsin', Markesan is the 'Canning Capital of the U.S.', Green Lake is the 'oldest resort community west of the Niagara Falls', and Tuscumbia has the 'oldest golf course in Wisconsin'. These communities and others in Green Lake County have a proud heritage and distinctiveness that underscore the importance that farming, industry and tourism play in Green Lake County.

In all of these enterprises land records play a major part in the management and protection of the county's physical and cultural resources. There are also environmental concerns that need to be addressed, such as, groundwater and lake water quality, soil erosion, and wetlands preservation. All involve extensive examination of land records in order to make insightful & informed decisions. Consequently, land records modernization and the development of a Geographic Information System (GIS) is of major importance to county and State governmental units.

On June 19, 1990 the Green Lake County Board of Supervisors adopted a resolution creating a Land Information Office (LIO), forming the Green Lake Land Information Committee (LIC), and supporting land modernization activities (Appendix B). The charge of the Committee was to produce and implement a land records modernization plan for the county, as well as to supervise the development of a county GIS. This initiative was a direct result of the State of Wisconsin's creation of the Wisconsin Land Information Program (WLIP) and its authority under Wisconsin Act 31 and Act 339 in 1989 (ss. 59.88).

Land Information Office

The Wisconsin Land Information Board (WLIB), as authorized under the State of Wisconsin Land Information Program (WLIP), recommends that every county establish a Land Information Office (LIO) (ss. 59.72). The Green Lake Board of Supervisors designated that the Office of the Register of Deeds is the official LIO for Green Lake County. The Register of Deeds is the official contact person for the Land Information Office:

Lynn Keach
Register of Deeds Office
492 Hill Street, P. O. Box 3188
Green Lake, Wisconsin 54941-3188
(414) 294 - 4024

Green Lake County Land Information Committee

Individuals serving on this Committee were chosen based either on their direct involvement with land records information within county government, or because of their knowledge of Green Lake County land records. A wide range of interests are represented on the Committee, which provides a forum for a broad exchange of land records modernization information and ideas.

Paul Gustafson, Chair
County Board Finance Chair
County Board

Lynn Keach, Vice-Chair
Register of Deeds
Register of Deeds' Office

Margaret R. Bostelmann, Secretary
County Clerk
County Clerk's Office

Don Bartol
County Board Chair
County Board

Tim Mashuda
Highway Commissioner
Highway Department

Lance Buchholtz
Sheriff
Sheriff's Office

Kathy Morris
County Treasurer
Treasurer's Office

Nancy Cotterill
Real Property Lister
Land Description Office

Bruce Roskum
Land Use Planning & Zoning Director
Planning and Zoning Department

James Hebbe
County Conservationist
Land Conservation Department

Al Shute
County Surveyor
County Surveyor's Department
SURVEY UNIT OF PLANNING AND ZONING DEPT.

Vincent Leasum
MIS Director
MIS Department

Committee members can be contacted through the Green Lake County Land Information Office.

In addition to the member organizations, the following governmental units and private businesses have been active sponsors or supporters of land records modernization and the establishment of the Green Lake County Land Modernization effort:

Green Lake County Agencies/Departments: Clerk of Courts
Green Lake Chamber of Commerce
Green Lake Sanitary District

Cities: Berlin
Green Lake
Markesan
Princeton

Villages: Kingston
Marquette

Towns: Berlin
Brooklyn
Green Lake
Kingston
Mackford
Manchester
Marquette
Princeton
St. Marie
Seneca

Wisconsin Department of Natural Resources (WiDNR)
Wisconsin Department of Transportation (DOT)
Wisconsin Geological and Natural History Survey (WGNHS)
Wisconsin Cartographer's Office
Wisconsin State Historical Society
Wisconsin Land Information Program
Natural Resource Conservation Service (NRCS) – Madison Office
U.S. Department of Commerce – Bureau of the Census
U.S. Department of the Interior – U.S. Geological Survey (USGS)

Plan Intent And Purpose

As recommended by the WLIB, the Green Lake Land Records Modernization Plan consists of four sections: Introduction, Current Activities and Inventory, Goals and Objectives, and Modernization and Implementation. The intent of this document is to

provide a synopsis of the organizations affected by land records modernization, as well as provide guidance for the future development of the county's land records modernization. It should serve as a guideline for the Green Lake County Board, the WLIB, and affected Green Lake County government units and private organizations, as to the envisioned creation and maintenance of a viable Green Lake County land information system.

CURRENT ACTIVITIES AND INVENTORY

In 1992 the Green Lake County Land Information Committee and the University of Wisconsin Stevens Point conducted an extensive survey to determine the current status of land records in Green Lake County. Either personal interviews or mailed questionnaires were completed with over a hundred land record collectors, users, and custodians throughout Wisconsin. The majority of contacts replied with relevant information and questions about the county plan. All known government and private firms who used Green Lake County land records were interviewed. Information was collected on types, usage, and maintenance of land records. Additionally, questions were asked of the agency or business if they had created or maintained any records in digital form. Interview results are summarized in the 1992 Land Record Modernization Plan. This summary is split into three major sections: County and Municipal Governments, Federal and State Agencies, and the Private Sector. In 1998 the plan was revised and updated. Contact was reestablished with most of the original contactees in an effort to reassess the current status of the county's land records.

A glossary is provided (Appendix E) for readers unfamiliar with GIS terminology and acronyms.

1. County and Municipal Government

County Departments and Offices :

a. Clerk of Courts

The Clerk of Court's Office maintains records of all civil cases, judgments, divorce records and liens. They need accurate information on land ownership and property assessment as such information may be critical to civil suits and other cases involving property decisions. A computerized land records database would expedite record keeping and office procedures.

b. County Clerk

The County Clerk's Office needs up-to-date maps of all political boundaries to answer questions from the general public. All election records are maintained in this office. A computerized land information system would provide an efficient means of updating boundary and record changes.

c. County Treasurer

The Treasurer's Office is responsible for maintaining all tax status records. They also make extensive use of legal ownership, parcel identification (PIN), assessed value

and tax jurisdiction information. A limited amount of legal ownership and parcel identification information is maintained in a digital format networked with the Land Description Office. Computerized parcel mapping and access to those digitally would improve efficiency, as would linking tax information to the maps digitally. Linking digitally to information in the Register of Deeds office is also desirable for efficiency.

d. County Surveyor

The Green Lake County Surveyor is an active participant in the county's land records modernization plan. The key element of this plan which is provided by the County Surveyor is the control network. The county has 24 High Accuracy Reference Network (HARN) control points located throughout the county. These control points have accuracy of 1ppm, 2ppm, or 4ppm. All of the HARN control network will be used to control projects such as orthophotography, Public Land Survey System (PLSS) corners, GIS, roads, etc. The most used level of control will be the section corners. Remonumentation of the county's 1800 section began in 1971, with 1400 having been completed. This remonumentation only perpetuated the physical corner location, but did not establish any control between section corners. The control element of the remonumentation is just now beginning. Most corners which need to be set are center of sections and remote corners in the White River Marsh and Grand River Marsh.

In 1997 the county purchased a computer and real time Global Positioning System (GPS). Then in 1998 the County Surveyor began collecting and storing control point data (section corner and HARN). The County Surveyor is committed to continuing this process through to its completion, as it will benefit the Land Records Modernization

e. Green Lake Sanitary District (GLSD)

The GLSD maintains a considerable amount of information on Green Lake parcels. There are approximately 2,100 parcels within the GLSD. GLSD maintains files containing tax number, township, fire number, legal description, lot-block-subdivision, well and septic system information for each parcel. The GLSD focuses primarily on local sewer and water needs, aquatic weed control, and non-point source pollution. The GLSD Administrator is very supportive of county efforts towards land records modernization and standardization.

f. Highway Department

The County Highway Department maintains information on official right-of-way, gas mains, electric lines and drainage. They also make extensive use of survey records and property ownership information generated and maintained by other county agencies. An integrated county land records system would allow for easier access and exchange of information.

g. Land Conservation Department

The Land Conservation Department (LCD) maintains files on over 700 county

landowners/cooperators. Soils information, aerial photography, and topographic maps are used on a daily basis as part of conservation planning, technical design, and installation of erosion control practices. Landowner files document land use as part of a conservation plan. Most of this information is in both hard copy and in the USDA-FOCS system. The FOCS will be converted to an open environment GIS in early 1999. Transferring the data requires a cooperative venture between USDA - Farm Service Agency, NRCS, WiDNR, Department of Agriculture - Trade and Consumer Protection, and the county's LCD.

