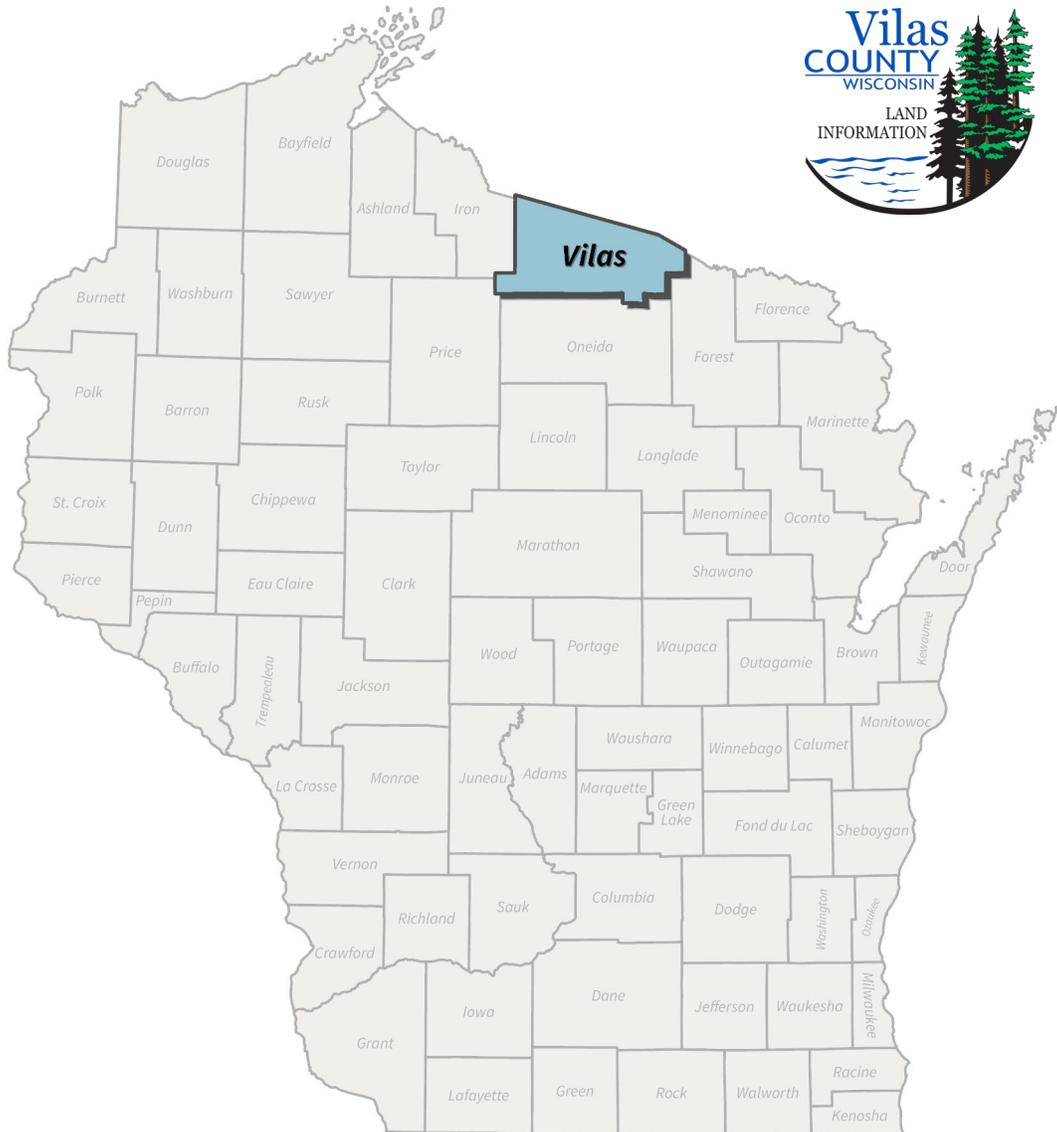


Vilas County

Land Information Plan

2025-2027



Vilas County Land Information Department
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EXECUTIVE SUMMARY

About this Document

This document is a Land Information Plan for Vilas County prepared by the Land Information Officer (LIO) and the Vilas 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
- 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 2023, Vilas County was awarded \$91,240 in WLIP grants and retained a total of \$55,248 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. **Therefore, projects listed here and in Section 4 are subject to available funding and does not obligate the county.**

Land Information in Vilas County

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

Mission of the Land Information Department

In the next three years, Vilas County’s Land Information Department 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 their mission, in the next three years, the County Land Information Department expects to focus on the following projects:

Vilas County Land Information Projects: 2025-2027	
Project #1	Training & Education
Project #2	Aerial Imagery
Project #3	Document Imaging/Indexing
Project #4	Parcel Fabric Implementation
Project #5	LiDAR Derivatives
Project #6	PLSS Control Data Collection

The remainder of this document provides more details on Vilas 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.

The Statewide Parcel Map Initiative

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

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 Vilas County is meeting these benchmarks appears in the Foundational Elements section of this plan document.

County Land Information System History and Context

From 1998 to 2005, Vilas County land modernization efforts focused on acquiring GPS control of the PLSS network. Parcel mapping followed each GPS data collection project, and a countywide parcel dataset was completed in 2007. The PLSS and Parcel datasets are updated as new information is received. Both of these datasets provide the foundation for a majority of all other data produced.

Since the completion of the PLSS and Parcel datasets, the program has focused on participating in WROC activities, providing retained fees and/or grant funding to other County stakeholder departments (for things like document imaging, data development and analysis, and atlas development and printing), as well as data acquisition (such as LiDAR, hydro enforcement, and culvert data).

The intranet version of the County's interactive mapping site was launched in 2003. In 2010, a new and improved mapping site went live to the internet. The current mapping site has many mobile applications and functionality in addition to the ability to view many of the County's digital data assets in searchable format. Most of the County's foundational GIS data layers are available for download at no cost to the consumer. The web mapping site continues to evolve in order to accommodate software changes, consumer requirement, and industry trends.

County Land Information Plan Process

Counties must submit their plans to DOA for approval every three years. The 2025-2027 plan is to be completed at the end of 2024.

County Land Information Plan Timeline

- DOA release of finalized instructions by March 31, 2024.
- April–September 2024: Counties work on land info plans.
- Complete draft plans due to DOA by September 30, 2024 (but sooner is advised).
- Final plans with county land info council approval due by December 31st, 2024.

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.

Introduction

This plan was prepared by the Vilas County LIO, the Vilas County Land Information Council, and others as listed below.

Vilas County Land Information Council and Plan Workgroup				
Name	Title	Affiliation	Email	Phone
* Adam Grassl	Land Information Officer, Council Chair	Vilas County Land Information Dept.	adgras@vilascountywi.gov	715-479-3790
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* Paulette Sarnicki	Treasurer	Vilas County Treasurer	pasarn@vilascountywi.gov	715-479-3613
* Crista McCrum	Real Property Lister	Vilas County Land Information Dept.	crmccr@vilascountywi.gov	715-479-3696
* Holly Tomlanovich	County Board Supervisor	Vilas County Board of Supervisors	hotoml@vilascountywi.gov	715-479-3600
* Jim Mulleady	Realtor	Coldwell Banker Mulleady Realtors	jim@28lakes.com	715-617-8581
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Austin Waldvogel	GIS Analyst	Vilas County Land Information Dept.	auwald@vilascountywi.gov	715-479-3655
David Sadenwasser	Zoning Administrator	Vilas County Zoning & Planning Dept.	dasade@vilascountywi.gov	715-479-3620

* Land Information Council Member

† Land Information Committee Member

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.

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, 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 Element Name

Layer Name

Layer Status

- List either "Maintenance phase" for dynamic layers that are complete but regularly updated, "Layer complete" for static layers that will not be updated, or give percentage of dataset that is complete, and elaborate. Special instructions are included in some cases, as some layers have additional required information. Layer status can also include: year of acquisition, format, resolution, coordinate system/datum, and any other relevant information.

Custodian

- Custodial responsibility – which office or position is responsible for the layer?

Maintenance

- Update cycle/frequency and plan to maintain currency for the dataset over time, as well as archival plans for historical copies of datasets where appropriate.

