Door County
Land Information Plan
2025-2027

**Wisconsin Land Information Program
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EXECUTIVE SUMMARY

About this Document. This document is a Land Information Plan for Door County prepared by the Land Information Officer (LIO) and the Door 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 2024, Door County was awarded a $39,408 WLIP base-budget grant, a $1,000 training & education grant, and a $10,000 strategic initiative grant. The annual retained fees collected in 2023 were $60,592.

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 only estimated figures that are subject to change and are designed to serve for planning purposes only.

Land Information in Door 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 Door 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 Office. In the next three years, Door 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:

Door County Land Information Projects: 2025-2027	
Project #1	**ArcGIS Pro Parcel Fabric**
Project #2	**Aquire a drone**
Project #3	**ESRI Enterprise Data Atomization**
Project #4	**In-field data collection with mobile GPS/GIS technology**
Project #5	**Training & Education**
Project #6	**Aerial photography acquisition**
Project #7	**ESRI Enterprise Maintenance Reoccurring Services**
Project #8	**Documents/GIS Map Link**

The remainder of this document provides more details on Door 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

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

County Land Information System History and Context

The history of land information in Door County has seen steady progress with modernizing land records since the inception of the WLIP in 1989; below is a list of significant milestones in Door County's efforts:

1990 – Established a Land Information Office within existing Data Processing Department.
1992 – Adopted original "Door County Land Information Modernization Plan".
1995 – Acquired County base map consisting of shoreline, hydrology features, road centerlines, and GPS control on section corners.
1996 – Received WLIP grant award for $95,000 to support pilot parcel mapping, acquired digital soils mapping, and received digital orthophotography.
1998 – Parcel mapping completed and process established for Real Property Office to maintain. Acquired watershed and wetland mapping from WI-DNR. A Geographic Information System (GIS) was established on network of County computers with ESRI software.
1999 – Received digital soils map from Natural Resources Conservation Service (NRCS) of USDA. Converted paper, county zoning maps to digital format.
2000 – Rural Addressing Ordinance adopted and Addressing Specialist position was created and filled to maintain records and assign addresses.
2002 – Acquired elevation data (digital terrain model & 2-foot contours) through Lidar technology via a joint project with the US Army Corp of Engineers (US-ACE). Document imaging implemented in Register of Deeds, Real Property Listing, and Sanitarian Departments.
2003 – Received prior year digital orthophotography through joint project with US-ACE. Published original version of Door County Web Map, and provided initial internet access.
2007 – Acquired orthophotography & oblique images through Pictometry Inc. Land Records programming change to RPG/CGI for internet access. Inventoried land use in digital GIS format.
2008 – Received FEMA flood hazard study that included digital floodplain boundary.
2009 – Acquired orthophotography & oblique images through Pictometry Inc. A new Door County Web Map service provided additional features, and direct access from or to Land Records site.
2010 – Land Information Technical Council formed and began meeting semi-annually.
2011 – Acquired orthophotography & oblique images through Pictometry Inc.
2013 – Acquired orthophotography & oblique images and accessed through Pictometry Inc. cloud servers. Provided online access to surveyor "tie sheets" of monumented corner locations.
2014 – Developed ArcGIS Online service for mobile access of county tax parcels with land records link.
2015 – Acquired orthophotography & oblique images and accessed through Pictometry Inc. cloud servers. Provided online access to surveyor control reference sheets, which provide coordinates and show distances & bearings between section corners. Converted a number of parcel related features (easements, road rights-of-ways, plats-of-survey, certified survey maps, and plats) in AutoCAD or tabular format to GIS shapefiles and made layers available on Web Map.
2016 – Converted parcel maintenance to ESRI Parcel Fabric for more complete management of tracking layers associated with land conveyance and cadastral system. Acquired GPS coordinates on PLSS sections.
2017 – Acquired survey-controlled orthophotography from Ayres Associates. Acquired GPS coordinates on PLSS section monuments to support accurate parcel mapping. Researched new Land Records Systems. Installed a new Register of Deeds system by Fidlar Systems.
2018 – Entered into contract with Ayres to acquire LiDAR derivative products that include 1-foot contours and detailed culvert mapping to support drainage analysis.

2019 – Acquired spring aerial imagery from Pictometry, received LiDAR base data and derivative products from Ayres, contracted for building roof prints and impervious surface mapping; provided aspects of all three mentioned data sets on public-facing County GIS Map.
2020 – LandNav land records system by GCS was implemented for Treasurer and Real Property Listing, with tax bills issued and tax collection occurring for first-time under new system. Began work on new zoning and POWTS permitting web-based City Squared/Municity software for Zoning, Sanitarian, and Conservation.
2021 – New LiDAR viewer by Ayres for terrain perspectives anywhere in the County, utilizing newly acquired depression mapping, imagery, and other existing data sets. New spring (leaf-off) aerial imagery (ortho & oblique views) by Pictometry. Municity permit tracking software initial launch.
2022 – ESRI Enterprise upgrade contracted, servers made, and enterprise platform deployed on internal systems.
2023 – Acquired spring aerial imagery from Pictometry, and Treasurer's Department scanned, filed, and indexed documents.
2024 – ESRI Enterprise mapping system deployed on public domain

Reviewing the above list, it may appear that some years showed great progress where others had none; in reality, there was a continuum of effort and progress, with some projects standing out more than others for various reasons. Many layers of information developed or acquired are not listed, nor are the software tools and versions that were evaluated, installed, and trained on. The effort to modernize and provide access to Door County land information has often consisted of a number of steps and tasks, sometimes taking months or years to complete.

County Land Information Plan Process

Counties must update and submit their plans to DOA for approval every three years. The 2025-2027 Plan, completed at the end of 2024.

County Land Information Plan Timeline

- Comments on draft instructions due by February 23, 2024.
- DOA release of finalized instructions by March 31, 2024.
- April–September 2024: Counties work on Land Information Plans.
- Complete draft plans due to DOA by September 30, 2024.
- Final plans with county Land Information Council approval due by December 31, 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. Door County has designated the County's Technology Services Director, bringing the total Council membership to nine.

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, the Door County Land Information Council, and other participants listed below.

Door County Land Information Council and Plan Workgroup				
Name	**Title**	**Affiliation**	**Email**	**Phone**
+ **Zakry Schwartz**	GIS / Land Information Office Coordinator	Door County Land Use Services	zschwartz@co.door.wi.us	920-746-2391
+ **Holly Hansen**	Real Property Lister	Door County Land Use Services	hollyhansen@co.door.wi.us	920-746-2352
+ **Carey Petersilka**	Register of Deeds	Door County Register of Deeds	cpetersilka@co.door.wi.us	920-746-2271
+ **Patrick Voight**	County Board Member	Door County Board Supervisor	district19@co.door.wi.us	920-857-4533
+ **Ryan Schley**	Treasurer	Door County Treasurer	rschley@co.door.wi.us	920-746-2286
+ **Jeff Isaksen**	Realtor	Local Realtor	jeff@selldoorcounty.com	920-743-5330
+ **Aaron LeClair**	Public Safety Officer	Door County Emergency Services Director	aleclair@co.door.wi.us	920-743-5461
+ **Brian Frisque**	Land Surveyor	Private land surveying firm – Brian Frisque Surveys Inc.	brianfrisquesurveysinc@gmail.com	920-743-7183
+ **Jason Rouer**	Technology Services Director	Door County Technology Services Director	jrouer@co.door.wi.us	920-746-5983
Mariah Goode	Land Use Services Director	Door County Land Use Services Director	mgoode@co.door.wi.us	920-746-2224
Jeffery Kussow	Land Use Services Code Administrator Supervisor	Land Use Services Supervisor	jkussow@co.door.wi.is	920-213-1773

