2014 WLIP Report

CONTENTS

OVERVIEW

The Wisconsin Land Information Program (WLIP), administered by the Division of Intergovernmental Relations within the Wisconsin Department of Administration (DOA), provides over $9 million annually in public funding to Wisconsin counties for the modernization of local land records. This funding takes the form of register of deeds real estate document recording fees retained at the county level and grants awarded by DOA.

This report discusses how WLIP funding was invested in county geospatial infrastructure in 2013, the 2014 WLIP annual survey results, and the year in review for other WLIP program activities.

COUNTY LAND RECORDS MODERNIZATION FUNDING

In 2013, counties retained a statewide total of $8.7 million in local register of deeds document recording fees for land information and received $0.7 million in WLIP Base Budget and Training & Education grants.

Due to Act 20, the biennial budget for 2013-15, WLIP grant funding and the number of counties eligible for grants is increasing. Counties received $1.3 million in WLIP grants in 2014 and are expected to receive $2.8 million in 2015.

In order to retain fees and receive grants, counties must meet several WLIP requirements, including submitting annual expenditure reports that categorize how WLIP funds have been spent. Analysis of expenditure reports for 2013 shows that counties primarily spent funds on activities related to parcel mapping, GIS (geographic information system) hardware and software, and website development. WLIP funding also supported acquisition or development of aerial imagery, LiDAR (advanced elevation mapping), and address points, among other mapping projects.

2014 WLIP SURVEY RESULTS

This year's WLIP survey focused on county priorities for parcel map development.

Improving the accuracy of parcel lines, which includes remonumentation of Public Land Survey System (PLSS) corners, was reported by county land information officers (LIOs) as the top priority for potential additional investment in county parcel datasets. In addition to parcel mapping activities, LIOs listed the acquisition of aerial imagery and LiDAR data as top priorities for additional funding.

WLIP YEAR IN REVIEW

LinkWISCONSIN Address Point and Parcel Mapping Project

Final Report
LinkWISCONSIN Address Point and Parcel Mapping Project

September 2014
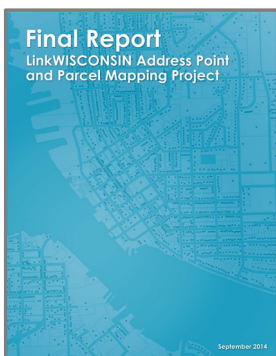
A major WLIP project in 2014 was the LinkWISCONSIN Address Point and Parcel Mapping Project, a collaboration with the State Cartographer's Office. As part of the statewide broadband initiative, the Public Service Commission of Wisconsin (PSCW) funded the development of statewide address point and parcel layers based on local address and parcel data. The LinkWISCONSIN Address Point and Parcel Mapping Project had objectives specific to the PSCW's address point mapping needs, but will inform future efforts to create statewide basemap layers, including the Version 1 Statewide Parcel Map Database Project. The final report for the Address Point and Parcel Mapping Project will be available on September 30, 2014.

Version 1 Statewide Parcel Map Database Project MOU

Planning for the Statewide Parcel Map Initiative has been another major WLIP activity this year. The Version 1 Statewide Parcel Map Database Project is described in a Memorandum of Understanding between the State Cartographer's Office and the Department of Administration. The project will produce a public statewide parcel map database by June 30, 2015 and a final project report by September 30, 2015.
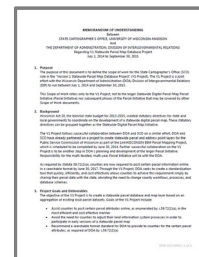
## Statewide Parcel Map Initiative – Planning Process Framework & Strategic Initiative Grants
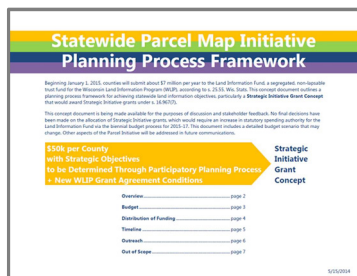
In other Parcel Initiative efforts, WLIP released a concept document outlining a planning process framework for achieving statewide land information objectives. The document set forth a Strategic Initiative grant concept that would award Strategic Initiative grants under s. 16.967(7). Under this proposal, each county would be eligible for $50k in Strategic Initiative grant funding, with strategic objectives to be determined through a participatory planning process. Strategic Initiative grants would include new grant agreement conditions, e.g., meeting benchmarks for county parcel map development. Strategic Initiative grants would be funded with the increase in Land Information Fund revenue to begin in 2015.

In May, the Planning Process Framework document was made available to stakeholder groups for review and comment. The 10 organizations that sent letters expressed general support for the Planning Process Framework and the Strategic Initiative grant concept of allocating $50k in annual strategic funding eligibility to each county (in addition to Base Budget grant funding). There was also general support for county benchmarks or performance measures.

County Site Visits

In order to gain greater local insight for the WLIP and the Parcel Initiative, the WLIP grant administrator has been traveling to individual counties to meet with land information officers and members of county land information councils. In these meetings, discussion topics include the county's approach to land records modernization and parcel map development, the Parcel Initiative, the Strategic Initiative grant concept, and other topics the land information council wishes to discuss.

