

# Green County

# Land Information Plan

2022-2024

\*\*Wisconsin Land Information Program  
Wisconsin Department of Administration  
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[www.doa.wi.gov/WLIP](http://www.doa.wi.gov/WLIP)

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# EXECUTIVE SUMMARY

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**About this Document.** This document is a land information plan for Green County prepared by the land information officer (LIO) and the Green County land information council. Under state statute 59.72(3)(b), 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 businesses and county residents.

**WLIP Background.** 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 2020, Green County was awarded \$94,128 in WLIP grants and retained a total of \$74,136 in local register of deeds document recording fees for land information.

This 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 in Green County.** Land information is central to county operations, as many departments benefit from, and rely on, accurate and up-to-date geospatial data and land records to aid in their decision-making. The Green County land information system integrates land ownership data, political boundaries, and physical landscape information into one geographically aware database. County employees access this data via web mapping applications for day-to-day use and can request custom products from the Land Information Office on an individual project basis.

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

**Land Information Office Projects.** To realize this mission, in the next three years, the county land information office will focus on the following projects:

Green County Land Information Projects: 2022-2024	
Benchmark 4	Work Toward 100% PLSS Remonumentation. Migrate to ESRI Parcel Fabric
Project #2	Next Generation 9-1-1 GIS
Project #3	Updates, Upgrades; Web Maps; New Hardware
Project #4	Right-of-Way Mapping including Railroad ROW
Project #5	Aerial Photo, LiDAR, and Derivative Datasets
Project #7	Survey Lots QC and Indexing per Parcel / LRS “Tags”

The remainder of this document provides more details on Green County and the WLIP, summarizes current and future land information projects, and reviews the county’s status in completion and maintenance of the map data layers known as Foundational Elements.

# 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
- Coordinate the sharing of parcel/tax roll data with the Department of Administration in a searchable format determined by DOA under s. 59.72(2)(a)

## 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 59.72(1)(a)

Any grants received and fees retained for land information through the WLIP must be spent consistent with the county land information plan.

## 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 made funding available to counties in the form of Strategic Initiative grants to be prioritized for the purposes of parcel/tax roll dataset improvement.

For Strategic Initiative grant eligibility, counties are 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—were determined through a participatory planning process. Current benchmarks are detailed in the WLIP grant application, as will be future benchmarks.

### WLIP Benchmarks (For 2016-2021 Grant Years)

- Benchmark 1 & 2 – Parcel and Zoning Data Submission/Extended Parcel Attribute Set Submission
- Benchmark 3 – Completion of County Parcel Fabric
- Benchmark 4 – Completion and Integration of PLSS

More information on how Green County is meeting these benchmarks appears in the Foundational Elements section of this plan document.

## County Land Information System History and Context

1989: Passage of statutory act creating the Wisconsin Land Information Board

1990: Land Records Modernization Planning started as a result of 1989 statutory act

- Original goals included the creation of a CAD parcel map, mapping of zoning data, digitization of pertinent land records documents, and acquisition of aerial photography.

1999: First major rewrite of the county's Land Records Modernization Plan

- Accomplishments up to this point included:
  - Completion of County Remonumentation Plan (1996)
  - Implementation of a document imaging system containing 33,350 documents (1996)
  - Acquisition of digital aerial photography, county wide 10 foot contours, hydrography center lines and road center lines (1995-1996)
- Goals in 1999 Land Records Modernization Plan:
  - Begin parcel mapping in CAD/GIS
  - Integrate WLIB parcel numbering system into existing tax database
  - Establish interdepartmental data sharing network
  - Mapping of zoning data and acquisition of soils dataset

2005: New version of Land Records Modernization Plan

- Accomplishments between 1999 and 2005 plans
  - Completion of parcel mapping for entire county (2004)
  - Completion of address mapping for entire county (2004)
  - 108,354 documents digitized and stored in document imaging system
  - School district and supervisory district GIS datasets created (2005)
- Goals in 2005 Land Records Modernization Plan
  - Geo-code road centerlines to allow linear referencing of assets
  - Make data available on-line: Register of Deeds scanned documents, zoning information, and survey records
  - Create Emergency Services and Fire District GIS datasets

2010: New version of Land Records Modernization Plan

- Accomplishments between 2005 and 2010 plans
  - Parcel data converted from CAD to ESRI Geodatabase format
  - Implementation of ESRI workgroup SDE in SQL Express
  - New Land Records System adopted to manage land ownership and tax data
  - GIS capabilities and land records data being used by other departments to make work more efficient
- Goals in 2010 Land Records Modernization Plan
  - Expand use of web delivered GIS resources for focused, specific departmental use
  - Improve land information base map by integrating high quality control coordinates into existing GIS
  - Enhance data used by Emergency Management and the Sheriff's Department for 911 dispatching and record keeping

2016: New version of Land Records Modernization Plan; amended mid-2016

- Accomplishments between 2010 and 2016 plans
  - Internal GIS position created
  - Searchable format met for parcel data
  - Complete PLSS tie-sheet scanning and near-complete database population
  - Update of Land Records webpage and creation of public and department-specific apps
  - Review of mapping concerning annexations and school district "islands"
  - Review of county zoning map
- Goals in 2016 Land Records Modernization Plan

- Improve parcel mapping positional accuracy
- Further the use of web mapping applications by county departments and the public by increased support and tailoring of products

2019: New version of Land Records Modernization Plan

- Accomplishments between 2016 and 2019 plans
  - Perpetuation of PLSS section corners, remonumentation on county border
  - Automated PDF parcel maps used by assessors
  - Groundwater study assistance, locating of wells by construction reports
  - Mapping of all government/fractional lots
  - Mapping of farmland preservation, CREP lands for conservation purposes
  - Completion of subdivision and condominium plat scanning and mapping
  - Review of school district boundaries against parcel dataset
  - Review of zip code references in site addresses, road centerlines
  - 2017 aerial photo (WROC), improved-accuracy PLSS locations by aerial photo/tie-sheet comparison (intermediate, pre-survey solution allowing validation/completion of PLSS database/platform)
  - 911 data validation for sheriff/dispatch
- Goals in 2019 Land Records Modernization Plan
  - Completion of RE tax parcel mapping, 100% of parcels
  - Work toward 100% PLSS remonumentation inclusive of survey grade coordinates
  - Background updates, upgrades per web maps and servers
  - Parcel-related mapping beyond tax parcels, including right-of-way, railroad ROW
  - Migration to ESRI Parcel Fabric, horizontal accuracy improvements

Wisconsin Act 10: Biennial state budget for 2011-2013 creates requirement for county land information council.

Wisconsin Act 20: Biennial state budget for 2013-2015 creates statutory directives for state and local governments to coordinate on development of a statewide digital parcel map. In addition, Act 20 mandates the creation of a funding source for strategic WLIP investments. The first strategic WLIP investment (“Strategic Initiative Grant”) is designed to help local governments meet the requirements of the statewide digital parcel map.

### County Land Information Plan Process

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. The 2022-2024 plan, completed at the end of 2021, is the third post-Act 20 required update.

### County Land Information Plan Timeline

- DOA release of finalized instructions by March 31, 2021.
- April–September 2021: Counties work on land info plans.
- Draft plans due to DOA by September 30, 2021 (but sooner is advised).
- Final plans with county land info council approval due by December 31st, 2021.

### 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.

This plan was prepared by the county LIO, with Green County Land Information Council oversight and consideration.

<b>Green County Land Information Council and Plan Workgroup</b>				
<b>Name</b>	<b>Title</b>	<b>Affiliation</b>	<b>Email</b>	<b>Phone</b>
+ <b>Robert Sommers</b>	Land Information Officer	Green County Treasurer's Office, Green County Land Information Office	rsommers@greencountywi.org	608-328-9635
+ <b>Sherri Hawkins</b>	Treasurer / Real Property Lister designee	Green County Treasurer's Office	shawkins@greencountywi.org	608-328-9435
+ <b>Cindi Meudt</b>	Register of Deeds	Green County Register of Deeds Office	cmeudt@greencountywi.org	608-328-9439
+ <b>Art Carter</b>	County Board Member / LIC chair	Green County Board	acarter@greencountywi.org	
+ <b>Barb Krattiger</b>	County Board Member / Realtor / LIC vice-chair	Green County Board	bkrattiger@greencountywi.org	
+ <b>Richard Thoman</b>	County Board Member	Green County Board	rthoman@greencountywi.org	
+ <b>Nick Hartwig</b>	County Board Member	Green County Board	nhartwig@greencountywi.org	
+ <b>Mark Gundlach</b>	County Board Member	Green County Board	mgundlach@greencountywi.org	
+ <b>Tom Moczynski</b>	Public Safety Officer	Green County Sheriff's Office	moczynskit@greensheriff.com	608-328-9617
+ <b>Hans Justeson</b>	Registered Professional Land Surveyor	JSD Professional Services, Inc.	hans.justeson@jsdinc.com	608-848-5060