+ 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 (selection, ¼, meander) **set in original government survey** that can be remonumented in your county	• 2,142
Number and percent of PLSS corners capable of being remonumented in your county that **have been remonumented**	• 2,142 (or 100 percent)
Number and percent of remonumented PLSS corners with survey grade coordinates (see below for definition) • **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	• 2,142 (or 100 percent) have survey grade coordinates
Number and percent of survey grade PLSS corners integrated into county digital parcel layer (see definition of PLSS integration on page 37)	• 2,142 (or 100 percent)
Number and percent of non-survey grade PLSS corners integrated into county digital parcel layer	• Zero (or 0 percent)
Tie sheets available online?	Yes, (https://doorcounty.maps.arcgis.com/apps/webappviewer/index.html?id=4c94150aacd84107902b7f7accf7784e)
Percentage of remonumented PLSS corners that have **tie sheets available online** (whether or not they have corresponding coordinate values)	• 100 percent
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 percent
PLSS corners believed to be remonumented based on filed tie-sheets or surveys, but do not have coordinate values	• Zero
Approximate number of PLSS corners believed to be lost or obliterated	• Zero
Which system(s) for **corner point identification/ numbering** 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)?	• Door County unique corner point identification within Town-Range of corners based on rows numbered 1-13 from bottom up and columns assigned A-M going left to right. See example: (https://doorcounty.maps.arcgis.com/apps/webappviewer/index.html?id=4c94150aacd84107902b7f7accf7784e)
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, Plats, Condominiums, and CSMs. PLSS areas have a number of Meander Corners located along frontage of Green Bay and Lake Michigan.
Total number of PLSS corners along each bordering county	• 37
Number and percent of PLSS corners remonumented along each county boundary	• 37 (or 100 percent)
Number and percent of remonumented PLSS corners along each county boundary with survey grade coordinates	• 37 (or 100 percent)

Custodian

- Real Property Lister, within Land Use Services Department.

Maintenance

- Contracted out with a local land surveying firm on an annual basis for maintenance of PLSS section corners.

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.

Other Geodetic Control and Control Networks

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

Layer Status

- A report of a High-Accuracy Reference Network (HARN) for Door County was received in the late 1990s from local surveying firm Baudhuin Incorporated. The network consisted of 22 monuments with GPS coordinates established; 13 points established by Baudhuin Incorporated, five by National Geodetic Survey (NGS), and four along the county line by Ayres Associates.

Custodian

- Door County GIS/LIO Coordinator and Real Property Lister. The Door County HARN report is linked off the County's Land Information Portal page.

Maintenance

- N/A.

Standards

- N/A.

Parcel Mapping

Parcel Geometries

Layer Status

- **Progress toward completion/maintenance phase:** In Door County, 100% of the county's parcels are available in a commonly-used digital GIS format. All Door County tax parcels have been digitally mapped and maintained since 1998.
- **Projection and coordinate system:** Projected Coordinate System:
  NAD_1983_StatePlane_Wisconsin_Central_FIPS_4802_Feet
  - Projection: Lambert_Conformal_Conic
  - False_Easting: 1968500.00000000
  - False_Northing: 0.00000000
  - Central_Meridian: -90.00000000
  - Standard_Parallel_1: 44.25000000
  - Standard_Parallel_2: 45.50000000
  - Latitude_Of_Origin: 43.83333333
  - Linear Unit: Foot_US
- **Integration of tax data with parcel polygons:** The county does not have a parcel polygon model that directly integrates tax/assessment data as parcel attributes. Door County runs a nightly task scheduler that joins assessment data to parcel geometry.
- **Online Parcel Viewer Software/App and Vendor name:** The Door County Web Map (Https://gis.co.door.wi.us/gismap) has been maintained in an ArcGIS Enterprise environment since 2022 after retiring the door county GeoMoose software. Huston Engineering (HEI) assisted in developing the Door County GIS Map by creating 5 GIS dedicated servers. All data is hosted locally on an internal data store which is uploaded into a progress geodatabase

format. All data is consistently updated and pushed to the web via ArcGIS Pro IDLE written code which makes for a seamless transition from editing to publishing geodatabases.

- **Unique URL path for each parcel record:** The Door County Web Map site does allow for a unique URL path for each parcel record for viewing the parcel map with link to URL of land records system for viewing associated assessment data, tax bills, permits, surveys, or other related information. The URL values include the parcel identification numbers and are stable so that they could be exported.

Custodian

- The Door County Real Property Lister (RPL) maps the parcel geometry, enters attribute information into land records system, and the GIS/LIO Coordinator updates the online sites.

Maintenance

- **Update Frequency/Cycle**. Parcel polygons are generally updated twice a month on the Door County Web Map. This site by far gets the most activity.

Standards

- **Data Dictionary**: The ESRI parcel fabric process is documented as well as the process for posting tax parcels online, and are separate from the tax parcel metadata.
- Door County's annual parcel and other data submission to DOA as part of WLIP requirements meets their standard for acceptance. The 2024 submission was version 10. Door County plans to adhere to future data submission requirements, as they are potentially revised.

Parcels Without Land Value

Layer Status

- **As of the current date. How many parcels without a land value has the county recorded:**
  - **Date:** 09/03/2024
  - **Number of parcels without a land value:** 1
- **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 and 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 and a land value of $0.
  - For (b.), indicate how the county maps these parcels without land values.
    - Door County currently maps parcels without land value as a stacked parcel.

Assessment/Tax Roll Data

Layer Status

- **Tax Roll Software/App and Vendor name:** Door County in March of 2020 switched to LandNav by GCS.
- **Municipal Notes:** NA, as all tax listings and tax rolls are administered by Door County for all municipalities within the County.

Custodian

- The Door County Deputy Treasurer enters assessment records and the Door County Real Property Lister processes deeds to ensure tax rolls are prepared, and tax bills are calculated and printed.

Maintenance

- **Maintenance of the Searchable Format standard:** Door County contracts with GCS Software for maintenance on LandNav land records system for any necessary changes to Searchable Format standard.
- **Searchable Format Workflow:** Data is downloaded from county land record system and the GIS/LIO Coordinator reviews, calculates, and formats data to meet Searchable Format. The submission of parcel/tax roll data requires some significant review and formatting every year to ensure data are to DOA standards.

Standards

- 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

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

Layer Status

- Sanitarian (POWTS) Permits.

Custodian

- Sanitarian division of Land Use Services Department.

Maintenance

- Maintained by Sanitarian staff as permits are indexed to parcel number.

Standards

- N/A.

ROD Real Estate Document Indexing and Imaging

Layer Status

- **Grantor/Grantee Index:** All documents are indexed by grantor and grantee.
- **Tract Index:** Tract indexing is based on PLSS and Plats for the following document types: deeds, plats, certified survey maps (CSMs), condominiums, and other instruments referencing real estate.
- **Imaging:** Imaging for Register of Deeds is now on Fidlar system and can be accessed by County staff or business partners with Laredo software agreement and/or general public via Tapestry, a web and fee-based system.
- **ROD Software/App and Vendor Name:** In 2017, Door County replaced its in-house Register of Deeds system with Laredo/Tapestry software by Fidlar.

Custodian

- County Register of Deeds.

Maintenance

- Fidlar maintains system.

