November 27, 2018
11:00 AM

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

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

Members: Gary Hetzer – Land Information Officer, Audrey Jensen, Gerry Klein, Christopher Fieri, Jason Plaza, Scott Williams, Dean Stratz, Property Lister Vacant, Randy Fifrick

Agenda Items:

1. Call to Order;

Policy Discussion and Possible Action:

2. Approve minutes of October 19, 2017 meeting
3. 2019 Wisconsin Land Information Program (WLIP) Strategic Initiative Grant and Training Grant - Gary
4. Marathon County Uniform Addressing Project Update – Rebecca Frisch
5. New Land Records System Project Update – Diane/Julie
6. Request for Retained Fees Funding For Surveyor Total Station Equipment – Chris
7. Review and Final Approval for 2019-2021 Marathon County Land Records Modernization Plan
8. Next meeting date: to be determined

Any person planning to attend this meeting who needs some type of special accommodation in order to participate should call the County Clerk’s Office at 715-261-1500 or e-mail infomarathon@mail.co.marathon.wi.us one business day before the meeting.
Marathon County
Land Information Council (LIC)
Minutes
Thursday, October 19, 2017
Conservation, Planning and Zoning Conference Room
210 River Drive, Wausau, WI

Attendance: Present Not Present
Jim Seefeldt .................... X
Audrey Jensen ................ X
Linda Schroeder .............. X
Gerry Klein .................... X

Attendance Present Not Present
Dean Stratz………………. X
Jason Plaza .................... X
Gary Hetzer.................... X
Chris Fieri .................... X
Scott Williams ................ X (arrived after adjournment)

Others: Rebecca Frisch, Diane Hanson – Conservation, Planning and Zoning (CPZ).

1. **Call to Order**
The meeting was called to order by Hetzer at 10:00 am.

2. **Approve minutes of December 8, 2016 meeting**
   Action: MOTION / SECOND BY SEEFE LDT / STRATZ TO APPROVE THE MINUTES OF THE DECEMBER 8, 2016 MEETING. SEEFE LD T QUESTIONED THE TIME OF ADJOURNMENT OF THE MEETING. THE MINUTES WILL BE CORRECTED FOR THE MEETING ENDING TIME. MOTION CARRIED ON VOICE VOTE, NO DISSENT.

3. **Land Records System & Register of Deeds Tract Index System Funding Request – Dean Stratz/Gary Hetzer**
   Discussion: Hetzer provided current fund balances for the “$6” account ($311,501.93) and the “$2” account ($532,777.24). He also reviewed the historical revenue amounts for the past few years. The County is currently in contract negotiations for a new land records system and track index system, and the funds in the $2 account can be utilized for these projects.
   Action: MOTION / SECOND BY PLAZA / JENSEN TO UTILIZE THE FUNDS IN THE “$2” ACCOUNT FOR THE REGISTER OF DEEDS NEW TRACT INDEX SYSTEM (NOT TO EXCEED $145,000) AND THE NEW LAND RECORDS SYSTEM (NOT TO EXCEED $350,000). MOTION CARRIED BY VOICE VOTE, NO DISSENT.
   Follow Through: None.

4. **Marathon County Uniform Addressing Project Update – Rebecca Frisch**
   Discussion: Discussion highlights included:
   ⇒ Contract negotiation in progress
   ⇒ Physical Implementation to begin in 2018
   ⇒ $1.2 million will be funded thru Marathon County Environmental Impact Fund (EIF)
   ⇒ Timeline was reviewed
     o Library staff will help out general public with questions
     o CPZ staff assigning new six digit numbers and addresses
     o CPZ continues to work with Sheriff’s Dept. with integration of addressing into new 911 system
   ⇒ Huge undertaking with applying new system to the existing conditions
   Action: NONE, FOR INFORMATIONAL PURPOSES.
   Follow Through: None.

5. **2018 Wisconsin Land Information Program (WLIP) Strategic Initiative Grant and Training Grant**
   Discussion: Hetzer recently received the information for the 2018 grants, which are due 12/31/17. The 2017 Strategic Initiative Grant paid for remonumentation efforts in the Town of Norrie and the Town of Elderon and to continue to move forward with remonumentation in Marathon County, Hetzer is recommending that the 2018 $50,000 Strategic Initiative Grant funds be used for further remonumentation. Approximately 6,000 corners are completed, with approximately 2,000 remaining.
   Action: MOTION / SECOND BY STRATZ / FIERI TO APPROVE THE WISCONSIN LAND INFORMATION PROGRAM (WLIP) 2018 TRAINING & EDUCATION GRANT APPLICATION AND THE 2018 STRATEGIC INITIATIVE GRANT APPLICATION FOR REMONUMENTATION EFFORTS AND FORWARD THE APPLICATIONS TO THE WISCONSIN DEPARTMENT OF ADMINISTRATION FOR ITS CONSIDERATION. MOTION CARRIED BY VOICE VOTE, NO DISSENT.
   Follow Through: The grant applications will be submitted to the WisDOA for its consideration.
Marathon County
Land Information Council (LIC)
October 19, 2017

6. **Next meeting date:** to be determined
7. **Adjourn.**
   There being no further business to discuss, **MOTION / SECOND BY SEEFELDT / PLAZA TO ADJOURN THE MEETING AT 10:35 A.M.** **MOTION CARRIED BY VOICE VOTE, NO DISSENT.**

Submitted by:
Gary Hetzer
GIS Coordinator
October 19, 2017
GH/cek
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EXECUTIVE SUMMARY

Executive Summary

About this Document. This document is a land information plan for Marathon County prepared by the Land Information Officer (LIO) and the Land Information Council. By Wisconsin statute, “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. This plan is considered a living document and the county may amend the plan with updates or revisions as appropriate and approved by the Land Information Council.

