Dane County
Land Information Plan

July 2005

Prepared for the
State of Wisconsin/Land Information Board

Approved by the Dane County Land Information Office Committee, April 20, 2005
Adopted by the Dane County Board of Supervisors, July 7, 2005

Dane County
Land Information
Office

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, Information Resources Management Committee
  - Department of Administration
  - City, Village and Town partners
  - Regional Planning Commission
  - Madison Metropolitan Planning Organization
- Wisconsin Land Information Program
  - WLIB staff and Board members
  - County Land Information Officers
  - Land Information Officers Network
  - Wisconsin Land Information Association
- 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
- National Geodetic Survey (USDOC/NOS/NOAA)
- GeoAnalytics, Inc.
- Fairview Industries
- Ayres Associates

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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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Madison, Wisconsin 53703

phone 608-266-4942; fax 608-266-1242; email danielsen@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, LIO Committee Chair, Conservationist, Director, Land & Water Resources
David Gawenda, Treasurer
Jane Licht, Register of Deeds
Travis Myren, Asst. Director, Administration
Todd Violante, Director, Planning & Development

Advisory members of the LIO Committee include Kamran Mesbah, Environmental Engineer, former Dane County RPC[1], and the Dane County Surveyor (position currently vacant). The Land Information Office is staffed by Diann Danielsen, Land Information Officer/LIO Manager, and Tim Confare and Fred Iausly, Senior GIS Analysts. 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, GIS Planning Specialist, David Janda, Asst. Director, Emergency Management Department, and Michelle Richardson, Conservation GIS Analyst, participated in the preparation of the ***2005 Dane County Land Information Plan***.

The direction of the Land Information Office is under the authority of the Personnel & Finance, Environment, Agriculture and Natural Resources, and the Zoning and Land Regulation Committees 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 and the Wisconsin Land Information Board (WLIB) for continued participation in the Wisconsin Land Information Program (WLIP). The format and

[1] In 2004, the former Dane County Regional Planning Commission was brought into Dane County on a temporary basis as the Community Analysis and Planning Division of the Planning & Development Department while discussions regarding a more permanent regional intergovernmental agency continue.

content of the Plan is based upon the WLIB's *Uniform Instructions For Preparing County Land Information Plans*, December 2004.

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. Plan details related to land information and wireless 911 implementation are found in Appendix A as a supplement to this Plan. 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

The following land information websites are maintained by Dane County municipalities and local agencies:

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 Sun Prairie	http://public.sun-prairie.com/proplisting/index.php
Madison Area MPO	(staff only)
former Dane County RPC	www.danecorpc.org

II Land Information Plan

A Goals and Objectives

1 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* (June 2000), 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)

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 continuation of the Wisconsin Land Information Program (WLIP) grant program, the amount of grant dollars available to Dane County, the amount of retained fees collected, and any additional grant or tax levy funding available to the LIO for land information program activities.

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.

1a At this time, the County is not having any problem with obtaining data from the state that it needs to implement this plan.

1b At this time, the County has or can obtain the information needed to implement this Plan.

1c 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 the Division of Information Management and our consultant services to ensure a secure technology environment.

1d Dane County's geographically referenced data and information is based on the Wisconsin County Coordinate System, Dane County Coordinate System, which is mathematically relatable to the North American Datum (NAD) 1983(1991) and able to be referenced for use by others. Vertical GIS data is referenced to the North American Vertical Datum of 1988 (NAVD88). The Dane County Coordinate System is described in *Wisconsin Coordinate Systems*, Wisconsin State Cartographer's Office, Madison WI, 1995.

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 Windows 2000 and XP operating systems and servers with Microsoft SQL relational databases and ESRI's Spatial Database Engine (ArcSDE). 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 2000 Plan. Ongoing activities continue with this planning cycle; activities completed since 2000 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 formed, GIS Day 2001 & 2003 events)*	Ongoing
Presentations/participation in local and statewide educational sessions.	Ongoing

(WLIA annual conferences and workshops, WSLS, etc.)	
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)*	Ongoing
Community training in GIS software and use of county data sets. *(Training coordination upon request of communities/departments)*	Ongoing

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

Activity	Status
Develop survey monument and plat databases. *(Surveyors Office website)*	Underway (geodetic complete; PLSS in development)
Develop new Conservation Planning System based on existing cooperator tracking system for farmland programs.	Underway
Develop public access terminals for use at County offices. *(DCiMap added to public access terminals)*	Ongoing
Provide online access to Register of Deeds information. *(Tapestry, Laredo)*	Ongoing
Develop/enhance web-based geographic/land information services *(AccessDane & DCiMap websites; added tax, district and parcel status information; implemented privacy policy)*	Ongoing
Establish enterprise GIS/LIS data repository for improved data access by users and other information systems	Completed