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:** LiDAR was collected on Door County in Spring 2018 under FEMA funding and delivered in Fall 2019. LiDAR data was last collected for Door County in 2002.
- **Accuracy:** New 2018 LiDAR meets same specifications as that of 3-Dimensional Elevation Program (3DEP).
- **Post spacing:** Cell Size 1.0 meter GSD Resolution
- **Contractor's standard, etc.:** LAS v1.4, Point Record Format 6.
- **Next planned acquisition year:** There are no plans to identify a year for next LiDAR acquisition as the timespan was 16 years between the first two, and the 2018 acquisition project was very much dependent upon funding sources, updates to technology, and potential benefits of new information supporting better analysis, planning, and conservation practices. A subsequent planned LiDAR acquisition will probably not be planned for at least ten years, allowing for sound review of 2018 project and its benefits. Future LiDAR projects would be evaluated for potential benefits with the technology, as well as be dependent on funding sources and budgets as those cycle years approach.

Custodian

- FEMA funded 100 percent of the base 2018 LiDAR collection. Door County then acquired derivative products contracted with Ayres Associates for the post-processing of add-on products (included 1-foot contours, detailed streams, and culvert identification). Door County LIO is custodian of the LiDAR data and associated derivatives received.

Maintenance

- N/A.

Standards

- National Geospatial Program LiDAR Base Specification Version 1.2.

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

- Bare-Earth Digital Elevation Model (DEM); 1-foot elevation contours; hydro flattening break lines; bare-earth point dataset; intensity imagery; culvert inventory; and depression mapping.

Custodian

- Ayres Associates processed data deliverables that were received by Door County GIS/LIO Coordinator in Fall 2019.

Maintenance

- N/A.

Standards

- N/A.

Other Types of Elevation Data

Layer Status

- Elevation contours of 1-foot interval.

Custodian

- Ayres Associates processed data deliverables that were received by Door County GIS/LIO Coordinator in Fall 2019.

Maintenance

- N/A.

Standards

- N/A.

Orthoimagery

Orthoimagery

Layer Status

- **Most recent acquisition year:** 2023.
- **Resolution:** 9-inch.
- **Contractor's standard:** Pictometry.
- **Next planned acquisition year:** 2025, probably to include oblique acquisition.

Custodian

- Door County GIS/LIO Coordinator.

Maintenance

- N/A.

Standards

- N/A.

Historic Orthoimagery

Layer Status

- Several different years (1938 – 1992) of full county aerial coverage in black & white prints (see http://map.co.door.wi.us/gis-lio/Historical-Aerial-Photography.pdf). Each digital version year can be viewed on Web Map (https://gis.co.door.wi.us/gismap) by expanding "Historic Aerial Photos" subfolder to select. There are no plans to convert the older years to a digital format.

Custodian

- Door County GIS/LIO Coordinator, Land Use Services Department, Soil & Water Conservation Department, and USDA Farm Services Agency.

Maintenance

- Since 2007, the County has been on a two-year cycle to acquire updated aerial imagery.

Standards

- N/A.

Other Types of Imagery

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

Layer Status

- Imagery years from 2007, 2009, 2011, 2013, 2015, 2019, and 2021 all included full county coverage of oblique imagery. From the Door County Web Map, the Aerial Viewer tool allows user to select oblique imagery off of Pictometry cloud servers (see https://gis.co.door.wi.us/gismap under pictometry tab). Oblique imagery was acquired in spring of 2023, and is planned for another acquisition in spring 2025.

Custodian

- Door County GIS/LIO Coordinator.

Maintenance

- Pictometry cloud servers house and manage all years of historic oblique imagery. Door County GIS/LIO Coordinator maintains the GIS layers (road centerlines, address points, and parcel polygons) on Pictometry servers that can be viewed and accessed in conjunction with oblique imagery.

Standards

- N/A.

Address Points and Street Centerlines

Address Point Data

Layer Status

- Addressing points are complete and maintained countywide.

Custodian

- Door County GIS/LIO Coordinator.

Maintenance

- Addressing is maintained as changes occur and new assignments are made.

Standards

- Wisconsin GIS NG9-1-1 Data Standard (Site/Structure Address Point).

Building Footprints

Layer Status

- An inventory of building roof prints was generated by East View Geospatial utilizing 2019 aerial imagery. New building outlines were delivered in fall 2019 and made accessible from County GIS Map.

Custodian

- Door County GIS/LIO Coordinator.

Maintenance

- No current plans to maintain or to acquire an updated inventory.

Standards

- N/A.

Other Types of Address Information

e.g., Address Ranges

Layer Status

- Address ranges are included attributes of road centerline layer.

Custodian

- Door County GIS/LIO Coordinator.

Maintenance

- Maintained as needed.

Standards

- N/A.

Street Centerlines

Layer Status

- Complete and maintained countywide.

Custodian

- Door County GIS/LIO Coordinator.

Maintenance

- Maintained as needed.

Standards

- Wisconsin GIS NG9-1-1 Data Standard (Road Centerline).

Rights-of-Way

Layer Status

- Complete and maintained countywide.

Custodian

- Door County Real Property Lister.

Maintenance

- As changes occur and managed in conjunction with parcel edits as part of ESRI parcel fabric.

Standards

- ESRI parcel fabric.

Trails

e.g., Recreational Trails, Snowmobile Trails

Layer Status

- Snowmobile trails, Ice-age trail, Ahnapee State Trail, bicycle routes, and The Nature Conservancy trails are updated as changes are reported.

Custodian

- Door County GIS/LIO Coordinator.

Maintenance

- As reported and needed.

Standards

- N/A.

Land Use

Current Land Use

Layer Status

- Land Use Services has a countywide land use inventory from 2014.

Custodian

- Planning Division of Land Use Services.

Maintenance

- Door County GIS/LIO Coordinator will maintain as requested.

Standards

- N/A.

Future Land Use

Layer Status

- Land Use Services has a countywide future land use map.

Custodian

- Planning Division of Land Use Services.

Maintenance

- Door County GIS/LIO Coordinator will maintain as requested.

Standards

- s. 66.1001, Wis. Stats. Comprehensive planning.

Impervious Surface

Layer Status

- Land Use Services has a 2017 countywide inventory of area designated as being impervious surfaces.

Custodian

- Door County GIS/LIO Coordinator.

Maintenance

- Contract vendor as needed using aerial imagery as source data.

Standards

- N/A.

Protected Lands

Layer Status

- Land Use Services has a 2017 countywide protected lands map inventory.

Custodian

- Planning Division of Land Use Services.

Maintenance

- Door County GIS/LIO Coordinator will maintain as requested.

Standards

- N/A.

Zoning

County General Zoning

Layer Status

- The County maintains a GIS representation of county comprehensive zoning boundaries. Door County Comprehensive Zoning is administered for 9 of the 14 towns.

Custodian

- Land Use Services Department.

Maintenance

- Door County GIS/LIO Coordinator updates map/layers when changes are adopted.

Standards

- N/A.

Shoreland Zoning

Layer Status

- The County maintains a GIS representation of county shoreland zoning boundaries. Shoreland Zoning is administered for all towns within Door County and is based on buffer distances from designated navigable lakes, bays, streams, and ponds.

Custodian

- Land Use Services Department with assistance from Wisconsin DNR on determinations of the navigability of various water bodies.

Maintenance

- Door County GIS/LIO Coordinator maintains updates as changes are adopted or reported.

Standards

- N/A.

Farmland Preservation Zoning

Layer Status

- The County maintains a GIS representation of county farmland preservation zoning boundaries.
- Year of certification: 2014.

Custodian

- Land Use Services Department.

Maintenance

- Door County GIS/LIO Coordinator will maintain layer in conjunction with Comprehensive Plan as changes are adopted.

Standards

- N/A.

Floodplain Zoning

Layer Status

- 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.
- FEMA Flood Insurance Rate Maps (FIRMs) can be changed through "Letters of Map 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.

Custodian

- Land Use Services Department.

Maintenance

- Letters of Map Amendment are placed with Land Use Services parcel records but floodplain zoning GIS data is not updated by the County.

Standards

- N/A.

