

FINAL
UNIFORM INSTRUCTIONS FOR PREPARING
COUNTY AND AGENCY LAND INFORMATION MODERNIZATION AND INTEGRATION PLANS
September 1, 1997

AGENCIES COVERED BY THESE INSTRUCTIONS

(Wis. Stat. Sec. 16.967(6)) Land Information Integration Plans. All state agencies are encouraged to complete this portion of the Plan. Doing so will reduce inter-agency duplication, reduce the cost of government and increase the services provided to Wisconsin taxpayers. However, the only agencies required by Statute to provide this information are: the Departments of Administration, Agriculture Trade and Consumer Protection, Development, Health and Social Services, Industry, Labor and Human Relations, Natural Resources, Revenue, and Transportation, and the Board of Regents of the University of Wisconsin, the Public Service Commission, and the Board of Curators of the Historical Society.

COUNTIES COVERED BY THESE INSTRUCTIONS

Wis. Stat. Sec. 59.88 (3) Land Records Modernization Plans and Information Office. The (county) board may establish a county land information office or may direct that the functions and duties of the land information office be performed by an existing department, board, commission, agency, institution, authority or office. The county land information office shall:

- Coordinate land information projects within the county, between the county and local government units, between the state and local governmental units, among local governmental units, the federal government and the private sector.
- Within 2 years after the land information office is established, develop and receive approval for a county-wide Plan for land record modernization. The Plan shall be submitted for approval to the land information board under s. 16.967 (3) (e).
- Review and recommend projects from local governmental units for grants from the land information board under s. 16.967 (7).

METHOD OF COMPLETION

An Electronic Template will be available via Internet on the WLIP Clearinghouse and Technical Assistance List Server for providing the required materials in a self-approving format. It is the intent of WLIP staff that the required information take no more than one day to collect the information, one day to define the plan and one day to complete and submit using E-Form via Internet.

FOR ASSISTANCE WITH THESE INSTRUCTIONS

Contact the Wisconsin Land Information Board at (608) 267-2707.

BACKGROUND

Plans are an indispensable component of the Wisconsin Land Information Program. Given the enormous promise of geographic and land information system technologies, these Plans yield large benefits for all levels of government in Wisconsin. These benefits include:

- reduction of needless duplication of effort across all levels of government;
- more accessible, useable, complete, accurate and timely information available to local units of government, public utilities and the public; and
- improved analysis, decision support, and administration.

Land information and information systems have become increasingly integrated with information technologies. Rather than planning separately for land information systems and information technologies, the Wisconsin Land Information Board has determined as policy to achieve collaboration among counties and agencies on a simplified, combined and common process of compliance with the various requirements for County Land Records Modernization Plans, Agency Land Integration Plans and the GIS components of Agency Strategic Information Technology Plans.

DEFINITION OF LAND INFORMATION

Do you have land information? Wis. Stat. Sec. 16.967(1) sets forth the operative definition. The definition is *inclusive* rather than *exclusive*. The definition is: ". . . any physical, legal, economic or environmental information or *characteristics* concerning land, water, ground-water, subsurface resources, or air in this state". The use of the term "*any*" is expansive and is not limited by the words that follow. The word "*characteristics*" is emphasized to highlight the notion that land information is any information that can be geographically referenced to areas, lines and points on the earth. Non-traditional examples of "geo-referenced" data include social, economic, health or other statistical information organized or aggregated by location such as parcels, census blocks, zip codes, minor civil divisions, the Public Land Survey System, counties, service regions, natural zones, or regions. The statutes provide an extensive, but not exhaustive, list of other examples "including information relating to topography, soil, soil erosion, geology, minerals, vegetation, land cover, wildlife, associated natural resources, land ownership, land use, land use controls and restrictions, jurisdictional boundaries, tax assessment, land value, land survey records and references, geodetic control networks, aerial photographs, maps, planimetric data, remote sensing data, historic and prehistoric sites and economic projections."

