



MARATHON COUNTY LAND INFORMATION COUNCIL AGENDA

September 23, 2024
5:00PM

CONSERVATION, PLANNING AND ZONING
LARGE CONFERENCE ROOM
210 RIVER DRIVE, WAUSAU, WI

Marathon County Mission Statement: *Marathon County Government serves people by leading, coordinating, and providing county, regional, and statewide initiatives. It directly or in cooperation with other public and private partners provides services and creates opportunities that make Marathon County and the surrounding area a preferred place to live, work, visit, and do business. (Last updated: 12-20-05)*

Members: *Preston Vande Voort – Land Information Officer, Gerry Klein, Dave Decker, Ryan Weber, Scott Williams, Dean Stratz, Robert Mayer, Connie Beyersdorff and Randy DeBroux*

Agenda Items:

1. Call to Order.
2. Introductions and background of LIC.

Policy Discussion and Possible Action:

3. Approve minutes of June 08, 2024, meeting
4. FY25 NG911 GIS Grant Announcement – Preston Vande Voort
 - a. Progress update
5. Marathon County Land Information Plan Update – Preston Vande Voort
 - Submission of draft to Department of Administration
 - Current plan can be viewed at: <https://www.marathoncounty.gov/services/property-land-information/gis-maps>
6. Retained Fee Budget Report – Laurie Miskimins, Morgan Arnold, and Preston Vande Voort
7. Next meeting date: to be determined.
8. Adjourn.

Persons wishing to attend the meeting by phone may call into the telephone conference ten (10) minutes prior to the start time indicated above using the following number:

Phone Number: 1-408-418-9388
Access Code/ Meeting Number: 2488 589 5388

Any person planning to attend this meeting who needs some type of special accommodation in order to participate should call the County Clerk's Office at 715-261-1500 at least one business day before the meeting.

SIGNED _____
Presiding Officer or Designee

NOTICE POSTED AT COURTHOUSE:
Date: _____
Time: _____
By: _____
County Clerk

Date: _____



**Marathon County
Land Information Council (LIC)
DRAFT Minutes**

Wednesday July 8, 2024

**Conservation, Planning and Zoning Large Conference Room
210 River Drive, Wausau, WI**

<u>Attendance</u>	<u>Present</u>	<u>Not Present</u>	<u>Attendance</u>	<u>Present</u>	<u>Not Present</u>
Preston Vande Voort	X		Dean Stratz		X
Ryan Weber	X		Randy DeBroux		X
Robert Mayer	X		Connie Beyersdorf	X	
Gerry Klein	X		Scott Williams		X
Dave Decker	X				

Others Present: Laurie Miskimins and Morgan Arnold Conservation, Planning, and Zoning (CPZ)

1. Call to Order

The meeting was called to order by Vande Voort at 4:32pm.

2. Introductions and Background of LIC

New members were not present. Introduction to the LIC will be scheduled for a future meeting.

3. Approve minutes April 22, 2024, meeting.

Action: Motion / second by Mayer/Klein to approve the minutes of the April 22, 2024, meeting.

Motion carried on voice vote, no dissent.

4. Retained Fee Budget Report – Laurie Miskimins, Morgan Arnold, and Preston Vande Voort

Discussion: Miskimins presented an updated actual vs projected revenue and expenditures. Projected revenue is \$135,000 for the year and currently have brought in \$68,000. At this point anticipate revenue to be lower this year. Vande Voort reported that recorded documents have been down 30% this year. Outstanding projects include LIDAR project enhancements (\$80,000), studio upgrades (\$13,000), and training with new platform with Enterprise. Continuing to spend more than bringing in each year. Miskimins discussed with administrator. Administrator wants to reconsider personnel cost coming out of retained fees. Annual budget is not sustainable continuing status quo. Arnold is unable to track by date when revenue comes into the retained fees. It was determined that more discussions and decisions are to come.

5. FY25 NG911 GIS Grant Announcement – Preston Vande Voort

Discussion: This is the 2nd year the Department of Military Affairs Emergency Communication Center has rolled out grant for Next Gen911. LIC did receive the grant last year for approximately \$12,000 for Geo MSAG Dispatch. Last year the state put \$1 million into the grant and this year will be \$6 million. It was proposed to use grant funds towards the orthoimagery services. LIC will be seeking approval for the 2025 Wisconsin, Regional, Orthoimagery Consortium (WROC) for the 6-inch pixel resolution for \$119,700.00 in 2025. The funds would come from CIP, and or retained fees. It was proposed to select the 3-inch pixel resolution, for a total cost of \$283,500.00, and apply to the NextGen grant for approximately \$164,000 to pay for difference in 3-inch pixel resolution for orthoimagery services. One of the criteria for the grant is for an enhancement. It would aid dispatch with enhanced data sets for building footprints, address points, and center lines. If we do not get the grant, LIC would use the 6-inch pixel resolution.

Action: Motion / second by Klein / Mayer to apply for grant funding for 3-inch pixel resolution for \$283,000

Motion carried by voice vote, no dissent.

6. Marathon County Land Information Plan Update – Preston Vande Voort

Discussion: The land records modernization plan must be updated every 3 years. Must be submitted to state by September 31, 2024. Some elements need to be updated and added including but not limited to LIC names and staff, public survey monuments, removing Rib Mountain from plan, utilities projects, LIDAR data sets, public access to website, tech, reviewing diagram of how parcels and pins are generated, and projection of projects LIC would like to do. Some future projects may include parcel fabric government solutions for mapping efficiencies with enterprise geodatabase, privacy owner name for Daniel's Law, ETL

for NextGen 911, and accessing data to public. Vande Voort requests suggestions and input from LIC members. First draft to be completed by end of August for approval in September meeting.

7. Next meeting date: To be determined. It will likely be in September.

8. Adjourn.

There being no further business to discuss,

Action: Motion / Second by Klein/Mayer to adjourn the meeting at 4:52pm. Motion carried by voice vote, no dissent.

Submitted by:
Preston Vande Voort
GIS Coordinator

Marathon County Land Information Plan 2025-2027

Draft



Marathon County
Land Information Office
1000 Lake View Drive
Wausau, WI 54403

Version: 2024 -9 -16

Approved/Adopted by Land Information Council on: 2024-X-X

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EXECUTIVE SUMMARY

About this Document. This document is a land Information Plan, prepared by the Land Information Office (LIO) staff, department staff, and the Marathon County Land Information Council (LIC). 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 to meet WLIP funding eligibility requirements necessary for receiving grants and retaining fees for land information modernization. The plan also provides county, municipal officials, public agencies, and private entities with the basic knowledge of Marathon County’s plan for land information modernization and integration. The goal is to improve the efficiency of government thus providing improved government services to businesses and county residents. This plan is considered a living document, and the county may amend the plan with updates or revisions as appropriate and approved by the Land Information Council.

WLIP Background. The WLIP, administered by the Wisconsin Department of Administration, is funded by document recording fees collected by the County Register of Deeds. A portion of these fees are retained by the County to be used for local Land Records Modernization tasks. A portion of these fees are sent to the State Department of Administration to be used to provide grants to assist with other Land Records Modernization efforts. In 2024, Marathon County was awarded \$11,000 in WLIP grants which are projected to increase the county land information budget by depending on yearly document recordings. These funds have been used so far to increase the accuracy of the Section Corners in the County by GPS data capture contracts which are used to increase the accuracy of parcel mapping. The County will continue to apply for these grants as they become available. The County also has a Retained Fees Fund from recorded documents to use for Land Records Modernization. This plan lays out how funds from grants and retained fees will be prioritized. However, as county budgets are determined on an annual basis with county board approval, this plan provides estimated figures that are subject to change and are designed to serve planning purposes only.

Land Information in Marathon 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 Marathon 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, the LIO will continue to build on its success and continue to provide leadership role in the coordination and support of the land record modernization activities. The LIO strives to be recognized for its exceptional web mapping site, gains in governmental efficiencies by broadening the utilization of a Geographic Information System (GIS), improvements in parcel mapping accuracy, assist with E911 to provide accurate response to emergencies, and provide responsiveness to meeting the land records needs of residents, businesses, and government agencies.