+ Land Information Council Members designated by the plus symbol

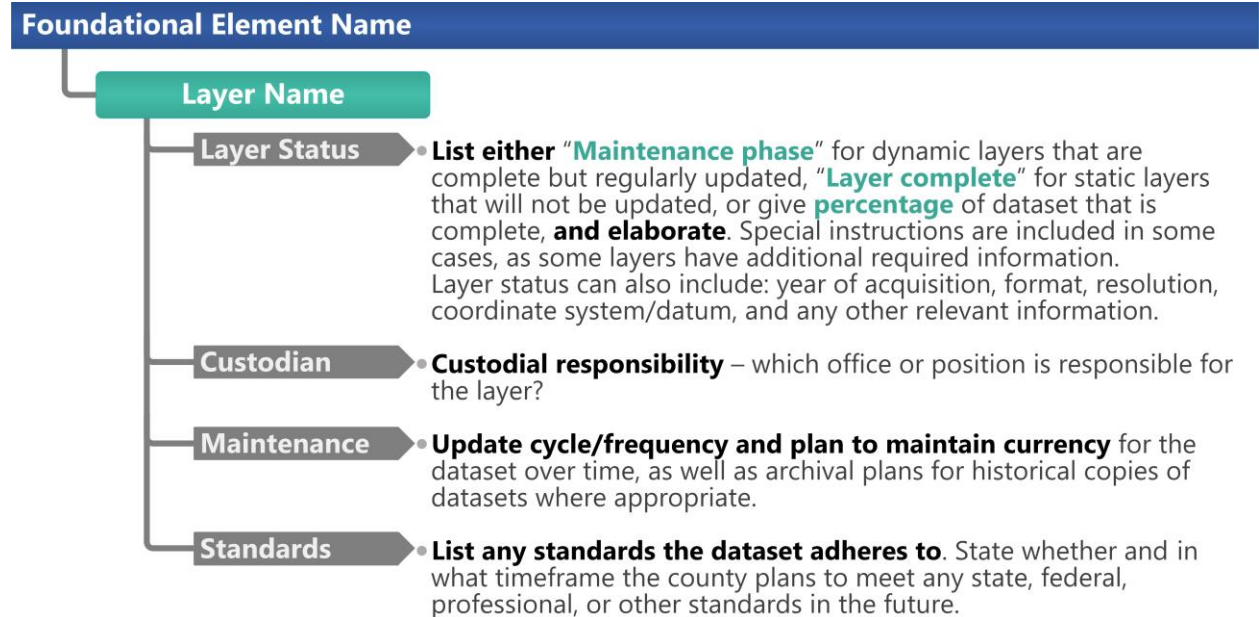
# 2 FOUNDATIONAL ELEMENTS

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 to conduct most mapping and geospatial analysis.

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, this plan places 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.

## FOUNDATIONAL ELEMENTS

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





# PLSS

## Public Land Survey System Monuments

### Layer Status

#### PLSS Layer Status

	Status/Comments
Number of PLSS corners (section, ¼, meander) <b>set in original government survey</b> that can be remonumented in your county	<ul style="list-style-type: none"> <li>~2112</li> </ul>
Number and percent of PLSS corners capable of being remonumented in your county that <b>have been remonumented</b>	<ul style="list-style-type: none"> <li>~2112 or greater than 95% - during the 1970s-1990s the entire county was remonumented</li> </ul>
Number and percent of remonumented PLSS corners with survey grade coordinates (see below for definition) <ul style="list-style-type: none"> <li><b>SURVEY GRADE</b> – coordinates collected under the direction of a Professional Land Surveyor, in a coordinate system allowed by 236.18(2), and obtained by means, methods and equipment capable of repeatable 2 centimeter or better precision</li> <li><b>SUB-METER</b> – point precision of 1 meter or better</li> <li><b>APPROXIMATE</b> – point precision within 5 meters or coordinates derived from public records or other relevant information</li> </ul>	<ul style="list-style-type: none"> <li>~509 or 24%</li> </ul>
Number and percent of survey grade PLSS corners integrated into county digital parcel layer	<ul style="list-style-type: none"> <li>~221 or 10% and ~288 or 14% integrated into PLSS feature class</li> </ul>
Number and percent of non-survey grade PLSS corners integrated into county digital parcel layer	<ul style="list-style-type: none"> <li>~1891 or 90%</li> </ul>
Tie sheets available online?	<ul style="list-style-type: none"> <li>Yes. <a href="https://ascnt.greencountywi.org/LandRecords/Survey/PlssCorner#/CornerSearch">https://ascnt.greencountywi.org/LandRecords/Survey/PlssCorner#/CornerSearch</a></li> </ul>
Percentage of remonumented PLSS corners that have <b>tie sheets available online</b> (whether or not they have corresponding coordinate values)	<ul style="list-style-type: none"> <li>100%</li> </ul>
Percentage of remonumented PLSS corners that have tie sheets available online (whether or not they have corresponding coordinate values) <b>and a corresponding URL path/hyperlink value</b> in the PLSS geodatabase	<ul style="list-style-type: none"> <li>100%</li> </ul>
PLSS corners believed to be remonumented based on filed tie-sheets or surveys, but do not have coordinate values	<ul style="list-style-type: none"> <li>0. All have at least approximate coordinates</li> </ul>
Approximate number of PLSS corners believed to be lost or obliterated	<ul style="list-style-type: none"> <li>~128 or 8% based on the fact that many corners have not been visited for many years</li> </ul>
Which system(s) for <b>corner point identification/ numbering</b> does the county employ (e.g., the Romportl point numbering system known as Wisconsin Corner Point Identification System, the BLM Point ID Standard, or other corner point ID system)?	<ul style="list-style-type: none"> <li>Pseudo-Romportl and "Green Co ROD," which is a number 1 through 16 for each PLSS township followed by a hyphen and a number between 1 and 133. 1 = NE most corner in township and 133 = the SW most corner in township. Second number component is assigned by zig-zagging across the township along the north line of sections then back along the E-W quarter lines of sections. Section center IDs are identical to W quarter corner IDs followed by an "A," (e.g. 1-133A).</li> </ul>
Does the county contain any <b>non-PLSS areas</b> (e.g., river frontage long lots, French land claims, private claims, farm lots, French long lots, etc.) or any special situations regarding PLSS data for tribal lands?	<ul style="list-style-type: none"> <li>No</li> </ul>
Total number of PLSS corners along each bordering county	<ul style="list-style-type: none"> <li>192 PLSS corners along all bordering counties. 47 along Rock County line. 50 along Dane County line. 7 along Iowa County line. 43 along Lafayette County line. 45 along Stephenson County (IL) line. 5 along Winnebago County (IL) line.</li> </ul>
Number and percent of PLSS corners remonumented along each county boundary	<ul style="list-style-type: none"> <li>192 or 100%</li> </ul>
Number and percent of remonumented PLSS corners along each county boundary with survey grade coordinates	<ul style="list-style-type: none"> <li>47 (100%). 50 (100%). 7 (100%). 43 (100%). 45 (100%). 5 (100%).</li> </ul>
In what ways does your county collaborate with or plan to collaborate with neighboring counties for PLSS updates on shared county borders?	<ul style="list-style-type: none"> <li>Some of the border corners above counted as complete are complete because of a neighbor county's tie-sheet. This applies to 8 corners. These corners have been determined to be the same as what is referenced on the Green County tie-sheets (by comparing the notes contained).</li> </ul>

## Custodian

- Land Information Office.

## Maintenance

- Green County hopes to eventually have survey grade coordinates on all PLSS corners. At this point, Green County is prioritizing areas where “approximate” coordinate information is believed to be the least accurate, township by township.

## 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 requirement.
- SURVEY GRADE standard from Wisconsin County Surveyor’s Association:
  - **SURVEY GRADE** – coordinates collected under the direction of a Professional Land Surveyor, in a coordinate system allowed by 236.18(2), and obtained by means, methods and equipment capable of repeatable 2 centimeter or better precision
  - **SUB-METER** – point precision of 1 meter or better
  - **APPROXIMATE** – point precision within 5 meters or coordinates derived from public records or other relevant information

## Other Geodetic Control and Control Networks

e.g., HARN, Height Mod., etc.

### Layer Status

- Green County does not have any control network layers.

