

CHIPPEWA COUNTY
LAND INFORMATION COUNCIL
REGULAR MEETING
DECEMBER 17, 2024
CHIPPEWA COUNTY COURTHOUSE, RM 119Q
8:00 AM

1. CALL TO ORDER

2. ROLL CALL

Attendee Name	Organization	Title	Status	Arrived
Matthew Peterson	Chippewa County	District 10, Chair	Excused	
Doug Clary	Chippewa County	Department Head	Present	
Melanie McManus	Chippewa County	Department Head	Present	
Patty Schimmel	Chippewa County	Department Head	Excused	
Dennis Falkenberg	Chippewa County	Staff	Present	
Sam Wenz	Chippewa County	Staff	Present	
Tracy Bronstad	Chippewa County	Staff	Present	
Tyler Thibodeaux	Chippewa County	Staff	Excused	
Bruce Hayhoe	Chippewa County	Citizen Rep	Excused	
John Ferguson	Chippewa County	Acting Emergency Management Director	Present	

In the absence of Matthew Peterson, Douglas Clary was Chair for this meeting,
Tyler Thibodeaux is currently deployed, therefore, John Ferguson, per the job descriptions assumes the duties and roles of the Emergency Management Director.

3. MEMBERS OF THE PUBLIC WISHING TO BE HEARD

None.

4. CONSENT AGENDA

Motion to approve.

Land Information Council

Minutes
Regular Meeting

Chippewa County Courthouse, Rm 119Q

December 17, 2024
8:00 AM

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Dennis Falkenberg, Staff
SECONDER:	Sam Wenz, Staff
AYES:	Clary, McManus, Falkenberg, Wenz, Bronstad
EXCUSED:	Peterson, Schimmel, Thibodeaux, Hayhoe

1. Approve the Agenda

2. Approve the Minutes

Land Information Council - Regular Meeting - Dec 4, 2024 1:00 PM

5. BUSINESS ITEMS

1. Land Records Modernization Plan 2025-2027 (2024-10-28_Revisions)
Motion to approve revisions as presented.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Sam Wenz, Staff
SECONDER:	Melanie McManus, Department Head
AYES:	Clary, McManus, Falkenberg, Wenz, Bronstad
EXCUSED:	Peterson, Schimmel, Thibodeaux, Hayhoe

6. AGENDA ITEMS FOR FUTURE CONSIDERATION

None.

7. ADJOURN

Motion to Adjourn.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Melanie McManus, Department Head
SECONDER:	Tracy Bronstad, Staff
AYES:	Clary, McManus, Falkenberg, Wenz, Bronstad
EXCUSED:	Peterson, Schimmel, Thibodeaux, Hayhoe



**STATEMENT OF EXPLANATION
LAND RECORDS MODERNIZATION PLAN 2025-2027 (2024-10-
28_REVISIONS)**

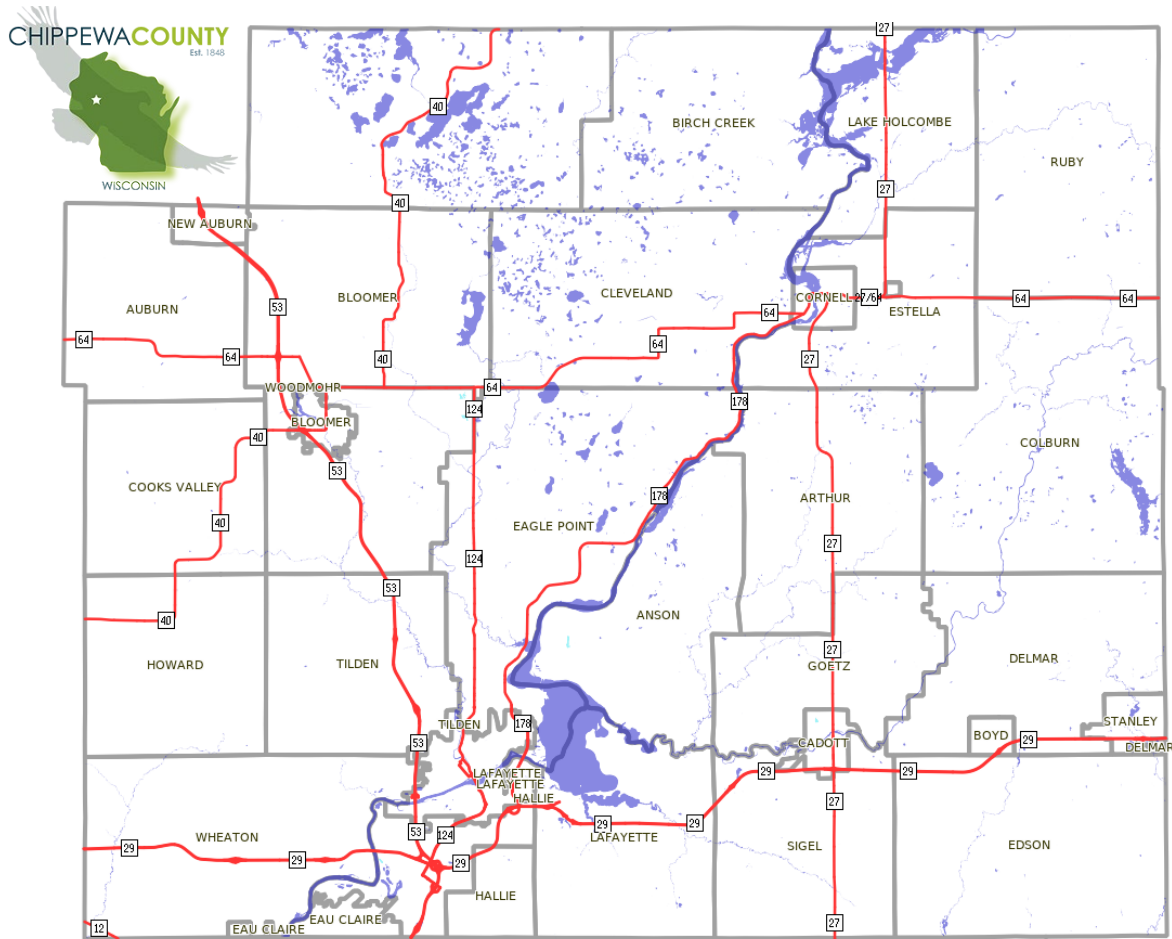
5.1

Based on State comments, modifications were made to the Land Records Modernization Plan 2025-2027 (Version 2024-10-28) after the LIC approval on December 4, 2024. Thus, the LIC will meet to approve those particular revisions.

CHIPPEWA COUNTY

Land Information Plan

2025-2027



Prepared By:

Douglas Clary, LIO
and
Samuel I. Wenz, County Surveyor

Chippewa County Department of Planning & Zoning
Land Records Division
711 N. Bridge Street, Room 009
Chippewa Falls, WI 54729

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EXECUTIVE SUMMARY

About this Document. This document is a land information plan for Chippewa County prepared by the land information officer (LIO) and the Chippewa 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 partially funded tax levy dollars, document recording fees and state sponsored grants. Chippewa County retained a total of \$72,656 in local register of deeds document recording fees for land information in State Fiscal Year 2024 and will most likely be awarded \$20,000 for the 2025 WLIP Strategic Initiative Grant.

This plan lays out how funds from grants and retained fees may be prioritized. However, as the Land Records budget is approved on an annual basis, this plan provides only estimated figures that are subject to change and are designed to serve for planning purposes only. The funding and completion of the projects is directly related to the ability to maintain the existing level of funding.

Land Information in Chippewa 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 Chippewa 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 Division. In the next three years, Chippewa County’s Land Information Division strives to be recognized for its accurate and comprehensive land information database and internet tools that will not only benefit county employees in their daily duties, but will also benefit local municipalities, businesses and citizens of Chippewa County. Chippewa County strives to be recognized for its economical open-source 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: Projects 5-17 are in no particular order.

Chippewa County Land Information Projects: 2025-2027

Project #1	Incorporate PLSS into Parcel Layer
Project #2	Orthophoto and Oblique Imagery
Project #3	Website Development and Hosting
Project #4	Indexing of Documents by Geographical Location
Project #5	Hydrographic Layer with Navigable Streams
Project #6	Building Footprint Layer
Project #7	Create Inspection and Field Collection Apps
Project #8	Document Indexing (Register of Deeds)
Project #9	Historical Tax Roll Scanning (County Treasurer)
Project #10	Create Current Land Use Layer

Project #11	Create Future Land Use Layer
Project #12	Land Records Scanning
Project #13	Update GIS Sharing landing site
Project #14	Create Shoreland Zoning Layer
Project #15	Purchase Overhead Book Scanner
Project #16	Georeference Historical Aerial Photos
Project #17	Incorporate Zoning Layers into County GIS

The remainder of this document provides more details on Chippewa 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)

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.

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)

WLIP Benchmarks

- Benchmark 1 & 2 – Parcel and Zoning Data Submission/Extended Parcel Attribute Set Submission
- Benchmark 3 – Revisions to the County Parcel Fabric based on the completion of Benchmark 4
- Benchmark 4 – Completion and Integration of PLSS

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

County Land Information System History and Context

The previous land records modernization plans focused on the following items:

1. Completing and maintaining the in house digital tax parcel mapping program.
2. Updating and maintaining the public land survey system corner markers.
3. Continued upgrading of the digital photo imagery for countywide coverage.
4. Improving the county zoning and planning system by implementing a document storage and retrieval system linked to the GIS system.
5. Improve the document imaging in the Register of Deeds office by implementing 30 to 50 year back conversion of documents from microfilm to optical disk. Rescan missing, incomplete or poor quality documents from conversion. Clean up of legal descriptions on older documents. Microfilm documents not scanned. Update hardware and software for imaging as needed.
6. Create and maintain the internet web sites for the various Chippewa County departments.
7. Improve the utility of web-based GIS.
8. Geo-referencing of survey maps county wide.
9. Website development and hosting for improved access to land records.

County Land Information Plan Process

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

County Land Information Plan Timeline

- 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 info plans.
- **Draft plans due to DOA by September 30, 2024** (but sooner is advised).
- **Final plans with county land info council approval due by December 31st, 2024.**

Plan Participants and Contact Information

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

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

- 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
- Other members of the board or public that the board designates

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

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

Chippewa County Land Information Council and Plan Workgroup				
Name	Title	Affiliation	Email	Phone
+ Douglas Clary	Planning and Zoning Director	Planning and Zoning - LIO	dclary@chippewacountywi.gov	715-726-7941
+ Melanie McManus	Register of Deeds	Register of Deeds Office	mmcmanus@chippewacountywi.gov	715-726-7993
+ Patricia Schimmel	Treasurer	Treasurer's Office	pschimmel@chippewacountywi.gov	715-726-6113
+ Tracy Bronstad	Real Property Lister	Treasurer's Office	tbronstad@chippewacountywi.gov	715-726-6110
+ Matthew Peterson	County Board Member	Land Information Council Chairman	mpeterson@chippewacountywi.gov	715-703-3012
+ Bruce Hayhoe	Realtor	Woods & Water Realty	brucejr@woodsandwater.com	715-456-2256
+ Tyler Thibodeaux	Emergency Management Director	Emergency Government	tthibodeaux@chippewacountywi.gov	715-726-7728
+ Samuel Wenz	County Surveyor	Planning & Zoning – Land Records Division	swenz@chippewacountywi.gov	715-726-7931
+ Dennis Falkenberg	GIS Coordinator	Planning & Zoning – Land Records Division	dfalkenberg@chippewacountywi.gov	715-738-2595
Lynda Schweikert	Land Conservationist	Land Conservation and Forest Management	lschweikert@chippewacountywi.gov	715-726-4590
Andy Bauer	Information Technology Director	Information Technology	abauer@chippewacountywi.gov	715-726-7891

+ Land Information Council Members designated by the plus symbol

2 FOUNDATIONAL ELEMENTS

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

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

FOUNDATIONAL ELEMENTS

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

PLSS

Public Land Survey System Monuments

Layer Status

PLSS Layer Status	Status/Comments
Number of PLSS corners (section, ¼, meander) set in original government survey that can be remonumented in your county	• 3409
Number of PLSS corners capable of being remonumented in your county that have been remonumented	• 3298
Number 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	• 3078
Number of survey grade PLSS corners integrated into county digital parcel layer	• 3078
Number of non-survey grade PLSS corners integrated into county digital parcel layer	• 331
Tie sheets available online?	• Yes, https://mapping.chippewacountywi.gov
Percentage of remonumented PLSS corners that have tie sheets available online (whether or not they have corresponding coordinate values)	• 100%
Percentage of remonumented PLSS corners that have tie sheets available online (whether or not they have corresponding coordinate values) and a corresponding URL path/hyperlink value in the PLSS geodatabase	• 100%
PLSS corners believed to be remonumented based on filed tie-sheets or surveys, but do not have coordinate values	• 71
Approximate number of PLSS corners believed to be lost or obliterated	• 113
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)?	• Chippewa County numbers the corners starting at the northwest corner of the county being number 1 with increasing numbers as you go East. The next tier of corners continues the numbering starting at the westernmost corner and again increasing as you go east.
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	• Eau Claire-73 Dunn-52 Barron-25 Rusk-67 Taylor-38 Clark-25
Number and percent of PLSS corners remonumented along each county boundary	• EC-73 Dunn-52 Barron-25 Rusk-67 Taylor-38 Clark-25 100% 100% 100% 100% 100% 100%
Number and percent of remonumented PLSS corners along each county boundary with survey grade coordinates	• EC-73 Dunn-52 Barron-25 Rusk-67 Taylor-38 Clark-25 100% 100% 100% 100% 100% 100%
In what ways does your county collaborate with or plan to collaborate with neighboring counties for PLSS updates on shared county borders?	• All of the surrounding counties collaborate. We keep each other informed on monumentation efforts.

Custodian

- Chippewa County Surveyor – Land Records Division.

Maintenance

- The PLSS Monuments layer is updated weekly. New records are merged with the old records which builds a historical timeline of work performed on each corner.

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 (NATRF2022) – not yet released and no exact date set for release by National Geodetic Survey (NGS).
- 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

Chippewa County Geodetic Control Network

Layer Status

- Locations of monuments and coordinate values are shown on the web mapping site

Custodian

- Local Control = Department of Planning & Zoning: Land Records Division
- HARN = Wisconsin Department of Transportation

Maintenance

- Local Control = Department of Planning & Zoning: Land Records Division
- HARN = Wisconsin Department of Transportation

Standards

- Local Control = Horizontal FGCS 2nd Order, class 1 accuracy, Published on Wisconsin County Coordinate System - North American Datum of 1983 (1991)
- HARN = Horizontal FGCS B-order or 1st Order accuracy, Published on North American Datum of 1983 (2007) – NAD83(NSRS2007)

Parcel Mapping

Parcel Geometries

Layer Status – MAINTENANCE PHASE

- **Progress toward completion/maintenance phase:** In Chippewa County, 100% of the county's parcels are available in a commonly-used digital GIS format.
- **Projection and coordinate system:** Chippewa County parcels are projected in the Wisconsin County Coordinate System (WCCS) Chippewa County Grid - North American Datum of 1983 (1991)
- **Integration of tax data with parcel polygons:** Chippewa County does have a parcel polygon model that directly integrates tax/assessment data as parcel attributes.
- **Online Parcel Viewer Software/App and Vendor name:**
 - Geomoose which is supported by the contractor Houston Engineering Inc.
 - Esri ArcGIS Online Map Viewer – ArcGIS Online – In House
- **Unique URL path for each parcel record:** Yes,
 - https://mapping.chippewacountywi.gov/?call=search_parcel_taxnum&value0=**
 - URL link is stable and can be used from any application to link to the web mapping site.
 - Unique URL link is exportable

- The unique URL path provides a portion of the assessment roll data immediately available on the mapping site and a link to the assessment roll is also available to view the full assessment data set.

Custodian

- GIS Coordinator, Land Records Division

Maintenance

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

Standards

- **Data Dictionary:** Chippewa County maintains a Data Dictionary in XML format for parcel attributes listed in s. 59.72(2)(a) which is a human-readable form, with thorough definitions for each element/attribute name, and explanations of any county-specific notations.