The LCD also has a contract with the WGNHS to create a study of the geologic, mineral, soil, and groundwater resources of Green Lake County. This geological study will aid county departments with information such as gravel deposits and identifying groundwater recharge areas to create groundwater protection standards. This database will be delivered in a format compatible with the county's GIS environment.

The LCD is also beginning to work in late 1998 with the Fond du Lac County LCD, the GLSD, and Fox-Wolf Basin 2000 on watershed inventory for the Big Green Lake Watershed. The project will create DTM (Digital Terrain Model) on a field-by-field subwatershed basis. The information from current LCD landowner's files will create the GIS based watershed model. This work is being done to allow for potential watershed based nutrient trading between different government units as well as the possibility of between landowners.

The LCD remains very committed to future land information modernization.

h. Land Description

The Land Description Office is responsible for maintaining all parcel information and fire numbers. Current county parcel (plat) maps are hand inked maps bound into 18 volumes. The maps vary in scale and date of origin. All updates and changes are drawn in with a pen. The Village of Kingston, as well as the unplatted areas of the Towns of Green Lake, Mackford, and Manchester and portions of the Town of Princeton, are computerized. However, the computerized information has no ground control, metadata, is unprojected, is not scalable, is based on theoretical corners, and has not been maintained since late 1997. The Fire numbers are on Excel, as well as on the individual landowner records in GCS. A complete computerized land information and a standardized filing system would provide a much more efficient means of updating and retrieving parcel information.

PLSS ROAD
DIMENSIONS

i. Management Information Systems

The Management Information Systems (MIS) Department designs, implements, and maintains all county owned information systems. The MIS department does not use this data in day to day operations. The overall land records modernization program is the cornerstone for allowing all county residents and departments access to land records.

j. Planning & Zoning Department

The Planning & Zoning Department answers numerous questions daily from the general public concerning zoning, soil conditions, building and sanitary system permits, and farmland preservation requirements. Nearly 90% of office time is spent on activities concerning land records maintenance. A county GIS incorporating soil survey, wetlands, parcels data, addresses, street names, contours, orthophotography, land use, and zoning information would be a invaluable aid in day-to-day operations.

k. Register of Deeds

The Register of Deeds Office is the primary custodian for all land information of legal ownership and legal descriptions. All subdivision plats, cemetery plats, condo plats, and certified survey maps are recorded and on file in the office. Currently 1907 2552 certified survey maps and 251 plats are on record. A computerized land records system incorporating grantor/grantee information, in addition to being networked with the Treasurer's Office and the Land Description Office would greatly increase office efficiency and accuracy. Presently, nearly 75% of office time is spent on land records maintenance.

l. Sheriff's Office

The Sheriff's Office needs immediate access to current information on names, addresses, locations, legal ownership and political boundaries. Recently, the Sheriff's Office purchased a GDT mapping program which will give us basic Green Lake County and adjacent county road coverage. Currently Green Lake County is investigating an Emergency 911 Computer Aided Dispatch System. It is hoped that the E-911 database could eventually be integrated into the county GIS. This combination would provide accurate base maps and emergency routing options. Additionally the State of Wisconsin requires an accident data map which could be done much more accurately, quickly, and cost effectively through a computer mapping system. Other valuable information such as theft and burglary sites and moving traffic violation complaints could also be discerned more quickly and effectively through overlays in a computer mapping program.

m. U.W. Extension Service

The UW-Extension has a number of needs as a secondary user. Use of socio-economic census data is essential for state and federal grant applications as Extension staff work with organizations and local units of government. Use of road, parcel, and natural resource data layers would assist this department in working with the County Parks and Recreation Committee in the development and maintenance of parks and the identification, protection, and preservation of sensitive environmental areas. county economic development activities would benefit from data related to existing industrial parks, labor force, and availability of manufacturing/retail buildings. Though the needs of Extension are varied, data related to agricultural lands, land use, crop histories, livestock production, forestry, wetlands, and water resources would be useful. Use of GIS layers may occur as a single use or short notice basis.



Municipalities

n. Green Lake County - Cities, Villages and Towns

In 1992 surveys were sent to the Chairman, Mayors, Presidents, Clerks and/or Treasurers and Assessors of all municipalities in Green Lake County. Responses were received from at least one contact in each municipality.

At the present time, five town offices are using automated records to collect taxes and transmit collections to the county. They all indicated interest and support for county efforts to modernize land records. The Town Assessors and Clerks are especially aware of the need for standardized and automated records systems as they use and exchange information with county offices on a regular basis.

All municipalities, with the exception of the Village of Kingston, have been platted. It is hoped that the Village will be platted sometime in the near future to facilitate integration with the county's planned GIS.

All Cities and Villages indicate support and interest in standardizing land records information. The City of Berlin, which is faced with the unique situation of being in both Green Lake and Waushara Counties, has indicated support for both counties in their modernization efforts. Their Department of Public Works is using a SKADA system and has begun converting some city map information.

o. Special Agencies

Seven school districts, six private schools, and one technical college serve Green Lake County. They make use of a wide variety of land records including plat books, census information, addresses, tax jurisdiction and some parcel assessment information. Most districts maintain maps of school bus routes and a current address file of district families.

There are four historical societies in the county. They frequently research legal ownership, grantor/grantee and historical maps in their restoration and preservation projects.

2. Federal and State Agencies

a. U.S. Census

The United States Census produces and incredible amount of geographic data. Statistical data is available on agriculture, population, housing, manufacturing and transportation. All data is available on computer disk or CD-ROM. TIGER and DIME Files (topologically encoded block information) is also available on CD-ROM. The accuracy and resolution of this data is not fine enough to serve many county land records needs.

b. U.S. Geological Survey

The United States Geological Survey (USGS) is using a wide variety of computer

applications to produce current national inventory maps. Digital Elevation Models (DEMs) are produced for every 1:24,000 topographic map quadrangle. These are 3-dimensional data files. Digital Line Graphs (DLGs) are available for each county in the United States at scales of 1: 100,000 or 1:2,000,000. This data is relatively inexpensive (\$25-\$500) but post processing is usually necessary and USGS does not provide user support or extensive documentation.

c. EOSAT and SPOT Corporation

These two companies provide extensive remote sensing imagery for all areas of the United States from thematic mapper satellites. The imagery can be quite costly though and is usually beyond the normal budgets of county governments. Currently new advances in technology and the launching of new satellites are improving this technology and making it more affordable.

d. Nature Resource Conservation Service (NRCS)

Currently the county has soils data, converted to digital format from the soils sheets, developed in conjunction with NRCS. The data layer has been projected into the WSC-GL.

e. Wisconsin Department of Transportation (DOT)

The DOT has converted its roads information from a GB100 database into ArcInfo and ArcView formats. The DOT base maps were digitized from 1:100,000 scale maps. Their data is projected in the Wisconsin Transverse Mercator (WTM) coordinate system. The DOT has completed development of a HARN. They are currently redesigning the local roads database and hope to have it operational by the year 2000. This database includes conversion to a GIS format. The DOT also has a GIS bridge coverage that includes local and county bridges. The state has been using the MicroStation CAD system to enter plans electronically since 1986. All the information is available to the county.

f. Wisconsin Department of Natural Resources (WiDNR)

The DNR has been compiling an extensive GIS database for several years. They have a wide range of biological, geological, and topographic information available in digital form. All information can be obtained in a variety of formats.

g. Wisconsin Geological and Natural History Survey (WGNHS)

The WGNHS does not have any digital information available on Green Lake County at this time. They are interested in what the county may produce as a GIS is developed

h. Wisconsin State Historical Society (WSHS)

The WSHS is in the beginning process of developing a archeological GIS system. The WSHS has cultural and historical information that will be of interest to the county and they are interested in the county's GIS.

