

Pepin County

Land Information Plan

2022-2024

Pepin County Land Information Program
Pepin County Land Conservation & Planning Department
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EXECUTIVE SUMMARY

About this Document. This document is a land information plan for Pepin County prepared by the Land Information Officer and the 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 is administered by the Wisconsin Department of Administration; this program is funded by document recording fees collected by the Register of Deeds in every county throughout Wisconsin. In 2020, Pepin County received approximately \$128,000 in WLIP grants and around \$14,000 in local Register of Deeds document recording fees for land information.

This plan lays out how funds from grants and retained fees will be prioritized. However, as county budgets are determined on an annual basis with county board approval, this plan provides estimated figures that are subject to change and are designed to serve planning purposes.

Land Information in Pepin County. Land Information is central to operations within Pepin County, many residents and businesses depend on essential services that provide accurate and up-to-date geospatial data and land records. The Pepin 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. Our countywide land information system also supports economic development, emergency planning and response, and a host of other citizen services. The Land Information Office is based within the Land Conservation & Planning Department. The Pepin County Land Information Council includes representatives of the several departments.

Mission of the Land Information Office. The mission of the Pepin County Land Information Council is to provide land information to the end user in an easy to use format that will benefit county employees, businesses, citizens and other interested parties.

Land Information Office Projects. To realize this mission, in the next three years, the county land information office will primarily focus on the first six projects listed in the section entitled Current and Future Projects. We feel that all of these projects are essential to operations and sharing land information in Pepin County. The remaining two projects will be pursued if funding is available in later years.

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

1 INTRODUCTION

In 1989, a public funding mechanism was created whereby a portion of county register of deeds document recording fees collected from real estate transactions would be devoted to land information through a new program called the Wisconsin Land Information Program (WLIP). The purpose of the land information plan is to meet WLIP requirements and aid in county planning for land records modernization.

The WLIP and the Land Information Plan Requirement

In order to participate in the WLIP, counties must meet certain requirements:

- Update the county's land information plan at least every three years
- Meet with the county land information council to review expenditures, policies, and priorities of the land information office at least once per year
- Report on expenditure activities each year
- Submit detailed applications for WLIP grants
- Complete the annual WLIP survey
- Subscribe to DOA's land information listserv
- Coordinate the sharing of parcel/tax roll data with the Department of Administration in a searchable format determined by DOA under s. 59.72(2)(a)

LAND INFORMATION

Any physical, legal, economic or environmental information or characteristics concerning land, water, groundwater, subsurface resources or air in this state.

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

– Wis. Stats. section 59.72(1)(a)

Any grants received, and fees retained for land information through the WLIP must be spent consistent with the county land information plan. The State of Wisconsin provided a document titled "*Uniform Instructions for Preparing County Land Information Plans*" as a template, but left flexibility as to how Pepin County could address the minimum plan components. The county has included as much detail as necessary to make the planning process useful at the local level.

Act 20 and the Statewide Parcel Map Initiative

A major development for the WLIP occurred in 2013 through the state budget bill, known as Act 20. It directed the Department of Administration (DOA) to create a statewide digital parcel map in coordination with counties. Act 20 also provided more revenue for WLIP grants, specifically for the improvement of local parcel datasets. The WLIP is dedicated to helping counties meet the goals of Act 20 and has proposed that funding be made available to counties in the form of Strategic Initiative grants to be prioritized for the purposes of parcel dataset improvement. For Strategic Initiative grant eligibility, counties will be 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—are determined through a participatory planning process. Current benchmarks are detailed in the WLIP grant application, as will be future benchmarks.

WLIP Benchmarks (For 2016-2021 Grant Years)

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

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

County Land Information System History and Context

The following is a brief history of Pepin County's land records modernization efforts, dating back to when the WLIP was established in 1989. Records from the first five years are difficult to come by, however the projects are better documented once Pepin County started to receive grant funding for identified projects. All historical Pepin County Land Information has been derived from the knowledge of past and current employees, historical grant applications, and grant closeout documents. The first land information efforts in Pepin County can be traced back to 1970 when the county conducted a remonumentation program that located and tied in all corner and quarter corner monuments of the PLSS system within the County; this effort has continuously been updated as new technology has become available.



1997

- Purchased AutoCAD Software
- Installed two public access computers , in ROD & Treasurer Offices
- Initiated pilot project for parcel mapping and digitizing properties

1998

- The Land Information Office was transferred to the Pepin County Land Management Department on April 1, 1998.
- A grant closeout report indicates that 65% of corners have been remonumented

1999

- The first Pepin County Land Records Modernization Plan written by the Land Management Department was adopted.
- Pilot project of in-house parcel mapping initiated; County staff realized more monuments and ground control were needed to proceed with project
- Surveyor initiated work on remonumentation and geodetic survey

2000

- Began development of Pepin County's GIS website and linked it to the tax database.
- Received a Strategic Initiative Grant to develop metadata for section lines, orthophotography, and state/county/town roads layers
- Surveyor continued work on remonumentation and geodetic survey

2001

- Purchased a scanner and began the process of scanning Register of Deeds documents, in order for documents to be obtained from the internet.
- Digitized wetland and floodplain maps to be added to the county website.
- Surveyor continued work on remonumentation and geodetic survey

