
Dane County Land Information Plan

October 2010

**Prepared for the
State of Wisconsin**



Acknowledgements

The Land Information Office is deeply grateful to the many individuals and organizations who have contributed to the success of land information modernization and GIS/LIS in Dane County. Without their assistance we could not have realized the benefits we enjoy today. Thank you all for your support. We look forward to working together on future activities.

- Dane County
 - County Executive
 - Board of Supervisors
 - Treasurer
 - Register of Deeds
 - Department of Administration
 - Department of Planning & Development
 - Land & Water Resources Department
 - City, Village and Town partners
 - Capitol Area Regional Planning Commission
 - Madison Area Transportation Planning Board
- Wisconsin Land Information Program
 - WLIP staff
 - County Land Information Officers
 - Land Information Officers Network
 - Wisconsin Land Information Association
- State
 - Wisconsin Department of Administration
 - Wisconsin Department of Natural Resources
 - Wisconsin Department of Transportation
 - University of Wisconsin Extension
 - University of Wisconsin-Madison
 - Department of Civil and Environmental Engineering
 - Environmental & Remote Sensing Center
 - Land Information & Computer Graphics Facility
 - State Cartographer's Office
 - Wisconsin Geologic & Natural History Survey
- Federal
 - National Geodetic Survey (USDOC/NOS/NOAA)
 - Farm Service Agency
 - Natural Resource Conservation Service
 - United States Geologic Service
- Private Industry
 - GeoAnalytics, Inc.
 - Fairview Industries
 - Ayres Associates
 - RA Smith
 - Ruekert & Mielke
 - Short Elliot & Henderson (SEH)

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I) EXECUTIVE SUMMARY

A County Identification and Contact Information

The Dane County contact person for the Wisconsin Land Information Program is:

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Dane County Land Information Office
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Madison, Wisconsin 53703

Phone: 608-224-3730; fax: 608-266-1242; email: connors.kevin@co.dane.wi.us

B Participants in the Planning Process

The Dane County Land Information Office was established by Resolution No. 295, 1989-1990, and consists of the following department heads and elected officials:

Kevin Connors, Director of Land & Water Resources, LIO Manager, LIO
Committee Chair
David Worzala, Treasurer
Kristi Chlebowski, Register of Deeds
Travis Myren, Director of Administration
Todd Violante, Director of Planning & Development

Advisory members of the LIO Committee include Kamran Mesbah, Director of Environmental Resources Planning, Capitol Area Regional Planning Commission, and Daniel Frick, Dane County Surveyor. The Land Information Office is staffed by Tim Confare and Fred Iausly, Senior GIS Analysts and Dave Watson Senior GIS Systems Administrator. Additional assistance is provided by county staff in other land related program areas and by contracted and LTE staff services.

The LIO Committee, Advisors and staff, along with Troy Everson, Land Records Administrator; David Janda, Asst. Director, Emergency Management Department; Michelle Richardson, Conservation GIS Analyst; Dan Siedensticker, GIS Specialist (Madison Area Transportation Planning Board (TPB)) participated in the preparation of the **2010 Dane County Land Information Plan**.

The Geographic Technical Advisory Group (GTAG) also participated in preparation of the plan, consists of the technical staff from various County and regional departments to work with LIO staff and advise the LIO Committee on technical issues. Members include Tim Confare and Fred Iausly, Senior GIS Analysts and Dave Watson Senior GIS Systems Administrator, Daniel Frick, Dane County Surveyor, Troy Everson, Land Records Administrator; Virginia Logsdon, Information Services Manager-Application Services; Steve Cripps, Management Information Project Leader; Aaron Krebs, GIS Specialist, Capitol Area Regional Planning Commission; Michelle Richardson, Conservation GIS Analyst; Dan Seidensticker, GIS Specialist (Madison Area Transportation Planning Board (TPB)) and James Holmes, CAD Analyst

The direction of the Land Information Office is under the authority of the Personnel & Finance Committee of the Dane County Board of Supervisors.

C Summary of the Plan

The purpose of this document is to update the Dane County ‘Plan’ for land information modernization as required by WI Stat 59.72 for continued participation in the Wisconsin Land Information Program (WLIP). The format and content of the Plan is based upon the WI DOA’s *Uniform Instructions for Preparing County Land Information Plans*, December 2009.

This plan describes Dane County's land information modernization goals and objectives for the next five years and is intended to provide county and municipal officials, public agencies, private entities, and other interested parties with basic knowledge of Dane County's plans efforts in land information modernization and integration.

Over the next five years the continued emphasis for the Dane County land information program will be on maintaining and enhancing enterprise GIS/LIS services and modernized land information through coordination and cooperation with community partners and through initiatives identified in Section II.C. This plan is considered a living document. The County intends to periodically review and modify the plan so that it remains current and reflective of County directions and circumstances.

Dane County has benefited greatly from the Wisconsin Land Information Program and, as appropriate, will continue to maintain and enhance the investments made in modernized land information and GIS/LIS systems. The County has received many advantages from the use and application of modern land information and related technologies. As GIS/LIS grows from collection and design systems into decision support systems, more and more Dane County departments, communities, and citizens will be involved with modernized land information and GIS/LIS technology and services. It is our hope that this plan will guide and support that growth.

D County Land Information Website

The Dane County website for geographic and land related information and services is AccessDane. AccessDane contains a variety of published databases, applications and online services, including the County’s map-based land information website, DCiMap.

AccessDane	accessdane.co.dane.wi.us
DCiMap	dcimap.co.dane.wi.us

E Municipal Land Information Websites

Communities in Dane County are increasingly having a presence on the web. The following include but may not be limited to land information websites that are maintained by Dane County municipalities and local agencies:

Madison Area TPB	http://www.cityofmadison.com/mpo/
Capital Area RPC	http://www.capitalarearpc.org/
City of Madison	
Engineering Dept.	http://gis.ci.madison.wi.us/MADMAPS/
City Assessor	http://www.ci.madison.wi.us/assessor/property.html
City of Edgerton	http://cityofedgerton.com