3. Private Sector

a. Fuel and light Companies*

Alliant : Wisconsin Power and Light Co. (WP&L) is currently developing a GIS. At this time WP&L has a coverage with their poles data, but no other information. Their layer is at a ± 30 -40 foot accuracy and are willing to share basic information. Wisconsin Gas recently had all their system information digitized from air photos by an outside vendor. Digital files contain roads, buildings and cadastral information. This information would be available for purchase by the county.

b. Telephone Companies

GTE currently has some digital information stored in an IDDS database.

Ameritech currently has some digital information in Intergraph's FRAMME system. Their layers are at a ± 40 foot accuracy and are willing to share some information.

c. Cable Television

Marcus Cable serves customers in Green Lake County. They are not using any sort of digital mapping or information system at this time nor do they have plans to convert to anything in the near future.

d. Surveyors and Engineers

Several area surveying and engineering companies are using a CAD system. All have indicated that their information would be available to the county and they would be happy to work with county officials to develop an automated land information system.

e. Real Estate, Appraisal and Title Insurance Companies

Real estate offices keep and use a wide variety of land records information. With the exception of Multiple Listing Service, nothing is being maintained in any sort of digital format. All Realtors contacted expressed interest in land records modernization and were supportive of county efforts.

Area title and abstract companies also use a variety of land description information and all expressed interest in seeing the county system modernized. Mid State Abstract Company is currently maintaining some parcel information in a digital form. They would like to see a public computer access terminal located in the Register of Deeds' Office.

GOALS AND OBJECTIVES

Goals

The main goal of Green Lake County is to increase the efficiency of land records maintenance and management through the improvement of land records accuracy, the cost reduction of handling land information, and the increase of its ability to develop

effective land management analysis tools. All land records will ultimately be united within a GIS that will be supported by all land-related county and local governmental offices, as well as private businesses being given the opportunity to aid in its development and management.

The modernization of land records is an essential step in being able to handle the prodigious rise of geographic data being generated. Information commonly held in several county departments must be maintained in a centralized GIS to allow greater accessibility to up-to-date records and to avoid duplication of effort. The cost of handling land records will eventually decrease by the avoidance of duplicate record keeping and more efficient processing of land records.

A county GIS also presents a proficient mechanism to aid in the solution of multifaceted land management problems. Farmland encroachment, wetland preservation, residential service expansion, planned real estate development, underground storage tank leakage, and location site analysis are all more effectively and competently solved with a modern land records management system.

Lastly, both government and private cooperation will be a key ingredient in accomplishing land records modernization goals. Geographic information must be able to flow in a punctual and expeditious fashion through local, state, and national agencies. GIS data and software, therefore, must be standardized and cooperative agreements reached between all land records agencies.

Objectives

The general goals discussed in the previous section are synthesized into six specific goals listed below. Each has a finite list of objectives that need to be completed in order to have successfully met that goal.

1. Enhance land records accuracy and reliability.

This will be performed through the following steps:

- (a) Primary data custodians will be identified for all land records.
- (b) A maintenance and standardized filing system policy will be implemented for handling land records.
- (c) A new Parcel Identification Number (PIN) system will be developed and implemented that is consistent with WLIB State recommendations.
- (d) Create an emergency address coding system for the county. The codes will be used within an emergency 911 response system as well as integrated into the GIS county database.

2. Conduct a pilot study to demonstrate a GIS capabilities.

A comprehensive GIS database will be developed and implemented for a diverse, large-scale area (5.5 sq. miles) of Green Lake County (Appendix D). Upon completion, it will be used to demonstrate the usage and efficiency of a modern land information system.

3. Establishing an accurate geographic foundation framework.

- (a) Complete remonumentation of the PLSS is the basis for all land records.
- (b) Establish a comprehensive network of coordinate points developed from GPS technology.
- (c) Develop a complete aerial survey to attain rectified orthophotography for all of Green Lake County. This development should include control points necessary for orthophotography rectification and associated planimetric and topographic data layers.

4. Promote cost-effectiveness by:

- (a) Promoting land data compatibility and standardization among government agencies, utilities, and the private sector to reduce needless duplication.
- (b) Encouraging coordination and cooperation between all land records agencies involved in modernization activities.
- (c) Develop an access policy for the planned GIS and the land records database.
- (d) Develop standard operating procedures to standardize data and achieve quality assurance and quality control of the generation of data.

5. Educate the general public about Land Records Modernization.

In order to increase the public's general awareness of the process and importance of land records modernization a modest educational program will be implemented. A videotape will be developed that outlines the potential of GIS in improving the general quality of life in Green Lake County through improved services and decision-making capabilities. This will be presented to the County Board and disseminated to interested businesses and the public. Also presentations will be made to the local county municipalities using the pilot project to demonstrate how the county's GIS will assist them and other organizations in their operations.

6. Strengthen Geographic Analysis Planning and Development Decisions by:

- (a) Creating a digital data base for use by departments in the development of plans of action and use in modeling and analysis.
- (b) Compiling a digital base map (i.e. PLSS and state HARN layers).
- (c) Developing functional resource analysis models for Green Lake County.

MODERNIZATION AND IMPLEMENTATION

Many studies (Marble & Wilcox, 1991) have shown that the success or failure of a GIS is often tied to the ability of managers to clearly identify realistic and functional requirements for their program. Although there are several general frameworks for the establishment of a land records modernization program, the specifics need to be keyed to the distinctiveness and individuality of the people that the program will impact.

Green Lake County has therefore followed the generic land modernization plan format recommended by the Wisconsin Land Information Board (WLIB), but has also carefully sculpted a plan that fits the needs of the county. It is a blueprint that is tenable and

doable within the next five years and will increase the efficiency of all agencies and individuals handling land records information in Green Lake County.

Accordingly, this section of the plan examines the four WLIB mandated standards, as well as the particular activities as delineated by the Green Lake County Land Information Committee. Each division is designated to further the previously defined goals and objectives that will be accomplished within the proposed timeline. A synopsis of all proposed activities and a timeline implementation guide is illustrated at the end of this section.

1. Foundational Elements

a. Geographic Frameworks

Green Lake County uses the PLSS as the basis for their land records.

An extensive GPS is being implemented to improve the geodetic control for the county. Corners identifying the original PLSS and the center of sections are being assigned State Plane Coordinates, converted to WSC-GL using GPS technology by the County Surveyor. These coordinates have an accuracy of 20ppm to 50ppm. The gathering of this information will be an ongoing process for the next three years. In addition there are 23 High Accuracy Reference Network (HARN) points located within the county. In surrounding counties there are 15 more HARN points located near Green Lake County's border. The HARN stations, a component of the geodetic network, have an accuracy of 1-4ppm. The County Surveyor is checking and giving coordinates to benchmarks within the county. These will provide additional vertical accuracy to be used primarily for orthophotography control.

SET BY VARIOUS AGENCIES
CHECK TO THE ORTHOMETRIC (SEA LEVEL) HEIGHTS OF THE HARN
The county is projecting all the coverages obtained and those being produced to the Wisconsin County Coordinate System – Green Lake (WCCS-GL).

The geographic framework necessary for the county GIS has been given a high land records modernization priority and should be complete by the end of 2001.

b. Parcels

Green Lake County's Land Description Office maintains parcel maps for the county. The majority of the hand drawn maps were created in the 1950's and early 1960's. Each map has been maintained and updated at the original scale (1" = 400') or as an enlargement (1" = 300' to 1" = 50'). They are housed in the Land Description Office and are bound into eighteen volumes. Although not legal evidence, these cadastral maps are the only comprehensive illustrations available for graphically depicting ownership boundaries.