Parcels Without Land Value

Layer Status

- **As of the current date, how many parcels without a land value has the county recorded:**
 - **Date:** 10/21/2024
 - **Number of parcels without a land value:** 0
- **County does not map parcels without land value.**
 - County plans to create new polygons and parcel stack

Tax Roll Software/App and Vendor name: Chippewa County utilizes LandNav Suite from Catalis

Assessment/Tax Roll Data

Layer Status

- **Progress toward completion/maintenance phase:** NA
- **Tax Roll Software/App and Vendor name:** Chippewa County utilizes LandNav Suite from Catalis to prepare assessment and tax roll data and tax bills. The information is available online.
- **Municipal Notes:** NA

Custodian

- Chippewa County Treasurer, Real Property Lister

Maintenance

- **Maintenance of the Searchable Format standard:** To maintain the Searchable Format standard, the Property Lister will continue to work with the Land Records Division to clean up parcel anomalies between the assessment/tax roll and the GIS mapping. The Property Lister will continue to work with the 911 GIS/Database Manager to ensure that all site addresses are identified and accurate on the assessment/tax roll.
- **Searchable Format Workflow:** The County maintains parcel/tax roll data in such a way that **requires significant formatting every year**—whether by the county staff in-house, or a third-party contractor/vendor.

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, Non-Metallic Mining, Brownfields, Restrictive Covenants

Layer Status

- Chippewa County maintains visual layers (no attribute data) of easements and dimensions

- Permit data for Zoning is currently stored in the Catalis Permitting Application using parcel numbers as an identifier

Custodian

- GIS Coordinator, Director of Planning & Zoning

Maintenance

- Updated as new records and permits come in
- A future project is to provide a link from the parcel number to the permits on file.

Standards

- Visual layers mapped at mapping grade accuracy

ROD Real Estate Document Indexing and Imaging

Layer Status

- **Grantor/Grantee Index:** Chippewa County uses Fidlar Technologies as a software vendor. A digitized grantor/grantee index from 1850 forward with continued quality control of previous conversion. Most real estate land record related documents are scanned from 1800's to present. Conversion quality control, indexing and tract information has yet to be completed.
- **Tract Index:** PLSS-based tract index requiring pin #'s on all documents transferring property.
 - Status: All real estate land record documents are scanned. 1954 back to 1800's conversion require indexing. Integrated Fidlar product Monarch with tax assessment for all documents transferring property to associate legal description and pin.
 - Tract index is both parcel PIN-based and PLSS-based.
 - Tract indexing encompasses; Plats, CSM's, Condominiums and all real estate land record documents (deeds, mortgages, satisfactions, easements, covenants, right of way, metallic mining, UCC's, restrictive covenants, declarations liens and many more)
- **Imaging:** Most real estate land record documents are scanned including some index books. There is an ongoing need for document scanning utilizing contractors or internal staff to complete the process of making all records available digitally.
- **ROD Software/App and Vendor Name:** Laredo/Tapestry – from Fidlar. ROD documents are available online in Chippewa County through Laredo and Tapestry and public terminals in the ROD's Department.

Custodian

- Chippewa County Register of Deeds

Maintenance

- All digitized records backed up off site. Users provide assistance in quality control of data. Software vendor (Fidlar) reviews for technology updates.

Standards

- s. 59.43, Wis. Stats. Register of deeds; duties, fees, deputies.
- ch. 706, Wis. Stats. Conveyances of real property; Recording; Titles.
- ch. 236.25 & 236.34 Recording of Plats and Certified Survey Maps.
- Wisconsin Register of Deeds indexing guidelines.
- Office handbook – indexing standards.

LiDAR and Other Elevation Data

LiDAR

Layer Status - COMPLETE

- **Most recent acquisition year:** 2020
- **Accuracy:** 1 foot contour interval
- **Post spacing:** 2.0 ft. grid size

- **Contractor's standard, etc.:** USGS 3DEP Program QL2 with upgrades. Consultant was AYRES Associates – Hydro Breaklines for water bodies shown are 1 acre or larger and 8 feet and wider streams.
- **Next planned acquisition year:** 2028

Custodian

- GIS Coordinator- Land Records Division

Maintenance

- This layer is static with updates every 8-10 years.

Standards

- USGS LiDAR Base specifications (ver. 1.3, February 2018).
- Vertical accuracies comply with Table 2.3 of Procedure Memorandum No. 61-Standards for LiDAR and Other High Quality Digital Topography for an Equivalent Contour Accuracy of 1 foot.

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 - COMPLETE

- The following layers were acquired as add-ons to the USGS 3DEP Program through Ayres Associates. The layers are derivatives of the 2020 LiDAR flight.
- The Bare Earth DTM & DEM were developed from LAS points and hydro enforced breaklines from the 2020 LiDAR flight. The Bare Earth DEM is a background layer on the web mapping, which allows for spot elevations.
- The Hydro-flattened breaklines were compiled for ponded water that is 1 acre or greater, permanent islands 1 acre or larger, and double lined streams with a minimum width of 8 feet. Hydrographic breaklines were collected using LiDARgrammetry to ensure hydroflattened water surfaces. This process involves manipulating the LiDAR data's intensity information to create a metrically sound stereo environment. From this generated "imagery", breaklines are photogrammetrically compiled. Breakline polygons are created to represent open water bodies. The LiDAR points that fall within these areas are classified as "water." The breaklines are stored in Esri shape file and a PostgreSQL/PostGIS table. Breaklines are available to view on the County internal mapping website.
- The Bare Earth LAS was developed from a LiDAR flight flown in between April 30 – May 7, 2020. The 2020 Bare Earth files were delivered in LAS and TXT files, which are the set of bare terrain surface data LiDAR returns with all other classifications omitted.
- The 1ft contours are a derivative product, as an upgrade of the 2ft contours provided with the 3DEP program. The 1ft contours are displayed on the online web mapping sites and are in Esri Filegeodatabase format and a PostgreSQL/PostGIS table.

Custodian

- GIS Coordinator- Land Records Division

Maintenance

- No maintenance

Standards

- USGS LiDAR Base specifications (ver. 1.3, February 2018).
- Vertical accuracies comply with Table 2.3 of Procedure Memorandum No. 61-Standards for LiDAR and Other High Quality Digital Topography for an Equivalent Contour Accuracy of 1 foot.

Orthoimagery

Orthoimagery

Layer Status - COMPLETE

- **Most recent acquisition year:** 2023
- **Resolution:** 2023=6 inch pixels county-wide
- **Contractor's standard:** EagleView used NGS CORS base station data to post-process in flight GPS and ortho-rectified using Inpho's OrthoMaster software based on the LiDAR DEM.
- **Next planned acquisition year:** 2025

Custodian

- GIS Coordinator- Land Records Division

Maintenance

- Proposed update cycle is every three years

Standards

- 6 inch pixels or better

Historic Orthoimagery

Layer Status

- Past orthophotography archived: 2005, 2008, 2011, 2014, 2017, 2018, 2020, 2021. All years available on web mapping site.

Custodian

- GIS Coordinator- Land Records Division

Maintenance

- No maintenance required. Imagery available for historical reference.

Standards

- Each year is maintained with the standards used at year of capture.

Oblique Imagery

Layer Status

- Oblique imagery captured through EagleView. Full County in 2011 & 2017, partial County in 2018 & 2021.

Custodian

- GIS Coordinator- Land Records Division

Maintenance

- Proposed update of County wide obliques in 2025.

Standards

- Each year is maintained with the standards used at year of capture.

Address Points and Street Centerlines

Address Point Data

Layer Status

- County Address data is complete. Updates done when new addresses are assigned or existing addresses are discovered.
- Data updated nightly and available on web mapping sites

Custodian

- Chippewa County Emergency Management Department \ 911 GIS Coordinator

Maintenance

- Nightly maintenance & any updates pushed to the Chippewa Co 911 Emergency Communications Center

Standards

- NG9-1-1 compliant – PSAP routing.

Building Footprints**Layer Status**

- Not in progress - Chippewa County does not have a building footprint layer.
- Layer in list of projects to be completed in the future

Custodian

- Chippewa County Land Records

Maintenance

- TBD

Standards

- TBD

Street Centerlines**Layer Status**

- Chippewa County Centerline data is complete and current
- Address Ranges assigned to centerline segments
- Updated layer is available on County web mapping sites

Custodian

- 911 GIS Coordinator

Maintenance

- Updated as needed.

Standards

- Wisconsin GIS NG9-1-1 Data Standard. (Road Centerline)
- NG9-1-1 compliant – PSAP routing

Rights of Way**Layer Status**

- As part of the parcel layer & as separate stand-alone layer
- Layer is complete and current

Custodian

- GIS Coordinator

Maintenance

- Updated with same schedule as the parcel layer

Standards

- Mapping grade – R/W's taken from parcel geometry

Trails**Layer Status**

- County Trail data is complete for ATV, Bike, Mountain Bike, Horse, Ice Age Trail, Cross Country Skiing and Snowmobile trails

Custodian

- GIS Coordinator/County Forester/Chippewa County Highway Department

Maintenance

- Annual and as needed.

Standards

- Mapping grade – many trails digitized from aerial photography or local user GPS.

Land Use

Current Land Use

Layer Status

- Current layer Developed for the 2010 Comprehensive Plan
- Chippewa County will develop a method to create an updated layer yearly

Custodian

- Director of Planning and Zoning, GIS Coordinator – Land Records Division

Maintenance

- To be every year when new assessments come out in the spring

Standards

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

Future Land Use

Layer Status

- Future Land use maps are developed by the municipalities during their Comprehensive Plan updates

Custodian

- Director of Planning and Zoning

Maintenance

- Every 5 years or to coincide with a Comprehensive Plan update

Standards

- Future land use maps are typically created through a community's comprehensive planning process.
 - If a future land use map is created as part of an adopted comprehensive plan(s), then it can be assumed to meet the standards in s. 66.1001
 - According to s. 66.1001, beginning on January 1, 2010, if a town, village, city, or county enacts or amends an official mapping, subdivision, or zoning ordinance, the enactment or amendment ordinance must be consistent with that community's comprehensive plan.
 - Future land use mapping for a county may be a patchwork of maps from comprehensive plans adopted by municipalities and the county.

Zoning

County General Zoning

Layer Status

- The County does maintain a GIS representation of county general zoning boundaries
- The County zoning data is complete and current
- The County zoning layer is available on the County web mapping site

Custodian

- Director of Planning and Zoning
- GIS Coordinator

Maintenance

- Bi-yearly or as needed.

Standards

- Mapping grade accuracy with every parcel in the zoned areas having an identification.

Shoreland Zoning**Layer Status**

- Administered by county, but not in GIS format.

Farmland Preservation Zoning**Layer Status**

- Not administered by county

Floodplain Zoning**Layer Status**

- The County does maintain a GIS representation of floodplain zoning boundaries.
- The county's floodplain zoning GIS data is the same as/identical to the FEMA map.

Custodian

- GIS Coordinator

Maintenance

- FEMA – layer streamed from FEMA, all updates incorporated immediately

Standards

- FEMA

Airport Protection**Layer Status**

- The County does maintain a GIS representation of airport protection zoning boundaries.
- Height limitation restrictions.

Custodian

- Eau Claire County

Maintenance

- Eau Claire County

Standards

- Eau Claire County Airport Height Limitation Zoning Ordinance

Municipal Zoning Information Maintained by the County**Layer Status**

- The County maintains zoning information for the Village of Lake Hallie, the Town of Bloomer and the City of Stanley. Note: Town of Bloomer and City of Stanley have their own Zoning ordinances.
- Updates to the Town of Bloomer and City of Stanley provided by their Zoning Administrator at no set schedule.
- Data is complete and current

Custodian

- Director of Planning and Zoning
- GIS Coordinator
- Town of Bloomer Zoning Administrator
- City of Stanley Zoning Administrator

Maintenance

- Bi-yearly or as needed.

Standards

- Mapping grade accuracy with every parcel in the zoned areas having an identification.

Administrative Boundaries

Civil Division Boundaries

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

Layer Status

- The municipal boundary layer for Chippewa County is updated to reflect annexations and de-annexations which occur with the local municipalities.
- Chippewa County Administrative Boundaries layer is complete and current

Custodian

- GIS Coordinator

Maintenance

- As needed upon changes to municipal boundaries and to conform with new survey information.

Standards

- Mapping grade

School Districts

Layer Status

- **Progress toward completion/maintenance phase:** Maintenance
- **Relation to parcels:** Each parcel has the District Code associated to it in the attributes
 - **Attributes linked to parcels:** School District name and code
- Chippewa County School District data is current and complete

Custodian

- GIS Coordinator

Maintenance

- As needed

Standards

- Mapping grade

Election Boundaries

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

Layer Status

- Twice a year annexation/ward changes are incorporated into the dataset
- Ward boundaries and Polling Places are current and complete

Custodian

- Chippewa County Clerk
- GIS Coordinator

Maintenance

- Bi-yearly

Standards

- Legislative Technology Bureau Services Data Requirements

Emergency Service Boundary – Law/Fire/EMS

Layer Status

- **Law Enforcement:** Complete and current.
- **Fire:** Complete and current.

- **EMS:** Complete and current.
- **ESN:** Complete and current.

Custodian

- Emergency Management Department/911 GIS Coordinator

Maintenance

- Annual and as needed.

Standards

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

Public Safety Answering Points (PSAP) Boundary

Layer Status

- **PSAP Boundary:** Complete and current.

Custodian

- Emergency Management Department/911 GIS Coordinator

Maintenance

- Annual and as needed.

Standards

- Wisconsin GIS NG911 Data Standard (PSAP Boundary)

Provisioning Boundary

Layer Status

- Complete and Current

Custodian

- Emergency Management Department/911 GIS Coordinator

Maintenance

- Annual and as needed.

Standards

- Wisconsin GIS NG911 Data Standard (Provisioning Boundary)

Public Safety & Additional NG9-1-1 GIS Layers

Layer Status

- Complete and Current
- County Boundary Chippewa (NG911 jurisdiction & purposes)
- PSAP Boundary Wireless911 Chippewa (NG911 jurisdiction & purposes)
- Tornado Sirens (Countywide siren locations, maintenance status, estimated coverage buffer zones for public warning, notifications and safety)
- ATV Routes (Countywide ATV public road routes for law enforcement purposes)

Custodian

- Chippewa County Emergency Management Department \ 911 GIS Coordinator

Maintenance

- Annual and as needed.

Standards

- Wisconsin GIS NG9-1-1 Data Standard

Other Public Safety

e.g., Healthcare Facilities

Layer Status

- Layers are Complete and current.

Custodian

- Emergency Management Department/911 GIS Coordinator

Maintenance

- Annual and as needed.

Standards

- Wisconsin GIS NG9-1-1 Data Standard

Other Administrative Districts

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

Layer Status

- Other administrative districts, including Parks and County Forest are current and complete

Custodian

- GIS Coordinator – Land Records Division & County Forester

Maintenance

- Updated as needed

Standards

- Mapping grade accuracy

Other Layers**Hydrography Maintained by County or Value-Added****Polygon & Polyline Layers****Layer Status**

- Originally created by digitizing the boundaries from the 1998 ortho photo
- Layer continually being updated using higher quality orthophotography and LiDAR derived hydro breakline data

Custodian

- GIS Coordinator

Maintenance

- As needed

Standards

- Mapping grade

Cell Phone Towers**Layer Status**

- Audit Requested

Custodian

- ComTech

Maintenance

- As needed

Standards

- **

Bridges and Culverts**Layer Status**

- Bridges and culverts on County Highways are in the process of being inventoried by the County Highway Department. Bridges are current and complete, culverts are in process.

Custodian

- Chippewa County Highway Department & GIS Coordinator – Land Records Division

Maintenance

- Yearly

Standards

- Mapping grade

Other / Miscellaneous

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

Layer Status

- Railroad centerlines are current and complete.

