

DRAFT

Dodge County Land Information Plan 2025-2027



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Version: 2024-07-18

Approved/Adopted by the Dodge County Land Information Council on: 2024-**-**

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EXECUTIVE SUMMARY

About this Document. This document is a land information plan for Dodge County prepared by the land information officer (LIO) and the Dodge County land information council. Under state statute 59.72(3)(b), a “**countywide plan for land records modernization**” is required for participation in the Wisconsin Land Information Program (WLIP). The purpose of this document is twofold: 1) to meet WLIP funding eligibility requirements necessary for receiving grants and retaining fees for land information, and 2) to plan for county land records modernization in order to improve the efficiency of government and provide improved government services to businesses and county residents.

WLIP Background. The WLIP, administered by the Wisconsin Department of Administration, is funded by document recording fees collected by register of deeds at the county-level. In 2023, Dodge County was awarded \$71,000.00 in WLIP grants and retained a total of \$84,200.00 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 only.

Land Information in Dodge County. Land information is central to county operations, as many essential services rely on accurate and up-to-date geospatial data and land records. A countywide land information system supports economic development, emergency planning and response, and a host of other citizen services. The Dodge 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, Dodge County’s Land Information Office strives to be recognized for its exceptional web mapping site, gains in governmental efficiencies by broadening the utilization of GIS, improvements in parcel mapping accuracy, and responsiveness to meeting the land records needs of residents and businesses.

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

Dodge County Land Information Projects: 2025-2027	
Project Plan	Maintain Searchable Format (Benchmarks 1 & 2)
Project #1	Land Information Management System Maintenance
Project #2	Tax Parcel Mapping Improvement Project- Parcel Maintenance
Project #3	Point Address Management
Project #4	Support of Dodge County Sheriff’s Office (DCSO)
Project #5	GIS Web Mapping Tool Enhancements
Project #6	Imaging and Indexing of Permit Files for Code Administration
Project #7	GIS Support of Parks and Trails
Project #8	Mobile Field Data Collection
Project #9	Development & publication of Dodge County Plat Book
Project #10	Development of user specific GIS applications
Project #11	Support of Dodge County Emergency Management Office
Project #12	Participation in the WROC
Project #13	Aerial Drone
Project #14	NG911 Development
Project #15	NGS 2022 Datum Change

Project #16	Implementation and development of permit tracking application
Project #17	Back Indexing of Historical Documents
Project #18	Culvert Inventory from LiDAR and Derivative Datasets

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

1 INTRODUCTION

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

The WLIP and the Land Information Plan Requirement

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

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

LAND INFORMATION

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

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

– Wis. Stats. section 59.72(1)(a)

Any grants received and fees retained for land information through the WLIP must be spent consistent with the county land information plan.

The Statewide Parcel Map Initiative

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

WLIP Benchmarks

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

County Land Information System History and Context

In 1990, the Chairman of the Dodge County Board of Supervisors appointed the County Administrative Secretary and several department heads to serve on an ad hoc committee (informally referred to as the Land Information Office) to guide the direction of the land modernization effort in Dodge County. The membership included the County Administrative Secretary, Land Conservationist, County Surveyor, Highway Commissioner, IT Director, and Director Planning and Economic Development. The first Dodge

County Land Records Modernization Plan was prepared and submitted by this group to the Wisconsin Land Information Board (WLIB) in March 1992 for approval. Updated Plans have subsequently been developed and adopted by the Dodge County Board of Supervisors in 1999 (WLIB approval 09/15/1999), 2005 (DOA approval under the LIO Peer Review Process), 2010 (DOA approval under the LIO Peer Review Process) and 2015 (DOA approval under the LIO Peer Review Process).

To address the successful implementation and completion of the goals originally set forth in the 1992 Land Information Modernization and Integration Plan, the Dodge County Board of Supervisors created a Land Information Committee in March 1998 (Resolution 97-111). This committee was composed of five (5) members to “be responsible for land records modernization to promote and facilitate timely access to information, decisions based upon accurate information, and efficiency in government”. The committee’s primary goal was to oversee the establishment of an integrated, technologically sound, countywide land information system for Dodge County. This committee was a standing committee of the Dodge County Board of Supervisors.

In that same resolution, the Dodge County Board of Supervisors created the Land Information Department. This department was established to coordinate land information projects within the County, between the County and local government units, between the state and local government units, among local government units, the federal government and the private sector; assuming all responsibilities of the original Land Information Office established in 1992. In 2004, survey services and tax parcel mapping activities were assigned to the Land Information Department by County Board Resolution. The membership of the original Land Information Office served in an advisory role to the Land Information Committee as the Land Information Advisory Committee (LIAC). Voting members included Register of Deeds, Sheriff, Land Conservationist, Treasurer, Highway Commissioner, and Director Planning, Development and Parks. The list of non-voting member departments included IT, Emergency Management, UW-Extension and Land Information.

In March 2006, the Dodge County Board of Supervisors created the Land Resources and Parks Department (Resolution 05-97). The resolution reorganized and combined the activities of the Planning, Development & Parks Department, Land Information Department (with associated GIS, Survey and Tax Mapping responsibilities), and the Property Description Office. The new department was organized into four divisions: Code Administration, Planning and Economic Development, Parks and Trails, and Land Information (comprising all GIS Mapping and Services, Survey, Tax Mapping and Property Description).

In August 2018, the Dodge County Board of Supervisors approved a reorganization of the Department (Resolution 18-30) creating the positions of Manager of Land Information and GIS Administrator. The Land Information Officer currently serves as the Manager of Land Information and is the immediate supervisor of the Land Information Division.

County Land Information Plan Process

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

County Land Information Plan Timeline

- DOA release of finalized instructions by March 31, 2024.
- **April-September 2024:** Counties work on land info plans.
- **Complete draft plans due to DOA by September 30, 2024** (but sooner is advised).
- **Final plans with county land info council approval due by December 31st, 2024.**

Plan Participants and Contact Information

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

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

- 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 county LIO, the Dodge County Land Information Council, and others as listed below.

Dodge County Land Information Council and Plan Workgroup				
Name	Title	Affiliation	Email	Phone
+ Chris Planasch	Register of Deeds	Dodge County Register of Deeds Office	cplanasch@co.dodge.wi.us	920-386-3722
+ Kristina Keith	County Treasurer	Dodge County Treasurer's Office	kkeith@co.dodge.wi.us	920-386-3783
+ David Addison	Real Property Lister/Land Information Officer (LIO)	Land Resources and Parks Department	daddison@co.dodge.wi.us	920-386-3773
+ Jeff A. Breselow	District 6 Supervisor	County Board Member	district6@co.dodge.wi.us	920-382-8436
+ Daniel Siegmann	District 10 Supervisor	County Board Member	district10@co.dodge.wi.us	920-392-4406
+ Randy Vande Zande	District 26 Supervisor	County Board Member	district26@co.dodge.wi.us	920-557-1807
+ Dianne Bell	Realtor	Dodge County Realtors Association	dianneskibells@gmail.com	920-887-1773
+ Jeremy Grossman	Public Safety Officer (Communications Sergeant)	Dodge County Sheriff's Office	kgrossman@co.dodge.wi.us	920-386-3726
+ Brad Tisdale	Registered Professional Land Surveyor	MSA	btisdale@msa-ps.com	608-242-6614
Cameron Clapper	County Administrator	County Administrator	cclapper@co.dodge.wi.us	920-386-4251
Bill Ehlenbeck	Director of Land Resources and Parks (LRP)	Land Resources and Parks Department	behlenbeck@co.dodge.wi.us	920-386-3960
John Bohonek	County Conservationist	Land and Water Conservation Department	jbohonek@co.dodge.wi.us	920-386-3660
Brian Field	Highway Commissioner	Dodge County Highway Department	bfield@co.dodge.wi.us	920-386-3653
Jesse O'Neill	GIS Administrator	Land Resources and Parks Department	joneill@co.dodge.wi.us	920-386-3706
Nicole Hoepfner	GIS Property Analyst - Lead	Land Resources and Parks Department	nhoepfner@co.dodge.wi.us	920-386-3772
Kristy Frane	GIS Property Analyst	Land Resources and Parks Department	kfrane@co.dodge.wi.us	920-386-3710
Richard Leistikow	Survey Specialist	Land Resources and Parks Department	rleistikow@co.dodge.wi.us	920-386-3774
Joe Giebel	Code Administrator	Land Resources and Parks Department	jgiebel@co.dodge.wi.us	920-386-3711
Nate Olson	Community Development Administrator	Land Resources and Parks Department	nolson@co.dodge.wi.us	920-386-3948
Joseph M. Meagher	Director Emergency Management	Emergency Management Department	jmeagher@co.dodge.wi.us	920-386-3993

+ Land Information Council Members designated by the plus symbol

2 FOUNDATIONAL ELEMENTS

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

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

FOUNDATIONAL ELEMENTS

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

PLSS

Public Land Survey System Monuments

Layer Status

PLSS Layer Status

	Status/Comments
Number of PLSS corners (selection, ¼, meander) set in original government survey that can be remonumented in your county	<ul style="list-style-type: none"> • 2992 exterior corners and 115 meander corners totaling 3107 PLSS corners were set in the original government survey. • 895 centers of section could be determined from the original government survey (not original PLSS corners).
Number of PLSS corners capable of being remonumented in your county that have been remonumented	<ul style="list-style-type: none"> • 2867 of the 3107 PLSS corner locations have been established. • 133 of the corner locations not established are primarily located in the Horicon Marsh and submerged portions of Beaver Dam Lake and various other bodies of water. • 107 of the 115 meander corners have not been established in the "original" meander location, but most of the government survey lines have been established from other section corners. • 841 centers of section locations have been established but some are calculated with no monuments.
Number of remonumented PLSS corners with survey grade coordinates (see below for definition) <ul style="list-style-type: none"> • SURVEY GRADE – coordinates collected under the direction of a Professional Land Surveyor, in a coordinate system allowed by 236.18(2), and obtained by means, methods and equipment capable of repeatable 2 centimeter or better precision • SUB-METER – point precision of 1 meter or better • APPROXIMATE – point precision within 5 meters or coordinates derived from public records or other relevant information 	<ul style="list-style-type: none"> • 2867 are SURVEY GRADE
Number of survey grade PLSS corner coordinates integrated into county digital parcel layer. (see definition of PLSS integration on page 37)	<ul style="list-style-type: none"> • Dodge County has 2931 coordinates integrated into our county digital parcel layer. This number includes the 2867 PLSS corner locations as well as closing corner locations and other non-original government survey corners.
Number of non-survey grade PLSS corner coordinates integrated into county digital parcel layer	<ul style="list-style-type: none"> • 0
Tie sheets available online?	<ul style="list-style-type: none"> • Yes - SCO Survey Control Finder at https://maps.sco.wisc.edu/surveycontrolfinder/#7/44.731/-90.148/NGS,county,USGS,CORS/terrain • Also – Dodge County Website at https://geo2.co.dodge.wi.us/portal/apps/webappviewer/index.html?id=e21752029e4c458cb520c7a900a33920
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"> • 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"> • 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
Approximate number of PLSS corners believed to be lost or obliterated	<ul style="list-style-type: none"> • 240
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"> • Dodge County developed our own point ID numbering system in the early 1990's. Any point id corresponds to the congressional township and section that it appears in with sections to the north and west taking precedence over sections to the south and east. Each section will have a minimum of four points and sections 1-6 can have a maximum of six points, depending on the common corners with the section to the north. All point ids will be five digits in length with the first two digits corresponding to the congressional township. Digits three and four relate to the section number