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

Project Plan for PLSS (Benchmark 4)	Project: Training and Education
Project Plan for Compilation of Tax Parcels to PLSS Remonumentation	Project: Next Gen 911 Data Enhancements
Project: ArcGIS Enterprise Upgrades	Project: Land Record Software Maintenance
Project: Orthoimagery	Project: GIS Software Maintenance
Project: Parcel Fabric Migration	Project: Other Projects
Project: Large Format Copier/Scanner Replacement	

The remainder of this document provides more details on Marathon County and the WLIP, summarizes current and future land information projects, and reviews the county’s status in completion and maintenance of the WLIP 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)

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

LAND INFORMATION

Any physical, legal, economic or environmental information or characteristics concerning land, water, groundwater, subsurface

resources or air in this state.

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

– Wis. Stats. section 16.967(1)(b)

County Land Information System History and Context

Marathon County has been involved in Wisconsin Land Record Modernization for over twenty years and has made great strides with modernization efforts. This includes GIS digital data development for layers such as Parcels, Street Centerlines, Address Locations, E911 and NG911 Response Areas, Voting Districts, School Districts, Agricultural Enterprise Areas, Zoning, Aerial Photography, and Elevation Data developed from LiDAR. This modernization effort has allowed gains in efficiency by providing access to this kind of information at the fingertips for both internal county users as well as external users via web mapping applications. This data is available to the public, government agencies, and businesses to be used in their computer systems.

County Land Information Plan Process

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

Plan Participants and Contact Information

In 2010, legislation s. 59.72(3m), Wis. Stats., required that a county establish a county Land Information Council (LIC), as a requirement for participation in the WLIP. 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
- Public safety or emergency communications representative employed within the county
- County Surveyor or registered professional land surveyor employed within the county
- Other members of the board 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. County board approval of plans is encouraged but not required.

A county may amend a plan with updates or revisions as appropriate. If amended, a digital copy of the amended plan and record of Land Information Council approval should be sent to the WLIP.

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

County Land Information Council and Plan Workgroup

Name	Title	Affiliation	Email	Phone
+ Preston Vande Voort	GIS Coordinator Land Information Officer	Marathon County Land Information Office	preston.vandevoort@MarathonCounty.gov	715-261-6048
+ Connie Beyersdorff	Treasurer	Marathon County	connie.beyersdorff@MarathonCounty.gov	715-261-1156
+ Robert Mayer	Real Property Lister	Marathon County	robert.mayer@MarathonCounty.gov	715-261-6001
+ Randy DeBroux	County Board Member	Marathon County	randy.debroux@MarathonCounty.gov	715-574-3390
+ Dean Stratz	Register of Deeds	Marathon County	dean.stratz@MarathonCounty.gov	715-261-1466
+ Scott Williams	Realtor	Realtor Association	scott@scottwilliamsappraisal.com	715-842-3311
+ Ryan Weber	Public Safety Officer Sheriff Department	Marathon County	ryan.weber@MarathonCounty.gov	715-261-1430
+ Dave Decker	County Surveyor	Marathon County	dave.decker@MarathonCounty.gov	715-261-6025
+ Gerard Klein	Director City-County IT	Marathon County	gerard.klein@MarathonCounty.gov	715-261-6701
Laurie Miskimins	Director CPZ	Marathon County	laurie.miskinins@MarathonCounty.gov	715-261-6000
Alexandra Peacock	GIS Specialist	Marathon County	alexandra.peacock@MarathonCounty.gov	715-261-6000
Stuart Carr	GIS Technician	Marathon County	stuart.carr@MarathonCounty.gov	715-261-6000
Daryn White	Application Engineer	Marathon County	daryn.white@MarathonCounty.gov	715-261-6713

+ Land Information Council Members designated by 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 by users 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, the *Uniform Instructions* place priority on certain elements, which must be addressed in order for a county land information plan to be approved. Beyond the county’s use for planning purposes, Foundational Element information is of value to state agencies and the WLIP to understand progress in completion and maintenance of these key map data layers.

Foundational Element Subheadings

For each layer listed under a Foundational Element, the plan should address: 1) Layer Status, 2) Custodian, 3) Maintenance, and 4) Standards

FOUNDATIONAL ELEMENTS

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

PLSS

Public Land Survey System Monuments

Layer Status

PLSS Layer Status

	Status/Comments
Number of PLSS corners (section, ¼, meander) set in original government survey that can be remonumented in your county	● 4937
Number of PLSS corners capable of being remonumented in your county that have been remonumented	● 4827
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 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 	● Survey Grade = 4825 Approximate = 112 The accuracies of these corners were derived from calculations; corners are located in water and or are in public lands.
Number of survey grade PLSS corners integrated into county digital parcel layer	● 4729
Number of non-survey grade PLSS corners integrated into county digital parcel layer	● 208
Tie sheets available online?	● Yes
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	● 0% No URL information is currently in our geodatabase.
PLSS corners believed to be remonumented based on filed tie-sheets or surveys, but do not have coordinate values	● All corners have some kind of coordinate value. Survey or Estimate
Approximate number of PLSS corners believed to be lost or obliterated	● Unknown
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)?	● The Marathon County Corner Numbering System. The grid number system can be seen at the Marathon County Surveyor Web Page.
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?	● NO
Total number of PLSS corners along each bordering county	● 336
Number of PLSS corners remonumented along each county boundary	● 336
Number of remonumented PLSS corners along each county boundary with survey grade coordinates	● 336

Custodian

- Conservation, Planning, and Zoning Department

Maintenance

- Marathon County Surveyor in the Conservation, Planning, and Zoning Department
- Corners updated as needed.

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

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

Layer Status

- Marathon County does not have/maintain other Control Layers. Some of this data can be found on the Wisconsin State Cartographer Website.

Parcel Mapping

Parcel Geometries

Layer Status

- **Progress toward completion/maintenance phase:**
 - 100% county-wide completion at the Parcel Index level. There are approximately 83,000 parcels
 - The completion of the Index Parcel dataset meets the Statewide Parcel Map Database Project for Benchmark 3.
 - Parcel geometries are a mix of GPS accurate section corner control and estimated section corner control. See Project Plan for PLSS (Benchmark 4) for future activities.
 - Parcel data is available in a commonly-used GIS format
 - The data is maintained in the Marathon County Coordinate System projection
 - Parcel polygons can be directly integrated with tax/assessment data via the PIN field
 - There may be a future plan to implement the ESRI Parcel Fabric Data Model at some point.
- **Projection and coordinate system:** Marathon County Coordinate System as indicated in the State Cartographers's Office publication "Wisconsin Coordinate Reference Systems Second Edition Page 60.
- **Integration of tax data with parcel polygons:** The County does have a parcel polygon model that directly integrates tax/assessment data as parcel attributes via the PIN item.
- **Online Parcel Viewer Software/App and Vendor name:** The Online mapping application currently used is VertiGIS Studio/ Geocortex Essentials technology connected to ESRI ArcGIS Server technology on Windows Servers hosted in-house.
- **Unique URL path for each parcel record:** Yes. Detailed assessment data, the tax bill for that parcel, information on recorded documents, and permits.
- Yes, the URL Stable
- <https://ascent.co.marathon.wi.us/AscentLandRecords/PropertyListing/RealEstateTaxParcel#/Search>
- <https://maps.co.marathon.wi.us/Html5Viewer/index.html?viewer=ExternalMapsNew>

Custodian

- Conservation, Planning, and Zoning Department

Maintenance

- **Update Frequency/Cycle.** Parcel Geometries are maintained/updated daily as land record documents are recorded.

Standards

- **Data Dictionary:** Parcel Geometries carry a fourteen digit Parcel Identification Number (PIN) that can be joined/linked to the County assessment/tax roll data. Parcel Geometries also carry the Municipal Code, Town, Range, and Section location information as established by the State PIN Standard.

Parcel Without Land Value

Layer Status

- **Number of parcels without a land value recorded to-date:** As of 8/12/2024 Marathon County has 29 Buildings, Fixtures, and Improvement Parcels (BFI)
- **Marathon County geolocated/maps parcels for improvements only without a land value by:** Marathon County does not map BFI parcels and is waiting for a standard from WLIA and or State of Wisconsin.

Custodian

- Conservation, Planning, and Zoning Department

Maintenance

- BFI recorded documents are only searchable using the Transcendent Technologies Ascent Land Records Suite.