Standards

- List any standards to which the dataset adheres. State whether and in what timeframe the County plans to meet any state, federal, professional, or other standards in the future.

PLSS

Public Land Survey System Monuments

Layer Status

PLSS Layer Status	
	Status/Comments
Number of PLSS corners (selection, 1/4, meander) set in original government survey that can be remonumented in your county	4,417 (including lost corners) 4,043 (those with a monument)
Number of PLSS corners capable of being remonumented in your county that have been remonumented	3,987
Number of remonumented PLSS corners with survey grade coordinates (see below for definition) <ul style="list-style-type: none"> • SURVEY GRADE – coordinates collected under the direction of a Professional Land Surveyor, in a coordinate system allowed by <u>236.18(2)</u>, 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 	Survey-grade coordinates: 2,867 Sub-meter coordinates: 1,199 Approximate: 334
Number of survey grade PLSS corner coordinates integrated into county digital parcel layer	2,867
Number of non-survey grade PLSS corners integrated into county digital parcel layer	1,533
Tie sheets available online?	Yes - https://arcg.is/PLDuf
Percentage of remonumented PLSS corners that have tie sheets available online (whether or not they have corresponding coordinate values)	100%
Percentage of remonumented PLSS corners that have tie sheets available online (whether or not they have corresponding coordinate values) and a corresponding URL path/hyperlink value in the PLSS geodatabase	100%
PLSS corners believed to be remonumented based on filed tie-sheets or surveys, but do not have coordinate values	1,120 without survey-grade coordinates
Approximate number of PLSS corners believed to be lost or obliterated	374
Which system(s) for corner point identification/numbering does the county employ (e.g., the Romportl point numbering system known as <u>Wisconsin Corner Point Identification System</u> , the <u>BLM Point ID Standard</u> , or other corner point ID system)?	Romportl Numbering System
Does the county contain any non-PLSS areas (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?	Yes – unsectionalized (omitted) lands around lakes and rivers
Total number of PLSS corners along each bordering county	Forest – 50; Iron – 71; Oneida – 145; Price – 15; State line – 237
Number of PLSS corners remonumented along each county boundary	Forest – 50; Iron – 71; Oneida – 145; Price – 15; State line – 237
Number of remonumented PLSS corners along each county boundary with survey grade coordinates	Forest – 50; Iron – 63; Oneida – 138; Price – 15; State line – 180

Custodian

- County Surveyor for Vilas County

Maintenance

- Vilas County has and continues to update section corners from the 1930s, as well as original survey information from the mid-1800s, using WLIP Strategic Initiative Grant funding.
- The PLSS layer is updated any time new section corner information is received, usually via surveys recorded with the Register of Deeds or filed with the County Surveyor.
- The parcel layer is also updated in conjunction with an updated PLSS layer.

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.
- North American Terrestrial Reference Frame of 2022 ([NATRF2022](#))
- 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

Layer Status

- Complete; incorporated into the PLSS network data layer and submitted to the PLSS Finder
 - HARN – 3
 - Primary (1PPM) – 8
 - Secondary (2PPM) – 21
 - Local Control (10ppm) – 99
 - Other (NGS, USGS, etc.) – 103

Custodian

- Vilas County Surveyor and US Forest Service – primary and secondary local control
- National Geodetic Survey (NGS) – horizontal and vertical control stations
- WI State Cartographer's Office – 3rd order USGS benchmarks
- WI Department of Transportation (WI DOT) Technical Services – HARN

Maintenance

- Coordinate transformation as needed
- Field check previously observed static data for accuracy

Standards

- N/A

Parcel Mapping

Parcel Geometries

Layer Status

- **Progress toward completion/maintenance phase:** Maintenance phase
 - 100% of the County's parcel polygons are available in a commonly-used digital GIS format
 - County-wide parcel dataset contains 46,434 polygons
- **Projection and coordinate system:**
 - **Coordinate system:** NAD_1983_HARN_WISCRS_Vilas_County_Feet
 - **Projection:** Lambert_Conformal_Conic
 - **WKID:** 8110
- **Integration of tax data with parcel polygons:** A common Parcel ID field is present in both the tax data and parcel polygons, allowing for the joining of data
- **Online Parcel Viewer Software/App and Vendor name:**
 - Esri Instant Apps – hosted in ArcGIS Enterprise, made available publicly through ArcGIS Online; implemented/maintained in-house
 - Esri Experience Builder - hosted in ArcGIS Enterprise, made available publicly through ArcGIS Online; implemented/maintained in-house
- **Unique URL path for each parcel record:** Yes, parcel information can be accessed via a unique URL path from various online services:
 - **Tax Parcel Explorer:** This URL is stable, but could change due to system modifications or updates. Values cannot be exported directly.
 - ◆ URL:
 - <https://vilas.maps.arcgis.com/apps/instant/sidebar/index.html?appid=19297a89386a4798b96f7f4265999fdd&PIN=<PIN>>
 - ◆ Information accessed by URL:
 - Site/mailling address
 - Parcel size
 - Ownership
 - Zoning
 - Links to surveys, tax record, permitting system, and Register of Deeds records system (ROD records are behind a paywall)
 - **Ascent Land Records Suite:** This URL is stable, but could change due to system modifications or updates. Values cannot be exported directly.
 - ◆ URL:
 - <https://ascent.vilascountywi.gov/LandRecords/PropertyListing/RealEstateTaxParcel/DetailFromParcelNumber?parcelnumber=<PIN>>
 - ◆ Information accessed by URL:
 - Site/mailling address
 - Ownership
 - Documents
 - Permits
 - Brief legal description
 - Tax bills
 - Section/town/range
 - Parcel valuation information
 - Tax/assessment information
 - Tax payment information
 - Parcel history
 - School district

Custodian

- Vilas County Land Information Department

Maintenance

- **Update Frequency/Cycle:** Parcel polygons are updated as documents containing changes are received. Web mapping updates to parcel polygons typically occur nightly.

Standards

- **Data Dictionary:** GIS data structure is built on Esri's Local Government Information Model (LGIM). Metadata for the base LGIM structure was created by Esri and exists with the data itself and in a separate HTML file.

Parcels Without Land Value

Layer Status

- **Number of parcels without a land value recorded to-date:** 0 as of 10/9/2024
- **County geolocates/maps parcels for improvements only and without a land value by:**
 - Act 12 of 2023 amended sec. 70.17(1), Wis. Stats and removed the option of assessing improvements on leased land as personal property.
 - According to the Department of Revenue, state law provides two processes to list and value buildings, improvements, and fixtures that are on leased land, exempt land, forest cropland and managed forest land along with mobile homes not subject to a parking permit fee or otherwise exempt.
 - a. Under sec. 70.03, Wis. Stats. – update the existing parcel's listing and value to include all buildings, improvements, and fixtures.
 - b. Under secs. 70.17(3) or 70.27, Wis. Stats. – create a separate parcel for the buildings, improvements, and fixtures. Sec. 70.17(3) provides for a real property assessment with only an improvement value. Vilas County maps these parcels as new stacked polygons.

Assessment/Tax Roll Data

Layer Status

- **Progress toward completion/maintenance phase:** N/A
- **Tax Roll Software/App and Vendor name:** Ascent Land Records Suite – from contractor/vendor Transcendent Technologies
- **Municipal Notes:** N/A

Custodian

- Vilas County Real Property Lister

Maintenance

- **Maintenance of the Searchable Format standard:** The Searchable Format standard is satisfied by combining our maintenance phase parcel geometries with our tax roll; the submitted data is therefore generated on a yearly basis.
- **Searchable Format Workflow:** The county maintains parcel/tax roll data in such a way that requires significant formatting every year – whether by the county staff in-house, or a third-party contractor/vendor. Tools have been created to automate much of the process, though manual review is required to ensure satisfactory compliance with the standard.