Custodian

- GIS Coordinator – Land Records Division

Maintenance

- As needed

Standards

- Mapping grade

3 LAND INFORMATION SYSTEM

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

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

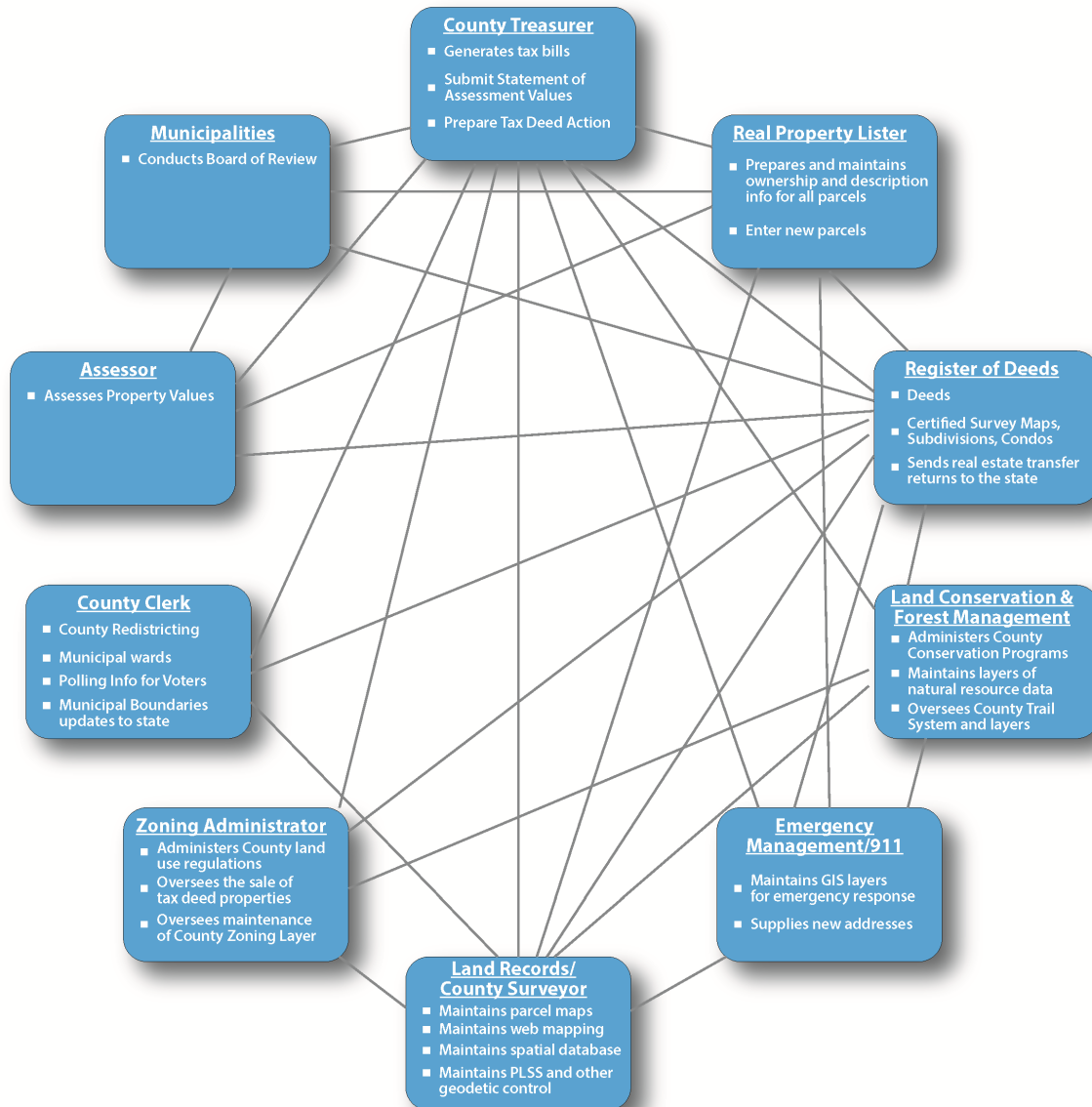
- The design, development, and implementation of a land information system that contains and integrates, at a minimum, property and ownership records with boundary information, including a parcel identifier referenced to the U.S. public land survey; tax and assessment information; soil surveys, if available;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

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

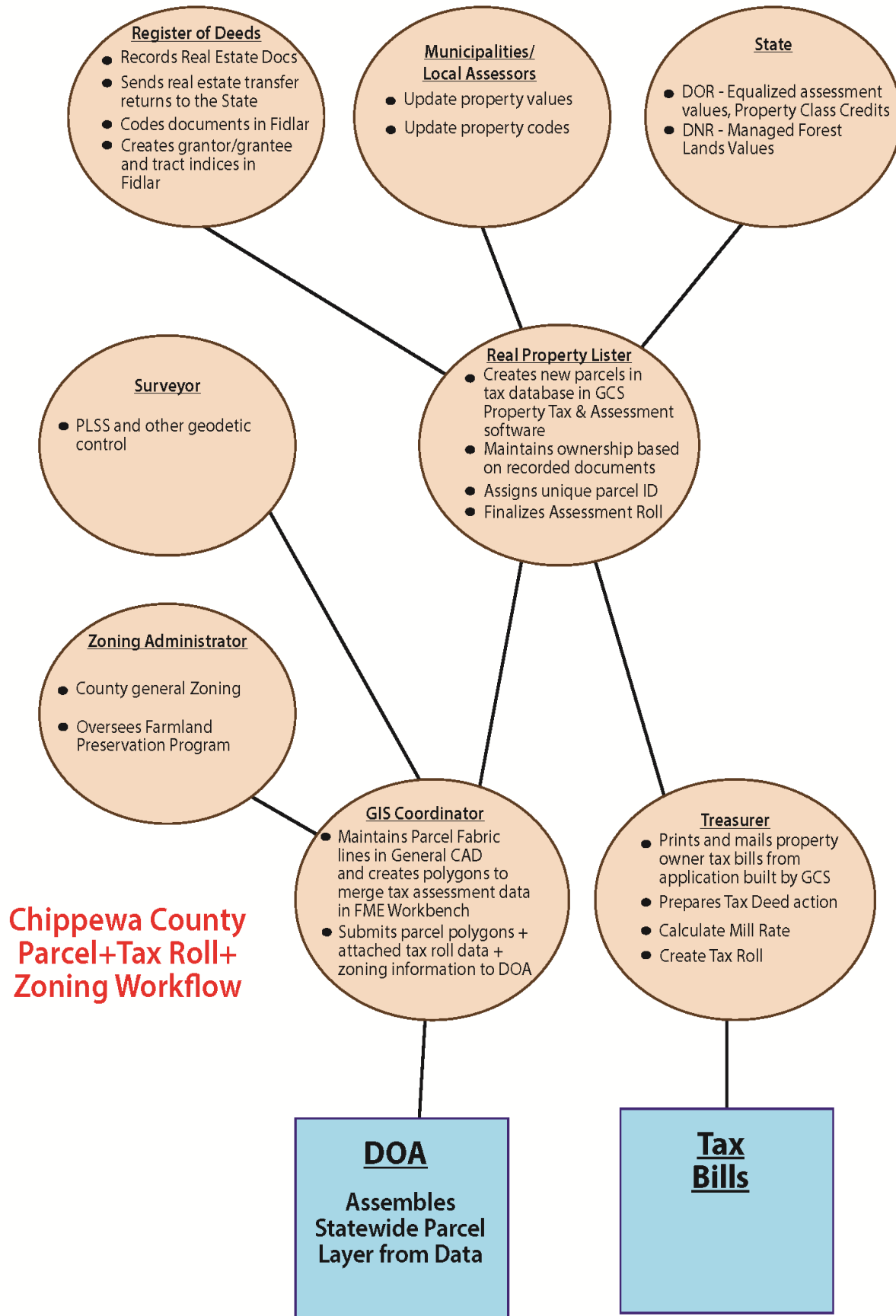
Current Land Information System

Diagram of County Land Information System

Chippewa County Land Information System Workflow Diagram



County Parcel Data Workflow Diagram



Technology Architecture and Database Design

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

Hardware

- The Chippewa County IT Department maintains the servers which store the data locally. Data is stored in flat files on windows servers and our Land Records database is stored on a PostgreSQL/PostGIS server. Emergency Management files are stored in a local file geodatabase.

Software

- The software programs used to create and maintain land records include, but are not limited to: QGIS, ArcGIS Pro, ArcCatalog, ArcGIS Online apps, FME Workbench, BlueMarble Global Mapper, Carlson Survey, General CAD & Laredo Anywhere.
- **County currently uses ArcGIS Pro: Yes**

Website Development/Hosting

- The web mapping site is hosted by Houston Engineering Inc. (HEI) on An AWS cloud server. The data is stored in a replicated PostgreSQL/PostGIS database on the cloud server and is served up to the GeoMoose web mapping site using MapServer. Notepad++ and Dreamweaver are used to update the supporting files. WinSCP is used to move the updated files to the cloud server.
- Chippewa County has web applications for municipal zoning and parcel mapping built using ArcGIS Online.

Metadata and Data Dictionary Practices

Metadata Creation

- **Metadata creation and maintenance process:** Metadata is created and updated by the department which is listed as the layers custodian on a periodic or upon request basis.

Metadata Software

- **Metadata software:** Chippewa County utilizes the U.S.G.S. Metadata wizard tool which was developed for ArcCatalog.
 - The software generates metadata consistent with the FGDC Content Standard for Digital Geospatial Metadata.
- **Metadata fields manually populated:** Data Set Title, Data Set Author, Time Period Information, Status, Contact Info, Distribution Info & Accuracy attributes.

Metadata Policy

- **Metadata Policy:** No minimum standard, the tool dictates what is entered with all the required fields filled out.

Municipal Data Integration Process

- We work together with the various municipalities around the County. We believe they should continue to be the caretakers of their data so they either, provide updates to Zoning and Address layers, or we request a new copy from them if we need it.

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://mapping.chippewacountywi.gov/	https://chippewacounty.sharefile.com/d-sbb48e2b1e3e4083a	https://pp-chippewa-co-wi-fb.app.landnav.com/Search/RealEstate/Search	www.landrecords.net

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

URL

<https://www.chippewacountywi.gov/government/land-records-county-surveyor/mapping-gis/online-resources>

Data Availability to Public

Data Sharing Policy

- Much of our data can be viewed on the internet through our web mapping site and other land information web sites. Departments also have set schedules for fees for data sets. The Land Records schedule was approved by County Board Resolution.

Open Records Compliance

- Chippewa County is working toward providing internet access to our Land Records. Most data layers are viewable on our web mapping site, and more layers are being added each year. If a layer is not available on the web mapping site, it can be viewed on desktop software in the respective offices. Data layers can be requested with those on the price schedules having a reproduction cost, with other layers tending to be free.

Data Sharing Restrictions and Government-to-Government Data Sharing

Data Sharing Restrictions

- Chippewa County does not currently have a data sharing policy. If data is acquired from Chippewa County by the public, they are not restricted in what they can do with it.

Government-to-Government Data Sharing

- Chippewa County requests that the Gov't agency acquiring the data not share it to another party, but that any party inquiring to obtain the data from them contact Chippewa County for the most recent data. The notable exception is the UW Madison Robinson Library GIS download site, which was granted permission to share the Chippewa County data they have.

Training and Education

- Chippewa County will provide training to anyone new to using the software & the GIS Coordinator answers questions whenever more training is needed. The GIS Coordinator also holds GIS User Group meetings, when needed or updates occur, to show and discuss what is new with Land Records. This one-on-one training is also available to any local municipality as requested.

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.

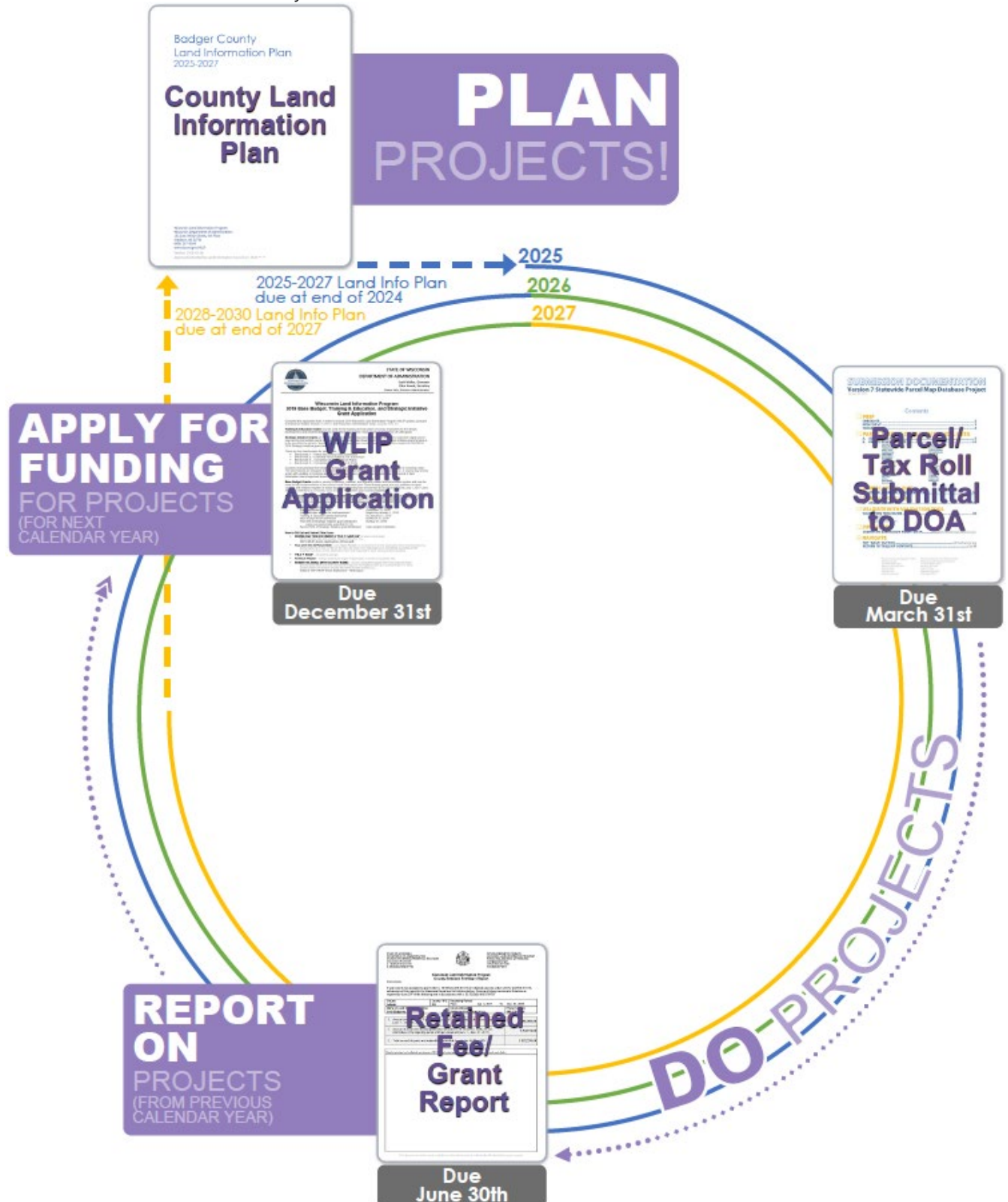


Figure 1. The WLIP Land Information Plan/Grant Project Cycle – For the Years 2025-2027

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

Project Description

How Searchable Format Will Be Maintained

- Chippewa County has a workspace built in FME Workbench to generate the Parcel layer in the Searchable format.
- Chippewa County currently complies with the State searchable format for Benchmarks 1 & 2.

Business Drivers

- Generating and maintaining the Searchable Format is helpful in helping Chippewa County to keep their assessment data accurate and to identify any items that need updating or correcting.

Objectives/Measure of Success

- The Objective is to continue to meet the Searchable Format requirements for the State yearly submittal, to perform a check and clean data on the assessment roll and to be able to provide accurate additional layers during that yearly submittal.

Responsible Parties

- GIS Coordinator – Land Records Division

Estimated Budget Information

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

Project Plan for Parcel Completion (Benchmark 3)

Project Description

Current status of parcel data

- **Current status of parcel data in the county:** Maintenance - See [Parcel Layer Status](#) in Chapter 2.
- **Tally of the total number of parcels in digital format:** 52,444
- **Estimated number of parcels yet to be digitized:** 0

Project Plan for PLSS (Benchmark 4)

Project Description

Current Status

- **See PLSS Layer Status table in Chapter 2.**

Planned Approach

- The goal is to monument and obtain survey grade coordinates on all PLSS System Corners with a higher priority placed on the county boundary. There are approximately 12 corners within the County Forest that may only need sub-meter coordinates.
- **Land Info Spending Category:** PLSS (also affects Parcel Mapping, and Other Layers)

Missing Corner Notes

- **Documentation for any missing corner data:** The only corners that may not have Survey-grade coordinates will be approximately 12 corners within the County Forest.