Standards

- No mapping standards for BFI parcels at this time

Assessment/Tax Roll Data

Layer Status

- **Progress toward completion/maintenance phase:** NA
- **Tax Roll Software/App and Vendor name:** Ascent Land Records Suite – Transcendent Technologies (TT)
- **Municipal Notes:** NA

Custodian

- Conservation, Planning, and Zoning Department
- County Treasurer Office
- Municipal Assessors
- Municipal Treasurers

Maintenance

- **Maintenance of the Searchable Format standard:** The County currently gets the Land Records Searchable Format records from the TT application to then connect with the parcel geometries. The County can also produce the WiDOR XML File that can then be reformatted to work with parcel geometries with the GIS tool provided by the SCO for submission to the Statewide Parcel Map Initiative.
- **Searchable Format Workflow:** The county maintains parcel/tax roll data in the Searchable Format or close enough to the Searchable Format that little to no human labor is required for the annual submission of parcel/tax roll data to DOA. This is data from the TT Land Records Data.
- **Standards:** Wisconsin Department of Revenue Property Assessment Manual and Attendant DOR standards

Non-Assessment/Tax Information Tied to Parcels

Layer Status

- Zoning Permits, Sanitary Permits and Non-Metallic Mining Permits are included as part of the current County Land Record System.

Custodian

- Conservation, Planning, and Zoning Department

Maintenance

- As time allows

Standards

- County Standards per ordinances and state requirements

ROD Real Estate Document Indexing and Imaging

Layer Status

- **Grantor/Grantee Index:** Marathon County's system is a Trimin system that allows searches by Name (Grantee/Grantor), PIN, Legal Description, Subdivision/Condominium, Recording Date, Volume-Page or Instrument Type. The Tract Index currently has 139 Instrument Types. External viewers can utilize the LandShark web application.
- **Tract Index:** See Above
- **Imaging:** Marathon County's document image system is Laserfiche. All deed documents have been scanned into the system and can be viewed on computers at the Register of Deeds office as well as other internal PCs with access to Laserfiche and/or Trimin LandLink.
- **ROD Software/App and Vendor Name:** Trimin/Laserfiche/LandShark Online

Custodian: Total Documents Recorded 1853-2024 ~1.9 million

Custodian

- County Register of Deeds

Maintenance

- Maintained/updated daily as land record documents are recorded

Standards

- s. 59.43, Wis. Stats. Register of deeds; duties, fees, deputies.
- ch. 706, Wis. Stats. Conveyances of real property; Recording; Titles.
- s. 236, Wis. Stats. Platting Lands and Recording

LiDAR and Other Elevation Data

LiDAR

Layer Status

- **Most recent acquisition year:** 2021
- **Accuracy:** 10 cm RMSEz
- **Post spacing:** 0.7 Meters
- **Contractor's standard, etc,** U.S. Geological Survey National Geospatial Program LiDAR Base Specification, Version 1.2
- **Next planned acquisition year:** 2032
- **QL1/QL2 acquisition plans:** Will continue to monitor USGS and FEMA requirements, but the anticipate that QL2 will be the minimum requirement.
- The project relied on USGS funding to make the acquisition of the high-cost product possible

Custodian

- Conservation, Planning, and Zoning department & USGS for 3DEP Data

Maintenance

- No Maintenance Planned

Standards

- 2021 USGS 3DEP Project with QL2 standards.
- 2012 Data was captured to meet FEMA floodplain mapping standards for 2' contours

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

- 2021 countywide, classified point cloud
- 2021 countywide, 2-foot pixel, bare-earth, hydro-enforced DEM
- 2021 countywide, 2-foot pixel, first-return DSM
- 2021 countywide, 1-foot contours
- 2021 countywide, culvert data collection

Custodian

- Conservation, Planning, and Zoning Department & USGS

Maintenance

- No maintenance required

Standards

- USGS QL2 LiDAR Data Standards

Other Types of Elevation Data

Layer Status

- 247 Benchmark elevations at bridges and other locations around the County from 2000 and 2004 projects have been captured using GPS and are available to the public at the County Surveyor Office.

Custodian

- Conservation, Planning, and Zoning Department

Maintenance

- No maintenance being performed on these datasets

Standards

- FGCS 3rd order vertical accuracy

Orthoimagery

Orthoimagery

Layer Status

- **Most recent acquisition year:** 2020
- **Resolution:** 6 inch pixel.
- **Contractor's standard:** 1:1200 National Mapping Standard.
- **Next planned acquisition year:** 2025
- WROC participation in 2025 anticipated

Custodian

- Conservation, Planning, and Zoning Department

Maintenance

- Conservation, Planning, and Zoning Department

Standards

- National Mapping standards for 100' scale mapping.

Historic Orthoimagery

Layer Status

- Marathon County has Orthophoto imagery for 2000, 2005, 2010, 2015, 2020 and intends to continue updates every five years

Custodian

- Conservation, Planning, and Zoning Department

Maintenance

- No maintenance required.

Standards

- National Mapping standards per each given year for scale mapping.

Other Types of Imagery

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

Layer Status

- Marathon County does not have/maintain other types of imagery.

Address Points and Street Centerlines

Address Point Data

Layer Status

- County-wide address point data is complete. Multiple datasets depending on county business needs including current 911.
- Future maintenance will look to leverage other addressing authorities whenever possible.
- Study workflow improvements for the integration of address data.

Custodian

- Conservation, Planning, and Zoning Department
- Local municipalities with addressing authority

Maintenance

- The GIS Specialist maintains/updates address points as needed. New address added, old are deleted, and inaccurate addresses are corrected for public safety.
- Coordinate with 911 to identify error or corrections based on conflicts with dispatch.
- Updates are published weekly.

Standards

- Addresses are added per county address grids and address location requests utilizing the most current Address Application Forms, Orthoimagery and/or Parcel locations.
- Marathon County Address Point Standard
- US Postal Service Content Standard.
- Wisconsin GIS NG9-1-1 Data Standard (Site/Structure address Point)

Building Footprints

Layer Status

- Building footprint polygons are completed from 2020 Orthophotography data capture

Custodian

- Conservation, Planning, and Zoning

Maintenance

- Building footprints are only captured after a Orthophoto flight

Standards

- National Mapping standards for 100' scale mapping

Other Types of Address Information

e.g., Address Ranges

Layer Status

- Address ranges are maintained on both the 911 centerlines for use in the 911 system as well as regular centerlines for other analysis and mapping applications.
- Driveway access point locations with site address information.

Custodian

- Conservation, Planning, and Zoning

Maintenance

- Updated as needed

Standards

- Both Postal and 911 phone system standards are used. Mapped to meet 200' scale mapping standards.

Street Centerlines

Layer Status

- Complete County-wide including address range information. Multiple datasets are managed due to different business needs.

Custodian

- Conservation, Planning, and Zoning

Maintenance

- Coordinate to identify and modify data, based recorded document for new roads, vacation of road, modification in the road route, street name changes or addressing changes.
- Coordinate with 911 to identify error or corrections based on conflicts with dispatch.
- Revisions made with acquisition of new aerial imagery.
- Updates published as needed.

Standards

- National Mapping standards for 200' scale mapping for positions
- Wisconsin GIS NG9-1-1 Data Standard (Road Centerline)

Rights of Way

Layer Status

- Rights-of-way are a feature type in the parcel geodatabase.
- **How maintained:** GIS Technician in the parcel mapping process.

Custodian

- Conservation, Planning, and Zoning

Maintenance

- Maintained as part of the parcel mapping process based on recorded documents.

Standards

- Mapped using Index Parcel Layer Polygons

Trails

e.g., Recreational Trails, Snowmobile Trails

Layer Status

- Forest Trails, Snowmobile Trails, Mountain Bay Trail, ATV/UTV Roads/Routes

Custodian

- County Parks, Recreation, and Forestry

Maintenance

- Updated as needed. Data capture using GPS and Orthophotography

Standards

- Sub-meter GPS data collection as well as 200' scale Ortho Imagery data capture

Land Use

Current Land Use

Layer Status

- 2015 countywide Land Use inventory completed.
- 2020 Land Use inventory is projected as a future 2025 project.