WLIP Background. The WLIP, administered by the Wisconsin Department of Administration, is funded by document recording fees collected by Register of Deeds at the county-level. A portion of these fees are retained by the County to be used for local Land Records Modernization tasks. A portion of these fees are also sent to the State Department of Administration to be used to provide grants to assist with other Land Records modernization efforts. Beginning in 2016, WLIP Strategic Initiative grants became available and are projected to increase the county land information budget by $50,000 per year. The County has applied for this grant in 2016, 2017, 2018 and has received this grant funding those three years. These funds have been used to increase the accuracy of the Section Corners in the County by GPS data capture contracts which are used to increase the accuracy of parcel mapping. The County will again apply for this grant in 2019. The County also had $178,704 in 2017 Retained Fees to apply to Land Records Modernization.

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

Land Information in Marathon County. Land information is central to county operations and the 62 municipalities in Marathon County, as many essential services rely on accurate and up-to-date geospatial data and land records. A countywide land information system supports economic development, emergency planning and response, and a host of other citizen services. The Marathon County land information system integrates and enables efficient access to information that describes the physical characteristics of land, as well as the property boundaries and rights attributable to landowners.

Mission of the Land Information Office. In the next three years, Marathon County’s Land Information Office strives to be recognized for its exceptional web mapping site, gains in governmental efficiencies by broadening the utilization of a Geographic Information System (GIS), improvements in parcel mapping accuracy using survey accurate GPS Coordinates, assist with E911 to provide accurate response to emergencies, and provide responsiveness to meeting the land records needs of residents, businesses, and government agencies.

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

1. Assist with the development and implementation of a new/modern Land Records System including Document Tract Indexing
2. Strive to obtain 100% PLSS corner remonumentation with survey grade GPS coordinates for Benchmark 4
3. Achieve Searchable Format (Benchmarks V1, V2) for the Statewide Parcel Map Initiative

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

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

**The WLIP and the Land Information Plan Requirement**

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

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

Any grants received and fees retained for land information through the WLIP must be spent consistent with the county land information plan. The *Uniform Instructions for Preparing County Land Information Plans* are designed as a template, but leave flexibility as to how counties may choose to address the minimum plan components. The county is able to include 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 made funding available to counties in the form of Strategic Initiative grants to be prioritized for the purposes of parcel/tax roll dataset improvement.

For Strategic Initiative grant eligibility, counties are required to apply WLIP funding toward achieving certain statewide objectives, specified in the form of “benchmarks.” Benchmarks for parcel data—standards or achievement levels on data quality or completeness—were determined through a participatory planning process. Current benchmarks are detailed in the WLIP grant application, as will be future benchmarks.

**WLIP Benchmarks (For 2016-2018 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 Marathon County is meeting these benchmarks appears in the Foundational Elements section of this plan document.

County Land Information System History and Context

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

Plan Participants and Contact Information

Another requirement for participation in the WLIP is the county land information council, established by legislation in 2010. The council is tasked with reviewing the priorities, needs, policies, and expenditures of a land information office and advising the county on matters affecting that office. According to s. 59.72(3m), Wis. Stats., the county land information council is to include:
- Register of Deeds – Dean Stratz
- Treasurer – Audrey Jensen
- Real Property Lister or designee – Vacant
- Member of the county board – Randy Fifrick
- Representative of the land information office – Gary Hetzer LIO/GIS Coordinator
- A realtor or member of the Realtors Association employed within the county – Scott Williams
- Public safety – Jason Plaza
- County Surveyor – Christopher Fieri
- CCIT Director – Gerard Klein

The Land Information Council must have a role in the development of the County Land Information Plan, and the DOA requires County Land Information Councils to approve final plans. A record documenting county Land Information Council approval should be included in the final submission of the plan to DOA. County board approval of plans is encouraged but not required.

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

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

County Land Information Council and Plan Workgroup

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Affiliation</th>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Gary Hetzer</td>
<td>GIS Coordinator</td>
<td>Marathon County</td>
<td><a href="mailto:gary.hetzer@co.marathon.wi.us">gary.hetzer@co.marathon.wi.us</a></td>
<td>715-261-6041</td>
</tr>
<tr>
<td>*Audrey Jensen</td>
<td>Treasurer</td>
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<td><a href="mailto:audrey.jensen@co.marathon.wi.us">audrey.jensen@co.marathon.wi.us</a></td>
<td>715-261-1156</td>
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<tr>
<td>*Vacant – To be filled</td>
<td>Real Property Lister</td>
<td>Marathon County</td>
<td>To-be-filled</td>
<td>715-261-1150</td>
</tr>
<tr>
<td>*Randy Fifrick</td>
<td>County Board Member</td>
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<td><a href="mailto:randy.fifrick@co.marathon.wi.us">randy.fifrick@co.marathon.wi.us</a></td>
<td>920-286-2119</td>
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<td>*Dean Stratz</td>
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<tr>
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<td>715-261-6025</td>
</tr>
<tr>
<td>*Gerard Klein</td>
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<td><a href="mailto:gerard.klein@co.marathon.wi.us">gerard.klein@co.marathon.wi.us</a></td>
<td>715-261-6701</td>
</tr>
</tbody>
</table>