City of Fitchburg	http://www.city.fitchburg.wi.us
City of Middleton	http://www.ci.middleton.wi.us
City of Monona	http://www.monona.wi.us
City of Stoughton	http://ci.stoughton.wi.us
City of Sun Prairie	http://www.cityofsunprairie.com
City of Verona	http://www.ci.verona.wi.us
Town of Windsor	http://www.ci.windsor.wi.us
Town of Berry	http://www.townofberry.org
Town of Blooming Grove	http://www.blmgrove.com
Town of Blue Mounds	http://www.tn.bluemounds.wi.gov
Town of Bristol	http://www.tn.bristol.wi.gov
Town of Burke	http://www.townofburke.com
Town of Christiana	http://www.twp.christiana.wi.us
Town of Cottage Grove	http://www.tn.cottagegrove.wi.gov
Town of Cross Plains	http://www.townofcrossplains.org
Town of Dunkirk	http://www.townofdunkirk.com
Town of Dunn	http://www.town.dunn.wi.us
Town of Madison	http://www.town.madison.wi.us
Town of Mazomanie	http://townofmazomanie.org
Town of Middleton	http://www.town.middleton.wi.us
Town of Montrose	http://townofmontrose.com
Town of Oregon	http://www.town.oregon.wi.us
Town of Perry	http://www.perry-wi.gov
Town of Pleasant Springs	http://www.pleasantsprings.org
Town of Primrose	http://tn.primrose.wi.gov
Town of Rutland	http://www.town.rutland.wi.us
Town of Springdale	http://www.tn.springdale.wi.gov
Town of Springfield	http://www.town.springfield.wi.us
Town of Sun Prairie	http://www.townofsunprairie.info
Town of Vermont	http://www.townofvermont.com
Town of Verona	http://www.town.verona.wi.us
Town of Vienna	http://www.vienna-wis.com
Town of Westport	http://www.townofwestport.org
Village of Belleville	http://www.bellevillewi.org
Village of Black Earth	http://www.blackearthwisconsin.com
Village of Blue Mounds	http://www.bluemoundswi.govoffice
Village of Brooklyn	http://www.brooklynwi.gov/index.asp
Village of Cambridge	http://www.ci.cambridge.wi.us
Village of Cottage Grove	http://village.cottage-grove.wi.u
Village of Cross Plains	http://www.cross-plains.wi.us
Village of Deerfield	http://www.deerfieldwi.com
Village of DeForest	http://www.vi.deforest.wi.us
Village of Maple Bluff	http://www.villageofmaplebluff.com
Village of Marshall	http://www.marshall-wi.com
Village of Mazomanie	http://www.villageofmazomanie.com
Village of McFarland	http://www.mcfarland.wi.us
Village of Mount Horeb	http://www.mounthorebwi.info
Village of Oregon	http://www.vil.oregon.wi.us
Village of Shorewood Hills	http://www.shorewood-hills.org
Village of Waunakee	http://www.vil.waunakee.wi.us

II) Land Information Plan

A Goals and Objectives

The goals and objectives of the Dane County Land Information Plan are based on past strategic planning activities, annual LIO work program and budget reviews, and the ongoing oversight of the Land Information Office Committee. Strategic planning activities that have contributed to this plan include:

- County-wide Land Information Systems Committee (*CLISC Report*, November 1991), including a formal assessment of internal and external customer needs and priorities conducted by a fifty-one regional stakeholder representatives.
- Land Information Office Strategic Plan (March 2009), including an environmental scan of customer needs and priorities.
- Dane County Enterprise GIS Migration Plan (May 2003)
- Strategic Plan for GIS in the 911 Center (April 2004)
- Dane County GIS Technology Work Plan (*March 2009*)

The Dane County Land Information Program has evolved into a well-established local and regional resource for geographic and land information services. The County has made great progress since 1991 by establishing the Land Information Office and Committee, hiring and training staff, acquiring hardware and software, modernizing key land information data sets, developing computer applications and Internet services, and forming cooperative relationships with local land information partners. The County has established a solid framework for modernized land information and is now concentrated on maintaining/enhancing the enterprise GIS/LIS framework, and further deploying modernized land information and technology throughout the County and its communities.

The County Land Information Office Committee meets regularly to determine the priorities for each goal and objective, and to determine the resource requirements to achieve these objectives. The implementation timeline is dependent upon the amount of retained fees collected, and any additional grant or tax levy funding available to the LIO for land information program activities.

- 1 The following are the goals and objectives for the horizontal and vertical integration of Dane County land information and systems among users of land information in Wisconsin:
 - Educate the public and private sector about modernized Dane County land information, land information systems, and system benefits.
 - Coordinate modernization activities with other land information agencies.
 - Continue to develop and deploy an integrated land information system.
 - Improve data accuracy and reliability.
 - Improve cost-effectiveness.
 - Improve access to information for users.
 - a At this time, the County is not having any problem with obtaining data from the state that it needs to implement this plan.
 - b At this time, the County has or can obtain the information needed to implement this Plan.

- c The County's selected GIS software vendor is Environmental System Research Institute's (ESRI) ARCGIS and related products, which are also the State standard. ESRI is a member of the Open GIS Consortium and proposes to support open GIS data transfer and data sharing requirements. County geodatabase models are based on emerging industry standards and current best practices. All enterprise GIS datasets are documented and distributed with FGDC-compliant metadata to support their successful use by others. The County will continue to use commonly accepted hardware platforms and software to facilitate translatability and retrieval of data. Beyond this, the County cannot ensure that transferred data will be useable in a system where the design is unknown or developed to meet a special purpose. The LIO relies on the recommendations of LIO Staff, the Division of Information Management and our consultant services to ensure a secure technology environment.
 - d Dane County's geographically referenced data and information is based on the Wisconsin Coordinate Referencing System, Dane County (WISCRS Dane County), which is mathematically relatable to the North American Datum (NAD) 1983 HARN and able to be referenced for use by others. Vertical GIS data is referenced to the North American Vertical Datum of 1988 (NAVD88). The WISCRS Dane County is described in *Wisconsin Coordinate Reference Systems*, Second Edition; Wisconsin State Cartographer's Office, Madison WI, 2009.
 - e The County has established a solid framework for its land information and is concentrating on maintaining/enhancing the enterprise GIS/LIS framework. The County is aware of the need for currency and reliability of the system for its public and private users. With continued support from the Wisconsin Land Information Program and changes in the Register of Deeds recording structure, Dane County will work to support and grow this system with investments in staffing and technology.
- 2 The County's GIS environment is currently comprised of a suite of servers dedicated to GIS/LIS data maintenance and publication, including Internet publication. The technology environment is based on Window Server technologies built on a VMWare virtual host. Microsoft SQL Server 2008 with ESRI ArcGIS Server Spatial Database Engine provides the data access tier while users will use ArcGIS Desktop and ArcGIS Server to consume the data. GIS database designs incorporate key field identifiers to ensure integration with tabular information systems. FGDC-compliant metadata is maintained and distributed with each enterprise GIS data set.

B Progress Report on Ongoing Activities

Dane County has made significant progress on many of the goals and objectives described in the 2005 Plan. Ongoing activities continue with this planning cycle; activities completed under the 2005 are noted in italics.

- **Goal:** Educate the public and private sector about modernized Dane County land records information systems, and system benefits.