Airport Protection

Layer Status

- The County maintains a GIS representation of airport protection zoning boundaries.
- Airport protection zoning map depicts structure height limitation restrictions.

Custodian

- Land Use Services Department and Cherryland Airport manager.

Maintenance

- Door County GIS/LIO Coordinator will update as changes are reported.

Standards

- N/A.

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

- Door County has maintained Zoning Information for the Village of Sister Bay in the past, based on work rates for custom mapping.

Custodian

- Door County Land Use Services Department.

Maintenance

- As requested by the Village of Sister Bay (or any other municipality, and based on County rates for GIS/mapping services).

Standards

- N/A.

Administrative Boundaries

Civil Division Boundaries

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

Layer Status

- Municipal Civil Districts are mapped and maintained for all municipal boundaries within the County.

Custodian

- Door County GIS/LIO Coordinator.

Maintenance

- Door County Real Property Lister maintains layer as annexations occur or changes reported.

Standards

- N/A.

School Districts

Layer Status

- Progress toward completion/maintenance phase: Countywide school district layer has been completed for a number of years.
- Relation to parcels: School district is an attribute of parcel data.

Custodian

- Door County Real Property Lister maintains school district attribute on each parcel.

Maintenance

- Door County GIS/LIO Coordinator maintains school district mapping as reported and needed.

Standards

- N/A.

Election Boundaries

Wards, Polling Places

Layer Status

- Municipal wards are mapped countywide and polling address is an attribute of wards.
- Polling places are also maintained as a point shapefile.

Custodian

- County Clerk.

Maintenance

- Door County GIS/LIO Coordinator.

Standards

- N/A.

Voting Districts

Layer Status

- Various voting districts of school districts, supervisory districts, aldermanic districts, and municipal ward number are all tracked with different attributes within wards.

Custodian

- County Clerk.

Maintenance

- Door County GIS/LIO Coordinator.

Standards

- N/A.

Utility Districts

Sanitary District

Layer Status

- Sanitary districts for voting and/or billing is a layer that was developed through the parcel maintenance and management.

Custodian

- Door County Real Property Lister.

Maintenance

- Parcel attributes maintained by Real Property Lister. Door County GIS/LIO Coordinator will continue to provide maps as updates are requested.

Standards

- N/A.

Sanitary Service Areas and Private Sanitary Systems

Layer Status

- Public sanitary serviced areas and private sanitary systems layers were developed by Land Information Office with input from Sanitarian Division.

Custodian

- Sanitarian Division of Land Use Services Department.

Maintenance

- Door County GIS/LIO Coordinator maintains information when made aware of needed changes or necessary updates.

Standards

- N/A.

Emergency Service Boundary – Law/Fire/EMS

Layer Status

- **Law Enforcement:** Mapped with individual attribute fields for responding agency type.
- **Fire:** Mapped with individual attribute fields for responding agency type.
- **EMS:** Included in Emergency Response zone mapping with individual attribute fields for Ambulance and First Responders agency type.

Custodian

- Emergency Management & Communications (or Dispatch Center).

Maintenance

- Door County GIS/LIO Coordinator maintains information when made aware of needed changes.

Standards

- Wisconsin GIS NG9-1-1 Data Standard (Emergency Service Boundary).

Public Safety Answering Points (PSAP) Boundary

Layer Status

- PSAP Boundary is the Door-Kewaunee County line extended west into bay of Green Bay and east into Lake Michigan and includes all County land and those waters north designated as being in the jurisdiction of Door County, Wisconsin.

Custodian

- Emergency Management & Communications (or Dispatch Center).

Maintenance

- Door County GIS/LIO Coordinator maintains information when made aware of needed changes.

Standards

- Wisconsin GIS NG9-1-1 Data Standard (PSAP Boundary).

Provisioning Boundary

Layer Status

- PSAP Boundary is the Door-Kewaunee County line extended west into bay of Green Bay and east into Lake Michigan and includes all County land and those waters north designated as being in the jurisdiction of Door County, Wisconsin.

Custodian

- Emergency Management & Communications (or Dispatch Center).

Maintenance

- Door County GIS/LIO Coordinator maintains information when made aware of needed changes.

Standards

- Wisconsin GIS NG9-1-1 Data Standard (Provisioning Boundary).

Other Public Safety

e.g., Healthcare Facilities

Layer Status

- Some healthcare facilities have been identified and mapped as part of other project purposes.

Custodian

- Door County GIS/LIO Coordinator or Emergency Management.

Maintenance

- Door County GIS/LIO Coordinator maintains information when made aware of needed changes to any of the four types of response zones.

Standards

- N/A.

Lake Districts

Layer Status

- Door County does not have Lake Districts, so does not have a Lake District layer.

Native American/ Tribal Lands

Layer Status

- Door County does not have a designated tribal land so does not have a Native American Lands layer.

Other Administrative Districts

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

Layer Status

- Door County maintains a Parks layer of State and County Parks.
- Door County maintains a Managed Forest layer based on active lands participating in either of the WI-DNR Forest Tax programs (Managed Forest Law or Forest Crop Law).

Custodian

- Door County Parks and Wisconsin Department of Natural Resources.

Maintenance

- Door County Real Property Lister and GIS/LIO Coordinator maintain layers when made aware of changes.

Standards

- N/A.

Other Layers

Hydrography Maintained by County or Value-Added

e.g., Hydrography maintained separately from DNR or value-added, such as adjusted to orthos; Elevation-Derived Hydrography

Layer Status

- Hydrography is maintained as part of parcel management with ESRI Parcel Fabric.

Custodian

- Door County staff.

Maintenance

- Door County Real Property Lister and Door County GIS/LIO Coordinator.

Standards

- N/A.

Cell Phone Towers

Layer Status

- Cell tower inventory approx. 12 years ago, but not all items are reported to the county and therefore not maintained.

Custodian

- Land Use Services Department.

Maintenance

- Not maintained.

Standards

- N/A.

9-1-1 Radio Communication Towers

Layer Status

- Critial radio towers and communication paths.

Custodian

- Door County Emergency Management Services.

Maintenance

- Door County GIS/LIO Coordinator as changes are reported.

Standards

- N/A.

Bridges and Culverts

Layer Status

- Planned to be inventoried as part of 2018 LiDAR project derivatives. Currently, only included in individual project designs and drawings.

Custodian

- Door County Soil and Water Conservation Department (SWCD).

Maintenance

- Door County SWCD and GIS/LIO Coordinator to potentially maintain as reported and needed.

Standards

- N/A.

Other/Miscellaneous

e.g., Pipelines, Railroads, Non-Metallic Mining, Sinkholes, Manure Storage Facilities, Invasive Species, Nutrient Management Plans, etc.

Non-Metallic Mining

Layer Status

- Identifies all mine locations in the County and depicts footprint of unclaimed/reclaimed areas for determining financial assurance calculations related to annual changes.

Custodian

- Door County Soil and Water Conservation Department (SWCD).

Maintenance

- Door County SWCD updates annually.

Standards

- Requirements of Door County Code Chapter 36 and WI Administrative Code Chapter NR135.

Sinkholes and Other Karst Features

Layer Status

- Different karst feature types were inventoried over the years and are on a number of layers.

Custodian

- Door County Soil and Water Conservation Department (SWCD).

Maintenance

- Door County SWCD updates as needed.

Standards

- Requirements of NRCS 590, Door County Code Chapter 23, and WI Administrative Code Chapter NR151.

Manure Storage Facilities, etc.

Layer Status

- Records are tracked with spreadsheets/database, but not in a formal GIS layer.

Custodian

- Door County Soil and Water Conservation Department (SWCD).

Maintenance

- SWCD maintains records as needed.

Standards

- Requirements of Door County Code Chapter 23.