## Parcel Mapping

### Parcel Geometries

#### Layer Status

- **Progress toward completion/maintenance phase:** In Green County, 100% of the county’s real estate parcels are available in a commonly-used digital GIS format and made publicly available (ESRI File Geodatabase and ArcGIS Server map service).
- Parcel Polygons are maintained with only the Parcel Number attribute, then joined to an export from the County’s enterprise tax system (Transcendent) for publication
- **Projection and coordinate system:** NAD 1983 HARN Wisconsin CRS Green (US Feet)
- **Integration of tax data with parcel polygons:** The County’s parcel polygons directly integrate with tax/assessment data as parcel attributes.
- **Online Parcel Viewer Software/App and Vendor name:** Esri Web AppBuilder for ArcGIS (in-house).
- **Unique URL path for each parcel record:** Yes. Mapping URL only lists owner name, site address, deeded acres, and a link to the tax system parcel (Land Records System URL). Land Records System URL includes much more information. “Values” are not directly exportable from the single mapping URL. “Values” are printable from Land Records System, but not exportable (tabular) and not printable as one master/comprehensive “table.”

## Custodian

- Land Information Office.

## Maintenance

- **Update Frequency/Cycle.** Parcel polygons are updated nightly.

## Standards

- **Data Dictionary:** Metadata document is FGDC compliant and contains thorough 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

- **Progress toward completion/maintenance phase:** NA
- **Tax Roll Software/App and Vendor name:** Ascent Land Records Suite / Transcendent Technologies
- **Municipal Notes:** NA. Each municipality is responsible for their assessment and tax roll data. Assessment data is submitted to the county every year. The tax roll is maintained by the county on a daily basis but each municipality is ultimately responsible for it.

### Custodian

- Treasurer’s Office.
- Land Information Office.

### Maintenance

- **Maintenance of the Searchable Format standard:**  
Ownership information is updated daily.  
Tax Data is updated daily.  
Assessment data is updated annually.

To maintain the Searchable Format standard, the County utilizes an “LRS export” script it has created. This script does not result in all format requirements being met, but with the assistance of tools built to handle “mis-formats” (post export), Searchable Format is achieved.

- **Searchable Format Workflow:**  
The county maintains parcel/tax roll data in the Searchable Format or close enough to the Searchable Format that **little to no human labor is required** for the annual submission of parcel/tax roll data to DOA.

Post-export formatting amounts to \$300 or less in in-house time.

## Standards

- Wisconsin Department of Revenue [Property Assessment Manual](#) and attendant DOR standards
- DOR XML format standard requested by DOR for assessment/tax roll data
- Largely exportable to “Searchable Format” for Statewide Parcel Map Initiative.
- 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	LVALUE	
Assessed value of improvements	IVALUE	
Total assessed value	TVALUE	
Class of property, as specified in s. 70.32 (2)(a)	STA_ASSMT_CD	
Estimated fair market value	ESTD_FAIR_GEN_VAL	

Total property tax	CUR_YR_NET_TAX	
Any zoning information maintained by the county		Zoning information is maintained in a standalone dataset
Any property address information maintained by the county	SITEADD	
Any acreage information maintained by the county	TAXAC	

## Non-Assessment/Tax Information Tied to Parcels

e.g., Permits, Easements, Non-Metallic Mining, Brownfields, Restrictive Covenants

### Layer Status

- Sanitary/Sewer and Zoning Permits
- Both permits are reviewed and granted by the Land Use and Zoning Department. When a permit is granted it is tied to the appropriate parcel.

### Custodian

- Land Use and Zoning.

### Maintenance

- Land Use and Zoning.

### Standards

- Land Use and Zoning Department follows appropriate rules/codes set forth by Federal, State, and Local governments. The department enforces rules/codes where it has authority.

## ROD Real Estate Document Indexing and Imaging

### Layer Status

- **Grantor/Grantee Index:** All Index Pages scanned.
- **Tract Index**
  - Electronic grantor/grantee indexing complete back to ~1980.
  - Electronic PLSS-based indexing complete back to ~1990.
  - Electronic indexing inclusive of PIN ~2000 and forward.
- **Imaging:** B/W TIF format. All recorded documents with legal descriptions (non-vitals) scanned (imaged) back to 1836 (beginning) with exception to "mortgage books" pre-1936.
- **ROD Software/App and Vendor Name:** Laredo/Tapestry. Quarterly fee based on volume.

### Custodian

- Register of Deeds.

### Maintenance

- Every day / Time-sensitive / ongoing. Working backwards on pre-digital recordings.

### 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

- **Most recent acquisition year:** 2011
- **Accuracy:** Vertical root mean square error (RMSEz) of 0.387 ft. FEMA specifies a vertical accuracy tolerance of 0.6ft.
- **Post spacing:** See agreement signed by Green County and Ayres Associates Inc., dated November 9, 2010.
- **Contractor's standard, etc.:** See agreement signed by Green County and Ayres Associates Inc., dated November 9, 2010.

- **Next planned acquisition year:** 2022.
- **QL1/QL2 acquisition plans:** QL2 for 2022.

#### Custodian

- Land Information Office.

#### Maintenance

- None.

#### Standards

- See agreement signed by Green County and Ayres Associates Inc., dated November 9, 2010.

## LiDAR Derivatives

e.g., **Bare-Earth Digital Terrain Model (DTM), Bare-Earth Elevation Contours, Bare-Earth Digital Elevation Model (DEM), Digital Surface Model (DSM), Hydro-Enforced DEMS, etc.**

#### Layer Status

- Digital elevation model, 2 ft contours, and breaklines were all delivered with the 2011 LiDAR bare earth and point cloud data. Hillshade.

#### Custodian

- Land Information Office.

#### Maintenance

- None.

#### Standards

- See agreement signed by Green County and Ayres Associates Inc., dated November 9, 2010.

## Orthoimagery

### Orthoimagery

#### Layer Status

- **Most recent acquisition year:** 2020.
- **Resolution:** 12-inch.
- **Contractor's standard:** 4.8 feet at 95% confidence level according to ASPRS.
- **Next planned acquisition year:** Unknown.

#### Custodian

- Wisconsin Regional Orthoimagery Consortium (WROC).

#### Maintenance

- None.

#### Standards

- WROC 2020.

### Historic Orthoimagery

#### Layer Status

- 2017, 6", Color & Near-Infrared (band 4) Aerial Photo
- 2010, 18", Color Aerial Photo
- 2005, 18", Black & White Aerial Photo
- 1995, 1M, Black & White Aerial Photo

#### Custodian

- Land Information Office.

#### **Maintenance**

- None.

#### **Standards**

- WROC standards as applicable to each photo's date.

### **Other Types of Imagery**

e.g., **Oblique Imagery, Satellite Imagery, Infra-red, etc.**

#### **Layer Status**

- N/A.

## **Address Points and Street Centerlines**

### **Address Point Data**

#### **Layer Status**

- Complete.

#### **Custodian**

- Land Information Office (supported by the Sheriff's Department and Land Use and Zoning).
- Motorola.

#### **Maintenance**

- Address Points are updated Quarterly per Motorola.

#### **Standards**

- Meets LinkWisconsin and Act 20 requirements.
- In development. Intend to ultimately realize the Wisconsin GIS NG9-1-1 Data Standard.

### **Building Footprints**

#### **Layer Status**

- Incomplete.

#### **Custodian**

- N/A.

#### **Maintenance**

- Green County may reassess completion of building footprint data at a later date, but has no immediate plans at this point.

#### **Standards**

- N/A.

### **Other Types of Address Information**

e.g., **Address Ranges**

#### **Layer Status**

- Address Ranges are complete.

#### **Custodian**

- Land Information Office (supported by the Sheriff's Department and Land Use and Zoning).
- Motorola.

#### **Maintenance**

- Address Ranges are updated Quarterly per Motorola.

#### **Standards**

- Address range data is built to support Computer Aided Dispatch (Motorola).

## Street Centerlines

### Layer Status

- Complete. Although complete, it is undergoing "ortho-rectification" to the 2017 WROC aerial photo. At present, approximately half the miles have been ortho-rectified.

### Custodian

- Land Information Office (supported by the Sheriff's Department and Land Use and Zoning).
- Motorola.

### Maintenance

- Centerline data is updated as road names are changed and new roads are built.

### Standards

- Centerline data is built to support Computer Aided Dispatch (Motorola), Highway Department needs, and ESRI Address Locators.
- In development. Intend to ultimately realize the Wisconsin GIS NG9-1-1 Data Standard.

## Rights of Way

### Layer Status

- Right of Way mapping is in progress. In its intermediate form it is a stand-alone layer and will remain as such.

### Custodian

- Land Information Office (supported by the Highway Department).

### Maintenance

- Rights of Way mapping will be mapped as part of Base Budget projects.

### Standards

- Rights of Way will be mapped in accordance with DOT Transportation plats and municipal plats/resolutions.

## Trails

### e.g., Recreational Trails, Snowmobile Trails

### Layer Status

- State, Multi-use trails and some snowmobile trails are mapped.

### Custodian

- Land Information Office (supported by the Sheriff's Department and the Clerk's Office).

