

**UNIFORM INSTRUCTIONS FOR PREPARING
COUNTY LAND INFORMATION PLANS
December 2009**

COUNTIES COVERED BY THESE INSTRUCTIONS

Wis. Stat. Sec. 59.72 (3) Land 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 and 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 Department of Administration under s. 16.967 (3) (e).
- Review and recommend projects from local governmental units for grants from the Department of Administration under s. 16.967 (7).

FOR ASSISTANCE WITH THESE INSTRUCTIONS

Contact the Department of Administration at (608) 267-3369.

BACKGROUND

Plans are an indispensable component of the Wisconsin Land Information Program (WLIP). Given the enormous benefits of geographic and land information system technologies to date, these plans, in combination with annual GIS inventory data, promise continued benefits for all levels of government in Wisconsin. These benefits include:

- reduction of duplication of effort across all levels of government;
- more accessible, useable, complete, accurate and timely information available to local units of government, state and federal agencies, public utilities and the public;
- improved analysis, decision support, and program administration; and
- increased ability to provide greater public access to geographic information via the Internet.

The annual WLIP survey requirement is administered through the online Wisconsin GIS Inventory Tool (previously referred to as the "Ramona Survey.") Counties are asked to update their survey information at least once a year as a WLIP program requirement. The survey provides a statewide snapshot of the status of land information. County land information plans provide the narrative and long-range planning horizon necessary to put these annual snapshots in context.

While county plans have typically been organized around the concept of Wisconsin Foundational Elements, the Wisconsin GIS Inventory Tool utilizes *framework data* terminology which is very similar to foundational elements terminology and more commonly used outside of Wisconsin. To the extent possible, framework data concepts have been incorporated and referenced in this document for consistency.

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, public safety, health or other statistical information organized by or referenced to location, such as parcels, census blocks, zip codes, addresses, 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 plan 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 Department of Administration or State Budget Office. Please read over the entire form before completing.***

I. EXECUTIVE SUMMARY

- A. Identify your county 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, e-mails and phone numbers of designated contact person(s) for this plan.
- C. Provide a concise executive summary of this plan not exceeding one page.
- D. If applicable, provide the address for your county's land information Website(s).
- E. If applicable, provide the address(s) for any Websites serving land information that are maintained or sponsored by municipalities (cities, villages and towns) within your county.

II. LAND INFORMATION PLAN

A. Goals and Objectives

1. State the goals and objectives of the county 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 timeline 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 need that it currently uses or can acquire from other state or local sources?
- b. What data or information does the county need that it does not have and are not easily acquired? What obstacles exist to acquiring this information?
- c. How is or will the county ensure that county-maintained land information is, or can be made available in a standard industry format for use by others?
- d. How is or will the county ensure that the land information it has is geographically referenced for use by others?
- e. How is or will the county ensure currency and continued maintenance of its digital land information?

2. Describe how the county's technology platform and environment and database design standards and practices (including metadata and other elements listed below in the "Database Design" section) supports the county's goals and objectives relating to modern and integrated land information and supports the countywide information technology vision, mission, goals and strategies.

B. Progress Report on Ongoing Activities.

Please provide a description of the county'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's previous plan.

C. New Initiatives.

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

Describe major initiatives, if any, the county intends to pursue over this planning horizon. This would include, but not be limited to, automation of land information or systems; new or updated data development; acquisition or development of land information system hardware, software, staff; Internet-based land information systems; mobile or wireless communications systems using land information; support of Wireless 911; delivery of major county programs such as comprehensive planning, emergency response or human services; and regional or intergovernmental initiatives.

1. Proposed Projects. Highlight specific activities that the county 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 would like the Department of Administration 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's strategy to secure the technical assistance needed to carry out your Land Information plan, including utilization of the land info technical assistance e-mail listserv (doa-landinfo@lists.wi.gov), training opportunities and contractual assistance?
- b. What is your county's plan to finance the costs to continue previous investments in land records modernization/integration made in whole or in part with Land Information Program funding?
- c. What is your county's strategy for ensuring access to county land information, including publishing through a county website, FTP site, specialized online applications?
- d. What is your county's plan to participate in a statewide GIS repository when one is made available?
- e. How does the county 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 would like to undertake that has not been stated above. Please describe obstacles that have prevented your county from proceeding, such as staff, funding, coordination problems, etc. Please be specific.

D. Custodial Responsibilities.

1. Briefly identify the land information and data themes for which your county has custodial responsibility. (Ensure that these data are accurately recorded in your GIS inventory profile.)

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

E. Framework Data, System Implementation and Statewide Standards.

County land information planning is structured around specific criteria often referred to as Foundational Elements which incorporates Framework Data elements as well as areas of technology implementation and institutional cooperation. For some land information data, state, local or de-facto standards exist and may be in use. For each of the following sections:

- Please discuss key progress or initiatives for each framework data or system element listed.
- Please confirm your adherence to related standards or discuss your plan to maintain or achieve compliance with the standards corresponding to each element.
- Please discuss your plan to assume or maintain custodial responsibility (*as applicable*).
- Please discuss your long-range plan to maintain dataset currency over time as well as archive historical copies of datasets as appropriate.