2002

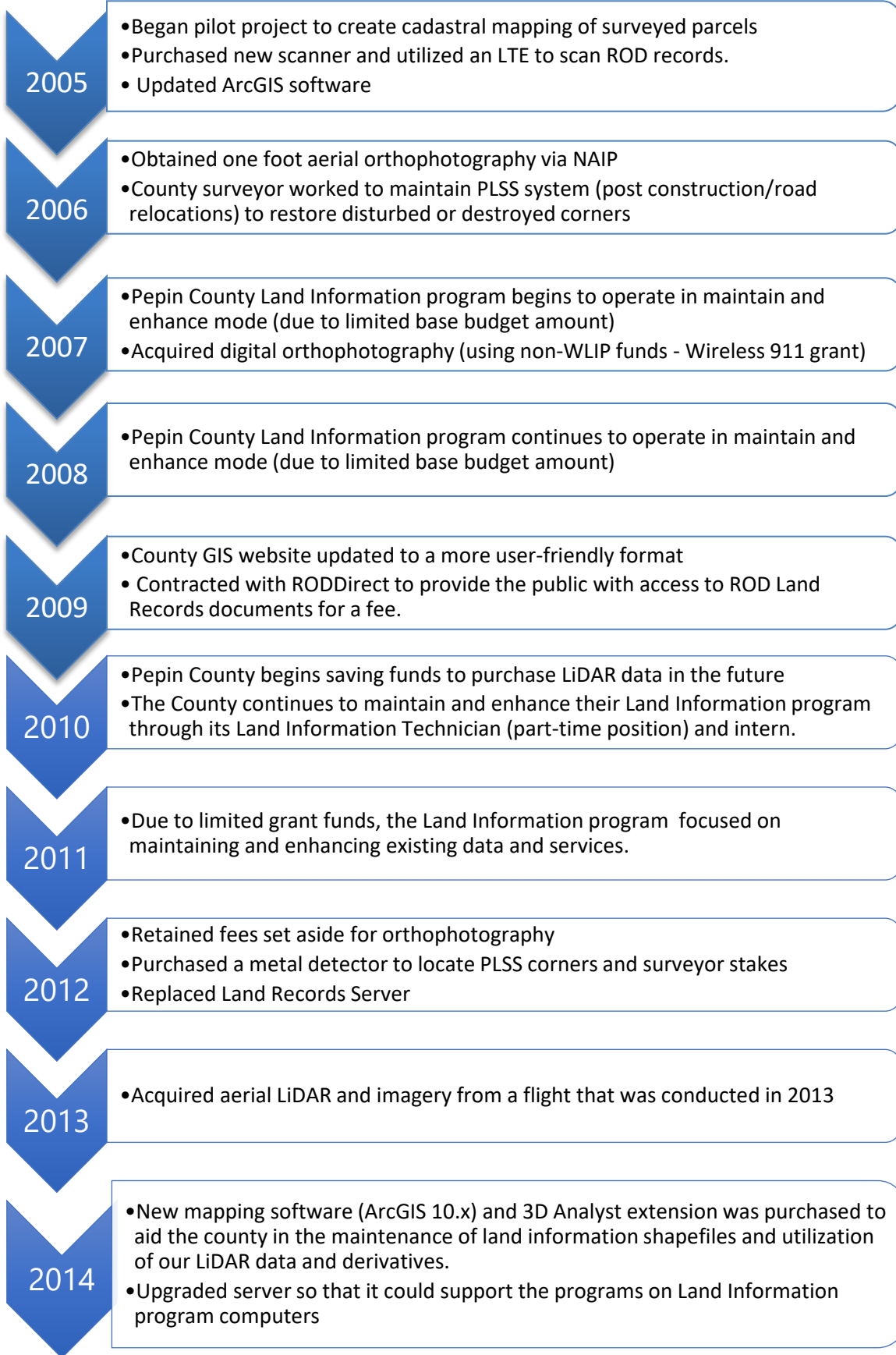
- Purchased a replacement server for Land Information Offices
- Obtained Strategic Planning Grant to complete parcel mapping (100% complete)
- Focused on increasing the number of parcels integrated into the PIN system to enhance future parcel mapping projects.
- Surveyor continued work on remonumentation and geodetic survey

2003

- Pepin County hired it's first summer intern, this individual was instrumental in developing "fire number maps" for towns, training county staff on how to utilize the GIS website, and hot-linking Tie Sheets to existing data.
- Surveyor continued work on remonumentation and geodetic survey

2004

- Hired additional part-time staff to assist with back scanning of Register of Deeds documents
- Surveyor completed work on remonumentation and geodetic survey



2015

- Pepin County initiated a parcel fabric project, which is expected to be complete in 2017.
- Aquired Spatial Analyst extension for ArcGIS to increase GIS capabilities

2016

- Created Deputy Treasurer/GIS Specialist position to support Land Information Program and increasing state data submission requirements.
- Updated ROD Grantor/Grantee Index Software to new vendor
- Started ROD Imagery Enhancement Project

2017

- Upgraded ArcGIS licensing to a small government enterprise; which provides land information staff greater access to software and extensions
- Completed parcel fabric layer with help of Pro-West & Associates Inc.
- Interns instrumental in completing culvert layer and watershed modeling
- Expanded use of land information portal

2018

- Land Management Department merged with Land Conservation to create Land Conservation & Planning Department; no changes to Land Information program have been implemented due to this change
- Started updating road layers and address points to include additional attributes that will aid in meeting NG911 Standards.
- Re-evaluating our land information staffing options due to resignation of GIS Specialist

2019

- Obtained new LiDAR data and orthoimagery for entire county

2020

- Initiated project to expand floodplain data along the Chippewa River to establish base flood elevations and develop more accurate map from City of Durand to Dead Lake.
- Purchased plotter/scanner combo

2021

- Completed ROD scanning project - all historical records/books scanned and being processed to be made available to public via portal
- Data cleanup and management; including beginning to format Public Safety data to meet NG911 standards.
- Treasurer's Office staff learned how to parcel map using ArcGIS Pro

County Land Information Plan Process

County land information plans were initially updated every five years. However, as a result of Act 20, counties must update and submit their plans to DOA for approval every three years. The 2022-2024 plan, completed at the end of 2021, is the third post-Act 20 required update.

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. The Land Information Council meets at least once a year; at these meetings the members discuss how Pepin County plans on spending the money the county receives through the Wisconsin Land Information Program Grant.

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

- Register of Deeds
- Treasurer
- Real Property Lister or designee
- Member of the county board
- Representative of the land information office
- A realtor or member of the Realtors Association employed within the county
- A public safety or emergency communications representative employed within the county
- County surveyor or a registered professional land surveyor employed within the county
- Other members of the board or public that the board designates

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

This plan was prepared by the LIO under the guidance from the Pepin County Land Information Council.

Pepin County Land Information Council and Plan Workgroup				
Name	Title	Affiliation	Email	Phone
Monica J. Bauer	Register of Deeds	Pepin County	mjrbauer@co.pepin.wi.us	715-672-8856
Patricia Scharr	County Treasurer, Real Property Lister	Pepin County	treasurer@co.pepin.wi.us	715-672-8850
Tessa King	County Board Member	Pepin County	pcsdist6@co.pepin.wi.us	715-495-5351
Maria Nelson	Land Information Officer, Emergency Management, Zoning Administrator	Pepin County	pepza@co.pepin.wi.us	715-672-8897
Haley Follansbee	Realtor	Weichert Realtors – Jewson Properties	haley@yellowsells.com	608-421-3160
Joel Wener	Pepin County Sheriff	Pepin County	jwener@co.pepin.wi.us	715-672-5944
Dustin LaBlonde	County Surveyor	Contracted by Pepin County	Dustin.lablond@cedarcorp.com	715-235-9081
Pamela Hansen	Finance Director & Administrative Coordinator	Pepin County	phansen@co.pepin.wi.us	715-672-8704
Jessica McMahon	County Conservationist, Land Conservation & Planning Director	Pepin County	jcmcmahon@co.pepin.wi.us	715-672-8665 ext 5
Chris Bates	Highway Commissioner	Pepin County	cbates@co.pepin.wi.us	715-672-8171
Audrey Bauer	County Clerk	Pepin County	akbauer@co.pepin.wi.us	715-672-8677

All of the above listed individuals are members of the Pepin County Land Information Council