Activity	Status
Outreach to Dane County local government agencies (LIO website, mailings, brochures, business cards). (AccessDane & DCiMap websites, countywide GIS User Group, LIO website, GIS Day events)	Ongoing
Presentations/participation in local and statewide educational sessions. (WLIA annual conferences and workshops, WSLS, etc.)	Ongoing
Education about Dane County activities in WLIP and other publications. (WLIA, SCO and other newsletters)	Ongoing
Internal (county department) education (GIS User Group). (AccessDane and DCiMap workshops on request, ArcGIS Online Training, Fly Dane LiDAR Workshop)	Ongoing
Community training in GIS software and use of county data sets. (Training coordination upon request of communities/departments, Fly Dane LiDAR Workshop)	Ongoing

- **Goal:** Improve access to information for users.

Activity	Status
Implementation of the Enterprise GIS Migration Plan	Completed
Develop comprehensive, spatially enabled survey and plat databases by linking survey database to AccessDane for efficient search and retrieval. (Surveyors Office website, PLSS Monument Record Inventory)	Completed/Ongoing
Develop Phase 1 of Conservation Planning System based on existing cooperators tracking system for farmland programs.	Completed
Implement ArcGIS ImageServer to improve management and access to the County's increasing raster inventory.	Completed
Enhance online access to Register of Deeds information. (AVID, Tapestry, Laredo)	Ongoing
Enhance web-based geographic/land information services (AccessDane & DCiMap websites; Surveyors Office; added tax, district and parcel status information; implemented privacy policy)	Completed/Ongoing
<i>Implementation of DCiMap, web-mapping application</i>	<i>Completed</i>
<i>Develop public access terminals for use at County offices. (DCiMap added to public access terminals)</i>	<i>Completed</i>
<i>Establish enterprise GIS/LIS data repository for improved data access by users and other information systems</i>	<i>Completed</i>

- **Goal:** Improve data accuracy and reliability.

Activity	Status
Adopted and implemented Wisconsin Coordinate Referencing System – Dane County coordinate system.	Completed
Integration of Village of Maple Bluff parcels into Parcel Mapping	Completed

database.	
Modernize the Dane County Digital Flood Insurance Rate Map (DFIRM) data incorporation with FEMA and WI DNR.	Completed
Develop countywide address ranges.	Completed
Improvements to the Street Centerline Data Maintenance System	Underway
Develop and improve quality control/quality assurance procedures for data development and maintenance.	Ongoing
Develop zoning permitting system to track petitions and violations.	Completed
Acquired county-wide LiDAR with deliverables of bare earth and first return LAS files and Digital Elevation Model (DEM) and 2-foot contours. Develop QA/QC procedures.	Completed
Acquire color and black/white digital orthophotography and building footprint updates. Develop QA/QC procedures. <i>(2003 limited imagery update; 2005 imagery updates)</i>	Underway
Maintain digital data exchange of local assessors' information with real property system.	Ongoing
Develop and maintain FGDC-compliant metadata for GIS data sets.	Ongoing
<i>Develop online and offline/batch address information exchange with local municipalities.</i>	<i>Completed</i>
<i>Publish tax information, including tax billing, delinquency notification and payment history.</i>	<i>Completed</i>
Remodel enterprise GIS data models as part of migration to ArcSDE/geodatabases <i>(PLSS, hydro, imagery, terrain data models completed)</i>	Ongoing
Formalize implementation plan to perpetuate obliterated or deteriorating PLSS monuments and to obtain accurate coordinate information on existing and established corners throughout the county.	Underway

- **Goal:** Improve cost-effectiveness.

Activity	Status
Migrate County GIS users to a Citrix distributed computing environment.	Completed
Continue to add content to AccessDane web portal to improve service and gain staff efficiencies.	Ongoing
<i>Implement imaging system in Office of Register of Deeds – resulted in nearly 50% increase in productivity.</i>	<i>Completed</i>
<i>Develop an automated real property listing system – resulted in a reduction of one real property listing staff position.</i>	<i>Completed</i>
<i>Notification and mailing label tool developed for use by Dane County departments and local communities.</i>	<i>Completed</i>
<i>Cross-train parcel listing and parcel mapping functions resulted in a reduction of one staff position.</i>	<i>Completed</i>

- **Goal:** Coordinate modernization activities with other land records agencies.

Activity	Status
Participate in Emergency Operations Center exercises.	Ongoing
Establishment of Public Safety Commission Technology Committee based in Wireless 911 Implementation report.	Completed
Cooperative efforts with NRCS and UW-Madison to receive SSURGO certification and to modernize the Dane County soils	Completed

survey.	
Centralize the management and funding of GIS software licensing and maintenance	Ongoing
Data sharing arrangements with the Farm Service Agency to improve parcel-based farm tract and field information (Common Land Unit (CLU)).	Completed
Increase communication with cities, villages and towns. <i>(Regional GIS User Group)</i>	Ongoing
<i>Develop municipal data exchange system to share tax and address information with municipalities.</i>	<i>Completed</i>
Develop digital GIS data sharing program. <i>(online data & map catalogs; online order form)</i>	Ongoing
Fly Dane regional partnership for digital orthoimagery and terrain data acquisition. <i>(Fly Dane 2000, 2003, 2005 & 2009/2010 projects)</i>	Completed/Ongoing
Participate and support Public Safety Planning efforts. (Dane County All-Hazards Plan & 911 GIS Strategic planning efforts; assist with Wireless 911 grant application.)	Completed/Ongoing

- **Goal:** Develop an integrated land information system.

Activity	Status
Acquire GIS software and hardware. (Implement ArcGIS Server, Image Server)	Completed
Provide adequate staffing to enhance an integrated land information system	Ongoing
Acquire GIS software and hardware. (Implemented ArcIMS, ArcSDE and ArcGIS)	Completed
Train and educate staff. (EGIS technical staff training)	Completed
<i>Implement document imaging and indexing system.</i>	<i>Completed/Ongoing</i>
<i>Develop an automated real property listing system.</i>	<i>Completed</i>
<i>Develop GIS parcel and zoning mapping layers.</i>	<i>Completed/Ongoing</i>
Develop digital map products (ex: digital soil survey, farm management boundaries, rural land use classification) <i>(annual parcel & municipal boundary archives, EMS/Fire/Sheriff Districts, supervisory district maps, 2000 land use inventory, lake property numbering, road names, private roadways)</i>	Ongoing
Migrate zoning database to an enhanced information system to manage permitting process and data	Ongoing
Support county decision making and planning. <i>(DesignDane!, AttainDane & Smart Growth planning,; wireless 911 mapping and 911 CAD)</i>	Ongoing

* Completed/Ongoing – This status note indicates that the first stage of the activity has been completed, but repeated occurrences, or continuous improvements, upgrades, and enhancements of the system or project, are considered an ongoing activity.