Standards

- Esri [Local Government Information Model](#) for parcel geometries
- Wisconsin Department of Revenue [Property Assessment Manual](#) and attendant DOR standards
- DOR [XML format standard](#) requested by DOR for assessment/tax roll data

Non-Assessment/Tax Information Tied to Parcels

Layer Status

- **Zoning Permits:** 75% - 9 of 14 Vilas County municipalities (excluding the City of Eagle River) have scanning of sanitary and zoning permits (into PDF form) completed, as well as any permits filed since July of 2015.
- **Non-Metallic Mining:** Maintenance phase of tabular data
- **Recorded Documents (Deeds/Plats):** Maintenance phase of scanned documents
- **Surveys:** Maintenance phase of scanned documents

Custodian

- **Zoning Permits:** Vilas County Zoning and Planning Department
- **Non-Metallic Mining:** Vilas County Zoning and Planning Department
- **Recorded Documents (Deeds/Plats):** Vilas County Register of Deeds (ROD)
- **Surveys:** Vilas County Surveyor

Maintenance

- **Zoning Permits:** The Zoning and Planning Department scans permits as PDFs (and links them to parcels) as they are filed, and scans previous permits as they are revisited. Systematic scanning by town is also underway as Department time permits.
- **Non-Metallic Mining:** The Zoning and Planning Department maintains tabular records of non-metallic mining in Vilas County. A dataset showing the subset of parcels engaged in non-metallic mining is generated as needed.
- **Recorded Documents (Deeds/Plats):** Register of Deeds scans documents as they are recorded; parcels link to ROD's online document system (LandShark) through a URL using document numbers joined to parcels from the tax roll.
- **Surveys:** County Surveyor scans surveys as they are filed. Relevant surveys are attributed in parcels and are linked online; surveys can also be retrieved online by file number or section-town-range.

Standards

- **Zoning Permits:** N/A
- **Non-Metallic Mining:** N/A
- **Recorded Documents (Deeds/Plats):** As defined in WI Statutes [§59.43](#), or in related State statutes
- **Surveys:** N/A

ROD Real Estate Document Indexing and Imaging

Layer Status

- **Grantor/Grantee Index:** Maintenance phase
- **Tract Index:** Maintenance phase; documents indexed by legal description only – they are not PIN-based. All real estate-related documents are included in the tract index.
- **Imaging:** Maintenance phase
- **ROD Software/App and Vendor Name:** LandLink/LandShark – from Trimin

Custodian

- Vilas County Register of Deeds

Maintenance

- Currently, all documents and images from January 1, 1995 to present are available online.
- All imaged documents are available in digital format.
- Back-indexing by grantor/grantee and legal description is ongoing and is performed in-house as time allows; this includes but is not limited to:
 - Identifying documents needing to be rescanned

Foundational Elements

- Identifying documents with unredacted Social Security numbers
- Adding grantor/grantee names to the digital index
- Deleting duplicate grantor/grantee names from the digital index
- Adding instrument dates to the digital index
- Adding legal descriptions to the digital index
- Verifying reference documents and adding any that are missing

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:** 2022
- **Accuracy:** Meets USGS and ASPRS vertical accuracy standard of 10 cm RMSEz on non-vegetated surfaces and 29.4 cm at the 95th percentile for vegetated surfaces.
- **Post spacing:** Average point density of 8 points per square meter (PPSM)
- **Contractor's standard, etc.:** Lidar base project deliverables were produced to meet USGS Lidar Base Specification 2021, Revision A, Quality Level 1.
- **Next planned acquisition year:** N/A
- **QL0/QL1/QL2 acquisition plans:** N/A

Custodian

- Vilas County Land Information Department

Maintenance

- Extract point cloud classifications and extract derivatives as needed

Standards

- Adheres to USGS Lidar Base Specification 2021, Revision A, Quality Level 1 and ASPRS Positional Accuracy Standards for Digital Geospatial Data, 2014.

LiDAR Derivatives

Layer Status

- **Bare-Earth Digital Elevation Model (DEM):** Complete
- **Hydro-Enforced DEM:** Complete
- **Digital Surface Model (DSM):** Complete
- **Intensity Images:** Complete
- **Point Cloud:** Complete
- **Bare-Earth Elevation Contours (1ft):** Complete

Custodian

- Vilas County Land Information Department

Maintenance

- Extract point cloud classifications and extract derivatives as needed
- Adjust point cloud classifications as needed

Standards

- Adheres to ASPRS Positional Accuracy Standards for Digital Geospatial Data, 2014

Other Types of Elevation Data

Layer Status

- **Bathymetry:** 0.05% complete
- **Elevation contours (5ft):** Complete; derived from LiDAR
- **Elevation contours (10ft):** Complete; derived from LiDAR

Custodian

- Vilas County Land Information Department

Maintenance

- **Bathymetry:** Digitized from DNR maps as needed
- **Elevation contours (5ft):** None
- **Elevation contours (10ft):** None

Standards

- Derived from source data that meets ASPRS Positional Accuracy Standards for Digital Geospatial Data, 2014.

Orthoimagery

Orthoimagery

Layer Status

- **Most recent acquisition year:** 2020
- **Resolution:** 6in
- **Contractor's standard:** County-wide with 500ft buffer; 4-band RGB-NIR; 30% side overlap, 60% forward overlap ($\pm 5\%$); sun angle $\geq 30^\circ$ above horizon; meets American Society for Photogrammetry and Remote Sensing (ASPRS) level 2 horizontal standards, and meets or exceeds a horizontal accuracy of ± 1.4 ft Root Mean Square Error (RMSE); FGDC-compliant metadata
- **Next planned acquisition year:** 2025

Custodian

- Vilas County Land Information Department

Maintenance

- Typically updated on a 5-year cycle

Standards

- Meets American Society for Photogrammetry and Remote Sensing (ASPRS) level 2 horizontal standards; FGDC-compliant metadata

Historic Orthoimagery

Layer Status

- **2015:** 6in resolution digital; county-wide; RGB-NIR; Complete
- **2010:** 6in resolution digital; county-wide; RGB; Complete
- **2005:** 12in resolution digital; 1in=1,667ft prints; county-wide; RGB; Complete
- **1996:** 18in resolution digital; 1in=400ft mylar; county-wide; BW; Complete
- **1979:** 1in=400ft mylar (suitable for a light table); Complete

Custodian

- Vilas County Land Information Department

Maintenance

- Maintain digital/paper/mylar copies of all historic imagery, as applicable

Standards

- **2015:** Meets ASPRS Class 2 standards for 1in=100ft mapping; FGDC-compliant metadata
- **2010:** Meets ASPRS standards for 1in=200ft mapping
- **2005:** FGDC-compliant metadata

Other Types of Imagery

Layer Status

- **2014:** 18in resolution digital; 1in=1/4mi prints; County Forest coverage; NIR; Complete

Custodian

- Vilas County Forestry, Recreation & Land Department

Maintenance

- None

Standards

- Conforms to National Map Accuracy standards for 1in=400ft orthophoto production

Address Points and Street Centerlines

Address Point Data

Layer Status

- Maintenance phase
- There are 47,230 site address points representing 29,530 addressed locations as of 6/19/2024.
- Site address points include some non-addressed locations as needed for emergency response, such as abandoned homes, accessory buildings, helipads and hydrants.

Custodian

- Vilas County Land Information Department

Maintenance

- Updates are driven by address applications, zoning reports for new construction, address discrepancies in telephone records, and substantial change in improvement values in the tax roll.
- Obsolete site address points are flagged as retired and archived for historical reference.

Standards

- Department of Military Affairs' (DMA) Office of Emergency Communications (OEC) [Wisconsin NG9-1-1 GIS Data Standard & Best Practices \(2024\)](#)

Building Roofline

Layer Status

- Maintenance phase
- There are 62,798 building roofline polygons as of 6/19/2024.
- Polygons are attributed with the associated address, parcel ID, building type, origin date, source, description, edit flag, and historical modifier.

Custodian

- Vilas County Land Information Department

Maintenance

- Dataset was initially developed by Ayres Associates based on Vilas County's 2013 LiDAR and 2015 orthophotos.
- Updates are driven by address applications and zoning reports for new construction, address discrepancies in telephone records, and substantial changes in improvement values in the tax roll.
- New or changed building roofline polygons are flagged to be updated after the next orthophoto flight.
- Obsolete building roofline polygons are flagged as retired and archived for historical reference.