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

Activity	Status
Develop quality control/quality assurance procedures for data development and maintenance.	Ongoing
Develop zoning permitting system to track petitions and violations.	Completed
Acquire digital orthophotography, terrain model, and hydro and road centerlines. Develop QA/QC procedures. *(2003 limited imagery update; 2005 imagery& limited terrain updates)*	Ongoing
Maintain digital data exchange of local assessors' information with real property system.	Ongoing
Develop FGDC-compliant metadata for GIS data sets.	Ongoing
Develop online and offline/batch address information exchange with local municipalities.	Completed
Publish tax information, including tax billing, delinquency notification and payment history.	Completed
Remodel enterprise GIS data models as part of migration to ArcSDE/geodatabases *(PLSS, hydro, imagery, terrain data models completed)*	Underway

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

Activity	Status

Implement imaging system in Office of Register of Deeds – resulted in nearly 50% increase in productivity	Completed
Develop an automated real property listing system – resulted in a reduction of one real property listing staff position.	Completed
Notification and mailing label tool developed for use by Dane County departments and local communities.	Completed
Continue to add content to AccessDane web portal to improve service and gain staff efficiencies – *ex: providing tax information online reduced phone calls to Treasurer's Office by 20%.*	Ongoing
Cross-train parcel listing and parcel mapping functions resulted in a reduction of one staff position.	Completed

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

Activity	**Status**
Increase communication with cities, villages and towns. *(formed regional GIS User Group; established online GIS Forum)*	Ongoing
Develop municipal data exchange system to share tax and address information with municipalities.	Completed
Develop digital GIS datasharing program. *(online data & map catalogs; online order form)*	Ongoing
Develop Fly Dane regional partnership for digital orthoimagery and related data acquisition. (Fly Dane 2000, 2003 & 2005 projects)	Completed/Ongoing
Participate in Dane County Hazard Mitigation & 911 GIS Strategic planning efforts; assist with Wireless 911 grant application.	Completed

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

Activity	**Status**
Acquire GIS software and hardware. *(Implemented ArcIMS, ArcSDE and ArcGIS)*	Ongoing
Train and educate staff. *(EGIS technical staff training)*	Ongoing
Implement document imaging and indexing system.	Completed/Ongoing
Develop an automated real property listing system.	Completed
Develop GIS parcel and zoning mapping layers.	Completed/Ongoing
Develop digital map products (ex: digital soil survey, farm management boundaries, rural land use classification) *(annual parcel & municipal boundary archives, EMS/Fire/Sheriff Districts, supervisory district maps, 2000 land use inventory, lake property numbering, road names, private roadways)*	Ongoing
Develop zoning permitting system.	Completed
Support county decision making and planning. *(DesignDane!, AttainDane & Smart Growth planning; 911 CAD & wireless 911 mapping)*	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 completing implementation of the Enterprise GIS Migration Plan (see Appendix B), including the following projects:
    - LIO Program Enhancements
    - Enterprise Data Repository
    - Data Distribution Process Improvements
    - DCiMap (web-mapping) Implementation
    - Geographic Framework Data Models & Maintenance Systems
    - Parcel Data Model & Maintenance System
    - Master Address Data Maintenance System
    - Street Centerline Data Maintenance System
    - ArcView Technology Migration
    - Conservation Planning System

- Continue regional Fly Dane partnership to acquire updated digital orthophotography and related products (Fly Dane 2005 is currently underway with the next update anticipated for 2010). Acquire one-meter color imagery as part of the 2005 FSA NAIP program.

- Complete cooperative efforts with NRCS and UW-Madison to receive SSURGO certification and to modernize the Dane County soils survey.

- Complete cooperative effort with FEMA and WisDNR to modernize Dane County floodplain mapping, including the development of DTM data for basemapping.

- Complete and maintain countywide parcel mapping.

- Maintain the County land use inventory.

- Adopt, if developed as a standard or guideline of the WLIP, a newly redesigned Dane County Coordinate System.

- Develop datasharing arrangements with the Farm Service Agency to improve parcel-based farm tract and field information (Common Land Unit (CLU)).

- 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 pilot project.

- 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. See EGIS migration plan details in Appendix B for specific plans for a master address data management system.

- Deploy GIS data and technology to a broadening community of users, including public safety applications such as E911 CAD mapping.

- Migrate County GIS users to a Citrix distributed computing environment.

- Continue to provide countywide technical leadership and support for EGIS, including emerging needs for mobile GIS technology and applications.

- 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.

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.

2a 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.

2b 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 sunset or significantly changed.

2c 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

Continued uncertainties regarding WLIP funding will impact the County's ability to complete the activities outlined in this Plan. County expectations for enterprise GIS/LIS support and services have increased far beyond available LIO staff resources. In recent years, resources have been increasingly applied to staffing over projects, and to staffing in department offices outside the LIO rather within the enterprise LIO program. This has made it difficult to meet county and regional expectations for access to and use of Dane County GIS data and technology. The County has undertaken a number of organizational restructurings in recent years, especially impacting land related departments. Projects and workloads have greatly been interrupted as the LIO is swept into these discussions. Survey-related projects have been delayed or impacted by the passing of the Dane County Surveyor in June 2004 and difficulties in re-filling the position.