### Maintenance

- Trails are updated as needed.

### Standards

- Trail data is built to support Computer Aided Dispatch (Motorola).

## Land Use

### Current Land Use

### Layer Status

- Complete.

### Custodian

- Southwestern Wisconsin Regional Planning Commission.

### Maintenance

- Unknown.

### Standards

- Land Use data was developed for the Green County Comprehensive Plan adopted April 18, 2006.

## Future Land Use

### Layer Status

- Complete.

### Custodian

- Southwestern Wisconsin Regional Planning Commission.

### Maintenance

- Unknown.

### Standards

- s. 66.1001, Wis. Stats. Comprehensive planning.
- 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. The Green County Comprehensive Plan was adopted April 18, 2006.

## Zoning

### County General Zoning

#### Layer Status

- Complete. The County does maintain a GIS representation of county general zoning boundaries.

#### Custodian

- Land Information Office (supported by Land Use and Zoning).

#### Maintenance

- Zoning data is updated as needed.

#### Standards

- Green County Title 4 – Zoning Regulations, Sanitary Code, and Subdivision Regulations.

### Shoreland Zoning

#### Layer Status

- The County does maintain a GIS representation of county shoreland zoning boundaries.

#### Custodian

- Land Information Office (supported by Land Use and Zoning).

#### Maintenance

- Zoning data is updated as needed.

#### Standards

- Green County Title 4 – Zoning Regulations, Sanitary Code, and Subdivision Regulations.

### Farmland Preservation Zoning

#### Layer Status

- Not administered by county.
  - **Year of certification:** N/A.
  - Green County does have a Farmland Preservation Plan (dated 2012) and utilizes farmland preservation agreements (long-term contracts); agreement lands mapped.



## Floodplain Zoning

### Layer Status

- Not administered by the County.
- The county's floodplain zoning GIS data is the same as/identical to the FEMA map.
- FEMA Flood Insurance Rate Maps (FIRMs) can be changed through "Letters of Maps Change," which is comprised of a few things: Letters of Map Amendment, Letters of Map Revision, and Letters of Map Revision Based on Fill. These are documents issued by FEMA that officially remove a property and/or structure from the floodplain. They are collectively called Letters of Map Change.

## Airport Protection

### Layer Status

- Not administered by County. Green County does not have any Airport Protection special purpose zoning.
- **Airport protection zoning map depicts:** General zoning overlay for airport protection. The annual submittal for the statewide parcel map initiative simply reflects Green County's jurisdiction.

### Custodian

- Land Information Office (supported by Land Use and Zoning).

### Maintenance

- N/A. Per statewide parcel map initiative.

### Standards

- N/A. Per statewide parcel map initiative.

## Municipal Zoning Information Maintained by the County

e.g., Town, City and Village, Shoreland, Floodplain, Airport Protection, Extra-Territorial, Temporary Zoning for Annexed Territory, and/or Zoning Pursuant to a Cooperative Plan

### Layer Status

- Municipal zoning is mapped with County General zoning, but there is no guarantee of accuracy in regards to municipal zoning data that is displayed on Green County's web mapping application. Village of New Glarus utilizes an Extraterritorial Review Zone (ETZ).
- Web Mapping Application: Land Information Office (supported by municipal clerks/governments). Each municipality maintains its own zoning data.

### Maintenance

- As needed/provided. Each municipality is responsible for its own zoning data. The Land Information Office periodically requests each municipality verifies the zoning data we are showing on the web mapping application.

### Standards

- Green County standards, respecting parcel lines where applicable. Varies by municipality.

## Administrative Boundaries

### Civil Division Boundaries

e.g., Towns, City, Villages, etc.

### Layer Status

- Complete.

### Custodian

- Land Information Office.

### Maintenance

- Civil Division Boundaries are updated as needed (annexation and corrections).

## Standards

- Per County standards, and relates to WISE-LR submittals/documentation processes.

## School Districts

### Layer Status

- **Progress toward completion/maintenance phase:** School District mapping is complete.
- **Relation to parcels:** Parcels attributed, one School District per parcel.
  - **Attributes linked to parcels:** School District codes are populated on each parcel in County Land Records System.

### Custodian

- Land Information Office.

### Maintenance

- School District mapping is actively maintained.

### Standards

- Mapped to Green County Standards in conjunction with Tax information and input from municipal clerks and school district administrators.

## Election Boundaries

e.g., Voting Districts, Precincts, Wards, Polling Places, etc.

### Layer Status

- Voting Wards, Supervisory Districts and State Assembly Districts are mapped.

### Custodian

- Land Information Office (supported by the Clerk's Office).

### Maintenance

- Voting Wards, Supervisory Districts and State Assembly Districts are updated as needed.

### Standards

- Voting Wards, Supervisory Districts and State Assembly Districts are part of WISE-LR.

## Utility Districts

e.g., Water, Sanitary, Electric, etc.

### Layer Status

- No utility districts are mapped.

## Emergency Service Boundary – Law/Fire/EMS

### Layer Status

- **Law Enforcement:** Law districts are mapped.
- **Fire:** Fire districts are mapped.
- **EMS:** EMS districts are mapped.

### Custodian

- Land Information Office (supported by the Sheriff's Department).
- Motorola.

### Maintenance

- Updated as needed.

### Standards

- In development. Intend to ultimately realize the Wisconsin GIS NG9-1-1 Data Standard.

## Public Safety Answering Points (PSAP) Boundary

### Layer Status

- **PSAP Boundary:** The Sheriff's Department is the primary for all of Green County except for the Brodhead telephone exchange which is covered by the City of Brodhead Police. Current mapping is approximate, and it is not unlikely that the definition of this "boundary" will need to be updated to reflect changing technology and call patterns.

### Custodian

- Land Information Office (supported by the Sheriff's Department).

### Maintenance

- Updated as needed.

### Standards

- In development. Intend to ultimately realize the Wisconsin GIS NG9-1-1 Data Standard.

## Provisioning Boundary

### Layer Status

- Green County's "provisioning boundary" is mapped.

### Custodian

- Land Information Office (supported by the Sheriff's Department).

### Maintenance

- Updated as needed.

### Standards

- In development. Intend to ultimately realize the Wisconsin GIS NG9-1-1 Data Standard.

## Other Public Safety

### Layer Status

- Law reporting areas are mapped.
- Healthcare Facilities, Nursing Homes, Assisted Living Facilities and Daycare Centers are mapped.

### Custodian

- Law reporting areas: Land Information Office (supported by the Sheriff's Department).
- Healthcare Facilities, Nursing Homes, Assisted Living Facilities and Daycare Centers are mapped Land Information Office (supported by the Health Department and Emergency Management).

### Maintenance

- Law reporting areas are updated as needed.
- Healthcare Facilities, Nursing Homes, Assisted Living Facilities and Daycare Centers are mapped are updated as needed.

### Standards

- Law reporting areas are built to support the needs of the Sheriff's Department and other law enforcement agencies in the County.
- Healthcare Facilities, Nursing Homes, Assisted Living Facilities and Daycare Centers are built to support Health Department and Emergency Management needs.

## Lake Districts

### Layer Status

- Lake Districts are not mapped.

## Native American Lands

### Layer Status

- N/A.

## Other Administrative Districts

e.g., County Forest Land, Parks/Open Space, etc.

### Layer Status

- Drainage Districts are mapped.

### Custodian

- Land Information Office (supported by Land and Water Conservation).

### Maintenance

- Drainage Districts are updated as needed.

### Standards

- Drainage Districts match current parcel lines per Drainage Board direction.

## 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

- Hydrography is maintained by Green County as two feature classes, one linear, and one polygonal. The linear features are classified as either intermittent or perennial (and this classification is directly borrowed from the hydrography dataset maintained by the DNR).

### Custodian

- Land Information Office.

### Maintenance

- Updated as errors are identified.

### Standards

- Not directly derived from elevation data. Not designed to meet any particular standards at this time.

## Cell Phone Towers

### Layer Status

- Cell Phone Towers are mapped.

### Custodian

- Land Information Office (supported by the Sheriff's Department).

### Maintenance

- Cell Phone Towers are updated as needed.

### Standards

- Cell Phone Towers are built to support Computer Aided Dispatch (Motorola).

## Bridges and Culverts

### Layer Status

- Bridges are mapped.
- Culverts are mapped.

### Custodian

- Bridges: Land Information Office (supported by the Highway Department).

- Culverts: Land Information Office (supported by the Highway Department).

#### **Maintenance**

- Bridges mapping updated annually (target).
- Culverts mapping updated annually (target).

#### **Standards**

- Bridge data is built to support County Highway needs. Currently per stationing. Intention to build with GPS coordinates.
- Culvert data is built to support County Highway needs. Currently per stationing. Intention to build with GPS coordinates.