C New Initiatives

1 Proposed Projects

The County is continuing with its ongoing land records modernization activities as

described in the Goals and Objectives section of this plan. In addition to the activities that were noted as ongoing or underway in the Progress Report on Ongoing Activities section of this plan, the following activities are planned (subject to available time and resources):

- Continue countywide land information modernization and GIS data integration by reviewing and updating the Enterprise GIS Migration Plan, including the following projects:
 - LIO Program Enhancements
 - Enterprise Data Repository
 - Data Distribution Process Improvements
 - Geographic Framework Data Models & Maintenance Systems
 - Parcel Data Model & Maintenance System
 - Master Address Data Maintenance System
 - Additional phases of Conservation Planning System
- Continue regional Fly Dane partnership to acquire updated digital orthophotography and related products (Fly Dane 2009-2010 is currently underway with the next update anticipated for 2015). Acquire one-meter color imagery as part of the 2010 FSA NAIP program.
- Pursue a cooperative effort with FEMA and WI-DNR to update portions of the Dane County Digital Flood Insurance Rate Map (DFIRM) data, leveraging the recently acquired one-foot vertical LiDAR terrain data.
- Maintain and enhance countywide parcel mapping.
- Support an update to the County land use inventory.
- Support redistricting efforts following the 2010 Census.
- Continue to develop AccessDane as a central services portal for Dane County geographic and land information and online services.
- Monitor and take advantages of opportunities for e-filing and improved data integration emerging from the electronic Wisconsin Real Estate Transfer Return Form.
- Develop a master County “holdings” data set including easement, fee simple, lease and other interests in county-owned lands.
- Improve the integration and quality of address data, and better coordinate County activities related to addressing.
- Deploy GIS data and technology to a broadening community of users, including public safety applications such as new E911 CAD mapping.
- Work with 911 Communications to incorporate GIS data and technology into the new Computer Aided Dispatching (CAD) system.

- Continue to provide countywide technical leadership and provide support and maintenance of the County GIS licensing and infrastructure.
- Provide support for emerging needs for mobile GIS technology and applications.
- Monitor and take advantages of opportunities to contribute data to larger state and national efforts to provide greater access to local data, as appropriate.
- Secure appropriate financial resources to support land record modernization activities, including seeking other funding sources to compliment WLIP funding.
- Continue cooperative research and development partnerships with other agencies and educational institutions.
- Develop information policies to support the deployment and use of land information and land information systems.
- Continue to monitor and take advantage of opportunities to move land information modernization forward in Dane County.
- Integration of the local data to develop and maintain various comprehensive county-wide dataset.
- Expand the Enterprise Data Repository (EDR) to provide a more centralize data store for municipalities to access instead of requiring each municipalities to develop it own.
- Implement new statutory requirements for LIO Committee composition and program reporting.

2 Assistance Requested

Dane County would like assistance ensuring that all WLIP retained fees sent to the state are used for land information system and data development to benefit counties and local units of government and are not diverted to unrelated activities.

- a** Dane County will continue to identify and secure any outside technical assistance needed to carry out this Plan. The County has Internet connectivity, regularly posts enterprise GIS metadata to the WISCLINC clearinghouse, and uses the WLIP Technical Assistance List Server as needed.
- b** The County plans to use retained fees and WLIP grant dollars to fund the activities of this Plan. The County will continue to pursue other funding (ex: tax levy or grant opportunities outside of the WLIP) as needed if the WLIP program is significantly changed.

- c The County will continue to look for opportunities to provide access to county land information through online services, whether free or subscription based.
- d Should the State develop a statewide GIS Repository the County would evaluate the requirements and provide appropriate data to support this effort.
- e The Land Information Office Committee has and will continue to follow county ordinances and administrative rules for the procurement of services related to this Plan.

3 Problems Encountered

- The redirection of WLIP funding to State Comprehensive Planning does impact the County's ability to access additional funding needed to complete activities outlined in this Plan and additional requirements set by the State.
- County needs for enterprise GIS/LIS support and services have increased beyond available LIO resources. In recent years, resources have been increasingly applied to staffing and software/hardware support over projects. This has made it difficult to meet county and regional expectations for access and project development. Increased County budget constraints have put pressure on data custodians to maintain the necessary resources to provide maintenance and enhancements to the data under their charge.
- Dane County would like to revitalize the remonumentation project with a formalized implementation plan. Unfortunately, as a result of project priorities, funding limitations and staffing resources, this plan has progressed slowly. Since this data is a key foundational element, this project will have significant impacts on numerous datasets that will effect staffing and priorities.

D Custodial Responsibilities

1 & 2 The following is a list of Dane County departments and their land information custodial responsibility:

Administration

Land Information Office

- Maintain and implement the Dane County Land Information Plan. (Wis. Statutes Ch. 59.72)
- Create, obtain, maintain, and/or coordinate the development of Enterprise GIS data for the county. (Wis. Statutes Ch. 59.72)
- Coordinate and manage orthophotography and terrain data acquisition projects through the Fly Dane Partnership.
- Provide technical and staffing support to data custodians.
- Develop and maintain internet mapping, GIS interfaces and data distribution.
- Manage and support the Enterprise Data Repository.

- Provide training for GIS users.

Information Management

- Maintain the GIS server, computers, and computer network.
- Support and maintain system architecture.

Register Of Deeds

- Record deeds, mortgages, plat maps, certified survey maps, and other real property related documents. (Wis. Statutes Ch. 59.43)
- Archive all documents digitally back to 1835
- Maintain tract index of real property back to 1835. (Wis. Statutes Ch. 59.43)
- Redaction of Social Security Numbers from land record documents posted to the web.

Treasurer

- Maintain tax information for all tax parcels. (Wis. Statutes Ch. 59.25)

Planning & Development

Records & Support

- Prepare and maintain accurate ownership and description information for all parcels in the County. (Wis. Statutes Ch. 70.09)
- Maintain information on school and other special district codes. (Wis. Statutes Ch. 70.09)
- Maintain information on, and oversee the perpetuation of, PLSS corners, including tie sheets and section summary sheets. (Wis. Statutes Ch. 59.45 & 59.74)
- Maintain information on, and oversee the perpetuation of the County's geodetic control network. (Wis. Statutes 59.45 & 59.74)
- Maintain files and an index of surveys performed within the County. (Wis. Statutes 59.45)
- Maintain digital tax parcel maps. (county policy)

Zoning

- Maintain Zoning maps and zoning permits for the unincorporated area of the county. (Wis. Statutes Ch. 59.69)
- Maintain and file land use permits and applications. (Wis. Statutes Ch. 59.97 & 144.26)
- File wetlands and FEMA FIRM maps. (county policy)
- Establish street addressing in unincorporated areas.