1. Geographic Positioning Reference Frameworks

Discuss applicable features:

- a. Geodetic control and control networks
- b. Public Land Survey System remonumentation and records automation

Confirm your adherence to standards where applicable.

- Standards for Public Land Survey System Corners Corner Remonumentation. See Sec. 59.74 & 60.84 Wisc. Stats. and Wis. Admin. Code AE 7.08.
- PLSS Database Definitions <http://www.wlia.org/resources/standard7.pdf>
- National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998, <http://www.fgdc.gov/standards/projects/FGDC-standards-projects/accuracy/part3/chapter3>

2. Orthoimagery and Georeferenced Image Base Data

Discuss applicable features:

- a. Photogrammetric base maps
- b. Digital orthophotography (DOP)
- c. Digital raster graphics
- d. Satellite imagery
- e. Oblique aerial imagery
- f. Historical aerial imagery

3. Elevation Data Products and Topographic Base Data

Discuss applicable features:

- a. Digital elevation models (DEM)
- b. Digital terrain models
- c. Triangulated irregular networks (TIN)
- d. Contours
- e. LIDAR data
- f. IFSAR data

4. Parcel Mapping

Discuss applicable features:

- a. 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.
- b. The preparation of property maps that do not refer boundaries to the public land survey system but are suitable for use by local governmental units for planning purposes.
- c. Coordinate system used
- d. Parcel ID

Confirm your adherence to standards where applicable.

- FGDC's Cadastral Standards
<http://www.nationalcad.org/showdoclist.asp?doctype=1&navsrc=Standards>
- The WLIA's Parcel Geo-locator Standard
<http://www.wlia.org/resources/geoparcel.pdf>
- Local Government standards compliance.
- The WLIA's Digital Parcel Mapping Standard
<http://www.wlia.org/resources/standard6.pdf>

5. Parcel Administration and Assessment Information

Discuss applicable features:

- a. 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.
- b. Activities associated with modernizing the use of parcel level information once created from and in support of parcel maps, for example:
 - Parcel ID
 - Tax data
 - Site Address
 - Owner Name & Address
 - Description/current document pertaining to parcel
 - Document imaging
 - Real estate transactions
 - Easements and restrictions, including conservation easements
 - Tax exempt status
 - Zip codes (including +4)
 - Assessment class
 - Public lands
 - Liens
 - Evidence of Title,

Confirm your adherence to standards where applicable.

- FGDC's Cadastral Standards
<http://www.nationalcad.org/showdoclist.asp?doctype=1&navsrc=Standards>
- The WLIA's Digital Parcel Mapping Standard
<http://www.wlia.org/resources/standard6.pdf> .
- Local government standards compliance.

6. Street/Road Centerlines, Address Ranges and Address Points

Discuss applicable features:

- a. Transportation network (streets, roads highways, railroads)
- b. Rights of way
- c. Centerlines
- d. Address ranges
- e. Site address database

- f. Address point, structure and/or driveway
- g. Road names
- h. Functional class
- i. Places/Landmarks
- j. Integration with the County's/City Master Street Address Guide (MSAG)
- k. Ability to support emergency planning, routing, response and mapping
- l. Ability to support Wireless 911

Confirm your adherence to standards where applicable.

- Local government compliant.
- US Postal Addressing Standards Publication 28

7. Hydrography, Hydrology and Wetlands Mapping

Discuss applicable features:

- a. Hydrography
- b. Watersheds
- c. Hydrogeology
- d. Impacts on the environment (e.g. groundwater contamination, storm water)
- e. Wetlands mapping activities

Confirm your adherence to standards where applicable.

- Wisc. DNR Wetlands Map (s. 23.32, Wis. Stats.)

8. Soils Mapping, Land Cover and other Natural Resource Data

Discuss applicable features:

- a. Soils mapping activities
- b. Land cover
- c. Forests
- d. Geology
- e. Hydrogeology
- f. Non-metallic mining
- g. Endangered resources
- h. Impacts on the environment (e.g. air emissions; soil contaminants; coastal stability)

9. Land Use Mapping

Discuss applicable features:

- a. Mapping of existing land use.
- b. Mapping of planned land use

Confirm your adherence to standards where applicable.

- Local government compliant

10. Zoning Mapping

Discuss applicable features:

- a. Zoning Districts
- b. Shorelands
- c. Floodplains and floodways
- d. Environmental corridors
- e. Burial sites
- f. Archeological sites
- g. Historic/cultural sites

Confirm your adherence to standards where applicable.