The goal is to meet with all 72 county land information councils by the end of 2015. As of September 2014, the grant administrator has met with 16 county land information councils.
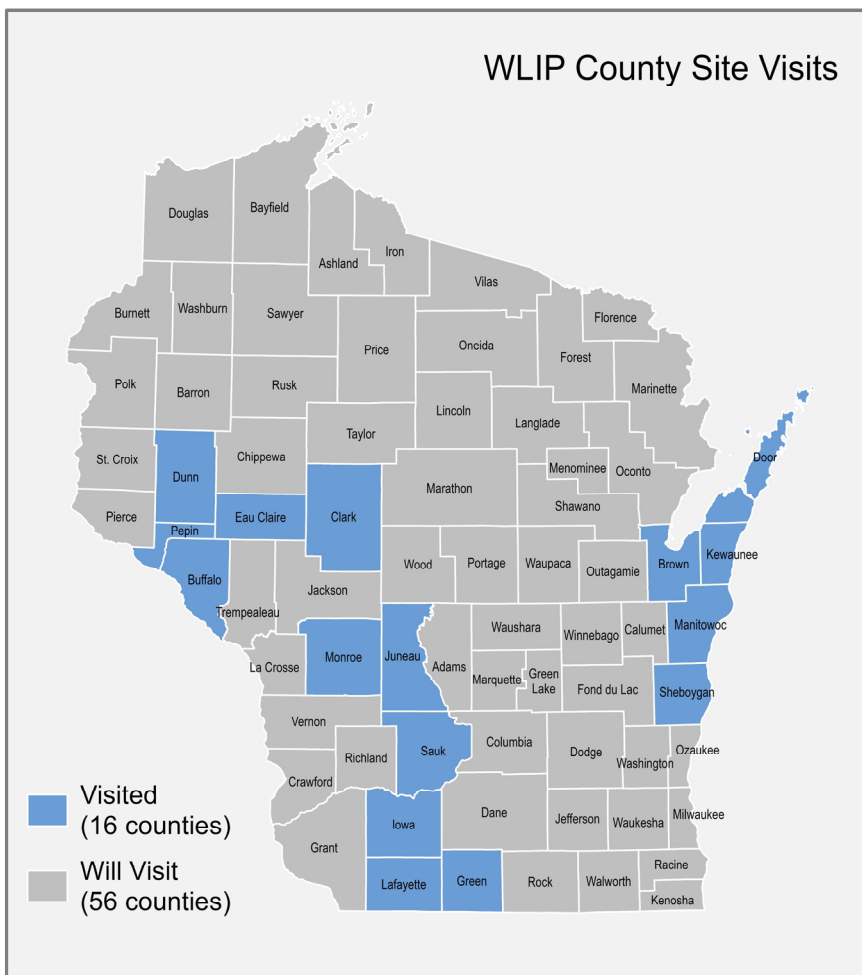
Map 1. WLIP County Site Visits in 2014

COUNTY LAND RECORDS MODERNIZATION FUNDING

Counties currently collect retained fees and receive grants that combined total over $9 million annually through participation in the WLIP. Since 1990, Wisconsin counties have retained a total of $160 million for land information activities and received a total of $33 million in land information grants.

In order to retain fees for land information and be eligible for WLIP grants, county land information offices must meet several requirements for accountability and transparency.

Requirements for Counties to Retain Fees and Receive WLIP Grants

- 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
- Meet a June 30, 2017 deadline to post certain types of parcel information online
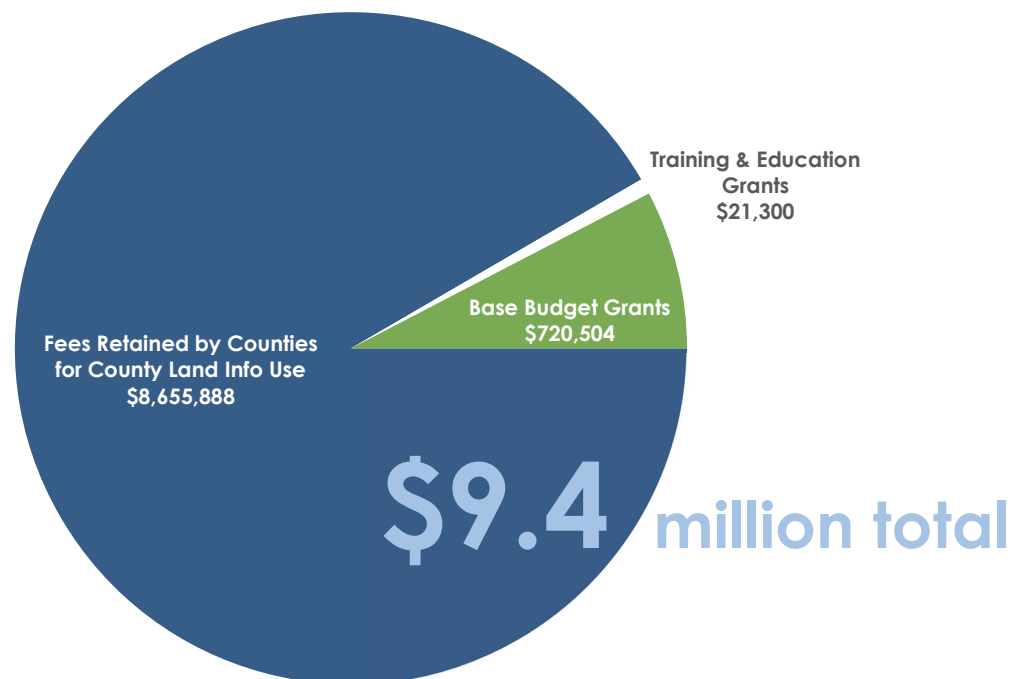

Training & Education Grants $21,300

Base Budget Grants $720,504

Fees Retained by Counties for County Land Info Use $8,655,888

$9.4 million total

Figure 1. 2013 County Land Information Funding – Fees Retained and WLIP Grants Awarded