County Boundary Collaboration

- All of the surrounding counties share their corner data with each other. When corners are completed along the county boundary, Chippewa County will notify the adjacent county so they can download the new information. The adjacent counties follow the same notification process for Chippewa County.

Business Drivers

- The public benefits from having good section corner remonumentation. Accurate parcel mapping allows a property owner to discover inconsistencies between the deed to their property verses the

occupation of property. In addition, the cost to survey parcels is reduced because the private property owner is not charged for the remonumentation costs.

Objectives/Measure of Success

- The objective is to meet Benchmark 4 (Completion and Integration of PLSS) by the end of 2027. The ability to meet this goal is based on the continued use of the Retained, Base Budget and Strategic Initiative funds. If these funds are utilized for other projects it will take the County over 4 years to complete.
- **Number of corners to be remonumented and/or rediscovered:** 137
- **Number to have new coordinates established:** 464
- **Accuracy class for these new coordinates:** Survey-grade
- **Way in which these points will be integrated into the parcel fabric:** If there are major differences between the existing parcel mapping and an actual corner location the mapping will be updated as soon as possible. Otherwise, the mapping will be updated once survey-grade coordinates have been obtained on an entire section.

Project Timeframes

Timeline – PLSS (Benchmark 4)		
Milestone	Corners per year	Date
Project is continuous	–	January 1, 2022
Contractors	10 corners/year	2025 through 2027
County Surveyor	95 corners/year	2025 through 2027
Project complete	–	December 31, 2027

Responsible Parties

- County Surveyor and private surveyors by contract/request.

Estimated Budget Information

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

Project #1 – Incorporate PLSS into Parcel Layer (Benchmark 3)

Project Description

- The goal is to most accurately depict the parcel geometries of Chippewa County. New PLSS data will be incorporated into the mapping to alter the parcel boundaries to reflect accurate PLSS locations.
- **Land Info Spending Category:** PLSS

Business Drivers

- The parcel layer is being more heavily used, and relied upon more than it ever has before. With easy access to mapping, and more accurate aerial photos, it is important to work to have the parcels depicted the most accurately possible.

Objectives/Measure of Success

- PLSS remonumentation and coordinate collection complete
- New Parcels and Surveys line up with parcel mapping and require minimal drafting to incorporate into the existing Parcel layer
- All parcels that are shown are tied back to accurate PLSS coordinate locations.

Project Timeframes

Timeline – PLSS (Benchmark 4)		
Milestone	Duration	Date
Project #1 Start	–	January 1, 2025

Incorporate PLSS Corners	Varying	Continuing until completion
Project Complete		Unknown

Responsible Parties

- GIS Coordinator – Land Records Division

Estimated Budget Information

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

Project #2 - Orthophoto and Oblique Imagery

Project Description

- Obtain new Aerial imaging to update the County's aerial photos, including oblique images.
- **Land Info Spending Category:** Digital Parcel Mapping, LiDAR, Orthoimagery

Business Drivers

- Business' and residents utilize the Ortho's as for preliminary project planning
- Updated imagery assists Departments to know current conditions.
- Orthophotos and Oblique Imagery are highly requested by the public
- County Departments such as Land Conservation and Forest Management, Planning and Zoning, Facilities and Parks, Tax Lister, Emergency Management, County Sheriff, Highway Department, Public Health and Human Services, benefit from updated aerial images.

Objectives/Measure of Success

- New 3-6 inch pixel orthophoto county-wide every three years.
- New LiDAR data every 8-10 years. *(Note: Current acquisition is from 2020).*

Project Timeframes

Timeline – Orthophoto and Oblique Imagery		
Milestone	Duration	Date
Project Start	–	April 1, 2025
Project Complete	–	September 30, 2025

Responsible Parties

- Department of Planning & Zoning - Land Records Division
- Contractor

Estimated Budget Information

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

Project #3 - Website Development and Hosting

Project Description

- To maintain and improve functionality of Chippewa County's Web Mapping Site.
- **Land Info Spending Category:** Website Development/Hosting Services

Business Drivers

- The public can access information and web mapping tools that make it easy to gain the information they need about property in Chippewa County
- Keep current with technology and to ensure that users can access the information from as many environments as possible and to make as much usable information available as possible.

Objectives/Measure of Success

- Each year we improve the functionality of our web mapping site by providing tools, search types and layers that have been requested by the users

Project Timeframes

- Each year hours of development time are utilized for developing tools and/or updating our web mapping system. The timeframe fluctuates from year to year.

Responsible Parties

- GIS Coordinator and staff of Houston Engineering Inc.

Estimated Budget Information

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

Project #4 - Indexing of Documents by Geographical Location

Project Description

- To expand the use of document imaging and GIS to "geocode" documents (such as zoning permits, conditional use permits, etc.) to a geographical location and make the documents available to the public via Chippewa County's Web Mapping Site and the Real Estate Tax Listing program.
- Land Info Spending Category:** PLSS (also affects Parcel Mapping, and Other Layers)

Business Drivers

- County documents lack detailed location information, making the documents less useful
- County land information system contains some ambiguous addresses
- Increase efficiency of the Department of Planning & Zoning with geocoded land use documents
- Call-Before-You-Dig hotline lacks detailed location information
- Need to improve routing and delivery of Social Services to Chippewa County residents
- County surveyor needs to access tie sheets in the field

Objectives/Measure of Success

- Permits 100% geocoded
- Geographically indexed apps available on the county website

Project Timeframes

Timeline – Indexing of Documents by Geographical Location		
Milestone	Duration	Date
Project start	–	July 1, 2025
Project complete	–	Dec 31, 2027

Responsible Parties

- GIS technician (75%), Contractor to input data for index (25% for 3 months)

Estimated Budget Information

- See table at the end of this chapter.

Project #5 - Produce a Hydrographic Layer with Navigable Streams

Project Description

- Produce a single hydrographic layer that conforms to FEMA and DNR standards for planning purposes that can be utilized by all agencies in Wisconsin.
- Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- To have one hydrographic layer that replaces old outdated paper maps or digital layers and reflects new and more accurate data sets. This layer would be available to county departments, state and federal agencies as well as the public.
- Having this authoritative layer will allow for the creation of a Shoreland Zoning Layer

Project Timeframes

- Unknown at this time

Responsible Parties

- Director of Planning & Zoning, GIS Coordinator, County Surveyor, LTE or Intern

Estimated Budget Information

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

Project #6 - Produce a Building Footprint Layer

Project Description

- Produce a Building Footprint Layer from the 2025 Orthophoto and 2020 LiDAR Acquisition.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- To have a building footprint layer that will add value to the our existing GIS Data Sets. This layer would be available to county departments, state and federal agencies as well as the public.
- This layer will help us more fully identify structure points for NG9-1-1 GIS data

Project Timeframes

- Unknown at this time. Tentative timeframe is 2026, if high resolution photo is obtained in 2025.

Responsible Parties

- Contractor

Estimated Budget Information

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

Project #7 – Create Inspection and Field Collection Apps

Project Description

- Create Apps that will allow for collecting location and details of assets, and performing inspections, while in the field.
- Build custom forms and tables which will allow for completing inspections while in the field. This also includes the ability to capture photos and videos and assign them to a point.
- **Land Info Spending Category:** Website Development/Hosting Services; Other

Business Drivers

- Efficiencies will be gained for staff in Planning and Zoning, Emergency Management, County Highway Department and Land Conservation & Forest Management. This includes only needing to enter data once, at the time of field collection. The public will have access to some permit information on the website.
- Transition from paper to electronic data sets.

Objectives/Measure of Success

- The ability to review information or add to existing information in the field will allow county departments to keep information up to date.

Project Timeframes

- Unknown at this time

Responsible Parties

- Director of Planning & Zoning, GIS Coordinator

Estimated Budget Information

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

Project #8 - Document Indexing

Project Description

- Conversion of scanned images into tract index. Index and quality control of all documents to 1800's
- **Land Info Spending Category:** Other: Conversion of Paper Records to Digital

Business Drivers

- For the most part, all real estate land records related documents in the Register of Deed's Office are scanned from 1800's to present for web access.

Objectives/Measure of Success

- Conversion quality control, indexing and tract information yet to be completed

Project Time

Timeline – Document Indexing		
Milestone	Duration	Date
Project Start	–	November, 2023
Project Complete	ongoing	–

Responsible Parties

- Register of Deeds

Estimated Budget Information

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

Project #9 - Historical Tax Rolls Scanning

Project Description

- Conversion of paper documents to scanned images.
- **Land Info Spending Category:** Other: Conversion of Paper Records to Digital

Business Drivers

- Scanning of the tax rolls will provide a digital copy that will be available for individuals to review online.
- An electronic format will remove old hard copies of this information from the County Treasurer's Office.
- Copies of the electronic scans will preserve the tax rolls in case of fire or other disasters where paper copies have the potential of being destroyed.

Objectives/Measure of Success

- To have all Chippewa County real estate land records digitized and accessible to the public

Project Timeframes

- Unknown at this time

Responsible Parties

- Chippewa County Treasurer

Estimated Budget Information

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

Project #10 – Create Current Land Use Layer

Project Description

- Create a Current Land Use Layer yearly that will be available and incorporated into the County web mapping site.
- Create a detailed explanation of the Land Use Layer and how each Use is determined.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- This data is not currently available, but has been requested and would be used for Planning & Zoning purposes.
- This data will help decision makers to have a better understanding of how Land is currently being used, and then to see trends as there are more years of data available.

Objectives/Measure of Success

- Give users and decision maker's detailed information about Land Use and trends in the County.
- Provide access to the data via the County web mapping sites.

Project Timeframes

- Unknown at this time

Responsible Parties

- Director of Planning & Zoning, GIS Coordinator

Estimated Budget Information

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

Project #11 – Create Future Land Use Layer

Project Description

- Create a Future Land Use Layer that will be available and incorporated into the County web mapping site.
- Combine all Future Land Use layers from each municipality's comprehensive plan to create a County-wide dataset.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- This data is not currently available, but has been requested and would be used for Planning & Zoning purposes.
- This data will help decision makers to have a better understanding of how the planned use of Land is currently projected and designated.

Objectives/Measure of Success

- Give users and decision makers detailed information about Future Land Use in the County at a County-wide scale.
- Provide access to the data via the County web mapping sites.

Project Timeframes

- Unknown at this time

Responsible Parties

- Director of Planning & Zoning, GIS Coordinator

Estimated Budget Information

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

Project #12 – Land Records Scanning

Project Description

- Create a Future Land Use Layer that will be available and incorporated into the County web mapping site.
- Combine all Future Land Use layers from each municipality's comprehensive plan to create a County-wide dataset.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- This data is not currently available, but has been requested and would be used for Planning & Zoning purposes.
- This data will help decision makers to have a better understanding of how the planned use of Land is currently projected and designated.

Objectives/Measure of Success

- Give users and decision maker's detailed information about Future Land Use in the County at a County-wide scale.
- Provide access to the data via the County web mapping sites.

Project Timeframes

- Unknown at this time

Responsible Parties

- Land Records Division

Estimated Budget Information

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

Project #13 – Update GIS Sharing landing site

Project Description

- Investigate options for centralized site for downloads for GIS data.
- Provide users a site that will list downloadable data or all GIS streaming services available.
- **Land Info Spending Category:** Website Development/Hosting Services

Business Drivers

- This landing site is not currently available, but has been requested.
- Having data readily available will reduce workload for County employees having to provide the data, and will allow easy access to the public.

Objectives/Measure of Success

- A central web site providing access to current data to foundational Land Records layers.

Project Timeframes

- Unknown at this time

Responsible Parties

- GIS Coordinator

Estimated Budget Information

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

Project #14 – Create Shoreland Zoning Layer

Project Description

- Create a Shoreland Zoning Layer that will be available and incorporated into the County web mapping site.

- Navigable Stream and other water body boundaries would be determined.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- This data would be helpful in having one authoritative location for the public, and the Zoning Inspectors, to go to for Shoreland Zoning boundaries.
- Give users and decision maker's information about development in the Shoreland Zoning areas of the County, by knowing the extents.

Objectives/Measure of Success

- An authoritative data set that Zoning Inspectors and the public can view when there questions about Shoreland Zoning extents.
- Provide access to the data via the County web mapping sites to make planning easier.

Project Timeframes

- Unknown at this time

Responsible Parties

- Director of Planning & Zoning, GIS Coordinator

Estimated Budget Information

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

Project #15 – Purchase Overhead Book Scanner

Project Description

- Purchase a professional color overhead book scanner that will support scanning projects within the Land Records Division and other departments as digital documentation needs arise.
- Numerous bound paper books can be made more accessible to the public while preserving the data. Many of these books date back to the 1800's and are in decaying condition.
- **Land Info Spending Category:** Document Indexing

Business Drivers

- Much of this data is currently unknown and/or inaccessible to the public even though it may be valuable information for numerous decision making processes.

Objectives/Measure of Success

- Give users and decision maker's detailed information in a searchable format to enable the use of data that may otherwise be ignored or forgotten.
- Provide access to the data via the County web mapping sites.

Project Timeframes

- Unknown at this time

Responsible Parties

- Director of Planning & Zoning, County Surveyor, GIS Coordinator

Estimated Budget Information

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

Project #16 – Georeference Historical Aerial Photos

Project Description

- Add to the inventory of historical photos that Chippewa County has to use and available for viewing on the web mapping site.
- Stitching and placing the photos of the 1951 aerial flight.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- This data would be helpful for planning be used for Planning & Zoning purposes.
- This data helps us better understand how land has been divided and when roads were developed

Objectives/Measure of Success

- Build out our inventory of historical photos by adding the 1951 photo.
- Provide access to the data via the County web mapping sites.

Project Timeframes

- Unknown at this time

Responsible Parties

- GIS Coordinator – Land Records Division

Estimated Budget Information

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

Project #17– Incorporate Zoning Layers into County GIS

Project Description

- Create a layer with the displays current and/or historical Zoning rezone requests, variances, and conditional use permits.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- Easier access to the layers when building out permits for Planning & Zoning purposes.
- Group data to more easily view historical patterns.

Objectives/Measure of Success

- A completed data set with thought out attributes, which will allow for easy usage of the data in the future.
- Provide access to the data via the County web mapping sites.

