

Proposal for Regional GIS Efficiency for Public Safety and Infrastructure Management, Richland Center, WI

Executive Summary: The Regional GIS Efficiency for Public Safety and Infrastructure Management project seeks to create a unified GIS service for the City of Richland Center and Richland County to improve public safety, infrastructure, and transparency. Limited funding and staffing hinder the city and county's ability to utilize GIS effectively for essential needs.

Background: A Geographic Information System (GIS) is a digital tool used by municipal and county governments to collect, manage, and visualize location-based information. It allows staff, elected officials, and the public to view detailed maps that are connected to important data.

In Wisconsin, state law (Wis. Stat. § 59.72) mandates counties to maintain digital parcel maps within a GIS framework, ensuring accurate, accessible land information for property assessment, taxation, and planning. Additionally, GIS plays a critical role in Next Generation 9-1-1 (NG9-1-1) by facilitating accurate call routing and location verification through standardized geospatial data. This technology helps emergency services identify caller locations, direct calls to appropriate Public Safety Answering Points (PSAPs), and incorporate multimedia such as texts and videos, improving response efficiency and coordination.

As a foundation for effective governance, GIS improves decision-making, streamlines service delivery, bolsters public safety with accurate emergency response and resource management, fosters openness, and enables forward-thinking planning for sustainable, adaptable communities.

Some of the ways GIS is used by local governments:

- **Property Information:** Easily retrieve parcel boundaries, ownership records, and tax information.
- **Land Use and Planning:** View land use districts, development restrictions, and floodplain maps to support planning decisions.
- **Infrastructure Management:** Tracks locations and details of roads, utility infrastructure, and other public assets.
- **Public Safety and Emergency Response:** Enhances fire, police, and EMS operations with precise address and location data.
- **Public Access and Transparency:** Provides residents, developers, and professionals with 24/7/365 self-service tools to explore interactive maps and data.
- **Cross-Departmental Coordination:** Ensures consistent, up-to-date information is available across municipal departments for effective and efficient capital improvement planning.
- **Election Management:** Visualizes voter districts to support election management.

The City of Richland Center and Richland County each utilize Geographic Information Systems (GIS) to manage and share land and property information. Here's an overview of their current GIS systems:

1. City of Richland Center GIS System

GIS services are provided through contracted providers with city staff collecting field data and engaging in limited internal mapping updates.

Currently, the City's function/layers listed are not publicly accessible with the exception of cemetery data (city [GIS Map](#)), and ward data (available on county [GIS map](#)).

DATA LAYER	DATA AVAILABLE	MAINTAINED BY	DATA UP-TO-DATE
Zoning	District boundaries and types, rezones, annexations	Contracted Service	No
Infrastructure	Locations, conditions, reports, plans, images of roads, stormwater, electric, water, sewer, public assets	Contracted Service & city staff	No
Cemetery	Plot boundaries and decedent data	Contracted Service	Updated quarterly
Ward	Boundaries of voting wards	Contracted Service	No
Capital Projects	Location and details of projects	Contracted Service & city staff	No
Tax Incremental Districts (TID)	Boundaries of TIDs	Contracted Service	No
Sidewalks	Inventory and condition	Contracted Service	No
Trees	Inventory of the location, type, and condition	Contracted Service	No

2. Richland County Public GIS System

GIS services are provided through contracted providers and county staff outside. The following GIS layers are available for public viewing:

- Parcel and Address Data
- Tax Data
- Municipal Boundaries
- Certified Survey Maps
- Supervisory Districts
- Wards
- Extraterritorial Zoning Boundary
- Floodplain
- Lakes

Current Situation Analysis: Rural county GIS staff rely on limited funding from county general funds and a \$30 per-document fee from the Register of Deeds, both constrained by levy limits and low real estate transaction volumes in rural areas. This funding shortfall, coupled with a statewide shortage of GIS professionals, makes it difficult to attract and retain talent, as urban areas and private sectors offer higher salaries.

Municipalities, meanwhile, either have no in-house GIS access or have GIS services that are narrowly focused on utilities, neglecting and ignoring other vital uses of GIS such as public safety and communication with residents. Although municipalities have unique revenue streams that are not subject to levy limits, such as utility funds or Tax Increment Finance revenue, they lack dedicated GIS funding.

Richland Center is unable to afford quality GIS staff in-house and does not have access to county GIS services due to the county's inability to attract and retain quality staff. These conditions, including a lack of sustainable and capable workforce, all come at a time when the Next Gen 9-11 system is rolling out statewide and in need of incorporation with county GIS service. Richland Center and Richland County need immediate support to coordinate their available funding and service needs to enable public safety staff to effectively serve their residents.