2 FOUNDATIONAL ELEMENTS

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

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

FOUNDATIONAL ELEMENTS

PLSS

Parcel Mapping

LiDAR and Other

Elevation Data

Orthoimagery

Address Points and

Street Centerlines

Land Use

Zoning

Administrative

Boundaries

Other Layers

PLSS

Public Land Survey System Monuments

Layer Status

PLSS Layer Status	Status/Comments
Number of PLSS corners (selection, ¼, meander) set in original government survey that can be remonumented in your county	<ul style="list-style-type: none"> 805 PLSS Corners
Number and percent of PLSS corners capable of being remonumented in your county that have been remonumented	<ul style="list-style-type: none"> All 805 – project completed in 2004
Number and percent of remonumented PLSS corners with survey grade coordinates (see below for definition) <ul style="list-style-type: none"> SURVEY GRADE – coordinates collected under the direction of a Professional Land Surveyor, in a coordinate system allowed by 236.18(2), and obtained by means, methods and equipment capable of repeatable 2 centimeter or better precision SUB-METER – point precision of 1 meter or better APPROXIMATE – point precision within 5 meters or coordinates derived from public records or other relevant information 	<ul style="list-style-type: none"> All 805 – project completed in 2004
Number and percent of survey grade PLSS corners integrated into county digital parcel layer	<ul style="list-style-type: none"> All 805 were integrated into parcel fabric layer
Number and percent of non-survey grade PLSS corners integrated into county digital parcel layer	<ul style="list-style-type: none"> Zero
Tie sheets available online?	<ul style="list-style-type: none"> Yes, via State Cartographers Office
Percentage of remonumented PLSS corners that have tie sheets available online (whether or not they have corresponding coordinate values)	<ul style="list-style-type: none"> Approximately 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	<ul style="list-style-type: none"> Approximately 100%
PLSS corners believed to be remonumented based on filed tie-sheets or surveys, but do not have coordinate values	<ul style="list-style-type: none"> None to our knowledge
Approximate number of PLSS corners believed to be lost or obliterated	<ul style="list-style-type: none"> None to our knowledge
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)?	<ul style="list-style-type: none"> Pepin County uses a numbering system that is based on the Town/Range numbers, followed by a letter (A-M) west to east and number (1-13) north to south, subletters are occasionally utilized along rivers
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?	<ul style="list-style-type: none"> Government lots along Chippewa and Mississippi Rivers
Total number of PLSS corners along each bordering county	<ul style="list-style-type: none"> 103
Number of PLSS corners remonumented along each county boundary	<ul style="list-style-type: none"> 103
Number of remonumented PLSS corners along each county boundary with survey grade coordinates	<ul style="list-style-type: none"> 103
In what ways does your county collaborate with or plan to collaborate with neighboring counties for PLSS updates on shared county borders?	<ul style="list-style-type: none"> Shares data as requested, sends copies of relevant files and tie sheet updates along borders

Custodian

- Collaborative effort between Land Information Officer and the County Surveyor; other staff may be assigned to do maintenance checks

Maintenance

- Approximately 5% of the PLSS corners are checked on an annual basis; based on findings of inspection the missing or destroyed PLSS corners are scheduled to be replaced by the county surveyor.

Standards

- Statutory Standards for PLSS Corner Remonumentation
 - s. 59.74, Wis. Stats. Perpetuation of section corners, landmarks.
 - s. 60.84, Wis. Stats. Monuments.
 - Ch. A-E 7.08, Wis. Admin. Code, U.S. public land survey monument record.
 - Ch. A-E 7.06, Wis. Admin. Code, Measurements.
 - s. 236.15, Wis. Stats. Surveying requirement.
- SURVEY GRADE standard from Wisconsin County Surveyor's Association:
 - **SURVEY GRADE** – coordinates collected under the direction of a Professional Land Surveyor, in a coordinate system allowed by 236.18(2), and obtained by means, methods and equipment capable of repeatable 2 centimeter or better precision

Other Geodetic Control and Control Networks

Layer Status

- Complete - Geodetic control established in 1996; there are 43 base stations in Pepin County.

Custodian

- Pepin County Surveyor, Pepin County LIO

Maintenance

- The areas around the GPS base stations are groomed at least once a summer so that surveyors can find the sites. If sites are damaged or destroyed they will be replaced according to the standards described below.

Standards

- GPS observations and network design were performed according to Standards and Specifications for Global Positioning System (GPS) Surveys. Draft version, December 20, 1994, published by the Wisconsin Department of Transportation, with references made to Geometric Geodetic Accuracy Standards and Specifications for Using GPS Relative Positioning Techniques, Version 5.0 of August 1, 1989, published by the Federal Geodetic Control Subcommittee (FGCS).

Parcel Mapping

Parcel Geometries

Layer Status

- **Maintenance phase:** In Pepin County, 100% of the county's parcels are available in a commonly-used digital GIS format; the dataset is updated by the Treasurer Office and submitted to the state in the correct format by the Land Information Officer.
- **Projection and coordinate system:** Lambert Conformal Conic - NAD 83 Wisconsin Pepin Feet
- **Integration of tax data with parcel polygons:** The county does not have a parcel polygon model that directly integrates tax/assessment data and parcel attributes. However, the online map application has automated the process of integrating the tax data with the parcel layer.
- **Online Parcel Viewer Software/App and Vendor name:** ESRI Web AppBuilder for ArcGIS w/Tax Parcel Viewer; developed by Pro-West & Associates Inc.
- **Unique URL path for each parcel record:** Yes, this connects to our Pepin County Land Information Web Portal which is currently hosted by GCS Software Inc. (LandNav). From this portal one can access assessment information, tax bills, recorded documents, and permits issued to the property. The URL is stable; we have not attempted to export the unique URL's.

Custodian

- Pepin County Treasurer's Office
- Pepin County Land Information Officer
- Pro-West & Associates

Maintenance

- **Update Frequency/Cycle.** Parcel polygons are updated by staff or Pro-West on a monthly basis, the application developed by Pro-West & Associates updates the online map and tax data on a nightly basis.

Standards

- **Data Dictionary:** The Pepin County Treasurer maintains a data dictionary in a human-readable form which contains thorough definitions for each attribute associated with tax/assessment data. The Pepin County Land Information Officer maintains additional documentation of definitions for each element/attribute name and explanations of any county-specific notations, such as parcel attributes listed by §59.72(2)(a).

Assessment/Tax Roll Data

Layer Status

- **Progress toward completion/maintenance phase:** N/A
- **Tax Roll Software and Vendor name:** Property Assessment and Treasurer Modules via LandNav

Custodian

- Municipal Assessors,
- Pepin County Treasurer's Office

Maintenance

- **Maintenance of the Searchable Format standard:** To maintain the Searchable Format standard, Pepin County purchased a tool from GCS/LandNav that exports the Act 20 required data from our existing software programs. The Treasurer's Office attempts to correct errors in the tax roll that are noted by the state in our annual submission reports. New information is updated by the staff in the Treasurer's Office as it arrives.
- **Searchable Format Workflow:** The county maintains parcel/tax roll data in the Searchable Format or close enough to the Searchable Format that **little to no human labor is required** for the annual submission of parcel/tax roll data to DOA.