The parcel mapping initiative requires both a solid geodetic and geographic reference framework in to be in place. This will occur for the original PLSS corners and the center of sections as the parcel mapping is to be done. Secondly, the present parcel numbering and encoding system is non-systematic and a complete revamping of the

f. Institutional Arrangements

Only one formal agreement exists between Green Lake County and outside agencies. The Land Information Committee is the official contact for making cooperative land records interchanges or arrangements. All parties interested in land records and the implementation of the Green Lake County GIS will be directed through this Committee.

Standard informal arrangements also exist between county and state offices that normally exchange land record data. For example, the Register of Deeds provides information to the Wisconsin Department of Revenue (DOR), the general public, title insurance companies, assessors, appraisers, Realtors, and lenders (banks). In contrast, zoning provides data to the general public and many other county and local agencies and offices.

The Land Information Committee, however, will explore the value and nature of formal agreements with both the public and private sector. Symbiotic data relationships may be cultivated between private businesses, such as, utility companies. Firms that want to access (read only) information for private enterprise and profit (e.g. Realtors) may be charged for county services. Exchange of geographic data between counties and state agencies may also be formalized to insure compatibility of the requested data (i.e. interchange standards).

Projects involving land records modernization research will also be cultivated if county benefits can be anticipated. The Land Information Committee believes in the philosophy of "opportunism." That is, when funding opportunities are presented outside the normal base budget county financing, they will be fully examined and developed to further aid the county GIS. Through the use of grant funding, special state or local funding, and the regular budget process, several parts of the land records modernization program may develop simultaneously. For example, the County Land Conservation Office is working with the USDA and the WiDNR in developing watershed management plans. In turn, this will likely lead to more cooperative arrangements and data sharing.

g. Communication, Education, and Training

Two of the main objectives of the plan involve educating both the general public and Green Lake County officials about the potential of GIS in improving land records maintenance efficiency. This will be accomplished through a proposed pilot project and the community outreach.

As outlined in the "Additional Activities" section (5), an extensive pilot study will be implemented to illustrate the procedures involved in building a GIS and its subsequent utility in maintaining land records and geographic problem-solving (e.g. groundwater contamination analysis). The pilot study area will encompass both urban and rural areas and will be targeted for completion by 2000. The end product will not only serve as a concrete example for Green Lake County citizens and officials, but will also thoroughly immerse county land record custodians in GIS

Parcel Identification Number(ing) (PIN) system is necessary before parcel COGO conversion.

Standardization of the PIN is a critical value in parcel COGOing, since it will be the key identification code for each parcel or lot within the planned GIS database.

It is also the tentative primary goal of the next five-year Green Lake County Land Modernization Plan (i.e. after 1996) to coordinate geometry (COGO) all of the parcel maps. This mapping will start with a pilot project area. This area will be of use for both testing the modernization process and as an example to customers of parcel data as to what the final product will look like.

c. Wetlands Mapping

The WiDNR has converted all its wetlands information into digital format. Under its Wisconsin Wetlands Inventory (WWI) the data (1:24,000 scale; from 1978-79 aerial photographs) is in ARC/INFO format.

The county current has the DNR wetlands data. This data has been converted to the WCCS-GL. The Green Lake County Land Conservation Department also uses USDA Wetland Maps and plans to have these converted to digital form.

d. Soils Mapping

The federal Soil Conservation Service (SCS) published their Soil Survey index for Green Lake County in 1977. Field work, aerial photographic compilation, and subsequent interpretation was conducted from 1970-73. There are 32 full or partial soil sheets covering Green Lake County.

The Madison-NRCS office has just approved the digital form of the soils data. The county currently has this data (including metadata and tables) in CD-ROM form. The data has been converted to the WCCS-GL. The data is also available on the NRCS website.

e. Zoning Mapping

The Green Lake County Land Use Planning & Zoning Office develops and maintains all land use and zoning for the county. Cities and villages maintain their own zoning regulations and coding systems. The original land use and zoning maps were completed in the early 1980's on mylar for creating blueline (diaz) copies. Periodically, the zoning maps are updated by Zoning Office personnel.

All zoning maps will be converted to digital form after the parcel layer has been developed. Two data sources will be used for conversion and updating land use information. The zoning maps will be used as the primary source for zoning and land use. This will be augmented by the parcel data layer.

techniques and terminology.

Additionally, it is the intention of the Land Information Committee to improve the accessibility of land records by improving the coordination of land records maintenance between county, city, village and town offices. The committee will develop a top-down design of information dissemination for all governmental units that handle geographic data within the county. Information dispersion can take on many forms, including the initiation of "brown-bag" GIS seminars and a planning newsletter.

The increase in land records modernization activities will also generate a need for GIS education. Eventually PC-workstations will be placed in several land records locations and ultimately networked to the county network. All personnel within these governmental units will need training that will be given through the University of Wisconsin, by attendance at conference workshops, or through private vendor seminars.

h. Public Access Arrangements

Ultimately, the long-term goal of Green Lake County is to allow each citizen access to all public domain information, available through a central GIS database through either a remote uplink (e.g. home computer), or a computer terminal at one of the land records offices. County land records will be updated daily, immediately illustrating all changes. It is likely that public access terminals for digital land records will not be available until 2001-2003 due to the lengthy digital conversion process.

i. Additional Activities

Further land records modernization activities are detailed in section five of this document.

2. Standards

a. Geographic Frameworks

i. Geodetic Reference Systems

All geographic data owned or maintained by Green Lake County is currently in the WCCS-GL. The WCCS is a Lambert Conformal Conic project^w and uses HPGN horizontal and NAVD 88[?] vertical control data. The reference systems is augmented by the use of the PLSS and DOT HARN framework, USGS and FEMA benchmarks, and the Coast and Geodetic Survey triangulation stations.

Numerous other coordinate systems will be supported for base information collected from other agencies. These include WTM that is used by the WiDNR and the Universal Transverse Mercator, often used by federal agencies.

ii. *Public Land Survey System Corners*

The physical remonumentation of all Green Lake County section corners is 80% complete. However, no coordinate values have been assigned to these monuments. . The twenty percent of the county that remains to be physically remonumented is located in mostly wetlands areas, which includes the White River and Grand River marsh area (owned by the WiDNR). The remonumentation program was started in 1971 and will be concluded by the County Surveyor within the next three years. Coordinate values are in the process of being assigned by the County Surveyor. The coordinates for each monument will meet or exceed Federal Geodetic Control Committee Third Order, Class 1 standards.

iii. *Geographic Control Data*

All of the planned geographic digital files of Green Lake County (e.g. land use/land cover, zoning) will be encoded in PLSS within the Wisconsin County Coordinate System. All analog source maps and digital map files will be converted to PLSS (if necessary) for database compatibility. The accuracy and precision of the data will meet or exceed Federal Standard and WLIB guidelines

b. Parcels

i. *Cadastral or Legal Evidence*

The Green Lake County Land Description Office is the primary custodian for all land ownership and legal information. There are approximately 23,000 total parcels, including more than 2,500 recorded certified survey maps (CSM's), 250 plats, and 8 assessor plats throughout the county.

ii. *Parcel Boundaries*

Green Lake County maintains all legal records and geographic base data for parcel boundaries. Any parcel map overlaps and gaps between properties have always been catalogued.

iii. *Parcel Administration*

The Green Lake County Land Description Office is the only custodian of parcel maps. It assigns all identification codes and boundaries for every tax parcel. Municipalities obtain all parcel information from the county. The City of Berlin is also unique in that part of the city lies in Waushara County, so that it developed a cross-reference index system between the Green Lake and Waushara PIN systems, along with its own numbering scheme.

iv. *Parcel Identification*

Green Lake County is currently in the process of revamping its PIN to meet the requirements and guidelines of the WLIB-standards. The present tax parcel numbers are derived from a non-systematic numbering system that is unique and distinctive for each municipality. The current PIN number only locates a parcel to the quarter-quarter section. Supplementary parcel records often have to be

consulted to pinpoint the exact location of a parcel. Consequently, one of the main objectives in the Land Modernization Plan is to adapt a new PIN system based on recommended state standards. Further information about the current PIN and the model under consideration is in Appendix C.