### **Other/Miscellaneous**

**e.g., Pipelines, Railroads, Non-Metallic Mining, Sinkholes, Manure Storage Facilities, etc.**

#### **Layer Status**

- Highway Entrances are mapped.
- PASER data is mapped.
- Quarries are mapped.

#### **County street signs are mapped** County street signs are mapped **Custodian**

- Highway Entrances: Land Information Office (supported by the Highway Department).
- PASER data: Maintained by the DOT.
- Quarries: Land Information Office (supported by the Highway Department).
- County street signs: Land Information Office (supported by the Highway Department).

#### **Maintenance**

- Highway Entrances are updated as needed.
- PASER data was last imported from the DOT in 2011.
- Quarries are updated as needed.
- County street signs are updated as needed.

#### **Standards**

- Highway Entrance data is built to support County Highway needs.
- PASER data standards are set by the DOT.
- Quarry data is built to support County Highway needs.
- County street data is built to support County Highway needs.

# 3 LAND INFORMATION SYSTEM

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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.

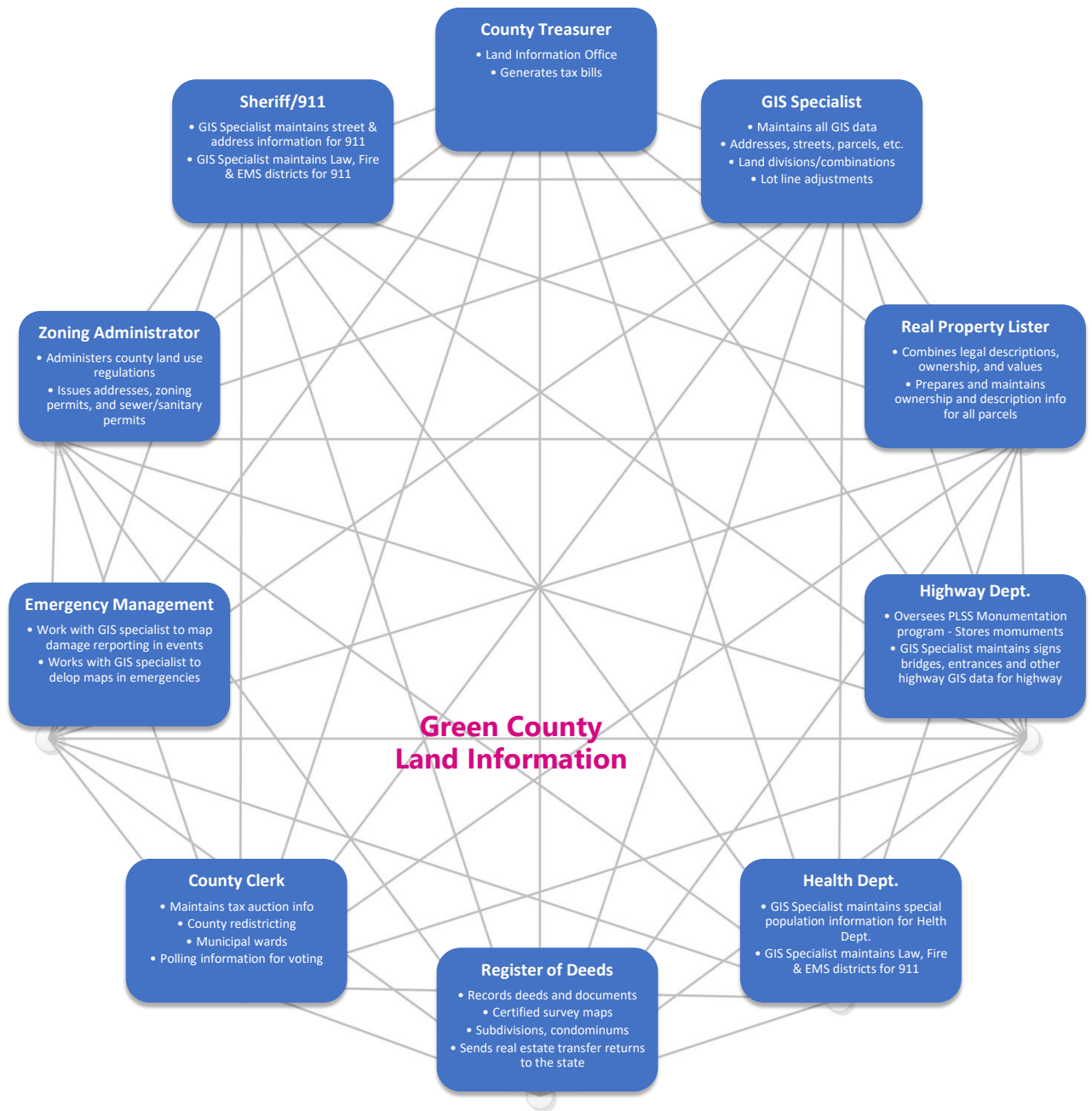
One integration requirement is listed under s. 16.967(7)(a)(1), Wis. Stats., which states that counties may apply for grants for:

- 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.

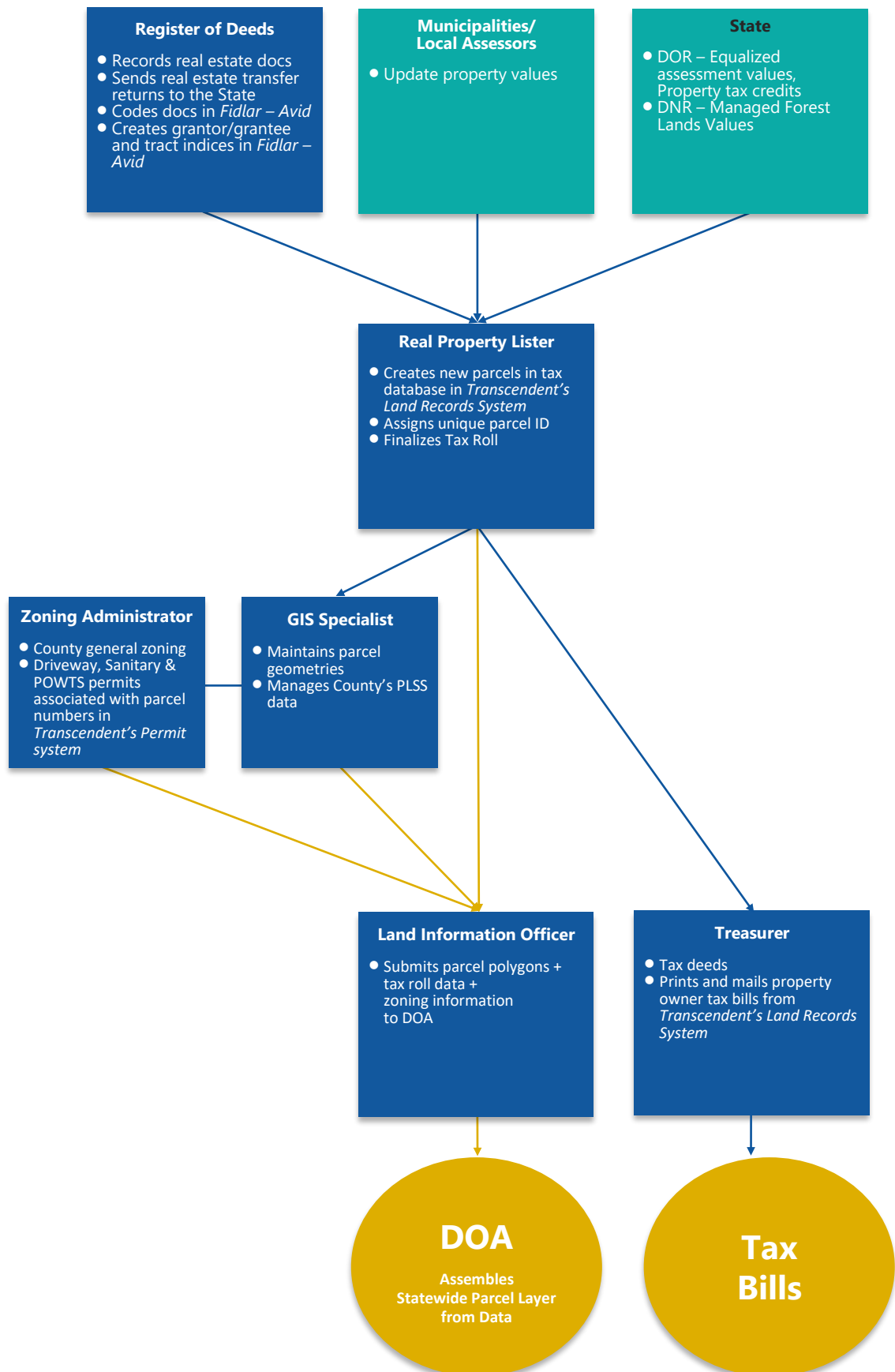
# Diagram of County Land Information System

Figure 1. Green County Land Information System



## County Parcel Data Workflow Diagram

Figure 2. Green 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.