Standards

- N/A

Address Ranges

Layer Status

- Complete
- Vilas County's grid of south-north and east-west address ranges is based on the PLSS network
 - Runs south to north and east to west from the southerly- and easterly-most section boundaries of the County, respectively.
 - Addresses start at 100 and increment by 300 for every PLSS section traveled from the address range origin.
 - Address values/ranges are assigned to site address points and street centerlines based on their location and orientation to the address grid.

Custodian

- Vilas County Land Information Department

Maintenance

- Adjusted occasionally as adjustments to the PLSS network occur

Standards

- N/A

Street Centerlines

Layer Status

- Maintenance phase
- There are 7,641 street centerlines as of 6/19/2024
- Street centerlines are broken into segments at each intersection. Segments are assigned calculated address ranges based on the County address grid, or actual address ranges based on existing addresses.
- Centerlines are attributed with parsed and full street names, address ranges, emergency response entities and zones, alias names, street classification, surface type, county, state and country.
- Airport runways are included, and a separate simple driveway feature class is maintained for long driveways where access to a site may not be obvious.

Custodian

- Vilas County Land Information Department

Maintenance

- Street centerline updates are driven by address applications, surveys, recorded deeds, DOT road inventory reports, and orthophotos.
- 2013 intensity imagery along with 2015 orthophotos were used to re-digitize all street centerlines to improve their locational accuracy and appearance.

Standards

- Department of Military Affairs' (DMA) Office of Emergency Communications (OEC) [Wisconsin NG9-1-1 GIS Data Standard & Best Practices \(2024\)](#)
- Centerlines utilize road classifications and other standard attribute fields as laid out in Esri's Local Government Information Model.

Rights of Way

Layer Status

- The County maintains a GIS representation of ROW geometry which is included in the parcel layer and is updated as new information is received via recorded/filed documents; no identifier is assigned unless privately owned.
- There are 92 ROW polygons as of 6/19/2024
- ROW plats on file with Vilas County have been indexed, scanned and made available on the County mapping website using custom line segments to represent available plats.

Custodian

- Vilas County Land Information Department

Maintenance

- ROW polygons are updated as recorded documents or other sources provide new/additional information.

Standards

- N/A

Trails

Layer Status

- **County Forest Trails:** Maintenance phase; the County maintains linework for logging, hunter, and dispersed activity trails on the County Forest.
- **Recreation Trails:** Maintenance phase; the County maintains linework for other motorized, silent sport and water recreation trails.
 - Snowmobile
 - All/utility terrain vehicle (ATV/UTV)
 - Off-highway motorcycle (OHM)
 - Hike/bike
 - Ski/snowshoe
 - Equestrian
 - Paddling

Custodian

- Vilas County Land Information Department maintains all trail data for public consumption through maps and applications.
- Vilas County Forestry, Recreation & Land Department collects and generates original trail data for offerings on the County Forest, and coordinates any associated maps/publications.
- Vilas County Tourism & Publicity Department coordinates most official Vilas County recreation trail maps/publications and their distribution.

Maintenance

- Vilas County Forestry, Recreation & Land Department coordinates and manages County forest, snowmobile, ATV/UTV, OHM, equestrian, and some hike/bike trails. Updates are typically provided to the Land Information Department semiannually, or as needed.
- Other public and private sources, such as the Wisconsin DNR or local trail groups, provide information and updates on paddling and most hike/bike trails annually, or as needed. These updates are often facilitated through the Vilas County Tourism & Publicity Department.
- Trail data is created, updated and maintained using remote sensing techniques, GPS/GPX data, GIS data, or static maps.

Standards

- N/A

Land Use

Current Land Use

Layer Status

- Maintenance phase
- Land use mapping is a patchwork of maps from comprehensive plans adopted by municipalities and the County.

Custodian

- North Central Wisconsin Regional Planning Commission (NCWRPC)

Maintenance

- Last updated 2010
- Regular updates should occur every 10 years to coincide with the census cycle with intermittent updates occurring between census years to reflect any changes.
- Hard-copy documentation received from municipalities is archived in the Zoning Department.

Standards

- N/A

Future Land Use

Layer Status

- Maintenance phase
- Future land use mapping is a patchwork of maps from comprehensive plans adopted by municipalities and the County.

Custodian

- North Central Wisconsin Regional Planning Commission (NCWRPC)

Maintenance

- Updated as necessary with information provided by the municipalities.
- Hard-copy documentation received from municipalities is archived in the Zoning Department.

Standards

- [§66.1001, Wis. Stats.](#) – Comprehensive planning.

Zoning

County General Zoning

Layer Status

- Maintenance phase; the County maintains a GIS representation of County general zoning boundaries for up to 15 zoning types

Custodian

- Vilas County Land Information Department (GIS data)
- Vilas County Zoning & Planning Department (original records, both hardcopy and digital)

Maintenance

- GIS data updated at the direction of the Planning & Zoning Department as rezones occur or corrections need to be made.

Standards

- N/A

Shoreland Zoning

Layer Status

- Complete; the County maintains a GIS representation of County shoreland zoning boundaries
- Shoreland zoning is the only County zoning that is in effect for three towns in Vilas County; the shoreland zoning layer with all appropriately-distanced-from-water polygons dissolved together exists only for these towns.
- Vilas County submits shoreland zoning data to the State annually that represents all water in Vilas County buffered by both 300ft and 1,000ft.

Custodian

- Vilas County Land Information Department

Maintenance

- Updated as necessary per instructions from the Planning & Zoning Department
- Updated after acquiring new surface water data

Standards

- [Vilas County Shoreland Zoning Ordinance](#)

Farmland Preservation Zoning

Layer Status

- The County maintains a GIS representation of County Farmland Preservation Zoning boundaries.
- The GIS dataset is updated to reflect re-zones in/out of districts since certification.
- **Year of certification:** 2015

Custodian

- Vilas County Zoning Department maintains original hardcopy and scanned documentation.
- Vilas County Land & Water Department maintains the original hardcopy documentation.
- Vilas County Land Information Department maintains the GIS data.

Maintenance

- Updated as necessary with information, such as Farmland Preservation Contracts and DATCAP-related issues, as provided by the Zoning and Land & Water departments.

Standards

- Vilas County Comprehensive Plan amendment
- Rezone policies and procedures
- Coordination between Zoning and Land & Water Conservation Department efforts.

Floodplain Zoning

Layer Status

- Complete; the County maintains a GIS representation of floodplain zoning boundaries.
- The County's floodplain zoning GIS data is the same as/identical to the [FEMA map](#).

Custodian

- Vilas County Land Information Department

Maintenance

- Updated as new FEMA floodplain data is presented to the Department

Standards

- Unknown

Airport Protection

Layer Status

- Complete; the County maintains a GIS representation of airport protection zoning boundaries.
- Airport protection zoning data depicts height limitation restrictions.

Custodian

- Vilas County Land Information Department

Maintenance

- Updated as new information is presented to the Department

Standards

- Unknown

Municipal Zoning Information Maintained by the County

Layer Status

- Maintenance phase
- Municipal zoning layers include City of Eagle River; Towns of Presque Isle and St. Germain

Custodian

- Vilas County Land Information Department

Maintenance

- City of Eagle River zoning data is updated as new ordinances are presented to the Department
- Town zoning data is updated as representatives present new data to the Department

Standards

- N/A

Administrative Boundaries

Civil Division Boundaries

Layer Status

- Maintenance phase
- The County maintains GIS representations of municipal boundaries for the County, 14 towns and 1 city.

Custodian

- Vilas County Land Information Department

Maintenance

- Updated as new ordinances are recorded in Register of Deeds (in the case of an annexation, for example), or as corrections need to be made

Standards

- N/A

School Districts

Layer Status

- Complete
- District boundaries are created using tax roll values (district numbers and names) which are joined to parcel polygons by a parcel ID; boundaries are coincident with district-exterior parcel boundaries.