Consideration is also being given to the modernization of the database format that currently is used for all tabular parcel information. Deficiencies in the current system indicate potential incompatibilities with records modernization procedures that will have to be addressed with the implementation of the new PIN.

c. Wetlands Mapping

The WiDNR has provided the digital Wetlands Inventory Maps under their data sharing cooperative arrangement agreement. Each map covers one public land survey township at a scale of 1:24,000. A hierarchical coding scheme modeled after the U.S. Fish & Wildlife Service classification system is the basis of all wetland vegetation identification. This coverage has been combined into a county-wide coverage and transformed into the Wisconsin County Coordinate System.

The USDA Wetland Maps will also be acquired, but in analog form and then converted to digital form. The DNR maps are in UTM coordinates and will have to be transformed to the WCCS-GL for optimal county usage.

d. Soils Mapping

All soil mapping follows NRCS guidelines for digital conversion. The NRCS regional office in Omaha, Nebraska establishes all conversion accuracy and precision standards. The final digital files are in Universal Transverse Mercator and have been converted to Wisconsin County Coordinate System. The NRCS-FOCS database has over 100 attributes for each soil polygon (soil type).

e. Zoning Mapping

All zoning maps will be developed as ARC/INFO coverages in a PLSS reference system. Zoning and land use maps will be converted to digital form in a prioritized township order. **This will be done primarily through the development of the parcel coverage.**

f. Institutional Arrangements

Formal and informal agreements and interchanges are discussed in section D. (Foundational Elements (1) (f)). Exchange of land records among institutions in a standardized data format is outlined in the next sub-section (Data Interchange Standards).

g. Communications, Education, and Training

The general philosophy and education implementation procedures are detailed in the Foundational Elements (1) (g) section.

h. Public Access Arrangements

Policies involving land records privacy will be developed before the implementation of any public terminal access system. Comprehensive security features are available for ARC/INFO and corresponding operating system software. Careful scrutiny of the open records laws and right to privacy issue will direct the Land Information Committee to establish a policy and procedure for GIS public usage.

3. Data Interchange Standards

a. Informal Data Interchange Standards

All exchanges of digital land records data is informal at the present time. County land records are presently maintained in a various data base management system (DBMS) on a Micron NT server, but precise custodianship is ambiguous. As map information is converted to digital form, standards are to be established for its installation and maintenance. Digital land records data will be documented so that source material (e.g. map, photograph, survey), the digitization process (e.g. manual, scanned), format (.DXF, ARC coverage, ASCII text), and compatibility format is known.

Green Lake County has purchase ESRI's ARC/INFO and Autodesk CAD packages for the County Surveyor's and Land Conservation offices. The CAD system (AutoCAD) will have direct exchange compatibility with ARC/INFO. Data congruency will be assured for all land records within Green Lake County.

b. Formal Data Interchange Standards

Currently, there are no formal agreements among Green Lake County land record holders of digital data. The county is developing ARC/INFO coverages (GIS data layers) so that it will become the de facto standard. This commitment to ARC/INFO will also help facilitate the transfer of information to Green Lake County since all Wisconsin Land Records Offices are using ARC/INFO (e.g. DNR, DOT). ARC/INFO is able to convert coverages to many other major GIS packages. Furthermore, this GIS software is the most widely used in the world, so data obtained from outside vendors and federal government agencies can likely deliver the information in ARC/INFO compatible format..

The Land Information Committee is also considering asking all surveyors and contractors to supply subdivision maps in DXF (AutoCAD interchange) format. Conversion can then be made through ESRI's DXF-ARC translation. Translations of other digital data, however, are dependent on software compatibility. The United States Geological Survey (USGS) has recently developed a draft version of a national Spatial Data Transfer Standard that the State of Wisconsin may eventually adopt upon final revision. Green Lake County would support such a proposal.

c. Parcel Identification Numbers

The proposed parcel numbering system that the Land Information Committee is presently considering follows the mandatory requirements as stipulated by WLIB

guidelines. This PIN will include the optional portion of the WLIP format and be used to tie together the various parcel-related databases in the county. An explanation of the system can be found in Appendix C.

4. Administrative Standards

This county-wide plan represents an agreement between Green Lake County and the Wisconsin Land Information Board (WLIP). This agreement is intended to convey the objectives of the WLIP as embodied in the enabling legislation. In order for this plan to be approved, the WLIP and Green Lake County agree and consent as follows:

- a. Green Lake County agrees to observe and follow the statutes related to the Wisconsin Land Information Program and other relevant statutes.
- b. Green Lake County agrees to permit the Wisconsin Land Information Board access to books, records and projects for inspection and audit upon reasonable notice by the Board.
- c. Green Lake County agrees to provide an annual status report of the plan
- d. The WLIP agrees to provide technical assistance to Green Lake County.
- e. The WLIP agrees to maintain and distribute an inventory of land information and land information systems for the state.
- f. The WLIP agrees to review and, where appropriate, approve plans and to provide guidance to Green Lake County with respect to plan development. In addition, the WLIP agrees to review and, where appropriate, approve updates and revisions to county-wide plans.
- g. WLIP approval of county-wide plans confers certain benefits on local government within Green Lake County, including continued participation in the WLIP and eligibility to make application for grants-in-aid.
- h. The WLIP agrees to review grants-in-aid project applications and to provide guidance to Green Lake County with respect to the development of such applications.
- i. The WLIP agrees to provide Green Lake County with an annual report regarding the status of the Wisconsin Land Information Program and the activities of the WLIP.
- j. Green Lake County will be entitled to retain increased recording fees upon designation of a Land Information Office. WLIP approval of the county-wide plan also enables Green Lake County to apply for grants-in-aid for itself or any other local unit of government within its borders.

5. Additional Activities

In order to complete the goals and objectives set forth in this plan, additional investment in GIS development will be implemented with the following activities. It is anticipated that a majority of these endeavors will be completed within the next five years, but funding has not been secured. County funding will probably be invested in several of these projects.

a. Comprehensive GIS Pilot Project

Pilot projects or "benchmark evaluations" often provide users with invaluable experience in the development of new techniques, such as, GIS. Most GIS planners recommend that these projects be limited to one data layer or limited to a small area. These projects also help introduce users to hardware and software, and aid in the dissection of problems in the system. The pilot project also provides a way of testing new applications before a county makes a full commitment to automated methods.

Green Lake County will develop a complete GIS database for a small area of the county that encompasses parts of the Towns of Brooklyn and Green Lake. The 5.5 square mile area was chosen based on its diversity of land usage and value. This area surrounds Green Lake (Appendix D) and has both high & low property values, urban and rural areas, and an unique wetland region. At a minimum the GIS database will include: parcels, soils, land use/zoning, some political boundaries and surface hydrology. The completion of the GIS pilot database will be targeted for 2000.

b. Aerial Photography

Complete color or black & white aerial photographic coverage of Green Lake County will be performed by the end of 2000. The county will contract with a vendor to fly the whole county during "leaf-off conditions. The photography will be obtained to serve as a basis for comprehensive reference base map information for the GIS (e.g. zoning, land use, highways). It will be flown with a minimum horizontal and vertical control sufficient to meet national map accuracy standards at a final scale of one inch equals 400 feet (1" = 400'). Hopefully, more accurate orthophotography will be obtained. The county desires a minimum 4' topographic contours and 1" = 200' scale. Development of planimetric data, including, road centerlines and hydrographic features are also desired. More detailed orthophotography and planimetric data may be developed in conjunction with local municipalities.

