

SHAWANO COUNTY

Land Records Modernization Plan

2011 - 2015

TABLE OF CONTENTS

I. EXECUTIVE SUMMARY	3
A. Identification and contact information.....	3
B. Participants in planning process.....	3
C. Summary of Plan.....	4
II. LAND INFORMATION MODERNIZATION AND INTEGRATION PLAN.....	4
A. Goals and Objectives	4
B. Progress Report on Ongoing Activities.....	6
C. New Initiatives	7
D. Custodial Responsibilities.....	10
E. Framework Data, System Implementation and Statewide Standards.....	11
F. Public Access.....	25
G. Integration and Cooperation.....	26
H. Communication, Education, Training & Facilitated Technical Assistance.....	28
I. Administrative Standards Not Associated With Foundational Elements.....	29

I. EXECUTIVE SUMMARY

A. Identification and contact information

Sally A. Reedy
 Real Property Lister/LIO
 311 N. Main St.
 Shawano, WI 54166
 Phone 715-526-4619
 Fax 715-526-6273
 Email sally.reedy@co.shawano.wi.us

B. Participants in planning process

Dave Poffinbarger GIS Coordinator	311 N Main St. Shawano, WI 54166	715-526-4614
Steve Hansen T.S. Director	311 N Main St. Shawano, WI 54166	715-526-4615
Scott Frank County Conservationist	311 N Main St. Shawano, WI 54166	715-526-4632
Sally Reedy Real Property Lister/LIO	311 N Main St. Shawano, WI 54166	715-526-4619
Amy Dillenberg Register of Deeds	311 N Main St. Shawano, WI 54166	715-524-2129
Tim Reed Planning Director	311 N Main St. Shawano, WI 54166	715-526-6766
Robert Jacobson Zoning Enforcement Officer	311 N Main St. Shawano, WI 54166	715-526-6766
Kay Schroeder County Treasurer	311 N Main St. Shawano, WI 54166	715-526-9130
Lisa Van Horn P/T County Surveyor	311 N Main St. Shawano, WI 54166	715-526-6766
Grant Bystol Highway Commissioner	3035 E Richmond Street Shawano, WI 54166	715-526-9182
Katie Schwartz Engineer	3035 E Richmond Street Shawano, WI 54166	715-526-9182
William Mott (Council Member) Communications Supervisor Shawano Sheriff's Department	405 N Main Street Shawano, WI 54166	715-526-3111
Mary Nett WI Land Information Council Realtor	101 S Main Street Shawano, WI 54166	715-526-4321
Planning, Development & Zoning Committee, County Supervisors: Jon Zwirschitz, Kathy Luebke, Chair Ken Capelle Marlin Noffke John Ainsworth	311 N Main St. Shawano, WI 54166	

C. Summary of Plan

The purpose of this document is to update Shawano County's plan for land records modernization as required by the Wisconsin Land Information Program (WLIP). The format and content of our Plan is based upon the WLIP's Uniform Instructions for Preparing County Land Information Plans, December 2009. The Plan is intended to provide County, Town, Village and City Officials, State Agencies, Private Entities and any other interested parties with basic knowledge of Shawano County's efforts in land records modernization and its potential applications. Shawano County continues to monitor Legislative changes that affect the Land Information Program and make such changes or appointments recommended to maintain current funding or receive additional funding for the Land Information Program as warranted.

Shawano County created a common digital base map that is being used to register data sets. The County has developed numerous countywide data sets that serve the needs of many users.

We plan on continuing to improve the accuracy of the countywide parcel mapping, and develop more comprehensive intranet, extranet and internet accesses to the GIS/LIS. We have identified a few new initiatives in Section II. C. Shawano County has benefited greatly from the WLIP and this plan lays out a strategy for the County and users of land information to continue to benefit from the program. Our counties Land Information homepage can be found on our Counties Site: <http://www.co.shawano.wi.us>, then under Departments choose Land Information. To get to our Public Access pages for Land Records go to <http://www.co.shawano.wi.us> then go to Online Services. This page will get you to either our Public Access of Land Records or Land Shark for Register of Deeds documents.

II. LAND INFORMATION MODERNIZATION AND INTEGRATION PLAN

A. Goals and Objectives

1. It is the goal of Shawano County to develop, implement and maintain a modern land information system (LIS)/Geographic Information System (GIS) that is horizontally and vertically integrated that provides useful quality data for its citizens, agencies, businesses and other users of land information in an equitable and efficient manner.

The objectives of Shawano County are to: centralize land records access, implement controls for dispersing land information, maintain a framework that supports parcel level activity, improve land records accuracy, maintain security and confidentiality, minimize costs, reduce duplication, promote compatibility, increase efficiency and make land information readily available to users. Throughout this plan, items are discussed that indicate our plans to work toward achieving these objectives.

The internal and external needs and priorities of Shawano County are: the completion of countywide remonumentation and control on public land survey

(PLSS) corners within our established Reservation areas; maintenance of the digital county wide parcel mapping, zoning mapping, 911 addresses coverage, utilizing and maintaining the existing digital orthophoto base map, providing access to land information through various sources including the web and other related coverage's; and development of new initiatives as stated in section II C.

The time line for implementation is dependent on continuation of the Wisconsin Land Information Board (WLIB) grant program, amount of retained fees collected, and funding from tax levy.

- a. **Data and Information Currently Available:** The County's GIS is based upon a digital orthophoto (1994, 2000 and 2005 flights) and a planimetric map on which all other layers of information are being added. It is in the Wisconsin County Coordinate System for Shawano County. Some of the layers currently being used are addresses with driveway and principal building points, ambulance zones, assembly districts, contours with 5' intervals, digital elevation model, emergency medical service coverage, fire service coverage, high accuracy reference monuments, PLSS section and ¼ section corners, landuse, landuse plans, municipalities, parcels, school districts, road signs, soils, surface hydrography, aerial towers, transportation network, watershed areas, conservation easements, zip codes, tax information, and zoning. Tax parcel information including deeds are available internally through a link in the AS400 which utilizes IMS/21 imaging and the capability of viewing the deeds externally through a system called Land Shark. Some DNR/DOT coverage's are also used to aid when information outside of the County borders is needed. County LIS/GIS information is available on 5 public access terminals located in the County Courthouse that have been updated weekly. Some of the counties LIS/GIS information is also available online through our public access sites. LIS/GIS data is available to other County Departments through our intranet.
- b. **Data and Information Not Available, but needed:** Digital DNR Wetlands mapping of 5 acres and greater from c. 1980 is on our system at present but can only be used as an indicator. The information was digitized by DNR on uncorrected aerial photography and therefore does not match the orthophoto base. NRCS wetland mapping is not available in any form to the County. FEMA floodplain mapping is also needed but not currently available in digital format.
- c. **Standard Industry Format Used by County:** The County's GIS vendor, (ESRI) is a member of the Open GIS Consortium and proposes to support Open GIS data transfer and data share requirements. The hardware and software are currently in a Microsoft Windows environment. Future upgrades will continue to be made as

recommended by our Technical Services Department to ensure translatability and retrieval of data. The County also plans to continue the use of WLIA and WLIB standards such as the parcel I.D., Wisconsin County Coordinate System and DOT GPS Guidelines.