EXPENDITURE OF RETAINED FEES AND GRANTS IN 2013

Counties submit annual expenditure reports on how WLIP retained fees and grants were utilized in the previous year and categorize their expenditures in a *Retained Fee/Grant Report*, according to s. 59.72(2)(b). The statewide total of $9.4 million in 2013 WLIP funding was devoted to the areas depicted in Figure 2.
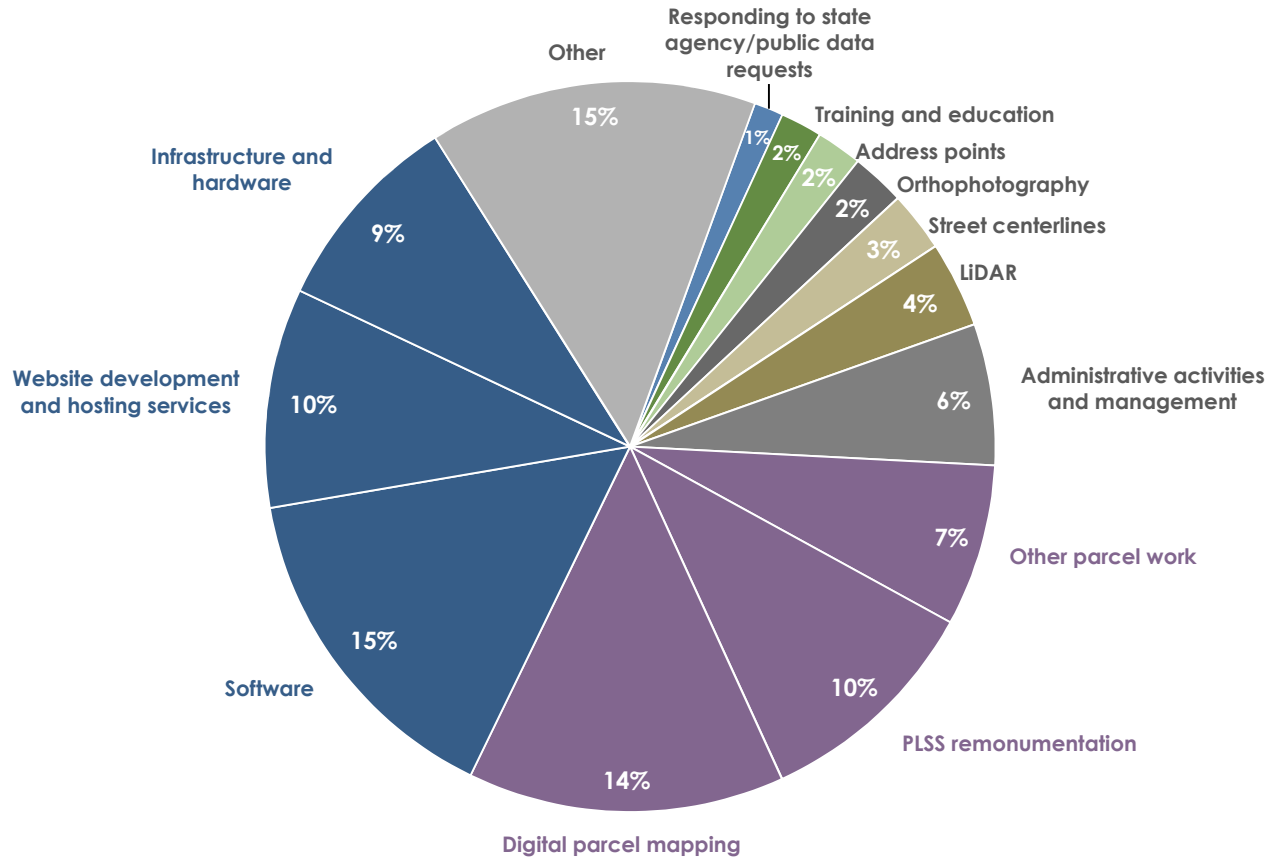
Figure 2. County 2013 Expenditures Reported

As is consistent with expenditure reporting for 2012, Figure 3 illustrates that about one-third of WLIP funding in 2013 was used for the development and maintenance of county parcel map datasets, including digital parcel mapping, PLSS remonumentation, and other parcel work.

About another third of the funding was used for computer hardware, software, and website development and hosting. These expenditures help to provide convenient access to land records on the Internet through searchable databases, online interactive maps, and various types of mapping applications.

The remaining third of WLIP funding supported a diverse range of activities, including the acquisition of LiDAR and aerial imagery as well as the development of address points and street centerlines. Additional activities falling under the "Other" category in Figure 2 include:
- Other GIS layer development, including E911, zoning, and wetlands
- Plat book production
- GIS support for other departments, such as forestry, law enforcement, and emergency management
- Custom map projects, such forest fire mapping and bike trails

Another expenditure category, administrative activities and management, is primarily associated with counties that have large land information office budgets and thus employ multiple staff persons.

CHANGES TO WLIP REVENUE AND GRANTS FROM ACT 20 OF 2013

Beginning January 1, 2015, counties will be required to submit $7 per document recorded to the state Land Information Fund. A $5 portion of this $7 is a repurposing of the revenue originally collected for social security number redaction. The $7 contribution to the state Land Information Fund will increase state program revenue to approximately $7 million per year in 2015.

Base Budget Grants

Because counties with modest real estate market activity do not generate substantial land information office revenue, WLIP Base Budget grants are provided in order to enable eligible counties to develop, maintain, and operate a basic land information system.

ROD Document Recording Fee Until 2015	
$20	County Undesignated
$8	County Retained for Land Information
$2	State Land Information Fund
$30	

ROD Document Recording Fee After Jan 1, 2015	
$15	County Undesignated
$8	County Retained for Land Information
$7	State Land Information Fund
$30	

Act 20 of 2013 changed the formula for calculating Base Budget grant amounts, namely by increasing Base Budget grant eligibility from a $50k to a $100k retained fee threshold. This formula was implemented with 2014 grants, with a Base Budget grant eligibility formula equal to $100k minus the register of deeds document recording fees for land information in the previous state fiscal year, depicted below.