Invasive Species

Layer Status

- Identifies historic and existing inventories of Phragmites Australis along county shorelines and all other county priority species: Phragmites Australis, wild parsnip, common/cut-leaved teasel, and Japanese Knotweed along rights-of-way, and private property populations of same visible from rights-of-way. Additionally, partners of the Door County Invasive Species Team provide inventory of invasive species found within and adjacent to their public accessible properties.

Custodian

- Door County Soil and Water Conservation Department (SWCD).

Maintenance

- Door County SWCD updates annually.

Standards

- WI Department of Natural Resources NR-40 classification and priority species identified within the Door County Invasive Species Strategic Plan.

Nutrient Management Plans

Layer Status

- Cropped fields that receive nutrients in the form of manure or commercial fertilizers are required to do so in a accordance with a Nutrient Management Plan which manages the amount (rate), source, placement (method of application), and timing of plant nutrients and soil amendments. All fields in current and historic plans are mapped.

Custodian

- Door County Soil and Water Conservation Department (SWCD).

Maintenance

- Door County SWCD updates annually and as plans are updated.

Standards

- Requirements of NRCS 590, Door County Code Chapter 23, and WI Administrative Code Chapter NR151.

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

The Door County land information program is made up of the staff from a variety of departments interacting with one another and the general public to provide, request, or process maps and land records as part of performing their regular business functions. A system diagram on the following page represents those business interactions. The diagram only represents land information interactions; it makes no reference to volume or critical need. As one may expect, the Land Information Officer/GIS Coordinator coordinates with the greatest variety of departments and agencies with regard to land records.

The GIS/LIO Coordinator position and Technology Services Department are critical for supporting the land information system (shown in light-yellow box in center of diagram 1). Newer technology, software systems, and networks/internet connectivity are the backbone for a land information system, and much of that planning and support is provided by the LIO and Tech Services.

There are a number of departments that provide a value-added service in managing records (green box) that are deemed extremely useful to a land information system, whether or not the user is aware. Door County's critical land information that is almost universally used would include tax parcels and road centerlines, and also the survey and description record that support their positional accuracy and provide the framework reference for most other GIS data layers. Diagram 2 identifies the importance of Parcel Data Workflow and provides more detail with regard to responsibilities and interactions. The various system users and requestors (green boxes) also provide value and enhance the land information program at the County, but have a more specialized focus, versus a universal benefit to almost all users.

A number of departments benefit directly (green boxes in Diagram 1) from the services and tools provided through an implemented land information system. The professional land use community and general public would also fall into this category and are located in center box of the diagram, as serving the general public will continue to be a primary focus of the land information program. Any specialized group or department that could benefit from the land information system is welcomed and encouraged to bring forth inquiries and requests, as appropriate.

Diagram 1: Door County Land Information System

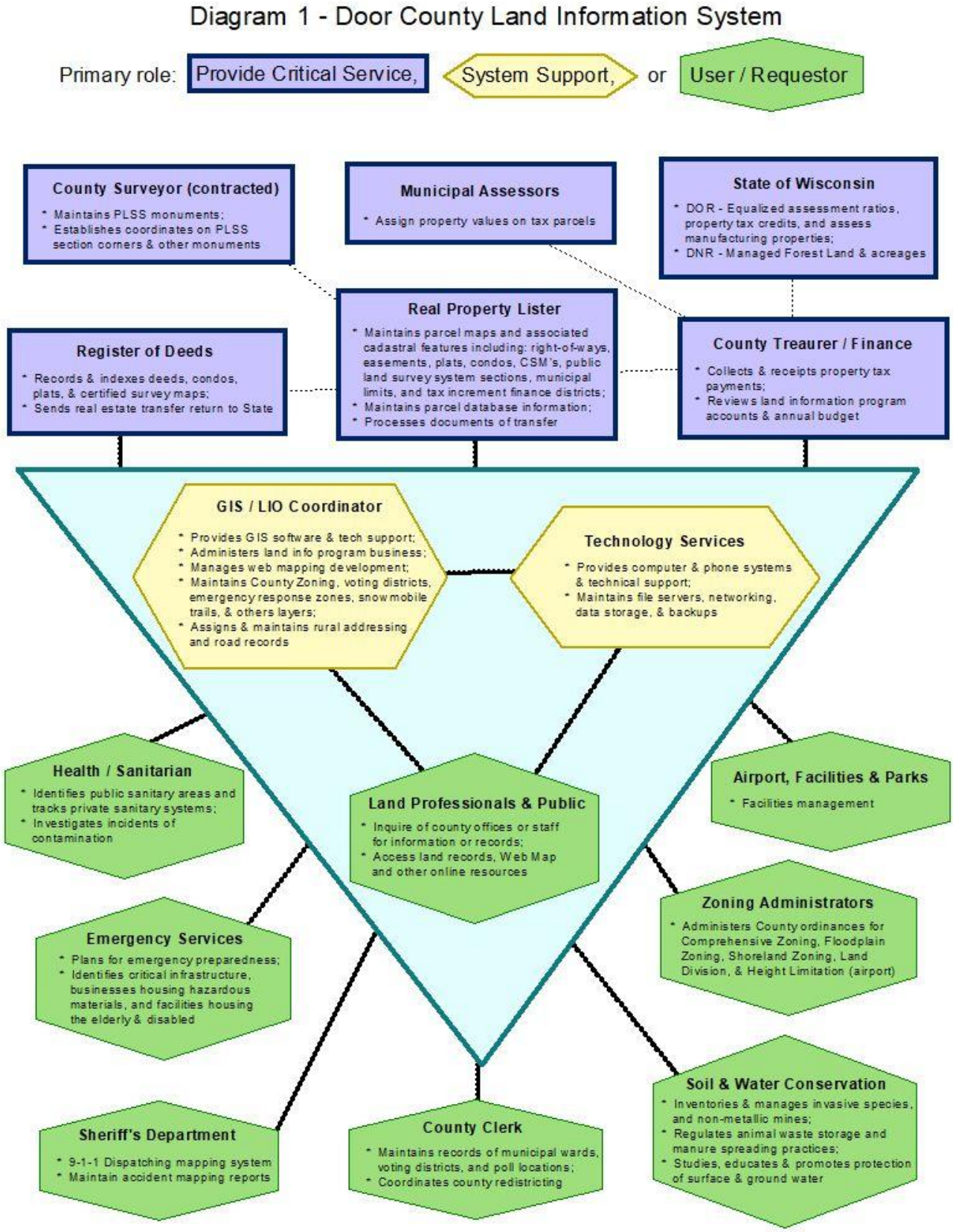
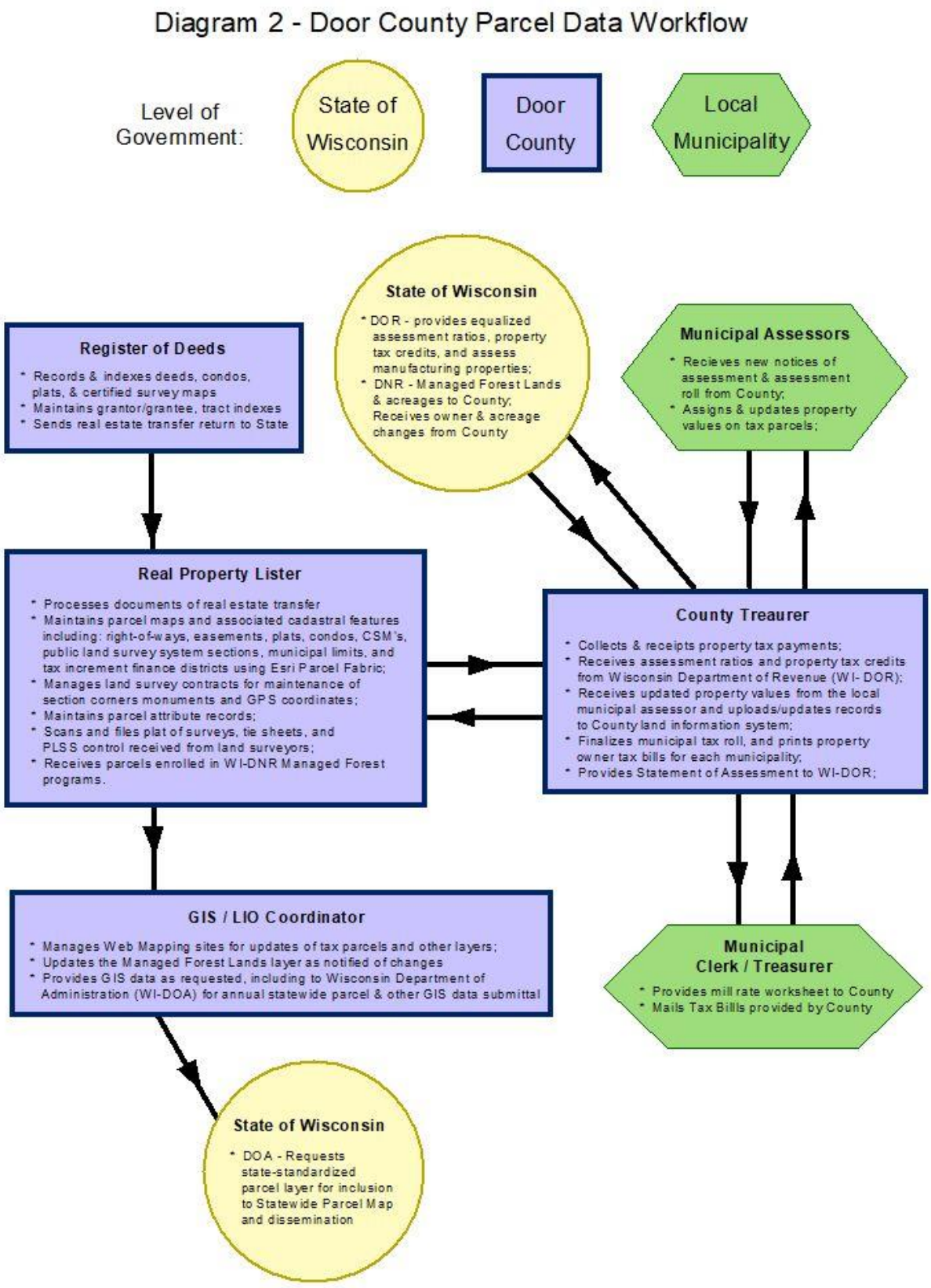