Custodian

- North Central Wisconsin Regional Planning Commission
- Conservation, Planning, and Zoning

Maintenance

- A 2020 update is projected using 2020 imagery and parcel data.
- A 2025 update is projected using 2025 imagery and parcel data in 2026.
- Maintenance/updates occur with Orthophotography flights as time allows.

Standards

- The County uses a local government land use classification.

Future Land Use

Layer Status

- Future Land Use data, county-wide, was developed for the Comprehensive Plans in 2006
- Future Land Use update in 2025 for County Comprehensive Plan.

Custodian

- Local municipality
- North Central Wisconsin Regional Planning Commission
- Conservation, Planning, and Zoning

Maintenance

- When a community updates the future land use map/or requests County adoption.

Standards

- The future land use mapping is a patchwork of maps developed and adopted by a municipality during the comprehensive planning process.
- Maps are maintained as a reference map in a digital image file viewable online for Towns.
- s. 66.1001, Wis. Stats. Comprehensive Planning.

Zoning

County General Zoning

Layer Status

- The County maintains a GIS representation of county general zoning boundaries for those towns that are under County Zoning.

Custodian

- Conservation, Planning, and Zoning

Maintenance

- Completed on a monthly basis for property re-zones.

- Rezones must have County Board approval.

Standards

- Based on tax parcel geometry
- Marathon County Chapter 17: Zoning

Shoreland Zoning

Layer Status

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

Custodian

- Conservation, Planning, and Zoning

Maintenance

- Conservation, Planning, and Zoning

Standards

- Marathon County Chapter 22: Shoreland, Shoreland-Wetlands & Floodplain.
- Updated to Marathon County Chapter 22: Shoreland in 2025
- WIDNR Hydro data was utilized for development of the 1000' buffer from lakes, ponds, and flowages.
- WIDNR Hydro data was utilized for development of the 300' buffer from rivers and streams.
- Wisconsin Chapter NR 115

Farmland Preservation Zoning

Layer Status

- The County does maintain a GIS representation of county farmland preservation zoning boundaries
- **Year of certification:** 2015. Updates for re-zones are being submitted to DATCP once a year.

Custodian

- Conservation, Planning, and Zoning

Maintenance

- This data is maintained in the County General Zoning Layer
- Rezones must have County Board approval.

Standards

- Mapped using the Index Parcel Layer
- Marathon County Chapter 17: Zoning
- Wisconsin Statute Ch. 91
- Wisconsin Statute Ch. ATCP 49Floodplain Zoning

Floodplain Zoning

Layer Status

- The County does have a GIS representation of floodplain zoning boundaries.
- The County's floodplain zoning GIS data is the same as/identical to the FEMA map.
- **Letters of Maps Change** – FEMA Flood Insurance Rate Maps (FIRMs) can be changed through "Letters of Maps Change," which is comprised of a few things: Letters of Map Amendment, Letters of Map Revision, and Letters of Map Revision Based on Fill. These are documents issued by FEMA that officially remove a property and/or structure from the floodplain. They are collectively called Letters of Map Change. The County does reference FEMA Letters of Map Change in its administration of the floodplain ordinance.

Custodian

- Federal Emergency Management Administration

- Wisconsin Department of Natural Resources
- Conservation, Planning, and Zoning

Maintenance

- Updates are made by FEMA and WIDNR
- Marathon County incorporates updates into Floodplain Ordinance

Standards

- FEMA Guidelines and Standard for Flood Risk Analysis and Mapping.
- Data provided by FEMA
- Marathon County Chapter 22: Shoreland-Wetlands & Floodplain.
- Updated to Marathon County Chapter 27: Floodplain in 2025.
- Wisconsin Chapter NR 116

Airport Protection

Layer Status

- The County does maintain a GIS representation of airport protection zoning boundaries.
- Airport Protection Zoning Map depicts the Height Limitation Restrictions & General Zoning Overlay for Airport Protection

Custodian

- Conservation, Planning, and Zoning

Maintenance

- Data originated from the Wisconsin Bureau of Aeronautics
- Updates to Marathon County Chapter 17: Zoning as needed.

Standards

- Marathon County Chapter 17: Zoning

Municipal Zoning Information Maintained by the County

Layer Status

- The County maintains a GIS representation for Independent Town Zoning boundaries.

Custodian

- Conservation, Planning, and Zoning

Maintenance

- Completed monthly for property re-zones.
- All independent town rezones must have county board approval.
- All independent town zoning code amendments need county board approval.

Standards

- Based on tax parcel geometry
- Marathon County Code of Ordinance
- Wisconsin State Statute Chapter 59

Administrative Boundaries

Civil Division Boundaries

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

Layer Status

- All civil division boundaries are mapped.
- The civil division boundaries are maintained as part of the parcel mapping system.

- Based on documents recorded with the Register of Deeds.

Custodian

- Conservation, Planning, and Zoning Department

Maintenance

- Maintained per parcel data and annexations

Standards

- Mapped using the Index Parcel Layer

School Districts

Layer Status

- **Progress toward completion/maintenance phase:** Complete
- **Relation to parcels:** Land Records Assessment Parcel Tax District is linked to Parcel Geometries
- **Progress toward completion/maintenance phase:** Complete
- The County maintains a separate county-wide school district dataset.
- The tax parcel data is the primary reference source for establishing district boundaries.

Custodian

- Conservation, Planning, and Zoning
- County Treasurer
- Wisconsin Department of Public Instruction
- County Clerk

Maintenance

- Updates are driven by school district agreement approved by Department of Public Instruction.

Standards

- Department of Public Instruction orders
- County Real Property Lister updates the tax system
- County Clerk voter registration records
- County Treasurer tax assessment

Election Boundaries

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

Layer Status

- County Supervisor District Areas, Voting Wards, Voting Places are mapped County-wide

Custodian

- Conservation, Planning, and Zoning
- County Clerk's Office
- Municipal Clerks within Marathon County

Maintenance

- Ward boundaries are established every ten years as part of the legislative redistricting process.
- Ward boundaries are updated as needed when annexations occur.
- Updates need to coincide with county election timeline.
- Ward boundary data is submitted to the Wisconsin Legislative Technical Service Bureau (LTSB) as prescribed by state statute.

Standards

- Boundaries are based on tax parcel and municipal boundary data.
- Boundary updates are based on municipal ordinance.
- Meets standards for submission to LTSB to fulfill Wisconsin State Statute 5.15(4)(br)

Utility Districts

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

Layer Status

- Marathon County maintains a Metropolitan Sewer Service Area and Sanitary Districts.

Custodian

- Wausau Urban Area 2025 Sewer Service Area (SSA)
- Conservation, Planning, and Zoning
- County Treasurer

Maintenance

- When an approval to expand occurs

Standards

- Sanitary Districts are mapped using the Index Parcel Layer for Sanitary taxing districts.
- Sewer Service Areas are mapped per the 2025 Plan Area specifications.
- Tax system

Emergency Service Boundary – Law/Fire/EMS

Layer Status

- Marathon County maintains a countywide Law Enforcement District dataset.
- Marathon County maintains a countywide Fire District dataset.
- Marathon County maintains a countywide EMS District dataset.
- Marathon County maintains a countywide First Responder dataset.
- Marathon County maintains a countywide 911 Response Grid dataset.

Custodian

- Conservation, Planning, and Zoning
- Sheriff Department

Maintenance

- Datasets are updated to reflect municipal boundary changes or the renegotiating of municipal contracts for public safety services.

Standards

- Mixed standards per originating data and Sheriff Department Response contracts

Public Safety Answering Points (PSAP) Boundary

Layer Status

- Marathon maintains a countywide Public Safety Answering Point boundary dataset.

Custodian

- Conservation, Planning, and Zoning
- Sheriff Department

Maintenance

- The dataset is developed with guidance from Marathon County Sheriff's Department.

Standards

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

Provisioning Boundary

Layer Status

- Marathon County maintains a countywide Provision boundary dataset.

Custodian

- Conservation, Planning, and Zoning
- Sheriff Department

Maintenance

- The dataset is developed with the guidance from Marathon County Sheriff's Department.

Standards

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

Other Public Safety

e.g., Healthcare Facilities

Layer Status

- Marathon County maintains a countywide Police, Fire and EMS Station dataset.
- Marathon County maintains a countywide Hospital dataset.