### Hardware

- General: servers, desktop computers, plotter, large-format scanner, and Trimble GPS unit.

### Software

- Transcendent's Land Records Suite.
- Fidlar / Laredo (deeds; image replication).
- ESRI (mapping; desktop licenses and ArcGIS Enterprise).

**County currently uses ArcGIS Pro:** No.

**County plans to upgrade to ArcGIS Pro:** Yes, by estimated date: mid 2022.

### Website Development/Hosting

- Web mapping applications and Land Records System hosted in-house. Vendors / consultants: Transcendent Technologies, MSA Professionals. Fidlar hosted offsite.

## Metadata and Data Dictionary Practices

### Metadata Creation

- **Metadata creation and maintenance process:** Metadata creation and maintenance is a priority. All GIS datasets freely available to the public or designed for longterm, recurring use have updated metadata.

### Metadata Software

- **Metadata software:**
  - The USGS Metadata Wizard is being used as the software to create the FGDC compliant metadata documents. This software creates the entire document and the only manual work that is necessary is to add brief descriptions of the fields.
  - The software does generate metadata consistent with the FGDC Content Standard for Digital Geospatial Metadata, and ISO geographic metadata standard 19115.
- **Metadata fields manually populated:** Attribute field descriptions.

### Metadata Policy

- **Metadata Policy:** No formal policy exists beyond meeting requirements for state submittals. But care is made to achieve FGDC compliance as much as possible.

## Municipal Data Integration Process

- The county works with the municipalities to make periodic updates of several GIS datasets: zoning, school district boundaries, address points, streets, and voting wards (to name a few). This is in addition to the parcel dataset, which includes assessment and tax data from the municipalities.

## Public Access and Website Information

### Public Access and Website Information (URLs)

#### Public Access and Website Information

##### GIS Webmapping Application(s)

Link - URL	GIS Download Link - URL	Real Property Lister Link - URL	Register of Deeds Link - URL
<a href="https://www.co.green.wi.gov/localgov_departments_details.asp?deptid=15&amp;locid=148">https://www.co.green.wi.gov/localgov_departments_details.asp?deptid=15&amp;locid=148</a>	<a href="https://landrecords.greencountywi.org/filedownload/Green_Co_GIS.zip">https://landrecords.greencountywi.org/filedownload/Green_Co_GIS.zip</a>	<a href="https://ascent.greencountywi.org/LandRecords/PropertyListing/RealEstateTaxParcel#/Search">https://ascent.greencountywi.org/LandRecords/PropertyListing/RealEstateTaxParcel#/Search</a>	<a href="https://tapestry.fidlar.com/Tapestry2/">https://tapestry.fidlar.com/Tapestry2/</a>

#### Web Services/REST End Points

##### URL

[https://https://landrecords.greencountywi.org/arcgis/rest/services/\\*](https://https://landrecords.greencountywi.org/arcgis/rest/services/*)

## Data Sharing

### Data Availability to Public

#### Data Sharing Policy

- Green County provides several datasets to the public at no charge: parcels, subdivisions, certified survey maps, plats of survey, municipal boundaries, PLSS sections, lakes, rivers, street centerlines (with address ranges), road ROW polygons, railroads, address points, and 18" aerial imagery. This data is available for download from the Land Information Office webpage.
- In addition to the data available at no charge, any member of the public may request custom GIS work/maps at an hourly charge of \$80 per hour.

#### Open Records Compliance

- In compliance with Wisconsin's Open Records Law, upon request for any record the Green County Land Information Office shall, as soon as practicable and without delay, either fill the request or notify the requester of the Green County Land Information Office's determination to deny the request in whole or in part and the reasons therefore.

### Data Sharing Restrictions and Government-to-Government Data Sharing

#### Data Sharing Restrictions

- Green County provides only public record data to the public. There are no restrictions on how the data may be used, however, Green County makes no guarantees on the accuracy of the data and accepts no liability on its use in other products or applications.

#### Government-to-Government Data Sharing

- Green County has an Intergovernmental Data Sharing Agreement which governs data sharing between the county and units of local government.

## Training and Education

- The Land Information Office offers training to all county departments in the use of GIS and mapping technology to make efficiencies in their workflows.
- In addition to training provided to county employees by the Land Information Office, the office maintains membership to the Wisconsin Land Information Association and attends its conferences and workshops.

# 4 CURRENT & FUTURE PROJECTS

This chapter lists the current and future land information projects the county is currently undertaking or intends to pursue over its planning horizon. A project is defined as a temporary effort that is carefully planned to achieve a particular aim. Projects can be thought of as the *means* to achieving the county's mission for its land information system.

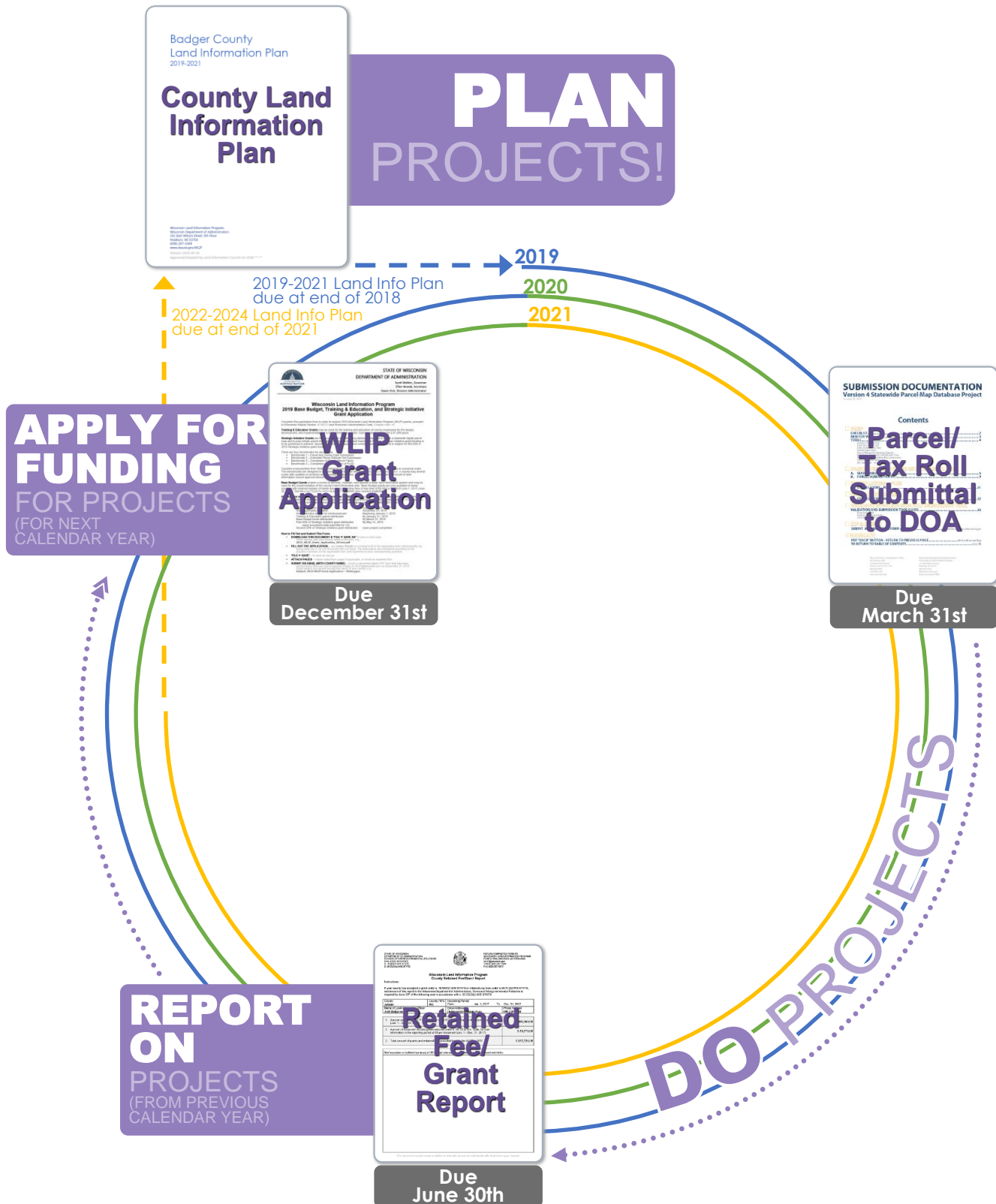


Figure 1. The WLIP Land Information Plan/Grant Project Cycle

## Project Plan to Maintain Searchable Format (Benchmarks 1 & 2)

### Project Title: Project Plan to Maintain Searchable Format (Benchmarks 1 & 2)

#### Project Description/Goal

##### How Searchable Format Will Be Maintained

- County will export database and restructure tables after export to meet searchable format.