Custodian

- Vilas County Land Information Department (both tax roll and GIS data)

Maintenance

- Updated when changes to school district values in the tax roll change

Standards

- N/A

Election Boundaries

Layer Status

- Maintenance phase
 - 21 supervisory districts
 - 44 local wards (five of which also make up four aldermanic districts in the City of Eagle River)
 - 15 polling places

Custodian

- Vilas County Land Information Department

Maintenance

- Updated as properties are annexed, after redistricting, or as adjustments are warranted

Standards

- N/A

Utility Districts

Layer Status

Foundational Elements

- Maintenance phase; sanitary districts are coded by tax parcel in the tax roll, which can then be joined to parcel polygons

Custodian

- Vilas County Land Information Department

Maintenance

- Updated in the tax roll as changes are made by the controlling entity

Standards

- N/A

Emergency Service Boundary – Law/Fire/EMS

Layer Status

- **Law Enforcement:** Maintenance phase
- **Fire:** Maintenance phase
- **EMS:** Maintenance phase
- Each dataset contains 28 zones within the County, attributed with the responding Agency Code, Zone Code, Zone Description, ESN, MCode, Community, County, State, Country, and 2nd Agency Code if applicable

Custodian

- Vilas County Land Information Department

Maintenance

- Modified at the request of the Vilas County Sheriff's Department

Standards

- Department of Military Affairs' (DMA) Office of Emergency Communications (OEC) [Wisconsin NG9-1-1 GIS Data Standard & Best Practices \(2024\)](#)
- Adheres to NENA standards and those developed by Spillman for use in their Flex map, used by the Vilas County dispatch center

Public Safety Answering Points (PSAP) Boundary

Layer Status

- **PSAP Boundary:** Complete

Custodian

- Vilas County Land Information Department

Maintenance

- Modified at the request of the Vilas County Sheriff's Department

Standards

- Department of Military Affairs' (DMA) Office of Emergency Communications (OEC) [Wisconsin NG9-1-1 GIS Data Standard & Best Practices \(2024\)](#)
- Adheres to NENA standards and those developed by Spillman for use in their Flex map, used by the Vilas County dispatch center

Provisioning Boundary

Layer Status

- Complete

Foundational Elements

Custodian

- Vilas County Land Information Department

Maintenance

- Modified at the request of the Vilas County Sheriff's Department

Standards

- Department of Military Affairs' (DMA) Office of Emergency Communications (OEC) [Wisconsin NG9-1-1 GIS Data Standard & Best Practices \(2024\)](#)
- Adheres to NENA standards and those developed by Spillman for use in their Flex map, used by the Vilas County dispatch center

Other Public Safety

Layer Status

- **Public Safety Answering Points:** Complete; 1 PSAP center
- **911 Call Center Service Areas:** Maintenance phase; 28 zones.
- **Healthcare Facilities:** Maintenance phase; includes hospitals, clinics, dentists, and other health-related facilities

Custodian

- Vilas County Land Information Department

Maintenance

- Areas are modified at the request of the Vilas County Sheriff's Department
- Facilities are updated as new information is presented/discovered

Standards

- Adheres to NENA standards and those developed by Spillman for use in their Flex map, used by the Vilas County dispatch center

Lake Districts

Layer Status

- Maintenance phase; lake districts are coded by tax parcel in the tax roll, which can then be joined to parcel polygons

Custodian

- Vilas County Land Information Department

Maintenance

- Updated in the tax roll as changes are made by the controlling entity

Standards

- N/A

Native American/Tribal Lands

Layer Status

- Maintenance phase
- Native American lands are coded by tax parcel in the tax roll, which can then be joined to parcel polygons
- A polygon dataset exists depicting the portion of the Tribal Reservation boundary that lies within Vilas County

Custodian

- Vilas County Land Information Department

Maintenance

- Updated in the tax roll as ownership/status changes
- Boundary polygon adjusted as necessary with regards to parcel lines

Standards

- N/A

Other Administrative Districts

Layer Status

- **County Forest Lands:** Maintenance phase – individual forest lands and a forest boundary are maintained
- **Parks:** Maintenance phase – park polygons are maintained
- **State/Federal Areas:** Maintenance phase – State areas (State natural areas, wildlife areas, forest boundaries, lands) and federal areas (Wilderness areas, forest boundaries, lands) are incorporated into County datasets for reference purposes

Custodian

- **County Forest Lands:** Vilas County Forestry, Recreation & Land Department, and the Land Information Department
- **Parks:** Vilas County Land Information Department
- **State/Federal Areas:** Wisconsin DNR, USDA

Maintenance

- **County Forest Lands:** Typically updated/verified annually in Land Information databases from Forestry data
- **Parks:** Typically updated/verified annually
- **State/Federal Areas:** Typically updated/verified annually from external data sources

Standards

- N/A

Other Layers

Hydrography Maintained by County or Value-Added

Layer Status

- Complete; from Ayres Associates
- Flowing and ponded water collected in 2017 at 1in=100ft scale from 2015 stereo imagery
 - Polygons for flowing water streams 20ft and wider
 - Lines for flowing water streams 8ft-20ft
 - Polygons for ponded water 1ac and greater
 - Permanent islands cut out from polygons
 - Hydro centerlines flow downstream through culverts and waterbodies with an inlet and outlet
 - Data attributed with hydro types, identification codes, names and feature-based elevations

Custodian

- Vilas County Land Information Department

Maintenance

- Attributes adjusted if named areas are found to be incorrect according to the US Bureau on Geographic Names (BGN) and the Wisconsin Geographic Names Council (WGNC)/DNR

Standards

- Uses DNR WBIC values for identification codes
- USGS [Elevation-Derived Hydrography Specifications](#)

Cell Phone Towers

Layer Status

- Maintenance phase of tabular data.

Custodian

- Vilas County Zoning and Planning Department

Maintenance

- The Zoning and Planning Department maintains tabular records of cell phone towers in Vilas County. A dataset showing the location of cell phone towers is generated as needed.

Standards

- N/A

Bridges and Culverts

Layer Status

- **Bridges:** 30% complete; in-house
 - Locations have been collected using stream intersections and 2015 imagery
 - Attributes need to be collected and loaded into the dataset
- **Culverts:** Complete; from Ayres Associates; horizontal location collected in 2018 using 2015 aerial imagery at 1in=100ft scale

Custodian

- Vilas County Land Information Department

Maintenance

- Updates will occur as new information is obtained from the Vilas County Highway Department, local municipalities, or other authoritative sources

Standards

- N/A

Other/Miscellaneous

Layer Status

- **Railroads:** 5% complete; limited historic railroads have been entered into GIS

Custodian

- Vilas County Land Information Department

Maintenance

- There are no active railroads in Vilas County, and therefore such data is only entered into GIS as information on historic railroads presents itself or is called for, and can be verified

Standards

- N/A

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.