We are now currently utilizing the three different means of web access for information available thru our public accesses. 1. Intranet access for all County departments to access all GIS and LIS information. 2. Extranet access to enable outside professionals to have web access to all GIS and LIS for a fee. 3. Internet access to all citizens to view limited information on the web. Internet capability is limited mainly due to privacy concerns.

d. Geographical Referencing: Shawano County's data is based on the Wisconsin Shawano County Coordinate System, which then mathematically relates to the North American Datum (NAD) 83(91).

2. The County's GIS operating system is based on a Windows 2007 server using ArcSDE while the tabular land records data resides on an IBM AS/400 system. The GIS data base design incorporates key fields that are used to tie the two systems together thereby ensuring integration. Metadata is maintained for coverage's in the GIS system and the County will continue to monitor the development of the metadata standards being proposed by the Wisconsin Land Information Association (WLIA) and attempt to comply with them upon DOA acceptance and where practical. The GIS Coordinator and Technical Services Director are both members of the Land Information Office ensuring that the County's technology environment and database design support its information technology needs.

B. Progress Report on Ongoing Activities

Shawano County continuously looks for opportunities to partner with other departments or agencies to modernize and provide current integrated land records. Beginning in 1998 the County made its Land Information System (LIS) data available to private users (title companies and realtors) available through remote access via dedicated data lines. We also installed public access terminals in the County's land related offices (Register of Deeds, Treasurer and Planning & Development) which allow both staff and the public to easily query both our tabular and scanned document (LIS), and cartographic and orthophoto (GIS) data. In 2006 our GIS Public Access became available on the internet for the first time. In 2007 our deeds were able to be accessed on the internet utilizing Land Shark, and then in 2008 our tax records were added to the subscription extranet site.

We have completed many of the items listed in our previous Plan and the ongoing activities are continuing in this Plan. We have completed our digital orthophoto (2'pixels in '95) and planimetric base map. The orthophotos were updated through

East Central Wisconsin Regional Planning Commission in 2001 (1' pixels), then the photos were updated again by the County in early summer 2005 (6" pixels) and now will be updated again by the County in spring 2010 (color 6" pixels). This base has allowed us to create and complete several countywide data sets that are being used for information and analysis for a variety of purposes. These digital data sets include county-wide parcel mapping; location and coordinates of PLSS corners for the 25 townships; hydrography; road, railroad and trail center lines; highway sign location and inventory; 5' contours; approximate 1/16 section lines; NRCS approved soils; address with building and driveway points; political and emergency zones; current landuse; zoning (of only county zoned municipalities completed January 2005); major watersheds; DNR wetlands (do not match well with ortho base but used for indication); and flood plain mapping (do not match well with ortho base but used for indication). The County has established a way to continue with a program for the perpetuation of PLSS corners that may be removed or disturbed by road or utility projects, so as to maintain and support the accuracy of parcel maps. Document imaging is an on going project in the Register of Deeds office. All current deeds are being imaged and entered into the tract index. All documents from January 1994 to present are indexed and scanned. The Register of Deeds is now engaged in a document imaging project to scan all real estate documents recorded from the beginning of Shawano County becoming a county to 1994 when they first started. This project should be completed by the end of this plan. Five prior years of tax data is now available to the professional public who utilizes the extranet site. Soon, tie sheets will be placed on the internet for better public access, and possibly even plats of surveys will be made available.

C. New Initiatives

During this planning period the County will develop an internet based land information system/geographical information system; LIS/GIS support of Wireless 911; and support comprehensive planning; emergency response and intergovernmental initiatives.

1. Proposed Projects

Orthophotography. Update the County's 1994 (original, 2' pixels) and 2000 (1' pixels) and 2005 (6" pixels) digital orthophotography with new imagery (color 6" pixels) in 2010. This new imagery will be at map accuracy standards of 1" = 100' to be useful for all applications including utility mapping. It will be delivered in both WI Shawano County Coordinates and Latitude and Longitude for use by others. The County's existing DEM will be used for ortho production.

Wireless 911. The 2005 County wide orthophoto coverage was delivered in lat and long to be used by the Sheriff's CAD (computer aided dispatch) and the same will be done with the 2010 anticipated flight. The Sheriff's Dept. also uses all of the GIS coverages especially roads and address points which will be periodically updated in lat and long by the Counties GIS Coordinator.

Recorded Documents. The groundwork has been established to have all deed documents scanned by volume/page and document number from the first deed filed in 1851 for Shawano County to 1994, where they have been scanned from there to the present already. The documents will then be able to be referenced either way by the general public at home in Land Shark, and by land record users on the AS/400 at their desks.

Web site. The County plans to continue enhancement of its web sites. Effort will be placed on creating a way for surveyors, realtors, title companies or the general public to be able to reference tie sheets, plats of surveys and other such documents from the websites by the end of 2015. Three different means of web access are: 1. Intranet access for all County departments to access all GIS and LIS. 2. Extranet access to enable outside professionals to have web access to all GIS and LIS for a fee. 3. Internet access for all to view limited. The County will continue to monitor developments of the Wisconsin Land Information Program (WLIP) Internet Land Information Clearinghouse so our plans are consistent with their efforts.

Comprehensive Planning. Data and layers of the LIS/GIS will be used for the analysis and development of municipal and county comprehensive land use plans.

Height Modernization. The WI DOT is in the process of installing a new elevation benchmark system in the state using state of the art methods. The County anxiously awaits the development of this system in this area of the state. The County is also awaiting delivery of existing benchmark information from the staff of the WI DOT Regional Office in Green Bay who has agreed to do so when their records have been satisfactorily organized.

Flood Plain Mapping. FEMA has adopted a plan to update the flood way mapping for the entire nation. Shawano County is on the upper end of the watersheds in which it lies and therefore has historically been relatively unaffected by major flooding events. It is therefore on the end of the list for completion of this project. It is planned that the project begins in 2008 and is completed and adopted in 2010.

Wetland maps. The County presently is using the old wetland mapping done by the DNR in the late '70s in 5 acre and greater tracts. The DNR is currently updating the wetland inventory in the state to 2 acre and greater tracts. The County will cooperate with DNR when they schedule the new mapping for Shawano. Once completed, we will acquire the new digital data from the DNR and incorporate it into our system. We do not know when this is scheduled to take place.