WLIP Base Budget Grant Eligibility Formula
$100k – ROD document recording fees @ $8 per document recorded
Example: County records 5,000 documents $100k – (5,000 x $8) $100k – ($40k) $ 60k = Base Budget grant eligibility

Base Budget grants totaled $1.2 mil statewide and were awarded to 44 counties in 2014. The grants needed to be prorated due to of lack of program revenue, but fortunately, **in 2015 Base Budget grants are not expected to be prorated** and are projected to total $2.7 million statewide.

Not only do counties stand to benefit from the projected increase in Base Budget grant awards, but DOA has also adjusted the grant application period to allow counties to more efficiently budget and plan their land information projects for the upcoming fiscal year. Grant applications for the upcoming 2015 grant cycle were released on August 27, 2014.
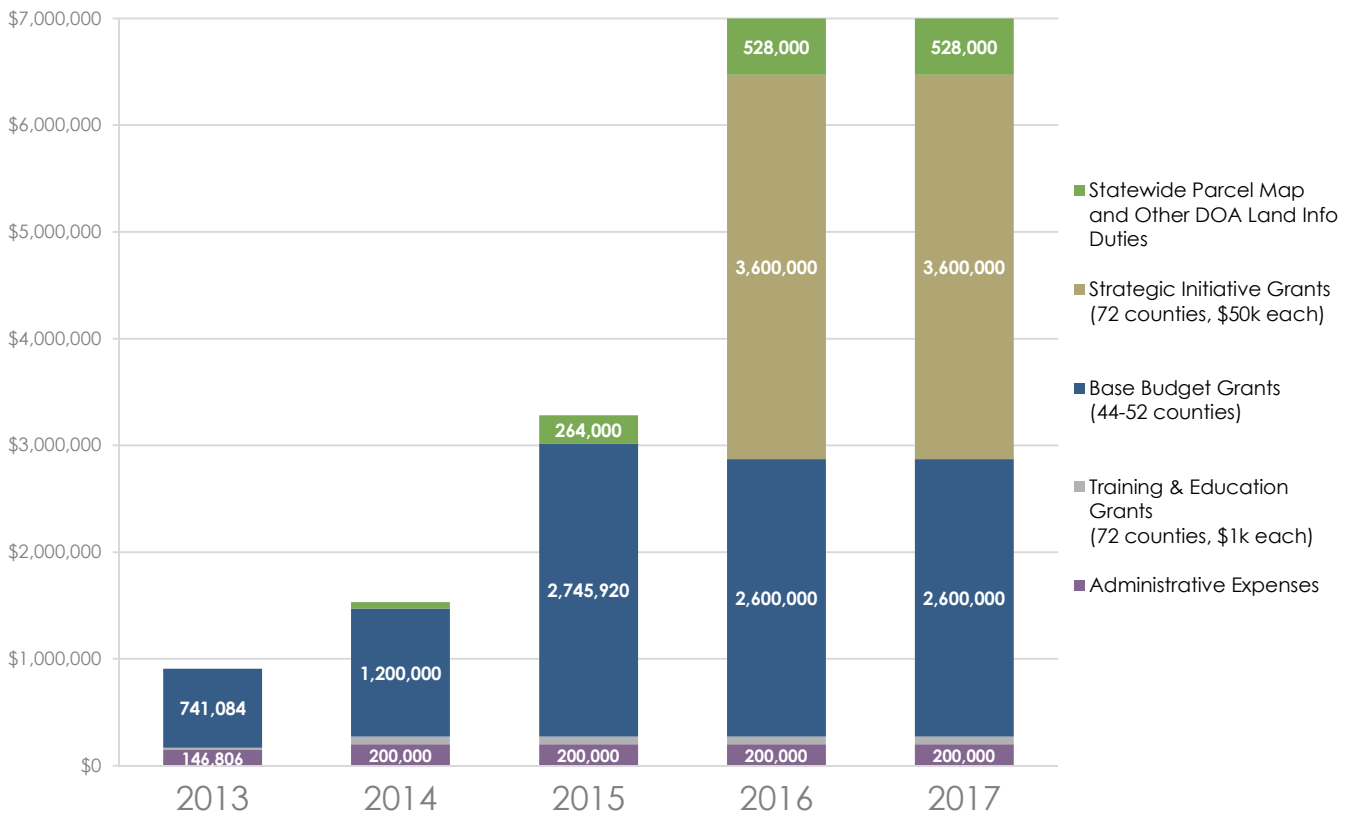
Future Grant Projections

Figure 3 shows grants already awarded and the projected Land Information Program budget for the next few years.

Figure 3. Projected Land Information Program Budget

Base Budget grant amounts are projected to total $2.6 million for 2016 and 2017. This estimate is based on a five-year average for the number of register of deed documents recorded. Base Budget grant eligibility for 2015 is higher because **document recording fee revenues were at a historic low in State Fiscal Year 2014**, which was 25% down from the total for the previous year.

Figure 3 shows Strategic Initiative grants for 2016 and 2017 as projections only. No Strategic Initiative grant funding decisions have been finalized. However, if implemented as shown above, **beginning in 2016, all counties would receive at least $151,000 in WLIP funding per year**, made up of retained fees, Base Budget grants where applicable, a $1k Training & Education grant, and a $50k Strategic Initiative grant. This scenario would mean that 90% of Land Information Fund revenue will be invested in local land information systems in coming years.

Projected WLIP Grant Eligibility in 2016	
≥ $100k	Base Budget grant + Retained fees
$ 1k	Training & Education grant
$ 50k	Strategic Initiative grant
≥ **$151k**	per county

The amount of $528,000 for "Statewide Parcel Map and Other DOA Land Info duties" is a category for DOA expenditures related to the department's land information duties listed in s. 16.967(3). This figure is a projection and not a pre-commitment to spending. WLIP is mindful that utilization of Land Information Fund revenue must be consistent with statutory spending authority, as described by s. 16.967, and should be for well-defined activities with statewide benefits. The Version 1 Statewide Parcel Map Database Project is one such expenditure.