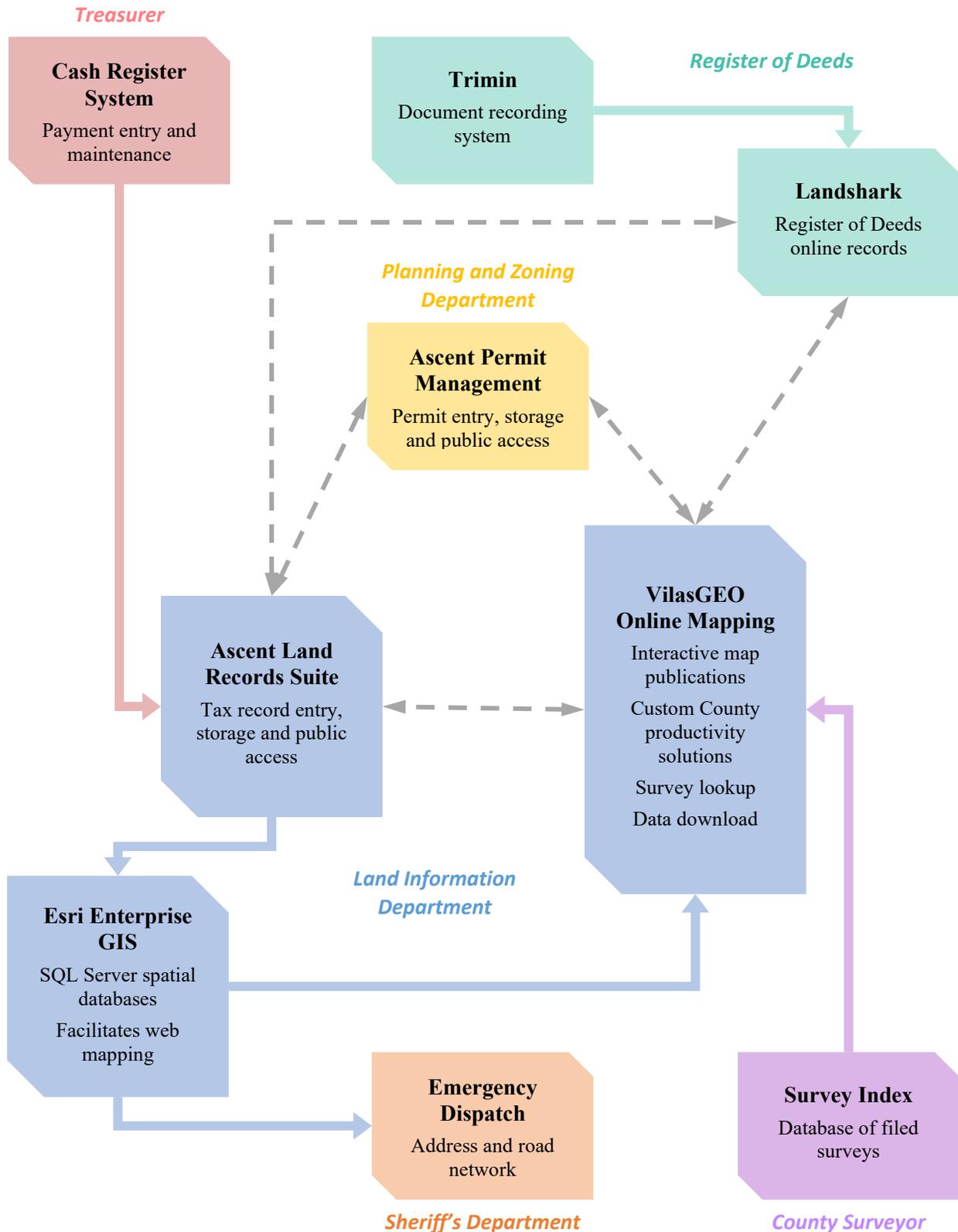
One integration requirement is listed under s. 16.967(7)(a)(1), Wis. Stats., which states that counties may apply for grants for:

- 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.

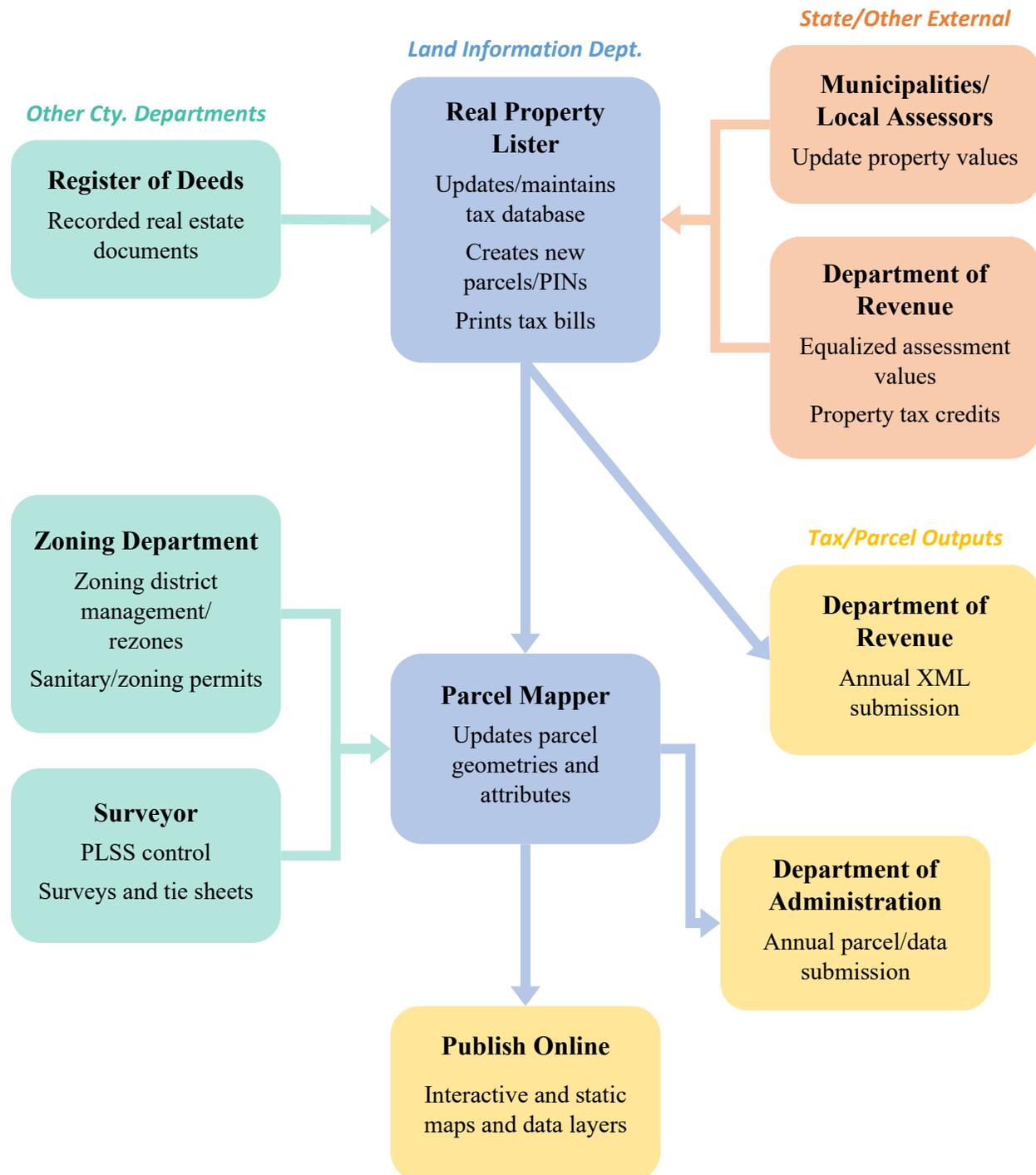
This chapter describes the design of the county land information system, with focus on how data related to land features and data describing land rights are integrated and made publicly available.

Current Land Information System

Diagram of County Land Information System



County Parcel Data Workflow Diagram



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

- Windows 11 Enterprise desktop and laptop workstations, five Windows Server 2019 Standard enterprise GIS servers

Software

- ArcGIS Desktop/Pro, ArcGIS Enterprise, ArcGIS Online
- **County currently uses ArcGIS Pro:** Yes
- **County plans to upgrade to ArcGIS Pro:** Yes; Land Information Department has completely adopted, with additional departments adopting as required.

Website Development/Hosting

- Vilas County Geospatial Online (VilasGEO) mapping site(s) developed using ArcGIS Online/Hub with custom JavaScript/HTML/CSS as needed. Mapping applications developed using Instant Apps and Experience Builder through ArcGIS Online.

Metadata and Data Dictionary Practices

Metadata Creation and Maintenance Process

- Vilas County does not actively create detailed metadata for enterprise datasets. However, the County's primary enterprise geodatabase is largely based on Esri's Local Government Information Model, and therefore contains the pre-defined Esri metadata for these datasets.

Metadata Software

- **Metadata software:** Esri built-in; the software does generate metadata consistent with the FGDC Content Standard for Digital Geospatial Metadata, and ISO geographic metadata standard 19115 and 19139.
- **Metadata fields manually populated:** None

Metadata Policy

- Vilas County does not have a formal metadata policy.

Municipal Data Integration Process

- Local assessors report assessment data to the Real Property Lister (RPL); RPL data is joined or linked to tax parcel geometry.

Public Access and Website Information

Public Access and Website Information (URLs)

Public Access and Website Information URLs			
GIS Web Mapping Application(s)	GIS Download	Real Property Lister	Register of Deeds
https://geo.vilascountywi.gov/	https://data-vilas.opendata.arcgis.com/	https://ascent.vilascountywi.gov/LandRecords/	https://landshark.vilascountywi.gov/LandShark/

Single Landing Page/Portal URL for All Land Records Data

<https://land-records-vilas.hub.arcgis.com/>

Web Services/REST End Points URL

<https://maps.vilascountywi.gov/vilasgis/rest/services>

County Webpage URL with Link to Statewide Parcel Map (www.sco.wisc.edu/parcels/data)

<https://land-records-vilas.hub.arcgis.com/>

Municipal Land Information Website Information

Municipal Website	Municipal Website URL
City of Eagle River	https://eagleriverwi.maps.arcgis.com/home/index.html *displays County data

Data Sharing

Data Availability to Public

Data Sharing Policy

- No official policy exists. A [Geodata Hub](#) website has been created to allow users to view and download many official Vilas County datasets at no charge. Some of these datasets are also openly published on the [Wisconsin State Cartographer's Office](#) website as a requirement of participating in the Wisconsin Land Information Program. Data not made available through the [Geodata Hub](#) website can be requested from the Vilas County Land Information Department, subject to any associated fees.