Custodian

- Conservation, Planning, and Zoning
- Sheriff Department

Maintenance

- Conservation, Planning, and Zoning Department with the Sheriff Department as needed

Standards

- Mixed standards per originating data

Lake Districts

Layer Status

- Marathon County maintains Lake District information as part of the assessment attributes.
- Taxing Lake Districts are mapped.

Custodian

- Conservation, Planning, and Zoning
- County Treasurer
- Municipal Assessors

Maintenance

- The datasets are derived from the assessment data and related to tax parcel geometry.

Standards

- Set as special assessment classifications in the tax parcel data.

Native American Lands

Layer Status

- Marathon County does not manage Native American lands.

Other Administrative Districts

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

Layer Status

- County Forest Lands, County Parks, State Parks and Wildlife Areas, and Municipal Parks are mapped county wide

Custodian

- Conservation, Planning, and Zoning
- County Parks, Rec and Forestry

Maintenance

- As needed per parcel changes
- Develop a 2025-2026 workflow to incorporate Land Records and or Public Lands table.

Standards

- Marathon County Tax Parcel data.

Other Layers

Hydrography Maintained by County or Value-Added

e.g., Hydrography maintained separately from WIDNR

Layer Status

- Countywide ortho-derived hydrography mapped per Orthophotography per product year.
- There are no attributes for this layer.
- The County also has a copy WIDNR Hydro dataset. This layer has attributes like names.

Custodian

- Conservation, Planning, and Zoning

Maintenance

- Per five-year flight cycle

Standards

- National Mapping standards for 200' scale mapping

Cell Phone Towers

Layer Status

- Marathon County point database of antenna locations.

Custodian

- Federal Communication Commission (FCC)
- Conservation, Planning, and Zoning

Maintenance

- Download tables of antenna location from the FCC.
- Update from Marathon County address applications.

Standards

- Orthophotography
- Federal registry of antenna locations

Bridges and Culverts

Layer Status

- Marathon County has a limited collection of bridge data.
- Marathon County has a limited collection of culvert data.
- 2025-2026 update bridge and culvert data from 2021 LIDAR asset project

Custodian

- County Highway
- Conservation, Planning, and Zoning

Maintenance

- As needed

Standards

- 200' mapping scale Orthophotography data collection
- Intermixed with 1 meter gps collection

Other/Miscellaneous

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

Permitted Non-Metallic Mineral Extraction

Layer Status

- Marathon County complete inventory of non-metallic mineral extraction sites.
- GPS sub-meter to approximate accuracy

Custodian

- Conservation, Planning, and Zoning

Maintenance

- Updates made based on inspections and permit approvals.

Standards

- GPS sub-meter to approximate accuracy
- Zoning permit tracking.

- Derivative of the tax parcel data

Permitted Manure Storage Facilities

Layer Status

- Marathon County has a complete inventory of Permitted Manure Storage Facilities.
- Extract from the tax parcel data based on parcel ID managed by Conservation.

Custodian

- Conservation, Planning, and Zoning

Maintenance

- Updates made based on inspections and permit approvals.
- Derivative of the tax parcel data.

Standards

- Conservation permit tracking

Railroads

Layer Status

- Marathon County active and abandoned railroads complete

Custodian

- Conservation, Planning, and Zoning

Maintenance

- Updated as needed.

Standards

- None

Broadband Equity, Access, and Deployment Planning Areas (BEAD)

Layer Status

- Marathon County Broadband Expansion
- Version 5 Broadband Serviceable Location Fabric

Custodian

- Federal Communication Commission (FCC)
- Wisconsin Public Service Commission (WPSC)
- CostQuest (National Broadband Serviceable Location Fabric)
- Conservation, Planning, and Zoning

Maintenance

- Marathon County incorporates updates from FCC, WPSC, and CostQuest as needed.

Standards

- Federal Communication Commission (FCC)
- Wisconsin Public Service Commission (WPSC)
- CostQuest (National Broadband Serviceable Location Fabric)

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.

LAND INFORMATION SYSTEM

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

– Wis. Stats. section 16.967(1)(c)

Current Land Information System

Diagram of County Land Information system



Figure 1 Marathon County Land Information System

County Parcel Data Workflow Diagram

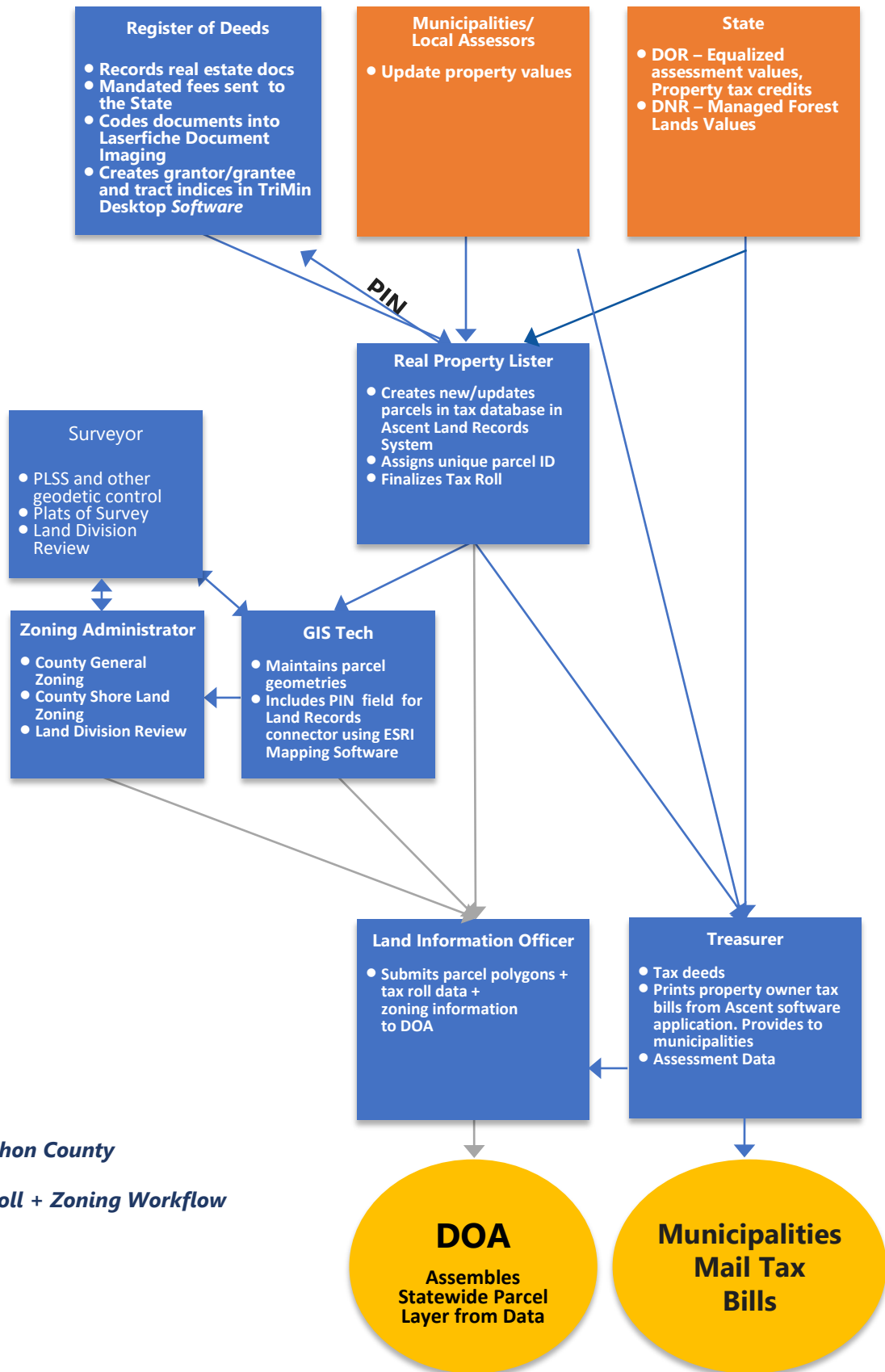


Figure 2 Marathon County

Parcel + Tax Roll + Zoning Workflow

Technology Architecture and Database Design

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

Marathon County utilizes Environmental Systems Research Institute's (ESRI) GIS software products on Windows Desktop PCs and Windows Servers. Land Records tabular data resides on Windows Servers utilizing the Ascent (TT) software interface. Hardware, software and all networking are managed by the City-County IT Commission (CCITC). Online applications served to the public such as; the County Web Site, Online access to Land Records, and Online Mapping are on Windows Servers managed by the CCITC.