2014 WLIP COUNTY SURVEY RESULTS

Each year the WLIP annual survey has had a slightly different focus. The 2013 survey asked questions about the status of various themes of GIS map layer development. **The 2014 WLIP survey focused on parcel map development and preferences for funding prioritization**. It was created through a survey design workgroup comprised of members of various stakeholder organizations, including the Land Information Officers Network, Register of Deeds Association, and County Surveyors Association.

All 72 county land information officers completed the survey in May and June via an online survey tool. It was not expected that LIOs consult with their county land information councils on survey responses, and the responses are considered non-binding. Information was summed or tallied statewide and is reported here as a general indication of county funding preferences.

PARCEL MAPPING PRIORITIES

Survey Question: Hypothetically, if your county were allocated additional funds specifically for parcel mapping and activities related to parcel mapping, how would your county prioritize the first $50k?
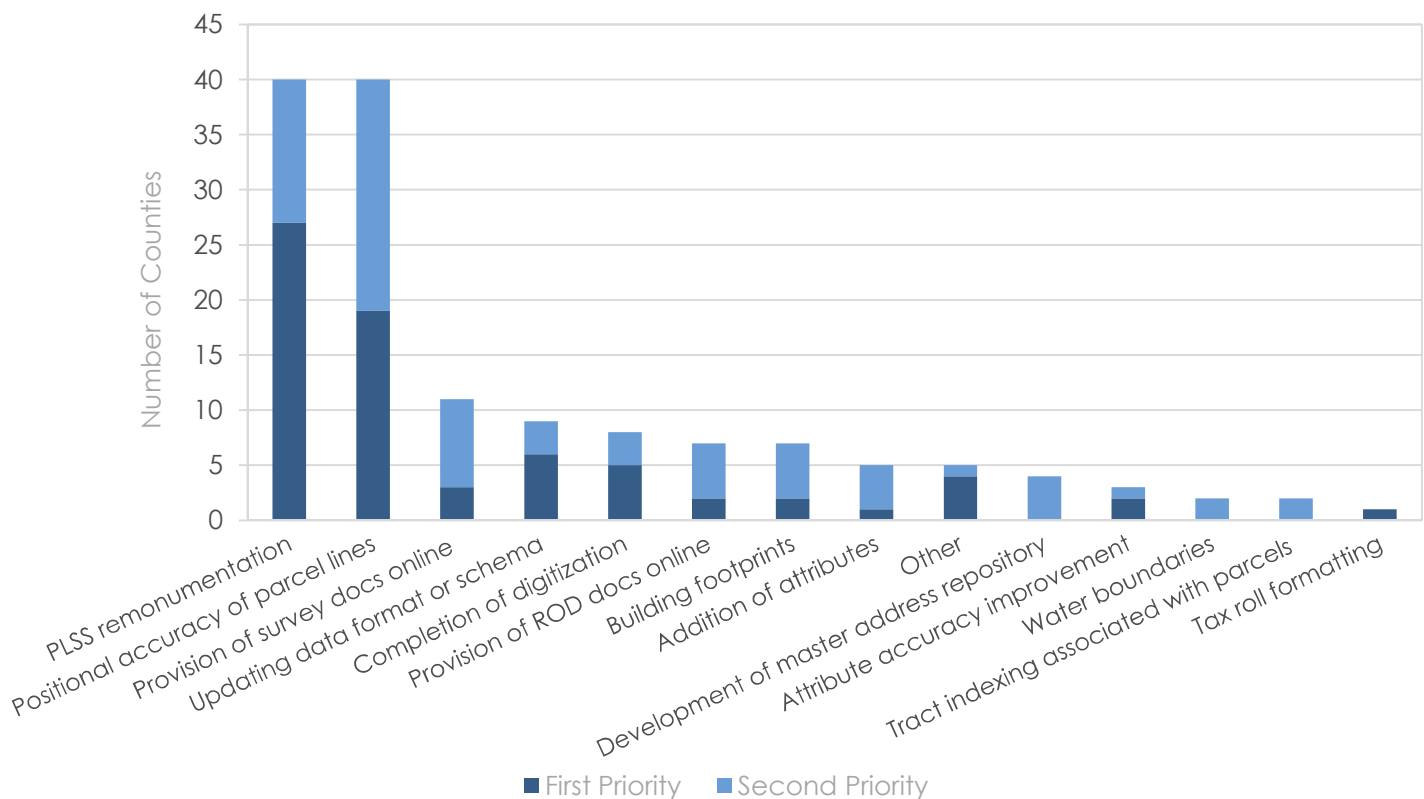
Figure 4. Parcel Mapping Priorities

Figure 4 shows that positional accuracy of parcel lines and PLSS remonumentation—which goes hand-in-hand with improving positional accuracy of parcels—were the most common first priorities for parcel mapping.

Incrementally improving the accuracy of parcel maps has been a long-standing goal of counties and the WLIP. Some counties view positional accuracy as particularly important as more people use online parcel maps, expecting a high level of accuracy. Even with disclaimers about positional inaccuracy, LIOs report that parcel data gets misused because of a false assumption of accuracy. Accurate parcel mapping is cited as necessary for efficient and fair enforcement of local regulations, such as septic sewer and building permits, and the assessment of property taxes.

PLSS remonumentation is commonly cited by county LIOs and surveyors as a cornerstone dataset for parcel mapping. Remonumentation consists of finding monuments every half mile on a square-mile (section) grid originally created by land surveyors in the mid-1800s and marking their location with precise GPS coordinates, then replacing the original monument with a more permanent marker. Many section corner monuments have yet to be found and measured with modern GPS coordinates. According to the 2013 WLIP survey, about 57% of the state's PLSS corners (for all counties combined) are estimated to have survey-quality coordinates associated with their locations. This finding is reinforced by the 2014 results shown in Figure 4, where PLSS remonumentation is a top priority.