	<p>and the fifth digit to the section corner. To commence numbering corners within a section, begin at the center of section, then to the south quarter corner, and then counterclockwise to the southeast corner and so on. Computed closing corners on the north of sections 1-6 will show a '9' in the third digit. This shows that the corner was computed to the south line of the town line to the north.</p> <ul style="list-style-type: none"> The system is very similar to the Romportl numbering system and we can run a conversion to that number.
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"> No
Total number of PLSS corners along each bordering county	<ul style="list-style-type: none"> 243 (Columbia, Dane, Fond du Lac, Green Lake, Jefferson, Washington and Waukesha Counties) covering approximately 121 miles and 580,650 acres.
Number of PLSS corners remonumented along each county boundary	<ul style="list-style-type: none"> 243
Number of remonumented PLSS corners along each county boundary with survey grade coordinates	<ul style="list-style-type: none"> 243

Custodian

- Dodge County Land Resources and Parks Department, Land Information Division, Survey Office

Maintenance

- State and County highway departments notify our office of upcoming highway projects that may disturb, damage, or destroy corner monuments. Townships are contacted yearly to find out what roads they plan to maintain and indicate which corners may be destroyed. This program has been very successful in obtaining locations of damaged or destroyed corners located in the right of way (R/W). These corners are added to our maintenance list.
- Local surveyors, county staff and landowners often notify our office of PLSS monuments that have been disturbed or are in need of maintenance. These corners are added to our maintenance list.
- Historically, Dodge County has tried to make field inspections of off-road PLSS corners once every 30 years and those located within highway R/W once every 10 years. Currently field inspections are made as deemed necessary or when we are made aware of corners requiring maintenance.
- Field inspection involves checking for correct location of monument, condition of monument and accessories, and proper signage.
- New tie sheets are appended to the original tie sheet to maintain a chain of record for the occupation or maintenance of the corner.
- Survey maps are filed as they are received and entered into a survey index for easy retrieval. All survey maps are available in digital format. Historic records are also available in a digital format.

Standards

- Statutory Standards for PLSS Corner Remonumentation
 - s. 59.74, Wis. Stats. Perpetuation of section corners, landmarks.
 - s. 60.84, Wis. Stats. Monuments.
 - ch. A-E 7.08, Wis. Admin. Code, U.S. public land survey monument record.
 - ch. A-E 7.06, Wis. Admin. Code, Measurements.
 - s. 236.15, Wis. Stats. Surveying requirement.
- North American Terrestrial Reference Frame of 2022 (NATRF2022)
- Survey grade** standard from Wisconsin County Surveyor's Association:
 - Survey grade** – coordinates collected under the direction of a Professional Land

Surveyor, in a coordinate system allowed by 236.18(2), and obtained by means, methods and equipment capable of repeatable 2 centimeter or better precision

Other Geodetic Control and Control Networks

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

Layer Status

- In 1993, Dodge County completed densification of the High Accuracy Reference Network (HARN) as part of a tri-county project with Jefferson and Rock Counties to the tertiary level using GPS technology and the Wisconsin State Department of Transportation standards. This effort was the first high accuracy reference network (HARN) installed in the state of Wisconsin and possibly the nation. The countywide network consists of 76 pairs (152 points) of geodetic control monuments distributed throughout the County at approximately three (3) mile intervals. The network is referenced to current and superseded realizations of North American Datum of 1983. Vertical elevation data is based on and reference the North American Vertical Datum of 1988 (NAVD 88). Values are reported in Dodge County Coordinates.
- In 2021, Dodge County is planning to contribute to GNSS Observations on passive Wisconsin Height Modernization (Wi-HMP) Stations to help define the new National Geodetic Survey (NGS) 2022 horizontal and vertical reference frames.

Custodian

- WisDOT, Office of Surveying and Mapping
- Dodge County Land Resources and Parks Department, Land Information Division - Local Control

Maintenance

- As warranted.

Standards

- Federal Geographic Data Committee (FGDC) Standards for Geodetic Reference Systems
- FGDC Standards for Horizontal Coordinate and elevation values]
- Wisconsin Coordinate System standards and specifications [Chapter 236.18 Wisc. Stats]
- WLIB Specifications and Guidelines to Support Densification of the WI High Accuracy Reference Network (HARN) Using Global Positioning System (GPS) Technology- June 1995.
- Standards for Public Land Survey System Corners
 - o Corner Remonumentation [Sec. 59.74; Sec. 60.84 (3)(c) Wisc. Stats]
 - o Remonumentation Records [Sec. 59.74 Wisc. Stats and Wisc. Admin. Code AE 7.08 (2)]
 - o Coordinate Values [FGDC]

Parcel Mapping

Parcel Geometries

Layer Status

- **Progress toward completion/maintenance phase:** In Dodge County, 100% of the county's parcels are available in a commonly used digital GIS format utilizing both AutoCAD and the ESRI Parcel Fabric. Varying levels of accuracy exist depending on which Phase of the Tax Parcel Mapping Improvement project they were mapped in.
 - We are currently in Phase IV of our Tax Parcel Mapping Improvement project, the aim of which being to update and improve locational accuracy of mapping in all cities and villages of Dodge County. Phases 2 and 3 included accurate base mapping in all 24 (including that portion of the Village of Kekoskee that existed as the Town of Williamstown prior to its annexation in 2018).
 - Phase I was a paper-based project from 1986 through 1995. Municipalities still in this phase include: The City of Hartford; Villages of Brownsville, Kekoskee (that portion of that existed prior to annexation of the Town of Williamstown in 2018), Neosho, Reeseville and Theresa.
 - Phase II was a GPS Base Project from 1995-2005. Municipalities still in this phase include: The Cities of Juneau, Mayville and Watertown; Towns of Clyman, Emmet, Herman, Hubbard, Hustisford, Lebanon, Lowell, Oak Grove, Rubicon and Shields
 - Phase III was a Digitized Project in 2000 specifically for converting paper-based maps in the Cities of Beaver Dam, Fox Lake and Waupun.
 - Phase 4 is a combination of GPS and Aerial Alignment Project that to date includes: Cities of Beaver Dam and Horicon; Towns of Ashippun, Beaver Dam, Burnett, Calamus, Chester, Elba, Fox Lake, Leroy, Lomira, Portland, Theresa, Trenton, Westford and Williamstown (being that portion of the Village of Kekoskee that existed as the Town of Williamstown prior to its annexation in 2018); Villages of Clyman, Hustisford, Iron Ridge, Lomira and Lowell.
 - Mapping has been completed by breaking down the PLSS to aliquot parts and registering parcels using coordinate geometry. Property and lot corners have been located using GPS in problem and questionable areas. Individual parcels are entered from information found in deeds, Certified Survey Maps, Subdivision Plats, Condos, Plat of Surveys, Highway Plans and Plats and Railway plans.
 - Parcel base has utilized orthophotography from 1999, 2006, 2012, 2017 and most recently 2020 WROC orthophotography. Historical aerial photos as far back as 1937 are sometimes relied upon to help determine parcel boundaries from older records.
- **Projection and coordinate system:** NAD 83/91 projection and Wisconsin Coordinate System (WISCRS) - Dodge County Coordinates
- **Integration of tax data with parcel polygons:** Dodge County does have a parcel polygon model that directly integrates tax/assessment data as parcel attributes.
- **Online Parcel Viewer Software/App and Vendor name:** Beacon/qPublic.net - from vendor Schneider Geospatial, LLC
- **Unique URL path for each parcel record:** YES, fields include PIN, Owner Name, Deed Acres, Calculated Acres, Value with links to reports that include Site Address, Legal Description, Section-Town-Range, PLS/Tract, Municipality, Assessment Classifications, Co-Owners, Mailing Address, Assessment History including Land and Improvement Values, Tax History and Document History including Document Number, Type, Date and Sales Amount. A link is also available to access additional information on the Land Information Search Tool, including School District, Tech College District, Sanitary District, Lake District and TID District.

The URL is stable and the information can be exported to a report for each individual parcel.

Custodian

- Land Resources and Parks Department, Land Information Division/GIS Administrator.

Maintenance

- **Update Frequency/Cycle:** Parcel polygons are updated as nearly as possible after document recording by the GIS Property Analyst Lead.
- The Survey and Mapping Specialist updates existing tax parcels using AutoCAD as part of the Dodge County Parcel Mapping Improvement Project and works with the GIS Property Analyst Lead in converting to the Parcel Fabric.
- The GIS Property Analyst Lead coordinates these updates with the GIS Administrator to update the Beacon/qPublic.net Online Parcel Viewer.

Standards

- **Data Dictionary:** Dodge County uses clear field naming conventions for attributes and can provide thorough definitions for each element/attribute name, and explanations of any county-specific notations.
- Standards used for mapping are those developed in-house with guidance from various state, federal and professional standards. Dodge County continues to aggressively upgrade and improve the locational accuracy of parcels located in Dodge County by registering them to our latest high resolution orthophotography. Coordinate geometry (COGO) is used to enter Certified Survey Maps, Subdivision Plats, Condominium, Plats of Survey, Highway plans, etc. Property corner locations are collected by Survey and Mapping Specialist with GPS equipment.

Parcels Without Land Value

Layer Status

- **Number of parcels without a land value recorded to-date:** There are 40 as of January 1st, 2024, all being airport hangar leases located on county owned airport lands. This number is specific to those created through Act 12 of 2023 which amended 70.17(1), Wis. Stats. There are other situations in which a parcel may not have a land value not applicable to this statute.
- **County geolocates/maps parcels for improvements only and without a land value by:** creating a new polygon being 0.1 feet on each side so as not to affect the calculated acreage of the real estate parcel on which they are located. It is anticipated other methods may be used for future parcels created under this Act.

Assessment/Tax Roll Data

Layer Status

- **Progress toward completion/maintenance phase:** NA
- **Tax Roll Software/App and Vendor name:** from vendor Catalis Tax & Cama, Inc using LandNav/GCS Software
- **Municipal Notes:** City of Watertown downloads County assessment and tax data and then prints and does tax collection on an old version of the GCS software. They receive payments three (3) times/year billing rather than the rest of the county which is on a two (2) time/year billing. Dodge County does not maintain City of Watertown tax data on a daily basis and the City of Watertown must be contacted for the most current information.

Tax payments are paid to local municipalities in December and January. Tax payments on the County website are not finalized until after Dodge County makes a final settlement with each local municipality.

Custodian

- Assessment roll data – Dodge County Land Resources and Parks, Land Information Division
- Tax roll data – Dodge County Treasurer

Maintenance

- **Maintenance of the Searchable Format standard:** To maintain the Searchable Format standard, Dodge County will adhere the Department of Administration's specs and review the Submission Documentation to ensure compliance. For any deviations from the schema Dodge County will utilize the Validation and Submission tool. Dodge County will make corrections on any deviations to ensure that datasets submitted will match DOA's schema specifications.
- **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.
- Parcel numbering standard- Please note that this parcel identifier is not consistent with the recommended WLIB parcel numbering standard, but it contains many of the required geographic components. A WLIB-formatted PIN can easily be aggregated if requested but it would be cost prohibitive to retool our existing numbering system and counter-productive to our on-going tax parcel mapping effort. Dodge County Parcel Identification Number (PIN) has the following geographic format: AAA-BBCC-DDEF-GGG, where:
 - AAA = Dodge County Municipality Number
 - BB = Town North Number [range: 09-13]
 - CC = Range East Number [range: 13-17]
 - DD = Section Number [range: 01-36]
 - EF = Quarter-Quarter Section Number [range: 1-4]
 - GGG = Lot Identifier

Non-Assessment/Tax Information Tied to Parcels - Permits

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

Layer Status

- Dodge County currently maintains an MS Access Sanitary (POWTS) applications as well as a database for land use permits, conditional use permits, rezoning, variance, and violations. All are tracked using the tax parcel identification number (PIN). The County is currently imaging files containing this information.
- The county is currently in the process of converting this application and data to Geopermits from vendor Schneider Geospatial, LLC. It is anticipated that this application will utilize existing property and GIS data by integrating with the existing Beacon online portal.