The county currently has USGS National Aerial Photography Program (NAPP) orthophotography for the county. These black & white photographs are at a scale of 1" = 3,000'. They provide general information for use by the county in land conservation, zoning, highway, etc.

c. GIS Equipment Support (Hardware & Software)

The county is currently finishing up the networking of all the county offices to the Micron NT server. Individual offices have PC workstations linked to the server. Data is stored on the server. Data is backed-up on a daily basis. Plans for full e-mail

and internet access are scheduled for completion by 1999.

The Land Information Specialist (LIS) for the county has a PC workstation with Windows NT. The GIS programs, ARC/INFO and ArcView, are located on the PC. This allows a dedicated GIS computer and software for the LIS. Data is then shared from the NT server, allowing full access to the coverages. The Sheriff's Office has a separate drive on the NT server due to security and emergency response concerns. Attempts have been made to eliminate duplication of databases and increase central access. This will allow county-wide access to the most current data.

d. E-911 system

The Sheriff's Department is currently examining E-911 systems updates (Emergency Computer-Aided Dispatch System). Several enhanced E-911 systems are being inspected. The Land Information Committee will work in conjunction with the Sheriff's Office to select an E-911 system that will be compatible and functional with ARC/INFO. This will allow the integration of the county's new emergency address coding system (i.e. county-wide coordinate system for tracking emergency calls) with the new PIN and other land records data. The result should be a highly utilitarian automated emergency response system with features, such as, caller address matching and call tracing.

e. Natural Resource Planning and Management

In Green Lake County, tourism and recreation have always played a major part in its identity and economic stability. Consequently, the protection and wise management of its natural resources is of major importance to the county. Surface and groundwater quality, wetlands protection, and the prevention of soil erosion are just a few of the natural resource concerns of Green Lake County. Due to the stresses on the natural resources of the county, development of coverages for use in assisting county programs will be investigated. Some of these coverages include ground water, geologic deposits, land cover, archeological, and topographic. Digital floodplain mapping for the whole county is a high priority in creating an environmental database, but cost factors may limit the timeframe in which this information may be obtained. The identification and geo-referencing of hazardous materials (e.g. pesticides) and other point pollution sources should also be investigated in the future.

6. Land Records Activities and Timeline Schedule

In order to fulfill the planned objectives, several projects were endorsed and scheduled for completion by 2003. A timeline (Appendix A) illustrates the targeted tasks for the development of fifteen GIS digital acquisition, conversion, and development activities.

Top priority is being given to finishing a precise and accurate geodetic framework by the end of 2001. This includes remonumentation, the purchase of large-scale aerial photography, and establishing a GPS reference network. Some of these activities will continued to be funded through the County Surveyor's budget, while other potential funding may come from the Register of Deeds recording fees, special county financing,

and potential grant funding.

Also given high priority is the pilot project, which is seen as extremely important in demonstrating the utility of a modern GIS in Green Lake County. The pilot area will only be 5.5 square miles, but a wide-range of GIS layers will be digitized (e.g. parcels, zoning, boundary, soils, and wetlands). Target date for finishing the pilot data layers is the end of 2000.

Modernization of the PIN is an essential objective in preparing the county parcel records for integration between departments. This is the relational key that will tie all the associated databases in the county together in a relational database. It will also enable the county to exchange information with other agencies throughout the state.

Finally, several physical and cultural environmental digital layers will be created to improve management decisions and policy implementations. Initially, these include zoning, wetlands, soils, surface hydrology, topography, as well as the acquisition of aerial photography. These projects will be on-going through 2003. Cooperative state and federal agreements and grants and in-house digital processing will fund the mapping jobs.

During the next five-year period of the plan, activities will also be developed for land records education and cooperative activities (Appendix A). Custodians of all digital land records are being identified and GIS standards and maintenance policies are being established. Further cooperative links will be developed between the county and local, state, and federal agencies. GIS training for personnel in the individual county departments will commence as data layers become available, and will continue throughout the five-year plan.

If all activities on the timelines are completed by 2003, Green Lake County will have made significant improvement in several facets of land records modernization. More importantly, the county should benefit with substantial cost savings in both land records maintenance and improved support systems for all county departments and the general public.

REFERENCES

- Antenucci, John C., et. al; 1991. *Geographic Information Systems : A Guide to the Technology*. New York, NY.
- Marble, Duane F. and Darlene L. Wilcox; 1991. GIS Design and Implementation. Association of American Geographers Workshop Presentation. Miami, Florida.
- United States Geological Survey; 1991. *Spatial Data Transfer Standard*, version 12/90. Reston, Virginia.
- Wisconsin State Cartographer's Office; 1995. *Wisconsin Coordinate Systems*. Madison, WI.

Appendix A

Land Record Modernization Plan Timeline

Project Element

Project Element	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Cooperative Ventures	Completed	Completed	Completed	Completed	Completed	Completed	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
Standard Operating Procedures	Completed	Completed	Completed	Completed	Completed	Completed	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
Custodian Identification	Completed	Completed	Completed	Completed	Completed	Completed	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
GIS Training	Completed	Completed	Completed	Completed	Completed	Completed	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
Road Centerlines	Completed	Completed	Completed	Completed	Completed	Completed	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
Temporary Roads	Completed	Completed	Completed	Completed	Completed	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
Surface Hydrography	Completed	Completed	Completed	Completed	Completed	Completed	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
Wetlands	Completed	Completed	Completed	Completed	Completed	Completed	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
Zoning	Completed	Completed	Completed	Completed	Completed	Completed	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
Pilot Project	Completed	Completed	Completed	Completed	Completed	Completed	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
GPS Coordinates	Completed	Completed	Completed	Completed	Completed	Completed	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
Physical Remunumentation	Completed	Completed	Completed	Completed	Completed	Completed	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
Soils	Completed	Completed	Completed	Completed	Completed	Completed	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
Orthophotography	Completed	Completed	Completed	Completed	Completed	Completed	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
Parcels	Completed	Completed	Completed	Completed	Completed	Completed	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress

Legend:
 ■ Future Element
 ▨ In Progress
 ■ Completed
 ■ Obsolete

Year

Year

Appendix B

Green Lake County Resolutions

RESOLUTION NUMBER 30-90

Relating to Creation of Land Information Office

The County Board of Supervisors of Green Lake County, Green Lake, Wisconsin, duly assembled at its regular meeting begun on the 19th day of June, 1990, does resolve as follows:

WHEREAS, existing methods of recording, storing and handling of land records are accurate but inefficient; and,

WHEREAS, a modernized land records system would be beneficial to the general public, municipalities, businesses and County offices; and,

WHEREAS, Wisconsin Act 339, which becomes effective July 1, 1990, requires that effective July 1, 1990 the Register of Deeds charge increased fees for recording any instrument entitled to be recorded in that office; and,

WHEREAS, said Wisconsin Act 339 further provides that the County may retain a portion of said fees provided: 1. The County has established a land information office under ss. 59.88(3); 2. A land information office has been established for less than 2 years or has received approval for a countywide plan for land records modernization under ss. 59.88(3)(b); and, 3. The County uses the fees retained under this subparagraph to develop, implement and maintain the countywide plan for land records modernization;

Roll Call on Resolution No. 30-90 Submitted by Finance Committee

Ayes 21, Nays 0, Absent 0, Abstain 0.

Passed and Adopted/~~Rejected~~ this 19th day of June, 1990.

