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**WASHINGTON COUNTY
LAND RECORDS MODERNIZATION PLAN**

I. EXECUTIVE SUMMARY

A. Identification and Contact information

Brian Braithwaite
Washington County Real Property Lister/GIS Manager, LIO
Voice phone 414-335-4370
Fax phone 414-335-6866
Email rplbrian@co.washington.wi.us

B. Participants in the Planning Process

The Washington County Land Information Board:
Kenneth Miller, County Board Chairman, Chairman
Delores Kreupke, County Board Supervisor
David N. Radermacher, County Board Supervisor
Perry Vogel, Lakeland Title
John Capelle, Director City of West Bend Community Development
Patrick Faragher, Washington County Corporation Counsel
Dorothy C. Gonnering, Washington County Register of Deeds
Ronald Greve, Washington County Surveyor
Susan Haag, Washington County Finance Director
Perry Lindquist, Washington County Land Conservationist
Rheinhard Meihnsner, Fieldtech
Paul Mueller, Director Washington County Land Use and Parks
Carl Rowlands, Citizens/Weis Corporation
Brian Braithwaite, Washington County Real Property Lister/GIS Manager,
LIO

C. Summary of the Plan

Focusing on objectives rather than specifics, this plan describes Washington County's land record modernization goals and objectives for the next five years.

This plan outlines a strategy for the county to benefit from the Wisconsin Land Information Program. The emphasis of this five-year plan will be horizontal and vertical integration of land record in the county plus cooperation and partnering

II. LAND INFORMATION MODERNIZATION AND INTEGRATION PLAN

A. Goals and Objectives

The following are the goals and objectives for the Washington County's five-year land records modernization program. Each goal has identified relationships to internal and external customers as appropriate. Each objective has a target time for completion.

The Washington County Land Information Board meets regularly to determine the priorities for each objective and resource requirements to achieve objectives. The Land Information staff established task definitions to accomplish objectives. In some cases additional information about priorities, resources, or tasks may be listed with the objective.

1. Statement of Goals and Objectives

Goal 1: Integrate GIS and Land Records Modernization into the daily activities of all departments that use spatial data.

The Washington County Land Information Board will implement changes in land record management that will facilitate:

- Improved data accuracy
- Lower costs and increased efficiency on county government
- Reduce duplication of effort between departments
- Provide improved access to information for users.

This goal will be achieved by the following objectives.

Objective 1A: In order to provide parcel level information, the county will produce within eighteen months, an automated parcel database and spatial representation of parcels that are linked to each other and the assessment roll. The county has entered into a contract with a data conversion firm to accomplish this activity.

Objective 1B: Washington County's Land Use and Parks Department and Land Conservation Department need to extend the usability of the above mentioned automated parcel database. The county will begin integrating shoreland, floodplain and wetland zoning data obtained through the Southeastern Wisconsin Regional Planning Commission (SEWRPC) with the automated parcel map and database by the first quarter of 2000.

Objective 1C: By the third quarter of 1999 the county plans to create and convert centerline data and information for all roads in the county. The county desires that road centerline data be integrated with census address ranges and parcel site addresses. The county plans to achieve this objective by 1999.

Objective 1D: Develop land conservation applications for tracking conservation practices, non-point pollution control, and automated conservation planning tools. (2000).

Objective 1E: Incorporate Pavement Surface Evaluation and Rating System (PASER) data into the road centerline data set (2000).

Objective 1F: Washington County plans to participate in a regional wide digital orthophotography project with SEWRPC in 2000.

Goal 2: Provide public and private access to data as guided by the requirements and restrictions of statutes and county policy.

Washington County seeks to provide access to land information to the fullest extent possible.

Objective 2A: By the end of 1998 the county will have a policy regarding distribution of records to governmental units in the County. This policy will be based on guidance received from meetings with the towns, villages and cities within Washington County.

Objective 2B: By the end of 1998 the county will have a policy regarding public distribution of land records to citizens, the public and private firms.

Objective 2C: Develop an Internet distribution policy that includes firewall security, public access, protection of private rights, identification of additional support for Internet inquiries, Internet data maintenance, and community Internet support (1st Quarter 2000)

Goal 3: Encourage internal and external GIS program coordination and cooperation through operational policies and standards

Washington County has completed and adopted its internal operations policy for GIS data and activities and actively seeks input from all users of land information in the county.