Custodian

- Dodge County Land Resources and Parks Department, Code Administration Division

Maintenance

- Ongoing. New permits are linked by the PIN to a parcel and scanned into the permit tracking system upon receipt. Dodge County is currently implementing the Beacon permit application to better integrate this data. On-going effort to scan all permit files and index for access and long-term storage.

Standards

- Dodge County internal standard.

Non-Assessment/Tax Information Tied to Parcels – Non-Metallic Mining

Layer Status

- The County maintains a file geodatabase for mine-related GIS layers including property boundaries, centroids, approved extraction areas, and active mining areas. These feature classes are linked to tables containing mine type/owner/operator information and reclamation plan documentation that are kept up to date by Code Administration staff.

Custodian

- Dodge County Land Resources and Parks Department, GIS Administrator & Code Enforcement Division

Maintenance

- Annual updates based on mine inspections and periodic updates as mines are opened and closed.

Standards

- Dodge County Internal standard.

Non-Assessment/Tax Information Tied to Parcels – Survey Finder

Layer Status

- Survey Finder is a web mapping application maintained by Dodge County for all surveys either recorded or filed in the County Survey files. Parcels are overlaid with the survey boundaries and a link opens up the image for each survey.

Custodian

- Dodge County Land Resources and Parks Department, Land Information Division & GIS Administrator

Maintenance

- Updates are done as surveys are recorded at the Register of Deeds or filed in the County Survey records.

Standards

- Dodge County Internal standard.

Non-Assessment/Tax Information Tied to Parcels – Farmland Preservation

Layer Status

- A Farmland Preservation Plan Map is maintained to show lands enrolled or eligible to be enrolled in the program.

Custodian

- Dodge County Land and Water Conservation Department; Dodge County Land Resources and Parks Department, Planning & Economic Development Administrator & GIS Administrator

Maintenance

- Updates are done as lands are enrolled or taken out of Farmland Preservation.

Standards

- Dodge County Internal standard.

Non-Assessment/Tax Information Tied to Parcels – Comprehensive Plan

Layer Status

- The Dodge County Comprehensive Plan is a policy document that is used by the County Board of Supervisors and the County Planning, Development and Parks Committee as a guide for making decisions regarding land use and development in the County. Maps are prepared showing current and future land use and other information to use in their decision making.

Custodian

- Dodge County Land Resources and Parks Department, Planning & Economic Development Administrator & GIS Administrator

Maintenance

- Updates are done as changes are made to the plan.

Standards

- Dodge County Internal standard.

ROD Real Estate Document Indexing and Imaging

Layer Status

- **Grantor/Grantee Index:** Dodge County has a digital, searchable grantor/grantee index from 4/1/1987 to the present.
- **Tract Index:** The Dodge County tract index is based on the PLSS (1/16 section) except for subdivisions and condominiums where the tract index is based on Subdivision/Condominium lot and block. Dodge County has a digital, searchable tract index from 7/1/1998 to the present. Paper tract books from 1877 through 3/17/1999 are scanned and available online.
- **Imaging:** All recorded documents dating back to 1877 are contained in the imaging system.
- **ROD Software/App and Vendor Name:** The Dodge County Register of Deeds uses TriMin software for land records indexing including Landshark for web access and File Director for documents image storage.

Custodian

- Dodge County Register of Deeds

Maintenance

- The Register of Deeds continually adds records as documents are recorded and updates as needed. If older images are found to be of poor quality, they are re-imaged.

Standards

- s. 59.43, Wis. Stats. Register of deeds; duties, fees, deputies.
- ch. 706, Wis. Stats. Conveyances of real property; Recording; Titles.
- Ch. 236, Wis. Stats. Platting lands and recording and vacating plats.
- Ch 703, Wis. Stats. Condominiums
- S. 84.095, Wis. Stats. Transportation project plats.
- Dodge County internal standard.

LiDAR and Other Elevation Data

LiDAR

Layer Status

- **Most recent acquisition year:** 2017: Dodge County contracted with Woolpert, Inc. to acquire USGS QL2 Lidar DEM through a separate USGS contract along with new orthoimagery.
- **Accuracy:** Lidar Data acquired according to USGS specifications "National Geospatial Program LiDAR Base Specification Version 1.2" at a nominal pulse spacing (NPS) of 0.7 meters.
- **Post spacing:** LiDAR will be acquired at an average 0.7-meter post spacing (2 points per sq. meter) and includes hydro-flattening.
- **Contractor's standard, etc.:** Using the new USGS QL2 Lidar DEM, goal was to achieve 1.9-foot @ 95% confidence level.
- **Next planned acquisition year:** 2026-2027 depending on funding sources.
- **QL0/QL1/QL2 acquisition plans:** N/A

Custodian

- Land Resources and Parks Department, Land Information Division.

Maintenance

- LiDAR acquisition is planned in 2026-2027 in conjunction while acquiring new orthoimagery contingent on available funding.

Standards

- USGS Lidar Base Specification

LiDAR Derivatives – DTM/DEM

e.g., Bare-Earth Digital Terrain Model (DTM), Bare-Earth Elevation Contours, Bare-Earth Digital Elevation Model (DEM), Digital Surface Model (DSM), Hydro-Enforced DEMs, etc.

Layer Status

- Countywide bare earth DTM meeting or exceeding minimum criteria for FEMA and USGS standards for this feature and digital elevation model (DEM).

Custodian

- Land Resources and Parks Department, Land Information Division.

Maintenance

- Anticipate acquisition of new LiDAR data in 2026-2027; anticipate requesting first and second return digital surface models (DSM) in addition to bare earth model. Plans are to collect this data over a 10-year cycle.

Standards

- FEMA and USGS

LiDAR Derivatives – 2 Foot Contours

Layer Status

- Countywide 2-foot contours

Custodian

- Land Resources and Parks Department, Land Information Division

Maintenance

- Anticipate acquisition of new LiDAR data in 2026-2027 with in-house production of contours

Standards

- Contours created in-house utilizing ArcGIS, 3-D Analyst using internal standards.

LiDAR Derivatives - Building Footprints

Layer Status

- Acquired in 2018 using 2017 Orthoimagery and Lidar, building footprints for structures 10' by 10' and greater. *

Custodian

- Land Resources and Parks, Land Information Division

Maintenance

- Anticipate acquisition of new LiDAR data in 2027. Plans are to collect this data on a 10 - year cycle.

Standards

- Building footprints created by vendor to Department standards.

LiDAR Derivatives – Hydro-enforced DEM and Culvert Inventory

Layer Status

- Countywide culvert dataset delivered in 2022 using 2020 imagery and 2017 LiDAR data.

Custodian

- Dodge County Highway Department
- Land Resources and Parks Department, Land Information Division

Maintenance

- Anticipate acquisition of new LiDAR data in 2026-2027 with consultant production of culvert dataset updates to follow as funding is available.

Standards

- Dataset to be created by vendor to Department standards.

LiDAR Derivatives – Closed Depression Mapping

Layer Status

- Closed depression dataset delivered in 2022 using countywide DEM and culvert dataset.

Custodian

- Land and Water Conservation Department
- Land Resources and Parks, Land Information Division

Maintenance

- Anticipate acquisition of new LiDAR data in 2026-2027 with consultant production of closed depression dataset updates to follow as funding is available.

Standards

- Dataset to be created by vendor to Department standards.

LiDAR Derivatives – Hydrologic Unit Codes (HUC)

Layer Status

- 43 HUC12 were delivered in 2023 for a Soil Erosion Vulnerability Assessment using 2017 LiDAR data.

Custodian

- Land and Water Conservation Department
- Land Resources and Parks, Land Information Division

Maintenance

- Anticipate acquisition of new LiDAR data in 2026-2027 with consultant production of HUC dataset updates to follow as funding is available.

Standards

- Dataset to be created by vendor to Department standards.

Orthoimagery

Orthoimagery

Layer Status

- **Most recent acquisition year:** 2023
- **Resolution:** 6-inch pixel resolution; 1" = 100' map scale; ASPRS Level 2 horizontal accuracy standards of 1.4 feet RMSE.
- **Contractor's standard:** Collected during leaf-off conditions when the sun angle is 30 degrees or greater above the horizon. Aerial imagery will be suitable for the production of four band (RGB-NIR) orthoimagery at 6-inch ground pixel resolution. Aerial imagery will be planned and collected with full stereo-coverage, 30% sidelap and 60% forward overlap (+/- 5%).
- **Next planned acquisition year:** 2026-2027: Dodge County is planning updates on a 3-3-4-year cycle over a 10 year period to coincide with the census every 10 years.

Custodian

- Land Resources and Parks Department, Land Information Division

Maintenance

- Plans to update on a 3–4-year cycle with next flight proposed for spring 2026-2027.

Standards

- Meets American Society for Photogrammetry and Remote Sensing (ASPRS) Level 2 accuracy for standard mapping and GIS work.

Historic Orthoimagery

Layer Status

- 2020: County has 6" resolution orthoimagery for dataset collected in spring 2020
 - Available in GeoTIFF and MrSID format in countywide mosaic and in individual PLSS section tiles.
 - Available as 4-band stacked, RGB and BW
 - Countywide RGD and BW MrSID available in Dodge County and State Plain coordinate systems
- 2017: County has 6" resolution orthoimagery for dataset collected in spring 2017
 - Available in GeoTIFF and MrSID format in countywide mosaic and in individual PLSS section tiles.
 - Available as 4-band stacked, RGB and BW
 - Countywide RGD and BW MrSID available in Dodge County and State Plain coordinate systems
- 2012: County has 6" resolution orthoimagery for dataset collected in spring 2012
 - Available in GeoTIFF and MrSID format in countywide mosaic and in individual PLSS section tiles.
 - Available as 4-band stacked, RGB and BW
 - Countywide RGD and BW MrSID available in Dodge County and State Plain coordinate systems
- 2006: County has 6" resolution orthoimagery for 2006 dataset collected in conjunction with LiDAR acquisition accuracy sufficient to support update of FEMA floodplain mapping
 - Available in RGB and BW in PLSS section tiles, MrSID and TIFF formats
 - Available in RGB and BW as countywide MrSID
- 1999: County has 12" resolution orthoimagery for 1999 dataset
 - Available in BW in PLSS section tiles, TIFF format
 - Available in BW as countywide MrSID
- Historic unreferenced photos from the Robinson Library (UW-Madison) scanned into digital format for the following years: 1937, 1950, 1956, 1957, 1964, 1971, 1979-2002 (FSA Yearly), 1981
- County also has film based photography (1" =400' mapping scale) from 1968, 1971 and 1978

Custodian

- Land Resources and Parks Department, Land Information Division

Maintenance

- None

Standards

- 2006-2020 orthoimagery meets NMAS for 1" =100' scale mapping
- 1999 orthoimagery meets NMAS for 1" =200' scale mapping*

Other Types of Imagery

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

Layer Status

- Near Infra-red is included in the 4-band stacked product delivered in 2012-2020.
- Acquisition of oblique imagery is not anticipated.

Custodian

- Land Resources and Parks Department, Land Information Division.

Maintenance

- Update to Near Infra-red is anticipated as part of the planned 2026-2027 spring project to collect new orthoimagery.

Standards

- Refer to 2017 4-band stacked ortho product.