Standards

- Wisconsin Department of Revenue Property Assessment Manual and attendant DOR standards
- DOR XML format standard requested by DOR for assessment/tax roll data

Non-Assessment/Tax Information Tied to Parcels

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

Layer Status

- Started, but not complete. Sanitary and land use permits have been tied to parcels by staff in the Land Conservation and Planning Department. Non-metallic Mining layers are maintained as a separate layer. The Register of Deeds reports that easements and restrictive covenants are documented via the PLSS but not by parcel number. Some information available online via GCS Web Portal.

Custodian

- Land Conservation and Planning Department
- Register of Deeds

Maintenance

- As schedule/staffing allows.

Standards

- Varies by department

ROD Real Estate Document Indexing and Imaging

Layer Status

- **Grantor/Grantee Index:** Pepin County has been entering document information into the grantor/grantee index since 1995. Pepin County preserves this information through our GCS Software. Information is available to the public via the Pepin County Land Information Web Portal. The Register of Deeds reports that the grantor/grantee index includes all transactions from 1983 to the present.
- **Tract Index:** This system was also initiated in 1995. All documents in Pepin County require a legal description; therefore, the tract indexing has traditionally been PLSS based. In January 2017, the Treasurer requested that the Register of Deeds add the parcel pin number(s) to all Real Estate documents when they change title; these changes are then submitted to the Treasurer's Office.
- **Imaging:** Pepin County uses Kofile to support our imaging software needs and has a contract US Imaging to back-scan and enhance the quality of images to be brought into our system.
- **ROD Software/App and Vendor Name:** Pepin County Land Information Web Portal (LandNav/GCS software – Register of Deeds recorded documents are made available by the Register of Deeds staff; 37 years of documents are uploaded to the system.

Custodian

- County Register of Deeds

Maintenance

- The Register of Deeds and Deputy Register of Deeds work with the Grantor/Grantee Index, Tract Index, and Imaging projects on a daily basis. They enter current files as they are received and add old files as time allows. One of our on-going WLIP grant funded projects is to enhance the quality of imagery scanning and increase the availability of documents to the public.

Standards

- s. 59.43, Wis. Stats. Register of deeds; duties, fees, deputies.
- Ch. 706, Wis. Stats. Conveyances of real property; Recording; Titles.

LiDAR and Other Elevation Data

LiDAR

Layer Status

- **Most recent acquisition year:** 2019
- **Accuracy:** USGS LiDAR standards
- **Next planned acquisition year:** To be determined

Custodian

- Pepin County Land Conservation & Planning Department

Maintenance

- Pepin County Land Information Council does not anticipate acquiring or updating countywide LiDAR layers during the 2022-2024 timeframe; tentative plans to update every 10 years

Standards

- USGS Lidar Base Specification

LiDAR Derivatives

Pepin County has Bare-Earth Elevation Contours, Bare-Earth Digital Elevation Model (DEM), Breaklines, First Return and Point Cloud Data.

Layer Status

- Layer Complete, acquired 2019

Custodian

- Pepin County Land Conservation & Planning Department

Maintenance

- See above

Standards

- All LiDAR derivatives meet USGS Lidar Base Specifications

Other Types of Elevation Data

Layer Status

- N/A

Orthoimagery

Orthoimagery

Layer Status

- **Most recent acquisition year:** 2019
- **Resolution:** 6 inch
- **Contractor's standard:** Digital color orthoimagery at 6-inch ground pixel resolution
- **Next planned acquisition year:** 2024

Custodian

- Land Information Officer, contractor

Maintenance

- Tentative plans to update every 5-6 years

Standards

- National Map Accuracy Standards

Historic Orthoimagery

Layer Status

- Pepin County maintains a variety of historic (archived) orthoimagery layers for change detection and historical research purposes.

Custodian

- Pepin County Land Conservation & Planning Department

Maintenance

- These layers will be preserved in order to use them for historical research, they will not be changed or altered.

Standards

- These imagery layers were developed to the standards that existed at the time when they were flown. Older records are physical photo images, while more recent flights are digital files.

Other Types of Imagery

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

Layer Status

- Not applicable – Pepin County does not maintain other types of imagery.

Address Points and Street Centerlines

Address Point Data

Layer Status

- Maintenance phase.

Custodian

- Land Information Officer

Maintenance

- Updated at least monthly or when new addresses are requested. LIO is working towards implementing NG911 Standards while maintaining compatibility with Sheriff's Office dispatching software

Standards

- Wisconsin GIS NG9-1-1 Data Standard (for Site/Structure Address Points)

Address Ranges

Layer Status

- Layer complete; Static layer, not updated

Custodian

- Land Information Officer

Standards

- Based on master addressing system established by predecessor and public safety provider

Building Footprints

Layer Status

- Not applicable – Pepin County does not maintain this layer

Street Centerlines

Layer Status

- Maintenance phase

Custodian

- Land Information Officer

Maintenance

- Improvements to layer as time allows; significant improvements made annually including networked layer, additional attributes generated. To be updated to Wisconsin GIS NG9-1-1 Data Standard during the 2022-2024 planning period.

Standards

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

Rights of Way

Layer Status

- Maintenance phase, in parcel layer with ROW identifying information in an attribute field

Custodian

- Parcel mapper

Maintenance

- On as needed basis

Standards

- Based on available property descriptions if/when they describe the right of way.

Trails

e.g. Recreational Trails, Snowmobile Trails

Layer Status

- Layer complete, but subject to change

Custodian

- Pepin County Land Conservation & Planning Department

Maintenance

- Updated as needed or changes occur to recreational trails/routes

Standards

- No standards have been identified or provided to Pepin County

Land Use

Current Land Use

Layer Status

- Layer complete; primarily in PDF form

Custodian

- Land Information Officer
- Other staff as assigned

Maintenance

- Upon request of municipalities/county.

Standards

- Layer appears to be based on the tax assessment category at the time of Comprehensive Plan creation.

Future Land Use

Layer Status

- Layer complete, primarily in PDF form

Custodian

- Land Information Officer
- Other staff as assigned

Maintenance

- Upon request of municipalities/county for plan updates.

Standards

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

Zoning

County General Zoning

Layer Status

- Not administered by Pepin County at this time.

Airport Protection

Layer Status

- Not administered by the county

Farmland Preservation Zoning

Layer Status

- Not administered by Pepin County, however currently applicable in one township

Shoreland Zoning

Layer Status

- Pepin County maintains a GIS representation of county shoreland zoning boundaries

Custodian

- Land Information Officer/Zoning Administrator

Maintenance

- Updates to layers based on navigability determinations or other needed changes

Standards

- State of Wisconsin NR 115

Floodplain Zoning

Layer Status

- Pepin County does maintain a GIS Floodplain Zoning Boundaries
- Pepin County's floodplain zoning GIS data is identical to the FEMA map
- PL-566 Breach Routes have also been established in Pepin County (separate layer)

Custodian

- Land Information Officer/Zoning Administrator

Maintenance

- Static layer unless floodplain map changes; floodplain map likely to change in 2022-2024 plan timeframe as we are revising the FIRM along a portion of the Chippewa River.