* Land Information Council Members designated by asterisk
Counties must have a land information plan that addresses development of specific datasets or map layer groupings historically referred to as the WLIP Foundational Elements. Foundational Elements incorporate nationally-recognized “Framework Data” elements, the major map data themes that serve as the backbone required by users to conduct most mapping and geospatial analysis.

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

The list of WLIP’s Foundational Elements has evolved with each update of the county land information plan instructions. They are a guideline of what counties need to address in their plans at a minimum. As the list of layers in this document is not exhaustive, counties are welcome to insert additional layers for geospatial data categories stewarded by the county or municipalities that are of importance to local business needs.

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

#### Public Land Survey System Monuments

##### Layer Status

<table>
<thead>
<tr>
<th>PLSS Layer Status</th>
<th>Status/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of PLSS corners (section, ¼, meander) set in original government survey that can be remonumented in your county</td>
<td>4937</td>
</tr>
<tr>
<td>Number and percent of PLSS corners capable of being remonumented in your county that have been remonumented</td>
<td>4810 = 98%</td>
</tr>
<tr>
<td>Number and percent of remonumented PLSS corners with survey grade coordinates (see below for definition)</td>
<td>Survey Grade = 3831 = 78% Approximate = 1106 =22% The accuracies of these corners are unknown as they were developed from other mapping such as USGS Quad Maps.</td>
</tr>
<tr>
<td>Number of PLSS corners set in original government survey that can be remonumented in your county</td>
<td>4937</td>
</tr>
<tr>
<td>Number and percent of remonumented PLSS corners along each county boundary with survey grade coordinates</td>
<td>219 = 66%</td>
</tr>
<tr>
<td>Number of survey grade PLSS corners integrated into county digital parcel layer</td>
<td>2611 = 53%</td>
</tr>
<tr>
<td>Number of non-survey grade PLSS corners integrated into county digital parcel layer</td>
<td>2326 = 47%</td>
</tr>
<tr>
<td>Percentage of remonumented PLSS corners with survey grade coordinates and a corresponding URL path/hyperlink value in the PLSS geodatabase</td>
<td>0% No URL information is currently in our geodatabase.</td>
</tr>
<tr>
<td>PLSS corners believed to be remonumented based on filed tie-sheets or surveys, but do not have coordinate values</td>
<td>All corners have some kind of coordinate value. Survey or Estimate</td>
</tr>
<tr>
<td>Approximate number of PLSS corners believed to be lost or obliterated</td>
<td>Unknown</td>
</tr>
<tr>
<td>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)?</td>
<td>The Marathon County Corner Numbering System. The grid number system can be seen at the Marathon County Surveyor Web Page.</td>
</tr>
<tr>
<td>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?</td>
<td>NO</td>
</tr>
<tr>
<td>Total number of PLSS corners along each bordering county</td>
<td>336</td>
</tr>
<tr>
<td>Number and percent of PLSS corners remonumented along each county boundary</td>
<td>330 = 98%</td>
</tr>
<tr>
<td>Number and percent of remonumented PLSS corners along each county boundary with survey grade coordinates</td>
<td>219 = 66%</td>
</tr>
<tr>
<td>In what ways does your county collaborate with or plan to collaborate with neighboring counties for PLSS updates on shared county borders?</td>
<td>Tie Sheets are currently exchanged between all eight bordering counties.</td>
</tr>
</tbody>
</table>

### Custodian

- Marathon County Surveyor in the Conservation, Planning, and Zoning Department

### Maintenance

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

### Standards

- Statutory Standards for PLSS Corner Remonumentation
- s. 59.74, Wis. Stats. Perpetuation of section corners, landmarks.
- s. 60.84, Wis. Stats. Monuments.
- 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**
*e.g., HARN, Height Mod., etc.*

**Layer Status**
- Marathon County does not have/maintain other Control Layers.

---

**Parcel Mapping**

**Parcel Geometries**

**Layer Status**

- **Progress toward completion/maintenance phase:**
  - 100% county-wide completion at the Parcel Index level. There are approximately 81,000 parcels.
  - The completion of the Index Parcel dataset meets the Statewide Parcel Map Database Project for Benchmark 3.
  - Parcel geometries are a mix of GPS accurate section corner control and estimated section corner control. See Project Plan for PLSS (Benchmark 4) for future activities.
  - Parcel data is available in a commonly-used GIS format such as ESRI Shapefiles.
  - The data is maintained in the Marathon County Coordinate System projection.
  - Parcel polygons can be directly integrated with tax/assessment data via the PIN field.
  - The future plan is to implement the ESRI Parcel Fabric Data Model.