Forest stand mapping. There is no County Forest land in Shawano County. All of the woodland is in private or state ownership. It is an important resource in the

County as it accounts for approximately 50% of the land use. We will pursue the cooperation of DNR to use our base for mapping this important resource. It is not possible for the County to anticipate a time line for this project.

All Hazards Mitigation Plan. Shawano County is in the process of creating a “All Hazards Mitigation Plan” to better prepare for natural and manmade disasters, and social epidemics. Land records and GIS mapping is an integral part in the creation of this plan.

Census. Upon completion, incorporate data into our GIS. Assist with the redistricting mapping process.

Staffing. As data sets are created, applications expand and maintenance responsibility increase, the County will evaluate the need for additional staff to protect and maintain the investment in our system.

2. Assistance requested through the WLIP (Wisconsin Land Information Program)

- a) The County is currently staffed with a Land Information Officer, GIS Coordinator, Real Property Lister, and Office Assistant/Computer Entry Specialist and a four member Technology Services staff. These personnel along with the remaining LIO members will continue to get the training and do the research necessary to continue the LRM Program. The LIO Officer continues to utilize the LIO-list server to stay informed of legislation or other information affecting the land records program. Contractors are used for projects outside of the expertise or time schedules of the staff. In the past, WLIA workshops, counseling, and technical support from fellow WLIA members, state agencies such as the State Cartographers Office and WI-DOT have been invaluable. We suggest that the WLIP continues to foster this Land Records family concept and continue to improve it. A reference list of best contacts for technical information (big list) would be excellent. The County’s network is connected to the Internet and can access the WLIP Internet Land Information Clearinghouse and Technical List Server Service as needed.
- b) To have the DOA coordinate with other agencies, though WIGICC or a similar organization, to assist in coordinating GIS/Land Records activities across organizations, businesses, and other areas of interest. This could create a common forum for all interested parties and assist to establish enforceable standards.
- c) It is imperative that the WLIP continues so both the retained fees and the grants are available for ongoing and new initiatives in Shawano County. It is important to the citizens of Shawano County and others across the state that the program continues to be focused on creation and maintenance of land information data sets to support all land information uses not just a select few.

The County is statutorily required to file, record, and maintain the various land records. It funds these activities by both tax levy dollars and program funds. The County is always pursuing other funding sources to supplement the ongoing cost of maintaining and enhancing these records.

In 2009 revenue came from \$8,892 WLIP grant; \$41,408 retained fees through WLIP, \$4,800 in user fees; and \$26,720 in other County dollars.

- d) The County will continue to follow County ordinances and State statutes for Procurement of services/products related to this Plan.

3. Problems encountered

We have successfully dealt with problems as they arise. The County relies on the WLIP for support and guidance. It would be difficult for Shawano County to continue our modernization efforts without the leadership and funding afforded by the WLIP. At this time, we are not aware of other problems that would prevent us from proceeding with this Plan.

D. Custodial Responsibilities

Following are the Shawano County departments and their land record custodial responsibilities. Text within { } indicates whether we HAVE, would LIKE, or WILL accept custodianship of the data. The authority for custodianship is noted in (). An * indicates that the records are necessary for the operation of the office but are not specifically mandated by a governing body.

REGISTER OF DEEDS

Record deeds, mortgages, plat maps, certified survey maps, and other related documents. {Have}{§59.43}

Scan above-mentioned records into our imaging system as they are received and filed. {Have}{§59.43}

Maintain tract index of real property. {Have}{§59.43}

REAL PROPERTY

Maintain description and ownership information of all tax parcels of property. {Have}{§70.09}

Maintain information on school and other special district codes. {Have}{§70.09}

Maintain tax rates and special assessments information. {Have}{§70.09}

Maintain and update digital tax parcel maps. {Have}{§70.09}

Maintain and update existing hard copy tax parcel maps. {Have}{§70.09}

Maintain and updated 911 maps and addressing. {Have} (Internal Policy)

LAND INFORMATION/COUNTY SURVEYOR/T.S.-GIS Coordinator

Maintain information on PLSS corners including tie sheets and section summary sheets. {Have}{§59.45}

Maintain information on the high accuracy network (HARN) densification in the county. {Have}{§59.45)
File, scan and index all survey maps required under 59.45. {Have}{§59.45)
File field notes, tie sheets, and other survey source documents. {Have}{§59.45)
Maintain, develop, and enhance GIS base map layers. {Have}{Internal Policy)
Maintain GIS site address database/coverage. {Have}{§59.54)
Maintain aerial photos. {Have}{Internal Policy)

PLANNING AND ZONING

Maintain zoning maps for unincorporated areas. {Have}{§59.69)
Maintain GIS zoning and related coverages. {Have}{§59.69)
Maintain private sanitary system site plans. {Have}{§59.69)
Maintain a Sanitary permit database. {Have}{Internal Policy)
File wetlands and FEMA maps. {Have}{Internal Policy)

LAND CONSERVATION

File soils maps and tables. {Have}{(*)
Maintain digital soil mapping and data. {Have}{(*)

HIGHWAY DEPARTMENT

File, scan and index right-of-way plats and construction plans. {Have}{Internal Policy)
File Gas tax maps. {Have}{Internal Policy)
Maintain GIS road sign database. {Have}{§59.54)

SHERIFF'S DEPARTMENT

Maintain MSAG. {Have}{Internal Policy)

EMERGENCY GOVERNMENT

Maintain emergency service network data, maps and coverages. {Have}{Internal Policy)

TREASURER

Maintain tax information for all parcels. {Have}{§29.25)

E. Framework Data, System Implementation and Statewide Standards.

Key progress or initiatives for data. The County maintains a data dictionary for data sets we create and will continue to update and maintain this dictionary. This includes the fundamental layers such as road centerlines, hydrography, and parcel boundaries. Our metadata was created using the standards models.

Standards and compliance. We adhere to standards established through task forces or models prescribed by WLIA. All elements are maintained on a daily, monthly or

yearly basis, depending on the layer. Dataset accuracy is a priority to achieve and once achieved to maintain.

Identification of customer needs in long range plan. The County has an active Land Information Office and LIO Committee, made up of elected and appointed officials who have land related interests, where we discuss and prioritize our land records needs. The county has now established a Land Information Council comprising of individuals noted in Act 314 along with other important users within the county. This Council, along with our standing committee, will provide the assistance and support needed to make the Shawano County Land Information Office flourish.