The Online Land Records application is provided via the Ascent web application. The Register of Deeds Document Imaging system utilizes Laserfiche technology. The Tract Index System is a product of TriMin Systems. The Register of Deeds tract index web based records look up application is accessed via LandShark. The Online mapping application currently used is VertiGIS Studio/GeoCortex Essentials technology utilizing connectivity to ESRI ArcGIS Server technology on Windows Servers.

Hardware

- Hardware includes MS Windows Servers managed by CCITC.

Software

- MS SQL Applications on Windows Servers hosted in-house via Ascent Software.
- MS SQL Applications on Windows Servers hosted in-house via Trimin & Laserfiche Software.
- ESRI ArcGIS Server on Windows Servers
- VertiGIS Studio/GeoCortex Essentials on Window Server
- County uses both ESRI Desktop ArcMap and ArcGIS Pro

Website Development/Hosting

- Land Records Web based application is Ascent by Transcendent Technologies hosted in-house
- Web based Register of Deeds application utilizing Trimin LandShark interface hosted in house.
- Web GIS Mapping applications utilize VertiGIS Studio/GeoCoretex Essentials Technology hosted in-house.

Metadata and Data Dictionary Practices

Metadata creation and maintenance is done using ESRI ArcCatalog and adheres to the FGDC Content Standard for Digital Geospatial Metadata. Metadata does not exist for all datasets and is being dealt with on a case by case basis as time allows.

Municipal Data Integration Process

Marathon County does incorporate GIS information from local communities on a case by case basis. Example: gathering Fire Hydrant locations from municipalities that can be used in the 911 dispatch mapping system. Typically, the municipalities are acquiring County data to utilize in their systems. We also have a direct data access policy for Permitting Software for the City of Wausau and the Village of Weston utilizing address and parcel information on the County system.

Public Access and Website Information

Public Access and Website Information (URLs)

Public Access and Website Information			
GIS Webmapping Application(s) Link - URL	GIS Download Link - URL	Real Property Lister Link - URL	Register of Deeds Link - URL
https://www.marathoncounty.gov/services/property-land-information/gis-maps	https://www.marathoncounty.gov/services/property-land-information/gis-maps/explore-gis-data	https://www.marathoncounty.gov/services/property-land-information/property-listing	https://www.marathoncounty.gov/about-us/departments/register-of-deeds

Data Sharing

Data Availability to Public

Data Sharing Policy

- All current County GIS Data is available to the public via requests to the LIO. There are some costs associated with some data distribution. Some datasets can be downloaded free from the County GIS data page.

Open Records Compliance

- A number of GIS datasets are posted on the County GIS data page that are free to download with no restrictions. A number of other datasets have redistribution restrictions requiring permissions to redistribute.

Data Sharing Restrictions and Government-to-Government Data Sharing

Data Sharing Restrictions

- A number of other datasets have redistribution restrictions requiring permissions to redistribute

Government-to-Government Data Sharing

- Marathon County has informal understandings to share/exchange land information with communities within the county, adjacent counties and with state agencies. The County also has data exchange/cost agreements with School Districts, private firms, and Utilities. A number of datasets have redistribution restrictions requiring permissions to redistribute.

Training and Education

- Employees that use GIS or CAD software get training in new software advancements. Key employees attend conferences and work groups to supplement training courses that include web classes and seminars.
- The WLIP annual Training Grant is used by County staff to attend land information related conferences and training sessions.

4 CURRENT & FUTURE PROJECTS

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

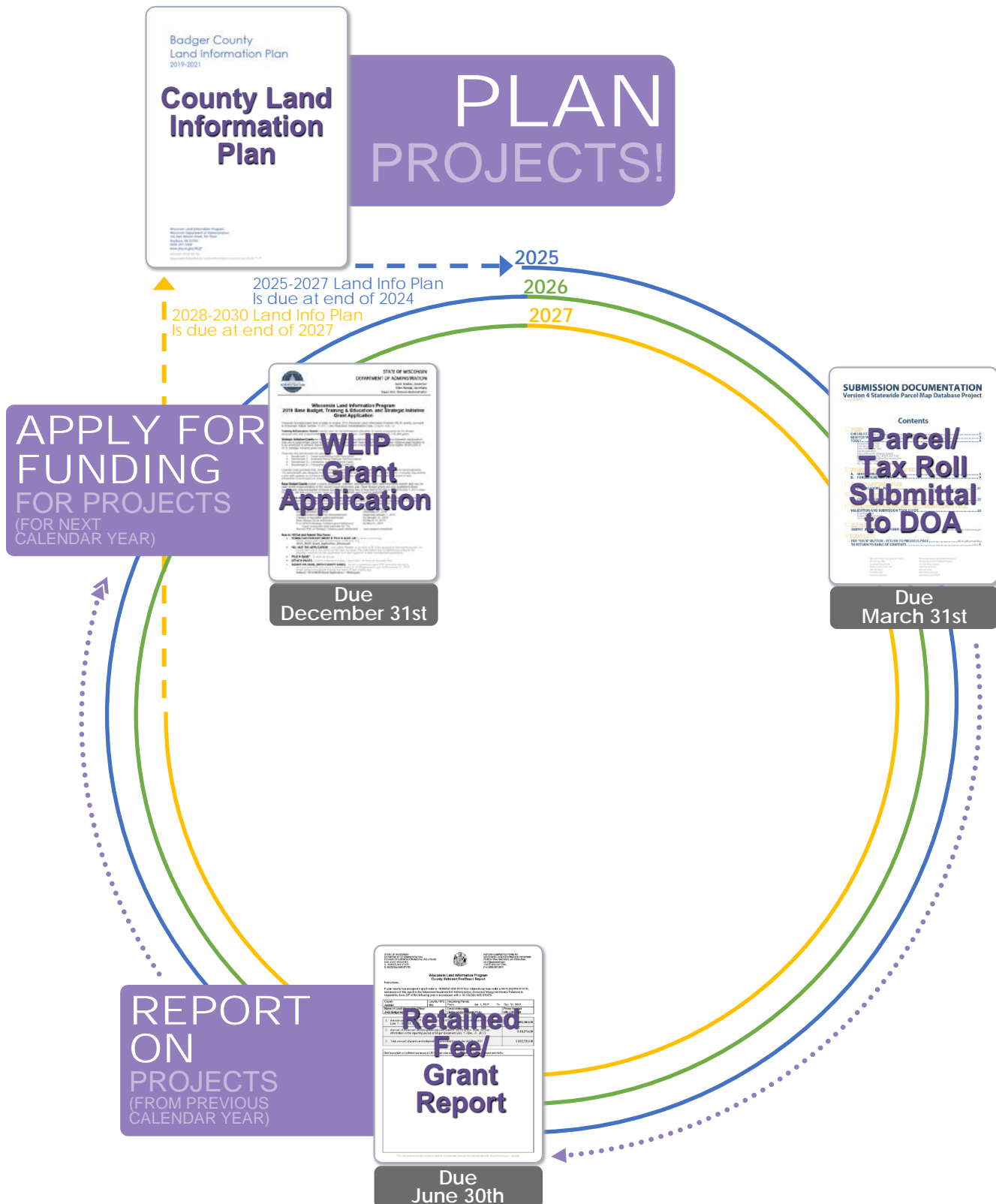


Figure 1. The WLIP Land Information Plan/Grant Project Cycle

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

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

Project Description

- Marathon County will continue to support the export scripts needed to format tax roll attributes for the searchable format in a way they can be joined to the parcel polygons.

Business Drivers

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

Objectives/Measure of Success

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

Project Timeframes

- Maintenance of the Searchable format is an ongoing effort and data is submitted to the Department of Administration by March 31st annually.

Responsible Parties

- Conservation, Planning and Zoning Department
- City, County Information Technology Commission

Estimated Budget Information

- Staff time should be minimal barring any extensive change to the Searchable Format.
- Publication routines publish the Searchable Format on a regular basis the cost has been placed under Ongoing Cost Not Associated with a Specific Project.