D Custodial Responsibilities

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

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 digital GIS map layers for the county. (Wis. Statutes Ch. 59.72)

Register Of Deeds

- Record deeds, mortgages, plat maps, certified survey maps, and other real property related documents. (Wis. Statutes Ch. 59.43)
- Maintain tract index of real property. (Wis. Statutes Ch. 59.43)

Treasurer

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

Real Property Listing

- 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)

Surveyor

- Maintain information on, and oversee the perpetuation of, PLSS corners, including tie sheets and section summary sheets. (Wis. Statues Ch. 59.45 & 59.74)
- Maintain information on, and oversee the perpetuation of the County's geodetic control network. (Wis. Statues 59.45 & 59.74)
- Maintain files and an index of surveys performed within the County. (Wis. Statues 59.45)

Land Records Division

- 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)

Land & Water Resources Department

- Maintain necessary conservation planning and related natural resource data. (county policy)
- Maintain necessary county holdings information (parks, easements, etc). (county policy)
- Support cooperative datasharing arrangements with USDA agencies such as NRCS and FSA for soils, wetlands, CLU, PLU and other information.

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 Foundational Elements and State-Wide Standards

(items in **bold** must be addressed)

1 Communication, Education, Training and Facilitated Technical Assistance

Documentation of county data:

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.

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.

Identification of customer needs:

The Land Information Office Committee is comprised of land related departments and helps to identify and prioritize project needs. A recently formed regional GIS User Group has helped facilitate broader community needs identification.

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.

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.

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.

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.

2 Geographic Reference Frameworks

Dane County geographic information is based on the Dane County Coordinate System, which is mathematically relatable to the North American Datum (NAD) 1983(1991) and able to be referenced for use by others. Vertical GIS data is referenced to the North American Vertical Datum of 1988 (NAVD88). The Dane County Coordinate System is described in *Wisconsin Coordinate Systems*, Wisconsin State Cartographer's Office, Madison WI, 1995.

Geodetic 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 recent 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 initiated a project underway to reconcile past research projects, enhance and modernize the countywide survey network, inventory local survey control, and develop a database of survey control information. The County assumes custodial responsibility for the maintenance of locally (HARN) densified stations and is monitoring the WisDOT Height Modernization Program for integration and use with the local survey control network.

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

Public Land Survey System:

The County has an ongoing PLSS corner remonumentation program that complies with the requirements of Wisc Adm Code AE 7.08 and/or state statute. Remonumentation and maintenance proceeds according to the schedule allowed by available resources. The County makes every attempt to coordinate these activities with the projects of other local stakeholders.

Dane County has adhered to the following standards related to this data: 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)

Photogrammetric base maps:

Both the County and the former Dane County RPC maintain archives of historic imagery.

Digital elevation models:

The County has 11-meter (1995) and 10-foot (2000) digital elevation models.

Digital orthophotography:

The County has 1-meter (1995), 1-foot (2000) and 6-inch (2000, 2003) resolution orthoimagery acquired as part of Fly Dane and Southwest Wisconsin Consoritia projects.

Digital terrain models:

The County has 10 foot (1995) and 2 foot (2000) vertical accuracy digital terrain models.

Digital raster graphics:

The County does not utilize digital raster graphics on an enterprise level.

Triangulated irregular networks:

The County has acquired TINs as part of its suite of terrain data products but uses them only on a very limited basis.

Contours:

The County has 10-foot (1995), 4-foot (2000) and a limited amount of 2-foot contour data.

Satellite imagery:

The County does not utilize satellite imagery on an enterprise level.

Ability to support wireless 911:

The County plans to use or enhance existing GIS datasets to support wireless 911, such as the current addition of address ranges to the street centerline dataset. Dane County GIS data is referenced to the Dane County Coordinate System which is mathematically relatable to other geographic coordinate systems such as latitude/longitude.

3 Parcel Mapping

Preparation of Parcel Maps:

Index parcel mapping continues to be a primary focus of the Dane County land information program. Index parcel mapping is complete for all municipalities except for the Village of Maple Bluff which is expected to be completed in 2005. All parcel maps are referenced to the Public Land Survey System and will minimally be suitable for planning purposes. Dane County parcel maps are not intended to be a substitute for a legal land survey or guaranteeing title to property. Included in the database is information that directs the user to the original source document or recorded instrument. We will monitor WLIP parcel mapping standards and comply where practical. The parcel geodatabase currently being designed will be based on the FGDC Cadastral Standard and industry best practices.

Coordinate System Used:

All parcel mapping is in the Dane County Coordinate System, NAD 83(91).

Parcel ID:

The present County parcel identification number was developed prior to the WLIB 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.