Planning

- Support and maintain procedure consistent comprehensive planning efforts. (Wis. Statutes Ch. 59.69, 59.692, 60.61, 60.62, 61.351, 62.23(6), 62.23(7), 62.231, 236.45 & 236.46)

Land & Water Resources Department

Land Conservation

- Maintain necessary conservation planning and related natural resource data. (county policy)

- Support cooperative data sharing arrangements with USDA agencies such as NRCS and FSA for soils, wetlands, CLU, PLU and other information.
- Animal Waste Storage Facilities.
- Restricted Areas for Manure and Organic Byproducts.
- Manage stream navigability determination for development of Shoreland Zone buffers. (county policy)

Land Acquisition

- Maintain necessary county holdings information (parks, easements, etc). (county policy)
- Develop and maintain necessary county recreation information (parks, trails, etc). (county policy)

Parks

- Develop and maintain necessary county recreation information (parks, trails, etc). (county policy)
- Create and maintain harvesting priority areas for aquatic plants.

Office of Lake and Watersheds

- Manage Lake Property Numbering database.
- Creating data of aquatic species mapping and sensitive areas for aquatic plant harvesting.

Highway Department

- Maintain a street sign inventory.
- Maintain the PASER database.
- Manage Snow Plow routing.

Cities, Villages & Towns

- Establish street naming.
- Establish street addressing for incorporated areas.
- Maintain Road inventory.

- 3 No additional custodial responsibilities are sought at this time.
- 4 The County will consider any request for custodial responsibility and will evaluate each request based on available and required resources, ability for integration with other data sets, and conformance with the Dane County Land Information Plan.

E Framework Data, System Implementation and State-Wide Standards

1 Geographic Positioning Reference Frameworks

Dane County geographic information is based on the Wisconsin Coordinate Reference System (WISCRS) - Dane County, which is mathematically relatable to the North American Datum (NAD) 1983(1991). Vertical GIS data is referenced to the North American Vertical Datum of 1988 (NAVD88). The WISCRS - Dane County is described in *Wisconsin Coordinate Reference Systems, Wisconsin*

State Cartographer's Office, Madison WI, 2009.

- a** Geodetic control and control networks:
Dane County has benefited from the generosity of numerous federal and UW-Madison geodetic control projects over the years, providing a test bed for emerging technology and methodologies. The Dane County geodetic network was developed prior to the establishment of state and federal standards for geodetic networks. The countywide network consists of 130 stations. All of these stations have been bluebooked and are part of the federal National Spatial Reference System. The County has sufficient geodetic control densification combining previous County Control Densification Projects and the completion of the Wisconsin DOT height Modernization Project within Dane County. The County will continue to expand the control density in areas identified as deficient when funding is available. The County assumes custodial responsibility for the maintenance of locally (HARN) densified stations and assists Wisconsin DOT in the maintenance of the Height Modernization Stations. Dane County has adhered to the following standards related to this data: Standards for Geodetic Reference Systems (FGDC/FGCC standards and specifications); WLIP HARN Densification Standard (June 1995); Wisconsin Statutes Chapter 236.18
- b** Public Land Survey System:
Dane County is developing a needs assessment and implementation plan to revitalize the Public Land Survey System (PLSS) re-monumentation program. The PLSS Monument Records have been scanned and indexed to create a county-wide inventory. This inventory will allow the county to identify areas of need and prioritize re-monumentation projects. As funding becomes available, the Dane County Surveyor's Office will continue to pursue PLSS re-monumentation, accurate geodetic information, and PLSS maintenance. Dane County has adhered to the following standards related to this data, where applicable: Corner Remonumentation (Sec. 59.63(1); Sec. 60.84 (3)(c) WI Stats); Remonumentation Records (WI Stats. Sec. 59.635(2)(b); WI Admin. Code AE 7.08(2)); Coordinate Values (FGCC Third Order Class I); FGDC Cadastral Standard (PLSS geodatabase).

2 Orthoimagery and Georeferenced Image Base Data

- a** Photogrammetric base maps:
Both the County and the Capitol Area RPC maintain archives of historic imagery.
- b** Digital orthophotography:
The County has black/white 1-meter (1995) resolution orthoimagery acquired as part Southwest Wisconsin Consortia project and, black/white 1-foot (2000, 2005) and 6-inch (2000, 2003, and 2005) resolution orthoimagery acquired as part of Fly Dane projects. The County is contracted for color 1-foot and 6-inch resolution orthoimagery as part of the 2010 Fly Dane project.

- c** Digital raster graphics:
The County does utilize digital raster graphics through an ESRI ArcMap Online Map Service, on an enterprise level, for County staff to use as a general reference layer.
- d** Satellite imagery:
The County does not utilize satellite imagery on an enterprise level. The County has used satellite imagery, provided by the federal government, for department specific applications related to emergency government. The County will look to leverage this imagery
- e** Oblique aerial imagery:
The County does not utilize oblique aerial imagery on an enterprise level. However, the County is aware of the imagery and monitoring mission critical and enterprise applications for public safety, code enforcement, etc. that would justify the investment.
- f** Historical aerial imagery:
Both the County and the Capitol Area RPC maintain archives of historic imagery.

3 Elevation Data Products and Topographic Base Data

The County has undertaken a number of Digital Surface Models (DSM) projects. With each project the County has looked to leverage advances in technology to develop the most detailed, cost effective DSM possible. In the development of any DSM data the County has required compliance with national map accuracy standards.

- a** Digital elevation models (DEM):
The County has developed DEM data at 11-meter pixel size (1995) and 10-foot pixel size (2000, 2005). As part of the Fly Dane 2009-2010 project new 10-foot pixel size bare-earth and first-return DEM was delivered.
- b** Digital terrain models:
In 2000 and 2005 the County acquired mass point and breaklines data, but did not have the necessary tools to leverage it and relied on derivative products for terrain analysis. As part of the Fly Dane 2009-2010 project a classified bare-earth and first-return point file (LAS) and breaklines were delivered. With new utilities in the ESRI product suit users are able to generate TINs as needed.
- c** Triangulated Irregular Networks (TIN):
In 2000 and 2005 the County did acquire TINs as part of its suite of terrain data products but uses them only on a very limited basis. With new utilities in the ESRI product suit users are able to generate TINs as needed.
- d** Contours:
The County has developed 10-foot (1995), 4-foot (2000) and a limited

amount of 2-foot (2000) contour data. As part of the Fly Dane 2009-2010 project 2-foot and a limited amount of 1-foot contour data was developed.

- e LiDAR data:
As part of the Fly Dane 2009-2010 the County and Fly Dane Partnership undertook the countywide LiDAR project that will develop a detailed DSM that will support 2-foot contour development
- f IFSAR data:
The County does not utilize IFSAR data on an enterprise level at this time.