Project Plan for PLSS (Benchmark 4)

Project Title: Project Plan for PLSS (Benchmark 4)

Project Description

Planned Approach

- Acquire **survey-grade** coordinates for PLSS corners to integrate corners into the parcel fabric. This has been a multi-year project to research and re-establish physical monuments and supporting documentation for the PLSS framework. This project will require commitment of funding and staff resources to complete. The completion of this project is directly tied to the ability of the county to re-compile the tax parcel data to a solid control network.

Current Status

- Current status of PLSS data in the county is:
 - 4937 total number of section corners and quarter corners.
 - The remonumentation status is 97% completed.
 - 4825 (97%) corners have survey grade coordinates.
 - 4617 (94%) corners with survey grade coordinates have been integrated into the current parcel data.

- **Survey-grade** – Coordinates collected under the direction of a professional land surveyor, in a coordinate system allowed by s. 236.18(2), and obtained by means, methods and equipment capable of repeatable 2 centimeter or better precision

Goal

- This project is coming to an end as 97% corners are survey grade. The remaining focus is on approximate 70 corners. These corners will need additional resources as they are located in hard condition environments such as lowlands, marsh, and or water areas. These remaining corners are primary located in big public land tracks where not abutting private lands. Capture the remaining corners with survey-grade coordinates including remonumenting and/or rediscovering those corners that may be missing. These survey-grade corners will be used to adjust the current Index Parcel data as these corners are captured.

Missing Corner Notes

- Documentation for any missing corner data will be created. In some cases these will be justifiable exclusions, such as meander corners, corners pertaining to large tracts of public lands where not abutting private lands, corners in rivers or lakes, etc.

County Boundary Collaboration

- Marathon County currently shares all corner information with all eight surrounding counties as well as these other counties share their corner information.

Business Drivers

- Completion and integration of PLSS will improve the geospatial accuracy of the parcel layer and other county land information system layers.

Others:

- County Surveyor
- Public Land Surveying Community
- Property Owners
- Real Property Lister
- Assessors

Objectives/Measure of Success

- The objective is to meet Benchmark 4 (Completion and Integration of PLSS) of the Statewide Parcel Map Database Project by December 2027.
- **Number of corners to be remonumented and/or rediscovered:** 70 of 112, Some may never be remonumented due to conditions and/or needs.
- **Number to have new coordinates established:** 70 total corners need new coordinates established.
- **Accuracy class for these new coordinates:** Survey-grade
- **Way in which these points will be integrated into the parcel fabric:** As project areas are completed new PLSS linework will be generated and the parcels will be reworked/adjusted to this new PLSS linework. Marathon County currently has 208 survey corners that need to be integrated into the parcel fabric.
- **Number of new corner coordinates to be integrated into parcel fabric by 2027:** 278
- **Number of new tie sheets to be posted online by 2027:** 70
- Currently the Surveying community can get to digital tie sheets, section summaries, plats of survey, and benchmarks via the Marathon County Surveyor webpage.

Project Timeframes

Timeline – Project Plan for PLSS **Example**		
Milestone	Duration	Date
Annual Project	–	Spring – Summer 2025- 2027
Remonumentation and Integration PLSS point into parcel layer of townships as funding is available	–	Annually 2025- 2027
Anticipated project completion	–	Fall 2027

Responsible Parties

- County Surveyor
- LIO/GIS Coordinator
- GIS Technician
- Consultants/Vendors

Estimated Budget Information

- Estimated remaining cost for completion and integration of PLSS (to reach maintenance mode)
 - **Estimated approximate average cost of remonumentation per corner:** \$600
 - **Total cost of remaining remonumentation:** \$42,000
 - **Total cost of remaining integration of PLSS points into parcel layer:** Ongoing Cost Not Associated with a Specific Project completed by Marathon County GIS Technician
 - **Total cost of remaining:** \$42,000, depending on RFP responses and the Marathon County Surveyor internal work.

Project Plan: Compilation of Tax Parcel to PLSS Remonumentation

Project Description

- To produce a tax parcel dataset that is tied to an accurate PLSS framework.
- To resolve remnant features from the ArcInfo Coverage environment such as densified line segments and provide better representation parcel dataset.
- Provide a more accurate base dataset for the development of derivative datasets.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- PLSS Remonumentation Project
- Tax parcel data accuracy.
- Municipal boundary and county boundary improved accuracy.

Objectives/Measure of Success

- Improve the accuracy of the tax parcel data.
- Tie parcels to PLSS control.
- Improved accuracy of derivative products the use the tax parcel data.

Project Timeframes

Milestone	Duration	Date
Annual recompilation of townships remonumented	Ongoing	2025-2027
The recompiled tax parcels moved into maintenance Completion	Ongoing	2025-2027

Responsible Parties

- Conservation, Planning, and Zoning

Estimated Budget Information

- “Ongoing Costs Not Associated with a Specific Plan” inhouse GIS Technician remapping.

Project: ArcGIS Enterprise Upgrades

Project Description

- To provide more efficient way to organize and monitor our services, web maps, and share them with groups and users.
- **Land Info Spending Category:** Software/Hardware

Business Drivers

- To provide the organization latest available ArcGIS Enterprise enhancements and features, ensuring the system’s security, reliability and performance.

Project Timeframes

- 2025
- 2026
- 2027

Responsible Parties

- Conservation, Planning and Zoning Department
- County, City, Information Technology Commission
- Consultant

Estimated Budget Information

- See table at the end of this chapter.

Project: Orthoimagery

Project Description

- Acquire orthophotos every five years to keep data up to date such as buildings, streets, hydro, etc. Currently we have imagery and data from 2000, 2005, 2010, 2015, and 2020 using the five year capture plan. The intent is to continue this acquisition process for the spring of 2025. This includes planimetric data such as buildings, roads, hydro, etc.
- **Land Info Spending Category:** Orthoimagery

Business Drivers

- County GIS business data needs updating for current analysis of features.
- Increased efficiency of Zoning with permit determination.
- Increased efficiency of Conservation Plan Practices.
- Keep public access information updated.
- Most County Departments are now relying on Orthoimagery including 911.

Objectives/Measure of Success

- County-wide Air Photos.
- Provide data to the public, municipalities, counties and state agencies.
- Provide public access via web applications available on the county website.

Project Timeframes

Timeline – Orthoimagery Project		
Milestone	Duration	Date
Project #1 start	-	Spring 2024
Contract with vendors	-	Fall 2024
Spring 2025 leaf off flight	-	March-April 2025
QA/QC	-	Summer-Fall 2025
Project Completion	-	Dec 31, 2025

Responsible Parties

- Conservation, Planning and Zoning Department
- Municipalities

Estimated Budget Information

- See table at the end of this chapter.

Project: Parcel Fabric Migration with Database Schema Update

Project Description

- To convert GIS geodatabase schema design to the ESRI Local Government Information Model and Parcel Fabric.
- **Land Info Spending Category:** Software/Hardware

Business Drivers

- Data structure standardization.
- Improved integration with online resources.
- Increased efficiency.
- Improved integration with ArcGIS Pro software.
- Improved parcel mapping.

Objectives/Measure of Success

- Data converted from internally created database schema to the standardized Local Information Model.

Project Timeframes

- Choose a contractor spring 2025
- Delivery of finalized dataset estimate fall of 2025

Responsible Parties

- Marathon County GIS Coordinator
- Contractor

Estimated Budget Information

- See table at the end of this chapter.

Project: Large Format Copier/Scanner Replacement

Project Description

- Replace the large format copier/scanner for CPZ and ROD.
- **Land Info Spending Category:** Hardware

Business Drivers

- Existing copier/scanner is near end of life.

Objectives/Measure of Success

- New copier/scanner

Project Timeframes

- 2027

Responsible Parties

- CPZ, ROD, and CCIT

Estimated Budget Information

- See table at the end of this chapter.

Project: Training and Education

Project Description

- Provide staff access to conferences and training opportunities to maintain proficiency in technology and to interface with local, state, and federal members of the GIS and IT community.
- One-on-one and group training, online training, and attending conferences and seminars.
- **Land Info Spending Category:** Training and Education

Business Drivers

- To ensure that staff can maintain the necessary skills to complete their assigned duties and tasks.
- To be proficient in best practices.
- To be an education resource to county departments and local municipalities.