4 Parcel Administration

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. The County plans to maintain the following items attributes and will adhere to applicable standards as deemed practical: **Parcel ID** (see Parcel Mapping), **Tax data,** Site/parcel address, Owner address, Tax billing address, Tax property description and recorded document information, Document imaging, Real estate transactions, Easements and restrictions, including conservation easements, Tax exempt status, Zip codes, Assessment class, Public lands, Liens, and Evidence of Title.

5 Public Access

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.

Datasharing 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.

Open access to data in existing format:

The County adheres to the Wisconsin Open Records Law for access to land records.

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.

System security:

GIS server security is maintained by the County Division of Information Management.

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.

Use of $1 fee designated for land information and housing data:

A portion of this fee, through the completion of County smart growth planning activities in 2006, funds a staff position to develop housing data. The remainder of the fee is used to offset the ongoing consultant and in-house costs related to the maintenance and further development of the AccessDane land information website.

6 Zoning Mapping

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.

Shorelands:

The parcel base map design identifies shoreland outlines.

Floodplains and floodways:

County is cooperating FEMA and WisDNR to modernize Dane County floodplain mapping, including the development of additional DTM data for basemapping.

Environmental corridors:

GIS environmental corridor information was developed and is maintained by the former Dane County RPC.

Burial sites, Archeological sites, Historic/cultural sites:

No plans at this time.

Zoning Mapping Standards (Local Gov't. Compliant):

The County uses zoning classifications identified by the County Board for areas where County zoning jurisdiction has been granted.

7 Soils Mapping

Dane County completed it 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 NRCS is currently developing a new, modernized soil survey for the County.

Soils Mapping Standards (NRCS compliant):

Because of the age of the original soil survey, it has not been officially certified by NRCS, but continues to be used. The new Dane County soil survey will be SSURGO certified.

8 Wetlands Mapping

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.

9 Institutional Arrangements and Integration

The County has numerous datasharing and partnership arrangements with local municipalities, government agencies, and private consulting firms. The County plans to continue these and pursue other arrangements as opportunities arise.

Formal datasharing agreements:

The County has numerous data licensing agreements in place with entities obtaining copies of County GIS data. AccessDane login accounts are both governed by Terms of Use Agreements. The County has entered into a number of other agreements for geographic information sharing, including to support Census updates and The National Map project.

Formal or informal data maintenance agreements:

The Fly Dane partnership for shared imagery and terrain data acquisition is based on intergovernmental Memoranda of Agreement for data acquisition and updates. Local municipalities update address information for county databases via informal agreements.

Cooperative arrangements:

Dane County has ongoing cooperative arrangements with area academic institutions and non-profits.

Consoritia:

Dane County participated in the Southwest Consortium for Digital Orthophotography in 1995 and 2005. Dane County facilitates the regional Fly Dane digital orthophotography acquisition partnership.

Collaborative arrangements:

The County actively participates in collaborative arrangements for data creation as opportunities arise.

Statutory relationships:

The County will comply with statutory requirements relating to land records as deemed applicable.

10 Election and Administrative Boundary System

State outline, County boundaries, Minor civil division boundaries, Emergency Service areas:

The County has developed or incorporated these datasets into our GIS system; municipal and public safety boundaries are updated annually.

School districts, Public lands:

The tax database has codes to designate parcels within these districts. Some graphic boundaries have been developed, others could be generated as needed.

Legislative districts, Supervisory districts, Election boundaries, Census geographies:

The County has current GIS supervisory districts and census block information.

11 Street/Road Centerlines and Addresses

Transportation network, Rights-of-way, Functional class:

The County maintains these transportation features in our existing parcel base map. Public rights-of-way have been developed as part of the parcel mapping process.

Centerlines, **Road names,** Address ranges, Reconciliation of street address and street network systems:

The County continues to enhance its GIS street centerline data set, in recent years

adding road names, private roads and routing attributes. A project to complete countywide address ranges is currently underway. Enterprise GIS projects are underway to develop a master address data management system and further enhance the street centerline data set, including working with local municipalities to reconcile conflicting addresses and improve information currency.

Site address database, 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.

Places/Landmarks:

A Places/Landmarks database was begun as part of the AccessDane address exchange application and will be further developed as part of the EGIS address project.

Integration with County Master Street Address Guide (MSAG):

The LIO is working with 911 to integrate mapping with CAD dispatch and other 911 initiatives. GIS address integration with MSAG is underway as part of CAD mapping implementation and the EGIS address project. In addition, the County is currently seeking funding to accelerate the development of translation/conversion tables to support MSAG/GIS address data integration.

Ability to support emergency planning, response and mapping:

The LIO and Emergency Management Department, 911 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.

Ability to support wireless 911:

The County plans to support GIS needs for wireless 911 by developing address range data, data conversion routines, and a master address data management system to serve county departments and information systems. See Appendix A supplement to this Plan.

12 Land Use Mapping

Mapping of existing land use, Local Government Compliant:

The County will continue to provide the digital orthophotography base to local municipalities for the development of their land use plans. The County uses a local government compliant land use classification for towns (Dane County RPC); city and village land use classifications vary by municipality. The former RPC developed a GIS land use inventory in 1990 which was updated in 2000 based on Census data.