FORMAT

The following are the minimum elements that must be addressed. Please follow the format below. You may expand on the format to include as much or as little detail as is needed or appropriate to make the Plan useful to others. **However, please note that this minimum information is required in order to receive approval of budget requests for land information related hardware, software, systems, application development projects, staff or vendor contracts to the Land Information Board or State Budget Office. Please read over the entire form before completing.**

I. EXECUTIVE SUMMARY

- A. Identify your county/agency and the name of the person completing this form.
- B. Identify those who participated in the process of preparing the Plan. List organizational affiliations, names, addresses and phone numbers of designated contact person(s) for this Plan.
- C. Provide a concise summary of this Plan not exceeding one page.

II. LAND INFORMATION MODERNIZATION AND INTEGRATION PLAN

A. Goals and Objectives

1. State the goals and objectives of the county/agency relating to the horizontal and vertical integration of land information and systems among users of land information in Wisconsin. Include a brief assessment of the internal and external customers' needs and priorities for land information and technology. Identify the time line for meeting goals and objectives and (*where appropriate*) your measurement methodology for achieving them by addressing the following questions:
 - a. What data or information does the county/agency need that it currently uses or can acquire from other state or local sources?
 - b. What data or information does the county/agency need that it does not have and what problems are encountered acquiring it?

- c. How will the county/agency go about ensuring that the land information it has will meet the **criteria shown below**?
- d. What is the planning horizon that the county/agency is using to ensure meeting the **criteria shown below**?

Criteria

- (1) The county/agency will ensure that the information is readily translatable for use by any state or local county/agency or public utility.
- (2) The county/agency will ensure that the information is easily retrievable by any state or local county/agency or public utility.
- (3) The county/agency will ensure that the information is geographically referenced for use by any state or local county/agency or public utility.

2. Describe how the county/agency's operating system environment and database design (including metadata and other elements listed below in the "Database Design" Foundational Element) supports the county/agency's goals and objectives relating to land information and supports the county/agency's information technology vision, mission, goals, strategies and Plan.

Required for agencies only: Organize this section in terms of information technology planning architectures as described in the state agency Strategic Information Technology Planning instructions:

- a. Applications Architecture
- b. Data Architecture
- c. Technology Architecture
- d. Organization Architecture

B. Progress Report on Ongoing Activities.

Please provide a description of the county/agency's progress towards achieving the goals and objectives listed in the previous section ("Goals and Objectives"). Include a description of any significant changes in goals and objectives from those described in the county/agency's previous Plan.

C. New Initiatives.

This section contains critical information. It is the basis upon which agencies and local units of government can proactively establish prospective arrangements for cooperation, collaboration and confederation of efforts to save money, time, effort and avoid duplication. It also defines the obstacles to such efforts so that they can be identified and removed.

Describe major initiatives, if any, the county/agency intends to pursue over its planning horizon. This would include automation of land information or systems; new or updated data development; acquisition or development of land information system hardware, software and staff.

1. **Proposed Projects.** Highlight specific activities that the county/agency proposes to initiate to enable land information to be readily translatable, retrievable, and geographically referenced for use by any level of governmental unit and the public. Identify specific budget information, timeframes, staffing and other pertinent data associated with these initiatives.

2. **Assistance Requested.** Describe any initiatives the county/agency would like the Land Information Board to assist with (such as adoption of policies, standards, coordination, integration efforts, user needs assessments, technical assistance, education, funding). The following questions must be addressed:

- a) What is your county/agency's plan to secure the technical assistance needed to carry out your Land Records Modernization/Integration Plan, including your plan to connect

to the WLIP Internet Land Information Clearinghouse and Technical Assistance List Server Service?

- b) What is your county/agency's plan to locally finance the costs to continue previous investments in land records modernization/integration made in whole or in part with Land Information Program funding?
- c) How does the county/agency plan to maximize resources by utilizing competitive procurement processes (bid, RFP and justified sole-source) consistent with State of Wisconsin and local procurement rules?