Objective 3A: An External Policies Committee from the Washington Land Information Board has been appointed to identify areas of external relations that require policy support or are in need of direction or policy and will bring these issues and proposed solutions back to the Washington County Land Information Board.

Objective 3B: During the fourth quarter of 1998 meetings were conducted with Washington County cities, villages, and towns and assessors, public works managers, and other professionals working in the County related to GIS and Land Records Modernization activities planned for the County.

Objective 3C: Define and implement appropriate data standards to support intra-departmental and intra-county cooperation and data sharing. (Ongoing)

Goal 4: Provide for short term and long term planning, training, technical support, and funding for the GIS Program.

A well-trained staff is necessary to provide technical support to all land records and GIS users in the County. The County has defined and filled positions for a GIS Manager, a GIS Systems Administrator and a GIS Analyst/Technician.

This goal is to assure that funding mechanisms, staff, and technical resources are available to the County. The county has increased the Information Systems staff to continue providing infrastructure support for land records, GIS and other computerization efforts.

Objective 4A: Washington County will establish a network infrastructure to support land records, GIS, and document imaging. Specific tasks include:

- Adding an NT Server (1999)
- Linking NT Server to the GIS database
- Providing data linkage between the document imaging and the parcel maps
- Continuing to support a network infrastructure that encourages communication and data sharing.

Objective 4B: Continue to provide educational opportunities for County Staff (ongoing) - Attendance at Wisconsin Land Information Association and other professional association meetings will be encouraged for all county staff. Washington County will work with other counties operating Intergraph hardware and software to coordinate training opportunities.

Goal 5: Use Land Records Modernization the redistricting of the County after the 2000 Census.

Objective 5A: Support the redistricting decision making process with automated records (2001-2002). The extent and level of support for this objective will depend on the definition of the redistricting effort at the County.

Goal 6: To actively seek a various funding sources for Land Record Modernization projects.

Objective 6A: Washington County will pursue cooperative funding arrangements with other governmental units, state government agencies, state programs or multi-jurisdictional organizations.

1. Planning Horizon

a. Information Transfer

The county will ensure that the information is readily translatable for use by any state or local county/agency or public utility.

The County's GIS provider Intergraph is a member of the Open GIS Consortium and supports all Open GIS and Open Data Base Compliant (ODBC) specifications. The County expects to have information available in these formats as the vendor provides them. The County does not and can not warrant that all systems comply with these national standards. The County does not and can not warrant that once information is transferred that it will be useable in a system where the design is unknown or the data have been developed to meet a special purpose.

b. Information Retrieval

As stated above the County's GIS vendor conforms to Open GIS and ODBC requirements

c. Geographical Referencing

The County uses the North American Datum of 1927 as specified by the Southeastern Wisconsin Regional Planning Commission. The Commission has developed conversion algorithms to convert data to other datums used in the state. This program is publicly available from the Commission.

2. Operating System Environment and Database Design

The County's GIS system supports all the activities the county plans to do related to land records. The operating system for the GIS is Microsoft NT and this operating system should evolve as technology advances.

The database design for land records information conforms as possible with national standards. All integrated land records will be managed in relational databases. The spatial data are topological structured.

B. Progress Report on Ongoing Activities

The progress made in the County since the first land records plan are as follows:

- Acquisition of GIS software and hardware (Intergraph GIS with AS/400 database and ODBC databases)

- Training and education of staff with plans to continue this work
- Document imaging system in the Register of Deeds Office with a new tract index system
- A County Land Records Implementation Plan has been adopted and is being followed
- A Contract has been signed and is started to complete the control on all section corners in the County
- The parcel mapping for the Town of Erin, funded by the county, town and by a WLIB grant is complete and the project for the Village of Slinger, funded by both the county and the village is on schedule. Both projects consist of parcel graphics by SEWRPC
- Digital Orthophotography has been completed
- Soils data has been automated and is awaiting federal certification
- A parcel conversion vendor has been identified through a quality based selection process. Parcel conversion has begun with this vendor.

C. New Initiatives

1. Proposed Projects

- The County is continuing its ongoing land records projects as described in the goals and objectives. No major new projects beyond those articulated in the goals and objectives are planned.

2. Assistance Requested

- No direct assistance from the WLIB is requested at this time if the grant program remains as it has been for the 1997 and 1998
- The County has Internet connectivity and will follow guidance provided by the WLIB on clearinghouse connectivity standards. The county will identify and secure technical assistance as needed
- The County plans to use retained fees and the WLIB's grant program to fund the activities. The County will continue to pursue other grant opportunities outside of the WLIB as needed if the WLIB program is sunset, changed, or moved to the Wisconsin Land Council
- The Washington Land Information Board has always and will continue to follow county ordinances and administrative rules for procurement.