- **Projection and coordinate system:** Marathon County Coordinate System as indicated in the State Cartographers’s Office publication “Wisconsin Coordinate Reference Systems Second Edition Page 60.

- **Integration of tax data with parcel polygons:** The County does have a parcel polygon model that directly integrates tax/assessment data as parcel attributes via the PIN item.

- **Esri Parcel Fabric/LGIM Data Model:** The county does not use or plan to implement the Esri Parcel Fabric Data Model, and/or Esri’s Local Government Information Model.

- **Online Parcel Viewer Software/App and Vendor name:** The Online mapping application currently used is Latitude Geographics GeoCortex technology utilizing ESRI ArcGis Server technology on Windows Servers maintained in-house.

- **Unique URL path for each parcel record:** Not at this time. We will have one with the new Land Record System.

**Custodian**
- The GIS Technician at the County Treasurer Office with support from County GIS Coordinator/LIO.

**Maintenance**

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

**Standards**

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

**Assessment/Tax Roll Data**

**Layer Status**
- Progress toward completion/maintenance phase: NA
- Tax Roll Software/App and Vendor name: Custom AS-400 Built In-House
- Municipal Notes: NA

**Custodian**
- County Treasurer Office and local assessors

**Maintenance**
- **Maintenance of the Searchable Format standard**: The County produces the DOR XML File that is then reformatted to work with parcel geometries with the GIS tool provided by the SCO for submission to the Statewide Parcel Map Initiative.
- **Searchable Format Workflow**: The County maintains parcel/tax roll data in such a way that requires significant formatting every year—County staff in-house. The DOR XML file is utilized.
- **Standards**: Wisconsin Department of Revenue Property Assessment Manual and attendant DOR standards

**Non-Assessment/Tax Information Tied to Parcels**

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

**Custodian**
- Conservation, Planning, and Zoning Department

**Maintenance**
- As time allows

**Standards**
- County Standards per ordinances and state requirements

**ROD Real Estate Document Indexing and Imaging**

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

<table>
<thead>
<tr>
<th>Media Types</th>
<th>Documents Recorded</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deed Books</td>
<td>648,784</td>
<td>1853 – 1966</td>
</tr>
<tr>
<td>Record Books</td>
<td>74,116</td>
<td>1966 – 1973</td>
</tr>
<tr>
<td>Imaged Documents</td>
<td>637074</td>
<td>1997 – Present (2017)</td>
</tr>
<tr>
<td>------------------</td>
<td>--------</td>
<td>----------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total of digital Real Estate Records</td>
<td>1,856,852</td>
<td>(all SS#’s redacted 1935 - present)</td>
</tr>
<tr>
<td>Corporations</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Lis Pendens</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

**Custodian**
- County Register of Deeds

**Maintenance**
- Maintained/updated daily as land record documents are recorded

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

**LiDAR and Other Elevation Data**

**LiDAR**

**Layer Status**
- Most recent acquisition year: 2012 spring leaf off data was captured to develop contours at two foot intervals.
- Accuracy: 0.5 m RMSE elevation
- Post spacing: 1.4 m
- Contractor’s standard, etc.: FEMA Specifications for development of 2 Foot Contours.
- Next planned acquisition year: N/A

**Custodian**
- Conservation, Planning, and Zoning Department

**Maintenance**
- No Maintenance Planned

**Standards**
- Data was captured to meet FEMA floodplain mapping standards for 2’ contours

**LiDAR Derivatives**
- e.g., Bare-Earth Digital Terrain Model (DTM), Bare-Earth Elevation Contours, Bare-Earth Digital Elevation Model (DEM), Digital Surface Model (DSM), etc.

**Layer Status**
- 2012 LiDAR datasets include DTM, DEM, DSM, Intensity Images, and LAS files along with 2’ contours have been captured

**Custodian**
- Conservation, Planning, and Zoning Department

**Maintenance**
- No maintenance required

**Standards**
- Data was captured to meet FEMA floodplain mapping standards for 2’ contours
Other Types of Elevation Data
Layer Status
- 247 Benchmark elevations at bridges and other locations around the County from 2000 and 2004 projects have been captured using GPS and are available to the public at the County Surveyor Office.

Custodian
- Marathon County Surveyor in the Conservation, Planning, and Zoning Department

Maintenance
- No maintenance being performed on these datasets

Standards
- FGCS 3rd order vertical accuracy

Orthoimagery
Layer Status
- Most recent acquisition year: 2015
- Resolution: 1 foot pixel.
- Next planned acquisition year: 2020
- WROC participation in 2020: Confirmed participating in WROC 2020

Custodian
- Conservation, Planning, and Zoning Department

Maintenance
- Conservation, Planning, and Zoning Department

Standards
- National Mapping standards for 200’ scale mapping.

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

Custodian
- Conservation, Planning, and Zoning Department

Maintenance
- No maintenance required.

Standards
- National Mapping standards for 200’ scale mapping.