13 Natural Resources

Land Cover, Watersheds, Geology, Hydrogeology, Forests, Endangered resources, Environmental impacts:

The County acquires these GIS coverages from the DNR and other custodial agencies as they become available and are needed. Count uses crop cover information from annual NASS imagery flights.

Hydrography:

Dane County maintains an orthophoto-derived hydrography dataset first produced in 1995, updated in 2000, and scheduled for update in 2005. The dataset is being enhanced with intermittent stream information. The County also uses the DNR 24K hydro dataset.

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.

DNR Classification of Land Cover from satellite imagery:

Generally not applicable for local government work; can be obtained from custodial agency if needed for County applications.

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

Design Evaluation, Needs Assessment, Organizational information flows, **Project Approach, Timeline, Implementation and Maintenance Strategy:**

Dane County follows industry accepted standards for database design and system engineering. Generally, this involves a needs/requirements assessment, conceptual design, prototyping, and user acceptance testing. Actual approach varies by project. Timelines are dependent on available resources. Test environments are established and used to the extent possible prior to system implementation. The County seeks every opportunity to improve work processes and workflow while modernizing land information and systems.

Security/Privacy:

The County follows local policy and industry accepted practices for information technology security and privacy.

Metadata:

FGDC-compliant metadata is developed for enterprise GIS data sets and posted to the WISCLINC clearinghouse.

Data structure and format, GIS data model, Data dictionary, coding schema:

The County documents all enterprise GIS/LIS datasets and strives to use industry standard data structures and formats. Topology rules within the ESRI environment are developed as needed for the geodatabase. Data dictionaries and coding schemas are maintained as part of the database and metadata.

Data conversion:

The County is able to support industry standard data conversions.

Transaction management, Data quality management:

Most databases contain field information to manage transactions and changes made to the dataset. Quality control procedures are developed for each data maintenance system.

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.

15 Infrastructure and Facility Management

Parks:

County parks are maintained in the enterprise GIS system.

Transit systems, Harbors, Airports, Railroads:

Many of these features are part of the parcel base map.

Recreational Trails:

The Dane County RPC and Madison Area MPO develop and maintain these data sets.

Utilities, Government facilities, Landfills:

The County does not maintain this information except on an as needed facility basis.

Hazardous materials sites, LUST, etc:

The Emergency Management department maintains databases of this information and is

in the process of linking them to GIS.

Bridges, culverts, traffic road signs:

The Highway Department maintains this information in CAD format with the exception of the GIS-based sign inventory application.

Boat Landings:

This information is maintained by the Parks Department based on mapping information provided by WisDNR.

F Integration and Cooperation

Cooperative relationships:

Dane County has actively encouraged and supported integration and cooperation activities related to land records modernization as cited elsewhere in this plan and as indicated in past WLIP grant applications. 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, as well as with stakeholders in other public agencies, utilities, private firms, and educational institutions.

Potential partners/projects:

The County remains interested in partnerships to develop and maintain GIS/LIS datasets for the region. Cities, villages and towns within the county and any neighboring counties that have similar activities, as well as other public agencies, utilities, private firms, and educational institutions are potential partners.

Data shared/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 datasharing policy is within the spirit of the Wisconsin Open Records Law and provides for a broad range of possibilities regarding data access, exchange and distribution.

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.

Participation of municipalities and other agencies:

The County has a positive working relationship with local municipalities and public agencies. A regional GIS User Group was recently established to better include municipalities in county GIS project planning. Local agencies benefit from large regional initiatives facilitated by the County, such as the Fly Dane partnership and the AccessDane website.

G Administrative Standards Not Associated With Foundational Elements

Plans represent an agreement between the county and the Wisconsin Land Information Board. This agreement is intended to effectuate the objectives of the Program as embodied in the enabling legislation. In order for a Plan to be acceptable to the Board, the Board 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 Annual WLIP Survey.

4. The county agrees to update the plan every 5 years and in the interim if the plan should change.
5. The Board agrees to facilitate technical assistance to the county including an on-line Technical Assistance Service.
6. 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.
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 Board agrees to review funding requests and to provide guidance to local government with respect to the development of such requests.
9. The Board agrees make available electronically an Annual Report regarding the status of the Wisconsin Land Information Program and the activities of the Board.

Appendix A

Update to *Dane County Land Information Plan*

Plan review/update for support of wireless 911 implementation

As approved by the Dane County LIO Committee and Submitted to Wisconsin Land Information Board

March 1, 2005

The current Dane County *Land Information Plan* overall supports upcoming activities related to the implementation of wireless 911. Information on recent and planned activities specifically related to the needs of the 911 Center is provided in this update.