Herbert A. Sakke
County Board Chairman

ATTEST: James E. Schommer
County Clerk
Approved as to Form:

John B. Schommer
Corporation Counsel

Arlyn W. Hollander
Arlyn W. Hollander, Chairman

Robert A. Malchetske
Robert A. Malchetske

Donald A. Bartol
Donald A. Bartol

James E. Schommer
James E. Schommer

Michael R. Stoddard
Michael R. Stoddard

Room No. 230-2

Resolution Number 30-90 Relating to Creation of Land Information Office
Continued:

NOW, THEREFORE, BE IT RESOLVED that the Office of the Register of Deeds shall be designated as the Green Lake County Land Information Office, in compliance with the requirements of ss. 59.88, Wisconsin Statutes; and,

BE IT FURTHER RESOLVED that a Land Information Committee is established to assist the Land Information Office in meeting the requirements of ss. 59.88, consisting of the Register of Deeds, the County Clerk, the Data Systems Manager, the Real Property Lister, the County Surveyor, the Zoning Administrator, the County Conservationist, *Treasurer*, the Highway Commissioner, the Chairman of the Finance Committee, and the Chairman of the County Board. This Committee shall be maintained until June 30, 1996, the specified termination date for this program, and shall be entitled to meeting reimbursements as appropriate under Resolution Number 56-89.

FISCAL NOTE: Based on 1989 activity in the Register of Deeds Office, the additional collections the first year should be in excess of \$14,000, of which half or \$7,000 would be retained by Green Lake County if this resolution is approved. This \$7,000 along with similar amounts received through June 30, 1996, would then be applied toward the computerization of the land records in the Register of Deeds, Zoning and Surveyor's offices. Establishment of this program would also entitle the County to participate in a grant program, whereby up to 75% of costs of the modernization program not covered by fees would be paid through grants from the State.

RESOLUTION NUMBER 21-96

Relating to the Continuation of the Land Information Office and Committee

The County Board of Supervisors of Green Lake County, Green Lake, Wisconsin, duly assembled at its regular meeting begun on the 21st day of May, 1996, does resolve as follows:

WHEREAS, the Land Information Office and Land Information Committee was established in 1990 by Resolution 30-90 to develop a modernized land records system that would be beneficial to the general public, municipalities, businesses and County offices; and,

WHEREAS, Resolution 30-90 stated that the Land Information Committee shall be maintained until June 30, 1996, the specified termination date for this state program; and,

WHEREAS, the State seeing the benefits of this program has lifted the sunset clause of June 30, 1996 allowing the continuation of funding for this program from the Register of Deeds fees for recording any instrument entitled to be recorded in that office.

NOW THEREFORE BE IT RESOLVED that the Green Lake County Board of Supervisors establishes the Land Information Committee as a standing Committee of County by lifting the June 30th sunset clause for the purpose of the continuation of a modernized land records system in Green Lake County, *This committee shall be maintained as long as funding is available.

BE IT FURTHER RESOLVED that Land Information Committee as created in Resolution 30-90 remain as established to meet the requirements of State Statute 59.88 and consist of the Register of Deeds, the County Clerk, the Data Systems Manager, the Real Property Lister, the County Surveyor, the Zoning Administrator, the County Conservationist, County Treasurer, the Highway Commissioner, the Chairman of the Finance Committee, and the Chairman of the County Board.

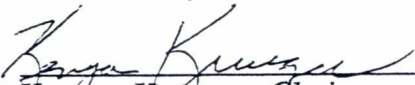
Roll Call on Resolution 21-96

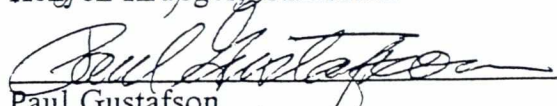
Submitted by the Finance Committee

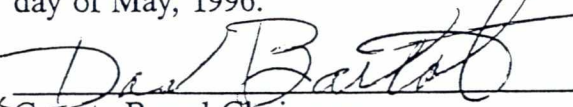
Ayes 19, Nays 0, Absent 2, Abstain 0.


*as amended

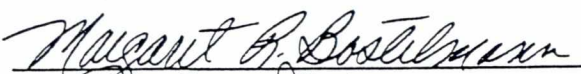
Passed and Adopted/~~Rejected~~ this 21st day of May, 1996.

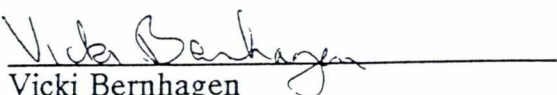

Kenyon Krueger, Chairman


Paul Gustafson

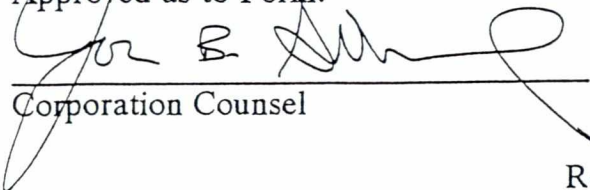

County Board Chairman


Donald Bartol


ATTEST: County Clerk


Vicki Bernhagen

Approved as to Form:


Corporation Counsel


Orville Biesenthal

RESOLUTION NUMBER 11-98

Relating to Land Information Committee

The County Board of Supervisors of Green Lake County, Green Lake, Wisconsin, duly assembled at its regular meeting begun on the 17th day of March, 1998, does resolve as follows:

WHEREAS, the Land Information Office and Land Information Committee was established in 1990 by Resolution 30-90 to develop a modernized land records system that would be beneficial to the general public, municipalities, businesses and County offices; and,

WHEREAS, Green Lake County has upgraded County Positions which relate to the Land Information Records Modernization and,

WHEREAS, the original Committee make up has positions which have been replaced through said updating .

BE IT FURTHER RESOLVED that Land Information Committee as created in Resolution 30-90 consist of the Register of Deeds, the County Clerk, the MIS/Network Manager, the Real Property Lister, the County Surveyor, the Land Use Planning and Zoning Director, the County Conservationist, County Treasurer, the Highway Commissioner, the Sheriff, the Chairman of the Finance Committee, and the Chairman of the County Board.

Roll Call on Resolution 11 - 98

Submitted by the Finance Committee

Ayes 18, Nays 0, Absent 2, Abstain 0.

Passed and Adopted/Rejected this 17th day of March, 1998.

Donald Bartol
County Board Chairman

Paul Gustafson, Chairman

Donald Bartol
Donald Bartol

Vicki Bernhagen
Vicki Bernhagen

Margaret A. Bottmer
ATTEST: County Clerk
Approved as to Form:

Orville Biesenthal
Orville Biesenthal

For B. Scher
Corporation Counsel

Robert Schweder
Robert Schweder

Room 230

Appendix C

Parcel Identification Number

WLIB Parcel Identification Number (PIN)

For both internal and external uses, each parcel of land shall have a unique parcel identification number assigned to it. This numbering system is divided into three distinct components. The components that have mandatory formats are identified in Part I and Part II respectively and are explained below. The optional formatted components are described in Part III. When parcel information is formally shared, parcel numbers shall be in the following field format which is composed of 13 numbers and characters that are in a mandatory format and 5 optionally formatted numbers and characters. All components are mandatory.

Part I. Part I codes identify both the county and minor civil division in which the parcel lies. These codes may be associated or related to the parcels in several ways. For example, the codes may appear as part of other relational tables, at the top of headers to ranges of parcel numbers, as prefixes or suffixes to parcel identifiers, or as geo-processing relationships using geographic information system software.

- | | |
|----------|--|
| 2 Digits | The first two digits are the County Code as defined by the 1990 Department of Revenue, Property Assessment Manual. |
| 3 Digits | The next three digits are the Municipal Code as defined by the 1990 Department of Revenue, Property Assessment Manual. |

Part II. Part II is a parcel location identification system that utilizes the Public Land Survey System (PLSS) to ascertain the position of the parcels within a specific quarter section.