Other Types of Imagery
e.g., Oblique Imagery, Satellite Imagery, Infra-red, etc.
Layer Status
- N/A

Custodian
- N/A

Maintenance
- N/A
Standards
- N/A

### Address Points and Street Centerlines

#### Address Point Data

**Layer Status**
- County-wide address point data is complete

**Custodian**
- Conservation, Planning, and Zoning Department

**Maintenance**
- The GIS Specialist maintains/updates address points as needed. New address added, old deleted

**Standards**
- Addresses are added per county address grids and address location requests utilizing the most current Address Application Form Drawings, Orthoimagery or Parcel locations.

#### Building Footprints

**Layer Status**
- Building footprint polygons are completed from 2015 Orthophotography data capture

**Custodian**
- Conservation, Planning, and Zoning Department

**Maintenance**
- Building footprints are only captured after a Orthophoto flight

**Standards**
- National Mapping standards for 200’ scale mapping

#### Other Types of Address Information
e.g., Address Ranges

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

**Custodian**
- Conservation, Planning, and Zoning Department

**Maintenance**
- Updated as needed

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

#### Street Centerlines

**Layer Status**
- Complete County-wide including address range information.

**Custodian**
- Conservation, Planning, and Zoning Department

**Maintenance**
- Updated as needed
Standards
  • National Mapping standards for 200’ scale mapping for positions

Rights of Way
Layer Status
  • Complete County-wide as a part of the Index Parcel Layer

Custodian
  • County Treasurer Office

Maintenance
  • Updated as needed

Standards
  • Mapped using Index Parcel Layer

Trails
  e.g., Recreational Trails
Layer Status
  • Forest Trails, Snowmobile Trails, Mountain Bay Trail

Custodian
  • County Parks, Recreation, and Forestry Department

Maintenance
  • Updated as needed. Data capture using GPS and Orthophotography

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

Land Use

Current Land Use
Layer Status
  • County-wide Current Land Use layers have been captured from Orthophotography for the years 1990, 2000, 2008, and 2010

Custodian
  • Conservation, Planning, and Zoning Department

Maintenance
  • Maintenance/updates occur with Orthophotography flights as time allows.

Standards
  • Generalize land use classifications were developed in house.

Future Land Use
Layer Status
  • Future Land Use data, county-wide, was created for the Comprehensive Plans developed in 2006

Custodian
  • Conservation, Planning, and Zoning Department

Maintenance
  • No maintenance has been done at this time. The data still reflects Future Land Use developed from 2006

Standards
  • s. 66.1001, Wis. Stats. Comprehensive Planning.
Zoning

**County General Zoning**

Layer Status
- The County *does* maintain a GIS representation of county general zoning boundaries. There are currently 18 Towns under the County Zoning Ordinance, 14 Towns with Independent Zoning and 8 Towns with no Zoning.

Custodian
- Conservation, Planning, and Zoning Department

Maintenance
- As needed when property zoning changes. The County GIS maintains zoning layer data for both County Zoned and Independently Zoned Towns.

Standards
- Mapped using the Index Parcel Layer

**Shoreland Zoning**

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

Custodian
- Conservation, Planning, and Zoning Department

Maintenance
- Conservation, Planning, and Zoning Department

Standards
- WIDNR Hydro data was utilized for development of the 1000’/300’ areas

**Farmland Preservation Zoning**

Layer Status
- The County does maintain a GIS representation of county farmland preservation zoning boundaries
- Year of certification: 2014. Updates for re-zones to 2016 yearend have been submitted to DATCP at this time.

Custodian
- Conservation, Planning, and Zoning Department

Maintenance
- This data is now maintained in the County General Zoning Layer

Standards
- Mapped using the Index Parcel Layer
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
- FEMA
- WIDNR

Maintenance
- FEMA

Standards
- FEMA Standards

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

Custodian
- Conservation, Planning, and Zoning Department

Maintenance
- Data originated from the Wisconsin Bureau of Aeronatics

Standards
- Unknown

Municipal Zoning Information Maintained by the County
Layer Status
- There are 14 Towns with Independent Zoning. The County maintains mapping.
  - Brighton
  - Easton
  - Eau Pleine
  - Elderon
  - Frankfort
  - Green Valley
  - Guenther
  - Hewitt
  - Holton
  - Hull
  - Knowlton
  - Marathon
  - Mcmillan
  - Plover
  - Reid
  - Spencer

Custodian
- Conservation, Planning, and Zoning Department

Maintenance
- Conservation, Planning, and Zoning Department maintains mapping.
Standards
- Mapped using the Index Parcel Layer

Administrative Boundaries

Civil Division Boundaries
e.g., Towns, City, Villages, etc.
Layer Status
- All County Municipal Boundary polygons are mapped
Custodian
- Conservation, Planning, and Zoning Department
Maintenance
- Maintained per parcel data and annexations
Standards
- Mapped using the Index Parcel Layer

School Districts
Layer Status
- Progress toward completion/maintenance phase: County-wide polygon School Districts are complete. School Location Sites are complete
- Relation to parcels: Land Records Assessment Parcel Tax District is linked to Parcel Geometries
Custodian
- Conservation, Planning, and Zoning Department with the County Treasurer Office
Maintenance
- Very little maintenance is required. Updated as needed for School Locations.
Standards
- Mapped using the Index Parcel Layer

