

TPMA

Infrastructure Inventory and Utility Assessment

April 2025

Submitted to

Lake County, Michigan

Submitted by



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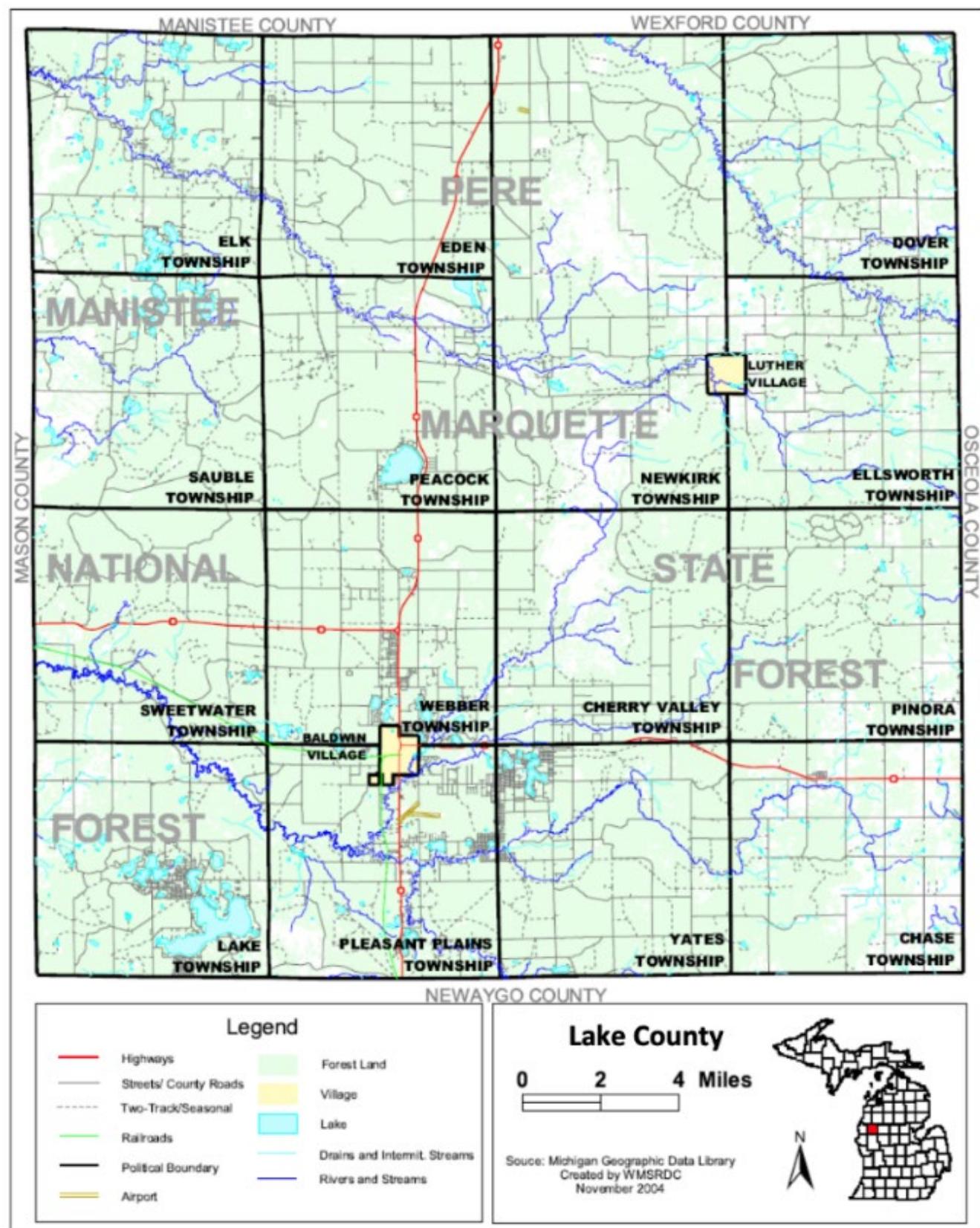
Introduction

The project team was tasked with conducting an inventory of local infrastructure and utilities in Lake County, and assessing the current infrastructure capacity and needs. This will allow county and municipal governments to prioritize future infrastructure investments and utility service expansion investments to key development sites. The following report provides information and analysis of the existing infrastructure and utility providers in the county focusing on the Village of Baldwin, Webber Township, and Yates Township, and concludes with recommendations regarding funding for future infrastructure projects.