3. Problems Encountered. Describe any projects or activities your county/agency would like to undertake that has not been stated above. Please describe obstacles that have prevented your county/agency from proceeding, such as staff, funding, coordination problems etc. Please be specific.

D. Custodial Responsibilities.

1. Identify the land information and data for which your county/agency has custodial responsibility.
2. Identify the source of your custodial authority: i.e. Wisconsin Statutes, Administrative Rule, Land Information Board Policy, Inter-governmental Agreement, internal policy, etc.
3. Identify the land information, and data for which your county/agency would like to assume custodial responsibility.
4. Identify the land information and data for which your county/agency will assume custodial responsibility if requested.

E. Foundational Elements and State-Wide Standards.

The WLIB has developed a specific and critical subset land information called Foundational Elements and a corresponding set of state-wide standards relating to a specific subset of land information. ***All foundational elements are fundamentally important and are interrelated. The order in which they are presented in these instructions reflects the Boards funding priorities. The Elements are listed below.***

- For each Foundational Element please discuss key features of Foundational Elements (see below).
- For each Foundational Element, please confirm your adherence to related standards or discuss your plan to maintain or achieve compliance with the standards corresponding to each element (see below).
- For each Foundational Element, please discuss your plan to assume or maintain custodial responsibility (***as applicable***).

1. Communication, Education, Training and Facilitated Technical Assistance (DISCUSS FOR APPLICABLE FOUNDATIONAL ELEMENTS)

Unless noted in bold as required, discuss key features as applicable:

- Documentation of county/agency data.
- Resources available.
- Identification of customer needs.
- Coordination of education/training with agencies, associations and educational institutions.
- Use of technology to facilitate education and training.
- Use of Clearinghouse and Technical Assistance List Server.**
- Plan to participate in the Clearinghouse and Technical Assistance List Server.

Confirm your adherence to standards where applicable. Unless noted as required in bold, all standards are advisory:

No standards have been adopted, however **county/agency Internet connection to the WLIP Clearinghouse and Technical Assistance Service is required in order to participate in the WLIP.**

2. Geographic Reference Frameworks

Unless noted in bold as required, discuss key features as applicable:

Geodetic control networks	Public Land Survey System(PLSS corners, lines, units)
Photogrammetric base maps	Quadrangle boundaries
Image bases:	Digital terrain models:
Digital raster graphic	Digital elevation models (DEM)
Digital ortho photo (DOP)	Triangulated irregular networks (TIN)
Digital ortho quad (DOQ)	Contours
Digital line graphs (DLG)	
Satellite imagery	

Confirm your adherence to standards where applicable. Unless noted as required in bold, all standards are advisory:

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

3. Parcel Mapping

Unless noted in bold as required, discuss key features as applicable:

The preparation of parcel property maps that refer boundaries to the public land survey system and are suitable for use by local governmental units for accurate land title boundary line or land survey line information.

The preparation of property maps that do not refer boundaries to the public land survey system that are suitable for use by local governmental units for planning purposes.

Geodetic reference	Topology
Address	Easements
Tax exempt lands	Parcel ID

Confirm your adherence to standards where applicable. Unless noted as required in bold, all standards are advisory:

- a. FGDC's Cadastral Standards for the National Spatial Data Infrastructure.
- b. **The WLIB's Parcel Identification Numbering System.**
- c. Local Government standards compliance.
- d. For more information on Standards for Cadastral or Legal Evidence, Standards for Parcel Boundaries, Standards for Parcel Administration (Sec. 59.55 Wisc. Stats.).