Project Timeframes

- Unknown at this time

Responsible Parties

- Director of Planning & Zoning, GIS Coordinator

Estimated Budget Information

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

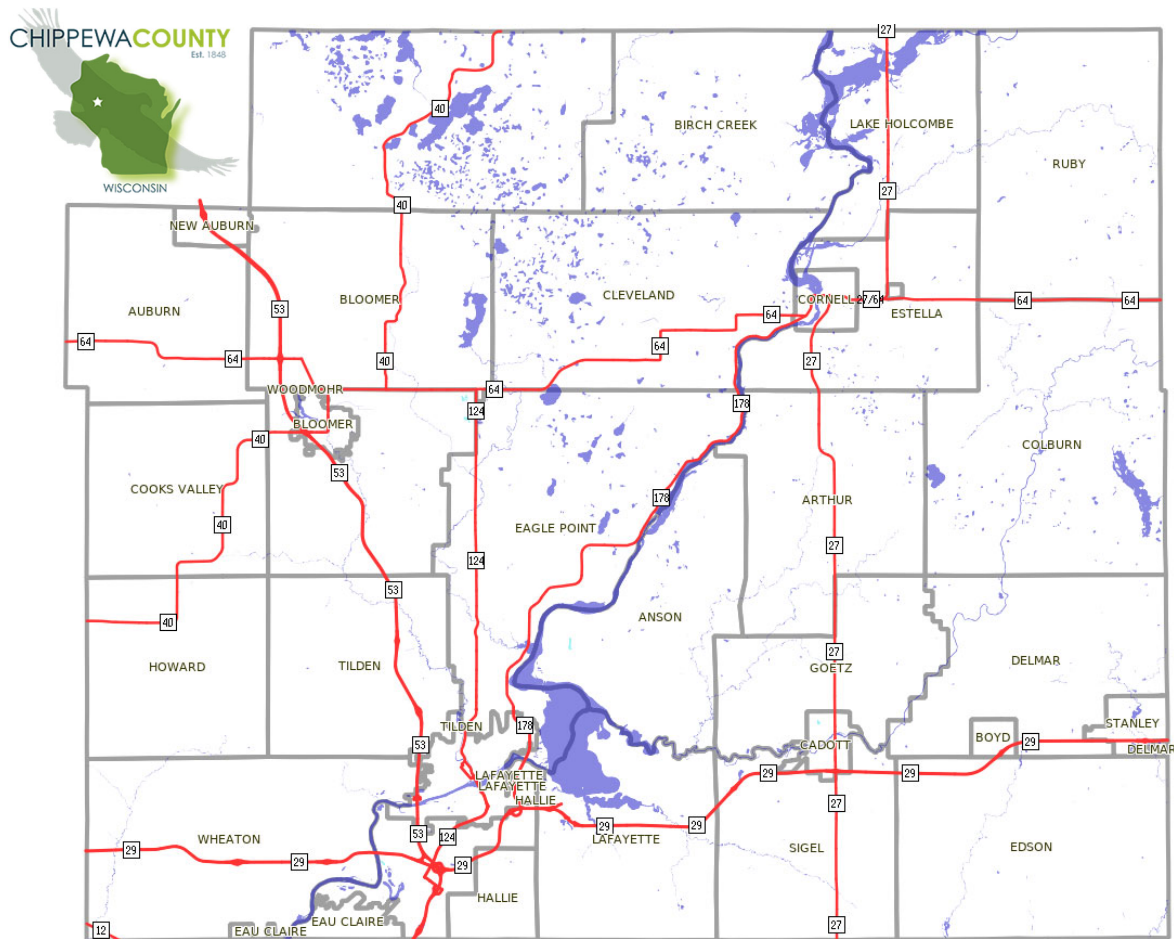
5 ESTIMATED BUDGET INFORMATION

Estimated Budget Information				
Project Title	Item	Unit Cost/Cost	Land Info Plan Citations	Project Total
PLSS Remonumentation	County Surveyor	25% of \$127,467 = \$31,867	Page 27-28	\$ 95,600
	Contractor	30 Corners @ \$1,000/each	Page 27-28	\$ 30,000
#1: Incorporate PLSS into Parcel layer	GIS Coordinator	10% of \$121,713 = \$12,127	Page 28-29	\$ 36,381
#2: Orthophoto & Oblique Imagery	Contractor	\$ 150,000	Page 29	\$ 150,000
#3: Website Development and Hosting	GIS Coordinator, Contractor	\$ 15,000/year	Page 29-30	\$ 45,000
#4: Indexing of Documents by Geographical Location	GIS Coordinator, Contractor	\$ 20,000	Page 30	\$ 20,000
#5: Hydrographic Layer with Navigable Streams	GIS Coordinator, County Surveyor, LTE or Intern	\$ 40,000	Page 30-31	\$ 40,000
#6: Building Footprint Layer	GIS Coordinator, Contractor	\$ 40,000	Page 31	\$ 40,000
#7: Create Inspection and Field Collection Apps	GIS Coordinator	\$ 10,000	Page 31-32	\$ 10,000
#8: Document Indexing	Register of Deeds, LTE or Intern	\$ 20,000/year	Page 32	\$ 60,000
#9: Historical Tax Roll Scanning	County Treasurer, Contractor	\$10,000	Page 32	\$ 10,000
#10: Create Existing Land Use layer	County Treasurer, LTE or Intern	\$ 10,000	Page 28	\$ 10,000
#11: Create Future Land Use layer	GIS Coordinator	Unknown	Page 33	Unknown
#12: Land Records Scanning	Land Records Division	Unknown	Page 34	Unknown
#13: Update GIS Sharing landing site	GIS Coordinator	Unknown	Page 34	Unknown
#14: Create Shoreland Zoning layer	GIS Coordinator	Unknown	Page 34-35	Unknown
#15: Purchase overhead book scanner	Land Records Division	Unknown	Page 35	Unknown
#16: Georeference Historical Aerial Photos	GIS Coordinator	Unknown	Page 35-36	Unknown
#17: Incorporate Zoning Layers into County GIS	GIS Coordinator	Unknown	Page 36	Unknown
GRAND TOTAL				\$ 370,981

Note. These estimates are provided for planning purposes only. Projects are only funded if adequate funding can be obtained.

6 APPENDIX B – LIC APPROVAL

CHIPPEWA COUNTY Land Information Plan 2025-2027



Prepared By:

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Dennis Falkenberg, GIS Coordinator
 and
 Samuel I. Wenz, County Surveyor

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 Land Records Division
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EXECUTIVE SUMMARY

About this Document. This document is a land information plan for Chippewa County prepared by the land information officer (LIO) and the Chippewa 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 partially funded tax levy dollars, document recording fees and state sponsored grants. Chippewa County retained a total of \$72,656 in local register of deeds document recording fees for land information in State Fiscal Year 2024 and will most likely be awarded \$20,000 for the 2025 WLIP Strategic Initiative Grant.

This plan lays out how funds from grants and retained fees may be prioritized. However, as the Land Records budget is approved on an annual basis, this plan provides only estimated figures that are subject to change and are designed to serve for planning purposes only. The funding and completion of the projects is directly related to the ability to maintain the existing level of funding.

Land Information in Chippewa 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 Chippewa 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 Division. In the next three years, Chippewa County’s Land Information Division strives to be recognized for its accurate and comprehensive land information database and internet tools that will not only benefit county employees in their daily duties, but will also benefit local municipalities, businesses and citizens of Chippewa County. Chippewa County strives to be recognized for its economical open-source 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: Projects 5-17 are in no particular order.

Chippewa County Land Information Projects: 2025-2027

Project #1	Incorporate PLSS into Parcel Layer
Project #2	Orthophoto and Oblique Imagery
Project #3	Website Development and Hosting
Project #4	Indexing of Documents by Geographical Location
Project #5	Hydrographic Layer with Navigable Streams
Project #6	Building Footprint Layer
Project #7	Create Inspection and Field Collection Apps
Project #8	Document Indexing (Register of Deeds)
Project #9	Historical Tax Roll Scanning (County Treasurer)
Project #10	Create Current Land Use Layer

Project #11	Create Future Land Use Layer
Project #12	Land Records Scanning
Project #13	Update GIS Sharing landing site
Project #14	Create Shoreland Zoning Layer
Project #15	Purchase Overhead Book Scanner
Project #16	Georeference Historical Aerial Photos
Project #17	Incorporate Zoning Layers into County GIS

The remainder of this document provides more details on Chippewa 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)

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.

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)

WLIP Benchmarks

- Benchmark 1 & 2 – Parcel and Zoning Data Submission/Extended Parcel Attribute Set Submission
- Benchmark 3 – Revisions to the County Parcel Fabric based on the completion of Benchmark 4
- Benchmark 4 – Completion and Integration of PLSS

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

County Land Information System History and Context

The previous land records modernization plans focused on the following items:

1. Completing and maintaining the in house digital tax parcel mapping program.
2. Updating and maintaining the public land survey system corner markers.
3. Continued upgrading of the digital photo imagery for countywide coverage.
4. Improving the county zoning and planning system by implementing a document storage and retrieval system linked to the GIS system.
5. Improve the document imaging in the Register of Deeds office by implementing 30 to 50 year back conversion of documents from microfilm to optical disk. Rescan missing, incomplete or poor quality documents from conversion. Clean up of legal descriptions on older documents. Microfilm documents not scanned. Update hardware and software for imaging as needed.
6. Create and maintain the internet web sites for the various Chippewa County departments.
7. Improve the utility of web-based GIS.
8. Geo-referencing of survey maps county wide.
9. Website development and hosting for improved access to land records.

County Land Information Plan Process

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

County Land Information Plan Timeline

- 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 info plans.
- **Draft plans due to DOA by September 30, 2024** (but sooner is advised).
- **Final plans with county land info council approval due by December 31st, 2024.**

Plan Participants and Contact Information

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

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

- 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
- Other members of the board or public that the board designates

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

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

Chippewa County Land Information Council and Plan Workgroup				
Name	Title	Affiliation	Email	Phone
+ Douglas Clary	Planning and Zoning Director	Planning and Zoning - LIO	dclary@chippewacountywi.gov	715-726-7941
+ Melanie McManus	Register of Deeds	Register of Deeds Office	mmcmanus@chippewacountywi.gov	715-726-7993
+ Patricia Schimmel	Treasurer	Treasurer's Office	pschimmel@chippewacountywi.gov	715-726-6113
+ Tracy Bronstad	Real Property Lister	Treasurer's Office	tbronstad@chippewacountywi.gov	715-726-6110
+ Matthew Peterson	County Board Member	Land Information Council Chairman	mpeterson@chippewacountywi.gov	715-703-3012
+ Bruce Hayhoe	Realtor	Woods & Water Realty	brucejr@woodsandwater.com	715-456-2256
+ Tyler Thibodeaux	Emergency Management Director	Emergency Government	tthibodeaux@chippewacountywi.gov	715-726-7728
+ Samuel Wenz	County Surveyor	Planning & Zoning – Land Records Division	swenz@chippewacountywi.gov	715-726-7931
+ Dennis Falkenberg	GIS Coordinator	Planning & Zoning – Land Records Division	dfalkenberg@chippewacountywi.gov	715-738-2595
Lynda Schweikert	Land Conservationist	Land Conservation and Forest Management	lschweikert@chippewacountywi.gov	715-726-4590
Andy Bauer	Information Technology Director	Information Technology	abauer@chippewacountywi.gov	715-726-7891

+ Land Information Council Members designated by the plus symbol

2 FOUNDATIONAL ELEMENTS

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

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

FOUNDATIONAL ELEMENTS

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

PLSS

Public Land Survey System Monuments

Layer Status

PLSS Layer Status	
	Status/Comments
Number of PLSS corners (section, ¼, meander) set in original government survey that can be remonumented in your county	• 3409
Number of PLSS corners capable of being remonumented in your county that have been remonumented	• 3298
Number 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	• 3078
Number of survey grade PLSS corners integrated into county digital parcel layer	• 3078
Number of non-survey grade PLSS corners integrated into county digital parcel layer	• 331
Tie sheets available online?	• Yes, https://mapping.chippewacountywi.gov
Percentage of remonumented PLSS corners that have tie sheets available online (whether or not they have corresponding coordinate values)	• 100%
Percentage of remonumented PLSS corners that have tie sheets available online (whether or not they have corresponding coordinate values) and a corresponding URL path/hyperlink value in the PLSS geodatabase	• 100%
PLSS corners believed to be remonumented based on filed tie-sheets or surveys, but do not have coordinate values	• 71
Approximate number of PLSS corners believed to be lost or obliterated	• 113
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)?	• Chippewa County numbers the corners starting at the northwest corner of the county being number 1 with increasing numbers as you go East. The next tier of corners continues the numbering starting at the westernmost corner and again increasing as you go east.
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	• Eau Claire-73 Dunn-52 Barron-25 Rusk-67 Taylor-38 Clark-25
Number and percent of PLSS corners remonumented along each county boundary	• EC-73 Dunn-52 Barron-25 Rusk-67 Taylor-38 Clark-25 100% 100% 100% 100% 100% 100%
Number and percent of remonumented PLSS corners along each county boundary with survey grade coordinates	• EC-73 Dunn-52 Barron-25 Rusk-67 Taylor-38 Clark-25 100% 100% 100% 100% 100% 100%
In what ways does your county collaborate with or plan to collaborate with neighboring counties for PLSS updates on shared county borders?	• All of the surrounding counties collaborate. We keep each other informed on monumentation efforts.

Custodian

- Chippewa County Surveyor – Land Records Division.

Maintenance

- The PLSS Monuments layer is updated weekly. New records are merged with the old records which builds a historical timeline of work performed on each corner.

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 (NATRF2022) – not yet released and no exact date set for release by National Geodetic Survey (NGS).
- 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

Chippewa County Geodetic Control Network

Layer Status

- Locations of monuments and coordinate values are shown on the web mapping site

Custodian

- Local Control = Department of Planning & Zoning: Land Records Division
- HARN = Wisconsin Department of Transportation

Maintenance

- Local Control = Department of Planning & Zoning: Land Records Division
- HARN = Wisconsin Department of Transportation

Standards

- Local Control = Horizontal FGCS 2nd Order, class 1 accuracy, Published on Wisconsin County Coordinate System - North American Datum of 1983 (1991)
- HARN = Horizontal FGCS B-order or 1st Order accuracy, Published on North American Datum of 1983 (2007) – NAD83(NSRS2007)

Parcel Mapping

Parcel Geometries

Layer Status—**MAINTENANCE PHASE**

- **Progress toward completion/maintenance phase:** In Chippewa County, 100% of the county's parcels are available in a commonly-used digital GIS format.
- **Projection and coordinate system:** Chippewa County parcels are projected in the Wisconsin County Coordinate System (WCCS) Chippewa County Grid - North American Datum of 1983 (1991)
- **Integration of tax data with parcel polygons:** Chippewa County does have a parcel polygon model that directly integrates tax/assessment data as parcel attributes.
- **Online Parcel Viewer Software/App and Vendor name:**
 - Geomoose which is supported by the contractor Houston Engineering Inc.
 - Esri ArcGIS Online Map Viewer – ArcGIS Online – In House
- **Unique URL path for each parcel record:** Yes,
 - https://mapping.chippewacountywi.gov/?call=search_parcel&taxnum&value0=**
 - URL link is stable and can be used from any application to link to the web mapping site.
 - Unique URL link is exportable

- The unique URL path provides a portion of the assessment roll data immediately available on the mapping site and a link to the assessment roll is also available to view the full assessment data set.

Custodian

- GIS Coordinator, Land Records Division

Maintenance

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

Standards

- **Data Dictionary:** Chippewa County maintains a Data Dictionary in XML format for parcel attributes listed in s. 59.72(2)(a) which is a human-readable form, with thorough definitions for each element/attribute name, and explanations of any county-specific notations.

Parcels Without Land Value

Layer Status

- **As of the current date, how many parcels without a land value has the county recorded:**
 - **Date:** 10/21/2024
 - **Number of parcels without a land value:** 0
- **County does not map parcels without land value.**
 - County plans to create new polygons and parcel stack

Tax Roll Software/App and Vendor name: Chippewa County utilizes LandNav Suite from Catalis

Assessment/Tax Roll Data

Layer Status

- **Progress toward completion/maintenance phase:** NA
- **Tax Roll Software/App and Vendor name:** Chippewa County utilizes LandNav Suite from Catalis to prepare assessment and tax roll data and tax bills. The information is available online.
- **Municipal Notes:** NA

Custodian

- Chippewa County Treasurer, Real Property Lister

Maintenance

- **Maintenance of the Searchable Format standard:** To maintain the Searchable Format standard, the Property Lister will continue to work with the Land Records Division to clean up parcel anomalies between the assessment/tax roll and the GIS mapping. The Property Lister will continue to work with the 911 GIS/Database Manager to ensure that all site addresses are identified and accurate on the assessment/tax roll.
- **Searchable Format Workflow:** The County maintains parcel/tax roll data in such a way that **requires significant formatting every year**—whether by the county staff in-house, or a third-party contractor/vendor.

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](#), [Non-Metallic Mining](#), [Brownfields](#), [Restrictive Covenants](#)

Layer Status

- Chippewa County maintains visual layers (no attribute data) of easements and dimensions

- Permit data for Zoning is currently stored in the Catalis Permitting Application using parcel numbers as an identifier

Custodian

- GIS Coordinator, Director of Planning & Zoning

Maintenance

- Updated as new records and permits come in
- A future project is to provide a link from the parcel number to the permits on file.