Address Points and Street Centerlines

Address Point Data

Layer Status

- Complete for the entire county with an address point for each principal structure and units within structures.
- Stored in an enterprise geodatabase with attributes including mailing info, municipal info, land use, and common names.
- County has addressing authority in all unincorporated areas of the county (i.e., towns) with the exception of Town of Ashippun with whom we have a good working relationship for communication of new addresses assigned.
- Working to improve lines of communication with cities and villages when new addresses are assigned, and roads are built or vacated.

Custodian

- Land Resources and Parks Department, Land Information Division, GIS Administrator

Maintenance

- Updated as new addresses are assigned or upon receipt of notification of new or changed city or village addresses.

Standards

- Wisconsin GIS NG9-1-1 Data Standard ([Site/Structure Address Point](#))
- National Emergency Number Association (NENA) and US Postal standards followed as practicable; Dodge County Addressing Guidelines

Building Footprints

Layer Status

- Geodatabase of building footprints derived from 2017 LiDAR.
- Includes every structure in the County larger than 10'x10.'
- Will be linked to the Address Points database to improve positional accuracy of address points.
- Updates applied manually off of the 2020 orthophotography.

Custodian

- Land Resources and Parks Department, Land Information Division, GIS Administrator

Maintenance

- Updated as new aerial photography becomes available.

Standards

- Department standards

Other Types of Address Information

Address Ranges

Layer Status

- Dodge County maintains a complete countywide address ranges for all public and private roads in the county.
- Ranges are attached to the street centerline layer.

Custodian

- Land Resources and Parks Department, Land Information Division, GIS Administrator

Maintenance

- This layer is updated as new data is obtained and entered by means of coordinate geometry from highway plats and surveys or referencing deeds, orthophotography or other means.

Standards

- NENA and US Postal standards followed as practicable; Dodge County Addressing Guidelines; Department mapping standards.

Street Centerlines

Layer Status

- Complete countywide features for all public and private roads.
- Stored in an enterprise geodatabase alongside Address Points and other addressing-related layers.

Custodian

- Land Resources and Parks Department, Land Information Division, GIS Administrator

Maintenance

- Updated as new data received.

Standards

- Wisconsin GIS NG9-1-1 Data Standard (Road Centerline)
- NENA and US Postal standards followed as practicable; Dodge County Addressing Guidelines; Department mapping standards.

Rights of Way

Layer Status

- Complete; contained as part of the parcel fabric geodatabase
- **How maintained:** Deeded ROW is maintained in the parcel fabric, but non-fee title is not. Both are combined into the standalone layer for ease of use.

Custodian

- Land Resources and Parks Department, Land Information Division

Maintenance

- As parcel database is updated and new information is received for new or reconstructed ROW

Standards

- Department mapping standards

Trails

Recreational Trails, Snowmobile Trails

Layer Status

- Wild Goose State Trail mapping is complete with intersection identification points for emergency location purposes and mile markers indicated to assist users in orienting themselves.
- County park properties and facilities have been mapped, and conversion of data into geodatabase feature classes is on-going.
- Snowmobile trails have been mapped and are stored in a geodatabase for use by Parks staff and to assist in statewide trail data collection efforts.
- Other recreational facilities (boat landings, municipal park facilities, playgrounds, etc.) are mapped and stored in various feature classes but need additional work to consolidate and add more detailed attribute information.
- Additional work needed on detailed mapping for Rock River Trail (canoeing, kayaking), Rock River Trail Auto Route, Gold Star Memorial Trail
- Additional work needed on detailed mapping for Off-road Bike and Pedestrian Trails: Glacial River Trail and extending the Gold Star Trail between the Horicon Marsh International Education Center and the City of Beaver Dam (the trail currently runs between the City of Mayville and the Horicon Marsh International Education Center)

Custodian

- Land Resources and Parks Department, GIS Administrator and Parks and Trails Divisions

Maintenance

- Updated as changes are presented and time permits.

Standards

- Department mapping standards.

Land Use

Current Land Use

Layer Status

- County's 2015 Comprehensive Plan contains a generalized land use map not currently included in the geodatabase at this time but accessible in the plan document on the County's web site. The County's tax database contains the DOT classification code that can be linked to the parcel database in the GIS database if need be.
- Map specifically applies to unincorporated areas of Dodge County

Custodian

- Land Resources and Parks Department, Land Information and Community Development Divisions

Maintenance

- Updated in 2015; next update anticipated in 2025.

Standards

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

Future Land Use

Layer Status

- County's Comprehensive Plan contains a generalized future land use map for unincorporated areas of Dodge County

Custodian

- Land Resources and Parks Department, Land Information Division

Maintenance

- Updated as changes are adopted.

Standards

- s. 66.1001, Wis. Stats. Comprehensive planning.
- Future land use maps were created through the comprehensive planning process. Future land use mapping for a county is a patchwork of maps from comprehensive plans adopted by municipalities involved and the county.

Zoning

County General Zoning

Layer Status

- The County does maintain a GIS representation of general zoning boundaries.
- County has Zoning jurisdiction for 12 of the 24 towns in Dodge County. Those towns include: Ashippun, Calamus, Elba, Fox Lake, Hustisford, Lebanon, Leroy, Lomira, Oak Grove, Rubicon, Shields, and Trenton. This data is held in a separate database as it does NOT follow parcel lines.
- All Cities and Villages in Dodge County are responsible for their own zoning.

Custodian

- Land Resources and Parks Department, Code Administration and Land Information Divisions

Maintenance

- Updated as rezonings are approved by the Dodge County Board of Supervisors upon recommendation of the Land Resources and Parks Committee; done by resolution for towns having Town Zoning and by Ordinance for towns under County Zoning. Staff updates a general map for towns not under County Zoning to help internal staff track changes but questions regarding zoning in those towns are referred directly to the Town Clerk.

Standards

- Dodge County Land Use Code
- S. 66.1001, Wis. Stats. Comprehensive Planning

Shoreland Zoning

Layer Status

- The County does maintain a GIS representation of county shoreland zoning boundaries.
- Complete layer includes 1000' buffer from lakes and 300' buffer from navigable streams in unincorporated areas of the County; land use is not regulated for towns not under County Zoning, but state (DNR) mandated set backs and impervious surface area and vegetative buffer standards are enforced for all unincorporated towns in these areas.

Custodian

- Land Resources and Parks Department, Code Administration and Land Information Divisions

Maintenance

- As needed.

Standards

- Dodge County Shoreland Protection Ordinance
- Wisconsin Shoreland Protection Program (NR 115)

Farmland Preservation Zoning

Layer Status

- The County does maintain a GIS representation of county farmland preservation zoning boundaries.
- Farmland Preservation - complete for participating towns (Towns of Ashippun, Beaver Dam, Clyman, Emmet, Hubbard, Lowell, Rubicon and Westford do not participate); separate database.
- **Year of certification:** 2011 for Towns of Burnett and Portland; 2012 for Towns of Herman and Theresa; 2016 for Towns of Calamus, Elba, Fox Lake, Hustisford, Lebanon, Leroy, Lomira, Oak Grove, Shields and Trenton; 2017 for Town of Chester; 2018 for Village of Kekoskee.

Custodian

- Land Resources and Parks Department, Code Administration, Community Development Administration and Land Information Divisions

Maintenance

- As needed.

Standards

- Land Use and Farmland Preservation Plan

Agricultural Enterprise Areas (AEA)

Layer Status

- The County does maintain a GIS representation of AEA boundaries.
- Complete for participating towns; separate database
- **Year of certification:** 2011 for the Ashippun-Oconomowoc AEA; 2012 for Trenton and Burnett AEA's; 2016 for the Elba-Portland and Shields-Emmet AEA's.

Custodian

- Land Resources and Parks Department, Code Administration, Community Development Administration and Land Information Divisions

Maintenance

- As needed.

Standards

- Land Use and Farmland Preservation Plan

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.
- Letters of Maps Change – FEMA Flood Insurance Rate Maps (FIRMs) can be changed through "Letters of Maps Change," which is comprised of a few things: Letters of Map Amendment, Letters of Map Revision, and Letters of Map Revision Based on Fill. These are documents issued by FEMA that officially remove a property and/or structure from the floodplain. They are collectively called Letters of Map Change.

Custodian

- Land Resources and Parks Department, Code Administration and Land Information Divisions

Maintenance

- As needed.

Standards

- Dodge County Floodplain Zoning Ordinance
- Wisconsin's Floodplain Management Program (NR 116)
- FEMA Flood Insurance Rate Maps (FIRMs)

Airport Protection

Layer Status

- The County does maintain a GIS representation of airport protection zoning boundaries.
- Complete for area surrounding Dodge County Airport, Juneau, WI
- **Airport protection zoning map depicts:**
 - Depicts Height limitation restrictions.
 - General zoning overlay for airport protection

Custodian

- Land Resources and Parks Department, Code Administration and Land Information Divisions

Maintenance

- As needed.

Standards

- Dodge County Airport Overlay Ordinance

Municipal Zoning Information Maintained by the County – Extra-Territorial

Layer Status

- Extra-territorial plat review areas can be developed upon request based on the parcel base.

Custodian

- Land Resources and Parks Department, Land Information Division

Maintenance

- As needed.

Standards

- Plat Review Ordinances

- Department mapping standards.

Administrative Boundaries

Civil Division Boundaries

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

Layer Status

- Municipal boundary file complete

Custodian

- Land Resources and Parks Department, Land Information Division

Maintenance

- Updated as annexations are reported and forwarded to the office from the County Clerk and recorded at the Register of Deeds

Standards

- Department mapping standards.

School Districts

Layer Status

- **Progress toward completion/maintenance phase:** Completed GIS layer based on assessment code of school district number contained in assessment and tax file and tied to parcel base.
- **Relation to parcels:** School Districts are tied to parcels.
 - **Attributes linked to parcels:** Attributes include school district code and school district name.

Custodian

- Land Resources and Parks Department, Land Information Division

Maintenance

- Updated as notification of district boundaries are received.
- Program to provide maps to school districts for confirmation of boundaries and assistance in reconciling discrepancies as time permits.

Standards

- Department mapping standards.

Election Boundaries

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

Layer Status

- County has complete coverage of current voting ward, aldermanic and county board supervisory districts in the GIS database.

Custodian

- Dodge County Clerk and Land Resources and Parks Department, Land Information Division

Maintenance

- Boundaries are updated as annexations occur and as required by redistricting.
- Dodge County complies with the Wisconsin Statute requiring submission of ward level LIS data to the Legislative Technology Services Bureau (LTSB) twice a year, by January 15th and July 15th.

Standards

- Department mapping standards.

Tax Incremental Financing Districts (TIF/TID)

Layer Status

- County's tax database includes a code designating parcels that are located within a TIF/TID that can be linked to the parcel base from which a map can be generated as needed.

Custodian

- Land Resources and Parks Department, Land Information Division.

Maintenance

- As TIF/TID are created or terminated.

Standards

- Department mapping standards.

Utility Districts

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

Layer Status

- Sanitary Districts- County's tax database includes a code designating parcels that are located within a sanitary district that can be linked to the parcel base from which a map can be generated as needed.
- Drainage Districts- County's tax database includes a code designating parcels that are located within a drainage district that can be linked to the parcel base from which a map can be generated as needed. There are currently twenty-five (25) active districts. County staff works closely with the Drainage Board Engineer to share information in a timely manner. The Engineer has provided an interactive map in pdf format that is available on the Dodge County web site that provides a detailed map of each district. This map is updated annually.

Custodian

- Land Resources and Parks Department, Land Information Division and Sanitary District Board
- Land Resources and Parks Department, Land Information Division and Drainage Board Engineer.

Maintenance

- As needed.

