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Executive Summary

This document is a land information plan for Outagamie County prepared by the land information office (LIO) and the land information council. By Wisconsin statute, "a Countywide plan for land records modernization" is required for participation in the Wisconsin Land Information Program (WLIP). The purpose of this document is twofold: 1) to meet WLIP funding eligibility requirements necessary for receiving grants and retaining fees for land information, and 2) to plan for County land records modernization in order to improve the efficiency of government and provide improved government services to business and County residents.

The WLIP, administered by the Wisconsin Department of Administration, is funded by document recording fees collected by register of deeds at the County level. In 2015, Outagamie County received $1000 in WLIP grants and retained a total of $226,032 in local register of deeds document recording fees for land information. Beginning in 2016, WLIP Strategic Initiative grants are projected to increase the County land information budget by $50k per year.

The plan lays out how funds from grants and retained fees will be prioritized. However, as County budgets are determined on an annual basis with County board approval, this plan provides estimated figures that are subject to change and are designed to serve planning purposes only.

Land information is central to County operations as many essential services rely on accurate and up-to-date geospatial records. A Countywide land information system supports E911 response, permitting, emergency planning and response and a host of other citizen services. The Outagamie County land information system integrates and enables efficient access to information that describes physical characteristics of land, as well as the property boundaries and rights attributable to landowners.

In the next three years, Outagamie County's Land Information Office strives to be recognized for its exceptional web mapping sites, gains in governmental efficiencies by broadening the utilization of GIS, improvements in parcel mapping accuracy, transparency and responsiveness to meeting the land records needs of residents and businesses.

To realize this mission, in the next three years, the County land information office will focus on the following projects:

1. Expansion of the use of mobile GPS/GIS technology
2. Countywide integration of new online permitting system
3. PLSS maintenance with survey grade GPS coordinates
4. Website development and hosting for improved access to land records
5. New LiDAR data acquisition (10 year cycle)
6. New orthophotography data acquisition (3-5 year cycle)

1 INTRODUCTION

In 1989, a public funding mechanism was created whereby a portion of County register of deeds document recording fees collected from real estate transactions would be devoted to land information through a new program called the Wisconsin Land Information Program (WLIP). The purpose of the land information plan is to meet WLIP requirements and aid in County planning for land records modernization.

The WLIP and the Land Information Plan Requirement

In order to participate in the WLIP, counties must meet certain requirements:

- Update the County's land information plan at least every three years
- Meet with the County land information council to review expenditures, policies, and priorities of the land information office at least once per year
- Report on expenditure activities each year
- Submit detailed applications for WLIP grants
- Complete the annual WLIP survey
- Subscribe to DOA's land information listserv
- Meet a June 30, 2017 deadline to post certain types of parcel information online

LAND INFORMATION

Any physical, legal, economic or environmental information or characteristics concerning land, water, groundwater, subsurface resources or air in this state.

'Land information' includes information relating to topography, soil, soil erosion, geology, minerals, vegetation, land cover, wildlife, associated natural resources, land ownership, land use, land use controls and restrictions, jurisdictional boundaries, tax assessment, land value, land survey records and references, geodetic control networks, aerial photographs, maps, planimetric data, remote sensing data, historic and prehistoric sites and economic projections.

– Wis. Stats. section 16.967(1)(b)

Any grants received and fees retained for land information through the WLIP must be spent consistent with the County land information plan. The *Uniform Instructions for Preparing County Land Information Plans* are designed as a template, but leave flexibility as to how counties may choose to address the minimum plan components. The County is able to include as much detail as necessary to make the planning process useful at the local level.

Act 20 and the Statewide Parcel Map Initiative

A major development for the WLIP occurred in 2013 through the state budget bill, known as Act 20. It directed the Department of Administration (DOA) to create a statewide digital parcel map in coordination with counties.

Act 20 also provided more revenue for WLIP grants, specifically for the improvement of local parcel datasets. The WLIP is dedicated to helping counties meet the goals of Act 20 and has proposed that funding be made available to counties in the form of Strategic Initiative grants to be prioritized for the purposes of parcel dataset improvement. For Strategic Initiative grant eligibility, counties will be required to apply WLIP funding toward achieving certain statewide objectives, specified in the form of "benchmarks." Benchmarks for parcel data—standards or achievement levels on data quality or

completeness—are determined through a participatory planning process and will be detailed in future WLIP grant applications.

County land information plans were initially updated every five years. However, as a result of Act 20, counties must update and submit their plans to DOA for approval every three years. Thus, the minimum planning horizon for these documents is three years. The plan may incorporate a planning horizon that is longer if the needs and priorities of the participants warrant.

The first post-Act 20 required update deadline for draft County land information plans is December 29, 2015. Final plans are due March 31, 2016.

County Land Information System History and Context

Outagamie County has been working on land records modernization since 1990 when the County board passed a resolution creating a land information office. Beginning in 1991, the County focused its efforts on a Public Land Survey System (PLSS) remonumentation program. The WLIP was instrumental to provide some of the funding used for that project as well as others moving forward. After remonumentation was the completion of parcel mapping in AutoCAD. Next was the conversion of parcel and address point data from AutoCAD to an ESRI format. After that was complete a street centerline complete with address range data was created and used for the enhanced 911 system. Register of Deeds has all of their real estate records scanned and imaged. The County's Treasurer's department has recently implemented a new system allowing for better integration with GIS and ROD records. The County is currently on a 3-5 year orthoimagery cycle and a 12-15 year LiDAR cycle. Currently Outagamie County has approximately 200 layers of data along with many public and internal web applications allowing users to easily view and analyze for their daily processes.