One reason remonumentation is a priority is because some counties are working to enhance the results of previous efforts. A number of counties cite a rush to digitize parcel lines in previous decades that led to parcel maps useable in GIS, but lacking in accuracy. Since the digitization that occurred in the late 1990s through the early 2000s, some counties have been working to "clean up" the digitized parcels. Other counties have decided not to digitize parcels until PLSS corners are remonumented. Although several of these counties have holes in their GIS parcel map layers, their incomplete parcel mapping is of a greater positional accuracy than in some counties that have complete parcel coverage.
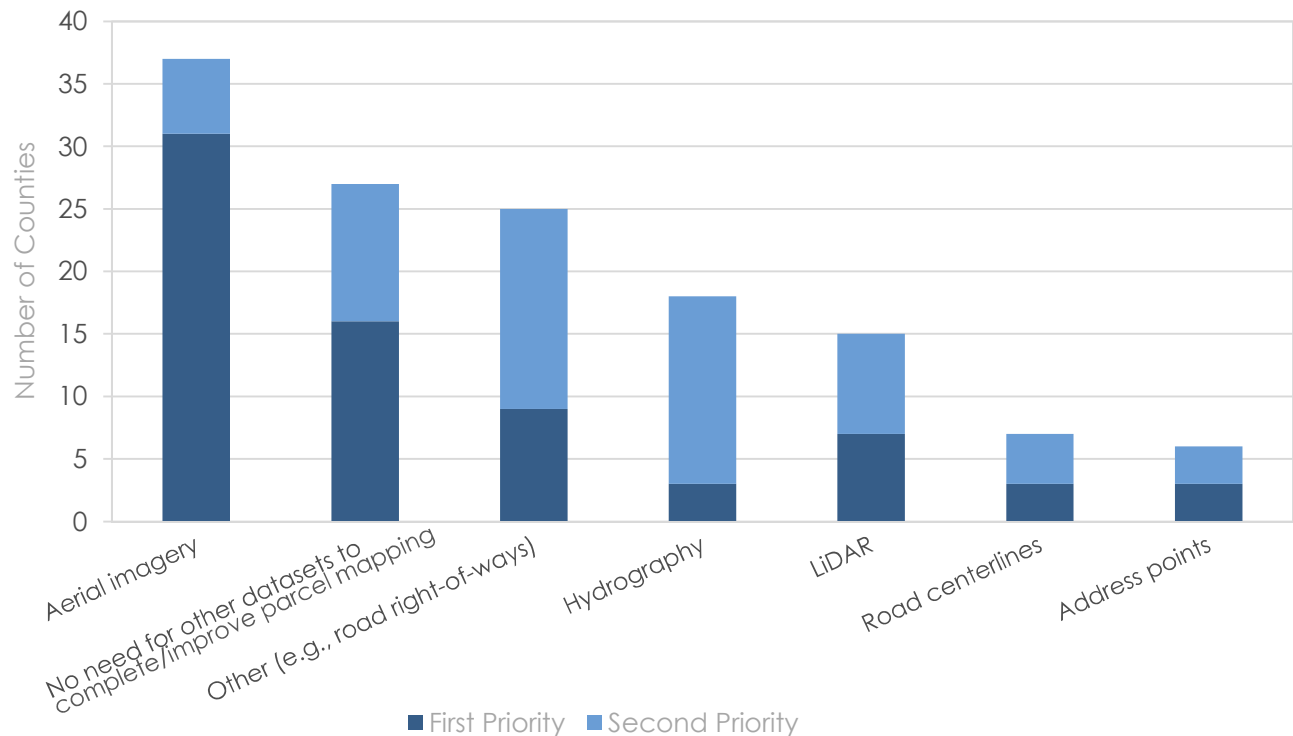

Figure 6. Clark County Surveyor Wade Pettit in the field, May 2013

Figure 6. Clark County PLSS monument

DATASETS NEEDED TO IMPROVE PARCEL MAPPING

Survey Question: Which other land information datasets does your county most need to complete/improve parcel mapping? These would be datasets *not* included under the parcel mapping activities umbrella.

**Figure 7. Datasets Needed to Improve Parcel Mapping**

Figure 7 shows that **aerial imagery had the highest number of selections as the dataset most needed to complete/improve parcel mapping**. County LIOs stated that the aerial imagery available to them was either in need of an update or in a higher resolution. Aerial imagery improves parcel mapping because it is helpful to visually identify features pertinent to parcel boundaries, such as fence lines, block corners, and surface water. Additionally, problem areas with parcel mapping are easier to spot with high resolution aerial imagery.

Furthermore, aerial imagery is a priority because it is a common backdrop over which parcel lines are displayed. It is common for landowners to visit a county land information office in order to have an aerial image of their property printed that displays property boundaries.

Sixteen counties specified no datasets were needed to improve parcel mapping, because the county already has datasets maintained that meet the county's business needs for parcel mapping.