Standards

- Set by FEMA, State of Wisconsin NR 116

Municipal Zoning Information Maintained by the County

Layer Status

- Maintenance phase – varies by municipality

Custodian

- Land Information Officer/Zoning Administrator
- Other staff as assigned

Maintenance

- As requested.

Standards

- Based on municipal zoning ordinances, generally related to underlying parcels.

Administrative Boundaries

Civil Division Boundaries

Layer Status

- Complete

Custodian

- Land Information Officer

Maintenance

- As needed; information submitted to the state twice annually via CBAS collection. Limited number of annexations due to rural nature of Pepin County.

Standards

- Based upon legal descriptions of boundaries.

School Districts

Layer Status

- **Progress toward completion/maintenance phase:** 100% Complete (Maintenance phase)
- **Relation to parcels:** dissolved from parcel layer
 - **Attributes linked to parcels:** Possible via parcel layer

Custodian

- Land Information Officer

Maintenance

- As needed

Standards

- Based on the best available information, tax records.

Election Boundaries

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

Layer Status

- Complete

Custodian

- Land Information Officer
- Other staff as assigned

Maintenance

- Anticipated after next Census or redistricting efforts

Standards

- Wisconsin Elections Commission guidelines

Utility Districts

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

Layer Status

- State provided electric utility layers to Pepin County in 2021

Custodian

- Land Information Officer

Maintenance

- Request new data once every 5-10 years

Emergency Service Boundary – Law/Fire/EMS

Layer Status

- **Law Enforcement:** Layer complete, but needs updates
- **Fire:** Layer complete, but needs updates
- **EMS:** Layer complete, but needs updates

Custodian

- Land Information Officer

Maintenance

- Layers need to be slightly modified to meet NG911 Standards; will need additional attributes

Standards

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

Public Safety Answering Points (PSAP) Boundary

Layer Status

- PSAP Boundary is the same as the county boundary

Custodian

- Land Information Officer

Maintenance

- Attributes may be needed to meet NG911 Standards

Standards

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

Provisioning Boundary

Layer Status

- Needs to be created

Custodian

- Land Information Officer

Maintenance

- Pepin County

Standards

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

Other Public Safety

e.g., Healthcare Facilities, Special Populations, Tier IIs, etc.

Layer Status

- Layers Complete

Custodian

- Land Information Officer

Maintenance

- As needed

Standards

- These layers are developed for emergency response purposes

Lake Districts

Layer Status

- N/A – There are no lake districts in Pepin County.

Native American Lands

Layer Status

- Pepin County acquired a layer depicting historical Native American lands from the State Historical Society; it is not available to the general public.

Custodian

- Land Information Officer
- State Historical Society

Maintenance

- Pepin County plans to purchase this layer from the State every 5-10 years

Recreational

e.g., County Parks, Trails, and Boat Launches

Layer Status

- Complete

Custodian

- Land Information Officer
- Other staff as assigned

Maintenance

- As needed

Standards

- None

Other Layers

Hydrography Maintained by County or Value-Added

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

Layer Status

- Pepin County does not currently maintain elevation derived hydrography
- Value added hydrography layer in maintenance phase

Custodian

- Land Information Officer/Zoning Administrator
- Other staff as assigned

Maintenance

- After new aerial imagery is collected, hydrography may be adjusted to reflect actual waterway location (not completed as 2019 aerial was collected during high water event)

Standards

- Adjusted to aerial imagery periodically

Cell Phone Towers

Layer Status

- Complete

Custodian

- Land Information Officer
- Other staff as assigned

Maintenance

- As new towers are constructed.

Standards

- None established

Bridges and Culverts

Layer Status

- Maintenance Phase

Custodian

- Land Information Officer
- Highway Commissioner
- Other staff as assigned

Maintenance

- Data points collected 2016 and 2017; maintenance recommended on an annual basis.

Standards

- None established

Pipelines

Layer Status

- Complete, for internal/public safety use only

Custodian

- Pipeline Companies (Flint Hills Resources, formerly known as Koch, and Northern Gas)

Maintenance

- County requests updated layer if system is expanded.

Standards

- Unknown

Railroads

Layer Status

- Complete, for internal/public safety use only

Custodian

- BNSF Railroad

Maintenance

- None

Standards

- Unknown

Non-Metallic Mining

Layer Status

- Maintenance phase

Custodian

- Land Conservationist
- Other staff as assigned

Maintenance

- Updated as needed

Standards

- None established

Manure Storage Facilities

Layer Status

- Maintenance phase

Custodian

- Land Conservationist
- Other staff as assigned

Maintenance

- Updated as new facilities are added

Standards

- None established

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

As of 2021, Pepin County currently has several staff members who have GIS experience; primarily within the Land Conservation and Planning Department. With the increased number of personnel able to utilize ArcGIS software, we should have a greater ability to leverage the land information program to provide greater services to the public provided that we can balance these projects with our other responsibilities.

Land Information Officer responsibilities:

- Administer the Pepin County Land Information Program, plans, and grant applications.
- Coordinates projects to update the remaining foundational elements, based on allocated time and funding
- Ensures land information layers are submitted to the State

Typically, Pepin County hires an intern each year to help with miscellaneous GIS related projects that help support the needs identified by departments represented on the Pepin County Land Information Council.

The Land Conservation & Planning Department includes the following functions: Land Conservation, Zoning, Parks and Recreation, Emergency Management, GIS, County Surveyor, Recycling & Solid Waste, and Economic Development. In addition to carrying out these responsibilities, staff create additional data layers and maps to support the land information needs of Pepin County. This includes land conservation related projects, public safety, transportation, zoning, and economic development related projects.

County Parcel Data Workflow Diagram

Register of Deeds

- Reviews, records, scans, and maintains all documents related to real estate transfer documents
- Record and file Certified Survey Maps, subdivisions, and condominiums
- Uploads and releases scanned document images to the Pepin County Land Information Web Portal for Online purchase.
- Maintains record books, tract indexes, etc.
- Creates grantor/grantee indexes in the GCS Document Indexing Program.
- Collects Land Information fees for the County and State
- Collects Real Estate Transfer Tax Revenues and submits Real Estate Transfer Receipts to the Department of Revenue

Treasurer's Office

- Prepares recorded documents for assessment
- Updates assessment rolls with property owners
- Creates new parcels in assessment database
- Assigns unique tax parcel ID numbers to new parcels
- Maintains parcel layer
- Calculates and finalizes tax rolls

Land Information Officer

- LIO manages the Pepin County Land Information Program, plans, and grant application.
- LIO maintains the foundational elements
- Ensures data is formatted correctly and submits land information layers to the State.
- Staff create layers and maps to support the land information needs of Pepin County.

OTHER KEY CONTRIBUTORS TO THE PEPIN COUNTY LAND INFORMATION SYSTEM

County Surveyor

- Corrects tie sheets and re-monuments section corners as needed,
- Reviews CSM's, subdivisions, and plats before being recorded

Land Conservation & Planning Department

- Creates layers pertaining to conservation issues including non-metallic mining, agricultural compliance structures, manure storage, invasive species management, county parks and dams, stream and watershed studies, economic development, tourism, and other mapping files as needed for projects at the county.