Election Boundaries
e.g., Voting Districts, Precincts, Wards, Polling Places, etc.
Layer Status
- County Supervisor District Areas, Voting Wards, Voting Places are mapped County-wide
Custodian
- Conservation, Planning, and Zoning Department with the County Clerk
Maintenance
- Updated as needed when annexations occur
Standards
- Mapped using the Index Parcel Layer

Utility Districts
e.g., Water, Sanitary, Electric, etc.
Layer Status
- Sanitary Districts and Metropolitan Sewer Service Areas are mapped
Custodian
- Conservation, Planning, and Zoning Department with County Treasurer
Maintenance
- As needed
Standards
- Sanitary Districts are mapped using the Index Parcel Layer for Sanitary taxing districts. Sewer Service Areas are mapped per the 2025 Plan Area specifications.
Public Safety

e.g., Fire/Police Districts, Emergency Service Districts, 911 Call Center Service Areas, Public Safety Answering Points, Healthcare Facilities

Layer Status
- Police, Fire, EMS, and First Responder Areas are complete
- 911 Response Grids are complete
- Hospitals, Clinics, Churches, Libraries, Town Halls, Police and Fire Departments, and Ambulance locations are mapped

Custodian
- Conservation, Planning, and Zoning Department with the Sheriff Department

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

Standards
- Mixed standards per originating data

Lake Districts

Layer Status
- Taxing Lake Districts are mapped

Custodian
- Conservation, Planning, and Zoning Department with the County Treasurer

Maintenance
- As needed

Standards
- Mapped using the Index Parcel data for Lake Districts from Land Records Information

Native American Lands

Layer Status
- n/a

Custodian
- n/a

Maintenance
- n/a

Standards
- n/a

Other Administrative Districts

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

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

Custodian
- Conservation, Planning, and Zoning Department with the County Parks, Rec and Forestry Department

Maintenance
- As needed per parcel changes

Standards
- Mapped using the Index Parcel

Other Layers

Hydrography Maintained by County or Value-Added
Layer Status
- Hydrography mapped per Orthophotography per product year
- The County also has a copy WIDNR Hydro dataset

Custodian
- Conservation, Planning, and Zoning Department

Maintenance
- Per five year flight cycle

Standards
- National Mapping standards for 200’ scale mapping

Cell Phone Towers
Layer Status
- Cell Tower locations have been mapped from FCC data and local address requests

Custodian
- Conservation, Planning, and Zoning department

Maintenance
- As needed

Standards
- Mapped using address locations as well as Orthophotography

Bridges and Culverts
Layer Status
- County Bridges and Culverts have been mapped

Custodian
- Conservation, Planning, and Zoning Department with the County Highway Department

Maintenance
- As needed

Standards
- 200’ mapping scale Orthophotography data collection intermixed with 1 meter gps collection

Other
e.g., Pipelines, Railroads, Non-Metallic Mining, Sinkholes, Manure Storage Facilities, etc.
Layer Status
- Active and Abandoned Railroads are mapped
- Permitted Non-Metallic Mining areas are mapped
- Public Access to Water Resources
- Church Locations
- Cemeteries
- Libraries

Custodian
- Conservation, Planning, and Zoning Department

Maintenance
- As needed

Standards
- Sub-meter GPS data collection, 200’ scale Ortho Imagery data capture, Addresses
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**

This section features a diagram that documents Marathon County’s land information system and/or the various inter-organizational workflows it encompasses.

A diagram (figure 1) of the county land information system includes the following offices involved with the creation and maintenance of land information:

- Land Information Officer/GIS
- Register of Deeds
- Treasurer
- Real Property Lister
- GIS Technician
- County Clerk
- Sheriff/911
- County surveyor
- Conservation Planning & Zoning
- Parks Recreation & Forestry
- Health Department
- County Highway
- County-City Information Technology Commission

**County Parcel Data Workflow Diagram**

This section features a diagram (figure 2) that documents Marathon County’s parcel mapping and tax roll process. The purpose of the parcel workflow is for WLIP staff and other readers to better understand the various aspects of parcel data creation and maintenance, which greatly vary from county to county.

The workflow diagram for parcel data depicts:

- Major components of parcel data, especially those referenced by s. 59.72(2)(a), including: 1) parcel polygons, 2) tax roll data, and 3) zoning information
- Departments/offices/staff involved with the creation and maintenance of parcel data
Figure 1 Marathon County Land Information System
County Parcel Data Workflow Diagram

Register of Deeds
- Records real estate docs
- Mandated fees sent to the State
- Codes documents into Laserfiche Document Imaging
- Creates grantor/grantee and tract indices in TriMin Desktop Software

Municipalities/Local Assessors
- Update property values

State
- DOR – Equalized assessment values, Property tax credits
- DNR – Managed Forest Lands Values

Real Property Lister
- Creates new/updates parcels in tax database in AS400 Land Records System
- Assigns unique parcel ID
- Finalizes Tax Roll

Surveyor
- PLSS and other geodetic control
- Plats of Survey
- Land Division Review

Zoning Administrator
- County General Zoning
- County Shore Land Zoning
- Land Division Review

GIS Tech
- Maintains parcel geometries
- Includes PIN field for Land Records connector using ESRI Mapping Software

Land Information Officer
- Submits parcel polygons + tax roll data + zoning information to DOA

Treasurer
- Tax deeds
- Prints property owner tax bills from custom in house IBM AS400 software application. Provide to municipalities
- Assessment Data

DOA
Assembles Statewide Parcel Layer from Data

Municipalities
Mail Tax Bills

Figure 2 Marathon County
Parcel + Tax Roll + Zoning Workflow
Technology Architecture and Database Design
This section refers to the hardware, software, and systems that the county uses to develop and operate computer systems and communication networks for the transmission of land information data.