GENERAL LAND INFORMATION PRIORITIES

Survey Question: Hypothetically, if your county were allocated additional funds for local land information systems (in addition to the $50k in the previous question regarding parcel mapping), how would your county prioritize $50k in additional funding?
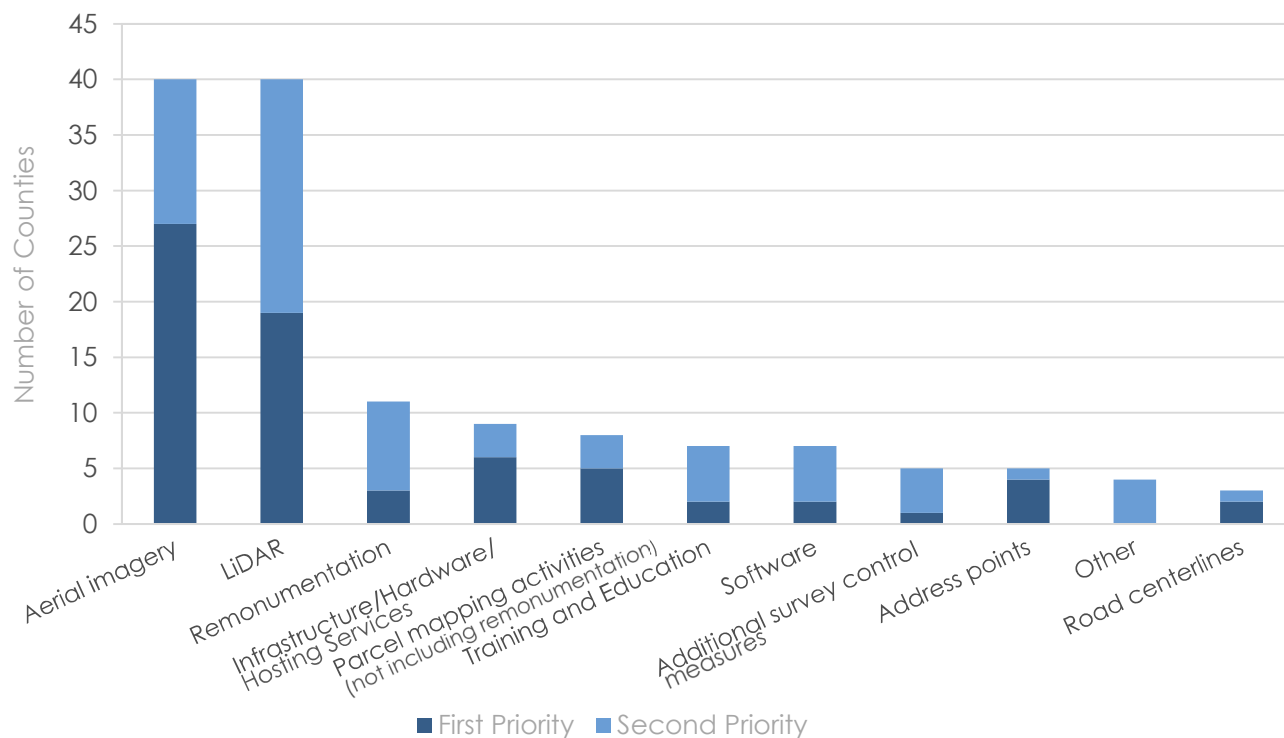
Figure 8. General Land Information Priorities

Figure 8 shows **aerial imagery and LiDAR acquisition were the most common selections listed as priorities for additional funding** beyond parcels. Aerial imagery is described as a cornerstone dataset used by multiple county departments on a daily basis, as well as the public. Beyond enhancing parcel mapping, it has a wide range of uses, including forestry management, planning, zoning, and 911 dispatch.
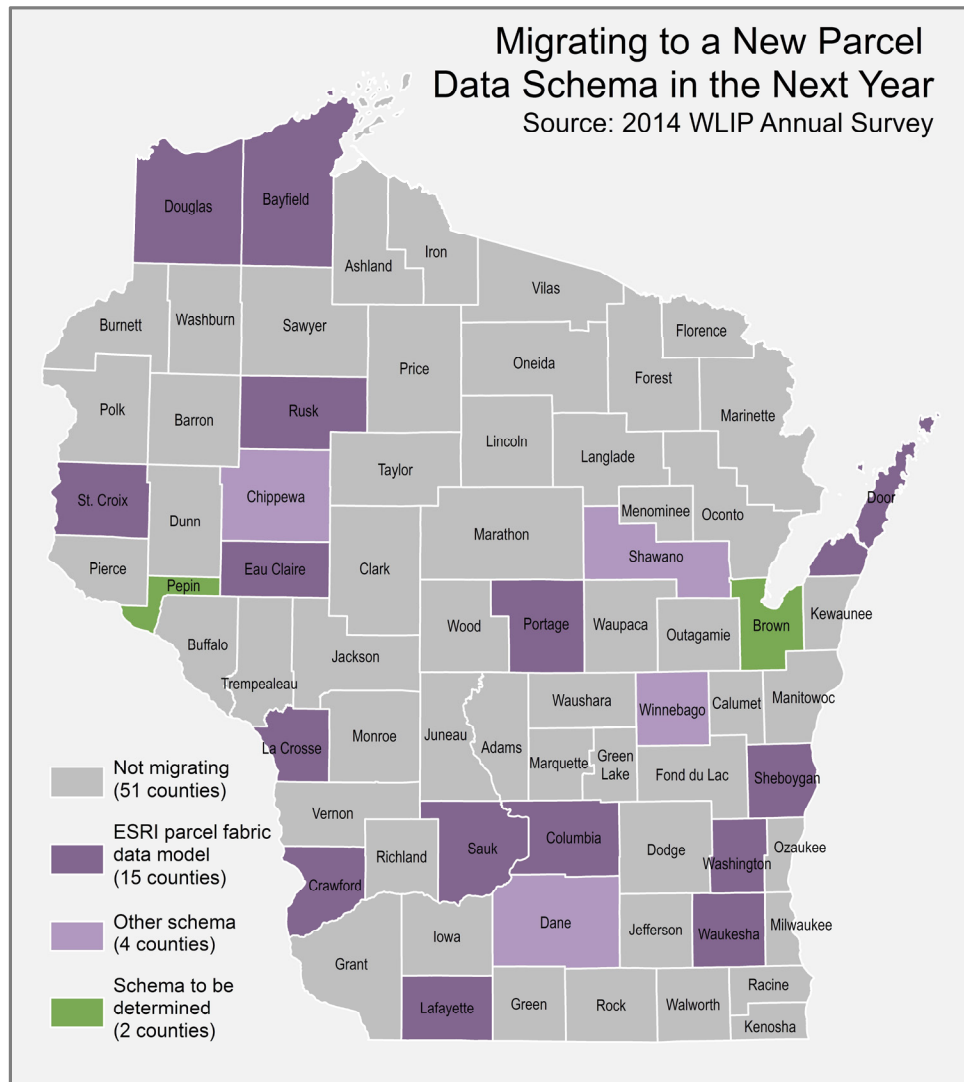
LiDAR is used to create highly detailed elevation mapping. This is useful for a variety of purposes, including the improvement of floodplain mapping, planning and engineering. According to a Department of Natural Resources inventory of county LiDAR resources,[1] 27 counties do not have countywide LiDAR. One major obstacle is the prohibitive cost of LiDAR acquisition, which can cost a county hundreds of thousands of dollars.