Plan Participants and Contact Information

Another requirement for participation in the WLIP is the County land information council, established by legislation in 2010. The council is tasked with reviewing the priorities, needs, policies, and expenditures of a land information office and advising the County on matters affecting that office.

According to s. 59.72(3m), Wis. Stats., the County land information council is to include:

Register of Deeds
Treasurer
Real Property Lister or designee
Member of the County board
Representative of the land information office
A realtor or member of the Realtors Association employed within the County
A public safety or emergency communications representative employed within the County
County surveyor or a registered professional land surveyor employed within the County
Other members of the board or public that the board designates

The land information council must have a role in the development of the County land information plan, and DOA requires County land information councils to approve final plans. A record documenting

County land information council approval should be included in the final submission of the plan to DOA. County board approval of plans is encouraged but not required.

A County may amend a plan with updates or revisions as appropriate. If amended, a digital copy of the amended plan and record of land information council approval should be sent to the WLIP. This plan was prepared by the County LIO, the Land Information Council, and others as listed below.

County Land Information Council and Plan Workgroup

Name	Title	Affiliation	Email	Phone
*Brad Bastian	GIS Coordinator Land Information Officer	Outagamie County Planning	Brad.bastian@outagamie.org	920-832-5255
*Dina Mumford	Treasurer	Outagamie County Treasurer	Dina.mumford@outagamie.org	920-832-5067
*Sarah Van Camp	Register of Deeds	Outagamie County Register of Deeds	Sarah.vancamp@outagamie.org	920-832-5117
*Ryan Barrette	Real Property Lister	Outagamie County Treasurer's Department	Ryan.barrette@outagamie.org	920-832-5666
*Dave Allen	Realtor	Realtor located in Outagamie County	dallen@new.rr.com	920-540-0095
*Michael Bouchard	911 Communications Shift Supervisor	Outagamie County Sheriff's Department	Michael.bouchard@outagamie.org	920-832-2264
*Jim Hebert	County Surveyor	Outagamie County Surveyor	jim@hebertassoc.com	920-832-2039
*Dan Melchert	County Supervisor	Outagamie County Supervisor	dmelchert@new.rr.com	920-832-7684
*Jeremy Freund	Project Coordinator	Outagamie County Land Conservation Department	Jeremy.freund@outagamie.org	920-832-5076
*Tim Roach	Zoning Administrator	Outagamie County Zoning Department	Tim.roach@outagamie.org	920-832-6033
*Mary Hammen	Lead Chain of Title Recorder	Outagamie County Register of Deeds	Mary.hammen@outagamie.org	920-832-5114
*Julie Vanden Acker	Technical Manager	Outagamie County MIS Department	Julie.VandenAcker@outagamie.org	920-832-5020
Luke Behling	GIS System Administrator	Outagamie County Planning Department	Luke.behling@outagamie.org	920-832-1690
Traci Meulemans	GIS Specialist	Outagamie County Planning Department	Traci.meulemans@outagamie.org	920-832-6030

* Land Information Council Members designated by asterisk

2 FOUNDATIONAL ELEMENTS

Counties must have a land information plan that addresses development of specific datasets or map layer groupings historically referred to as the WLIP Foundational Elements. Foundational Elements incorporate nationally-recognized "Framework Data" elements, the major map data themes that serve as the backbone required by users to conduct most mapping and geospatial analysis.

FOUNDATIONAL ELEMENTS

PLSS
Parcel Mapping
LiDAR and Other Elevation Data
Orthoimagery
Address Points and Street Centerlines
Land Use
Zoning
Administrative Boundaries
Other Layers

In the past, Foundational Elements were selected by the former Wisconsin Land Information Board under the guiding idea that program success is dependent upon a focus for program activities. Thus, the *Uniform Instructions* place priority on certain elements, which must be addressed in order for a county land information plan to be approved. Beyond the county's use for planning purposes, Foundational Element information is of value to state agencies and the WLIP to understand progress in completion and maintenance of these key map data layers.

The list of WLIP's Foundational Elements has evolved with each update of the county land information plan instructions. They are a guideline of what counties need to address in their plans *at a minimum*. As the list of layers in this document is not exhaustive, counties are welcome to insert additional layers for geospatial data categories stewarded by the county or municipalities that are of importance to local business need.

Public Land Survey System (PLSS)

Public Land Survey System Monuments

Layer Status

- For the PLSS Foundational Element, the table below documents Layer Status

PLSS Layer Status	
Name	**Status/Comments**
Total number of PLSS corners (section, ¼, meander) set in original government survey	4030
Number and percent of PLSS corners that have been remonumented	3820 or 95% - survey grade
Number and percent of remonumented PLSS corners with survey grade coordinates (see below for definition)	3820 or 95% - survey grade
Number and percentage of survey grade PLSS corners integrated into county digital parcel layer	3820 or 95% - survey grade
Number and percentage of non-survey grade PLSS corners integrated into county digital parcel layer	0 or 0%
Percentage of PLSS corners that have digital tie sheets (whether or not they have corresponding coordinate values)	95%
Digital tie sheets available online? Yes or No	Yes
Approximate number of PLSS corners believed to physically exist based on filed tie-sheets or surveys, but do not have coordinate values	0
Approximate number of PLSS corners believed to be lost or obliterated	0
Total number of PLSS corners along each bordering county	323
Number and percent of PLSS corners remonumented along each county boundary	Waupaca 76 – 100%;Shawano 61 – 100%;Brown 79 – 100%;Winnebago 61 – 100%;Calumet 46 – 100%
Number and percent of remonumented PLSS corners along each county boundary with survey grade coordinates	Waupaca 76 – 100%;Shawano 61 – 100%;Brown 79 – 100%;Winnebago 61 – 100%;Calumet 46 – 100%
Does your county collaborate with or plan to collaborate with neighboring counties for PLSS updates on shared county borders?	Yes