Marathon County utilizes Environmental Systems Research Institute’s (ESRI) GIS software products on Windows Desktop PCs and Windows Servers. Land Records tabular data resides on IBM iSeries AS-400 Servers utilizing an in house custom developed interface. Hardware, software and all networking are managed by the City-County IT Commission (CCITC). Online applications served to the public such as; the County Web Site, Online access to Land Records, and Online Mapping are managed by the CCITC. The Online Land Records application was developed in house by CCITC. The Online Land Records application has both a public access point and a subscription access point depending on the type of data needed. The Register of Deeds Document Imaging system utilizes Laserfiche technology and the Tract Index System is a product of TriMin Systems. The Register of Deeds web based records look up application is accessed via LandShark. The Online mapping application currently used is Latitude Geographics GeoCortex technology utilizing ESRI ArcGis Server technology on Windows Servers.

Hardware
- Hardware includes IBM iSeries Hosted in the Cloud and Windows Servers hosted at CCITC.

Software
- Custom AS-400 Land Records Application built in-house
- MS SQL Software Applications on Windows Servers hosted in-house via contracted vendors.

Website Development/Hosting
- Land Records Web based application developed and hosted in-house
- Web based Register of Deeds applications developed by vendor and hosted in-house
- Web Mapping applications utilizing Latitude GeoCoretex Technology and hosted in-house

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

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

Public Access and Website Information (URLs)

<table>
<thead>
<tr>
<th>GIS Webmapping Application(s)</th>
<th>GIS Download Link - URL</th>
<th>Real Property Lister Link - URL</th>
<th>Register of Deeds Link - URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link - URL</td>
<td>Link - URL</td>
<td>Link - URL</td>
<td>Link - URL</td>
</tr>
</tbody>
</table>

Data Sharing

Data Availability to Public

Data Sharing Policy

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

Open Records Compliance

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

Data Sharing Restrictions and Government-to-Government Data Sharing

Data Sharing Restrictions

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

Government-to-Government Data Sharing

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

Training and Education

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

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

Figure 1. The WLIP Land Information Plan/Grant Project Cycle
**Project Plan for PLSS (Benchmark 4)**

**Project Title:** Project Plan for PLSS (Benchmark 4)

**Project Description/Goal**

**Planned Approach**

- Acquire *survey-grade* coordinates for PLSS corners to integrate corners into the parcel fabric. Due to the time and costs to capture survey-grade coordinates, a substantial number of lower-quality coordinates are being used to build the current Index Parcel mapping. The Marathon County Surveyor staff will be capturing corners as time allows. Request for Proposals (RFP) will be issued beginning the first part of 2019 for this project, with yearly RFPs to follow to aid in project completion as long as funding comes available. This project is extremely dependent on the WLIP Strategic Initiative Grant funding to complete.

**Current Status**

- Current status of PLSS data in the county is:
  - 4937 total number of section corners and quarter corners.
  - The remonumentation status is 98% completed.
  - 3831 (78%) corners have survey grade coordinates.
  - 2611 (53%) corners have been integrated into the current parcel data.

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

- Currently the Surveying community can get to digital tie sheets, section summaries, plats of survey, and benchmarks via the Marathon County Surveyor webpage.

**Goals**

- This will be a project extended over a number of years as funding becomes available. The intent is to have project completion by the end of 2020. Capture the remaining corners with survey-grade coordinates including remonumenting and/or rediscovering those corners that may be missing. These survey-grade corners will be used to adjust the current Index Parcel data as these corners are captured.

- **Number of corners to be remonumented and/or rediscovered:** 80. Some may never be remonumented due to conditions and/or needs.

- **Number to have new coordinates established:** 1106 corners need new coordinates established

- **Accuracy class for these new coordinates:** Survey-grade

- **Way in which these points will be integrated into the parcel fabric:** As townships are completed new PLSS linework will be generated and the parcels will be reworked/adjusted to this new PLSS linework.

**Missing Corner Notes**

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

**County Boundary Collaboration**

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

**Business Drivers**

- The Project Plan for PLSS is a requirement for those counties who utilize Strategic Initiative funds for work related to PLSS completion and integration.

**Others**
Objectives/Measure of Success

- The objective is to meet Benchmark 4 (Completion and Integration of PLSS) of the Statewide Parcel Map Database Project by December 2021.
- When a township of GPS section corners is complete that township of section corners will be provided for the Parcel Mapping Adjustment process.

Project Timeframes

This timeframe is dependent on funding for the next project area using Strategic Initiative Grants. The project timeframe below indicates the 2019 Strategic Initiative Grant funding request. Vendor contracts have been averaging 150 corners and the County Surveyor internal work has been averaging another 125 corners per year.