4 Parcel Mapping

The County will monitor WLIP parcel mapping standards and comply where practical. The parcel geodatabase is based on the FGDC Cadastral Standard and industry best practices.

- a The preparation of tax parcel mapping continues to be a primary focus of the Dane County land information program. With the completion of the village of Maple Bluff, all municipalities in the county are mapped and maintained on a transactional basis. Dane County tax parcel maps are referenced to the PLSS, however, data is often adjusted to fit the PLSS grid in situations where accurate coordinates on the PLSS corners are not available. For this reason, the tax parcel maps are not intended to be a substitute for a legal land survey or guaranteeing title to property. The tax parcels maps do include distances when provided by a deed or survey and will also call to a controlling survey document that was used to create the tax parcel.
- b All tax parcel maps are referenced to the Public Land Survey System and are ideally suited for planning purposes.
- c All parcel mapping is in the Wisconsin Coordinate Referencing System, Dane County (WISCRS Dane County).
- d The present County parcel identification number was developed prior to the WLIP standard and is based on the standard used by the Department of Revenue. While the County PIN does not fully conform to the WLIP numbering system, the parcel mapping database is designed so that the WLIP PIN can be generated when needed.

5 Parcel Administration and Assessment Information

- a The Dane County tax collection and real property listing system supports the integration of digital parcel maps with property and ownership information by linking data through key fields. Current parcel attribute information is extracted and linked to the GIS parcel maps on a weekly publication cycle.
- b The County currently maintains the following attributes and will adhere to

applicable standards as deemed practical: Parcel number, parcel status, ownership, property address, billing address, municipality, municipality code, township, range, section, quarter section, legal description, school district, and assessment information. In addition, recorded document information, document imaging, real estate transactions, Easements and restrictions, including conservation easements, zip codes, assessment class, public lands, liens, and evidence of title are all attributes that can be easily obtained or linked.

6 Street/Road Centerlines, Address Ranges and Address Points

- a** Transportation network(streets, roads, highways, railroads):
The County maintains these transportation features separately as independent feature classes.
- b** Rights of way:
Rights-of-way are a separate featureclass in the parcel mapping database and maintained by the Planning and Development.
- c** Centerlines:
The County maintains GIS street centerline data set. Efforts are being made to integrate the maintenance of the geometry and limited attribution as part of the parcel mapping process. Further enhancement to the data are planned.
- d** Address ranges:
The County maintains theoretical address ranges as part of the Street Centerline data set. Projects are planned to develop a master address data management system and further enhance the street centerline data set, including working with local municipalities and emergency government to reconcile conflicting addresses and improve information currency.
- e** Site address database:
Site address can currently be extracted from the parcel database. In unincorporated areas of the County a street address point dataset has been developed and maintained the Zoning division. The County is updating its building footprint information (except City of Madison) as part of its Fly Dane 2009-2010 project.
- f** Address point, structure and/or driveway:
Site address can currently be extracted from the parcel database, but other site addresses representations will likely be created based on needs identified as part of the EGIS address and centerline projects. The County is acquiring building footprint information (except City of Madison) as part of its Fly Dane 2005 project.
- g** Road names:
The County maintains road name as part of the Street Centerline data set. Projects are planned to develop a master road name data management system and further enhance the street centerline data set,

including working with local municipalities and emergency government to reconcile conflicting road names and provide a centralized master road name database.

- h** Functional class:
The County maintains functional class as part of the Street Centerline data set. Projects are planned to integrate functional class data from the Madison Area Transportation Planning Board (MATPB) in with the road centerline dataset.
- i** Places/Landmarks:
A Places/Landmarks database was begun as part of the AccessDane address exchange application and will continue to be further developed through various data development/enhancement projects.
- j** Integration with the County's/City Master Address Guide (MSAG):
The LIO is working with 911 Communication Center to further integrate mapping with CAD dispatch and other 911 initiatives. Dane County has begun the process of replace the 911 CAD. A key requirement for the new CAD will be a full integration with GIS.
- k** Ability to support emergency planning, routing, response and mapping:
The LIO and Emergency Management Department, 911 Communications Center and Sheriff's Office work together to provide the GIS data, maps and analysis required for emergency planning and response. The LIO has supported county offices in search and rescue missions, accidents, assessment and mitigation planning, and plan to continue this assistance.
- l** Ability to support Wireless 911:
The County has begun to support GIS needs for wireless 911 by developing address range data, data conversion routines, and a master address data management system. Greater functionality is planned with the purchase of a new Computer Aided Dispatch system.

7 Hydrography, Hydrology and Wetlands Mapping

- a** Hydrography:
Dane County maintains an orthophoto-derived hydrography dataset first produced in 1995, updated in 2005 to include intermittent stream information and DNR Designated attribution. The County also uses the DNR 24K hydro dataset.
- b** Watersheds:
The County acquires this data from the DNR and other custodial agencies as they become available and are needed.
- c** Hydrogeology:
The County acquires this data from the WGNHS and other custodial agencies as they become available and are needed.

- d** Impacts on the environment:
The County acquires this data from the appropriate custodial agencies as they become available and are needed.
- e** Wetland mapping activities:
Dane County uses the **Wisconsin DNR digital wetlands map information** which was adopted by county ordinance as the regulatory standard for wetlands delineation. County also maintains wetland information in cooperation with NRCS; access to this information is guided by NRCS policy.

8 Soils Mapping, Land Cover and other Natural Resource Data

- a** Soils Mapping activities:
Dane County completed its first digital soils mapping in cooperation with the Natural Resources Conservation Service in the early 1980's; attribute information has been maintained in cooperation with NRCS. The Dane County soil survey has been recently SSURGO certified.
- b** Land cover:
Generally not applicable for local government work; can be obtained from custodial agency if needed for County applications.
- c** Forests:
Dane County has compiled a dataset of the County Forests that was derived from the tax parcel database.
- d** Geology:
The County acquires this data from the WGNHS and other custodial agencies as they become available and are needed.
- e** Hydrogeology:
The County acquires this data from the WGNHS and other custodial agencies as they become available and are needed.
- f** Non-metallic mining:
Dane County has compiled an inventory of permitted sites throughout the areas where County has zoning jurisdiction. The data consists of Conditional Use Permits (CUP) and non-conforming sites and is updated on an annual basis.
- g** Endangered resources:
The County acquires this data from the DNR and other custodial agencies as they become available and are needed.
- h** Impacts on the environment:
The County acquires this data from the DNR and other custodial agencies as they become available and are needed.