1. Geographic Reference Frameworks

Geodetic control networks. In 1994 Shawano County completed geodetic densification from stations within the Wisconsin High Accuracy Reference Network (HARN). The network consist of 64 – 1, 2 & 4 PPM stations which were established using the ‘Guidelines to Support Densification of the Wisc High Accuracy Reference Network (HARN) using Global Positioning System (GPS) Technology’ standards and specifications which were current at that time. The County additionally established 62 - 10ppm stations in 1994. The guidelines for monumentation and placement of stations developed by WI-DOT were followed. Coordinate values are available in Shawano County, State Plane and Latitude and Longitude. The County assumes the custodial responsibility for the densified control stations. The County has also established horizontal control on all PLSS section and ¼ section corners in 25 of 25 towns on privately and county owned areas. PLSS Corners that are located on state, federal and tribal lands have yet to be recovered and measured to.

We currently use existing NGS, USGS and WI-DOT for vertical control until the WI DOT establishes the new Height Modernization Monuments in this area of the state.

Public Land Survey System. The County has an active corner remonumentation and perpetuation program that complies with the requirements of Wis Adm Code AE 7.08 and/or state statute 59.75 or 78 and we plan to continue the program countywide. We have establish and continue to maintain coordinates on the PLSS corners using a combination of conventional survey techniques and GPS technology meeting or exceeding the FGDC Third-order, class I accuracy standard. GPS work must follow the “WI-DOT Guidelines on Standards and Specifications for Global Positioning System (GPS) Surveys in Support of Transportation Improvement Projects”. Coordinate values are maintained in the Wisconsin Shawano County Coordinate System, which is mathematically related to the North American Datum (NAD) 83(91). All 25 towns have completed remonumentation except for on state and tribal lands. We are continually working with the tribal and state communities to establish GPS Coordinates and remonumentation of PLSS Corners in those areas. The County maintains the custodial responsibility for the PLSS.

2.Orthoimagery and Georeferenced Image Base Data.

- a. *Photogrammetric Base maps.* The county created our base map layers in 1997 utilizing our original 1994 orthophoto flight. We have no plans to do additional photogrammetric base mapping at this time.
- b. *Digital Ortho Photo.* The County acquired its first orthophotography flight (which was 2' b/w photos) in 1994 and was used to create our aerial/base mapping project. The County then acquired orthophotos in 2000 (which were b/w 1' resolution) from East Central WI Regional Planning Commission. In 2005 the County again completed its own orthophoto flight obtaining a 6" b/w photo . We completed a 2010 countywide ortho flight with color 6" pixel resolution.
- c. *Digital Elevation Model.* As part of our 1994 ortho flight project, we had an elevation DEM created for the county. This DEM supports 4' contour mapping, and we have created 5' contour mapping using this data. In the future we would like to invest in LIDAR to create a new, more accurate DEM for the county. This would then be able to support accurate floodplain mapping. Due to county budget constraints we have not set a timeline to complete this type of project. If funding would become available, we would then pursue acquiring LIDAR and creating a more accurate elevation model.
- d. *Satellite Imagery.* We are interested in satellite imagery but feel the product is not cost effective for fulfilling our needs. The pixel size of our orthophotos was 2 feet in 1994, 1 foot in 2000, 6" in 2005 and continued with 6" in 2010. At this time it is still more efficient for us to continue with our ortho photos, but will continue to watch where satellite imagery can be applied in some future time.
- e. *Oblique aerial imagery.* We are interested in obtaining oblique imagery only if an outside funding source would become available. This data type will most likely be available from other sources.
- f. *Historical aerial imagery.* We have historical analog imagery available for multiple year classes available for viewing on our GIS System. In the future we may plan to scan this imagery and rectify it. Although, due to budget constraints we have no time line for the completion of the scanning and rectifying of this historical imagery.

3.Elevation Data Products and Topographic Base Data

- a. *Digital elevation models (DEM).* As part of our 1994 aerial flight, the County had a DEM created. This DEM was then used to create the 5' contour layer we

currently have. The DEM is currently stored as an ArcInfo Grid, but we plan to import this into ArcSDE in the future.

- b. *Digital Terrain models.* We have no DTM's at this time.
- c. *Triangular irregular networks (TIN).* We do not maintain a TIN at this time.
- d. *Contours.* A contour layer was completed for Shawano County using the DEM created as part of the 1994 Orthophoto project. The contour layer has a 5' contour interval. The County has no current plan to update this layer.
- e. *LIDAR data.* Shawano County currently does not have any LIDAR data. The long range plan is to possibly acquire LIDAR data in the future if funding becomes available.
- f. *IFSAR data.* Shawano County has no plan to acquire IFSAR data at this time.

4.Parcel Mapping.

- a. *Survey accurate parcel data.* All of Shawano County's parcel data are created and maintained using the method below:
- b. *Non-Survey accurate package Data.* Countywide digital parcel mapping was completed for Shawano County in 1997, by contracting with an outside vendor. Parcels were developed from the deed descriptions and plats using cogo. For control we used our PLSS line coverage (approximate locations) and orthophoto background for those descriptions without metes and bounds descriptions. All parcel maps are referenced to the lines of the public land survey system and are minimally suitable for planning purposes and in many cases suitable for assisting with land title boundary or survey line determination. Our parcel maps are not intended to be a substitute for a legal land survey, or guarantee of title to property. Upon completion of our PLSS remonumentation project in 2007 we created a new PLSS layer and then utilized this updated layer to shift our parcel data. We also re-mapped parcels where surveys and or other data showed it was appropriate. Our parcel layer is updated daily as new information, surveys, land sales, and splits occur, but still carries the disclaimer that this mapping is not a legal survey but only a picture representation of what is there.
- c. *Coordinate system used.* Shawano County's parcels are stored in ArcSDE using the Shawano County Coordinate System.
- d. *Parcel ID.* The pin number associated with all parcels contains twelve digits. The first three digits distinguish the state prescribed number for that municipality. Digits four and five designate the section number the parcel can be found. Digits

six through eight demonstrate the quarter/quarter the parcel is located. The last four digits contain the split information. A difference in this sequence will be found for parcels located in incorporated areas or within subdivisions.