4. Parcel Administration

Unless noted in bold as required, discuss key features as applicable:

The design, development and implementation of a land information system that contains and integrates, at a minimum, property and ownership records with boundary information, including a parcel identifier referenced to the U.S. public land survey

Activities associated with modernizing the use of parcel level information once created from and in support of parcel maps, for example:

Real estate transactions	Easements
Liens	Covenants
Evidence of Title	Address
Tax data	Zip codes (including +4)
Assessment class	Tax exempt lands
Optical imaging	Parcel ID

Confirm your adherence to standards where applicable. Unless noted as required in bold, all standards are advisory:

- a. FGDC's Cadastral Standards for the National Spatial Data Infrastructure.
- b. **The WLIB's Parcel Identification Numbering System.**
- c. Local Government standards compliance.
- d. For more information on Standards for Cadastral or Legal Evidence, Standards for Parcel Boundaries, Standards for Parcel Administration (Sec. 59.55 Wisc. Stats.).

5. Public Access

Unless noted in bold as required, discuss key features as applicable:

Use of technology to facilitate efficient access (e.g. Internet, query systems, CD).

Open access to data in existing format.

Optional production of customized data on cost-recovery or other basis.

System security.

Right to privacy.

Confirm your adherence to standards where applicable. Unless noted as required in bold, all standards are advisory:

Local government compliant w/security and individual right to privacy.

6. Zoning Mapping

Unless noted in bold as required, discuss key features as applicable:

Mapping of zoning including:

Shorelands

Burial sites

Historic/cultural sites

Floodplains and floodways

Archeological sites

Landmarks

Confirm your adherence to standards where applicable. Unless noted as required in bold, all standards are advisory:

- a. **Zoning Mapping Standards (Local Gov't. Compliant)**
- b. DNR Floodplain Zoning NR 115/117

7. Soils Mapping

Unless noted in bold as required, discuss key features as applicable:

Soils mapping activities

Confirm your adherence to standards where applicable. Unless noted as required in bold, all standards are advisory:

- a. **Soils Mapping Standards (Natural Resources Conservation Service Compliant)**

8. Wetlands Mapping

Unless noted in bold as required, discuss key features as applicable:

Wetlands mapping activities

Confirm your adherence to standards where applicable. Unless noted as required in bold, all standards are advisory:

- a. **Wisc. DNR Wetlands Map (Wisc. Stat. 23.32 Wisc. Stats.)**

9. Institutional Arrangements and Integration

Unless noted in bold as required, discuss key features as applicable:

- Formal data sharing agreements (Memorandums of Understanding etc.)
- Cooperative arrangements (e.g. agencies; libraries; schools; RPCs; utilities; privates).
- Consortia (e.g. inter-county; WISCLAND).
- Collaborative arrangements (e.g. sharing of: local/state staff and budgets; technical assistance; peer review; collegial plan preparation; common help desk; bartering and mentoring etc.)
- Statutory relationships among counties and state agencies.

Confirm your adherence to standards where applicable. Unless noted as required in bold, all standards are advisory:

No standards have been adopted.

10. Reconciled Election and Administrative Boundary System

Unless noted in bold as required, discuss key features as applicable:

- State outline
- County boundaries
- Minor civil division boundaries
- Utility districts (e.g. water, sewer electric, etc.)
- Legislative districts
- Reconciled election system (voting district) boundaries
- Tax incremental financing districts
- School districts
- Lake districts
- Census geographies:
 - Blocks
 - Block groups
 - Tracts
 - Designated places
 - Urban areas
 - Traffic analysis zones
- Native American lands
- Agency administrative districts and Zip Codes
- Public lands

Confirm your adherence to standards where applicable. Unless noted as required in bold, all standards are advisory:

Local government compliant.

11. Reconciled Street Address and Street Network System

Unless noted in bold as required, discuss key features as applicable:

- Streets, Roads, Highways, Bridges
- Rights of way
- Centerlines
- Address ranges
- Reconciliation of street address and street network systems.

Confirm your adherence to standards where applicable. Unless noted as required in bold, all standards are advisory:

Local government compliant.

12. Land Use Mapping

Unless noted in bold as required, discuss key features as applicable:

Mapping of land use.