Custodian

- Outagamie County Surveyor and Planning Department – GIS staff

Maintenance

- Outagamie County Surveyor and Planning Department – GIS Staff

Standards

- Statutory Standards for PLSS Corner Remonumentation
  s. 59.74, Wis. Stats. Perpetuation of section corners, landmarks.
  s. 60.84, Wis. Stats. Monuments.
  ch. A-E 7.08, Wis. Admin. Code, U.S. public land survey monument record.
  ch. A-E 7.06, Wis. Admin. Code, Measurements.
  s. 236.15, Wis. Stats. Surveying requirements.
- Wisconsin County Surveyor's Association **survey grade** standard:
  Coordinates collected under the direction of a Professional Land Surveyor, in a coordinate system allowed by s. 236.18(2), and obtained by means, methods and equipment capable of repeatable 2 centimeter or better precision.

Other Geodetic Control and Control Networks

92 HARN monuments

Layer Status

- These are Wisconsin Department of Transportation monuments used for the height modernization program. The data was originally collected in State Plane Coordinates and was converted into Wisconsin County Coordinate System – Outagamie County.

Custodian

- WI DOT

Maintenance

- Static

Standards

- See WI DOT

Parcel Mapping

Parcel Geometries

Layer Status

- 100% complete and maintained on a daily basis.
- 100% of the County's parcels are available in any ESRI based format. The parcels are also available via free download at www.outagamie.org
- Transverse Mercator projection and Wisconsin County Coordinate System – Outagamie County
- Parcel data can be tied by parcel number to include attributes from the tax data, ie. Fair market value, land code class. Assessment data is not maintained by the County.
- We currently do not have any plans to implement the Esri Parcel Fabric Data Model, and/or Esri's Local Government Information Model

Custodian

- Outagamie County Planning Department – GIS Staff

Maintenance

- Outagamie County Planning Department – GIS Staff

Standards and Documentation

- We have metadata in human-readable form, including definitions for each element/attribute name, and explanations of any county-specific notations, particularly for parcel attributes listed by s. 59.72(2)(a)

Assessment/Tax Roll Data

Layer Status

- Ascent technologies and County Treasurer provide tax and assessment data.

Custodian

- County Treasurer

Maintenance

- Daily

Standards

- s. 73.03(2a), Wis. Stats. Department of Revenue (DOR) – Powers and duties defined. Department of Revenue Property Assessment Manual – Chapter 5 and DOR format standard requested by DOR for assessment/tax roll data
- s. 59.72(2)(a), Wis. Stats. Presence of all nine "Act 20" attributes
- s. 59.72(2)(a), Wis. Stats. Crosswalk of attributes

Act 20 Attributes Required by s. 59.72(2)(a)	Field Name(s) in County Land Info System	Notes on Data or Exceptions to DOR Standard
Assessed value of land	LNDVALUE	
Assessed value of improvements	IMPVALUE	
Total assessed value	CNTASSDVALUE	
Class of property, as specified in s. 70.32 (2)(a)	PROPCLASS	
Estimated fair market value	ESTFMKVALUE	
Total property tax	GRSPRPTA	
Any zoning information maintained by the county		Maintained in separate feature class
Any property address information maintained by the county	SITEADRESS	
Any acreage information maintained by the county	GISACRES	Also maintain assessed and deeded acres

Non-Assessment/Tax Information Tied to Parcels

Special exception, shoreland zoning, conditional use, erosion control/storm water, variances, airport and sanitary permits

Layer Status

Updated as needed

Custodian

Outagamie County Zoning Department

Maintenance

Outagamie County Planning and Zoning Departments

Standards

none

ROD Real Estate Document Indexing and Imaging

Status

- **Grantor/Grantee Index** Grantor/Grantee index is complete thru October 1, 1990. We continue to back key and add information to those indexes.
- **Tract Index**. The Tract index was scanned in early 2015 and is currently in the process of being implemented using an online application. It will be live by the end of 2015. All papers are entered by legal description as the County does not currently require parcel numbers on documents.
- **Imaging**. The County has all real estate record books scanned and available via the County's imaging system, LaserFiche. Before 1990, a document number is the only way to find the document. After 1990, a search by name can be used.

Custodian

- County Register of Deeds

Maintenance

Daily

Standards

- s. 59.43, Wis. Stats. Register of deeds; duties, fees, deputies.
- ch. 706, Wis. Stats. Conveyances of real property; Recording; Titles.