Many counties seek to dedicate future WLIP grant funds to defray the acquisition costs of LiDAR and aerial imagery.

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[1] http://www.sco.wisc.edu/images/stories/2014/Sep/DNR_LIDAR_Inventory_Ext_082614.pdf

MIGRATING TO NEW PARCEL SCHEMA

Survey Question: Do you have plans to migrate to a new parcel data schema in the next year—not minor schema changes, but one that would require a significant or complete reintegration of scripts, related applications, software, and/or automated workflows?

Migrating to a New Parcel Data Schema in the Next Year
Source: 2014 WLIP Annual Survey

Legend:
- Not migrating (51 counties)
- ESRI parcel fabric data model (15 counties)
- Other schema (4 counties)
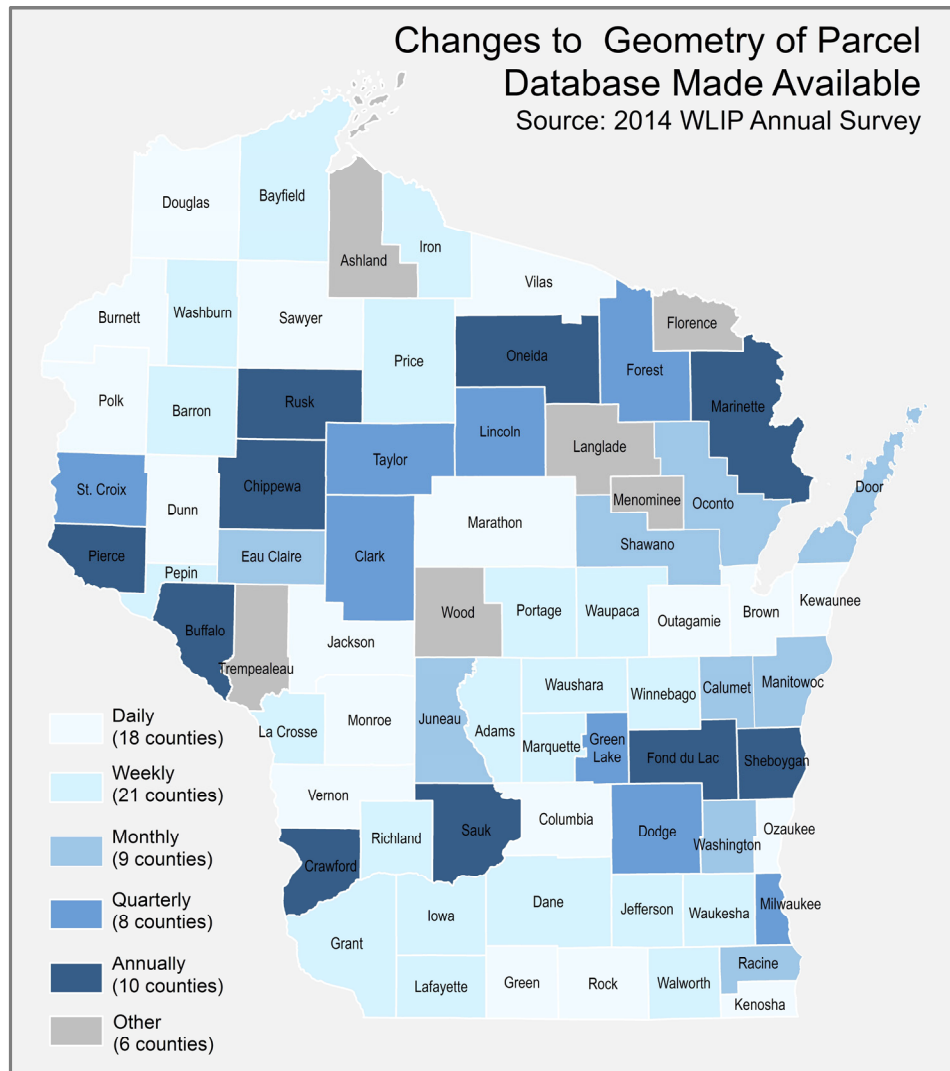- Schema to be determined (2 counties)

Map 2. Migrating to a New Parcel Data Schema in the Next Year

Maps 2 and 3 indicate fluctuation in parcel information over time in terms of changes in underlying technical schema and how frequently updates are committed to the local data set. These measures are informative to the repeatability and long-term sustainability of an aggregated statewide parcel map, as the DOA plans for the future of the Statewide Parcel Map Initiative.

UPDATE FREQUENCY FOR PARCEL GEOMETRIES

Survey Question: How often do you make changes to the geometry of your parcel database that you regularly make available for download or in response to standard data requests?

Changes to Geometry of Parcel Database Made Available
Source: 2014 WLIP Annual Survey

Legend:
- Daily (18 counties)
- Weekly (21 counties)
- Monthly (9 counties)
- Quarterly (8 counties)
- Annually (10 counties)
- Other (6 counties)

Map 3. Changes to Geometry of Parcel Database Made Publicly Available