Departments that utilize the Land Information System, but don't have the ability to create new data at this time:

- Highway Department – currently looking into GIS solutions to benefit department
- Sheriff's Office (includes Dispatch) – looking into GIS solutions to enhance public safety
- County Clerk's Office – looking into GIS solutions to improve elections

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

- Computers for Land Information related departments/offices; replaced on a 4-year rotating basis per county policy
- Combo Plotter and Large Format Scanner
- Flatbed scanners
- Server
- External hard drives for back-up/storage of select files

Software

- GCS/LandNav Software – includes Assessor, Register of Deeds, Treasurer, and Permitting modules
- ESRI (ArcGIS) License for our Land Information Program related offices/staff
 - County staff are currently learning to use ArcGIS Pro; should be proficient by 2024
- Kofile (Register of Deeds imaging program)

Website Development/Hosting

- ArcGIS Online; Pepin County uses a third party consultant to help us manage our server, apps and online maps through ESRI
- LandNav Web Portal for Land Information searches

Metadata and Data Dictionary Practices

Metadata Creation

- **Metadata creation and maintenance process:** Pepin County has a data dictionary for its tax database. Most other GIS files do not have metadata, which is an issue we are hoping to address as time allows.

Metadata Software

- **Metadata software:** ArcCatalog
 - The software does generate metadata consistent with the FGDC Content Standard for Digital Geospatial Metadata, and ISO geographic metadata standard 19115.
- **Metadata fields manually populated:** On an as needed basis.

Metadata Policy

- **Metadata Policy:** Pepin County does not have a metadata policy.

Municipal Data Integration Process

- Pepin County's local municipalities do not have the ability to create their own GIS data; most services are requested from private contractors or county staff.
- New data related to public safety (addresses assigned by City of Durand and Village of Pepin), are requested on an annual basis if received and incorporated into county layers before they are provided to dispatch
- The Village of Pepin currently has a staff member with GIS capabilities, relevant data is shared between both entities on an as needed basis.

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://pepinco.maps.arcgis.com/home/index.html	None at this time	https://host.gcssoftware.com/pepin/Search.aspx	https://host.gcssoftware.com/pepin/search.aspx?Searchby=Document

Pepin County's land information data can be accessed through our Land Information Web Portal: <https://host.gcssoftware.com/pepin/Search.aspx>, which will link to our parcel map after a search has been completed. We are in the process of migrating mapping services to an ArcGIS Online platform: <https://pepinco.maps.arcgis.com/home/index.html>. We do not have an open data portal or web/rest service established at this time.

Data Sharing

Data Availability to Public

Data Sharing Policy

- Pepin County openly shares most data with the public for free. Generally, files are zipped and emailed, transferred to a dropbox, or copied onto a storage device. Pepin County reserves the right to charge for the memory storage device if the individual/company requesting the data does not provide one, as well as shipping fees.

Open Records Compliance

- Pepin County strives to be compliant with the Wisconsin Open Records Law; we share all requested files if they exist.

Data Sharing Restrictions and Government-to-Government Data Sharing

Data Sharing Restrictions

- Pepin County does not share files provided by private agencies with the public, this includes files from the railroad company, pipelines, and other agencies when we have agreed with the provider that we will not share the file. If alternative files have been created that do not contain confidential information, they may be shared with the public upon request.

Government-to-Government Data Sharing

- Pepin County participates in government-to government data sharing. We provide our GIS data to the State and other governmental agencies as our schedule allows and as data is available or updated. All data is shared for free. Furthermore, we believe in the Wisconsin Idea, and hope that sharing our data with the university system will lead to an enhancement of our land information system and creative projects that could be used to promote Pepin County. We work with neighboring counties to share data and information that is beneficial for public safety and regional projects or initiatives.

Training and Education

- Pepin County sends at least one staff member to a Wisconsin Land Information Association Conferences on an annual basis. We are working with a private consultant and ESRI to determine training opportunities that will help Pepin County reorganize our data and create better land information products. On occasion, we may participate in training sessions offered by ESRI or Pro-West & Associates Inc. Staff may take additional ESRI classes online as their schedule allows.

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.

Most projects will be completed by Pepin County staff as time allows, but we may hire outside consultants or bid some projects out to complete them in a timely manner.

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

Project Description/Goal

How Searchable Format Will Be Maintained

- Pepin County currently utilizes a GCS tool to extract searchable format data from the tax assessment roll; the staff in the Treasurer's Office, or other assigned staff, then works to make manual adjustments to the formatting of the data to meet state requirements. Throughout the year, the Treasurer's Office also updates the tax roll to reflect shortcomings noted by the state from the previous submitted version.

Business Drivers

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

Objectives/Measure of Success

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

Project Timeframes

- February/March (on annual basis)

Responsible Parties

- Staff in Treasurer's Office
- Land Information Officer

Estimated Budget Information

- Included with Project 1 estimates in table at end of chapter.

Project #1: PLSS & Parcel Mapping Maintenance

Project Description/Goal

- Pepin County strives to keep its parcel fabric up to date through the maintenance of our PLSS system and incorporating property changes into the parcel map as they occur so that the public has access to up-to-date maps and land information. This project includes keeping identifying attributes (such as addresses) up to date and assigned to the correct property.
- **Land Info Spending Category:** PLSS, Digital Parcel Mapping, Address Points,

Business Drivers

- Need for property information to be available to the public to guide decision making
- Surveyors doing work in Pepin County need to access tie sheets and other surveying information in the field

Objectives/Measure of Success

- Parcel layer maintained on a regular basis to reflect property changes
- Additional information/layers added to existing parcel map
- Creation of applications that improve the distribution of land information
- Maps of Survey available virtually, reducing the number of trips surveyors required to do research

Project Timeframes

- Parcels and addresses to be updated throughout the year and submitted to state annually
- PLSS maintenance to be addressed in summer/fall on an as needed basis

Responsible Parties

- Staff in Treasurer's Office
- Land Information Officer
- County Surveyor
- Pro-West & Associates
- Other staff as assigned

Estimated Budget Information

- See table at the end of this chapter.

Project #2: Improving Public Safety Layers to NG911 Standards

Project Description/Goal

- Pepin County will continue to work to improve the public safety layers so that they are compatible with the dispatch software utilized by the Sheriff's Office. New attributes will be added to existing layers so that the data meets the NG911 Standards which were released in 2020. Staff will perform quality control to improve existing layers.
- **Land Info Spending Category:** Street Centerlines, Address Points

Business Drivers

- Public safety is an essential function of local government.
- State of Wisconsin releases GIS NG911 Standards in 2020
- Ability of emergency responders to find houses/property/people in the event of an emergency

Objectives/Measure of Success

- Meeting standards adopted by the State of Wisconsin
- Data supports the needs of the emergency response community.
- Less frequent changes in service areas by local municipalities.
- Ease of maintenance of system

Project Timeframes

- Throughout plan period 2022-2024

Responsible Parties

- Land Information Officer
- Potentially other staff, as assigned
- Consultant as needed

Estimated Budget Information

- See table at the end of this chapter.