5.Parcel Administration and Assessment Information

- a. Parcel design and development of our land information systems, takes the created parcel mapping base where each parcel has a unique pin number and ties into the information kept according to that unique pin number which includes the name and address of the owner, the document number in which they obtained it, the physical address of the property if there is one, section/town/range of the parcel, brief legal description along with acreage, and the breakdown of the value placed on the particular parcel by land and improvements.
- b. *Activities associated with modernizing the use of parcel data.*
 - i. *Parcel ID.* The present County parcel identification number (PIN) conforms to the WLIB parcel numbering system.
 - ii. *Tax data.* The tax database is designed so information can be accessed by PIN, owner name, or site address and is linked to the GIS parcel coverage.
 - iii. *Site Address.* Addresses in the unincorporated areas of the county are assigned by utilizing the county grid system established and can be cross-referenced with the PIN and maintained as an attribute in the tax database.
 - iv. *Owner name and Address.* Parcel ownership is maintained on a daily basis by using the recorded documents received within the Register of Deeds..
 - v. *Description/current document pertaining to parcel.* The description used in the tax database is an abbreviation of the description found on the recorded document. The recorded document number is then entered on the specific parcel as the current document of record. Each parcel can keep an unlimited number of documents attached for the ownership history.
 - vi. *Document imaging.* Imaging of documents relating to property transactions is a task of the Register of Deeds. The Register of Deeds has all documents from 1994 to the present scanned and is in the middle of a project to get all other previous documents scanned. Once the image is scanned by document number, it can be retrieved from the specific parcel it is associated with and can also linked to the GIS parcel coverage.

- vii. *Real estate transactions, Liens, Evidence of Title.* Register of Deeds maintains a tract index for the county. Searches can be done by grantor, grantee, and section/town/range or legal description. Transactions can also be retrieved by the document number if known.
- viii. *Easements, Covenants.* If a document has been recorded in the Register of Deeds Office, it would be able to be found in the maintained tract index. Easements that have been recorded in the last ten years, have been maintained on the GIS mapping as a layer to visually show the location.
- ix. *Tax exempt lands.* The four individual state codes given to specific exempt properties, exists as an attribute in our tax database.
- x. *Zip Code (including +4).* Zip codes along with some of the four additional digits are maintained on the tax database.
- xi. *Assessment class.* These are codes assigned to properties by the local assessors and maintained in the tax database. The tax database also maintains the zoning class in municipalities covered by county zoning, and this is carried over to the GIS mapping where it can be visually represented.
- xii. *Public Lands.* Public lands are maintained by name in the tax database for the municipalities, the county, or the state. Once entered in the database, they can then be shown on our GIS mapping.
 - i. *Liens.* Liens are not maintained in GIS.
 - ii. *Evidence of Title.* Evidence of title can be obtained through the Register of Deeds Office by utilizing the tract index they maintain. This should correspond with the ownership in the tax database and the documents referenced to the particular parcel.

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

- a. *Transportation network.* The County maintains the existing transportation network. This would include centerlines and annotation of all named public and private roads in the County.
- b. *Rights of Way.* Right of way for all state and county roads are maintained by the County Highway Department. For all local municipal roads, the right of ways are maintained by that local jurisdiction.

- c. *Centerlines.* A maintained coverage of the centerlines for all public and private roads within the county can be found in our GIS system designated by type. This coverage is maintained quarterly.
- d. *Address Ranges.* The County has a Road Index that has assigned ranges on all of the road centerlines within the county. The ranges are separated by municipal boundaries and/or intersection. This index helps to support the 911 system and all of law enforcement. This data is maintained as a document as well as part of our road centerline maintenance.
- e. *Site Address Database.* Shawano County established a 911 system effective January 1997. To achieve the 911 system, the county established a grid for assigning all new addresses within the unincorporated areas. The county took on the responsibility of assigning all new addresses. Therefore all site addresses are maintained in the tax database and thus making it accessible to the GIS system to use as a search tool for parcel information.
- f. *Address point, structure points and/or driveway points.* Keeping the idea of optimal routing in mind with the established 911 system, a layer was established for driveway points, a layer for structure points, and a layer for the address number. These layers are maintained with relational id fields in order to preserve one-to-many, many-to-one, and many-to-many relationships. Aerial photos are used to assist with the actual location of driveways and buildings, and these layers are maintained on a monthly basis.
- g. *Road Names.* An index of road names is maintained by the county. New road names are checked according to the index before becoming official, to insure that there are no duplicate names within the municipality or within that address range. Shawano county's road names are attributed within the road centerline file as well as in a separate database for the purposes of index creation. Different graphic sized annotation layers for map publication using multiple scales have also been created and are maintained along with the centerline data.
- h. *Functional Class.* Functional class information of Shawano county's roadways are maintained within the PASER system as designed by the Wisconsin DOT.
- i. *Places/Landmarks.* A Shawano County Recreation Map has been created showing places of interest and landmarks along/within many of its trails and parks. Places of interest and landmarks are added to this coverage as the need/opportunity arises or as they are developed.
- j. *MSAG Integration.* Due to the variety of diverse needs within the County's GIS/LIS systems, the MSAG is not integrated with all layers the county maintains. However when changes arise to the MSAG, those changes are coordinated with other address related databases. This allows us to provide consistency throughout the GIS/LIS system.

- k. *Ability to support emergency planning, routing, response and mapping.* The County's street centerline and address databases adhere to the US Postal Addressing Standards Publication 28, except where deviation is necessary to support our 911 system. These layers are used daily to support planning, response, and mapping activities. In the future, as time permits, we are planning on coding the road centerlines with impedances, speed limits, and drive times in order to better serve routing applications.
- l. *Ability to support Wireless 911.* Currently the county maintains two separate coordinate systems. The County Coordinate System is maintaining the accuracy needed for the parcel mapping aspect, and Latitude/Longitude using decimal degrees is required for the ability to support wireless 911.

7. Hydrography, Hydrology, and Wetlands Mapping

- a. *Hydrography.* Shawano County's Hydrographic polygon base layer was created in 1997 using our 1994 aerial photo flight. Data was collected from the DNR and added as attributes to this polygon layer. This layer is edited as needed to keep it as accurate as possible.
- b. *Watersheds.* The County has a major watershed coverage available that was created by the WIDNR.
- c. *Hydrogeology.* The County does not have a hydro-geological layer.
- d. *Impacts on the environment.* At this time Shawano County does not have any comprehensive layer showing environmental impact for hydrological issues although some data does exist for specific project areas.
- e. *Wetlands Mapping Activities.* Currently Shawano County is using the original DNR digital wetland coverage. The DNR will be updating the wetland inventory for Shawano County sometime in the future. We plan to acquire the new digital data from the DNR and incorporate it into our GIS system at that time. We are not sure, as of now, when this will be scheduled.

8. Soils mapping, land cover, and other Natural Resource Data.

- a. *Soils mapping activities.* The County and East Central Wisconsin Regional Planning Commission (ECWRPC) completed a soil survey and digital soil mapping, in cooperation with and consistent with, the Natural Resource

Conservation Service (NRCS) standards and specifications. NRCS has certified the product. Future map updates will be coordinated with NRCS.