9 Land Use Mapping

- a** Mapping of existing land use:
The former Dane County RPC developed a GIS land use inventory in 1990 which was updated in 2000 based on Census data and again in 2005. The Capitol Area RPC is planning a 2010 Land Use Inventory in conjunction with the 2010 Census that will leverage the Spring 2010 orthophotography and the parcel data. The project will begin in the second half of 2010 and continue into the first half 2011. The County uses a local government compliant land use classification for the county wide land use inventory (Capitol Area RPC). Cities and villages may use land use classifications that vary by municipality.
- b** Mapping of planned land use:
The Madison Area Transportation Planning Board is developing a planned future land use inventory based on the comprehensive plans submitted by communities in Dane County. The Madison Area Transportation Planning Board is standardizing the planned future land use classifications so as to be suitable for updating county-wide travel forecasts.

10 Zoning Mapping

- a** Zoning districts:
The County has completed a countywide zoning coverage for unincorporated areas using the GIS parcel base map. Zoning districts are mapped in accordance with County ordinances. The County uses zoning classifications identified by the County Board for areas where County zoning jurisdiction has been granted.
- b** Shorelands:
The County has developed a Shoreland Zone dataset that consists of buffers around DNR designated streams and lakes. As new stream studies area filed the dataset is then updated.
- c** Floodplains and floodways:
The County cooperated FEMA and WisDNR to modernize Dane County floodplain mapping, by providing enhanced terrain data for priority areas as part of the Fly Dane 2005 project. The County adopted the new floodplain mapping effective January 1, 2009.
- d** Environmental corridors:
GIS environmental corridor information was developed and is maintained by the Capitol Area RPC.
- e** Burial sites:
No plans at this time.
- f** Archeological sites:
No plans at this time.

- g** Historic/cultural sites:
No plans at this time.

11 Election and Administrative Boundary System

- a** Election boundaries, precincts, wards, supervisory voting places, etc:
The County acquires this data from the Wisconsin Legislative Technology Services Bureau and other custodial agencies as they become available and are needed. Dane County
- b** Legislative districts:
The County acquires this data from the Wisconsin Legislative Technology Services Bureau and other custodial agencies as they become available and are needed.
- c** Utility districts (e.g. water, sanitary, electric, etc.):
The County does intend to acquire data from public and private utilities, and other custodial agencies as they become available and are needed.
- d** School districts:
The County acquires this data from the Madison Area MPO and other custodial agencies as they become available and are needed.
- e** Tax incremental financing districts:
No plans at this time.
- f** Agency administration districts and Zip Codes:
The County acquires this data from the US Census and other custodial agencies as they become available and are needed.
- g** Census geographies:
The County acquires this data from the US Census and other custodial agencies as they become available and are needed.
- h** Civil division boundaries (Towns, City, Villages, etc):
The County maintains this data as part of the parcel mapping system.
- i** Public Administrated Land (i.e. parks, forests, etc):
The County maintains this data as part of the parcel mapping system.
- j** Native American lands:
The County does not currently map this data but will either develop or acquire, this data from other custodial agencies, as they become available and are needed.
- k** County boundaries:
The County acquires this data from the DNR and other custodial agencies as they become available and are needed.
- l** State outline:
The County acquires this data from the DNR and other custodial agencies as they become available and are needed.

- m** Lake districts:
The County does not currently map this data but will either develop internally or acquire, this data from other custodial agencies, as they become available and are needed.

12 Critical Infrastructure and Facilities Management

- a** Emergency services districts:
The Land Information Office in support of Emergency Management department maintains this data.
- b** 911 call centers service areas & center locations:
The County does not currently map this data but will either develop internally or acquire, this data from other custodial agencies, as they become available and are needed.
- c** Fire/Police Districts:
The Land Information Office in support of Emergency Management department maintains this data.
- d** Fire/Police Stations:
The Land Information Office in support of Emergency Management department maintains this data.
- e** Hospitals and healthcare facilities:
The Land Information Office in support of Emergency Management department maintains this data.
- f** Government facilities:
The County does not maintain this information except on an as needed facility basis.
- g** Utilities:
The County does not currently map this data but, intend to acquire data from public and private utilities, and other custodial agencies as they become available and are needed.
- h** Parks & Recreational Trails:
The Dane County Parks Division and Madison Area MPO develop and maintain these data sets.
- i** Transit systems:
The County does not currently map this data but, intend to acquire data from departments and other custodial agencies as they become available and are needed.
- j** Bridges, culverts, traffic road signs:
The Highway Department maintains this information in CAD format with the exception of the GIS-based sign inventory application.

- k** Airports and airfields:
The County does not currently map this data but, intend to acquire data from departments and other custodial agencies as they become available and are needed.
- l** Harbors:
The County does not maintain this information except on an as needed facility basis.
- m** Boat landings:
This information is maintained by the Parks Department based on mapping information provided by WisDNR.
- n** Hazardous materials sites:
The Emergency Management department maintains databases of this information and is in the process of linking them to GIS.
- o** Landfills:
The County does not maintain this information except on an as needed facility basis.

13 Database Design and System Implementation

- a** Design Evaluation:
Dane County follows industry accepted standards for database design and system engineering.
- b** Project Approach:
Project development generally involves a needs/requirements assessment, conceptual design, prototyping, and user acceptance testing. Actual approaches varies by project. Test environments are established and used to the extent possible prior to system implementation.
- c** Timeline:
Project timelines are dependent on available resources.
- d** Metadata policies:
The County documents all enterprise GIS/LIS datasets and strives to use industry standard data structures and formats. FGDC-compliant metadata is developed for enterprise GIS data sets and posted to the WISCLINC clearinghouse.
- e** Security/Privacy policies:
Dane County follows local policy and industry accepted practices for information technology security and privacy.
- f** Implementation and maintenance strategy:
The development of single use or a versioned Geodatabase structure is determined by the number of editors required for the development and maintenance of the data. Final publication of the data to the Enterprise

Data Repository (EDR) is done once the dataset has been finalized. The publication of updates is established based on the data maintenance requirements.

- g** Data quality management:
Quality control procedures and topology rules are developed as needed for each data maintenance system.
- h** Needs assessment:
Project development generally involves a needs/requirements assessment, however actual approach varies by project.
- i** GIS data models:
Dane County strives to use industry standard and best practice data structures for its data modeling.
- k** Data dictionary:
Data dictionaries and coding schemas are maintained as part of the database and metadata.
- l** Coding schema:
Dane County follows industry accepted standards, best practices and user requirements for the development of coding schema.
- m** Transaction management:
Most databases contain field information to manage transactions and changes made to the dataset.
- n** Organizational information flows:
The County seeks every opportunity to improve work processes and workflow while modernizing land information and systems.
- o** Data conversion:
The County is able to support industry standard data conversions.
- p** Ability to integrate with other databases and information systems:
Dane County strives to use industry standard software, relational database principles and application development practices to support easier data and system integration.