LiDAR and Other Elevation Data

LiDAR

Layer Status

- In 2005 we acquired bare earth and point cloud data.
- The raw LiDAR data density (posting) is approximately 3 meters

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- Data is static

Standards

- N/A

LiDAR Derivatives

Layer Status

- 2’ contours and DEM

Custodian

- Outagamie County Land Conservation and Planning Departments

Maintenance

- Data is static

Standards

- N/A

Other Types of Elevation Data

Layer Status

- N/A

Custodian

- N/A

Maintenance

- N/A

Standards

- N/A

Orthoimagery

Orthoimagery

Layer Status

- Spring 2014
- 6" resolution flying height was at appropriate altitude to produce digital orthophotography at 1"= 100' scale at 0.5 pixel resolution. The entire project area meets or exceeds American Society for Photogrammetry and Remote Sensing (ASPRS) Accuracy Standards for Large Scale Maps.
- Outagamie County participated in a multi County consortium with Oconto, Brown, Manitowoc, Sheboygan and Calumet Counties.
- Next planned flight will be spring 2017 or 2018

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- None

Standards

- See above

Historic Orthoimagery

Layer Status

- 1938, 1957, 1964, 1970, 1980, 1992, 2000, 2005, 2010 and 2014.

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- Static

Standards

- Standards have changed for every year of acquisition. Too many to list here.

Other Types of Imagery

Layer Status

- Infra-red 2010

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- None

Standards

- Contact vendor

Address Points and Street Centerlines

Address Point Data

Layer Status

- Address points created 2001. Address point is located on the center of the driveway for jurisdictions that we issue addresses for. For other municipalities, the point is located in the center of the parcel.

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- Daily

Standards

The numbering system is based on a grid that begins in the southeast corner of the County and then extends out to the north and west. The numbering system is based on a new address every 13.2 feet or 400 addresses per mile.

Building Footprints

Layer Status

- There are two sets, one from 2010 and another from 2014. This data was created based off of the respective aerial photography.

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- As needed

Standards

- No metadata received from vendor.

Other Types of Address Information

Layer Status

- Address range data are attributed to our street centerline data. This was created in 2000 and has been continually enhanced.

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- As needed

Standards

- Must meet software standard for our E911.

Street Centerlines

Layer Status

- The street centerline data was created based off of the 2000 aerial photography as well as the 2000 parcel maps. The data is continually enhanced.

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- As needed

Standards

- Must meet software standard for Motorola Premier One CAD 911. Attribute information matches Intrado MSAG naming conventions as well as local naming convention.

Rights of Way

Layer Status

- Right of way polygons are a separate layer in the parcel dataset.

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- Maintained daily along with the parcel data.

Standards

- Must follow our parcel topology rules.

Trails

Layer Status

- County owned/maintained trails.

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- As needed

Standards

- Created this layer based on current orthophotography.

Land Use

Current Land Use

Layer Status

- Land use based off of 2010 orthophotography.

Custodian

- East Central Wisconsin Regional Planning Commission

Maintenance

- Static

Standards

- Contact ECWRPC

Future Land Use

Layer Status

- Created based on Municipalities comprehensive plans.

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- As comprehensive plans get updated.

Standards

s. 66.1001, Wis. Stats. Future land use maps are typically created through a community's comprehensive planning process. Future land use mapping for a county may be a patchwork of maps from comprehensive plans adopted by municipalities and the county.

Zoning

County General Zoning

Layer Status

- Converted from paper maps in early 2000's. General zoning is not parcel based.

Custodian

- Outagamie County Planning and Zoning Department – GIS staff

Maintenance

- As rezoning occur.

Standards

- Must follow legal description.

County Special Purpose Zoning

Shoreland, farmland preservation, floodplain, airport height limitation, airport zoning

Layer Status

Shoreland zoning is based off of permits and is not parcel based. Farmland preservation is parcel based. Floodplain is based off of data from FEMA and WI DNR. Airport height limitation layer was prepared by the Wisconsin Bureau of Aeronautics (6/05). Airport zoning was derived off of the 1990 Zoning Ordinance Z-16-90. This ordinance covers airport property, the airport industrial park and the airport overlay districts. Zone 3A was created in March of 2012.

Custodian

- Outagamie County Planning and Zoning Departments – GIS Staff

Maintenance

- As needed

Standards

- See County Zoning ordinances.

Municipal Zoning Information Maintained by the County

Town of Grand Chute, Greenville, Hortonia, and Black Creek have their own zoning that we maintain. Town of Maine has no zoning. Town of Kaukauna has their own zoning and we do not get their updates.

Layer Status

- Working on getting Town zoning into our GIS.

Custodian

- Outagamie County Planning and Zoning Departments – GIS staff

Maintenance

- As needed

Standards

- Zoning data follows legal description.

Administrative Boundaries

Civil Division Boundaries

Layer Status

- Complete Town, City, and Village municipality layer.

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- As needed

Standards

- Boundaries change based on recorded legal documents.

School Districts

Layer Status

- Complete school district layer
- Based off of the tax roll data. Parcel layer with school district name as an attribute.

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- Once a year after the freeze of the tax year.

Standards

- Follows parcel boundaries.

Election Boundaries

Voting Districts, Precincts, Wards, Polling Places

Layer Status

- The layers listed above are complete.
- Ward boundaries are accurate to the 2010 redistricting process and any annexations reported to the County Clerks office post April 2010.
- Voting precincts are based off of the ward data.
- Polling places were provided by the County Clerk.

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- As needed

Standards

- Ward data is changed by Municipal annexations via legal description.