- Zoning Mapping Standards (local government compliant)
- DNR Floodplain Zoning NR 115/117

11. Election and Administrative Boundary System

Discuss application features:

- a. Election (voting district) boundaries, precincts, wards, supervisory, voting places etc)
- b. Legislative districts
- c. Utility districts (.e.g. water, sanitary, electric, etc.)
- d. School districts
- e. Tax incremental financing districts
- f. Agency administrative districts and Zip Codes
- g. Census geographies:
 - Blocks
 - Block groups
 - Tracts
 - Designated places
 - Urban areas
 - Traffic analysis zones
- h. Civil division boundaries (Towns, City, Villages etc)
- i. Public Administered Lands, ie parks, forests etc
- j. Native American lands
- k. County boundaries
- l. State outline
- m. Lake districts

Confirm your adherence to standards where applicable.

- Local government compliant

12. Critical Infrastructure and Facilities Management

Discuss applicable features:

- a. Emergency service districts
- b. 911 call center service areas & center locations
- c. Fire/Police Districts
- d. Fire/Police Stations
- e. Hospitals and healthcare facilities
- f. Government facilities
- g. Utilities - *not* districts (e.g. gas, electric, sanitary, water, phone, telecommunications etc.)
- h. Parks & Recreational Trails (Ice Age/ bicycle/ hiking/ snowmobile/ horseback routing)
- i. Transit systems
- j. Bridges, culverts, traffic road signs
- k. Airports and airfields
- l. Harbors
- m. Boat landings
- n. Hazardous materials sites; LUST(Leaking Underground Storage Tank) etc.
- o. Landfills

13. Database Design and System Implementation

Discuss applicable features:

- a. Design evaluation
- b. Project approach
- c. Timeline
- d. Metadata policies
- e. Security/Privacy policies
- f. Implementation and maintenance strategy
- g. Data quality management
- h. Needs assessment
- i. Data structure and format (e.g. topology)
- j. GIS data models (database & workflows)
- k. Data dictionary

- l. Coding schema
- m. Transaction management
- n. Organizational information flows
- o. Data Conversion
- p. Ability to integrate with other databases and information systems (vertical and horizontal)

Confirm your adherence to standards where applicable.

- GIS Data Exchange Between Wisconsin Public Agencies, WLIA, 1996
<http://www.wlia.org/resources/standard5.pdf>

F. Public Access

Discuss applicable features:

- a. Use of technology to facilitate efficient access (e.g. Internet, query systems, DVD/CD).
- b. Use of 3rd party technology for access (e.g., GIO Repository, Google, offsite hosting,)
- c. Data sharing policies (copyright, licensing, fees etc).
- d. Open access to data in existing format.
- e. Subscription-based or public-facing web services.
- f. Optional production of customized data on cost-recovery or other basis.
- g. Internet accessibility (ADA compliance, security)
- h. System security.
- i. Privacy policies.
- j. Use of \$1 fee designated for land information and housing data Sec. 59.72 (5)(b)3.

Confirm your adherence to standards where applicable.

- GIS Data Exchange Between Wisconsin Public Agencies, WLIA, 1996
<http://www.wlia.org/resources/standard5.pdf>
- State Open Records Law and federal Freedom of Information Act

G. 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:

- a. Formal data sharing agreements (memorandums of understanding, etc.)
- b. Formal or informal data maintenance agreements between departments/agencies.
- c. Cooperative arrangements (e.g. agencies; libraries; schools; RPCs; utilities; privates).
- d. Consortia (e.g. inter-county, regional).
- e. 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.)
- f. Statutory relationships among counties and state agencies.

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

4. How does your county allow for participation and coordinate funding allocations so that all departments benefit from the land information program?
5. How does your county allow for participation so that municipalities and other agencies in the region benefit from the land information program?

H. Communication, Education, Training and Facilitated Technical Assistance

Discuss applicable features:

- a. Documentation of county data, models and processes.
- b. Resources available.
- c. Identification of customer needs.
- d. Coordination of education/training with agencies, associations and educational institutions.
- e. Use of technology to facilitate education and training.
- f. Use of, or plan to participate in, clearinghouse/repository and land information technical assistance listserv.
- g. Use of land information officer education and training funds.

Confirm your adherence to standards where applicable.

No standards have been adopted; however, county membership in the land info technical assistance email listserv (DOA-Landinfo@lists.wi.gov) is required in order to participate in the WLIP.

I. Administrative Standards Not Associated With Foundational Elements

Plans represent an agreement between the county and the Wisconsin Department of Administration (DOA). 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 DOA, the DOA and the county agree and consent as follows below. If applicable, discuss any plans, problems, issues, or concerns relative to these agreements.

1. The county agrees to observe and follow the statutes relating to the Wisconsin Land Information Program and other relevant statutes.
2. The county agrees to permit the Wisconsin Department of Administration access to books, records and projects for inspection and audit.
3. The county agrees to complete the GIS Inventory Survey (survey required annually by WLIP).
4. The county agrees to update the plan every 5 years and in the interim if the plan should change.
5. Development and implementation of an acceptable plan confers certain benefits on local government within a county, including continued eligibility for Program funding. A peer review process will be used to assess plan acceptability by the land information community.