Standards

- Department mapping standards.

Emergency Service Boundary – Law/Fire/EMS

Layer Status

- **Law Enforcement:** Complete
- **Fire:** Complete
- **EMS:** Complete
- **First Responders:** Complete

Custodian

- Sheriff's Office, Land Resources and Parks Department, Land Information Division

Maintenance

- Updated as service area or location of facilities change, or errors are reported by Sheriff's Office Communication Center staff and municipalities

Standards

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

Public Safety Answering Points (PSAP) Boundary

Layer Status

- **PSAP Boundary:** Complete - Dodge County boundary (includes only those parts of Waupun, Watertown, Hartford, Columbus within Dodge County) but also including the entire Village of Randolph (including that part in Columbia County).

Custodian

- Sheriff's Office, Land Resources and Parks Department, Land Information Division

Maintenance

- Updated by Land Resources & Parks Dept. as directed by Sheriff's Office

Standards

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

Provisioning Boundary

Layer Status

- **Provisioning Boundary:** Complete – Dodge County Boundary

Custodian

- Sheriff's Office, Land Resources and Parks Department, Land Information Division

Maintenance

- Updated by Land Resources & Parks Dept. as directed by Sheriff's Office

Standards

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

Other Public Safety

e.g., Healthcare Facilities

Layer Status

- **Points of Interest:** Complete – Non-addressed points such as boat launches, parking lots, etc.
- **Common Names:** Complete – Addressed points with additional common name information attached.

Custodian

- Sheriff's Office, Land Resources and Parks Department, Land Information Division

Maintenance

- Updated by Land Resources & Parks Dept. as directed by Sheriff's Office

Standards

- Formatted to work within current CAD software environment.

Lake Districts

Layer Status

- Complete for the Fox Lake Inland Lake Protection (formed in 1979), Lake Sinissippi Improvement District (formed in 2000) and Beaver Dam Lake District (formed in 2020).

Custodian

- Land Resources and Parks Department, Land Information Division

Maintenance

- As lands are added to or withdrawn from the district
- As parcel polygons are created (splits) or modified (parcel mapping improvement project)

Standards

- Department mapping standards.

Native American Lands

Layer Status

- N/A (none exist in Dodge County).

Custodian

-

Maintenance

-

Standards

-

Other Administrative Districts – County Parks

Layer Status

- Mapping complete with locations of camping pads and trails

Custodian

- Land Resources and Parks Department, Land Information and Parks and Trails Divisions

Maintenance

- As updates are modified or constructed

Standards

- Department mapping standards.

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

- Originally created utilizing 1999 orthos at 12" pixel resolution. More accuracy has been developed as the county acquires newer and higher resolution (2006 and 2012 orthos). Countywide hydrography layer was most recently updated using a combination of the 2017 and 2020 orthophotography (the 2020 orthos were delivered during the update).

Custodian

- Land Resources and Parks Department, Land Information Divisions

Maintenance

- As newer orthophotography is acquired.
- As part of the Tax Parcel Mapping Improvement Project
- As updates to parcels bordering hydrography are made

Standards

- Department mapping standards (Elevation-Derived Hydrography has not been used)

Cell Phone Towers

Layer Status

- Cell Towers and other communication towers that are registered with FCC or permitted by Dodge County are mapped.

Custodian

- Land Resources and Parks Department, Code Administration Division

Maintenance

- Updated as new towers are added, moved or removed.

Standards

- Department standards using GPS coordinates.

Bridges and Culverts

Layer Status

- Locations of County Highway Department Culverts and Bridges are mapped.

Custodian

- Dodge County Highway Department; Land Resources and Parks Department, Land Information Division

Maintenance

- Updated as replaced.

Standards

- Department standards using GPS coordinates.

Other/Miscellaneous

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

Layer Status

- Wind Towers- locations are mapped for the two wind farms located in Dodge County (GPS coordinates)
- Railroads- routes are mapped in the parcel layer.
- Non-metallic mines

Custodian

- Land Resources and Parks Department, Code Administration and Land Information Division

Maintenance

- As changes are reported

Standards

- Department standards using GPS coordinates.

3 LAND INFORMATION SYSTEM

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

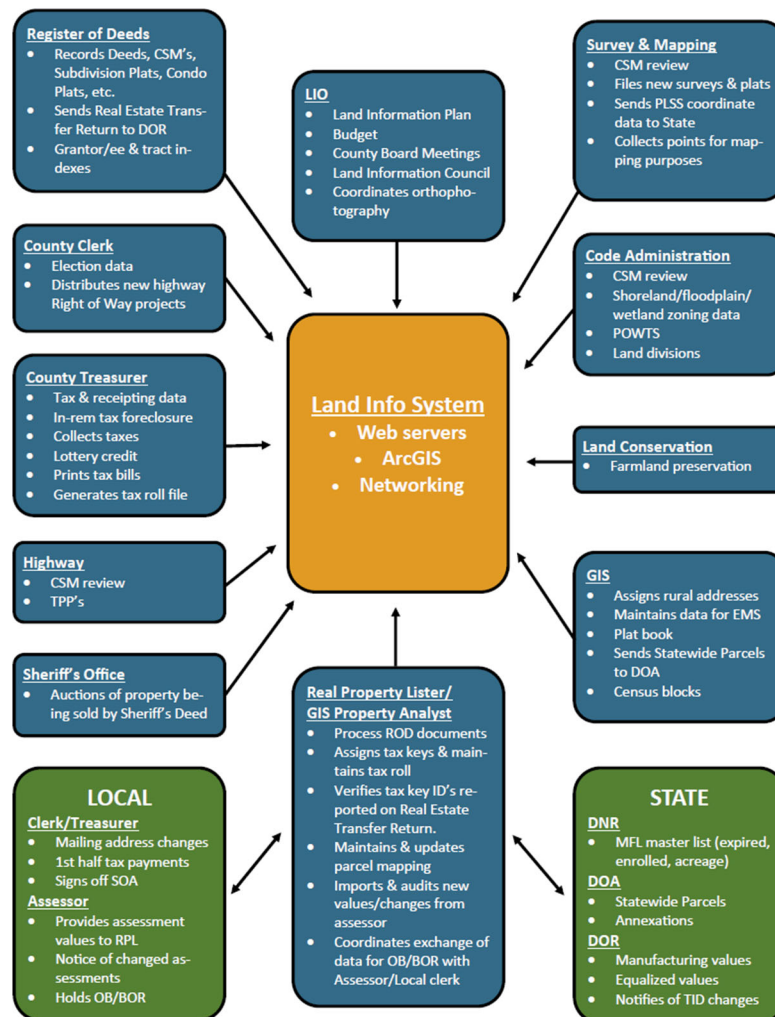
One integration requirement is listed under s. 16.967(7)(a)(1), Wis. Stats., which states that counties may apply for grants for:

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

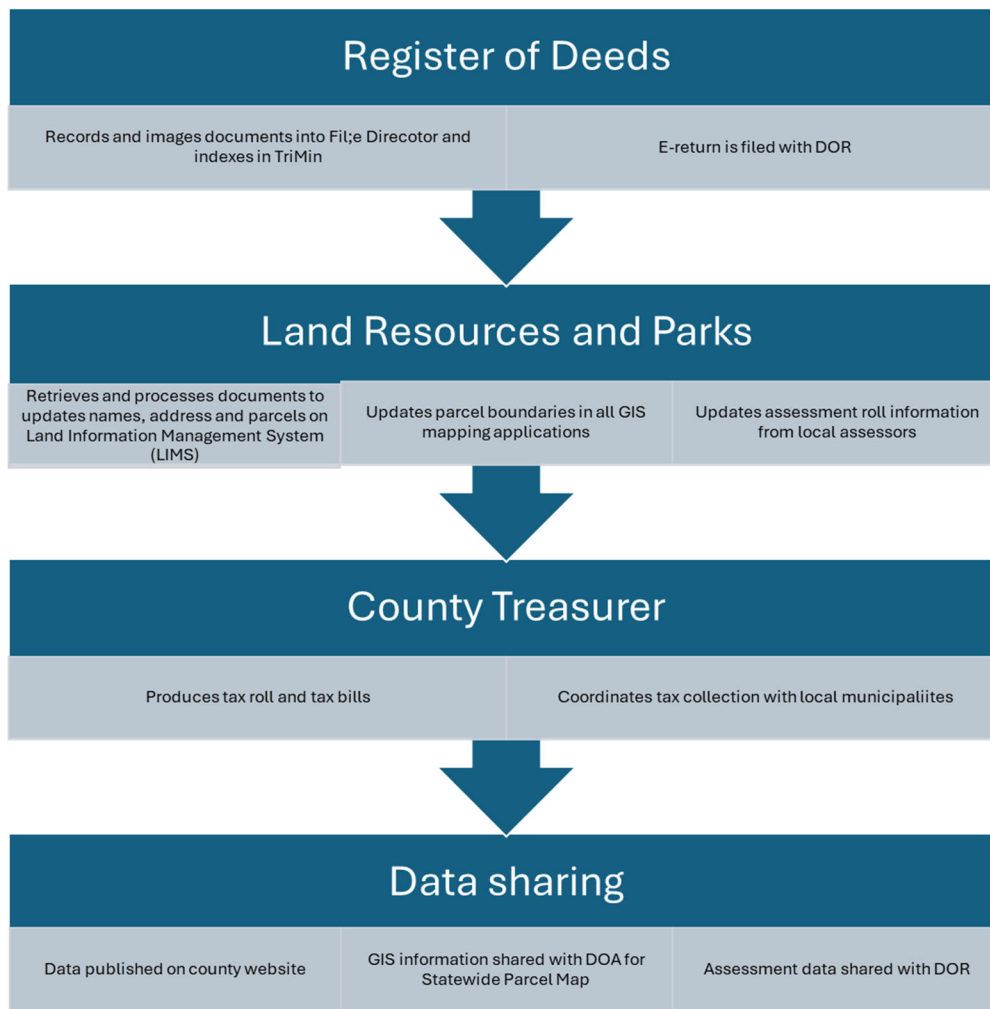
This chapter describes the design of the county land information system, with focus on how data related to land features and data describing land rights are integrated and made publicly available.

Current Land Information System

Diagram of County Land Information System



County Parcel Data Workflow Diagram



Technology Architecture and Database Design

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

Dodge County follows industry-accepted standards for database design and system architecture and the Land Information Office works closely with the Dodge County Information Technology Department (IT) to achieve this end. Design of existing and new databases and system development is closely reviewed by County staff and/or database development consultants following industry-accepted standards and to ensure compliance with open data exchange. Pilot projects are routinely undertaken to determine functionality and refinement of the final design before it is put into a production environment. The standards followed are reviewed in light of changes in industry thinking and common sense. The County will continue to use industry accepted hardware platforms and software to facilitate the transferability, translatability, and retrieval of data.

Beyond delivering information in these standard formats, the County cannot ensure that delivered data will be useable in a system of unknown design or developed to meet special purposes not intended by the County. As it is out of the County's control, Dodge County cannot warrant that all other outside systems comply with the above national standards. Data will be made available in our 'native' software formats to accommodate as many 'typical' users as possible. The design of our database and file server directory structure will continue to support easy retrieval of all data sets.