- b. *Land Cover*. The county does not have a Land Cover database.
- c. *Forests*. The county does not have a forestry database.
- d. *Geology*. The county does not have a geologic database.
- e. *Hydro-geologic*. The county does not have a hydro-geologic database.
- f. *Non-metallic mining*. A listing of all properties involved in non-metallic mining has been created by ECWRPC and provided to the county. This information then has been coded on the parcels involved in the actual mining process. Information to create a non-metallic mining layer in our current GIS has not yet been established.
- g. *Endangered Resources*. The county does not maintain an endangered resource layer. This data is acquired from the WIDNR as needed for various projects.
- h. *Impacts on the environment*. The county does not maintain a layer of this nature.

9.Land Use Mapping

- a. *Mapping of existing land use*. There has been a countywide land use mapping layer created by ECWRPC using information derived from our year 2000 aerial photos. This information was verified and updated where necessary as part of the comprehensive planning process. The database uses the ECWRPC's classification system, and is also coded with standardized land use codes.
- b. *Mapping of planned land use*. As part of the county's comprehensive land use plan, a future land use layer was compiled. This layer will be edited as necessary due to changes or as the result of additional local planning processes.

10.Zoning Mapping

- a. *Zoning districts*. Our zoning district layer is complete for all unincorporated municipalities that are within county zoning. The County created its countywide zoning coverage using planimetric and aerial photo data along with the PLSS coverage, digital parcel maps and zoning records. This layer is updated quarterly or as necessary.

- b. *Shorelands*. The county has developed a shoreland coverage showing all lands within the shoreland district (1000' buffer from lakes, 300' from streams) for water bodies that are navigable as determined by the DNR. This layer is updated as data becomes available.
- c. *Floodplains and floodways*. Presently being used are the hardcopy FIRM maps. We are interested in acquiring the Digital Q3 Flood Data if FEMA makes the data available in the future for the County. As a substitute during the development of our comprehensive plan we have developed an independent layer using heads up digitizing from hardcopy FEMA maps available for viewing only and without certification. This layer is used as an indication only. The hardcopy maps must be used and referenced as official data.
- d. *Environmental corridors*. The County does have an environmental corridor coverage that was created as part of our comprehensive planning process.
- e. *Burial sites*. No plans have been set at this time. A list has been put together of actual public cemetery sites, but no layer has been created for this in our GIS at this time.
- f. *Archeological*. No plans have been set at this time. These items need further evaluation due to security or preservation issues.
- g. *Historic/cultural sites*. Shawano County has created a layer designating our native Indian Reservations and their boundaries. We are still in the process of identifying and indexing all historical sites to see what we have and what we may need.

11. Election and Administrative Boundary System

- a. *Election/voting boundaries*. As part of the 2000 Census, a complete county wide coverage's showing Supervisory Districts and Wards was created. These districts are now updated as necessary.
- b. *Legislative districts*. The state had created Legislative Districts to share with the counties. The layer we can provide is the coverage shared with us from the state for Shawano County as of the 2000 Census.
- c. *Utility districts*. The tax database has coded parcels that are within created Sanitary Districts. From this we have been able to develop Sanitary District Maps, and Water District mapping has been required in specific areas due to numerous past projects and plan. The County has created a comprehensive countywide electric service map for emergency government. These layers are updated as new or updated data becomes available to us.

- d. *School districts.* A countywide school district map has been created and is maintained. These maps are created and maintained using the code attached to every tax record, and updated only when information is received from the Superintendent of Public Instruction's Office changing boundary lines. Layers from each year since the year 2000 have been archived in separate coverage's for comparison studies and historical information.
- e. *Tax incremental financing districts.* All properties within the tax incremental districts of the county have been coded in the tax database, but the need has not arose to have a layer generated in GIS for this information at this time.
- f. *Agency administrative districts and zip codes.* A countywide layer utilizing Zip Codes has been created for the county. This layer is updated only if we are notified by area post offices of changes. The County has not created an Administrative District in the GIS information available.
- g. *Census Geographies.* Shawano County has the census layers of blocks, block groups and tracts in a database as provided by the US Census Bureau from the 2000 Census. These layers will soon be archived, when current information becomes available from the US Census Bureau from the 2010 Census.
- h. *Civil Division Boundaries.* A civil boundary division has been created in our GIS system for all unincorporated and incorporated areas within Shawano County. These boundaries are updated only when recorded annexations take place.
- i. *Public Administered Lands.* A GIS layer has been created, and is maintained, of all County owned properties. The County does not have a comprehensive layer that would include all public properties.
- j. *Native American Lands.* Shawano County maintains a GIS coverage containing Native American lands separated into fee and trust lands. This layer is updated as properties are purchased or parcels are put into trust.
- k. *County Boundaries.* There is a current GIS layer showing the Shawano County boundary and is not updated often since county boundaries do not change. This boundary layer was created using our planimetric, PLSS and parcel data.
- l. *State outline.* We incorporated existing coverage's from other sources into our GIS system to create a state outline coverage.
- m. *Lake Districts.* The County has several Lake Districts. One district recently created in 2004 had been added as a layer in our GIS system due to the fact that it needed County Board approval. The older Lake Districts have not been added to the layer yet, but will probably be mapped during this report cycle.

12. Critical Infrastructure and Facilities Management

- a. *Emergency Service Districts.* The county maintains coverage's for the following emergency service districts: Fire Departments, Ambulance, EMS, JAWS, and DNR Wildfire areas. These layers are used extensively in our dispatch center handling 911 calls and by our All Hazards Mitigation Plan which is being developed. Updates are preformed as necessary to keep all crucial information accurate.
- b. *911 call center service areas and center locations.* Shawano County currently has only one unified 911 call center for the complete county and including the city. Therefore we have had no need to create such a layer.
- c. *Fire/Police Districts.* A coverage has been completed for Shawano County consisting of the Fire/Police District areas and is maintained as necessary
- d. *Fire/Police Stations.* Shawano County incorporated a countywide Fire/Police station coverage in its emergency response layer and maintains it as necessary.
- e. *Hospitals and Healthcare Facilities.* This layer is a complete countywide layer and is maintained as necessary
- f. *Government facilities.* There has been a layer created showing County Facilities locations which are maintained as necessary, but we have not included in this layer all other government facilities.
- g. *Utilities.* The County has utility coverage's for some of the county but the layer is not complete. The electric utility layer coverage incorporates approx 30% of the county, sanitary districts 10%, and water utilities approximately 10%. Shawano County is in the process of acquiring a more complete dataset of all utilities as part of its All Hazards Mitigation Plan. Once completed, we plan to share our base map data to all utilities, sanitary districts, etc. if we can work out a data agreement with them to assist us in keeping all information current and accurate. A layer also has been created showing the location of all telecommunication towers within the county.
- h. *Parks and Recreational Trails.* In working with all County Parks and Trails, a layer was completed and is maintained by the county showing location of the individual parks owned by the county and of the recreational trails that can be utilized for biking/hiking/snowmobiling. All of these parks are not only owned by the county but also maintained by the county. This layer is only updated when new properties are purchased. Data for non County owned and maintained properties is incomplete at this time.