Diagram 2: Door County Parcel Data Workflow Diagram



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. Door County's land information system involves a number of programs and software to track and process records. Door County's land information system runs on the County's local area network and is supported by the Technology Services (TS) Department. The TS department manages file storage, software maintenance, and new system development and implementation. Almost all in-house client workstations are virtual computers being served up from central servers. In addition, county web sites and remote-access software such as Citrix provide access to land records for mobile county workers through a variety of portable devices.

Hardware

- Aside from computer workstations, other hardware used on a regular basis to support land information system functions include computer servers, network storage, rugged tough-book PCs, rugged camera (for inspecting sanitary systems), smart phones, iPads, scanners, printers, plotters, copiers, and GPS units. The new GCS land records system server houses data and transactions associated with Real Property Listing tax parcels and Treasurer tax records. Document image files are redundantly stored on two Unix servers and a Windows-based storage area network (SAN). Imaged records include plats of survey, tie sheets, LOMAs (FEMA Floodplain Letter of Map Amendment), and historic tax bills since 2006.

Software

- Software used regularly includes ESRI Enterprise, ArcGIS Pro, ESRI's ArcGIS10 Desktop and Parcel Fabric structure, ArcPad on rugged laptops, and old versions of ArcView3 licenses. The Soil & Water Conservation Department (SWCD) makes use of AutoCAD licenses for design drawings and uses Watershed Modeling Software (WMS) by Aquaveo for modeling water flow.

  GCS LandNav serves as the land records database systems for Real Property Listing parcel management and tax bill generation and Treasurer tax bill receipting. City Squared/Municity online permit applications and tracking for Zoning and Sanitarian divisions of the Land Use Services Department, as well as record management for SWED, was launched in August 2021.

Website Development/Hosting

- Door County GIS (Web) Map was implemented with open-source software Map Server and GeoMoose, by consultant Houston Engineering Inc. of Minnesota in 2009. The Door County GIS Map allows non-technical users and the general public to access GIS layers and land records through an intuitive map interface. The existing map server is planned to be upgraded or retired for a different server later this year. Pictometry-collected imagery can be viewed from their hosted server for accessing a number of county wide collection years of oblique and ortho-imagery and has a link from the existing GIS Map. Door County has also utilized ArcGIS Online for creating thematic map applications that are mobile friendly. Public access to Real Property and Treasurer records is through GCS LandNav portal (linked to & from GIS Map). Zoning, Sanitarian, and Conservation records will be made available through Municity/ City Squared application. In 2017, Register of Deeds converted to Laredo and Tapestry by Fidlar Systems to provide fee-based online access to Register of Deeds documents.

  Door County Technology Services Department managed an upgrade of Door County websites in 2020 that included static department information, contacts, forms, and services; as well as committee agendas, minutes and other searchable content, provided in a disability compliant format. Also, routine data updates and display changes are made through secured logon

internet connections by designated staff that have been issued the proper credentials. Overall, there are a number of web applications hosted by different service providers for their specific programs (such as permitting and land records, on-line mapping, aerial imagery, Register of Deeds documents, department information and contacts, and allowing on-line credit card payments), interlinked for providing seamless navigation for the user.

Metadata and Data Dictionary Practices

Metadata Creation

- **Metadata creation and maintenance process:** Door County has created metadata on its more critical, commonly requested GIS layers, including tax parcels, road centerline, and address points, but does not regularly update the metadata files.

Metadata Software

- **Metadata software:** ESRI's ArcCatalog has been the software used to develop and maintain geospatial metadata. 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:** Field description (attributes) are manually populated if created for a GIS layer.

Metadata Policy

- **Metadata Policy:** Door County has not implemented a policy on minimum metadata requirements for any of its datasets. However, GIS layers acquired under contract from a private vendor typically include metadata as part of the deliverables.

Municipal Data Integration Process

- For the most part, data layers are created and maintained countywide. The City of Sturgeon Bay and four villages do not fall under the County's jurisdiction with County Zoning and various planning support. The County inherited the City parcel mapping and tax database in about 1994, and therefore the City parcel numbering is somewhat different than the rest of the County. However, these exceptions have been fairly minor and have not deterred integration into the County's land records management system.