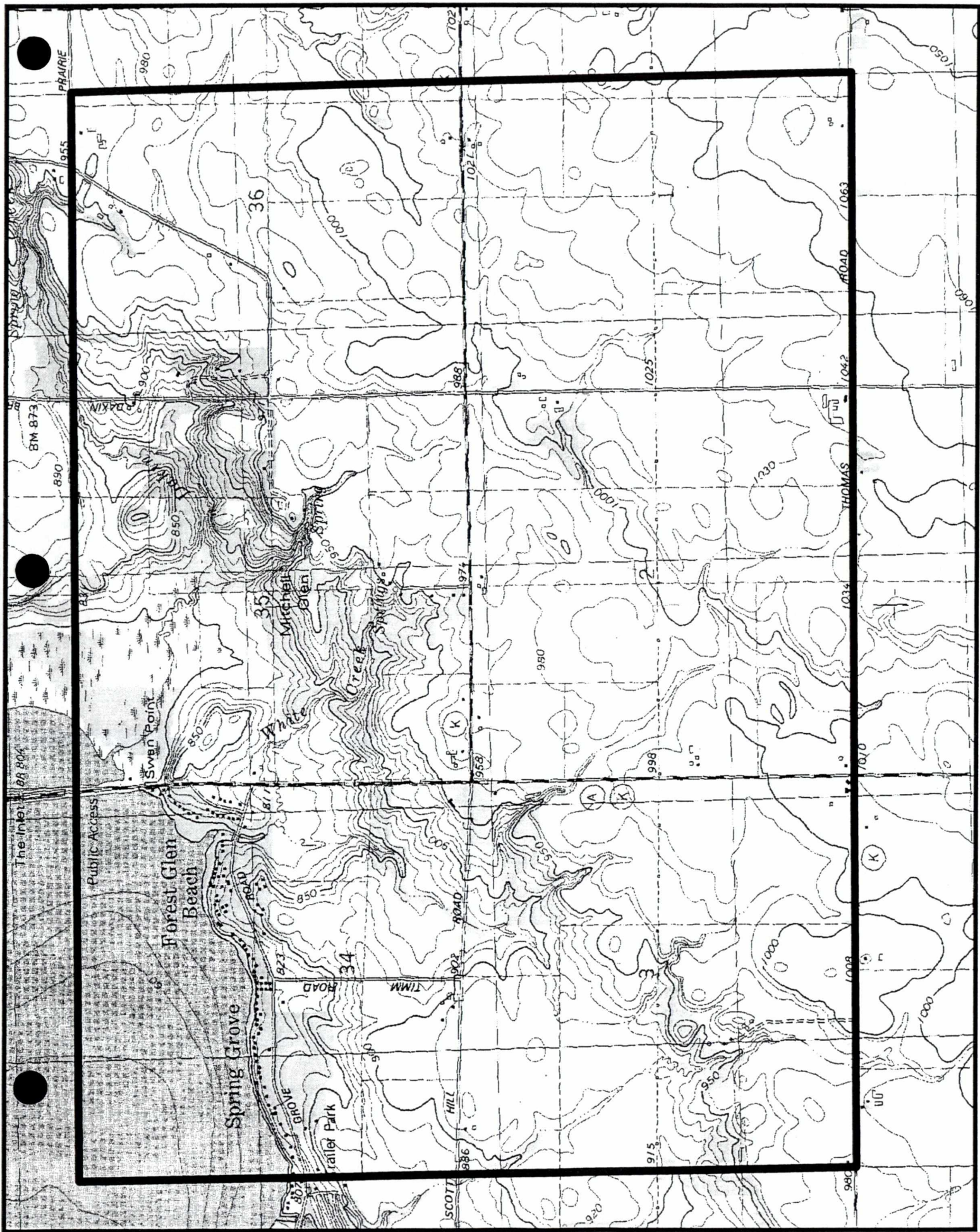
- | | |
|----------|--|
| 1 Digit | The next digit defines whether the parcel lies east of west of the 4 th Principle Meridian. Those parcels that lie east of the 4 th Principle Meridian are denoted by the number 4. Those that lie west of the 4 th Principle Meridian are denoted by the number 2. |
| 2 Digits | The next two digits define the township north of the baseline. |
| 2 Digits | The next two digits define the range. |
| 2 Digits | The next two digits define the section. |
| 1 Digit | The final digit defines the quarter section by northeast = 1, northwest = 2, southwest = 3, and southeast = 4. |

Part III. An optional format for specific parcel identification is as follows:

- | | |
|---------------|--|
| 1 Digit | The first optional digit defines the quarter-quarter section by northeast = 1, northwest = 2, southwest = 3, and southeast = 4. |
| 3 or 4 Digits | The final three or four optional digits may be used to define a specific parcel identifier within this parcel identification numbering system. Whether three or four digits are used is also optional. |

Appendix D

Pilot Project Area



Appendix E

Glossary

CAD	Computer Aided Drafting. A system that supports engineering design activities, including interactive graphics display, engineering calculations, and limited attribute processing.
Cadastral	Mapping or recording of legally defined pieces of land for the purpose of recording ownership. A cadastral map, or parcel map, was traditionally used for tax collection.
CD-ROM	Compact Disk with Read Only Memory. A large amount of digital data can be stored on a CD-ROM.
COGO	Coordinate Geometry. A GIS data entry system designed primarily for capturing survey data.
CSM	Certified Survey Map.
Datum	A mathematically defined reference surface used to represent the size and shape of the earth.
DEM	Digital Elevation Model. An elevation (contour) model generated through three-dimensional points.
DIME	Dual Independent Map Encoding. A geocoding system developed by the U.S. Census Bureau that describes blocks used for enumeration and reporting and the boundaries for these blocks as a network of points, line, and areas.
DLG	Digital Line Graph. A standard file structure for cartographic digital data established and used by the USGS that contains point coordinates describing planimetric and contour data.
DOR	Department of Revenue.
DOT	Department of Transportation.
EOSAT	Earth Observation Satellite Company. They sell information obtained from the LANDSAT remote sensing satellites.
FEMA	Federal Emergency Management Agency.
Geodetic Reference System	A series of permanent control points that are located with coordinates that have been established with respect to the national system of control points.
GIS	Geographic Information System. A system that allows the user to automate, manipulate, analyze, and display geographic data in digital form.
GLSD	Green Lake Sanitary District.
GPS	Global Positioning System. A number of satellites originally developed as a navigational aid that have become available for geodetic control surveying.
HARN	High Accuracy Reference Network. A state-wide geodetic reference network developed by the Wisconsin Department of Transportation.
LCD	Land Conservation Department.
LIC	Land Information Committee.
LIO	Land Information Office.
NAPP	National Aerial Photography Project.
NAVD88	North American Vertical Datum of 1988. The vertical datum for the United States refined in 1988 from data developed in 1929.
NRCS	National Resource Conservation Service.

Parcel	A single, contiguous acreage of land identifying land ownership and rights.
PIN	Parcel Identification Number. See Appendix C.
Planimetric	Data that represents natural and cultural entities (roads, buildings, boundaries, water bodies, etc.) that are visible and identifiable on aerial photography.
Plat	An ownership map that shows land boundaries and parcel divisions.
PLSS	Public Land Survey System. A reference scheme for recording property ownership by township, range, section, and aliquot part (half or quarter section).
Projection	The mathematical conversion used to portray the curved surface of the earth as a flat (map) surface.
SCS	Soil Conservation Service. Currently the NRCS.
SPC	State Plane Coordinate system. A coordinate system for each state developed by the National Geodetic Survey and commonly used in GIS technology.
SPOT	French owned remote sensing satellites. Their information is available through the SPOT corporation.
TIGER	Topologically Integrated Geographic Encoding and Referencing System. A geocoding system developed by the U.S. Census Bureau.
USDA	United States Department of Agriculture.
USGS	United States Geological Survey.
UTM	Universal Transverse Mercator. A common projection system for the entire United States.
WGNHS	Wisconsin Geologic and Natural History Survey.
WiDNR	Wisconsin Department of Natural Resources.
WLIB	Wisconsin Land Information Board.
WLIP	Wisconsin Land Information Program.
WCCS-GL	Wisconsin County Coordinate System – Green Lake. A projection system developed by the Wisconsin State Cartographer's Office for use in Green Lake and Marquette Counties.
WSHS	Wisconsin State Historical Society.
WTM	Wisconsin Transverse Mercator. A projection system used for the entire State of Wisconsin.