- i. *Transit systems.* Transit systems in Shawano County are limited to roads, airports and one rail line (non-passenger). The layers created for these systems are complete and maintained by the county.
- j. *Bridges, culverts, traffic road signs.* Shawano County maintains coverage database for all traffic signs that they are responsible to maintain. Five individual townships have also contracted with the county to maintain their signs database. This layer gets updated whenever inconsistencies are discovered. Shawano County does not have a database containing bridge and culvert features beyond those which are provided by the State DOT or maintained within the PASER system.
- k. *Airports and airfields.* These features are contained within the critical facility layer and maintained as part of the Counties All Hazard Mitigation Plan.
- l. *Harbors.* Shawano County does not have any harbors.
- m. *Boat Landings.* A recreation map was produced by Shawano County which assisted in the creation of a layer containing all boat landings, size of the parking area, and access points of the particular landing. This layer is updated as necessary.
- n. *Hazardous materials sites.* Shawano County does not maintain any hazardous materials site layer beyond what is provide by the State and Federal Government.
- o. *Landfills.* There is only one public landfill within Shawano County. The location of this site is shown as a landfill layer.

13. Database Design and System Integration

- a. *Design evaluation.* The County Technical Services staff, along with the assistance of outside contractors, review the design of the Land Records System and typically run a prototype to determine the functionality of the coverage's and/or applications. Both the Technical Services Director and the GIS Coordinator are members of the Land Information Office ensuring that the County's technology integration and database design support its information technology needs.
- b. *Project approach.* The County's GIS operating system is based on a Windows 2003 server. The tabular land records tax data resides on an IBM AS/400 system. The GIS parcel data base design incorporates key fields utilized by the AS/400 system to tie the two systems together ensuring system integration. Other individual GIS layers and attribute information are stored entirely within the counties GIS server. These layers and databases are designed with the use of relational datasets, where appropriate, in order to reduce duplication and ensure GIS accuracy.

- c. *Timeline.* The County's GIS operational data base is fully developed and functional. It will be kept up to date as needed or as technology changes. Layers are continually added to the current GIS system as they are created for projects and/or other county initiatives.
- d. *Metadata Policies.* Metadata is essential and is created for every new coverage brought into the GIS system. The County's policy is to use existing standards adopted by the Wisconsin Land Information Association (WLIA) and the Federal Geospatial Data Committee (FGDC). We have created metadata for all commonly used historical databases and plan to continue to create and improve metadata for all other layers within the GIS system.
- e. *Security/Privacy policies.* Firewalls have been installed by the Technical Service Department to ensure Security of the GIS system. Maintenance is also conducted by that Department. At the time when our Internet Site was available for the web, Privacy issues were discussed and determined. It was agreed to limit the information available on the free internet site to ensure privacy of our taxpayers. Names of landowners will not be made available on the free site. All information is available on the public access kiosks within the courthouse and on the intranet site available to only county departments. The extranet site established for the professional public, which has a subscription fee, and also has the only access to landowner's names.
- f. *Implementation and maintenance strategy.* The County started implementation of a GIS system in 1995 with the delivery of its first digital base map that it downloaded into ESRI's Arc Info. The data base has grown considerably since then and continues to be upgraded as the technology advances. Parcel mapping, zoning, roads, and other layers are updated on an ongoing basis. The parcel layer has now been edited to conform to the corrected PLSS coverage after the County finished its remonumentation project in 2008. As part of that same project, the GIS database was also converted and moved into ArcSDE to improve stability, performance and productivity. All layers are updated as often as time permits with priority given to our foundational layers and other specific layers needed for current projects. All miscellaneous layers receive updates at least annually if there are some.
- g. *Data quality management.* Shawano County does most of its GIS work "in house". This assures that the people who are most knowledgeable about the data are the ones doing the editing or review all datasets. Errors found throughout the reviewing process and during the use of the data set are documented and filed with the correct person responsible for that layer and the correction is made according to their work schedule or as soon as possible. The County's ArcSDE database uses a standard "3 Level Version Tree" to assist in managing transactions and assuring data quality.

- h. *Needs assessment.* Our original GIS data base design included a needs assessment. As new coverage's are requested we follow a modified needs assessment process to aid in the design and implementation. Flow charts are created and used in the needs assessment process.
- i. *Data structure and topology.* Shawano County's data structure conforms to industry standards. GIS data is kept in ArcSDE and topology is enforced where applicable. Parcel attribute data is processed in our AS/400 and stored in a db2 database. Optical images are kept on mirrored snap servers, and backed up to worm drives on an optical server.
- j. *GIS data models.* The data model used within our County conforms to WLIA and ESRI standard data models wherever possible.
- k. *Data dictionary.* The County has adopted the metadata created for its data sets as its data dictionary.
- l. *Coding schema.* Shawano County tries to use existing standardized coding schemes whenever possible.
- m. *Transaction management.* A date field is a common field carried in most databases to track changes. ArcSDE and SQL server have also the capability to track transactions with their specific databases. The County's ArcSDE database uses the standard "3 Level Version Tree" to assist in managing transactions and assuring data quality.
- n. *Organizational information flows.* A flow chart has been produced for partial aspects of the Land Information Office, but not for all departments affiliated with it.
- o. *Data conversion.* Shawano County uses ESRI software to do the majority of its conversion processes. The County does implement other software packages and techniques when needed or applicable (AutoCAD, WISCON, etc...).
- p. *Ability to integrate with other databases and information systems.* A past decision of the Land Information Office was to go with the ESRI standard formats. Therefore, the County uses ARC/INFO and ARCVIEW as our GIS software and is able to share data to others using the ESRI standard format exports.

F.Public Access

- a. *Use of technology to facilitate efficient access.* Efficiency of workflow and ease to obtain information has been a goal of the Land Information Office. There have been five computers within the Courthouse designated as public access

terminals and available to the public for searching GIS coverage's, digital data of property ownership, tax data and recorded deeds. After the public access terminals were in place, then an internet public access system was put into place and activated. The internet site is updated nightly. We will continue to monitor developments of the WLIP Internet Land Information Clearinghouse so all plans stay consistent with each other's efforts.