Hardware

- 1 Canon GP-4600S 44" Large Format Plotter
- RICOH MP Large Format Scanner/Copier/Printer
- Trimble R8 GPS and C5 Controller
- 3 Trimble TDC600 Data Collectors
- Phantom 4 RTK Drone

Software

- Register of Deeds: TriMin and File Director Imaging software applications are used to record, index, scan, view, and distribute recorded documents.
- GIS: Dodge County uses the ESRI ArcGIS software suite, including licenses of Enterprise, Desktop, Spatial Analyst, and 3D Analyst. Licensing is managed by the Land Information Office and the annual maintenance cost is supported by retained fees. Current holdings include:
 - ArcGIS Enterprise Standard (4 cores)
 - 2 ArcGIS Desktop Advanced, concurrent use
 - 2 ArcGIS Desktop Basic, concurrent use
 - 1 ArcGIS Spatial Analyst, concurrent use
 - 1 ArcGIS 3D Analyst, concurrent use
 - 2 ArcGIS Desktop Standard, single use
 - 2 ArcGIS Desktop Basic, single use
- CAD (Computer Aided Drafting): Autodesk products are used by Land Information Manager and Survey Specialist to assist in parcel mapping and support PLSS maintenance and other survey work for County needs. Land Conservation staff uses Autodesk Civil 3D to perform their nutrient management project work. Licensing is managed by the Land Information Office and the annual maintenance cost is supported by retained fees. Current holdings include:
 - 1 Autodesk Map 3D standalone (Land Information)
 - 4 Autodesk Civil 3D standalone (Survey and Land Conservation)
- Tax Roll and Property Assessment Records: The County has an integrated land information Management System (LIMS) currently using GCS/LandNav software. Public access to this information is part of the total integrated package. Integration with our GIS Web Mapping tool (ACD), survey files and the Register of Deeds recorded documents.
- Detailed and up to date information regarding costs associated with ongoing technology expenditures is available in the annual "County Retained Fee/Grant Report" due to DOA. This report is available upon request from the Land Information Officer (LIO).
- The County's geographically reference data and information is based on the Wisconsin Coordinate Reference System, Dodge County (WISCRS Dodge County) which is mathematically relatable to the North American Datum of 1983/1991 (NAD83/91). Vertical GIS data is referenced to the North American Vertical Datum of 1988 (NAVD88). Dodge County data is easily shared with and disseminated to other agencies and the private. The adjustment to a new datum (NAD2022) could be problematic as so far there is no systematic conversion available.
- **County currently uses ArcGIS Pro:** Yes (for certain applications and to publish web mapping services).
- **County plans to upgrade to ArcGIS Pro:** N/A

Website Development/Hosting

- Yearly contract with Schneider Geospatial to develop and host the County's public online GIS mapping application on their Beacon platform.
- Dodge County hosts an open data portal based on ArcGIS Online and linked through the County website to facilitate easy discovery and download of geospatial data.

Metadata and Data Dictionary Practices

Metadata Creation

- **Metadata creation and maintenance process:** Basic metadata exists for most of our GIS data

holdings, and it is updated/improved as time allows using ESRI ArcCatalog. Every effort is made to develop and maintain metadata that meets at least the minimum FGDC Content Standard for Digital Geospatial Metadata.

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:** Tags, Summary, Description, Credits, Field Descriptions, Map Service Descriptions for online services.

Municipal Data Integration Process

- Dodge County is the custodian for the countywide real property system and tax bill creation.
- The County works with the Assessors, Clerks and Treasurers in each municipality to obtain the assessment data form the assessors need to create the assessment roll, and clerks and treasurers to produce tax bills and tax rolls. The system is designed to enable local assessors and officials to more seamlessly submit and receive data for processing.
- Dodge County is responsible for reviewing deeds and updating ownership data.
- Dodge County is working with local addressing authorities to improve the transmittal of new addresses and road/street updates to the County for inclusion in the system.

Public Access and Website Information

Public Access and Website Information (URLs)

Public Access and Website Information

GIS Webmapping Application(s) Link - URL	GIS Download Link – URL	Real Property Lister Link - URL	Register of Deeds Link - URL
https://beacon.schneidercorp.com/Application.aspx?App=DodgeCountyWI&PageType=Map	https://gis-dodgecounty.opendata.arcgis.com/	https://list.co.dodge.wi.us/GCSWebPortal/Search.aspx	https://landshark.co.dodge.wi.us/LandShark/login

Single Landing Page/Portal for All Land Records Data

URL
https://www.co.dodge.wi.gov/departments/departments-e-m/land-resources-and-parks

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

URL
https://www.co.dodge.wi.gov/departments/departments-e-m/land-resources-and-parks/land-information-office

Municipal Website Information

Municipal Website	Municipal Website URL
City of Watertown GIS Mapping Tool	http://www.ci.watertown.wi.us/departments/gis_mapping_tool.php#.W6zt_-S0W71

Various other Public Access Sites

Municipal Website	Website URL
Zoning - Permit Activity	https://www.co.dodge.wi.gov/departments/departments-e-m/land-resources-and-parks/zoning-permits-and-ordinance
PLSS tie sheets	https://www.co.dodge.wi.gov/departments/departments-p-z/survey
WI Control Data	https://www.sco.wisc.edu/surveying/
Survey Finder Tool	https://geo2.co.dodge.wi.us/portal/apps/webappviewer/index.html?id=e21752029e4c458cb520c7a900a33920
Elected Official District Maps (various)	https://www.co.dodge.wi.gov/home/showpublisheddocument/42554/637629081162870000
Drainage District interactive map	https://datcpgis.wi.gov/maps/?viewer=dd

Data Sharing

Data Availability to Public

Data Sharing Policy

- With a few exceptions, data is freely available to all requestors at no charge if they provide an address, email address, location of an FTP site to which the data may be uploaded, or a flash or external hard drive on which to load the data depending upon amount of data requested. There is a minimal charge should data need to be copied to paper media or burned to disk and mailed to the requestor. Access to recorded documents held in the Register of Deeds Office is available on-line through the LandShark application with charges set by statute. The Dodge County Treasurer receives payment for the tax roll and several reports available from that office.

Open Records Compliance

- Every effort is made to comply with Wisconsin's Open Records Law.

Data Sharing Restrictions and Government-to-Government Data Sharing

Data Sharing Restrictions

- Dodge County has no restrictions on use of data distributed with the exception of the Dodge County Plat Book on which a US copyright is held.

Government-to-Government Data Sharing

- Dodge County freely shares its data with any local, state or federal agency making the request.

Training and Education

- Dodge County administration and County Board Supervisors remain committed in their support for land records-related employees to take advantage of opportunities to attend training and education at seminars, vendor sessions (Esri, Leica), university classes, and professional association sessions.
- Memberships and conference/workshop registrations for staff are supported by the County including but not limited to the following professional organizations:
- Wisconsin Land Information Officers Network (LION)
- Wisconsin County Surveyors Association (WCSA)
- Wisconsin County Register of Deeds Association (WRDA)
- Wisconsin Real Property Listers Association (WRPLA)
- Wisconsin County Code Administrators Association (WCCA)
- Wisconsin Society of Land Surveyors (WSLS)
- Wisconsin County Treasurer Association (WCTA)
- Wisconsin Association of Assessing Officers (WAAO)
- Wisconsin Land Information Association (WLIA)
- Department heads budget for continued education and technical training for themselves and their staff beyond use of the WLIP Training and Education Grant (\$1000).
- Land records staff are encouraged to join and become actively involved in their related professional associations.
- Provide technical support for internal and external data users.
- Encourage participation in user group forums to discuss problems and exchange information and personal experiences regarding the use of software internally and externally.
- Continued participation in the Technical Assistance List Server.
- When outside experts are consulted, full-time staff members are actively involved in the project to retain knowledge gained once the project is implemented and the consultants have left.

4 CURRENT & FUTURE PROJECTS

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

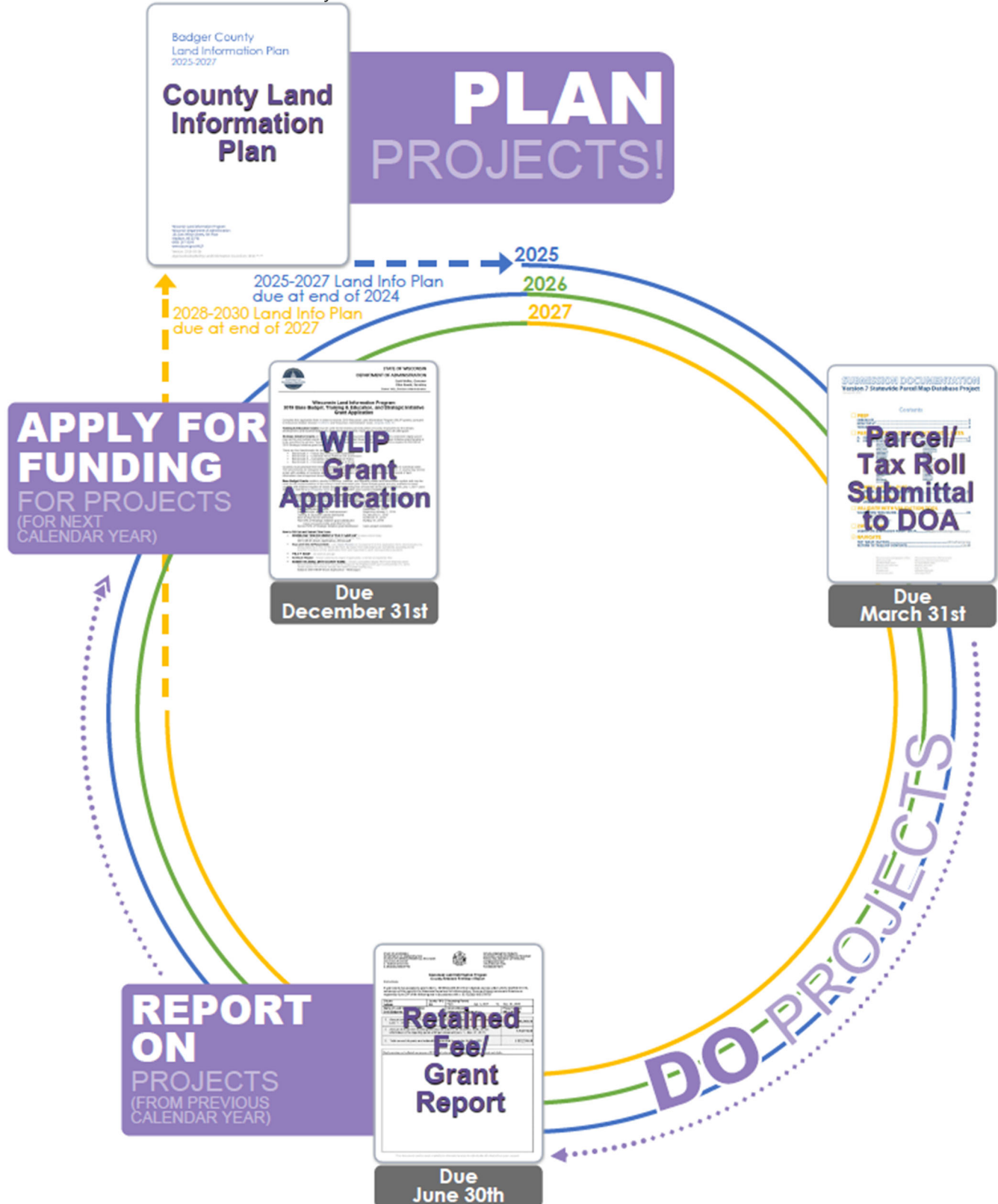


Figure 1. The WLIP Land Information Plan/Grant Project Cycle

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

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

Project Description

How Searchable Format Will Be Maintained

- Dodge County has adopted the searchable format schema and uses that data model as the standard for future parcel creation and maintenance.
- Dodge County utilizes in-house staff to standardize data, field names and domains.

Business Drivers

- To increase consistency and accuracy of statewide parcel data.
- To increase data interoperability and improve data sharing efficiency.