Public Access and Website Information

Public Access and Website Information (URLs)

Public Access and Website Information			
GIS Web mapping Application(s) Link - URL	GIS Download Link - URL	Real Property Lister Link - URL	Register of Deeds Link - URL
https://gis.co.door.wi.us/gismap	None	https://www.co.door.wi.gov/490/Real-Property-Listing	https://www.co.door.wi.gov/187/Register-of-Deeds

Single Landing Page/Portal for All Land Records Data
URL
https://www.co.door.wi.gov/245/Maps-and-Land-Records

County Webpage with Link to Statewide Parcel Map (www.sco.wisc.edu/parcels/data)
URL
https://www.co.door.wi.gov/636/GISLIO

Municipal Website Information	
Municipal Website	Municipal Website URL
City of Sturgeon Bay	https://www.sturgeonbaywi.org/
Village of Egg Harbor	https://www.villageofeggharbor.org/
Village of Ephraim	https://ephraim-wisconsin.com/
Village of Forestville	https://villageofforestville.com/
Village of Sister Bay	https://www.sisterbaywi.gov/
Town of Baileys Harbor	https://baileysharborwi.org/
Town of Brussels	http://www.townofbrussels.com/
Town of Clay Banks	https://www.townofclaybanks.org/
Town of Egg Harbor	https://townofeggharbor.org/
Town of Forestville	https://forestvilletown.com/
Town of Gardner	https://townofgardner.org/
Town of Gibraltar	https://gibraltarwi.gov/
Town of Jacksonport	https://jacksonport.org/
Town of Liberty Grove	https://libertygrove.org/
Town of Nasewaupee	https://www.townofnasewaupee.com/
Town of Sevastopol	https://townofsevastopol.com/
Town of Sturgeon Bay	http://www.townofsturgeonbay.us/
Town of Union	https://sites.google.com/site/townofuniondoor/
Town of Washington	https://washingtonisland-wi.gov/

Data Sharing

Data Availability to Public

Data Sharing Policy

- Door County's GIS data policy adopted in 2015 deals with native GIS data requests and is posted from the GIS-LIO Home page for easy online access (https://www.co.door.wi.gov/DocumentCenter/View/1788/GIS-Data-Policy). This link is also posted under the Door County GIS-LIO page (https://www.co.door.wi.gov/636/GISLIO). Data-viewing and access for many types of records are available to the public 24 x 7 x 365 for free from the GIS Map (https://gis.co.door.wi.us/gismap). Register of Deeds documents are also available continuously, but access is fee-based and hosted through Fidlar Systems.

Open Records Compliance

- Door County has always strived to comply with Wisconsin's Open Records Law regarding requests for GIS data and records in a timely, professional manner.

Data Sharing Restrictions and Government-to-Government Data Sharing

Data Sharing Restrictions

- A Door County Distribution Agreement (https://www.co.door.wi.gov/DocumentCenter/View/1789/DISTRIBUTION-AGREEMENT) is required to be signed and submitted with all formal data request for GIS information. This link is also available from the Door County GIS-LIO page (https://www.co.door.wi.gov/636/GISLIO).

Government-to-Government Data Sharing

- For mutual projects with Door County, there is no fee for data. However, for independent projects where another government agency (whether a local municipality, or a State or Federal agency) requests county GIS data, the government agency is charged just like any other requestor. Please refer to The GIS Data Policy at https://www.co.door.wi.gov/DocumentCenter/View/1788/GIS-Data-Policy.

Training and Education

- Door County's Land Information Office provides funding for county staff and board members to attend software training and conferences, as well as the WLIA annual conferences. Whether staff training occurred online, off-site, or with a trainer visiting Door County, the LIO has provided financial support for GIS related training in different disciplines and venues.

- In past years, the county has also upon request provided training and preparations to realtors and other land professionals regarding the county's GIS Map and land record systems.

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.

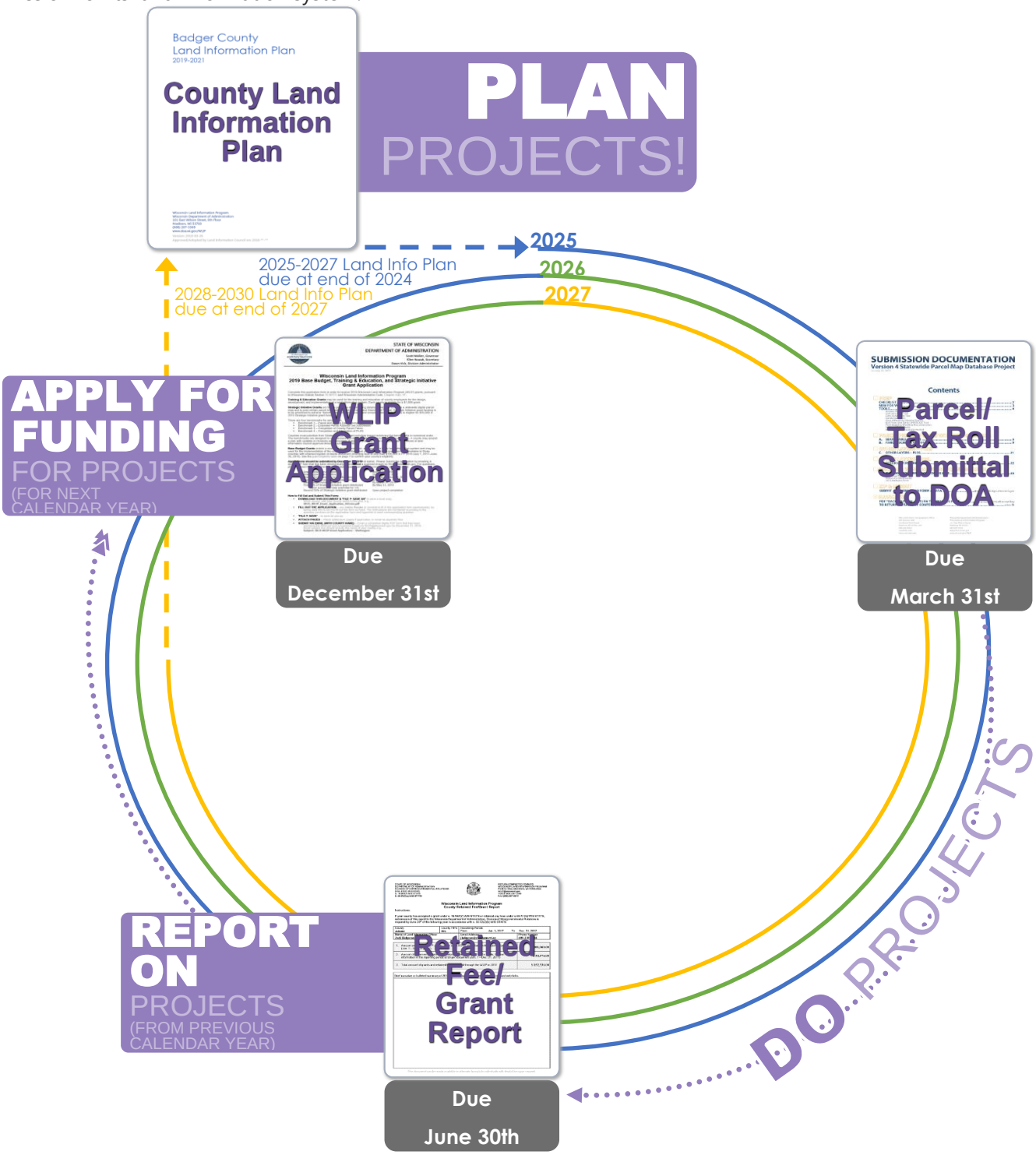


Figure 1. The WLIP Land Information Plan/Grant Project Cycle

Project #1: ArcGIS Pro Parcel Fabric

Project Description

- ProWest will be assisting Door County in upgrading from ArcMap to ArcPro parcel fabric. ProWest originally assisted Door County in creating the original parcel fabric.
- **Land Info Spending Category:** Parcel Mapping

Business Drivers

- ArcMap support ends in 2026
- Door County seeks to work 100% in ArcGIS Pro

Objectives/Measure of Success

- All geodatabase layers transitioned from ArcMap into ArcPro and updates are 100% made from ArcPro fabric.

Project Timeframes

Timeline – Project #1 ArcGIS Pro Parcel Fabric

Milestone	Duration	Date
Project #1 start (Prowest contract)	1 week	January 2025
Deliverables	4 months	May 2025
Project complete	–	June 2025

Responsible Parties

- Door County & contracted vendor ProWest.