3. Problems Encountered

- The problems encountered have been solved as they arose. In some cases an approach to a solution has been developed but may not have been implemented yet.

D. Custodial Responsibilities

- Washington County has the same custodial responsibilities for data as other counties in Wisconsin. This custodial authority established by state statute and county ordinance is no different from other Wisconsin county. Washington County is not currently seeking to assume additional custodial responsibilities. The County will consider any request for custodial responsibility and evaluate this request based on available and required resources, integratability with county data sets, and conformance with the county plan.

E. Foundational Elements and State-Wide Standards .

1. Communication, Education, Training and Facilitated Technical Assistance

Use of Clearinghouse and Technical Assistance List Server

- Washington County is connected to the technical assistance list server and plans to participate in the Clearinghouse and Technical Assistance List Server.

2. Geographic Reference Frameworks

Geodetic Control Networks Public Land Survey System

- Washington County collects and maintains these data and conforms to the standards described in:
 - Standards for Geodetic Reference Systems
 - a) FGCC standards and specifications
 - b) Wis. Stats. Chapter 236.18
 - c) WLIB Specifications and Guidelines to Support Densification of the Wis. High Accuracy Reference Network (HARN) Using Global Positioning System (GPS) Technology - June 1995).
 - Standards for Public Land Survey System Corners
 - a) Corner Remonumentation (Sec. 59.63(1); Sec. 60.84 (3)(c) Wis. Stats).
 - b) Remon. Records (Wis. Stats. (Sec. 59.635(2)(b) and Wis. Admin. Code AE 7.08(2).
 - c) Coordinate Values (FGCC Third Order Class I).
 - Standards for Geographic Control Data
 - a) FGCC Third Order Class II for Horizontal Coordinate Values and Third Order for Elevation Values.

- Washington County has digital orthos and is nearly complete with its section corner control project
- Washington County possesses a digital raster graphic

3. Parcel Mapping

- The Town of Erin has been completed by SEWRPC according to their standards. The Village of Slinger is currently being completed by SEWRPC and will be likewise completed to Commission standards. Washington County selected Southern Digital Services, Inc. of Franklin Tennessee to complete the remainder of the county with the exception of the City of West Bend which recently completed its own parcel mapping project. It is expected that the City of West Bend data will be accessible to the county.
- Washington County's parcel maps will be tied to the Public Land Survey and will be suitable to support property taxes and decision making by employing geodetic reference, topology and parcel identification.
- All parcel identification numbers will confirm to the WLIB's Parcel Identification Numbering System.

4. Parcel Administration

- Washington County is working on completing this information. Any land information system the county develops will support at minimum tax data and parcel ID maintenance.
- Washington County has document imaging. It was installed in 1998.
- The new transfer return form requires parcel number and this is used to link the document imaging to the tax records.
- All parcel identification numbers will confirm to the WLIB's Parcel Identification Numbering System.

5. Public Access

- Washington County will be developing policies and methods to facilitate public awareness of its land information and efficient access by the public to its land information.
- The county's Information Services Department handles all matters of system security.

- The right to privacy is handled through data distribution and access policies.

6. Zoning Mapping

- The county anticipates incorporating the Southeastern Wisconsin Regional Planning Commission's Shoreland, Wetland and Floodplain data in to the county's Geographic Information System for its unincorporated areas . It is anticipated that this data will be local government compliant.

7. Soils Mapping

- Washington County has completed it soils mapping but it has not been officially certified by NRCS yet. The county is currently using these soils maps.

8. Wetlands Mapping

- The county will research incorporating the Wisconsin Department of Natural Resources Wetland Inventory Map into the county's system.

9. Institutional Arrangements and Integration

- Washington County Internal and External Operation Policies will address these issues. Inter and intra-governmental arrangements and integration issues will be covered in these policies. No standards have been adopted at this time.

10. Reconciled Election and Administrative Boundary System

- Where districts are based on parcel lines they will be derived from the parcel fabric. Other districts will be constructed as needed from the GIS. It is anticipated that this data will be local government compliant.

11. Reconciled Street Address and Street Network System

- Washington County will be capturing site address as part of the parcel conversion process. It is anticipated that this data will be local government compliant.