Project #3: Software & Technology for Land Information Program

Project Description/Goal

- The Land Information offices need to upkeep devices and licenses for hardware, software, and tools to continue to provide land information to the public in an efficient manner. Our staff also would benefit from training to keep up to speed with the rapidly changing technology. For some projects, Pepin County may choose to work with a consultant for tasks beyond our expertise. This portion of the grant also encompasses operating expenses and time spent planning/coordinating the administration of the Land Information program.
- **Land Info Spending Categories:** Software, Hardware, Website Development, Training, Administration

Business Drivers

- Pepin County is required by State law to provide land information to the public
- Our staff rely on these programs to assist to carry out our state mandated duties
- Individuals want the ability to find out their land information using the internet, which is possible through the software and licenses we currently maintain.
- Ability to track development and changes in taxation and/or assessment
- Increase capacity to gather accurate data from the field.
- Greater transparency by sharing additional information with the public

Objectives/Measure of Success

- All software and hardware operational and supporting the needs of the Land Information Program
- GPS, drone, and/or other devices and software to collect information from the field
- Additional maps/apps developed with software to provide information and services to the public

Project Timeframes

- Annual assessment of needs

Responsible Parties

- Land Information Officer

Estimated Budget Information

- See table at the end of this chapter.

Project #4: Enhancing Transportation Related Projects

Project Description/Goal

- Assist the Highway Department to modernize their record keeping of transportation related assets and maintenance activities.
- **Land Info Spending Category:** Street Centerlines, Other

Business Drivers

- Need for better record keeping
- Prioritize projects to be responsible with tax dollars
- Accountability to public

Objectives/Measure of Success

- Create bridge layer with links to DOT's Highway Structure Information and sufficiency ratings
- Develop a system to track maintenance of roadways and culverts
- Add right-of-way distances to existing road layer
- Right of way inventory (i.e. signs) integrated into mapping and enabled for field inspections
- Integrating the ability to track PASER ratings, road surface types, and maintenance
- Expand use of permit tracking system to include highway department permits
- Augment utility-based information such as ownership of lines, poles, and transmission lines (acquire updated data from local utility providers)
- Collecting routing information for snow plowing and school buses
- Basic GIS training for Highway Department Staff to enable them to create maps to inform the public of road closings, detours, seasonal weight limits, and other relevant projects)
- Augmented information pertinent to recreational routes and trails

Project Timeframes

- Work with consultant to implement projects that require field applications
- Increase access to training and ArcGIS Pro for Highway Department staff
- Integrate into intern's tasks and assignments on an annual basis.

Responsible Parties

- Land Information Officer
- Highway Commissioner
- Third Party Consultant
- Intern

Estimated Budget Information

- See table at the end of this chapter.

Project #5: Land Conservation & Planning Projects

Project Description/Goal

- The Land Conservation & Planning Department supports numerous functions of Pepin County government that are reliant on accurate land information to provide information to the public. These projects will vary based on the needs of the community and will be adjusted annually. The departments objective is to educate individuals about the potential uses of their property, encourage practices to protect natural resources, and monitor changes to the existing resources.
- **Land Info Spending Category:** Other: Agriculture, Economic Development, Land Use, and Zoning

Business Drivers

- Concerns about environmental quality issues continue to be a hot topic in Pepin County
- Need for the ability to match best management practices to areas where they will make the greatest difference in protecting our resources.
- Tracking Farmland Preservation compliance
- Documenting construction activities and permits to ensure compliance with regulations
- Keeping up-to-date information related to zoning districts
- Ability to use technology encourage business development and tourism to support economy

Objectives/Measure of Success

- Data improvement through creation of additional descriptive attributes, metadata, and organizational management.
- Creation of applications and/or maps to provide greater information to the public.
- Increased ability to share land information data and analyze information.
- Incorporate zoning districts into new plans and maps if county pursues zoning and/or to support the communities with local zoning.
- Hire permanent GIS staff to be on county staff
- Hire intern annually to assist with land information projects.
- Creation of plat books
- Provide land information with office supplies necessary to support program

Project Timeframes

- Annual assessment of needs and priorities within Pepin County Land Conservation & Planning Department. Projects to be based on ongoing/changing needs of the department.

Responsible Parties

- Land Conservation & Planning Staff, includes LIO
- Intern
- Consultant as needed

Estimated Budget Information

- See table at the end of this chapter.

Project #6: Increasing Availability of Land Information Documents

Project Description/Goal

- The Register of Deeds ensures that recorded documents are available to the public; this project has two main components. The first, is to enhance their ability to make documents available to the public through back-scanning documents, back-keying documents into the grantor/grantee index and scanning plat maps. Pepin County has contracted with a private company to scan and enhance the images of documents before they are entered into this system. The second, is to preserve historical records through laminating old or damaged books and creating microfilmed records to ensure that all records are maintained in a format that allows the public to obtain copies.
- **Land Info Spending Category:** Other Parcel Work

Business Drivers

- Banks, abstract and title companies, lawyers, surveyors, realtors, utility companies, and property owners request access to Register of Deeds documents

Objectives/Measure of Success

- Greater availability of documents entered into grantor/grantee index per year (in addition to current year's records) and available online to the public.
- Ability to share plat maps and other large documents digitally.
- All identified damaged records are laminated or preserved in a manner that restores the integrity of the document.
- Microfilmed records continue to be preserved.
- Scan historical tax roll books and make available in digital format

Project Timeframes

- Imagery enhancement of scanned books to be complete by 2020 – Project was postponed/delayed due to COVID-19 pandemic; project was rescheduled for 2021, with Stage 1 of 3 being completed in February 2021
- Activities associated with back-keying scanned documents into the grantor/grantee index expected to take over 10 years to complete based on current workload and staffing in the Register of Deeds Office. Recording rate anticipated to increase once the Register of Deeds receives enhanced images.
- Preservation of damaged books to occur on as needed basis.

Responsible Parties

- Staff in Register of Deeds Office

Estimated Budget Information

- See table at the end of this chapter.