Utility Districts

Gas and Electric Service Areas

Layer Status

- Received layers from the Public Service Commission of Wisconsin.

Custodian

- PSC of WI

Maintenance

- Static

Standards

- See PSC of WI

Public Safety

Layer Status

- Emergency service districts maintained by beat location. This includes ambulance, first responder, fire, police, tow contractor and common place point locations.

Custodian

- Outagamie County Planning Department – GIS staff and Outagamie County Sheriff's Department – Communication center.

Maintenance

- Daily

Standards

- Common name attribute information matches Intrado MSAG naming conventions as well as local naming convention. Must meet software standard for Motorola Premier One CAD 911.

Lake Districts

Layer Status

- N/A

Custodian

- N/A

Maintenance

- N/A

Standards

- N/A

Native American Lands

Layer Status

Outagamie County property related information describing land owned by the Oneida Tribe of Indians and land held in USA Trust for Oneida Tribal members. Created based off of the tax roll data.

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- Annually

Standards

- Follows parcel standards.

Other Administrative Districts

e.g., county forest land, parks, etc.

Layer Status

- County forest land, open space and parks layer is complete. Park layer includes all parks within the County. It was updated in 2013.

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- As needed

Standards

- Based off of orthophotography and parcel data.

Other Layers

Hydrography Maintained by County or Value-Added

e.g., hydrography maintained separately from DNR or value-added, such as adjusted to orthos

Layer Status

- Navigable and non-navigable streams and 300' buffers of navigable streams are complete and maintained as changes occur. These are adjusted to orthophotography in some cases.

Custodian

- Outagamie County Planning and Zoning Department – GIS staff

Maintenance

- As needed

Standards

- Must be determined navigable by Zoning or WI DNR.

Cell Phone Towers

Layer Status

- This layer was created from data supplied by cell phone companies and use of orthophotography.

Custodian

- Outagamie County Planning Department – GIS staff

Maintenance

- As needed

Standards

- none

Bridges and Culverts

Layer Status

- Bridges were created in 2005 based on orthophotography, County Highway data and field verification. Culverts were created by intersecting streams with roads, railroads and trails.

Custodian

- Outagamie County Planning, Highway and Land Conservation Departments

Maintenance

- Bridges are complete and updated as needed. Culverts are still being verified.

Standards

- None

Other

e.g., pipelines, railroads, non-metallic mining, sinkholes, manure storage facilities, etc.

Layer Status

The U.S. Department of Transportation (U.S. DOT), Pipeline and Hazardous Materials Safety Administration (PHMSA) is working with other federal and state agencies and the pipeline industry to

create a National Pipeline Mapping System (NPMS). The NPMS is a full-featured geographic information system (GIS) containing the location and selected attributes of the major gas transmission and hazardous liquid transmission pipelines operating in United States and other offshore entities. The NPMS also contains the location of Liquefied Natural Gas (LNG) plants and some breakout tanks. Michael Baker Jr., Inc. (Baker), as the primary contractor assumes all responsibilities of the NPMS National Repository regarding NPMS database updates, synchronization, and maintenance. Source data is contributed annually by pipeline operators to the National Repository. This metadata is for the entire national dataset.

Distribution of NPMS data is handled for PHMSA by the National and repository and is limited to pipeline operators and local, state, and federal government officials. Neither the United States Government nor any party involved in the creation and compilation of NPMS data and maps guarantees the accuracy or completeness of the products. NPMS data has a target accuracy of +/- 500 feet and resides in geographic coordinates. NPMS data must never be used as a substitute for contacting the appropriate local one-call center prior to digging.

Custodian

- US DOT

Maintenance

- Static

Standards

- See US DOT

3 LAND INFORMATION SYSTEM

The WLIP seeks to enable land information systems that are both modernized and integrated. Integration entails the coordination of land records to ensure that land information can be shared, distributed, and used within and between government at all levels, the private sector, and citizens.

LAND INFORMATION SYSTEM

An orderly method of organizing and managing land information and land records

– Wis. Stats. section 16.967(1)(c)

One integration requirement is listed under s. 16.967(7)(a)(1), Wis. Stats., which states that counties may apply for grants for:

> The design, development, and implementation of a land information system that *contains and integrates*, at a minimum, property and ownership records with boundary information,
>
> including a parcel identifier referenced to the U.S. public land survey; tax and assessment information; soil surveys, if available; wetlands identified by the department of natural resources; a modern geodetic reference system; current zoning restrictions; and restrictive covenants.

This chapter describes the design of the county land information system, with focus on how data related to land features and data describing land rights are integrated and made publicly available.

Current Land Information System

Diagram of County Land Information System

- Land Information Officer
- GIS specialist
- Register of Deeds
- Treasurer
- Real Property Lister
- Public safety or emergency communications office
- County surveyor
- Zoning administrator
- Any other departments/offices

Figure 1. Outagamie County Land Information System

County Parcel Data Workflow Diagram

This required section features a diagram that documents your county's parcel mapping and tax roll process. The diagram can be general and simple. Complex diagrams are welcome, but the purpose of the parcel workflow is for WLIP staff and other readers to better understand the various aspects of parcel data creation and maintenance, which greatly vary from county to county.