Section B – Progress Report on Ongoing Activities (related to plan goals and objectives)

- Education of public and private sector about modernized Dane County land records, information systems, and system benefits.
  - Dane County participation in Wisconsin Land Information Board, Land Information Officers Network and Public Service Commission meetings regarding the wireless 911 grants and GIS mapping.
  - Presentations about public safety GIS/LIS needs to LIO Committee by LIO and public safety department staff.
  - Biennial GIS Day events highlighting the use of GIS in Dane County and current projects, including the use of GIS technology in the 911 Center.

- Improve access to information for users.
  - Online GIS implemented in 2003. The DCiMap application has become a critical asset in the 911 Center. Server redundancy was improved in 2004 to support 911's need for 24/7 availability of DCiMap.

- Improve data currency and reliability.
  - GIS Street centerline and address data projects in recent years have improved data currency from a 5-year update cycle to annual updates; added road names; added private roads (with names where named); and added additional attribute information related to routing and transportation planning.

- Coordinate modernization activities with other land records agencies.
  - Staff coordination is maintained through participation in the Dane County GIS User Group and day-to-day operations and project activities.
  - The 911 Center recently completed a strategic plan for the use of GIS data and technology. Participants included LIO and other county departments, along with regional public safety representatives.

- Develop an integrated land information system.
  - Dane County EGIS projects are designed to migrate the existing GIS system to a new generation of software products, maintenance systems, and workflows that will better support data and system integration.
  - Recent activities include the establishment of a dedicated EGIS/LIS data repository containing current data published from custodial systems to common formats that can be more readily accessed by other information systems, such as CAD and RMS.
  - LIO provides ongoing GIS technical support to county public safety departments, including maintaining Fire, EMS and Sheriff district maps. These products are made available on our EGIS system and in DCiMap for broad staff and public use.

Section C - New Initiatives

- Improve access to information for users.
  - All updated information will be made available to county staff and systems via the EGIS/LIS data repository publication library, and to external stakeholders via normal GIS data distribution services and the online DCiMap application. The 911 CAD mapping system will access the most up-to-date information from the data repository.

- Improve data currency and reliability.
  - A project is currently underway to add address range information to the GIS street centerline file. The project is scheduled to be completed mid-2005.
  - Other projects planned for 2005 include: developing crosswalk or translation tables between GIS/CAD address data, and adding special ranges such as the mile markers used for referencing along the Beltline Highway.
  - The Dane County Enterprise GIS migration project includes the development of a master address data management system which will better support data integration and timely updates of roadway and address information from local authorities. The conceptual design has been completed and is being reviewed by the project team.
  - Dane County will update its orthophotography in Spring 2005, including as-constructed roadway information.

- Coordinate modernization activities with other land records agencies.
  - At a management level of coordination, a resolution is before the Dane County Board of Supervisors to create a Technical Committee of the 911 Board, including the county LIO as a member of the Technical Committee.
  - Discussions continue with the LIO Committee about adding public safety representatives to that committee membership.

- Develop an integrated land information system.
  - Data custodian agreements are under development for EGIS datasets so that maintenance and publication responsibilities are clearly outlined and understood throughout the organization.
  - Continue to assist the 911 Center with the use of geospatial data and technology. Projects scheduled for 2005 include:
    - Complete implementation of CAD mapping software
    - AVL routing
    - GPS receivers in EMS vehicles
    - Rip and run mapping interfaces for fire stations

Please see additional details in:

Dane County EGIS Migration WorkPlan
Strategic Plan for GIS in the 911 Center

Appendix B

Dane County Enterprise GIS Migration Plan

July 2003 Summary

The Dane County Land Information Office is committed to the development of GIS technology to aid in the delivery of information and services to county departments, communities, and the residents of our county. As part of our ongoing efforts to develop a robust and efficient GIS infrastructure, the Land Information Office has begun a project to migrate to a next generation geographic information system. Workplan activities include an upgrade of the technical infrastructure (hardware and software), implementation of new ESRI GIS products, a review and re-modeling of enterprise GIS datasets, workflow analysis and process changes to maximize service delivery and staff efficiencies. This plan summarizes migration activities to-date, as well as outlining a workplan to complete the remaining tasks.

ESRI's next generation product line revolves around three primary products: ArcGIS, ArcSDE and ArcIMS. ArcGIS and its related extensions and modules comprise the desktop GIS software suite. ArcSDE supports spatial and tabular database integration. ArcIMS supports the delivery of web-based geographic information and map services. The Dane County ArcGIS migration project includes converting current ArcInfo users to the ArcGIS product. The longer term goal will be to move the viewing, printing, and basic GIS operation users to ArcIMS applications that can be run from a browser or thin client. Current ArcView 3.2 users will be migrated to either thin client ArcIMS applications or ArcGIS 8.x software. All applications will utilize geographic information stored in ArcSDE. Training requirements will be focused on technical staff to build and maintain applications with user friendly tools to minimize intense end user training.