F Public Access

- a** Use of technology to facilitate efficient access:
The County has public access terminals available in several county offices to support public searching of property information and viewing of GIS data. The County maintains an Internet website that acts as a portal for land information searches and services, including online access to data and data ordering.
- b** Use of third party technology for access:

The County does look for opportunities to leverages third party technology when possible depending on user needs, system requirements and financial resources. Some examples include DCiMap (Variant Systems and Orion), Laredo and Tapestry (Fidlar Technologies), tax system (GCS).

- c** Data sharing policies (copyright, licensing, fees, etc):
Dane County GIS data is copyrighted and licensed for use. The County has adopted fees for copies of GIS data or custom data/mapping services; some fees may be waived. See the online data and map catalogs at www.co.dane.wi.us/lio for details.
- d** Open access to data in existing format:
The County adheres to the Wisconsin Open Records Law for access to land records.
- e** Subscription-based or public-facing web services:
The County will continue to provide public-facing web services that provide general access the county's land records. The County will also provide subscription-base web services to enhanced records for a fee to maintain said records.
- f** Optional production of customized data on cost-recovery or other basis:
The County has adopted fees for copies of GIS data or custom data/mapping services. See the online data and map catalogs at www.co.dane.wi.us/lio for details.
- g** Internet accessibility:
The County has established security protocol's for all internet applications. The County strives to meet the ADA compliance requirements whenever possible.
- h** System security:
GIS server security is maintained by the County Division of Information Management.
- i** Privacy policies:
The County adheres to the Wisconsin Open Records Law and complies with all relevant state statutes for access to restricted records. The County has adopted an opt-out policy for property owner name publication on the AccessDane website.
- j** Use of \$1 fee designated for land information and housing data:
The fee is used to cover consultant services and in-house costs related to the maintenance and further development of the AccessDane land information website.

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.

- a** Formal data sharing agreements:
The County will look to establish formal data sharing agreements, as appropriate.
- b** Formal or informal data maintenance agreements between departments/agencies:
The County has established a data custodian agreement with departments responsible for the maintenance or dissemination of specific land records. The County will look to establish other agreements, formal or informal, as appropriate.
- c** Cooperative agreements:
The County will look to establish cooperative agreements, as appropriate.
- d** Consortia:
The Fly Dane Partnership has been a long standing consortia effort between the County and municipal, state, federal and private agencies for the acquisition of orthophotography and terrain data. The County also participated in 2010 in the Wisconsin Regional Orthoimagery Consortia. The County looks to participate in consortia efforts by formal or informal agreements, as appropriate.
- e** Collaborative agreements:
The County will look to establish collaborative agreements, as appropriate.
- f** Statutory relationships among counties and state agencies:
The County will look to establish statutory relationships among counties and state agencies, as appropriate.

1 Integrative/cooperative relationships

Dane County encourages and supports integration and cooperation activities related to land records modernization as cited elsewhere in this plan. The County plans to continue these relationships as appropriate. The County has a particular goal to further the relationship with the cities, villages and towns within the County to enhance a county based data repository available to these units of government. The County also looks to further relationship with stakeholders in other public agencies, utilities, private firms, and educational institutions.

2 Potential partners and mutual projects

The County remains interested in partnerships to develop and maintain GIS/LIS datasets for the region. Partnering agencies benefit from efforts, by creating higher data quality at lower costs by leveraging economies of scale. The County looks to continue partnerships, governed by formal or informal agreements, as

appropriate.

3 Data shared and used

Dane County GIS/LIS data is being actively shared and used in the region. Survey and basemap data, along with thematic GIS layers are all available for cooperative efforts. The County’s data sharing policies are within the spirit of the Wisconsin Open Records Law and provides for a broad range of possibilities regarding data access, exchange and distribution. The County will comply with statutory requirements relating to land records as deemed applicable.

4 Coordination of funding

The LIO Committee makes a concerted effort to share revenues received from real estate recording fees with all County departments with land information development and maintenance responsibilities.

5 Participation of municipalities, tribal government, towns and other agencies

The County has a positive working relationship with local municipalities and public agencies. A regional GIS User Group has continued to better include municipalities in county GIS project planning. The County is looking to further these relationships with local municipalities to provide more local content to a centralized data repository that can be served back as county wide data. Local agencies and the County benefit from large regional initiatives, such as the Fly Dane partnership and the AccessDane website, by reducing redundancy and leveraging greater economies of scale.

H Communication, Education, Training and Facilitated Technical Assistance

1 Documentation of county data, models and processes:

FGDC-compliant metadata is developed for all enterprise GIS data sets and is posted to the WISCLINC clearinghouse. Metadata is distributed with all requests for data.

2 Resources available:

Training and education is obtained via conferences, workshops, seminars, user groups, etc. as appropriate and budgets allow. We will continue to work with land information consultants for additional technical assistance where needed.

3 Identification of customer needs:

The Land Information Office Committee is comprised of land related departments and helps to identify and prioritize project needs. A regional GIS User Group has helped facilitate broader community needs identification. Participation in various committees with WLIA and WIGICC has helped to identify broad statewide needs.

4 Coordination of education/training with agencies, associations and educational institutions:

Dane County has demonstrated a strong commitment to acquiring, providing and assisting with training and education, and will continue to leverage opportunities to coordinate with other agencies, associations and institutions.

- 5 Use of technology to facilitate education and training:**
Dane County has access to a satellite down link facility, the UW-Extension ETN system, and the Internet to facilitate staff education and training, and will use these and other systems as appropriate.
- 6 Use of Clearinghouse and Technical Assistance List Server:**
The County has Internet access, which allows for use of the clearinghouse and technical assistance list server. We plan to participate as situations and needs warrant and will continue to monitor the development of the clearinghouse and standards adopted.
- 7 Use of Land Information Officer education and training funds:**
The County uses the education and training funds provided by the WLIP grant program to enable LIO staff to participate in land information seminars, workshops and training.

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.

- 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 Land Information Board access to books, records and projects for inspection and audit including unannounced audits by the Board.
- 3** The county agrees to complete the GIS Inventory Survey.
- 4** The county agrees to update the plan every 5 years and in the interim if the plan should change.
- 5** The DOA agrees to facilitate technical assistance to the county including an on-line Technical Assistance Service.
- 6** The DOA 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.
- 7** Development and implementation of an acceptable Plan confers certain benefits on local government within a county, including continued eligibility for Program funding. A voluntary peer review process will be used to assess Plan acceptability by the land information community.
- 8** The DOA agrees to review funding requests and to provide guidance to local government with respect to the development of such requests.

- 9** The DOA agrees to make available electronically an Annual Report regarding the status of the Wisconsin Land Information Program and the activities of the DOA.