Estimated Budget Information

- $ 18,500.

Project #2: Acquire a drone and software

Project Description

- Acquire a drone to take near infrared images, ortho images, oblique images, and LiDAR points for ground surveying. The goal is to fly over hazardous or hard to access locations such as environmentally protected areas for surveying for items such as invasive species.
- **Land Information Spending Category:** Hardware/software

Business Drivers

- Improved accuracy for the Soil and Water Department when surveying various locations throughout Door County.
- Reduced operating costs and risk of damaging protected areas.

Objectives/Measure of Success

- This will provide an efficient method for viewing out-of-reach locations. The imagery will be used for analyzing locations to provide funds for protecting site specific areas.

Project Timeframes

Timeline – Project #2 Acquire a drone and software

Milestone	Duration	Date
Project #2 start	-	February 2027
Training	1 month	June 2027

Responsible Parties

- Contracted vendor, Soil & Water Department, and GIS/LIO.

Estimated Budget Information

- $ 10,000.

Project #3: ESRI's Enterprise Data Automatization

Project Description

- Upgrading from manual updates to automatic updates for data hosted on the web map. Looking to receive an editing / publishing geodatabase system where all the data from one store is being pushed nightly to another data store for projection on the web map.
- **Land Information Spending Category:** Software.

Business Drivers

- Improved Web Map application data reliability

Objectives/Measure of Success

- A working script is written and added to a nightly task manager where the GIS data is being transferred nightly.

Project Timeframes

Timeline – Project #3 ESRI's Enterprise Upgrade

Milestone	Duration	Date
Project #1 start	-	February 2026
On-going	9 months	2026
Finished Automation	–	December 2026

Responsible Parties

- Door County, ESRI and Huston Engineering.

Estimated Budget Information

- $15,000.

Project #4: In-field data collection with mobile GPS/GIS technology

Project Description

- County staff collect data in field with mobile GPS/GIS technology to support on-going programs and county records.
- **Land Information Spending Category:** Web Host / Hardware.

Business Drivers

- Reduced costs and more efficient technologies for collecting, maintaining, and sharing records.

Objectives/Measure of Success

- Accurate, easily-shared records with cost-effective technology.

Project Timeframes

Timeline – Project #4 In-field data collection with mobile GPS/GIS technology

Milestone	Duration	Date
Project #1 start	-	February 2025
Consultant set-up / training	3 months	March 2025 – May 2025
Data collection testing and manage records	6 months	June 2026 – November 2026

Responsible Parties

- Door County GIS/LIO Coordinator and departments with interest for in-field data collection.

Estimated Budget Information

- Hosted Web Service - $5,000; Training/Set-up - $5,000; and GPS equipment - $5,000 initial investment and then annual maintenance of $4,000.

Project #5: Training & Education

Project Description

- Provide new training opportunities for staff to learn and use GIS applications.
- **Land Information Spending Category:** Training and Education, and Website Development.

Business Drivers

- More efficient staff.

Objectives/Measure of Success

- More county staff use GIS technology.

Project Timeframes

- Improving staff through training and education throughout plan's duration.

Responsible Parties

- Door County SWCD, Land Use Services and GIS/LIO Coordinator.

Estimated Budget Information

- Training - $5,000 per year, or $15,000 total.

Project #6: Aerial photography acquisition

Project Description

- Acquire new aerial imagery.
- **Land Information Spending Category:** Ortho-imagery.

Business Drivers

- Provides an established record of current land cover and structures and the ability to monitor changes from that point in time for a number of different applications, including public safety, planning and land use, assessment, conservation, and recreation.

Objectives/Measure of Success

- Identified staff, land use professionals, and the public that find imagery a useful resource on a regular basis for different applications.

Project Timeframes

- Imagery acquisition planned for spring of 2025 with deliveries to occur within 1 – 2 months of acquisition.

Responsible Parties

- Imagery contractor and Door County GIS/LIO Coordinator.

Estimated Budget Information

- $60,000 per acquisition, ($90,000 over planning period).

Project #7: Enterprise Maintenance Reoccurring Service

Project Description

- Utilizing Houston Engineering (HEI), a reoccurring service for keeping the Door County Map up-to-date on Enterprise.
- **Land Information Spending Category:** Training and Education, and Website Development.

Business Drivers

- Web Map updates and changes

Objectives/Measure of Success

- Public statements of changes are consistently met and fixed

Project Timeframes

- Improving the GIS Map of Door County throughout plan's duration.

Responsible Parties

- Houston engineering & GIS/LIO Coordinator.

Estimated Budget Information

- $5,000 per year, or $15,000 total.

Project #8: Documents/GIS Map Link

Project Description

- Utilizing Pro West, a link between parcels and documents will be made on the GIS Enterprise system.
- **Land Information Spending Category:** Training and Education, and Website Development.

Business Drivers

- Web Map updates and changes

Objectives/Measure of Success

- Public statements of changes are consistently met and fixed

Project Timeframes

- Improving the GIS Map of Door County throughout plan's duration.

Responsible Parties

- Pro West & GIS/LIO Coordinator.

Estimated Budget Information

- $7,500

Completed Projects

- 2018 – Entered into contract with Ayres to acquire LiDAR derivative products that include 1-foot contours and detailed culvert mapping to support drainage analysis.
- 2019 – Acquired spring aerial imagery from Pictometry, received LiDAR base data and derivative products from Ayres, contracted for building roof prints and impervious surface mapping; provided aspects of all three mentioned data sets on public-facing County GIS Map.
- 2020 – LandNav land records system by GCS was implemented for Treasurer and Real Property Listing, with tax bills issued and tax collection occurring for first-time under new system. Began work on new zoning and POWTS permitting web-based Municity City Squared software for Zoning, Sanitarian, and Conservation.
- 2021 – New LiDAR viewer by Ayres for terrain perspectives anywhere in the County, utilizing newly acquired depression mapping, imagery, and other existing data sets. New spring (leaf-off) aerial imagery (ortho & oblique views) by Pictometry. Municity permit tracking software initial launch.
- 2022 – ESRI Enterprise upgrade contracted, servers made, and enterprise platform deployed on internal systems.
- 2023 – Acquired spring aerial imagery from Pictometry, and Treasurer's Department scanned, filed, and indexed documents.
- 2024 – ESRI Enterprise mapping system deployed on public domain

Estimated Budget Information (All Projects)

Estimated Budget Information

Project Title	Item	Unit Cost/Cost	Land Info Plan Citations Page # or section ref.	Project Total
1) Prowest Parcel ArcGIS Pro Fabric Upgrade	Vendor / service	$18,500.00	Page 32	
				$18,500.00
2) Acquire a Drone and software	Acquire	$10,000.00	Page 32	–
				$10,000.00
3) ESRI's Enterprise Data Automation	Vendor/service	$15 ,000.00	Pages 2, 26, and 33	–
				$15,000.00
4) In-field data collection with mobile GPS/GIS technology	Contractor/vendor	$5,000.00	Pages 26 and 30 & 33	
	Hosting	$5,000.00		
	Training	$5,000.00		
				$15,000.00
5) Training & Education	On-site trainer, web classes, or traditional classroom	$5,000.00 per year	Pages 28 & 34	
				$15,000.00
6) Aerial photography acquisition	Imagery contractor	$60,000 per acquisition (or $30,000 per year)	Pages 14 & 34	
				$90,000.00
7) ESRI enterprise Maintenance Reoccurring Service	Vendor/Service	$5,000.00 per year ($15,000 total)	Pages 34 & 35	**$15,000.00**
8) Document/GIS Map Link	Vendor/Service	$7,500	Page 3 & 35	**$7,500.00**
			GRAND TOTAL	**$186,000.00**

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