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).
- Update and improve parcel layer metadata.

Project Timeframes

- On-going.

Responsible Parties

- GIS Administrator, GIS Property Analyst/Lead and Manager of Land Information/LIO.

Estimated Budget Information

- In-house staff time - see table at the end of this chapter for project budget information.

Project #1: Land Information Management System Maintenance

Project Description/Goal

- Dodge County has a fully integrated Land Information Management System (LIMS) which currently utilizes the GCS/LandNav/Catalis software suite. The system has improved the property assessment and taxation process to become more efficient, more accessible and more responsive to the needs of local municipalities and citizens. The system has significantly reduced the duplicate entry of land records information received from the Register of Deeds Office and has allowed for more efficient and accurate transfer and use of this information for many other purposes including parcel and assessment administration, personal property, tax billing and collection, tax parcel mapping, and permitting (Land Use and Sanitary permits). The system also provides an internet-based land records search tool which can be integrated with document images and mapping. It also integrates with eRETR (electronic transfer return) on the Department of Revenue (DOR) website which ensures more efficient and effective data sharing with local assessors, municipal clerks and the DOR. This solution has helped to increase day-to-day operating efficiency and improve access to land records.
- **Land Info Spending Category:** Software

Business Drivers

- Need to integrate land information and workflows between land records-related offices (Register of Deeds, Property Description, Treasurer, Code Administration) in support of property assessment and tax billing and collection.
- Hope to integrate the sanitary and land use permitting/tracking process.
- Provides an integrated internet-based land records search tool for professional and public access.
- Integrates with existing technology providers such as TriMin and File Director and has ability to integrate with Department of Revenue.

Objectives/Measure of Success

- Ability of Property Description Office and Treasurer's Office to meet state mandated requirements to support the assessment process and tax billing/collection.

- Ability to citizen and other users for self-help and access to land records through internet-based Land Records Search Tool.

Project Timeframes

- On-going.

Responsible Parties

- IT, Manager of Land Information/LIO, GIS Property Analyst/Lead; County Treasurer, Register of Deeds

Estimated Budget Information

- Anticipating an increase when Dodge County migrates to the new cloud-based LandNav 5 in 2025/2026 which will include a one-time implementation and training fee and a Year 1 SAAS with annual 6% increase. Will also require in-house staff time - see table at the end of this chapter for project budget information

Project #2: Tax Parcel Mapping Improvement Project

Project Description/Goal

- Multiple Phase project with Phases I, II and III completed with accurate mapping in all unincorporated areas of the county (24 towns). Phase IV of the project is to update and improve locational accuracy of mapping in all cities and villages of Dodge County. It is anticipated that the last remaining municipality (City of Waupun) will be updated in 2025 at which time we will enter into Phase V of the project. Phase 5 of the project will target unincorporated villages and other pockets of development throughout the county. Priority will be given to those areas determined by staff to be in most need of improvement. The tax parcel mapping is not intended to be used as a substitute for an accurate survey completed by a Professional Land Surveyor. Information directing users to the original source material or recorded instruments is/will be included in the metadata or attribute data.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- Requirement for Strategic Initiative grant eligibility and to meet user needs, public and private sector. Support accurate assessment.

Objectives/Measure of Success

- Completion of additional areas of the county
- More accurate maps generate less questions from users as to accuracy of parcel boundaries.

Project Timeframes

- On-going

Responsible Parties

- Manager of Land Information/LIO, GIS Property Analyst/Lead and Survey Specialist

Estimated Budget Information

- In-house staff time - see table at the end of this chapter for project budget information.

Project #3: Point Address Management

Project Description/Goal

- Maintain a comprehensive address point dataset countywide. Update and improve locational accuracy of point address locations in all cities and villages of Dodge County.
- Accurate mapping of point addresses is complete and maintained in all unincorporated areas of the county (24 towns).
- **Land Info Spending Category:** Address Points

Business Drivers

- A comprehensive address point dataset will be used for the following:
 - 911 Computer Aided Dispatch (CAD) address verification, location and routing.
 - Reference data for use in mobile CAD that is used by fire, EMS and law enforcement.
 - Sheriff and municipal police department record management and analysis.
 - Emergency Management and facilities locating services.
 - County and municipal voter registration reporting.
 - Improved inventory of address points for Dodge County Land Information and municipal addressing authorities.

Objectives/Measure of Success

- Develop a complete and accurate point address layer for Dodge County to support 911 Communications, Land Resources and Parks Department Divisions and support statewide parcel mapping efforts.

Project Timeframes

- Ongoing

Responsible Parties

- GIS Administrator, GIS Property Analyst/Lead and Manager of Land Information/LIO.

Estimated Budget Information

- In-house staff time - see table at the end of this chapter for project budget information.

Project #4: Support of Dodge County Sheriff's Office (DCSO)

Project Description/Goal

- Continued support of Communications Center, Crash and Crime Scene Investigation Teams, Child Abduction Response Team (CART)
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- Need to provide GIS data and mapping support for Dodge County Communications Center.
- Need to provide GIS data and mapping support for Dodge County Patrol.
- Needed support for high tech tools to accurately investigate crash and crime scenes and provide indisputable courtroom exhibits to prove cases.
- Provide GIS data, mapping and browser-based applications to support for Dodge County Child Abduction Response Team (CART) to ensure organized and complete response to missing or abducted children.

Objectives/Measure of Success

- Swift locational response by dispatchers and first responders.

Project Timeframes

- On-going and as requested.

Responsible Parties

- GIS Administrator, GIS Property Analyst/Lead and Manager of Land Information/LIO.

Estimated Budget Information

- In-house staff time - see table at the end of this chapter for project budget information.

Project #5: GIS Web Mapping Tool Enhancements

Project Description/Goal

- To increase functionality of and add access to more layers of data from interactive GIS mapping tool; improve customer service and response time.
- **Land Info Spending Category:** Website Development/Hosting Services – services provided by Schneider GeoSpatial.

Business Drivers

- Professional users (surveyors) needing better access to survey images including unrecorded documents such as plats of survey, tie sheets and field notes and geographic search for pdf formatted tax parcel maps produced in support of assessment process.
- This tool is heavily accessed by government and professional users and the public to spatially locate and print GIS data layers and attribute information online with access 24/7. Links to other Dodge County internet-based applications are integrated in so users have access to a much wider range of information that allows staff in multiple offices more time to perform other mission critical tasks.

Objectives/Measure of Success

- Development of additional tabs on interactive GIS Web Mapping Tool to support Survey and Tax Maps

Project Timeframes

- Ongoing

Responsible Parties

- GIS Administrator, Manager of Land Information/LIO, GIS Property Analyst/Lead and Survey Specialist

Estimated Budget Information

- \$10,500 – estimate for 3 years of service by Schneider GeoSpatial for Beacon website

Project #6: Imaging/Indexing of Permit Files - Code Administration

Project Description/Goal

- On-going need to image current and historical records associated with permit-related records for electronic retrieval and archival in File Director and Land Information Management System including public access.
- **Land Info Spending Category:** Administrative Activities and Management

Business Drivers

- Scanning capability provides safe archival and storage (in digital format either on CD or to a network drive) of a wide variety of hardcopy map documents and one-of-a-kind original documents (especially, original, handwritten documents) for easy retrieval and output. Dodge County lost over 30 years of real estate records in a fire in the 1800s.
- The added benefits of increased office efficiency and improved quality of output (direct prints, not copies) for existing departmental requirements.

Objectives/Measure of Success

- Imaging of historic permits for additional towns; scanning as new permits are received.

Project Timeframes

- On-going as staff workload permits.
- Summer and breaks during school year for intern.

Responsible Parties

- Land Resources and Parks Office Manager and support staff.

Estimated Budget Information

- \$36,000 for imaging intern over 3 years

Project #7: GIS Support of Parks and Trails

Project Description/Goal

- Assist Parks and Trails staff with GIS technology for interactive mapping and inventory of facilities, trees and other significant features. Investigate use of mobile devices.

- **Land Info Spending Category:** Other – GIS Support

Business Drivers

- Need to better locate, inventory and manage park assets; assess Emerald Ash Bore damage; better use of limited resources.

Objectives/Measure of Success

- Improved administration of these resources; greater efficiency in accessing records.

Project Timeframes

- On-going as staff workload permits.

Responsible Parties

- Director of Land Resources and Parks, GIS Administrator, Parks Supervisor, Parks Foreman

Estimated Budget Information

- In-house staff time - see table at the end of this chapter for project budget information.

Project #8: Mobile Field Data Collection

Project Description/Goal

- Investigate use of mobile GPS/GIS technology to access, collect and maintain land information during field operations by Land Resources and Parks staff. Anticipate reduction in redundant data entry as information would be entered directly from the field using tablet, laptop or phone connections.
- **Land Info Spending Category:** Hardware; Software.

Business Drivers

- Reduce duplicate data entry and time required for transcription of handwritten data into the system as updates can be made directly from the field depending on conditions.

Objectives/Measure of Success

- Greater efficiency in data entry and accessing records.

Project Timeframes

- Staff as workload permits; ongoing.

Responsible Parties

- Director of Land Resources and Parks, Code Administration Manager; Parks Supervisor, Parks Foreman and Land Use Inspectors

Estimated Budget Information

- In-house staff time - see table at the end of this chapter for project budget information.

Project #9: Development & publication of Dodge County Plat Book

Project Description/Goal

- To produce a high-quality plat book utilizing internal staff
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- The public demand for hard copy maps, primarily for use in the field, still exists. Dodge County is able to produce internally.

Objectives/Measure of Success

- A high-quality plat book that is substantially up-to-date and is an accurate reflection of land ownership at the time produced.

Project Timeframes

- 2022

Responsible Parties

- GIS Administrator, Manager of Land Information/LIO, County Clerk

Estimated Budget Information

- In-house staff time - see table at the end of this chapter for project budget information.

Project #10: Development of user specific GIS applications

Project Description/Goal

- To provide project-based GIS application for internal staff and external users.
- **Land Info Spending Category:** Website Development/Hosting Services

Business Drivers

- The need for consumers of our data to have a platform where information is easily discovered and useful.

Objectives/Measure of Success

- Able to develop a website that is frequently used by internal and external users and that is capable of delivering desired information in a concise and usable format.

Project Timeframes

- Ongoing

Responsible Parties

- GIS Administrator, Manager of Land Information/LIO, GIS Property Analyst/Lead

Estimated Budget Information

- In-house staff time - see table at the end of this chapter for project budget information.

Project #11: Support of Dodge County Emergency Management

Project Description/Goal

- Continued support of the Emergency Management Office and HAZMAT team through development and use of mobile and web mapping applications.
- **Land Info Spending Category:** Digital Parcel Mapping

Business Drivers

- Need to provide GIS data, mapping, printing and browser-based applications to support Dodge County Emergency Management and/or HAZMAT Team to ensure organized and complete response to local emergencies/disasters.

Objectives/Measure of Success

- Successful development of functional GIS applications to create just in time maps needed during local emergencies and to provide swift locational response by Emergency Management HAZMAT and first responders in Dodge County

Project Timeframes

- Ongoing and as requested.

Responsible Parties

- GIS Administrator, Manager of Land Information/LIO, GIS Property Analyst/Lead

Estimated Budget Information

- In-house staff time - see table at the end of this chapter for project budget information.

Project #12: Participation in the WROC

Project Description/Goal

- Acquire countywide high-resolution orthoimagery of 6" resolution by participating in the Wisconsin Regional Orthoimagery Consortium (WROC).
- Orthoimagery in a 3–4-year cycle and elevation on a 10 year cycle
- **Land Info Spending Category:** Orthoimagery

Business Drivers

- Need for more current orthophotography to support the needs of Highway, Land Resources and Parks, Land Conservation, Emergency Management, Sheriff's Office, professional users, general public, public access online web mapping tool. Support Parcel Mapping Improvement Project for cities and villages.