The workflow diagram for parcel data should depict:

- Major components of parcel data, especially those referenced by s. 59.72(2)(a), including: 1) parcel polygons, 2) tax roll data, and 3) zoning information

- Integration of parcel polygons with other data/attributes, if applicable
- Departments/offices/staff involved with the creation and maintenance of parcel data

Parcel +Tax Roll + Zoning Workflow – Example

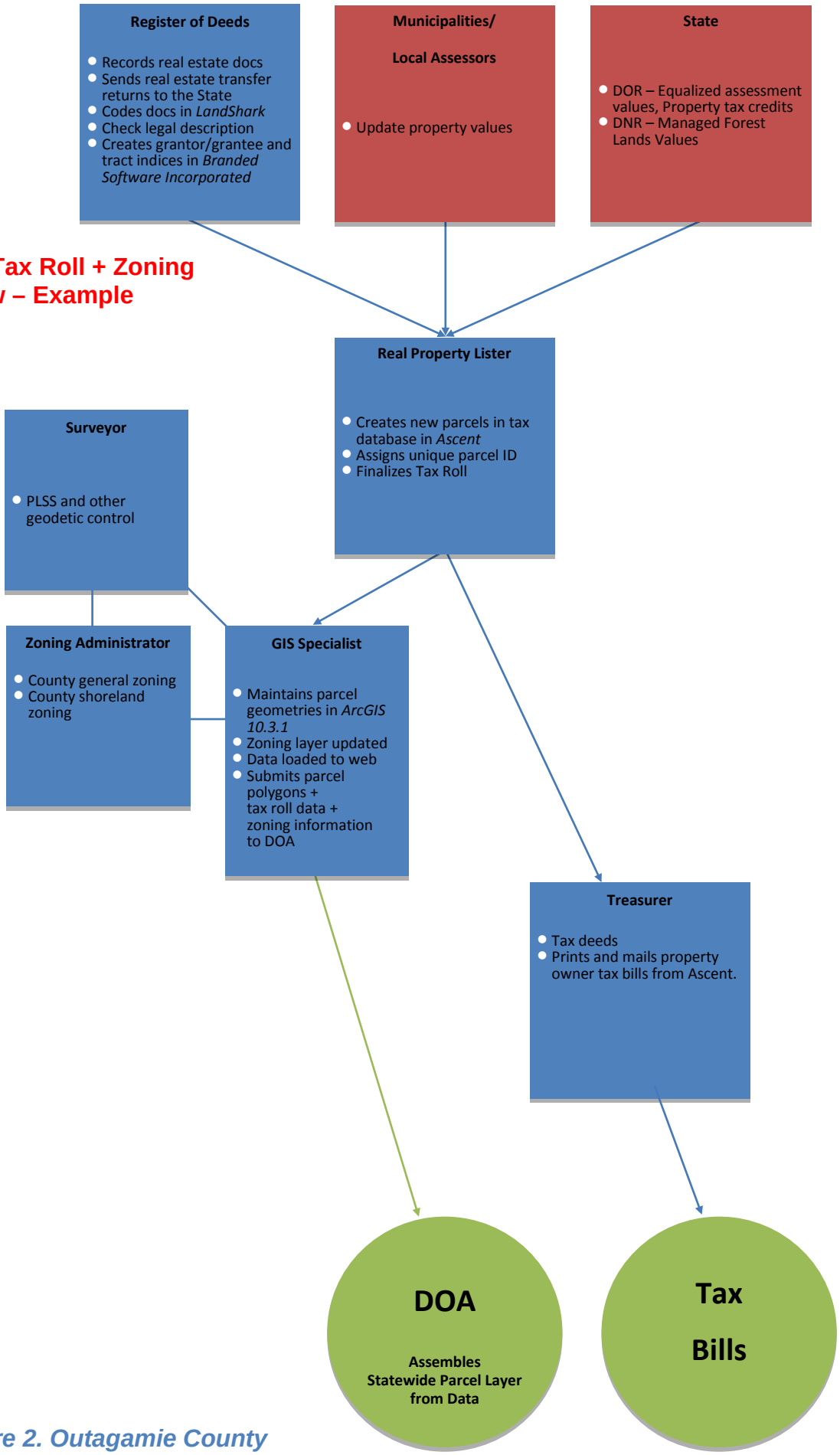

Figure 2. Outagamie County Parcel + Tax Roll + Zoning Workflow

Technology Architecture and Database Design

This section refers to the hardware, software, and systems that the county uses to develop and operate computer systems and communication networks for the transmission of land information data.

County's environment is a mix between internal and cloud solutions. Outagamie County utilizes two production ArcGIS servers, two database servers and hosts web applications internally as well as in ArcGIS Online. The County uses a virtual environment with an offsite backup data center.

Software used is the ArcGIS and Microsoft suite of products. Treasurer's office uses the Ascent Land Records system. Register of Deeds uses TriMIN products. The County uses LaserFiche for the document management system.

Costs associated with ongoing technology expenditures or projected expenditures can optionally be listed in Chapter 4. As a reminder, the annual "County Retained Fee/Grant Report" due to DOA at the end of the state fiscal year on June 30th provides detailed information on expenditures.

Metadata and Data Dictionary Practices

We use ArcCatalog to create and maintain the feature dataset and feature class metadata. The metadata is consistent with the FGDC Content Standard for Digital Geospatial Metadata. The metadata is included with each feature class on our data download website. Our organization does not have any policies for metadata creation, however we do make every effort in supplying the minimum FGDC requirements.