Standards

- Visual layers mapped at mapping grade accuracy

ROD Real Estate Document Indexing and Imaging

Layer Status

- **Grantor/Grantee Index:** Chippewa County uses Fidlar Technologies as a software vendor. A digitized grantor/grantee index from 1850 forward with continued quality control of previous conversion. Most real estate land record related documents are scanned from 1800's to present. Conversion quality control, indexing and tract information has yet to be completed.
- **Tract Index:** PLSS-based tract index requiring pin #'s on all documents transferring property.
 - Status: All real estate land record documents are scanned. 1954 back to 1800's conversion require indexing. Integrated Fidlar product Monarch with tax assessment for all documents transferring property to associate legal description and pin.
 - Tract index is both parcel PIN-based and PLSS-based.
 - Tract indexing encompasses; Plats, CSM's, Condominiums and all real estate land record documents (deeds, mortgages, satisfactions, easements, covenants, right of way, metallic mining, UCC's, restrictive covenants, declarations liens and many more)
- **Imaging:** Most real estate land record documents are scanned including some index books. There is an ongoing need for document scanning utilizing contractors or internal staff to complete the process of making all records available digitally.
- **ROD Software/App and Vendor Name:** Laredo/Tapestry – from Fidlar. ROD documents are available online in Chippewa County through Laredo and Tapestry and public terminals in the ROD's Department.

Custodian

- Chippewa County Register of Deeds

Maintenance

- All digitized records backed up off site. Users provide assistance in quality control of data. Software vendor (Fidlar) reviews for technology updates.

Standards

- s. 59.43, Wis. Stats. Register of deeds; duties, fees, deputies.
- ch. 706, Wis. Stats. Conveyances of real property; Recording; Titles.
- ch. 236.25 & 236.34 Recording of Plats and Certified Survey Maps.
- Wisconsin Register of Deeds indexing guidelines.
- Office handbook – indexing standards.

LiDAR and Other Elevation Data

LiDAR

Layer Status - COMPLETE

- **Most recent acquisition year:** 2020
- **Accuracy:** 1 foot contour interval
- **Post spacing:** 2.0 ft. grid size

- **Contractor's standard, etc.:** USGS 3DEP Program QL2 with upgrades. Consultant was AYRES Associates – Hydro Breaklines for water bodies shown are 1 acre or larger and 8 feet and wider streams.
- **Next planned acquisition year:** 2028

Custodian

- GIS Coordinator- Land Records Division

Maintenance

- This layer is static with updates every 8-10 years.

Standards

- USGS LiDAR Base specifications (ver. 1.3, February 2018).
- Vertical accuracies comply with Table 2.3 of Procedure Memorandum No. 61-Standards for LiDAR and Other High Quality Digital Topography for an Equivalent Contour Accuracy of 1 foot.

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 - COMPLETE

- The following layers were acquired as add-ons to the USGS 3DEP Program through Ayres Associates. The layers are derivatives of the 2020 LiDAR flight.
- The Bare Earth DTM & DEM were developed from LAS points and hydro enforced breaklines from the 2020 LiDAR flight. The Bare Earth DEM is a background layer on the web mapping, which allows for spot elevations.
- The Hydro-flattened breaklines were compiled for ponded water that is 1 acre or greater, permanent islands 1 acre or larger, and double lined streams with a minimum width of 8 feet. Hydrographic breaklines were collected using LiDARgrammetry to ensure hydroflattened water surfaces. This process involves manipulating the LiDAR data's intensity information to create a metrically sound stereo environment. From this generated "imagery", breaklines are photogrammetrically compiled. Breakline polygons are created to represent open water bodies. The LiDAR points that fall within these areas are classified as "water." The breaklines are stored in Esri shape file and a PostgreSQL/PostGIS table. Breaklines are available to view on the County internal mapping website.
- The Bare Earth LAS was developed from a LiDAR flight flown in between April 30 – May 7, 2020. The 2020 Bare Earth files were delivered in LAS and TXT files, which are the set of bare terrain surface data LiDAR returns with all other classifications omitted.
- The 1ft contours are a derivative product, as an upgrade of the 2ft contours provided with the 3DEP program. The 1ft contours are displayed on the online web mapping sites and are in Esri Filegeodatabase format and a PostgreSQL/PostGIS table.

Custodian

- GIS Coordinator- Land Records Division

Maintenance

- No maintenance

Standards

- USGS LiDAR Base specifications (ver. 1.3, February 2018).
- Vertical accuracies comply with Table 2.3 of Procedure Memorandum No. 61-Standards for LiDAR and Other High Quality Digital Topography for an Equivalent Contour Accuracy of 1 foot.

Orthoimagery

Orthoimagery

Layer Status - COMPLETE

- **Most recent acquisition year:** 2023
- **Resolution:** 2023=6 inch pixels county-wide
- **Contractor's standard:** EagleView used NGS CORS base station data to post-process in flight GPS and ortho-rectified using Inpho's OrthoMaster software based on the LiDAR DEM.
- **Next planned acquisition year:** 2025

Custodian

- GIS Coordinator- Land Records Division

Maintenance

- Proposed update cycle is every three years

Standards

- 6 inch pixels or better

Historic Orthoimagery

Layer Status

- Past orthophotography archived: 2005, 2008, 2011, 2014, 2017, 2018, 2020, 2021. All years available on web mapping site.

Custodian

- GIS Coordinator- Land Records Division

Maintenance

- No maintenance required. Imagery available for historical reference.

Standards

- Each year is maintained with the standards used at year of capture.

Oblique Imagery

Layer Status

- Oblique imagery captured through EagleView. Full County in 2011 & 2017, partial County in 2018 & 2021.

Custodian

- GIS Coordinator- Land Records Division

Maintenance

- Proposed update of County wide obliques in 2025.

Standards

- Each year is maintained with the standards used at year of capture.

Address Points and Street Centerlines

Address Point Data

Layer Status

- County Address data is complete. Updates done when new addresses are assigned or existing addresses are discovered.
- Data updated nightly and available on web mapping sites

Custodian

- Chippewa County Emergency Management Department \ 911 GIS Coordinator

Maintenance

- Nightly maintenance & any updates pushed to the Chippewa Co 911 Emergency Communications Center

Standards

- NG9-1-1 compliant – PSAP routing.

Building Footprints**Layer Status**

- Not in progress - Chippewa County does not have a building footprint layer.
- Layer in list of projects to be completed in the future

Custodian

- Chippewa County Land Records

Maintenance

- TBD

Standards

- TBD

Street Centerlines**Layer Status**

- Chippewa County Centerline data is complete and current
- Address Ranges assigned to centerline segments
- Updated layer is available on County web mapping sites

Custodian

- 911 GIS Coordinator

Maintenance

- Updated as needed.

Standards

- Wisconsin GIS NG9-1-1 Data Standard. (Road Centerline)
- NG9-1-1 compliant – PSAP routing

Rights of Way**Layer Status**

- As part of the parcel layer & as separate stand-alone layer
- Layer is complete and current

Custodian

- GIS Coordinator

Maintenance

- Updated with same schedule as the parcel layer

Standards

- Mapping grade – R/W's taken from parcel geometry

Trails**Layer Status**

- County Trail data is complete for ATV, Bike, Mountain Bike, Horse, Ice Age Trail, Cross Country Skiing and Snowmobile trails

Custodian

- GIS Coordinator/County Forester/Chippewa County Highway Department

Maintenance

- Annual and as needed.

Standards

- Mapping grade – many trails digitized from aerial photography or local user GPS.

Land Use

Current Land Use

Layer Status

- Current layer Developed for the 2010 Comprehensive Plan
- Chippewa County will develop a method to create an updated layer yearly

Custodian

- Director of Planning and Zoning, GIS Coordinator – Land Records Division

Maintenance

- To be every year when new assessments come out in the spring

Standards

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

Future Land Use

Layer Status

- Future Land use maps are developed by the municipalities during their Comprehensive Plan updates

Custodian

- Director of Planning and Zoning

Maintenance

- Every 5 years or to coincide with a Comprehensive Plan update

Standards

- Future land use maps are typically created through a community's comprehensive planning process.
 - If a future land use map is created as part of an adopted comprehensive plan(s), then it can be assumed to meet the standards in s. 66.1001
 - According to s. 66.1001, beginning on January 1, 2010, if a town, village, city, or county enacts or amends an official mapping, subdivision, or zoning ordinance, the enactment or amendment ordinance must be consistent with that community's comprehensive plan.
 - Future land use mapping for a county may be a patchwork of maps from comprehensive plans adopted by municipalities and the county.

Zoning

County General Zoning

Layer Status

- The County does maintain a GIS representation of county general zoning boundaries
- The County zoning data is complete and current
- The County zoning layer is available on the County web mapping site

Custodian

- Director of Planning and Zoning
- GIS Coordinator

Maintenance

- Bi-yearly or as needed.

Standards

- Mapping grade accuracy with every parcel in the zoned areas having an identification.

Shoreland Zoning**Layer Status**

- Administered by county, but not in GIS format.

Farmland Preservation Zoning**Layer Status**

- Not administered by county

Floodplain Zoning**Layer Status**

- The County does maintain a GIS representation of floodplain zoning boundaries.
- The county's floodplain zoning GIS data is the same as/identical to the FEMA map.

Custodian

- GIS Coordinator

Maintenance

- FEMA – layer streamed from FEMA, all updates incorporated immediately

Standards

- FEMA

Airport Protection**Layer Status**

- The County does maintain a GIS representation of airport protection zoning boundaries.
- Height limitation restrictions.

Custodian

- Eau Claire County

Maintenance

- Eau Claire County

Standards

- Eau Claire County Airport Height Limitation Zoning Ordinance

Municipal Zoning Information Maintained by the County**Layer Status**

- The County maintains zoning information for the Village of Lake Hallie, the Town of Bloomer and the City of Stanley. Note: Town of Bloomer and City of Stanley have their own Zoning ordinances.
- Updates to the Town of Bloomer and City of Stanley provided by their Zoning Administrator at no set schedule.
- Data is complete and current

Custodian

- Director of Planning and Zoning
- GIS Coordinator
- Town of Bloomer Zoning Administrator
- City of Stanley Zoning Administrator

Maintenance

- Bi-yearly or as needed.

Standards

- Mapping grade accuracy with every parcel in the zoned areas having an identification.

Administrative Boundaries

Civil Division Boundaries

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

Layer Status

- The municipal boundary layer for Chippewa County is updated to reflect annexations and de-annexations which occur with the local municipalities.
- Chippewa County Administrative Boundaries layer is complete and current

Custodian

- GIS Coordinator

Maintenance

- As needed upon changes to municipal boundaries and to conform with new survey information.

Standards

- Mapping grade

School Districts

Layer Status

- **Progress toward completion/maintenance phase:** Maintenance
- **Relation to parcels:** Each parcel has the District Code associated to it in the attributes
 - **Attributes linked to parcels:** School District name and code
- Chippewa County School District data is current and complete

Custodian

- GIS Coordinator

Maintenance

- As needed

Standards

- Mapping grade

Election Boundaries

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

Layer Status

- Twice a year annexation/ward changes are incorporated into the dataset
- Ward boundaries and Polling Places are current and complete

Custodian

- Chippewa County Clerk
- GIS Coordinator

Maintenance

- Bi-yearly

Standards

- Legislative Technology Bureau Services Data Requirements

Emergency Service Boundary – Law/Fire/EMS

Layer Status

- **Law Enforcement:** Complete and current.
- **Fire:** Complete and current.

- **EMS:** Complete and current.
- ESN: Complete and current.

Custodian

- Emergency Management Department/911 GIS Coordinator

Maintenance

- Annual and as needed.

Standards

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

Public Safety Answering Points (PSAP) Boundary

Layer Status

- **PSAP Boundary:** Complete and current.

Custodian

- Emergency Management Department/911 GIS Coordinator

Maintenance

- Annual and as needed.

Standards

- Wisconsin GIS NG911 Data Standard (PSAP Boundary)

Provisioning Boundary

Layer Status

- Complete and Current

Custodian

- Emergency Management Department/911 GIS Coordinator

Maintenance

- Annual and as needed.

Standards

- Wisconsin GIS NG911 Data Standard (Provisioning Boundary)

Public Safety & Additional NG9-1-1 GIS Layers

Layer Status

- Complete and Current
- County Boundary Chippewa (NG911 jurisdiction & purposes)
- PSAP Boundary Wireless911 Chippewa (NG911 jurisdiction & purposes)
- Tornado Sirens (Countywide siren locations, maintenance status, estimated coverage buffer zones for public warning, notifications and safety)
- ATV Routes (Countywide ATV public road routes for law enforcement purposes)

Custodian

- Chippewa County Emergency Management Department \ 911 GIS Coordinator

Maintenance

- Annual and as needed.

Standards

- Wisconsin GIS NG9-1-1 Data Standard

Other Public Safety

e.g., Healthcare Facilities

Layer Status

- Layers are Complete and current.

Custodian

- Emergency Management Department/911 GIS Coordinator

Maintenance

- Annual and as needed.

Standards

- Wisconsin GIS NG9-1-1 Data Standard

Other Administrative Districts

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

Layer Status

- Other administrative districts, including Parks and County Forest are current and complete

Custodian

- GIS Coordinator – Land Records Division & County Forester

Maintenance

- Updated as needed

Standards

- Mapping grade accuracy

Other Layers**Hydrography Maintained by County or Value-Added****Polygon & Polyline Layers****Layer Status**

- Originally created by digitizing the boundaries from the 1998 ortho photo
- Layer continually being updated using higher quality orthophotography and LiDAR derived hydro breakline data

Custodian

- GIS Coordinator

Maintenance

- As needed

Standards

- Mapping grade

Cell Phone Towers**Layer Status**

- Audit Requested

Custodian

- ComTech

Maintenance

- As needed

Standards

- **

Bridges and Culverts**Layer Status**

- Bridges and culverts on County Highways are in the process of being inventoried by the County Highway Department. Bridges are current and complete, culverts are in process.

Custodian

- Chippewa County Highway Department & GIS Coordinator – Land Records Division

Maintenance

- Yearly

Standards

- Mapping grade

Other / Miscellaneous

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

Layer Status

- Railroad centerlines are current and complete.