Project #7: Delineate A Zones in Floodplain

Project Description/Goal

- Pepin County has approximately 50 linear miles of rivers, streams, and creeks with floodplains that are designated as A zones. The goal is to delineate floodplains using state and federal standards to establish base flood elevations, floodways, and flood fringe areas. The changes to the maps will need to be accepted by FEMA and adopted into the Floodplain Ordinance. Once complete, this project will provide crucial land information that aids in addressing violations and safe building practices.
- **Land Info Spending Category:** Other Parcel Work (Zoning), LiDAR and other Elevation Data

Business Drivers

- FEMA conducted a Community Assistance Visit in 2017; as a result of this visit Pepin County has discovered there approximately 75 properties in Pepin County that are in violation of the federal/state/local floodplain regulations that were constructed over the last 35 years.
- Legal/liability issues
- Numerous confused/upset property owners

Objectives/Measure of Success

- LiDAR collected that meets federal standards to be utilized for mapping
- Base Flood Elevations established for all areas mapped as A zones on Flood Insurance Rate Maps (2010)
- Greater confidence in flood prone areas
- Ability to determine whether or not structures are safe from flooding
- Reduce number of violations and ability to work to address violations
- Less flood damages incurred in future

Project Timeframes

- Chippewa River LOMR – In progress, tentative completion in late 2022.
- Delineate “A zones” floodplains for smaller watersheds, to be completed in phases depending on priority floodplain watersheds (Arkansaw Creek is next waterway on list) and availability of funding. Updating floodplain maps is a long-term project.

Responsible Parties

- Land Conservation and Planning Staff
- Engineering Consultant (to be hired via RFP)

Estimated Budget Information

- See table at the end of this chapter.

Project #8: Obtain Aerial Imagery

Project Description/Goal

- Pepin County values having relatively recent aerial imagery for to support its land information programs. The current orthoimagery is from 2019; the layer is slated to be updated on a five-year renewal period so that staff can track changes in land uses. We currently have 6-inch orthoimagery, the resolution of future imagery will be determined at a later date.
- **Land Info Spending Category:** Orthoimagery

Business Drivers

- Tracking changes on the landscape
- Identifying violations of shoreland and floodplain ordinances

Objectives/Measure of Success

- Aerial imagery collected and provided to county
- Imagery integrated into our mapping portal/network

Project Timeframes

- Aerial imagery tentatively proposed to be collected Spring 2024

Responsible Parties

- Land Information Officer to coordinate with WROC

Estimated Budget Information

- See table at the end of this chapter.

Completed Projects

Although these projects are considered to be complete, they may continue to be maintained, updated, or modified to meet the changing needs of Pepin County.

- School District Layer Improvement – this layer was created using the tax database and sent to the state (as requested), it may be updated if changes are made by the school districts.
- Collection of Culvert Data – completed by an intern in 2016 and 2017; may need additional modifications in the future
- Watershed Analysis Data – completed by an intern in 2017; will continue to be utilized for analysis of landscape-based issues as it relates to erosion, water quality, and other land conservation issues.
- Update of Grantor/Grantee Index – a new program has replaced the discontinued program.
- Updating Tax Roll Format – purchased a tool from GCS to export data
- Enhancing Historical Permit Records – all historical permits have been entered into permit tracking, paper copies have been scanned, and individuals can check to see if their neighbors have permits/maintain their septic systems by using the online portal. At this time, we are not planning on making scanned or digital copies of permits available online due to privacy concerns.
- Aerial imagery and LiDAR data were collected in 2019; the LiDAR data is being utilized to update floodplain maps along a portion of the Chippewa River.
- The updated election boundary layer based on US Census changes will have been revised and submitted to the state in the second half of 2021.

General Fund Expenses

Previous Pepin County Land Information Plans included a couple of projects that were listed in the event that the State of Wisconsin requires a local match for the WLIP grant. The following staff and projects are covered by the general fund of the Pepin County budget:

- Pepin County Register of Deeds (elected official)
- Pepin County Treasurer (elected official)
- Deputy Register of Deeds (4/5 of position funded by general fund; 1/5 land information)
- Maintenance of Real Property Listings

Pepin County will not use WLIP grant funds as a substitute for general fund expenses or to balance the budget. Staff expenses paid with WLIP grant funds shall be proportional to the time spent on tasks to accomplish the projects listed in this plan. Equipment purchased with land information funds must also directly benefit the land information program.

Pepin County's Land Information Council meets annually to discuss projects to be included in the next budget cycle. During these meetings, we review the annual operating expenses associated with staffing, software, and ongoing projects. The remaining funds are dispersed between priority projects listed in the Land Information Plan. Pepin County maintains a non-lapsing fund for the land information program; unspent funds are rolled into this account for future projects that may exceed the annual grant allocation.

Estimated Budget Information (All Projects)

Estimated Budget Information (Some expenditures may be listed in more than one category)

Project Title	Item	Unit Cost/Cost	Land Info Plan Citations	Project Total
1) PLSS & Parcel Mapping Maintenance	PLSS Maintenance	\$10,000 1 time per plan cycle	Page 29 and 30	\$10,000
	Deputy Treasurer	\$12,000 annually	Page 29 and 30	\$36,000
	Contracted Consultant	\$2,500 annually	Page 29 and 30	\$7,500
				\$53,500
2) Public Safety (NG911)	LIO Salary Benefits (2 years)	\$10,000	Page 31	\$20,000
	Contracted Consultant, (estimate provided in 2017)	\$25,000	Page 31	\$25,000 (optional)
				\$20,000
3) Software & Technology	Hardware	3 computers, \$800 each annually	Page 32	\$2,400 annually
	Software licenses (annual fees)	\$17,500 for ESRI \$30,000 for GCS \$5,000 for Kofile	Page 32	\$52,500 annually
	GCS update (one time fee)	\$20,000	Page 32	\$20,000
	Drone (data collecting +software)	\$15,000 estimate	Page 32	\$15,000 (optional)
	Training	\$1000 annually	Page 32	\$1,000 annually
			At least \$56,000 annually	
4) Enhancing Transportation Related Projects	Intern (1 year)	\$9,000	Page 33	\$9,000
	Third party consultant	\$10,000 annually	Page 33	\$30,000
				\$39,000
5) Land Conservation & Planning	LIO Salary Benefits (1 year)	\$10,000	Page 34	\$10,000
	GIS staff (optional)	\$65,000	Page 34	\$65,000 annually
	Intern (2 years)	\$9,000	Page 34	\$18,000
	Contracted Consultant (App development, server support, open data)	\$10,000 annually	Page 34	\$10,000 Annual
				\$28,000
6) Increasing Availability of Land Information Documents	Deputy Register of Deeds	\$10,000 annually (20% of \$50,000)	Page 35	\$30,000
	Imaging Project	\$28,000 remaining of \$70,000 contract	Page 35	\$28,000
	Book Repair	\$1,500 per book 2 books per year	Page 35	\$3,000
	Tax Roll Book Scanning	1976-2001 tax roll books estimated \$20,000	Page 35	\$20,000
				\$61,000
7) Floodplain Map Enhancement	Floodplain map updates to FEMA standards	DNR estimated the project to cost \$1,500 to \$3,000 per mile of floodplain	Page 36	Est. \$75,000 to \$175,000
8) Obtain Aerial Imagery	6-inch orthophotos for entire county	\$20,000	Page 37	\$20,000

ALL PROJECTS GRAND TOTAL **\$417,500 to \$557,500**

Note: These estimates are provided for planning purpose only, budget is subject to change. Optional items may be considered by Land Information Council but are not guaranteed projects to be included in grant application, each year will vary by availability of funds and actual expenses. Optional items not included in bolded category totals, however they are included in higher end of all project grand total.