Open Records Compliance

- Vilas County strives to comply with Wisconsin Open Records Law concerning land information documents, maps, etc., by providing public access on the internet, by phone, through email, via US Postal Service, or in person at the courthouse.

Data Sharing Restrictions and Government-to-Government Data Sharing

Data Sharing Restrictions

- Vilas County offers [Opt-Out](#) service to individuals who request their names be removed from search functionality on the Vilas County Land Information websites. Requestors should be aware that Vilas County parcel information, including property owner names, will be available to the general public, municipal offices and other institutions that need to conduct public duties. Public records maintained by county offices remain available for viewing and distribution at the county offices.
- Downloading vector data from the Vilas County Online Mapping website requires acceptance of Vilas County's [Data Disclaimer and Usage Agreement](#).

Government-to-Government Data Sharing

- Vilas County offers opportunities for government-to-government data sharing such as:
 - Government agencies that provide partnership funding to WROC projects receive County imagery without fees or restrictions.
 - Government to government data sharing:
 - ◆ Lac du Flambeau Tribal government – County provides digital data upon request
 - ◆ City of Eagle River – third party contractor accesses Vilas County website REST site.
 - ◆ Town government – County provides digital data to third party contractors upon written request from an authorized Town official.
 - ◆ WDOA - County provides WLIP required datasets in specified format for public distribution on the WSCO website.
 - ◆ WDOR - County provides tax assessment data to WDOR in specified format (XML)

Training and Education

- Attendance at conferences, workshops, regional meetings
 - Wisconsin Land Information Association (WLIA)
 - Wisconsin Society of Land Surveyors (WSLS)
 - Wisconsin Real Property Listers Association (WRPLA)
 - Esri Wisconsin User Group (EWUG)
- Esri Training Consultant assists Vilas County to implement an ESRI educational plan based on the County's strategic planning, and maximize training funding.
- The ESRI SGELA has allowed for desirable webinar or online training opportunities.
- **The county will continue to use the WLIP training and education grant for land records staff development**

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.

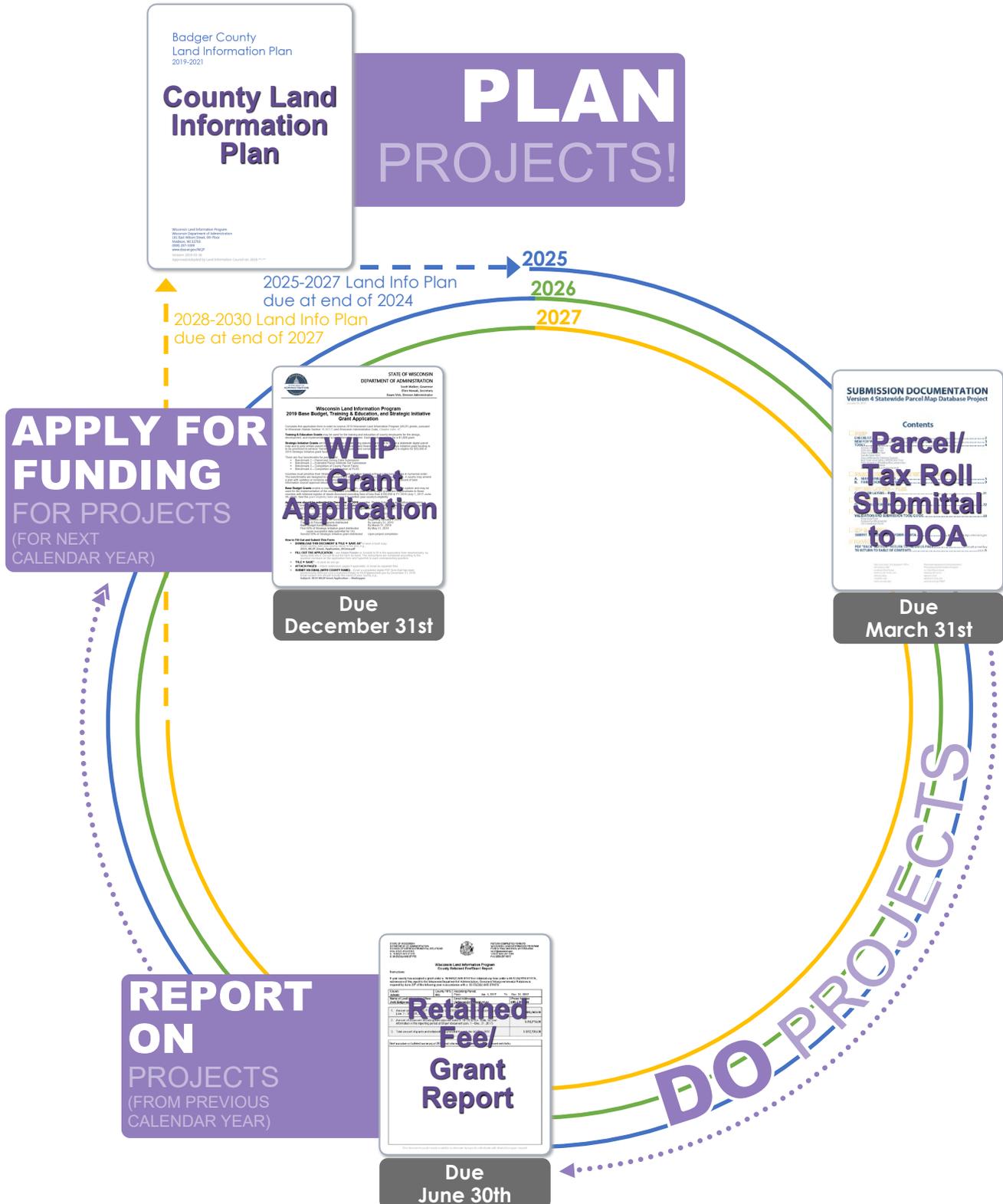


Figure 1. The WLIP Land Information Plan/Grant Project Cycle

Project #1: Training & Education

Project Description

- Attend and/or participate in various professional and educational opportunities throughout the year (WLIA, WSLS, WRPLA, training courses, etc.)
- **Land Info Spending Category:** Training and Education

Business Drivers

- Increase efficiency and proficiency in GIS data and related systems maintenance, and in providing and making accessible County land information to users

Objectives/Measure of Success

- Continue the modernization of the County's land records systems through adoption of next-generation software, systems and solutions.

Project Timeframes

- 2025-2027

Responsible Parties

- Land Information Department

Estimated Budget Information

- See table at the end of this chapter.

Project #2: Aerial Imagery

Project Description

- To make available new imagery (top-down or oblique) at least every five years to aid in various County and public operations and situations.
- 2025 3-inch (or 6-inch depending on funding) pixel resolution 4-band county-wide orthoimagery
- **Land Info Spending Category:** Orthoimagery; Other Parcel Work; Address Points; Street Centerlines; Website Development/Hosting Services

Business Drivers

- Tax Assessment – property review, change detection
- Urban Planning & Development – site development, before & after images, blight mapping, redevelopment
- Natural Hazards & Disasters – FEMA, Emergency Management planning for flooding, tornadoes, wildfires, biological hazards
- Hydrology – stream heads, septic systems, watershed conservancy, change detection
- Infrastructure – highways, signage, buildings, asset management
- Construction – site location, roofing & wall reports, estimating
- Public Safety – 911 centers, Police/Fire/EMS, crime mapping, tactical deployment planning, address points, street centerlines
- Insurance – risk management, flood insurance, pre/post disaster, claim management

Objectives/Measure of Success

- High-quality aerial imagery obtained from an aerial imagery professional service contractor

Project Timeframes

- 2025 county-wide orthoimagery
 - March-May 2025 – flight occurs
 - June 2025-February 2026 – ortho processing and deliverable production
 - June 1, 2026 – project timeline not-to-exceed date
- Other projects to be completed as needed as time and funding permits.