- b. *Use of 3rd party technology for access.* The public access software currently used by the County was created by the county and does not use 3rd parties for technology access. We continue to monitor what is out there and weigh out these types of services for possible future use.
- c. *Data sharing policies.* Shawano County shares data with all governmental agencies and jurisdictions for a set reproduction fee or in exchange of data. It also shares data with private individuals and corporations for a price set on the information fee schedule. Those receiving the information must sign an agreement stating that the data will not be sold commercially.
- d. *Open access to data in existing format.* Wisconsin Open Records Law is pretty specific and Shawano County implements it for any land record request.
- e. *Optional production of customized data on cost-recovery or other basis.* Shawano County offers both tabular and graphic data for purchase in a couple of common interchange formats according to the rate determined for any agreement. Data requests are processed through our Land Information Office.
- f. *Internet accessibility.* Utilized by Shawano County are multiple validation tools that ensure that the Land Records Internet site is ADA and WC3 compliant wherever possible.
- g. *System security.* A System Administrator manages the GIS Windows 2007 server and AS/400. The AS/400 has a built in security of its own. The internet public access is housed on a DMZ server by itself. Sensitive material is not uploaded to the DMZ. The Technology Services Department maintains a back-up/security plan for all data.
- h. *Privacy policies.* Shawano County adheres to the Wisconsin Open Records Law and complies with state statute for access to restricted records. When the web sites were developed, limited property information was made available on the public internet site. Owner names will not be made available on the internet site. Owner names and other additional information are available to subscribers only or access from a public access terminal on our extranet site.
- i. *Use of \$1 fee designated for land information and housing data Sec. 59.72(5) (b) 3.* The one dollar fee is being used to develop, implement and update the web sites and will continue to be used for this in the future.

G. Integration and Cooperation

- a. *Formal data sharing agreements.* A data sharing arrangement has been made by the County particularly with other County departments, municipalities, and state and federal agencies. Private entities have also entered into contracts with the County for remote access to our LIS database. We plan to continue these agreements and pursue other arrangements as opportunities arise. The County encourages others to use our digital data by setting a nominal cost or no cost depending on what we receive in exchange which will enhance our system.
 - b. *Formal or informal data maintenance agreements between department and/or agencies.* It is imperative to keep the doors of communication open between government entities. Maintenance, as long as kept “in-house” does not need a formal or informal agreement. It is the responsibility of the stakeholder to maintain their information and keep it current to meet the needs of their users.
 - c. *Cooperative arrangements.* In order to have the information available on our GIS System that we do have, it has been imperative to participate in a number of cooperative projects and plans as we have. We continue to pursuing other arrangements or opportunities as they arise.
 - d. *Consortia.* As a member of the East Central Regional Planning Commission, the County has resources and guidance from members of this consortium. We do plan on evaluating other opportunities as they arise.
 - e. *Collaborative arrangements.* We plan to continue participation in the East Central Wisconsin Regional Land Records Advisory Committee, WLIA and their technical committees, WLIP Technical Assistance List Server, LIO List Server and other groups or agencies as may be made available. It is outstanding to have individuals out there that can be considered mentors, and be able to call upon them when the need for precise information is needed or how to handle a complicated situation.
 - f. *Statutory relationships among counties and state agencies.* Relationships exist between agencies and counties at this time and are observed in the various conferences of organizations of professionals attended throughout the state. It is obvious that this relationship will only get stronger over the course of this plan, as economic issues arise and new ideas are developed. We will always be considered a team player in any statutory relationship.
1. *Integrative/Cooperative relationships.* Shawano County has actively encouraged and supported integration and cooperation activities related to land records modernization as cited in this plan and as indicated in past WLIP grant applications. We would become a stakeholder in new concepts, such as County

or Consortium Assessing being sponsored by the Wisconsin Department of Revenue or other plans to continue cooperative relationships.

2. *Potential partners/projects.* We are in the process of, or interested in, developing relationships for land use, forest stands, addressing, census and sign inventory. Potential partners would be WLIB, State Cartographer, DNR, NRCS, DOR, East Central Wisconsin Regional Planning Commission, Municipalities, City, DOT, Emergency Government, Sheriff and Highway Department.
3. *Data shared/used.* The digital County base map would be shared and used for the common registration of data sets as well as our parcel coverage. The horizontal control network, PLSS coordinates, driveway/building points, and our resource grade GPS receiver would be available for data acquisition.
4. *How does you county allow for participation and coordinate funding allocations so that all departments benefit from the land information program.* We have all departments within the county to have access to the extranet site so they could utilize the information already gathered in their every day workflow. When specific projects are requested, some type of funding assistance is suggested to help achieve completion of that project.
5. *Municipalities and other agencies in region benefit from program.* With our cooperation agreements, we have been able to share information to villages in order for them to do sewer and water projects. The information is provided to the engineering firm assisting them, so basic information does not need to be gathered again and avoid duplication.

H. Communication, Education, Training & Facilitated Technical Assistance.

- a) *Documentation of county data, models and processes.* A data dictionary has been created and is consistently being updated as the need arises. Other information or process are explained or taught as existing or new users experience difficulties.
- b) *Resources available.* Resources are limited due to budget restraints and cuts, but the proposed amount of documents recorded in the Register of Deeds and the base budget grants, keeps this program floating. Some county tax dollars also contribute to the success reflected in this program.
- c) *Identification of customer needs.* Our Land Information Committee continues to diligently work together and identify needs of customers as well as other users. Now with the establishment of a Land Information Council to assist

this committee in determining its goals and objectives, a stronger joint effort is what we hope to achieve. Some of the same players are targeted to serve on both the committee and the council, but with the added members appointed to the council, this will bring new ideas to the table to be considered and higher goals to work to achieve. Together as a team, we will try to address any needs that should arise and find solutions to those needs all to the benefit of Shawano County's Land Information Office.

- d) *Coordination of education/training with agencies, associations and educational institutions.* Demonstrations have been offered to the public and presentations have been given to associations as to the functionality of the Land Information housed by Shawano County. The designated Land Information Day is a good way to not only demonstrate to staff and the public of what type of information is available, but to also educate them of what Land Information is all about.
- e) *Use of technology to facilitate education and training.* Technology is vital for a system to work, and if staff is not comfortable with that technology, the outcome is not efficiently achieved. Therefore, it is good to have training sessions within the organization to answer questions, or one-on-one training to help the user become comfortable with the information available.
- f) *Use of or plan to participate in Clearinghouse/Repository and Technical Assistance List Server.* Some of the current employees who deal with land records are already members of the List Server group. The LIO is a member of the LIO Server group. It is necessary to keep all interested parties informed and working towards a common goal. That will help the Clearinghouse become more technical efficient as a repository also.
- g) *Use of Land Information Officer Education and training funds.* The education and training funds made available thru the WLIA Program are beneficial for the county to be able to send staff to conferences for training or to keep them up-to-date on technology that becomes available. This program has assisted our county in establishing the foundation of Land Records that currently exists.

I. Administrative Standards Not Associated With Foundational Elements.

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