<table>
<thead>
<tr>
<th>Timeline – Project Plan for PLSS <strong>Example</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Milestone</strong></td>
</tr>
<tr>
<td>Project start</td>
</tr>
<tr>
<td>Hire contractor</td>
</tr>
<tr>
<td>Contractor remonumentation</td>
</tr>
<tr>
<td>Project complete</td>
</tr>
</tbody>
</table>

Responsible Parties

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

Estimated Budget Information

- $300,000 for the total remaining county-wide Corner capture project depending on RFP responses and the Marathon County Surveyor internal work.

Project Plan for Land Records System Replacement

Project Description/Goal

Replacement of the current 20+ year old in-house custom developed Land Records Unix based IBM iSeries system, used by a multitude of departments/entities, to a modern Windows Server SQL Land Records database system including Tract Indexing System.

Business Drivers

- System uses outdated data entry practices
- Programmers for the vintage system are not easily replaced
- Increase efficiency of Land Records and Assessment information data entry
- Increase efficiency of Zoning programs with permits and zoning
- Increase efficiency of Conservation programs like Farmland Preservation and Nutrient Management
- Increase ease of data export and reporting
• Increase ease of connection to GIS parcel datasets

**Objectives/Measure of Success**
New system should perform at least 90% of current functions
100% data conversion from old to new
100% of Departments Buy-in to new system

**Project Timeframes**

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Date</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requests for Proposals</td>
<td>2017</td>
<td></td>
</tr>
<tr>
<td>Vendor Selection</td>
<td>March 2018</td>
<td></td>
</tr>
<tr>
<td>Completion</td>
<td>December 31, 2020</td>
<td></td>
</tr>
</tbody>
</table>

**Responsible Parties**
City County IT Commission staff, Conservation Planning and Zoning staff, County Treasurer staff, Register of Deeds staff, Vendors/Consultants, County Administration

**Estimated Budget Information**
$600,000

**Project Plan for Orthoimagery**

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

**Business Drivers**
- County GIS business data needs updating for current analysis of features.
- Increase efficiency of Zoning Department with permit determination.
- Keep public access information updated.
- Most County Departments are now relying on Orthoimagery as well as 911.

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

**Project Timeframes**

<table>
<thead>
<tr>
<th>Timeline – Project #1 Title</th>
<th>Duration</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project #1 start</td>
<td></td>
<td>Fall 2019</td>
</tr>
<tr>
<td>Contract with vendors</td>
<td></td>
<td>Fall 2019</td>
</tr>
<tr>
<td>Spring 2020 leaf off flight</td>
<td>-</td>
<td>March-April 2020</td>
</tr>
<tr>
<td>QA/QC</td>
<td></td>
<td>Summer-Fall 2020</td>
</tr>
</tbody>
</table>
Responsible Parties
• GIS Coordinator and Conservation, Planning and Zoning Department

Estimated Budget Information
• $150,000

Other Possible Projects
• Development and implementation of the new Marathon County Addressing System.
• Upgrade Address & Road Centerline data for NENA NextGen 911.
• Adjustment of current Index Parcel Map Layer using new GPS Survey Grade Section Corners.
• Expansion of the use of mobile GPS/GIS technology including both hardware and software.
• Improve website development for access to new Land Records System and Mapping, including mobile access.
• Assist with the 2020 Census and Redistricting Project.

Ongoing Costs Not Associated with a Specific Project
Current ongoing costs include:
• Funding the LIO/GIS Coordinator position.
• Funding to capture additional PLSS Survey Grade Section Corners by County Surveyor.
• Software maintenance costs for the new Land Records System.

Completed Projects since the last Plan Update
• Achieve Searchable Format (Benchmarks 1 & 2) for State-wide Parcel Initiative.
• Orthophotography Projects have been completed county-wide for spring 2010 and spring 2015
• LiDAR elevation data capture was completed in the spring of 2012 with 2’ Contours, DTM, DEMs and LAS data being received.
• A new web mapping interface has been created using Latitude Geographics GeoCortex technology
• 2010 Redistricting project was completed using Census 2010 data.
• Agricultural Enterprise Areas (AEA) have been completed for Antigo Flats and Heart of America’s Dairyland
• Social Security Number Redaction in the Register of Deeds is complete.
Estimated Budget Information (All Projects)

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Item</th>
<th>Unit Cost/Cost</th>
<th>Land Info Plan Citations Page # or section ref</th>
<th>Project Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) PLSS (Benchmark 4)</td>
<td>Surveyor Contractor</td>
<td>Per year at $275 per corner from $50,000 grants or internal work</td>
<td>Pages 7, 25</td>
<td>$305,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Land Records System &amp; Tract Index System Replacement</td>
<td>Contracted Software Vendor</td>
<td>$600,000</td>
<td>Pages 9, 22, 26</td>
<td>$600,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Orthoimagery &amp; Planimetric Data</td>
<td>Contracted Vendor</td>
<td>$150,000</td>
<td>Pages 11, 27</td>
<td>$150,000</td>
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<tr>
<td></td>
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<tr>
<td><strong>GRAND TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>1,050,000</strong></td>
</tr>
</tbody>
</table>

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