The migration of our GIS infrastructure to this new environment will improve data integrity and availability, reduce licensing costs, provide greater efficiency, and support further system integration of spatial and attribute information. Moving to thin-client based applications aid in making geographic information available to all county staff.

GIS Migration – Completed Projects

- ⇨ ArcInfo users were migrated to ArcGIS 8.x and its associated extensions in the first quarter of 2002.
- ⇨ ArcIMS was implemented in the second quarter of 2002.
- ⇨ *Surveyor's Office*, a commercially available ArcIMS application for survey data publication and management was implemented in the first quarter of 2003. Broad deployment is pending the new server configuration.
- ⇨ A dedicated environment to support enterprise GIS data, application and web servers is currently being implemented (third quarter of 2003).

GIS Migration – Scheduled projects (to be completed in 2003-2004)

- ⇨ GIS/LIS Data Repository Creation
  The purpose of this project is to extend the current LIO GIS file serving environment (GIS

Public) while also merging non-spatial data serving (LIS Public for Access Dane) into a single GIS/LIS data repository environment. A more formal GIS/LIS data server repository will be established to reliably serve business users and software applications across the County Intranet. Its deployment will help the LIO better manage GIS/LIS data publication and also segregate data access traffic related to maintenance versus use activities.

The repository will be made up of GIS and non-GIS related data published from County and partner (e.g., the City of Madison) data systems. Spatial data will be stored and served up as both shape files and MS SQL Server-ArcSDE layers while non-spatial data will be stored as MS SQL Server tables. Formal procedures and mechanisms will be established to automate the publication of data from source systems and data structures into the repository. This will include creation of data custodian agreements that outline among other things, performance measure such as update schedules for each data layer to ensure currency of information in the repository.

⇨ GIS Strategic Plan Enhancements

The purpose of this project is to assist the LIO in revising its current strategic vision and plan for the County GIS program with an emphasis on enhancing program involvement, governance and operational management. The revised plan will focus on a number of specific topics, including:

- Future County GIS/LIS technical system vision
- Regional GIS/LIS opportunities including participation by municipal partners
- LIO Committee representation and functions
- Clarification of LIO and department GIS staff functions
- Creation of a formal Dane County GIS technical advisory group
- Clarification of GIS program customers and customer expectations
- Clarification of the LIO program relative to goals, customer service, and funding
- Review of funding model to better serve enterprise versus department GIS activities

⇨ PV.Web (DCiMap) Intranet Deployment

The purpose of this project is to implement PV.Web, a commercially available online GIS data browse, query, and reporting solution based on ESRI ArcIMS technology. The application will be deployed at Dane County as DCiMap. This solution will broaden access and use of GIS by general department staff across the County. It will utilize the current ArcIMS software license implemented by the County but also require an upgrade in hardware server performance. The solution will be deployed as an extension of the Access Dane website. Specifically, PV.Web will be made available to County staff as a standalone link on the Access Dane website and as an extension to the Access Dane parcel data search pages. In the latter case, users will also be provided a minimum parcel map display capability or the ability to launch the full PV.Web application.

⇨ ArcView Technology Migration

The purpose of this project is to officially migrate current County ArcView 3.x software licenses and applications to the ArcGIS ArcView 8.3 technology standard. ArcView licenses will be converted in a prescribed order that is to be defined as part of this project. Migration will involve a re-assessment of the purpose and architecture of certain Avenue applications to identify possible changes in strategy (e.g., application consolidation, switch to use of PV.Web to serve certain functions). Staff using ArcView in conjunction with custom Avenue applications will be converted in concert with the priority migration of application code. Finally, this project may also cover the creation of new, minor ArcView 8.3 applications (e.g. street intersection finder) identified as part of the migration planning process. Current

County Avenue applications of significance that will be prioritized for migration, include:

⇨ Zoning Notification ⇨ Highway Notification ⇨ Mineral Extraction ⇨ Data Viewer ⇨ Density Study ⇨ Zoning Composite report ⇨ Parcel Locator ⇨ Address Locator ⇨ Acreage Finder ⇨ Zoning Download	⇨ Dane Index ⇨ Traffic Incident Mapper ⇨ Data Sales applications ⇨ Map series and plot routines (EMS Districts, Fire Districts, Fire/EMS address maps, Sheriff Precincts, Pier Numbering, Dane County Base Map) ⇨ Custom map templates

⇨ Geo-Framework Data Maintenance System

This project involves the implementation of a formal ArcGIS-based system for the maintenance of all County geographic framework GIS data layers, and its integration with the current Surveyor's Office data management system. The purpose behind such a system is to provide a more structured environment for the management of base map and non-map data required by other custodian department GIS data maintenance systems. This migration includes reassessing the current framework data models and maintenance workflows, and developing ArcGIS compliant data structures and improved processes. Framework data layers that will be supported by this new system includes geodetic control, PLSS corners and boundaries, orthoimagery, elevation, and basemap themes including hydrography and topography.