Municipal Data Integration Process

City of Appleton and Outagamie County have a memorandum of agreement for Outagamie County to host Appleton's parcel, street centerline and address data within our ArcGIS environment.

Public Access and Website Information

List websites for public access to land information, perhaps in a table format as in the example below. If your county has one single URL for multiple functions (GIS webmapping, land records search, tax parcel search, zoning, and PLSS tie sheets), make sure it is clear to the reader that one website serves as a portal and/or achieves multiple functions. If county zoning information is available online—whether through an app , PDF map, or other format—note that as well.

Public Access and Website Information – Example

Type of Website	Software or App	3rd Party or Contractor	URL	Update Frequency/ Cycle
GIS webmapping site	*WebGUIDE Extreme*	*Applied Data Consultants*	http://outagamiecowi.wgxtreme.com/	Daily
ROD land records search tools	*LandShark*	*TriMin*	https://landshark.co.outagamie.wi.us/LandShark/login.jsp?logout=1&url=https%3A%2F%2Flandshark.co.outagamie.wi.us%2FLandShark%2Fsearchname.jsp	Daily
RPL or tax parcel site	*ALRS*	*Transcendent Technologies*	http://ascent.outagamie.org/LandRecords/PropertyListing/RealEstateTaxParcel#/Search	As records are updated
Zoning information (PDF or WebApp format)	*WebGUIDE Extreme*	Applied Data Consultants	http://outagamiecowi.wgxtreme.com/	Daily
PLSS tie sheets	*PLSS Finder*	OC Planning	http://gis.outagamie.org/maps/PLSSFinder/s2.html?app=apps2/Finder	Daily
Tourism (places and activites finder)	Javascript	OC Planning	https://gis.outagamie.org/maps/tourism/default.htm	Weekly
Election Polling Place Locator	Javascript	OC Planning	http://gis.outagamie.org/maps/ElectionPollingPlace/default.htm	Quarterly
FEMA Floodplain Viewer	Javascript	OC Planning	http://gis.outagamie.org/maps/FEMAViewer/s2.html?app=apps2/Finder	Static
Property Forecloser Viewer	Javascript	OC Planning	http://gis.outagamie.org/maps/foreclosures/index.html	Weekly
Historical Air Photo Viewer	Flex	OC Planning	https://gis.outagamie.org/maps/historicaerials/index.html	Static
LiDAR Download	Javascript	OC Planning	http://gis.outagamie.org/maps/lidar/index.html	Static
LOMA Viewer	Javascript	OC Planning	http://gis.outagamie.org/maps/LOMA/index.html	As letter of map amendments take place
Plat Book Viewer	Javascript	OC Planning	http://gis.outagamie.org/maps/Platbookviewer/s2.html?app=apps2/Finder	Daily
Crime Mapping	Javascript	Omega Group	http://www.crimemapping.com/map/wi/outagamiecounty	Weekly

Data Sharing

Data Availability to Public

Data is updated weekly and shared by map services, web applications and a free data download site. (see above table)

Data Sharing Restrictions

Outagamie County does not have any restrictions on data distribution or download. Currently only customers that have an account through the Register of Deeds are allowed to search by name on the WebGUIDE Extreme site. Or customers that visit any of the County facilities that have public kiosks are able to search by name.

Government-to-Government Data Sharing

Outagamie County does not have any government to government data sharing restrictions.

Training and Education

During the budget planning process training and education is a high priority. The GIS staff is encouraged to attend national conferences on a rotational basis. GIS staff also attends Wisconsin Land Information and EWUG sponsered events.

4 CURRENT & FUTURE PROJECTS

Project #1: Enterprise permitting and licensing system

Outagamie County plans to implement a new enterprise permitting/licensing system in 2017.

Business Drivers

Currently there are many Departments involved with issuing permits, licenses or handling reservations. There are a variety of methods used ranging from paper, spreadsheets, databases and GIS.

Objectives/Measure of Success

Feasibility of a consistant platform for end-users.
Opportunities for improved reporting capabilities.
Integrations between County systems.
Area for improved mobile device functionality.
Opportunities for improved workflow and communication between departments.
Public/contractor self-service (eGovernment) functionality.
Point of sale and cash receipting imporvements.

Project Timeframes

Start: October 21,2015
Needs assessment report complete: December, 2015
RFP distributed: February, 2016
Vendor selected and project budgeted: June, 2016
Begin system implementation: 1st quarter, 2017

Responsible Parties

3rd party consultant (70%), GIS, Zoning, Highway, MIS, Land Conservation, Coroner, Treasurer, Parks, Clerk, Health and Human Services, Executive's office, Finance (30%).

Estimated Budget Information

See table below

Project #2: PLSS maintenance and County Highway Remonumentation

Project Description/Goal

Continue PLSS maintenance as corners get disturbed or destroyed. Also, the County requests proposals from a contracted 3rd party to conduct remonumenation along County Highway's where the County Highway Department has anticipated projects.

Business Drivers

- High priority to maintain survey grade accuracy for PLSS monuments
- Helps prepare Highway Department for upcoming road projects

Objectives/Measure of Success

Sucessfully maintain all PLSS monuments that have been disturbed or destroyed
Successfully procured remonumenation documentation and field markers along County Highways

Project Timeframes

Milestone	Duration	Date
Project #2 start - Maintenance	All year	First Quarter, 2016
County Highway Remonumentation	6 months	Second Quarter, 2016
Project Complete	–	Dec 31, 2016

Responsible Parties

County Surveyor (75%), Contractor for County Highway Remonumentation (25%)

Estimated Budget Information

See table below.