Objectives/Measure of Success

- Up to date orthophotography on an accelerated schedule
- Cost saving by participating in statewide project.

Project Timeframes

- 2027

Responsible Parties

- GIS Administrator, Manager of Land Information/LIO

Estimated Budget Information

- Orthoimagery estimated to be \$68,932 based on 2023 cost (with a chance to reduce costs through partner participation) and LiDAR estimated at \$88,689 based on 2017 costs (assuming similar funding will be available to offset costs through USGS). Total cost estimated as \$157,621.

Project #13: Aerial Drone

Project Description/Goal

- Meet the Federal Aviation Administration's requirement for Licensing and train staff to use aerial drones.
- Use the drone to collect data quickly for small project areas.
- Orthoimagery in a 3–5-year cycle and elevation on a 9-10 year cycle
- **Land Info Spending Category:** Orthoimagery

Business Drivers

- Use for Public Safety for quick deployment in the event of floods, search and rescue and other time sensitive situations. To enhance digital mapping and aerial imaging for small project areas for agricultural, forestry and code enforcement projects. Will support Public Safety, Land Conservation, Law Enforcement, Forestry, Code Administration.

Objectives/Measure of Success

- Near real-time imagery and data to make time sensitive decisions
- Accessing remote areas that would be hard to reach.
- Site reviews could be completed without walking large tracts of land.

Project Timeframes

- Ongoing

Responsible Parties

- GIS Administrator, GIS Property Analyst, Manager of Land Information/LIO, Code Administrator

Estimated Budget Information

- In-house staff time - see table at the end of this chapter for project budget information.
-

Project #14: NG911 Development

Project Description/Goal

- Coordinate and verify that Dodge County addresses conform to NG911 specifications.
- **Land Info Spending Category:** Address Points

Business Drivers

- The ability to transmit, receive, process, transfer, dispatch, use, and store both voice and data (in the form of pictures, videos, text messages, and incident information) associated with a 9-1-1 call or request for emergency assistance.

Objectives/Measure of Success

- Improved response times and location data
- Data sharing and call transfer interoperability between PSAP's
- Improved redundancy and reliability
- Greater visibility within emergency incidents: video from public-safety systems, video and images from citizens, and texts to and from citizens

Project Timeframes

- 2025-2027

Responsible Parties

- Sheriff's Office, Emergency Management, Director of Land Resources and Parks, GIS Administrator, Manager of Land Information/LIO, GIS Property Analyst/Lead

Estimated Budget Information

- Unknown at this time. Is dependent on the availability of federal and state funding.

Project #15: NGS 2022 Datum Change

Project Description/Goal

- **To ensure successful implementation of the new reference systems across the county.**
- **Land Info Spending Category:** PLSS

Business Drivers

- To improve the National Spatial Reference System (NSRS), NGS will replace all three North American Datum of 1983 (NAD 83) frames and all vertical datums, including the North American Vertical Datum of 1988 (NAVD 88), with four new terrestrial reference frames and a geopotential datum.
- The new reference frames will rely primarily on Global Navigation Satellite Systems (GNSS), such as the Global Positioning System (GPS), as well as on a gravimetric geoid model resulting from our Gravity for the Redefinition of the American Vertical Datum (GRAV-D) Project.
- These new reference frames will be easier to access and to maintain than the current NSRS, which relies on physical survey marks that deteriorate over time.

Objectives/Measure of Success

- Successful transformation from WISCRS to the new datum

Project Timeframes

- 2025-2027

Responsible Parties

- Director of Land Resources and Parks, GIS Administrator, Manager of Land Information/LIO, GIS Property Analyst/Lead

Estimated Budget Information

- Unknown at this time. Is dependent on the availability of federal and state funding.

Project #16: Permit tracking application

Project Description

- Implementation & development of permit tracking application within the Land Resources and Parks Department.
- Land Info Spending Category: Software

Business Drivers

- Better integration with Land Information System to ensure using latest ownership and address information.
- Need for migrating data out of legacy Access database.
- Need for customizable forms with electronic submittals.

Objectives/Measure of Success

- Legacy data is successfully migrated into the new system.
- Staff is able to use a system to send out notifications.
- Staff is able to create custom and online forms as necessary.

Project Timeframes

- Ongoing

Responsible Parties

- GIS Administrator, GIS Property Analyst, Manager of Land Information/LIO, Code Administrator

Estimated Budget Information

- \$23,328 in 2025 with an estimated 5% annual increase. See table at the end of this chapter.

Project #17: Back Indexing of Historical Documents

Project Description/Goal

- Back indexing of historical documents into LandLink.
- Contract with an indexing vendor
- **Land Info Spending Category:** Other Parcel Work

Business Drivers

- Need for users to be able to search historical documents in LandLink and LandShark.

Objectives/Measure of Success

- Near real-time imagery and data to make time sensitive decisions
- Accessing remote areas that would be hard to reach.
- Site reviews could be completed without walking large tracts of land

Project Timeframes

- 2025-2027

Responsible Parties

- Register of Deeds

Estimated Budget Information

- Estimated cost per document: \$1.50 for indexing document, grantor/grantee and tract (legal description) information:
 - Recorded Date
 - Date of Instrument
 - Instrument Code
 - Reference Document
 - Grantors
 - Grantees
 - Plat Name
 - Lot
 - Block
 - Condo Unit

- Section
- Township
- Range
- Q, QQ
- Other Lot

Approximate increments of 10,000 to 12,000 documents (\$15,000 to \$18,000) at a time or more if funds are available.

Project #18: Culvert Inventory from LiDAR and Derivative Datasets

Project Description/Goal

- Develop an inventory of all culverts and bridges within Dodge County with a focus on the County highway System. The initial phase of the project will be accomplished using existing LiDAR.
- Phase II would require field collection of elevation and coordinate data as well as pipe size and pipe material.
- Phase III would be indexing the field data into a data base for hydrological modeling and maintenance activity record keeping.
- Hydro modeling and land conservation planning across the county
- Development of Collector Application to supplement inventory.
- Land Info Spending Category: LiDAR

Business Drivers

- Highway department has a need to establish an inventory for more accurate elevation and hydrological data. Enhance ability to inspect and maintain.
- Land and Water Conservation Department need for watershed planning, erosion modeling and location of depression areas.
- Critical for flood studies and mitigation planning..

Objectives/Measure of Success

- All bridges and culverts accounted for.
- More accurate bridge, culvert, depression area and hydrological modeling.
- Reduction in time locating structures in the field.

Project Timeframes

- 2022-2024

Responsible Parties

- Highway Department, Land & Water Conservation, GIS Administrator, Manager of Land Information/LIO, GIS Property Analyst/Lead, GIS vendor

Estimated Budget Information

- Actual cost TBD

Completed Projects

- Grantor/Grantee Index (TriMin) - Created a new Grantor/Grantee Index Book
- WROC – 2023 orthoimagery
- Scanned GTS Historical Abstract Records - Scanned Guaranty Closing & Title Services (GTS) abstract entries for records that existed before the 1877 Dodge County courthouse fire that destroyed most county records.
- Completed Soil EVAAL and 43 HUC Watersheds.
- Completed closed depression mapping project.

Estimated Budget Information

Project Title	Item	Unit Cost/Cost	Land Info Plan	Project Total
			Citations Page # or section ref.	
1) Land Information Management System Maintenance	Manager of Land Information/LIO, GIS Property Analyst/Lead; County Treasurer, Register of Deeds	Subscription Fee and Implementation and Training (with annual 6% increase) Staff Time – to be determined	3,32,37,40	\$150,000 Over 3 years
2) Tax Parcel Mapping Improvement Project- Parcel Maintenance	Manager of Land Information/LIO, GIS Property Analyst/Lead and Survey Specialist	\$8,000 annual licensing for AutoCAD \$18,000 annual licensing for ESRI \$1500 annual GPS equipment support Staff Time – to be determined	3,12,13,28,38,43	\$82,500
3) Point Address Management	GIS Administrator, GIS Property Analyst/Lead and Manager of Land Information/LIO.	ESRI licensing included in #2 Staff Time – to be determined	3,38	n/a
4) Support of Dodge County Sheriff's Office (DCSO)	GIS Administrator, GIS Property Analyst/Lead and Manager of Land Information/LIO.	ESRI licensing included in #2 Staff Time – to be determined	3,39	n/a
5) Project #5: GIS Web Mapping Tool Enhancements	GIS Administrator, GIS Property Analyst/Lead and Manager of Land Information/LIO.	Website hosting ESRI licensing included in #2 Staff Time – to be determined	3,32,39,40	\$10,500
6) Imaging and Indexing of Permit Files for Code Administration	Land Resources and Parks Imaging intern	\$12,000 per year	3,40	\$36,000 Over 3 years
7) GIS Support of Parks and Trails	Director of LRP, GIS Administrator, Parks Supervisor, Parks Foreman	ESRI licensing included in #2 Staff Time – to be determined	3,6,21,28,40	n/a
8) Mobile Field Data Collection	Director of LRP, Code Administration Manager; Parks Supervisor, Parks Foreman and Land Use Inspectors	Staff Time – to be determined	3,41	n/a
9) Development & publication of Dodge County Plat Book	GIS Administrator, Manager of Land Information/LIO, County Clerk	ESRI licensing included in #2 Staff Time – to be determined	3,35,41	n/a
10) Development of user specific GIS applications	GIS Administrator, Manager of Land Information/LIO, GIS Property Analyst/Lead	ESRI licensing included in #2 Staff Time – to be determined	3,42	n/a
11) Support of Dodge County Emergency Management Office	GIS Administrator, Manager of Land Information/LIO, GIS Property Analyst/Lead	ESRI licensing included in #2 Staff Time – to be determined	3,6,39,42,43,44	n/a
12) Participation in the WROC	GIS Administrator, Manager of Land Information/LIO	\$68,932 orthoimagery \$88,689 LiDAR	3,12,43,46	\$157,621
13) Aerial Drone	GIS Administrator, Manager of Land Information/LIO, Code Administrator	Staff Time – to be determined	3,43	n/a
14) NG911 Development	Sheriff's Office, Emergency Management, Director of Land Resources and Parks, GIS Administrator, Manager of Land Information/LIO, GIS Property Analyst/Lead	Staff Time – to be determined May utilize federal and state funding if available	3,43	n/a

15) NGS 2022 Datum Change	Director of Land Resources and Parks, GIS Administrator, Manager of Land Information/LIO, GIS Property Analyst/Lead, Survey Specialist	Unknown at this time. Is dependent on the availability of federal and state funding	3/44	n/a
16) Implementation and development of hist application	GIS Administrator, GIS Property Analyst, Manager of Land Information/LIO, Code Administrator	\$23,328 in 2025 with estimated 5% annual increase	4,5,45	\$73,541
17) Back Indexing of Historical Documents	Register of Deeds	\$15,000 to \$18,000/yr	4,40	\$18,000
18) Culvert Inventory from LiDAR and Derivative Datasets	Highway Department, Land & Water Conservation, GIS Administrator, Manager of Land Information/LIO, GIS Property Analyst/Lead, GIS vendor	Staff Time – to be determined	4,17,46	n/a
Note: Staff wages are generally not paid from Land Information. Approximately \$33,000 per year for LRP Director and LIO and \$12,000 for 1 GIS intern (does not include scanning intern under #6 above)		\$55,000 per year		\$165,000
GRAND TOTAL				\$693,162

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