Potential GIS Management Models:

1. Continued Public Management (City/County):

- Advantages: Maintains community control, potential for tax support, existing staff familiarity of local conditions.
- Disadvantages: Funding constraints, staffing challenges, and duplication of efforts.

2. Management by Other Regional Entity:

- Advantages: Stabilization of funding, increased efficiency, potential for improved public transparency.
- Disadvantages: Governance complexity, initial costs and coordination, potential resistance from those accustomed to operating independently.

Anticipated Outcome: The scope is designed to create one unified city and county GIS service that supports critical emergency response functions, enables data-driven decision-making, manages city and county infrastructure assets for capital improvements planning, and modernizes land records to support private businesses (surveyors, real estate agencies, engineers, etc.) and the public at large. The study will identify balanced and sustainable funding streams across the city and county that reduces GIS reliance on levy-limited general funds and enables greater efficiency through new partnerships. The project will also identify a governance model that ensures revenue and performance oversight.

Potential Areas for Cost Savings: Through the combination of GIS resources, cost savings in the following key areas are expected:

1. Economies of Scale in Contracting

- A joint contract may leverage combined purchasing power, which may secure a better rate from a GIS provider than individual contracts.

2. Shared Software and Licensing

- Sharing these costs would reduce each entity's individual expense for software, licensing, and data maintenance.

3. Staff Time Management & Access to Up-to-Date Data

- A shared GIS coordinator with technical expertise would efficiently manage daily maintenance and updates, reducing the need for hiring additional staff or filling county GIS vacancies.
- A shared GIS coordinator would also provide routine and regular data updates ensuring accurate and up-to-date data is accessible to the public. With reliable data available online, service delivery to the public will be improved while allowing staff to address other key duties.

4. Elimination of Duplicative Services

- Centralizing management would consolidate overlapping city and county datasets, reducing redundancies, simplifying updates, and improving public access to information. It also creates a single point of contact for data update requests, streamlining the process for both city and county.

4. Greater Pursuit of Grant Funding

- GIS providers may have greater knowledge of and experience applying for GIS related grants, which the city and county may not be aware of or have the capacity to pursue in the current structure. Sharing GIS services may allow either the service provider or the contracting entities to pursue new grant opportunities which would have the potential to offset costs related to system upgrades, aerial imagery and asset mapping.

5. Access to Specialized Tools and Expertise

- GIS providers have staff with advanced GIS skills and capabilities (e.g., modeling, infrastructure asset management), which may allow the city and county to forego hiring outside consultants for occasional projects.

Opportunities: A systems-view of the GIS needs of the city and county will be driven by the needs of those relying on the GIS service, not the preference of any one historical GIS provider. All city and county residents and businesses will be the focus of service delivery. This systems approach allows for a variety of data-driven decisions not available in the current disjointed and under-funded system.

1. Next-Gen 911 will be fully incorporated into the GIS and dispatch systems. This will allow for an annual review of call volume by type and geography to identify areas of need and continual improvement.
2. Mapping historic and projected impacts from natural disasters, including frequent flooding on the Pine and Kickapoo Rivers and Mill Creek. The project will also map repetitive loss structures at current and projected risk from flood events and identify areas for critical response functions.
3. County-wide mapping of city, county, village, and township infrastructure, including relevant data such as type, age, and replacement cost of each asset. This data will be used to coordinate CIP planning and to enable joint bidding of projects across jurisdictions.
4. Public information will be coordinated at the city and county levels to enhance transparency by mapping voting wards and polling locations, educating new residents, and promoting government openness. Zoning districts, future land use, and constructability conditions will be mapped to foster local economic development.

Next Steps:

- Coordination meetings with city and county departments: The project leaders will meet with current GIS users in the city and county and create a database of all GIS data used by each organization as well as those used by the public and private business. A set of best practices for regional GIS will be developed from input across the state. We will identify options for the GIS platform and user engagement, including privacy issues.
- Funding analysis: Identification of overall funding available for GIS, by source. Funding will be analyzed to determine if it is restricted or unrestricted, subject to levy limits or other controls, and



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for any other required uses. A draft budget will be created for a regional GIS structure. This will also include a cost-benefit comparing current GIS funding and service quality with a future regional structure.

- Governance plan: Development of a shared model of GIS governance to ensure city and county funding has proper oversight, confirm performance metrics and deliverables for implementation, and meet any required GIS state requirements such those associated with land records management.

Conclusion: The Regional GIS Efficiency project offers a transformative opportunity to address the funding and staffing challenges facing Richland Center and Richland County's GIS capabilities. By coordinating resources and leveraging a systems-driven approach, the project will ensure a sustainable, high-quality GIS service that meets the urgent needs of public safety, infrastructure management, and community engagement. Through stakeholder collaboration, a thorough funding analysis, and a clear governance plan, this initiative will position the region to effectively serve residents and support long-term economic growth.