ESRI's ArcGIS Survey Analyst software will be implemented as a key element of the system to facilitate control and survey data management and better support future County ArcGIS parcel mapping activities. Activities and outputs from the new system will be integrated into future County parcel mapping workflows, with clear guidelines for data and feature management. This project will be conducted in coordination between the LIO, County Surveyor, and County Planning Department.

⇨ Parcel Data Maintenance System Migration

The purpose of this project is to migrate the current workstation ArcInfo parcel data structure and parcel maintenance applications to ArcGIS ArcInfo 8.3. This migration includes reassessing the current parcel data model and maintenance workflow and developing ArcGIS compliant data structures and improved processes. Past lessons learned in parcel maintenance will be leveraged as well as new process opportunities and capabilities available under the ArcGIS technology environment. This project will be conducted in coordination between the LIO and County Planning Department.

⇨ PV.Web (DCiMap) Extranet Deployment

The purpose of this project activity is to broaden PV.Web solution access and use to County Extranet users. This requires making changes to the PV.Web Intranet deployment for extranet accessibility, technology enhancements, adding PV.Web login accounts, and providing new user orientation and training.

In addition, it involves deploying PV.Web Public for those Extranet users with lower bandwidth connections to the County network. PV.Web Public is a web-based GIS data browse, query, and reporting solution that is similar to PV.Web but simpler in function, for access and use over low bandwidth connections. PV.Web solution functionality will remain the same, unless the LIO or the County Extranet community identifies required

enhancements. PV.Web Public solution functionality will be based on the current product version, along with any identified enhancements deemed necessary.

⇨ Master Address Data Management System

The purpose of this project is to design and develop a first-generation master address database and data management system that serves County, and eventually, regional partner business needs. The project will also produce an organizational strategy for inter-jurisdictional address data maintenance since creation of a countywide address database requires inclusion of addresses assigned by municipal entities. County departments and select municipal partners will be inventoried to document their respective requirements.

This master address data management system, once complete, will provide for a single, definitive source of addresses across the County and facilitate better maintenance and use of this data. The system will be deployed in concert with training and any required data maintenance applications.

⇨ Conservation Planning System

The purpose of this project is to assist with migration of the current Land Conservation Department's cooperator tracking system to a new GIS-enabled data maintenance and reporting system. This migration includes reassessing the current technical environment, data model, and maintenance workflow and also developing new GIS and non-GIS data structures and custom applications. County GIS data layers that will be redesigned and converted under this project include Farm Tracts and Fields, Wetlands, Soils, and other related layers. Lessons learned in conversation planning and farm tract and field GIS data layer maintenance will be leveraged. Likewise, new process opportunities and capabilities available under the ArcGIS technology environment will be implemented. This includes utilizing the new GIS/LIS data repository and current ArcIMS application server. IM and LIO, with contractor assistance, will lead completion of this project in conjunction with the County Land Conservation Department.

⇨ Master Street Centerline Data Management System

The purpose of this project is to design and develop a master street centerline database and data management system that serves County and regional partner business needs. The project will also produce an organizational strategy for inter-jurisdictional street centerline and address range data maintenance. County, Municipal, and State DOT departments will be inventoried to document their respective requirements. These findings will be combined with County and municipal public safety agency requirements being inventoried as part of a separate project under this Work Plan (see Countywide Public Safety Incident Tracking System - TraCS project).

This master street centerline project, once complete, will facilitate better location referencing, sharing, and integration of transportation related data across County and municipal departments. The system will be deployed in concert with any required data maintenance applications.

⇨ ArcGIS Geodatabase Design and Deployment

The purpose of this project is to design and create production-ready ArcGIS geodatabases for all priority GIS data layers not addressed under separate 2003 Work Plan projects. At a minimum, critical layers to be migrated include:

- Zoning
- Land Use
- Environmental Corridors
- Hydrography

- Watershed Boundaries
- Special Districts (e.g., drainage)
- Legislative Districts (e.g., supervisory)
- Census Geography
- Minor Civil Divisions

This project will facilitate the migration of data layer maintenance from workstation ArcInfo GIS to the ArcGIS environment. Geodatabases will be designed and deployed in a prescribed order based on custodian department interest and support for conversion. Deployment will be done in concert with custodian training and associated data maintenance application deployment, if necessary.

⇨ PV.Web (DCiMap) Public Internet Deployment

The purpose of this project is to deploy PV.Web Public for Internet (public) use through the Access Dane website. The PV.Web Public license setup for Extranet user access will be utilized for this purposes unless more limited capabilities are intended for public use. In this case, a separate instance of PV.Web Public will be setup and linked to the public use section of the Access Dane website.

⇨ Data Distribution Process Improvements

The purpose of this project is to complete ongoing automation and process improvements related to data distribution and access to land information, and to investigate the viability of department revenue sharing associated with the sale of GIS data under the County GIS program. Examples of data distribution projects that are in progress or recently completed include a new data extraction application for GIS data requests, enhanced user documentation, product pricing review, and a standard map product line.