#### Business Drivers

- The Project Plan to Maintain Searchable Format for Benchmarks 1 & 2 is a requirement for those counties who utilize Strategic Initiative funds for parcel/tax roll formatting to prepare the data submission to DOA.

#### Objectives/Measure of Success

- The objective is to continue to meet the Searchable Format for Benchmarks 1 & 2 (Parcel and Zoning Data Submission, Extended Parcel Attribute Set Submission).

#### Project Timeframes

Timeline – Project Plan to Maintain Searchable Format		
Milestone	Duration	Date
Searchable Format reached (V2)	–	March 31, 2016
LRS export finalized (V4)	–	March 31, 2018
Post-export formatting tools built (V5)	–	March 31, 2019
Tax system QC where applicable	continual	

#### Responsible Parties

- Primarily County GIS Specialist.

#### Estimated Budget Information

- See table at the end of this chapter for project budget information.

# Project Plan for Parcel Completion (Benchmark 3)

## Project Title: Project Plan for Parcel Completion (Benchmark 3)

### Project Description/Goal

#### Current status of parcel data

- **Current status of parcel data in the county:** 100% of real estate tax parcels have GIS representation.
- **Tally of the total number of parcels in digital format:** 27276.
- **Estimated number of parcels yet to be digitized:** 0.

#### Goals

- **Number of parcels to be added for the grant project period(s):** 0.

#### Planned approach

- At this point, "completion" is more about accuracy. There are many errors/inaccuracies in the mapping. A targeted approach should be possible for addressing the majority of these errors. Determining that exact approach is the next step. It should include comparison of assessed acreages to GIS-calculated acreages, studying areas on the map currently identified as "gaps," looking for/at "irregularities" and ownership patterns along right-of-ways, reviewing certified survey maps for mention of dedications, and variety of documents for mention of vacated lands.

### Business Drivers

- The Project Plan for Parcel Completion is a requirement for those counties who utilize Strategic Initiative funds for work related to digital parcel map completion. At this point, most efforts concerning "completion" will be through Base Budget grants.

### Objectives/Measure of Success

- The original objective of Benchmark 3 (Completion of County Parcel Fabric) has been met. No timeframe has been set for the larger concept of "completion" (as related to errors/accuracy). Most likely some of the tasks involved will take several years to complete.
- Contemporaneous to these efforts, major horizontal accuracy issues will also be identified and remedied. This will ultimately conclude in migration to the ESRI Parcel Fabric. That project is described as a separate project of this plan.

### Project Timeframes

Timeline – Project Plan for Parcel Completion (Benchmark 3)		
Milestone	Duration	Date
Remaining unmapped real estate parcels completed (V6/V7)	–	March 31, 2020/ March 31, 2021
Address remaining errors	continual	

### Responsible Parties

- County GIS Specialist will research and update data.

### Estimated Budget Information

- See table at the end of this chapter.

## Project Plan for PLSS (Benchmark 4)

### Project Title: Project Plan for PLSS (Benchmark 4)

#### Project Description/Goal

##### Planned Approach

- Perform a multi-year logical inventory of PLSS corners using contracted surveyor
  - Prioritize based on estimated accuracies in each township, tackling whole townships in progression
  - Require an updated tie-sheet for each corner
- Transition to the ESRI Parcel Fabric data model for maintenance/integration of corner locations with parcel geometries
  - Migration preparation inclusive of adjustment to improved PLSS locations and elimination of all duplicate/unnecessary vertices- considering not only PLSS locations, but also ortho-rectified road centerlines, right-of-way lines, and COGO dimensions on surveyed lots
  - Create a management plan for the future

##### Current Status

- **Tally of the total number of corners:** See PLSS Layer Status table in Chapter 2.
- **Remonumentation status:** See PLSS Layer Status table in Chapter 2.
- **Coordinate status (accuracy class) if known:** See PLSS Layer Status table in Chapter 2.

##### Goals

- **Number of corners to be remonumented and/or rediscovered:** Perhaps around 128 (may be obliterated). Only an estimation.
- **Number to have new coordinates established:** 1603.
- **Accuracy class for these new coordinates:** Survey grade.
- **Way in which these points will be integrated into the parcel fabric:** Ultimately as control points within an ESRI Parcel Fabric.

##### Missing Corner Notes

- **Documentation for any missing corner data:** Meander corners excluded. No documentation.

##### County Boundary Collaboration

- Retrieved tie-sheets for some shared corners with Dane County.

#### Business Drivers

- The Project Plan for PLSS is a requirement for those counties who utilize Strategic Initiative funds for work related to PLSS completion and integration. Knowing the location of section corners and maintaining them is important to Green County.
- Migrating to the ESRI Parcel Fabric will result in workflow efficiency via the 'control point' concept; related datasets are updated automatically which reduces duplicate effort.
- Featuring increased horizontal/positional accuracy on the online tax parcel map will result in less questions from the public, less confusion.

#### Objectives/Measure of Success

- Survey grade coordinates on PLSS corners; achieved on the order of 100 per year by area professional land surveyors.
- Full integration of improved corner locations with parcel geometries and related map 'layers.'

#### Project Timeframes

- The goal is to meet Benchmark 4 (Completion and Integration of PLSS) by 2030; dependent on funding. This goal pertains to collection of survey grade coordinates.
- Migration to the ESRI Parcel Fabric and integration of improved corner locations can be completed much sooner. Much progress has been made, but this project requires more funding and time than initially estimated. Updated goal: Complete preparations by December 31, 2022 and actual migration by June 30, 2023. If the ESRI Parcel Fabric is not achieved in 2023, June 30, 2024 is certainly feasible. Many counties have similar aspirations for Benchmark 4 and are in a similar place in pursuit of that benchmark.

## Responsible Parties

- Land Information Office and area professional land surveyors.

## Estimated Budget Information

- See table at the end of this chapter.

## Project #1: Maintenance; Parcel Database / Mapping

### Project Description/Goal

- **\*\***(Including Site Addresses, New Surveys, Administrative Boundaries, and Large-format scanning and plotting relevant to Register of Deeds plats).
- Maintain Green County GIS datasets, including parcels and data tied to parcels.
- **Land Info Spending Category:** Digital Parcel Mapping; Address Points; Other Parcel Work.

### Business Drivers

- Up-to-date data is important to constituents of the State as well as government entities. Necessary for all levels of government. Work is of course required to maintain.

### Objectives/Measure of Success

- Up-to-date data (reflective of ROD recordings in short time frame).

### Project Timeframes

- Ongoing, assessed annually.

### Responsible Parties

- Land Information Office.

### Estimated Budget Information

- See table at the end of this chapter.

## Project #2: Next Generation 9-1-1 GIS

### Project Description/Goal

- **\*\***(Including Site Addresses, Street/Road Centerlines, Emergency Service Boundary layers, Public Safety Answering Points (PSAP) Boundary, and more.
- **Land Info Spending Category:** Address Points and Street Centerlines

### Business Drivers

- Up-to-date and accurate data is important for emergency response. No explanation necessary there.
- County GIS data will very soon be digested for call routing and location validation functionality and not just Computer Aided Dispatch. County GIS will replace the Master Street Address Guide (MSAG) maintained by the teleco.

### Objectives/Measure of Success

- A workflow allowing smooth and regular update of data. The requirement of updated 911 within 36 hours of address assignment will eventually be upon us.

### Project Timeframes

- Upgrade to NG9-1-1 system with TDS by March 31, 2022. Implement full Wisconsin GIS NG9-1-1 Data Standard by March 31, 2024. Implement all data cross-walks for seamless updates and elimination of redundant work by March 31, 2025. Meanwhile, maintenance of 911-related data is ongoing.

### Responsible Parties

- Land Information Office.

### Estimated Budget Information

- See table at the end of this chapter.

## Project #3: Updates, Upgrades; Web Maps; New Hardware

### Project Description/Goal

- **\*\***(Web Map Applications). Upgrades to stay current for mapping application and data serving offerings. Some improvements to the parcel mapping application; particularly along the lines of "enhanced search" capabilities; but also as related to aerial photos and basemaps (including LiDAR-derived contours).
- Implementation of the Wisconsin Spatial Reference System 2022 (WSRS2022).
- Upgrade desktop users to ArcGIS Pro.
- Review large-format plotter and scanner needs for new purchase or lease arrangement.
- Review GPS needs for new purchases.
- **Land Info Spending Category:** Website Development/Hosting Services. Hardware. Software.