Confirm your adherence to standards where applicable. Unless noted as required in bold, all standards are advisory:

Dept. of Revenue Land Use Classification System
Local government compliant

13. Natural Resources

Unless noted in bold as required, discuss key features as applicable:

Land cover	Watersheds
Geology	Hydrogeology
Forests	Hydrography
Endangered resources	
Impacts on the environment (e.g. air emissions; groundwater contamination)	

Confirm your adherence to standards where applicable. Unless noted as required in bold, all standards are advisory:

a. DNR Classification of Land Cover from satellite imagery.

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

Unless noted in bold as required, discuss key features as applicable:

Needs assessment.	Design Evaluation
Timeline	Integrateability (both vertical and horizontal)
Structure (e.g. topology)	Coding scheme
Transaction management	Organizational information flows
Metadata	Design budget
Metadata quality	

Confirm your adherence to standards where applicable. Unless noted as required in bold, all standards are advisory:

a. GIS Software Standards.

The Wisconsin Department of Administration has established **ArcView and ArcInfo as Software Standards Wisconsin state agency (NOT LOCAL) GIS activities.**

b. Data Interchange Standards

Describe the data interchange standards used by your county/agency. Data Interchange arrangements may be formal or informal. The Wisconsin Land Information Board has adopted a model for the exchange of geodetic control data (Refer to E. II. a.).

15. Infrastructure and Facility Management

Unless noted in bold as required, discuss key features as applicable:

Railroads	Transit systems
Harbors	Airports
Recreational Trails (Ice Age/ bicycle/ hiking/ snowmobile/ horseback routing)	
Utilities - not districts (e.g. gas, electric, sewer, water, phone, telecommunications etc.)	
Government facilities	
Hazardous materials sites; LUST(Leaking Underground Storage Tank) etc.	

Confirm your adherence to standards where applicable. Unless noted as required in bold, all standards are advisory:

No standards have been adopted.

American Institute of Architects Standards for CADD.

F. Integration and Cooperation

Wisconsin Administrative Code, Chapter Adm. 47 defines *integration* as the coordination of land records modernization to ensure that land information can be shared, distributed and used within and between government at all levels, the private sector and citizens. *Cooperation* is defined as the explicit relationships within and between public agencies, and between public entities and private entities to share land information or collaboratively pursue land records modernization. These cooperative relationships may be formal or informal, a single instance of exchange or an ongoing association.

Please describe the following:

1. What integrative/cooperative relationships would your county/agency like to develop?
2. What potential partners and mutual projects does your county/agency plan to pursue?
3. What data would be shared and used in both of the above?

G. Technical Standards Not Directly Associated With Foundational Elements

If applicable, please discuss any plans, problems, issues, concerns relative to the following additional standards which have been adopted by the Board.

1. State Agency GIS Data Interchange Standard which includes the possible future adoption of the U.S. Geological Survey's *Content Standards for Digital Geospatial Metadata*.
2. WLIB's recommended Minimum and Alternative Procedures for Competitive Procurement Processes to Ensure Best Value for Citizens and Governments.
3. Transfer of Public Records to Optical Imaging, Wisconsin Admin. Code Chapter Adm. 12.
4. Wisconsin Department of Administration Imaging Standards and Guidelines.
5. Wisconsin Department of Administration Information Technology Infrastructure Standards.

H. Administrative Standards Not Associated With Foundational Elements

Plans represent an agreement between the county/agency and the Wisconsin Land Information Board. This agreement is intended to effectuate the objectives of the Program as embodied in the enabling legislation. In order for a Plan to be acceptable to the Board, the Board and the county/agency agree and consent as follows below. If applicable, discuss any plans, problems, issues, concerns relative to these agreements.

1. The county/agency agrees to observe and follow the statutes relating to the Wisconsin Land Information Program and other relevant statutes.
2. The county/agency 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/agency 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/agency 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 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 an Annual Report regarding the status of the Wisconsin Land Information Program and the activities of the Board.