Project #3: Maintenance and integration of GIS and land records software

Project Description/Goal
Annual maintenance of land records and GIS software.

Business Drivers
- Critical to stay up to date as technology changes

Objectives/Measure of Success
- Annual maintenance of land records and GIS software
- Stay current with industry trends and interfaces

Project Timeframes

Milestone	Duration	Date
Project #3 start	–	ongoing
Annual maintenance	–	ongoing

Responsible Parties
GIS Coordinator/Land Information officer, Register of Deeds, Treasurer, MIS

Estimated Budget Information
See table below

Project #4: Orthophotography and derivitives

Project Description/Goal
Acquire high resolution orthophotgraphy

Business Drivers
- Land Use Planning
- Zoning violations
- Changing landscape

Objectives/Measure of Success
- Accurate orthophotography tied to PLSS
- Clear, minimal shadows and building lean

Project Timeframes

Milestone	Duration	Date
Project #4 start	spring-summer	2017/2018
Perform QA/QC	Month	2017/2018
Project Complete		End of 2017

Responsible Parties
Outside vendor (90%) GIS (10%)

Estimated Budget Information
See table below

Project #5: LiDAR and derivitives

Project Description/Goal

Acquire accurate LiDAR and derivitives

Business Drivers

- Calculate water flow
- Drainage districts
- Builiding Footprints
- Changing landscape

Objectives/Measure of Success

- Accurate LiDAR

Project Timeframes

Milestone	Duration	Date
Project #5 start	spring-summer	2017/2018
Perform QA/QC	Summer-fall	2017/2018
Project Complete		1st quarter 2018

Responsible Parties

Outside vendor (80%) GIS (10%) LCD (10%)

Estimated Budget Information

See table below

Project #6: Staff Development and Training

Project Description/Goal
Educate and train staff on changing and emerging technology

Business Drivers
- Changing and emerging technology
- Improve workflow
- Interdepartmental cooperation
- Transparancy for the public

Objectives/Measure of Success
- High quality and easy to use GIS and Land Records system

Project Timeframes

Milestone	Duration	Date
Project #5 start	Ongoing	2016-2018

Responsible Parties
GIS (70%), LCD (10%), ROD (10%),Treasurer(10%)

Estimated Budget Information
See table below

Project #7: Limited Term Project Staffing

Project Description/Goal

As projects arise there is a need to limited term staffing to assist, either an intern or a limited term employee

Business Drivers

- Assist in data creation
- Assist GIS staff with application development and testing

Objectives/Measure of Success

- Finished data or application that meets a business need

Project Timeframes

Milestone	Duration	Date
Project #6 start	Ongoing	2016-2018

Responsible Parties

GIS (100%)

Estimated Budget Information

See table below

Project #8: PLSS Rediscovery and Remonumentation of Missing Meander Corners

Project Description/Goal

Currently Outagamie County has 95% of the PLSS complete. 210 Meander corners will need to be rediscovered and remonumented with survey-grade corrdinates under the direction of a professional land surveyor, in a coordinate system allowed by s. 236.18(2), and obtained by means, methods and equipment capable of repeatable 2 centimeter or better precision. Tie sheets will be created and shown online.

Business Drivers

- Complete 100% PLSS framework

Objectives/Measure of Success

- Complete 100% PLSS framwork

Project Timeframes

Milestone	Duration	Date
Project #8 start		2016
Rediscover/Remonument Approximately 60 corners	1 year	Jan-Dec 2016
Rediscover/Remonument Approximately 60 corners	1 year	Jan-Dec 2017
Rediscover/Remonument Approximately 60 corners	1 year	Jan-Dec 2018
Rediscover/Remonument Approximately 30 corners	1 year	Jan-Dec 2019
Project Complete		2020

Responsible Parties

County Surveyor (15%) Private Surveyor (80%), GIS (5%)

Estimated Budget Information

See table below

Project	Item	Unit Cost	Cost	Total Project Cost
1. **Permitting/Licensing System**	a. Needs Assessment/RFP specifications	$80,000	80,000	**$80,000**
	b. Implementation of System	Cost unknown at this time	Cost unknown at this time	Cost unknown at this time
2. **PLSS Maintenance with survey grade GPS coordinates**	a. County surveyor conducts annual PLSS maintenance	$25,000	$75,000	
	b. 3rd Party County Highway Remonumentation	$40,000	$120,000	**$195,000**
3. **Maintenance of land records, websites and GIS software**	a. Maintenance	$110,000	$330,000	**$330,000**
4. **Orthophotgraphy and derivitives**	a. Acquisition	$70,000	$70,000	**$70,000**
5. **LiDAR and derivitives**	a. Acquistion	Cost unknown at this time	Cost unknown at this time	Cost unknown at this time
6. **Staff Development & Training**	a. Education	$17,000	$51,000	**$51,000**
7. **LTE/Intern Project Staffing**	a. Temporary staffing	$15,000	$45,000	**$45,000**
8. **Rediscovery meander corners**	a. Rediscovery and Remonumentation of Meander Corners	$500-$800	$105,000-$174,000	**$105,000-$174,000**
			GRAND TOTAL	**945,000**

Note. These estimates are provided for planning purposes only. Budget is subject to change.