Objectives/Measure of Success

- Maintaining infrastructure that is compliant with changes in technology.
- Effective deployment of new applications and tools.
- Provide access to conference and training as budgets allow.

Project Timeframes

- This is an ongoing and annual effort.

Responsible Parties

- Marathon County staff

Estimated Budget Information

- See table at the end of this chapter.

Project: Next Gen 911 Data Enhancements/Compliance

Project Description

- Ensure that County E911 point, centerline and zone information is compliant with Next Gen 911 (NG911) specifications.
- **Land Info Spending Category:** Address Points, Street Centerlines

Business Drivers

- Next Gen 911 data requirements.
- Increasing reliance on GIS data for police, fire, and emergency management activities.

Objectives/Measure of Success

- 100% compliance with data standards guided by Statewide NG911 Plan.
- Full GIS integration with Emergency Communication Center.
- Develop Exchange Transfer and Load (ETL) workflows for county-wide business needs.

Project Timeframes

- 2025-2027

Responsible Parties

- Marathon County Conservation, Planning, and Zoning
- Marathon County Emergency Communication Center

Estimated Budget Information

- TBD, Data capture enhancements; turn lanes one-way streets, dual carriageways, speed limits, impedances, road closures, sub-addressing points, centerline association with routing.

Project: Land Records Software Maintenance

Project Description

- Annual maintenance of land records software.
- **Land Info Spending Category:** Software

Business Drivers

- Critical to stay current as technology changes.

Project Timeframes

- Annual

Responsible Parties

- Conservation, Planning and Zoning Department, Register of Deeds, Treasurer, CCIT, and Highway

Estimated Budget Information

See table at the end of this chapter

Project: GIS Software Maintenance

Project Description

- Annual maintenance of land records software.
- **Land Info Spending Category:** Software

Business Drivers

- Critical to stay current as technology changes.

Project Timeframes

- Annual

Responsible Parties

- Conservation, Planning and Zoning Department

Estimated Budget Information

See table at the end of this chapter

Project: WSR2022 Data Conversion

Project Description

- Convert all County GIS vector and raster data sets to North American Terrestrial Reference Frame of 2022 (NATRF2022) and the North American-Pacific Geopotential Datum of 2022 (NAPGD2022) system/projection.
- **Land Info Spending Category:** PLSS

Business Drivers

- As the North American Terrestrial Reference Frame of 2022 datum/projection becomes more widely used, Waukesha County needs to remain on the most current and widely used system.

Objectives/Measure of Success

- Data delivered in North American Terrestrial Reference Frame of 2022 datum.

Project Timeframes

- 2025-2027

Responsible Parties

- Marathon County Conservation, Planning, and Zoning
- Vender TBD

Estimated Budget Information

- Unknown

Other Projects Section

Other Possible Projects

- Improve website development for access to new Land Records System and Mapping, including mobile access for employees out in the field.
- Expansion of the use of mobile GPS/GIS technology including both hardware and software for data collection and updates
- County-wide 2025 Land Use layer development from 2025 Orthos.
- Zoning Airport Height update collaboration with Wisconsin Department of Transportation.
- County-wide building footprint attribute layer from the 2025 Orthros.
- 2021 Lidar feature extraction products.

Ongoing Costs Not Associated with a Specific Project

Current ongoing costs include:

- Funding the LIO/GIS Coordinator position.
- Funding to capture additional PLSS Survey Grade Section Corners by County Surveyor as well as Survey Equipment upgrades.
- Tax Parcel Remapping to PLSS Remonumentation.
- Searchable Format (Benchmarks 1 & 2) for State-wide Parcel Initiative.
- Software maintenance costs for the new Land Records Systems and ESRI software maintenance.

Past completed Projects

- NextGen911 implementation.
- 2021 Land Records System and Tract Index Replacement.
- County-wide 2021 Redistricting Plans from the 2020 Census data.
- County-wide Culvert layer from 2021 LiDAR Data
- LiDAR elevation data capture was completed in the spring of 2021 with 1' Contours, DTMs, DEMs and LAS data being received.

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) PLSS (Benchmark 4)	Surveyor Contractor	Per year at \$600 per corner	Pages 8, 9, 10, 29, 30, 31	\$42,000
2) ArcGIS Enterprise Upgrades	GIS Consultant	\$5,500/year	Pages 26, 32	\$16,500
	Addition software/hardware	\$19,000		\$19,000
3) Orthoimagery	Contracted Vendor	\$170,000	Pages 12, 32	\$170,000
4) Parcel Fabric Migration and Database Schema	GIS Consultant	\$40,000	Pages 26, 33	\$40,000
5) Large Format Copier/Scanner Replacement	Hardware	\$30,000	Page 34	\$30,000
6) Staff Development and Training	All staff	\$15,000/year	Pages 27, 34	\$45,000
7) Next Gen 911 Data Enhancements/Compliance	GIS Consultant	\$12,000	Pages 13, 14, 19, 34	\$12,000
8) Land Record Software Maintenance	Software Maintenance	\$110,00/year	Pages 26, 35	\$330,000
9) GIS Software Maintenance	Software Maintenance	\$45,000/year	Pages 26, 35	\$135,000
GRAND TOTAL				\$839,500

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



**Land Information Program
5 Year Plan
Funding from Retained Fees**

Program/Project	Possible Vendors	2023	2024	2025	2026	2027	2028
ArcGIS Enterprise Update	ProWest		\$8,000	\$8,000	\$5,500	\$5,500	\$5,500
VertiGIS Update	Reukert & Mielke		\$7,150	\$1,500	\$1,500	\$1,500	\$1,500
Workflows	Reukert & Mielke		\$5,700	\$1,500	\$3,000	\$1,500	\$1,500
Additional Services (for any unexpected work arounds/system issues)	Reukert & Mielke		\$3,000				
Subtotal			\$23,850	\$11,000	\$10,000	\$8,500	\$8,500
Software Maintainece	ESRI Licence	\$24,300	\$25,000	\$32,000	\$35,000	\$40,000	\$45,000
	VertiGIS	\$7,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
	Diamond (hope to eliminate this in the future)	\$900	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
	Trimble	\$500	\$500	X	X	X	X
	ArcGIS Monitor	X	X	\$19,000	X	X	X
	AWS3 (File Storage)		\$500	X	X	X	X
	Xtools (extension dbs tables)		\$200	\$300	\$300	\$300	\$300
	ArcGIS Experience Builder		X	X	X	X	X
	License Manager - Named Users		X	X	X	X	X
	Computer Upgrades to utilize PRO						
	ArcGIS Pro Updates						
Subtotal		\$32,700	\$37,200	\$62,300	\$46,300	\$51,300	\$56,300
Land Link/Shark Maintainece		\$60,000	\$60,000	\$40,000	\$40,000	\$40,000	\$40,000
Ascent Maintainece		\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000
Subtotal		\$120,000	\$120,000	\$100,000	\$100,000	\$100,000	\$100,000
Orthoimagery				\$170,000			
Parcel Fabric				\$40,000			
Next Gen N911 Data Enhancments					\$12,000		
Large Format Copier/Scanner Replacement						\$30,000	
LIDAR add ons **	Ayres and Associates		\$85,000				
Subtotal			\$85,000	\$210,000			
Preston's Salary		\$70,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000
Subtotal		\$70,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000
Training in:	ONGOING(Future training topics and costs unknown)						
Enterprise Deployment			\$1,800	\$3,600			
Arc SDE Geodatabase			\$1,800	\$3,600			
Arc GIS Portal			\$1,800				
ArcPro			\$1,800				
VertiGIS Studio			\$1,200				
Studio Workflow			\$1,200				
Subtotal			\$9,600	\$7,200			
ESRI User Conference			\$3,500		\$3,500	\$3,500	\$3,500
EWUG Conference (1) x 3 staff*	\$300 + hotel						
WLIA Conferences (4) *	\$180 + hotel						
Conferences				\$3,500			
Subtotal			\$3,500	\$3,500	\$3,500	\$3,500	\$3,500
Totals for Planned Projects			\$354,150	\$469,000	\$234,800	\$238,300	\$243,300

Projected Balance by EOY 2024 \$300,000K

2022 Retained Fees = \$132,000

* Partially funded by WLIP Training and Education Grant

** Partially funded by WLIP Strategic Initiatives Grant (\$10,000)