Custodian

- GIS Coordinator – Land Records Division

Maintenance

- As needed

Standards

- Mapping grade

3 LAND INFORMATION SYSTEM

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

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

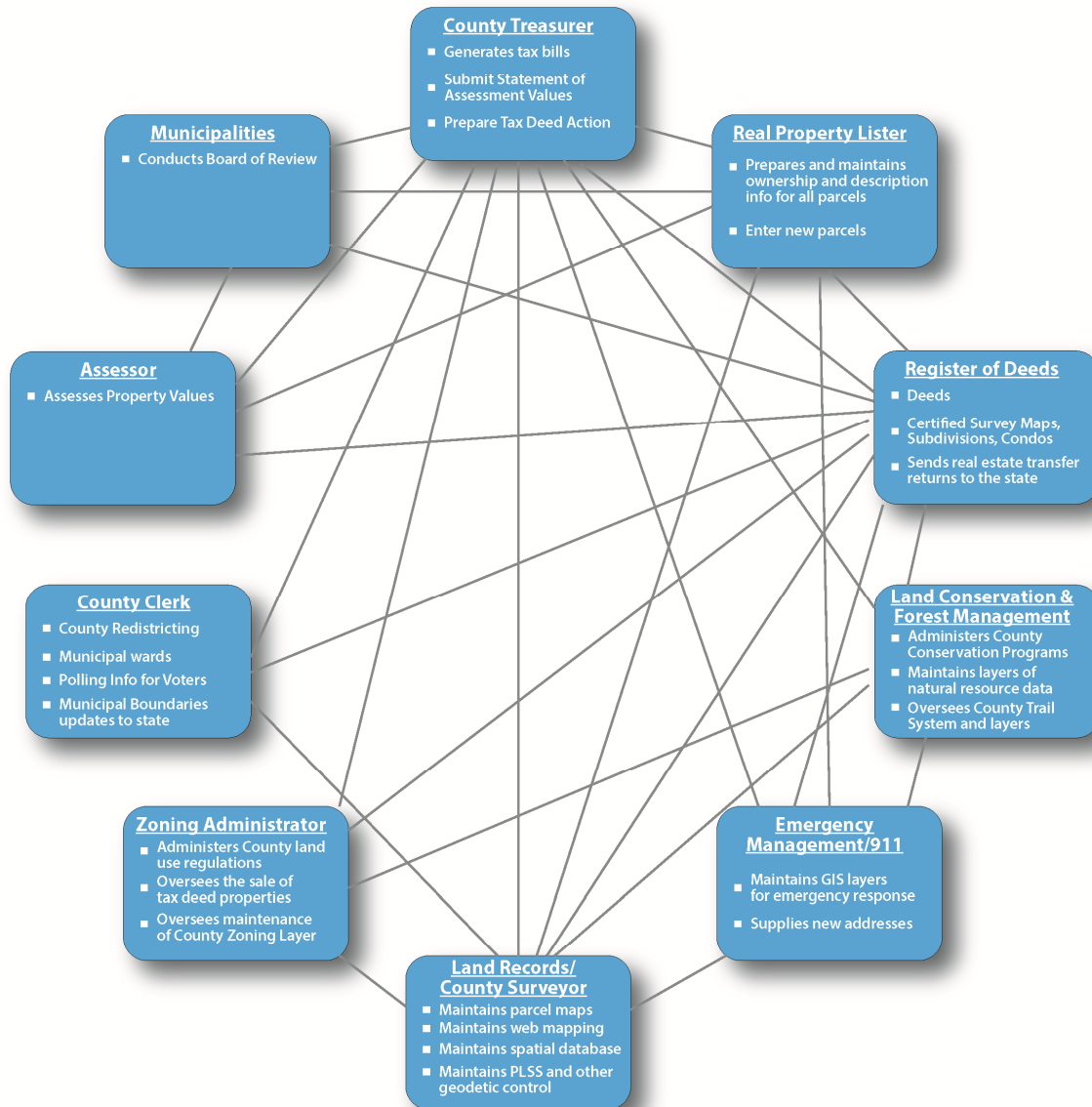
- The design, development, and implementation of a land information system that contains and integrates, at a minimum, property and ownership records with boundary information, including a parcel identifier referenced to the U.S. public land survey; tax and assessment information; soil surveys, if available;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

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

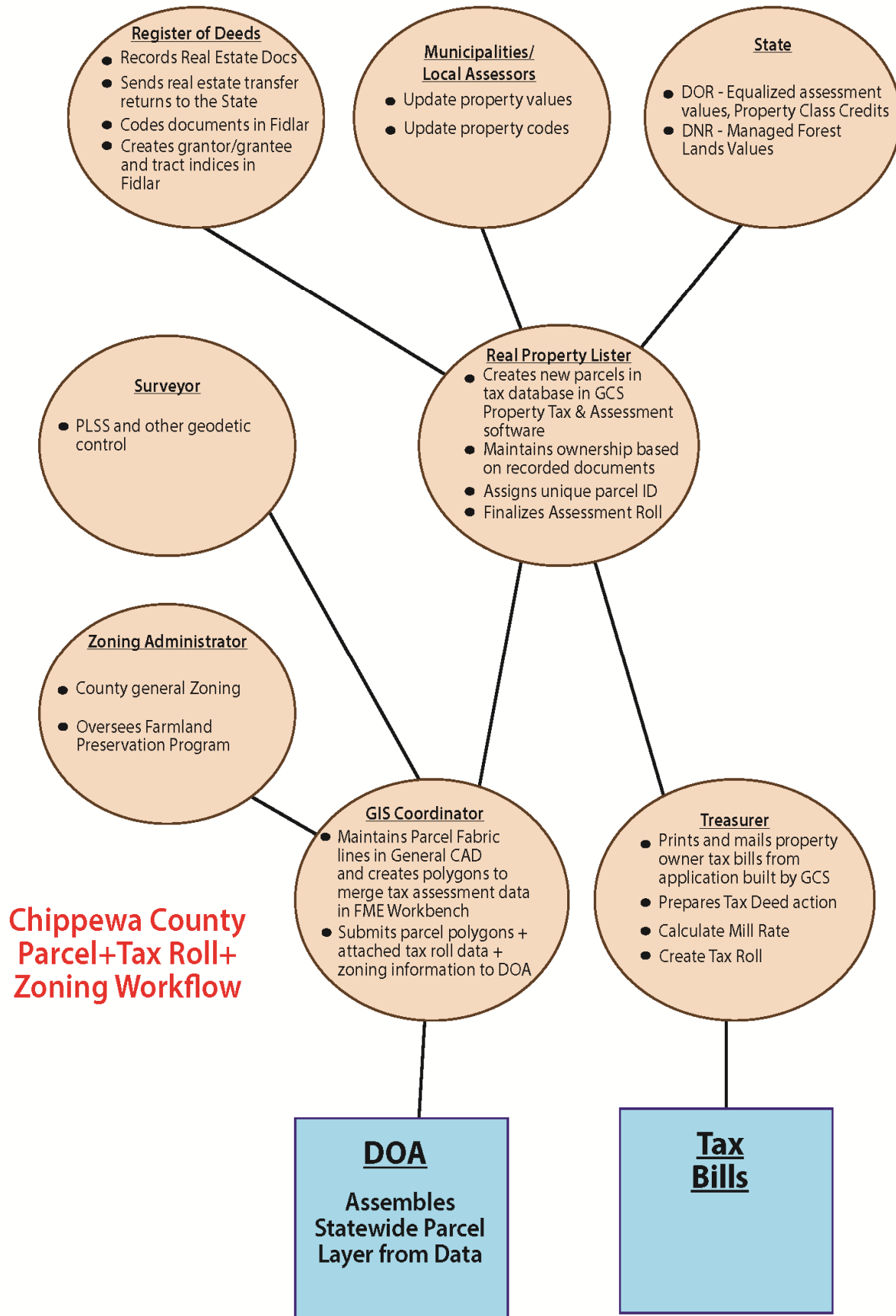
Current Land Information System

Diagram of County Land Information System

Chippewa County Land Information System Workflow Diagram



County Parcel Data Workflow Diagram



Technology Architecture and Database Design

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

Hardware

- The Chippewa County IT Department maintains the servers which store the data locally. Data is stored in flat files on windows servers and our Land Records database is stored on a PostgreSQL/PostGIS server. Emergency Management files are stored in a local file geodatabase.

Software

- The software programs used to create and maintain land records include, but are not limited to: QGIS, ArcGIS Pro, ArcCatalog, ArcGIS Online apps, FME Workbench, BlueMarble Global Mapper, Carlson Survey, General CAD & Laredo Anywhere.
- **County currently uses ArcGIS Pro: Yes**

Website Development/Hosting

- The web mapping site is hosted by Houston Engineering Inc. (HEI) on An AWS cloud server. The data is stored in a replicated PostgreSQL/PostGIS database on the cloud server and is served up to the GeoMoose web mapping site using MapServer. Notepad++ and Dreamweaver are used to update the supporting files. WinSCP is used to move the updated files to the cloud server.
- Chippewa County has web applications for municipal zoning and parcel mapping built using ArcGIS Online.

Metadata and Data Dictionary Practices

Metadata Creation

- **Metadata creation and maintenance process:** Metadata is created and updated by the department which is listed as the layers custodian on a periodic or upon request basis.

Metadata Software

- **Metadata software:** Chippewa County utilizes the U.S.G.S. Metadata wizard tool which was developed for ArcCatalog.
 - The software generates metadata consistent with the FGDC Content Standard for Digital Geospatial Metadata.
- **Metadata fields manually populated:** Data Set Title, Data Set Author, Time Period Information, Status, Contact Info, Distribution Info & Accuracy attributes.

Metadata Policy

- **Metadata Policy:** No minimum standard, the tool dictates what is entered with all the required fields filled out.

Municipal Data Integration Process

- We work together with the various municipalities around the County. We believe they should continue to be the caretakers of their data so they either, provide updates to Zoning and Address layers, or we request a new copy from them if we need it.

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://mapping.chippewacountywi.gov/	https://chippewacounty.sharefile.com/d-sbb48e2b1e3e4083a	https://pp-chippewa-co-wi-fb.app.landnav.com/Search/RealEstate/Search	www.landrecords.net

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

URL

<https://www.chippewacountywi.gov/government/land-records-county-surveyor/mapping-gis/online-resources>

Data Availability to Public

Data Sharing Policy

- Much of our data can be viewed on the internet through our web mapping site and other land information web sites. Departments also have set schedules for fees for data sets. The Land Records schedule was approved by County Board Resolution.

Open Records Compliance

- Chippewa County is working toward providing internet access to our Land Records. Most data layers are viewable on our web mapping site, and more layers are being added each year. If a layer is not available on the web mapping site, it can be viewed on desktop software in the respective offices. Data layers can be requested with those on the price schedules having a reproduction cost, with other layers tending to be free.

Data Sharing Restrictions and Government-to-Government Data Sharing

Data Sharing Restrictions

- Chippewa County does not currently have a data sharing policy. If data is acquired from Chippewa County by the public, they are not restricted in what they can do with it.

Government-to-Government Data Sharing

- Chippewa County requests that the Gov't agency acquiring the data not share it to another party, but that any party inquiring to obtain the data from them contact Chippewa County for the most recent data. The notable exception is the UW ~~Madison~~ Robinson Library GIS download site, which was granted permission to share the Chippewa County data they have.

Training and Education

- Chippewa County will provide training to anyone new to using the software & the GIS Coordinator answers questions whenever more training is needed. The GIS Coordinator also holds GIS User Group meetings, when needed or updates occur, to show and discuss what is new with Land Records. This one-on-one training is also available to any local municipality as requested.

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.

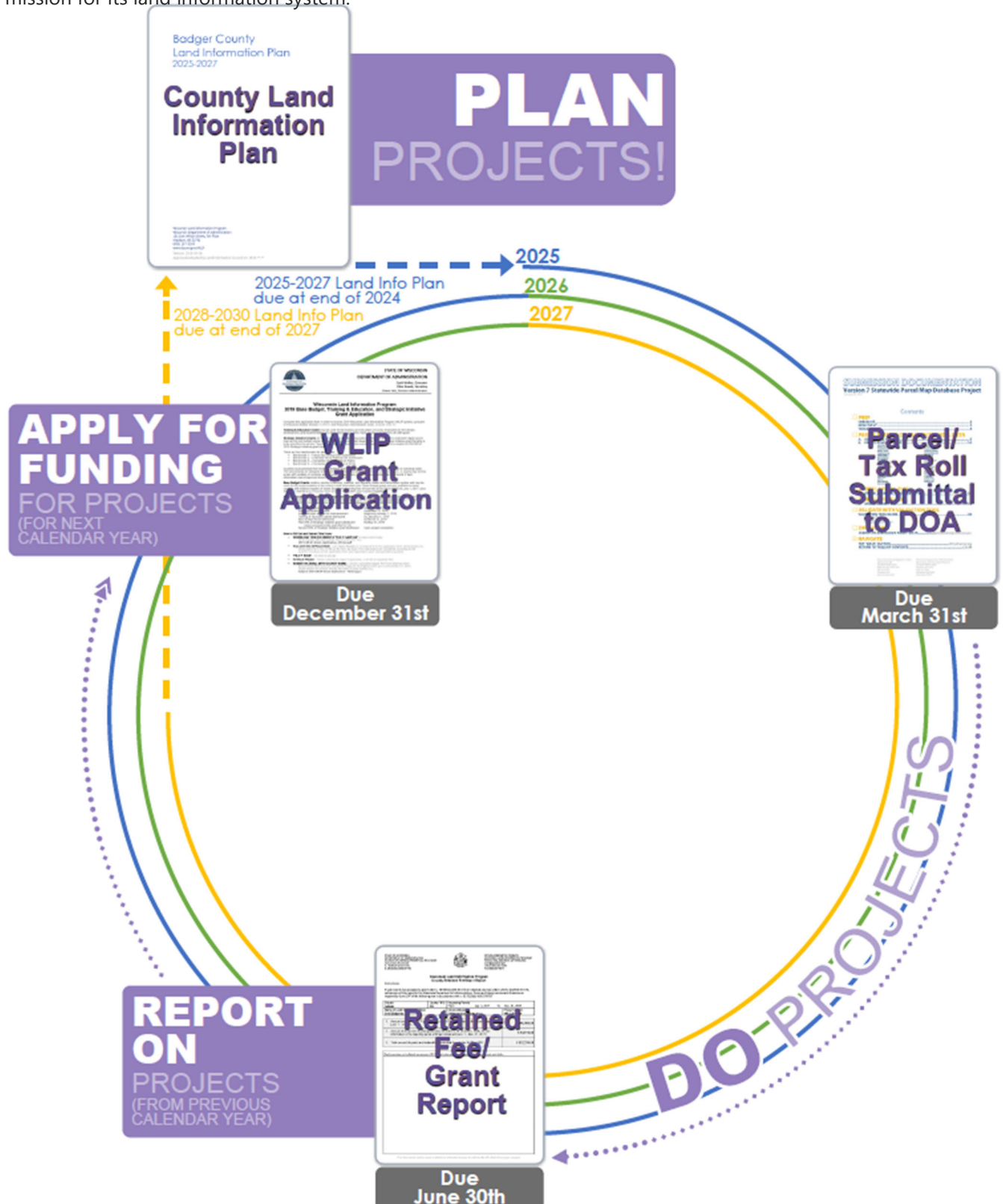


Figure 1. The WLIP Land Information Plan/Grant Project Cycle – For the Years 2025-2027

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

Project Description

How Searchable Format Will Be Maintained

- Chippewa County has a workspace built in FME Workbench to generate the Parcel layer in the Searchable format.
- Chippewa County currently complies with the State searchable format for Benchmarks 1 & 2.

Business Drivers

- Generating and maintaining the Searchable Format is helpful in helping Chippewa County to keep their assessment data accurate and to identify any items that need updating or correcting.

Objectives/Measure of Success

- The Objective is to continue to meet the Searchable Format requirements for the State yearly submittal, to perform a check and clean data on the assessment roll and to be able to provide accurate additional layers during that yearly submittal.

Responsible Parties

- GIS Coordinator – Land Records Division

Estimated Budget Information

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

Project Plan for Parcel Completion (Benchmark 3)

Project Description

Current status of parcel data

- **Current status of parcel data in the county:** Maintenance - See [Parcel Layer Status](#) in Chapter 2.
- **Tally of the total number of parcels in digital format:** 52,444
- **Estimated number of parcels yet to be digitized:** 0

Project Plan for PLSS (Benchmark 4)

Project Description

Current Status

- **See PLSS Layer Status table in Chapter 2.**

Planned Approach

- The goal is to monument and obtain survey grade coordinates on all PLSS System Corners ~~with a higher priority placed on the county boundary.~~ There are approximately 12 corners within the County Forest that may only need sub-meter coordinates.
- **Land Info Spending Category:** PLSS (also affects Parcel Mapping, and Other Layers)

Missing Corner Notes

- **Documentation for any missing corner data:** The only corners that may not have Survey-grade coordinates will be approximately 12 corners within the County Forest.

County Boundary Collaboration

- All of the surrounding counties share their corner data with each other. When corners are completed along the county boundary, Chippewa County will notify the adjacent county so they can download the new information. The adjacent counties follow the same notification process for Chippewa County.

Business Drivers

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

- The public benefits from having good section corner remonumentation. Accurate parcel mapping allows a property owner to discover inconsistencies between the deed to their property versus the occupation of property. In addition, the cost to survey parcels is reduced because the private property owner is not charged for the remonumentation costs.

Objectives/Measure of Success

- The objective is to meet Benchmark 4 (Completion and Integration of PLSS) by the end of ~~2028~~2027. The ability to meet this goal is based on the continued use of the Retained, Base Budget and Strategic Initiative funds. If these funds are utilized for other projects it will take the County over 4 years to complete.
- Number of corners to be remonumented and/or rediscovered by 2027: ~~113;~~ 137**
- Number to have new coordinates established by 2027: ~~269;~~ 464**
- Accuracy class for these new coordinates by 2027: Survey-grade**
- Number of new corner coordinates to be integrated into the parcel fabric by 2027: 269**
- Number of new tie sheets to be posted online by 2027: 60**
- Way in which these points will be integrated into the parcel fabric:** If there are major differences between the existing parcel mapping and an actual corner location the mapping will be updated as soon as possible. Otherwise, the mapping will be updated once survey-grade coordinates have been obtained on an entire section.