12. Land Use Mapping

- Washington County has township-based assessment. The land use is maintained by the assessors in the assessment roll which is linked through the parcel identifier to the tax roll. It is anticipated that this data will be local government compliant.

13. Natural Resources

- Washington County does not have satellite imagery in the land records modernization program.
- Washington County is working on completing the automation of its stream centerline and watershed boundary information. This information is being coordinated by the Land Conservation Department and will be supported as needed from the land information program.

14. Data Base Design (see Item II.A.2. above for description)

- Washington County has followed industry accepted standards for database design and system engineering
- Washington County is waiting for the finalization of the Federal Geographic Data Committee (FGDC) Metadata standards. The GIS automatically collects the data set level information and the feature level Metadata is in the design.

15. Infrastructure and Facility Management

- With the exception of PASER data no plans exist for incorporating infrastructure management. As Washington County land records are modernized, it is anticipated that infrastructure management will be added.

F. Integration and Cooperation

- The County seeks to develop further relationships with the cities, villages and towns within the county and any neighboring counties that have similar activities.
- The sharing of data and its use both horizontally and vertically is under study but it is predicted that parcels will be critical in this cooperation.

G. Technical Standards Not Directly Associated With Foundational Elements

- Washington County plans to adopt a Metadata standard. If Metadata standards are adopted by the WLIB, the county would adopt those standards.
- When products or services are acquired, county procurement and purchasing are followed.
- When required mandated standards are developed, Washington County would adopt the same.

H. Administrative Standards Not Associated With Foundational Elements

This Plan represents an agreement between the county and the Wisconsin Land Information Board. This agreement is intended to effectuate the objectives of the Program as embodied in the enabling legislation. The Board and Washington County Land Information Board consent as follows:

1. The county agrees to observe and follow the statutes relating to the Wisconsin Land Information Program and other relevant statutes, as described in written materials provided by the WLIB.
2. The county agrees to permit the Wisconsin Land Information Board access to books, records and projects for inspection and audit including unannounced audits by the Board.
3. The county agrees to provide an Annual Status Report of Plan progress requested herein and to keep the Plan up to date. The report will be administered electronically.
4. The Board agrees to facilitate technical assistance to the county including an on-line Technical Assistance Service.
5. The Board agrees to maintain and distribute an inventory of land information and land information systems for the state. This will be provided through an electronic Clearinghouse.
6. Development and implementation of an acceptable land Records Modernization Plan confers certain benefits on local government within a county, including continued eligibility for Program funding. A self-approving peer review process will be used to assess Plan acceptability by the land information community.
7. The Board agrees to review funding requests and to provide guidance to local government with respect to the development of such requests.
8. The Board agrees make available electronically on an annual basis, an Annual Report regarding the status of the Wisconsin Land Information Program and the activities of the Board.

Goals and Objectives	1998	1999	2000	2001	2002
Goal 1: Integrate GIS and Land Records Modernization into the daily activities of all departments that use spatial data.					
Objective 1A: Convert parcels	■	■			
Objective 1B: Automate and Integrate Shoreline, Floodplain, and Wetland Data			■	■	
Objective 1C: Convert Road centerline data with address ranges		■	■		
Objective 1D: Develop land conservation applications			■	■	
Objective 1E: Incorporate Infrastructure Management for Pavement and Signs					■
Objective 1F: County participation in region wide digital orthophotography fight in 2000			■	■	■
Goal 2: Provide public and private access to data as guided by the requirements and restrictions of statutes and county policy					
Objective 2A: Establish policies regarding record distribution to other governments		■			
Objective 2B: Implement a public access policy		■			
Objective 2C: Develop and implement an internet access policy			■	■	
Goal 3: Encourage internal and external GIS program coordination and cooperation through operational policies and standards					
Objective 3A: Establish an External Relation Committee		■			
Objective 3B: Conduct meetings with cities, villages and towns		■			
Objective 3C: Define and implement appropriate data exchange standard		■	■	■	

Goals and Objectives	1998	1999	2000	2001	2002
Goal 4: Provide for short term and long term planning, training, technical support, and funding for the GIS Program.					
Objective 4A: Establish a network infrastructure to support land records, GIS and other computerization efforts					
Objective 4B: Continue to provide educational opportunities for county staff					
Goal 5: Use Land Records Modernization the redistricting of the County after the 2000 Census					
Objective 5A: Census redistricting					
Goal 5: To Seek various funding sources for Land Record Modernization Projects					
Objective 5A: Pursue cooperative funding arrangements					