Responsible Parties

- Land Information Department
- Ayres, Associates/successful contract bidder

Estimated Budget Information

- See table at the end of this chapter.

Project #3: Document Imaging/Indexing

Project Description

- Zoning document scanning
 - Scan historic zoning permits
 - Scan pertinent zoning file notes
 - Rescan existing documents that do not meet current imaging standards
 - Estimated 150,000 documents to be scanned
- Scan/rescan documents of record to meet current imaging standards
- Index new/legacy scanned documents
- **Land Info Spending Category:** Website Development/Hosting Services

Business Drivers

- Zoning document scanning
 - Historic permitting used by industry partners (real estate agents, assessors, plumbing professionals, well drillers, contractors, title companies, etc.) and the general public will be more widely available and easily accessible.
 - Record retention ordinances require permanent retention of all permit applications
 - Limited space is available within County facilities for hard copy storage
- Recorded/historic information utilized by the Real Estate community (title companies, attorneys, realtors, etc.) and the general public will be in searchable, digital format available on the internet.
- Limited space to store hard-copy records within the Courthouse.
- The historic records may be available through the County's website in the future.

Objectives/Measure of Success

- Zoning document scanning
 - Scanning of all permit applications, reports, and file notes
 - All scanned permits and reports are searchable and available to the public online
 - All scanned file notes are searchable and available to internal users through permitting software
 - Hard copies are destroyed and removed as permitted by records retention ordinances and standard practices
- All scanned documents are searchable and available via a digital index
- There are more volumes of tax records dating back before 1900 which will be imaged as time and funding permits until all records are in digital format.

Project Timeframes

- Zoning document scanning
 - Starting first quarter of 2026 depending on time, funding, and third-party vendor availability
 - Completion by end of 2026 depending on time, funding, and third-party timeframes
- Project(s) to be completed as time and funding permits.

Responsible Parties

- Land Information Officer will be kept apprised of projects to ensure available funds
- Zoning Administrator will coordinate any projects with the LIO and will work directly with the successful contractor through project completion.
- Treasurer will coordinate any projects with the LIO and will work directly with the successful contractor through project completion.
- Register of Deeds will coordinate any projects with the LIO and will work directly with the successful contractor through project completion.
- Information Technology Department will help facilitate the storage of scanned documents

Estimated Budget Information

- See table at the end of this chapter.

Project #4: Parcel Fabric Implementation

Project Description

- Using enterprise GIS software, the parcel fabric provides a comprehensive framework for managing, editing, and sharing parcel data.
- **Land Info Spending Category:** Digital Parcel Mapping; PLSS

Business Drivers

- The Parcel Fabric organizes and integrates tax parcels and related GIS information through topologies and other quality checks, and through standardized, record-driven workflows.

Objectives/Measure of Success

- Implement, configure and use the Esri Parcel Fabric in daily tax parcel geometry maintenance.

Project Timeframes

- 2026-2029 depending on land information grant and retained fee funding.

Responsible Parties

- Third-party professional services contractor for implementation
- Land Information Department for daily maintenance of tax parcels

Estimated Budget Information

- See table at the end of this chapter.

Project #5: LiDAR Derivatives

Project Description

- The collection of QL1 aerial LiDAR data in 2022 allows for many extremely useful land information products to be derived from it, including but not limited to change detection, road network, building outlines, hydrography, culverts, and impervious surfaces.
- **Land Info Spending Category:** LiDAR; Address Points and Street Centerlines; Hydrography; Zoning

Business Drivers

- Road asset data is critical for the County. Knowing bridge and culvert locations, along with other road assets and their associated attributes, helps the Highway Department with planning and budgeting.
- Road data can also be used for supplementing or creating additional web-based mapping applications as it pertains to street centerlines.
 - Emergency response/routing
 - Weight limit restrictions
 - Surfacing
 - Environmental modeling
- Building outlines help identify structures requiring addresses for emergency service response and will identify areas of change for enforcing zoning compliance.
- Ground change detection, hydrography, culverts and impervious surfaces help with identifying the potential for erosion, flooding and other natural hazards.

Objectives/Measure of Success

- Products necessary for stated business derived from 2022 QL1 aerial LiDAR.

Project Timeframes

- Project to be completed in coordination with the Highway Department, Land & Water Conservation Department, Zoning Department, or others as time and funding permits.

Responsible Parties

- Highway Department
- Zoning Department
- Land & Water Conservation Department
- Land Information Department
- Third-party professional services contractor for creation of derivatives
- Land Information Officer will be kept apprised of projects to ensure available funds

Estimated Budget Information

- See table at the end of this chapter.

Project #6: PLSS Control Data Collection

Project Description

- To aid in parcel mapping, collect survey-grade coordinates of known non-survey-grade PLSS monuments through physical occupation, and complete any necessary corner forms to aid in perpetuation of said monuments.
- **Land Info Spending Category:** PLSS; Digital Parcel Mapping

Business Drivers

- Needed for accurate and consistent tax parcel mapping. Vilas County has completed remonumentation of all known monumented PLSS corners (4,043) with most (if not all) lost or obliterated corners (374) being in wilderness/forest land with little practical value to parcel mapping. Remaining corners without survey-grade coordinates include 1,199 sub-meter and 334 approximate coordinate values. Occupation of most of these corners finds the existing calculated value to be less than a foot different from the occupied value. For practical purposes the coordinate values currently on file with Vilas County are of sufficient accuracy for parcel mapping, especially considering the areas and parcel density in which the sub-meter, approximate and unknown corners lie. However, should a funding opportunity arise that would facilitate the collection of additional survey-grade coordinates, such an opportunity should be seriously considered.

Objectives/Measure of Success

- Convert all known and outstanding sub-meter and approximate coordinate values to survey-grade.

Project Timeframes

- 2025-2050

Responsible Parties

- Land Information Department
- County Surveyor
- Contractor for surveying professional services

Estimated Budget Information

- See table at the end of this chapter.

Completed Projects

- Land Information Systems Upgrades
 - Tax roll migrated from AS400 to Ascent Land Records Suite
 - Online GIS maps updated from Web App Builder to Instant Apps and Experience Builder
- Collection of 2022 QL1 LiDAR data
- Next-Gen 9-1-1 Go-Live
- Survey-grade GPS equipment upgraded
- Scanned historic tax rolls 1996-2002
- Acquired desktop scanners for automated recorded document scanning
- Implemented land notification system for Register of Deeds
- PLSS project to be completed by EOY 2024
- Professional conferences and training attended/completed
- Professional certifications renewed

Estimated Budget Information (All Projects)

Estimated Budget Information				
Project Title	Item	Unit Cost/Cost	Land Info Plan Citations Page # or section ref.	Project Total
Training & Education	Conference registrations/dues	\$2,000/year	Page 34	
	Meals and mileage	\$2,800/year		
	Training courses	\$6,000/year		
				\$32,400
Aerial Imagery	Nadir 6-inch aerial imagery	\$77,292 (\$76/mi ² x 1,017mi ²)	Page 34	
	5% local match for 3-inch imagery upgrade	\$5,288.40		
				\$82,580.40
Document Imaging/Indexing	Estimated 150,000 Zoning document scans	\$20,000 - \$50,000	Page 35	
				\$20,000 - \$50,000
Parcel Fabric Implementation	Implementation of Esri Parcel Fabric by third-party contractor	\$22,000	Page 36	
				\$22,000
LiDAR Derivatives	Building polygons	\$25,000	Page 37	
	Ground change detection	\$15,000		
	Hydrography	\$110,000		
	Road network	\$40,000		
				\$190,000
PLSS Control Data Collection	Coordinate	\$250/corner 1,199 sub-meter: \$300,000 334 approx.: \$84,000	Page 37	
	Coordinate + update record	\$350/corner 1,199 sub-meter: \$420,000 334 approx.: \$117,000		
				\$383,000 to \$537,000

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