Project Timeframes

Timeline – PLSS (Benchmark 4)		
Milestone	Corners per year	Date
Project is continuous	–	January 1, 2022
Contractors	10 corners/year	2025 through 2027
County Surveyor	95 corners/year	2025 through 2027
<u>County Surveyor</u>	<u>72 corner/year</u>	<u>2026 through 2027</u>
Project complete	–	December 31, 2028 2027

Responsible Parties

- County Surveyor and private surveyors by contract/request.

Estimated Budget Information

- See table at the end of this chapter for project budget information.
- Estimated remaining cost for completion and integration of PLSS (to reach maintenance mode)
 - Estimated approximate average cost of remonumentation per corner = \$1,000.00
 - Total cost of remaining remonumentation = \$277,800.00
 - Total cost of remaining integration of PLSS points into parcel layer = \$48,508.00
 - Cost of anything else remaining (1,210 rebar for monuments and ties) = \$2,500.00
 - Total remaining cost = \$328,808.00

Project #1 – Incorporate PLSS into Parcel Layer (Benchmark 3)

Project Description

- The goal is to most accurately depict the parcel geometries of Chippewa County. New PLSS data will be incorporated into the mapping to alter the parcel boundaries to reflect accurate PLSS locations.
- Land Info Spending Category:** PLSS

Business Drivers

- The parcel layer is being more heavily used, and relied upon more than it ever has before. With easy access to mapping, and more accurate aerial photos, it is important to work to have the parcels depicted the most accurately possible.

Objectives/Measure of Success

- PLSS remonumentation and coordinate collection complete
- New Parcels and Surveys line up with parcel mapping and require minimal drafting to incorporate into the existing Parcel layer
- All parcels that are shown are tied back to accurate PLSS coordinate locations.

Project Timeframes

Timeline – PLSS (Benchmark 4)		
Milestone	Duration	Date
Project #1 Start	–	January 1, 2025
Incorporate PLSS Corners	Varying	Continuing until completion
Project Complete		<u>December 2030</u> Unknown

Responsible Parties

- GIS Coordinator – Land Records Division

Estimated Budget Information

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

Project #2 - Orthophoto and Oblique Imagery

Project Description

- Obtain new Aerial imaging to update the County's aerial photos, including oblique images.
- Land Info Spending Category:** Digital Parcel Mapping, LiDAR, Orthoimagery

Business Drivers

- Business' and residents utilize the Ortho's as for preliminary project planning
- Updated imagery assists Departments to know current conditions.
- Orthophotos and Oblique Imagery are highly requested by the public
- County Departments such as Land Conservation and Forest Management, Planning and Zoning, Facilities and Parks, Tax Lister, Emergency Management, County Sheriff, Highway Department, Public Health and Human Services, benefit from updated aerial images.

Objectives/Measure of Success

- New 3-6 inch pixel orthophoto county-wide every three years.
- New LiDAR data every 8-10 years. *(Note: Current acquisition is from 2020).*

Project Timeframes

Timeline – Orthophoto and Oblique Imagery		
Milestone	Duration	Date
Project Start	–	April 1, 2025
Project Complete	–	September 30, 2025

Responsible Parties

- Department of Planning & Zoning - Land Records Division
- Contractor

Estimated Budget Information

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

Project #3 - Website Development and Hosting

Project Description

- To maintain and improve functionality of Chippewa County's Web Mapping Site.
- **Land Info Spending Category:** Website Development/Hosting Services

Business Drivers

- The public can access information and web mapping tools that make it easy to gain the information they need about property in Chippewa County
- Keep current with technology and to ensure that users can access the information from as many environments as possible and to make as much usable information available as possible.

Objectives/Measure of Success

- Each year we improve the functionality of our web mapping site by providing tools, search types and layers that have been requested by the users

Project Timeframes

- Each year hours of development time are utilized for developing tools and/or updating our web mapping system. The timeframe fluctuates from year to year.

Responsible Parties

- GIS Coordinator and staff of Houston Engineering Inc.

Estimated Budget Information

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

Project #4 - Indexing of Documents by Geographical Location

Project Description

- To expand the use of document imaging and GIS to "geocode" documents (such as zoning permits, conditional use permits, etc.) to a geographical location and make the documents available to the public via Chippewa County's Web Mapping Site and the Real Estate Tax Listing program.
- **Land Info Spending Category:** PLSS (also affects Parcel Mapping, and Other Layers)

Business Drivers

- County documents lack detailed location information, making the documents less useful
- County land information system contains some ambiguous addresses
- Increase efficiency of the Department of Planning & Zoning with geocoded land use documents
- Call-Before-You-Dig hotline lacks detailed location information
- Need to improve routing and delivery of Social Services to Chippewa County residents
- County surveyor needs to access tie sheets in the field

Objectives/Measure of Success

- Permits 100% geocoded
- Geographically indexed apps available on the county website

Project Timeframes

Timeline – Indexing of Documents by Geographical Location		
Milestone	Duration	Date
Project start	–	July 1, 2025
Project complete	–	Dec 31, 2027

Responsible Parties

- GIS technician (75%), Contractor to input data for index (25% for 3 months)

Estimated Budget Information

- See table at the end of this chapter.

Project #5 - Produce a Hydrographic Layer with Navigable Streams

Project Description

- Produce a single hydrographic layer that conforms to FEMA and DNR standards for planning purposes that can be utilized by all agencies in Wisconsin.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- To have one hydrographic layer that replaces old outdated paper maps or digital layers and reflects new and more accurate data sets. This layer would be available to county departments, state and federal agencies as well as the public.
- Having this authoritative layer will allow for the creation of a Shoreland Zoning Layer

Project Timeframes

- Unknown at this time

Responsible Parties

- Director of Planning & Zoning, GIS Coordinator, County Surveyor, LTE or Intern

Estimated Budget Information

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

Project #6 - Produce a Building Footprint Layer

Project Description

- Produce a Building Footprint Layer from the 2025 Orthophoto and 2020 LiDAR Acquisition.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- To have a building footprint layer that will add value to the our existing GIS Data Sets. This layer would be available to county departments, state and federal agencies as well as the public.
- This layer will help us more fully identify structure points for NG9-1-1 GIS data

Project Timeframes

- Unknown at this time. Tentative timeframe is 2026, if high resolution photo is obtained in 2025.

Responsible Parties

- Contractor

Estimated Budget Information

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

Project #7 – Create Inspection and Field Collection Apps

Project Description

- Create Apps that will allow for collecting location and details of assets, and performing inspections, while in the field.

- Build custom forms and tables which will allow for completing inspections while in the field. This also includes the ability to capture photos and videos and assign them to a point.
- **Land Info Spending Category:** Website Development/Hosting Services; Other

Business Drivers

- Efficiencies will be gained for staff in Planning and Zoning, Emergency Management, County Highway Department and Land Conservation & Forest Management. This includes only needing to enter data once, at the time of field collection. The public will have access to some permit information on the website.
- Transition from paper to electronic data sets.

Objectives/Measure of Success

- The ability to review information or add to existing information in the field will allow county departments to keep information up to date.

Project Timeframes

- Unknown at this time

Responsible Parties

- Director of Planning & Zoning, GIS Coordinator

Estimated Budget Information

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

Project #8 - Document Indexing

Project Description

- Conversion of scanned images into tract index. Index and quality control of all documents to 1800's
- **Land Info Spending Category:** Other: Conversion of Paper Records to Digital

Business Drivers

- For the most part, all real estate land records related documents in the Register of Deed's Office are scanned from 1800's to present for web access.

Objectives/Measure of Success

- Conversion quality control, indexing and tract information yet to be completed

Project Time

Timeline – Document Indexing		
Milestone	Duration	Date
Project Start	–	November, 2023
Project Complete	ongoing	–

Responsible Parties

- Register of Deeds

Estimated Budget Information

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

Project #9 - Historical Tax Rolls Scanning

Project Description

- Conversion of paper documents to scanned images.
- **Land Info Spending Category:** Other: Conversion of Paper Records to Digital

Business Drivers

- Scanning of the tax rolls will provide a digital copy that will be available for individuals to review online.
- An electronic format will remove old hard copies of this information from the County Treasurer's Office.
- Copies of the electronic scans will preserve the tax rolls in case of fire or other disasters where paper copies have the potential of being destroyed.

Objectives/Measure of Success

- To have all Chippewa County real estate land records digitized and accessible to the public

Project Timeframes

- Unknown at this time

Responsible Parties

- Chippewa County Treasurer

Estimated Budget Information

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

Project #10 – Create Current Land Use Layer

Project Description

- Create a Current Land Use Layer yearly that will be available and incorporated into the County web mapping site.
- Create a detailed explanation of the Land Use Layer and how each Use is determined.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- This data is not currently available, but has been requested and would be used for Planning & Zoning purposes.
- This data will help decision makers to have a better understanding of how Land is currently being used, and then to see trends as there are more years of data available.

Objectives/Measure of Success

- Give users and decision maker's detailed information about Land Use and trends in the County.
- Provide access to the data via the County web mapping sites.

Project Timeframes

- Unknown at this time

Responsible Parties

- Director of Planning & Zoning, GIS Coordinator

Estimated Budget Information

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

Project #11 – Create Future Land Use Layer

Project Description

- Create a Future Land Use Layer that will be available and incorporated into the County web mapping site.
- Combine all Future Land Use layers from each municipality's comprehensive plan to create a County-wide dataset.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- This data is not currently available, but has been requested and would be used for Planning & Zoning purposes.
- This data will help decision makers to have a better understanding of how the planned use of Land is currently projected and designated.

Objectives/Measure of Success

- Give users and decision makers detailed information about Future Land Use in the County at a County-wide scale.
- Provide access to the data via the County web mapping sites.

Project Timeframes

- Unknown at this time

Responsible Parties

- Director of Planning & Zoning, GIS Coordinator

Estimated Budget Information

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

Project #12 – Land Records Scanning

Project Description

- Create a Future Land Use Layer that will be available and incorporated into the County web mapping site.
- Combine all Future Land Use layers from each municipality's comprehensive plan to create a County-wide dataset.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- This data is not currently available, but has been requested and would be used for Planning & Zoning purposes.
- This data will help decision makers to have a better understanding of how the planned use of Land is currently projected and designated.

Objectives/Measure of Success

- Give users and decision maker's detailed information about Future Land Use in the County at a County-wide scale.
- Provide access to the data via the County web mapping sites.

Project Timeframes

- Unknown at this time

Responsible Parties

- Land Records Division

Estimated Budget Information

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

Project #13 – Update GIS Sharing landing site

Project Description

- Investigate options for centralized site for downloads for GIS data.
- Provide users a site that will list downloadable data or all GIS streaming services available.
- **Land Info Spending Category:** Website Development/Hosting Services

Business Drivers

- This landing site is not currently available, but has been requested.

- Having data readily available will reduce workload for County employees having to provide the data, and will allow easy access to the public.

Objectives/Measure of Success

- A central web site providing access to current data to foundational Land Records layers.

Project Timeframes

- Unknown at this time

Responsible Parties

- GIS Coordinator

Estimated Budget Information

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

Project #14 – Create Shoreland Zoning Layer

Project Description

- Create a Shoreland Zoning Layer that will be available and incorporated into the County web mapping site.
- Navigable Stream and other water body boundaries would be determined.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- This data would be helpful in having one authoritative location for the public, and the Zoning Inspectors, to go to for Shoreland Zoning boundaries.
- Give users and decision maker's information about development in the Shoreland Zoning areas of the County, by knowing the extents.

Objectives/Measure of Success

- An authoritative data set that Zoning Inspectors and the public can view when there questions about Shoreland Zoning extents.
- Provide access to the data via the County web mapping sites to make planning easier.

Project Timeframes

- Unknown at this time

Responsible Parties

- Director of Planning & Zoning, GIS Coordinator

Estimated Budget Information

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

Project #15 – Purchase Overhead Book Scanner

Project Description

- Purchase a professional color overhead book scanner that will support scanning projects within the Land Records Division and other departments as digital documentation needs arise.
- Numerous bound paper books can be made more accessible to the public while preserving the data. Many of these books date back to the 1800's and are in decaying condition.
- **Land Info Spending Category:** Document Indexing

Business Drivers

- Much of this data is currently unknown and/or inaccessible to the public even though it may be valuable information for numerous decision making processes.

Objectives/Measure of Success

- Give users and decision maker's detailed information in a searchable format to enable the use of data that may otherwise be ignored or forgotten.

- Provide access to the data via the County web mapping sites.

Project Timeframes

- Unknown at this time

Responsible Parties

- Director of Planning & Zoning, County Surveyor, GIS Coordinator

Estimated Budget Information

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

Project #16 – Georeference Historical Aerial Photos

Project Description

- Add to the inventory of historical photos that Chippewa County has to use and available for viewing on the web mapping site.
- Stitching and placing the photos of the 1951 aerial flight.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- This data would be helpful for planning be used for Planning & Zoning purposes.
- This data helps us better understand how land has been divided and when roads were developed

Objectives/Measure of Success

- Build out our inventory of historical photos by adding the 1951 photo.
- Provide access to the data via the County web mapping sites.

Project Timeframes

- Unknown at this time

Responsible Parties

- GIS Coordinator – Land Records Division

Estimated Budget Information

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

Project #17– Incorporate Zoning Layers into County GIS

Project Description

- Create a layer with the displays current and/or historical Zoning rezone requests, variances, and conditional use permits.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- Easier access to the layers when building out permits for Planning & Zoning purposes.
- Group data to more easily view historical patterns.

Objectives/Measure of Success

- A completed data set with thought out attributes, which will allow for easy usage of the data in the future.
- Provide access to the data via the County web mapping sites.

Project Timeframes

- Unknown at this time

Responsible Parties

- Director of Planning & Zoning, GIS Coordinator

Estimated Budget Information

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

5 ESTIMATED BUDGET INFORMATION

Estimated Budget Information				
Project Title	Item	Unit Cost/Cost	Land Info Plan Citations	Project Total
PLSS Remonumentation	County Surveyor	25% of \$127,467 = \$31,867	Page 27-28	\$ 95,600
	Contractor	30 Corners @ \$1,000/each	Page 27-28	\$ 30,000
#1: Incorporate PLSS into Parcel layer	GIS Coordinator	10% of \$121,713 = \$12,127	Page 28-29	\$ 36,381
#2: Orthophoto & Oblique Imagery	Contractor	\$ 150,000	Page 29	\$ 150,000
#3: Website Development and Hosting	GIS Coordinator, Contractor	\$ 15,000/year	Page 29-30	\$ 45,000
#4: Indexing of Documents by Geographical Location	GIS Coordinator, Contractor	\$ 20,000	Page 30	\$ 20,000
#5: Hydrographic Layer with Navigable Streams	GIS Coordinator, County Surveyor, LTE or Intern	\$ 40,000	Page 30-31	\$ 40,000
#6: Building Footprint Layer	GIS Coordinator, Contractor	\$ 40,000	Page 31	\$ 40,000
#7: Create Inspection and Field Collection Apps	GIS Coordinator	\$ 10,000	Page 31-32	\$ 10,000
#8: Document Indexing	Register of Deeds, LTE or Intern	\$ 20,000/year	Page 32	\$ 60,000
#9: Historical Tax Roll Scanning	County Treasurer, Contractor	\$10,000	Page 32	\$ 10,000
#10: Create Existing Land Use layer	County Treasurer, LTE or Intern	\$ 10,000	Page 28	\$ 10,000
#11: Create Future Land Use layer	GIS Coordinator	Unknown	Page 33	Unknown
#12: Land Records Scanning	Land Records Division	Unknown	Page 34	Unknown
#13: Update GIS Sharing landing site	GIS Coordinator	Unknown	Page 34	Unknown
#14: Create Shoreland Zoning layer	GIS Coordinator	Unknown	Page 34-35	Unknown
#15: Purchase overhead book scanner	Land Records Division	Unknown	Page 35	Unknown
#16: Georeference Historical Aerial Photos	GIS Coordinator	Unknown	Page 35-36	Unknown
#17: Incorporate Zoning Layers into County GIS	GIS Coordinator	Unknown	Page 36	Unknown
GRAND TOTAL				\$ 370,981

Note. These estimates are provided for planning purposes only. Projects are only funded if adequate funding can be obtained.

6 APPENDIX B – LIC APPROVAL