### Business Drivers

- Leveraging information in a GIS environment including web map viewers allows county departments and members of the public to make decisions more easily and efficiently.
- What is available/usable/relevant continues to be a moving target with regards to web mapping applications, at a level.
- Being "mobile-friendly," and providing for field access is of importance.
- The securing of data and data systems is of greater importance today than ever.

### Objectives/Measure of Success

- Web map applications that are relevant and intuitive by design; providing geographic insight and organization to County departments, residents, and businesses.

### Project Timeframes

- Ideally completion by June 30, 2022.



## Responsible Parties

- Land Information Office with assistance from contracted entities.

## Estimated Budget Information

- See table at the end of this chapter.

# Project #4: Right-of-Way Mapping including Railroad ROW

## Project Description/Goal

- Create accurate road right-of-way GIS dataset.
- **Land Info Spending Category:** Other Parcel Work.

## Business Drivers

- An accurate ROW dataset will allow accurate calculations and provide an important source of information to property owners regarding rights-of-way on their property.
- Rights-of-way described in deeds attached to parcels will be accurately reflected on web mapping application.

## Objectives/Measure of Success

- Complete, accurate and documented road right-of-way GIS dataset with document links.

## Timeframes

- Ideally initial work completed by March 31, 2023.

## Responsible Parties

- Land Information Office.

## Estimated Budget Information

- See table at the end of this chapter.

# Project #5: Aerial Photo, LiDAR, and Derivative Datasets

## Project Description/Goal

- **\*\*Deliverable standards have been improving and improving.** With each advancement, new opportunities for data extraction present themselves. LiDAR data is a valuable resource for developers and may prove useful for rural broadband infrastructure planning. Green County seeks to understand each new opportunity in terms of cost/benefit before proceeding.
- **Land Info Spending Category:** Orthoimagery. LiDAR. Other- hydrography.

## Business Drivers

- Cost-saving data extraction, specifics assessed annually by the County Land Information Council.
- Improved workflow for hydro-modeling. Relevant to Land and Water Conservation (erosion control) and Highway Department (ditching needs).
- Updated photography for assessment purposes as related to property taxes.

## Objectives/Measure of Success

- One aspect of relevancy is currency. Green County like all counties wishes to be as current as possible. But cost-benefit must be considered before going ahead with each and every flight.

## Project Timeframes

- QL2 LiDAR is recommended at this point. Green County is pursuing a 2022 project inclusive of 1 ft derivative contours. Deliverables are not expected until 2023/2024.

## Responsible Parties

- Land Information Office.

## Estimated Budget Information

- See table at the end of this chapter.

## Project #6: (County) Departmental Support

### Project Description/Goal

- \*\*Departments primarily include Highway, Sheriff / Emergency Management, Land and Water Conservation, Human Services, and occasionally others. Treasurer, Land Use and Zoning, and Register of Deeds are also major beneficiaries of Land Records, but most projects for these departments are covered under Project #1: Maintenance; Parcel Database / Mapping.
- **Land Info Spending Category:** Address Points and Street Centerlines (schema upgrades, support); Land Use; Other- culverts, signs, conservation themes.

### Business Drivers

- Departments can sometimes better carry out the programs they administer by employing geographic data. Sometimes this data needs to be created, updated, or expanded to be useful and relevant.

### Objectives/Measure of Success

- \*\*Examples only. Specifics are approved annually by the County Land Information Council.
- Highway: Culvert, sign inventory, condition updates, road construction overview maps.
- Sheriff / Emergency Management: NG9-1-1 related upgrades in conjunction with Motorola. Storm impact mapping. Facility / points of interest mapping.
- Land and Water Conservation: Contamination sites. GPS support.
- Human Services: Supervised release possible locations analysis / maps.
- Broadband Ad-hoc committee: Meetings toward guidance policy (providing a geographic data perspective) / maps.

### Project Timeframes

- Ongoing 2019 through 2021- often reoccurring, working toward more automatic workflows.

### Responsible Parties

- Land Information Office always in conjunction with Department goals and direction.

## Estimated Budget Information

- See table at the end of this chapter.

## Project #7: Survey Lots QC and Indexing per Parcel / LRS “Tags”

### Project Description/Goal

- \*\*Certified Survey Map (CSM) Mapping QC is nearing completion. Upon completion, surveys can be indexed by parcel in the Land Records System (LRS). In-between, applicable tax parcels are identified for each lot (mostly via GIS). These tasks are 99% complete for Plats of Survey lots.
- Similar to the per-parcel Survey History concept, parcels in LRS can be flagged with “tags” of interest. This could be EPA brownfields, wells, et cetera. Some tags might not be made visible to the public (depending on the subject matter), but would assist the County and municipalities in providing the services they provide.
- **Land Info Spending Category:** Other Parcel Work.

### Business Drivers

- Enable the public to more easily determine the Survey History of any given area.
- Provide for efficient workflows internally (by keeping parcels tagged as desired).

### Objectives/Measure of Success

- Full review of CSM lot mapping.
- Full indexing of surveys in LRS.
- Employment of tags concept in LRS, as needed.

### Project Timeframes

- Much progress has been made, but this project requires more funding and time than initially estimated. Complete CSM mapping review by April 30, 2022 and LRS Survey History by June 30, 2022. Tags will be employed/developed as needed, perhaps beginning in 2022-2023.

### Responsible Parties

- Land Information Office with assistance from contracted entities.

### Estimated Budget Information

- See table at the end of this chapter.

## Project #8: Administration; Land Information Office

### Project Description/Goal

- \*\*Including Training and Education (Council Meetings, Grant Applications, Reporting, LTSB - Wards and Census Bureau Submittals, Constituent Support - Questions, Et cetera). Reporting differentiates between the two spending categories below, but due to the generally regular nature of both, the two are being combined into one “Administration” project.
- **Land Info Spending Category:** Administrative Activities and Management. Training and Education.

### Business Drivers

- Necessary for Land Information Office functioning.

### Objectives/Measure of Success

- Applications, submittals, reports on-time. Responses to inquiries coming from public. An informed office.

### Project Timeframes

- Annual and bi-annual submittals, reoccurring. Annual WLIA conference and (up to) two regional meetings.

### Responsible Parties

- Land Information Office.

### Estimated Budget Information

- See table at the end of this chapter.

## Completed Projects

\*\*This listing includes some projects "of note" that have been completed since the last update to the County plan. It is not intended to be a complete listing.

- Further automation for production of parcel data in searchable format, which has been met each iteration from V2 to V7.
- 100% of real estate parcels mapped.
- Mapping of plats of survey. Certified survey maps near completion (pending completion of QC).
- Mapping of current TIF districts.
- Mapping of cemetery plats.
- Mapping of vacated roadways. Major progress on right-of-way mapping.
- Perpetuation of all PLSS corners with survey grade coordinates in two townships.
- Maintenance of Land Records webpage, mapping applications. Background updates, upgrades.
- Mapping of depth-to-groundwater and hydrography features (updates, ortho-rectification)
- Major progress towards incorporating improved-PLSS into parcel mapping and implementation of a parcel fabric.
- Ortho-rectification of road centerlines (approximately half of county complete).
- 911 data validation/population for NG9-1-1, initial steps.
- County supervisory district mapping, ward mapping per local redistricting.

# Estimated Budget Information (All Projects)

## Estimated Budget Information

Project	Item	Item Cost	3 Year Total for Item	Funding Source
Benchmarks 1 & 2	Maintain Searchable Format	\$300	\$900	Strategic Initiative
Benchmark 4	PLSS remonumentation and integration	\$58,000	\$174,000	Strategic Initiative
Maintenance; Parcel Database / Mapping	New parcels, CSMs, etc	\$5,000	\$15,000	Base Budget
Next Generation 9-1-1 GIS	Wisconsin GIS NG9-1-1 Data Standard	\$15,000	\$15,000	WLIP Grants
Updates, Upgrades, Improvements; Servers and Web Maps	Three year maintenance	\$5,000	\$5,000	Base Budget
Right-of-Way Mapping including Railroad ROW	Complete ROW Mapping	\$10,000	\$10,000	Base Budget
Aerial Photo, LiDAR, and Derivative Datasets	QL2 LiDAR, contours	\$30,400	\$30,400	Base Budget
(County) Departmental Support	Culvert inventory, all department requests	\$2,800	\$8,400	Base Budget / Retained Fees
Survey Lots QC and Indexing per Parcel / LRS "Tags"	Review CSM Mapping, Parcel "Tags" as needed	\$4,000	\$4,000	Base Budget
Administration; Land Information Office	Citizen help	\$1,500	\$4,500	Base Budget
Administration; Land Information Office	Grants, budgets, meetings, submittals, contracts	\$3,000	\$9,000	Base Budget / Retained Fees
Administration; Land Information Office	Training	\$1,000	\$3,000	Training and Education Grant
			\$279,200	

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