In addition to the information contained within the report, the team developed a GIS map that includes mapping data for each of the utilities, as well as the 2013 PASER results and environmental contamination sites. The GIS map also includes information on the priority sites for development identified as a part of the overall economic diversification plan.

Developers can request access to the GIS map by contacting Lake County Economic Development Alliance at 231.742.3328 or nicholsj@rightplace.org.

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Lake County Municipalities

Townships

- Elk Township
- Eden Township
- Newkirk Township
- Dover Township
- Sauble Township
- Peacock Township
- Ellsworth Township
- Sweetwater Township
- Webber Township
- Cherry Valley Township
- Pinora Township
- Lake Township
- Pleasant Planes Township
- Yates Township
- Chase Township

Villages

- Village of Baldwin
- Village of Luther

Transportation

Highways and Interstates

The closest interstate highways to the county are Interstate 96 (I-96) and Interstate 75 (I-75). Grand Rapids is the nearest access point to I-96, with a drive time of 70-80 minutes, approximately 70 miles south. Bay

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City is the nearest access point to I-75, with a drive time of 100 minutes, approximately 100 miles east¹.

Additional main roads that pass through or near the county include:

1. US Highway 10: US-10 runs east-west and is a major route that passes through Sweetwater, Webber, Pleasant Plains, Cherry Valley, Yates, and Chase Townships, as well as the Village of Baldwin. It provides access to several towns and communities in the area, including Ludington to the west and Reed City to the east.
2. Michigan 37: This state highway runs north-south through Lake County, passing through Newkirk, Eden, Peacock, Webber, and Pleasant Plains Townships, as well as the Village of Baldwin. It's a primary route for local traffic and visitors traveling through the county, and provides access to several communities in the region, including Traverse City to the north and Newaygo and Grand Rapids to the south.
3. US Highway 131: US-131 runs north-south bordering the eastern portion of the county. It provides direct access to communities in the region including Cadillac to the north, and Big Rapids and Grand Rapids to the south.
4. Michigan 55: Another east-west state highway, M-55 runs just north of Lake County. It is an important route for accessing areas to the north and provides a connection to M-37.
5. Michigan 115: M-115 runs northwest-southeast to the northeast of the county. It connects with US-131, M-37, and M-55.

Travel Times²	
Big Rapids	35 min

¹ Drive time and mile estimate based on starting point at Lake County Courthouse (Courthouse, 800 10th St #230, Baldwin, MI 49304)

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Ludington	40 min
Newaygo	40 min
Cadillac	45 min
Grand Rapids	75 min
Mt. Pleasant	75 min
Muskegon	75 min
Traverse City	80 min

Pavement Surface Evaluation and Rating (PASER)

In 2023, the West Michigan Shoreline Regional Development Commission evaluated approximately 269 miles of federal-aid eligible roads in Lake County. Every road was evaluated by PASER (Pavement Surface Evaluation and Rating) criteria, and scores were assigned. The scoring descriptions are as follows:

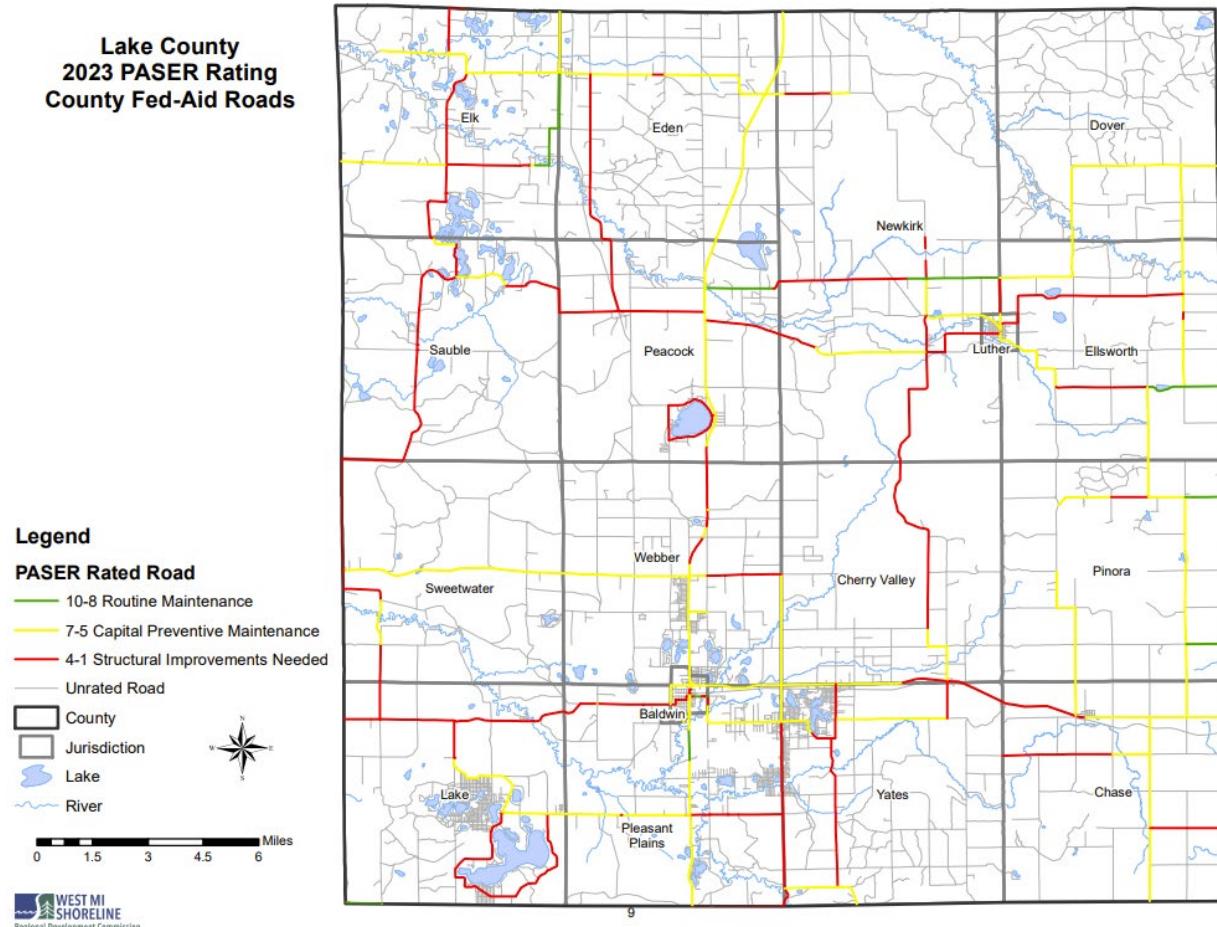
- Roads receiving a rating of Good (8 or higher) require only routine maintenance
- Roads receiving a rating of Fair (5-7) require capital preventative maintenance
- Roads receiving a rating of Poor (4 or less) require structural improvements

Of the 269 miles of federal-aid eligible roads evaluated in Lake County, more than 217 were assigned a “Poor” rating, indicating that they require structural improvements. Approximately 48 miles of roads require capital structural improvements. Only 5.2 miles, or 1.95% of the federal-aid eligible roads in the county, achieved a “Good” rating and require only routine maintenance.

Condition	Centerline Miles	Percentage

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Good (rating 8+)	5.260	1.95%
Fair (rating 5-7)	46.794	17.37%
Poor (rating 1-4)	217.351	86.67%



Public Transportation

Yates Dial-A-Ride is a demand-response transportation system that serves as a brand of the Yates Township Transportation Authority (as of 2022). The service provides county-wide transportation to residents, visitors, students, human services agencies and individuals with

disabilities. Users can call for a ride Monday through Friday from 6:00AM-6:00PM and on Saturday from 9:00AM-1:00PM, with pre-booked rides available on Sunday. The service also provides transportation outside the county once a week to Big Rapids and Ludington. Rates range from \$0.50 to \$2.00 a ride depending on age and whether or not the rider is a Lake County Resident.

Railroads

While Lake County has historically been served by several railroads, only one is currently active. Marquette Railway (Genesee & Wyoming (GW)) runs through the county, with a depot in the Village of Baldwin. The GW is based in Ludington and operates 126 miles (203 km) of trackage north from Grand Rapids, Michigan, where connections with CSX and Grand Elk are located. It has historically served chemical, paper products, and various general freight customers.

Identifying and developing available industrial sites along this rail line could open business attraction opportunities for the County if GW has the capacity to serve the sites. Collaborating with the GW rail line would be necessary to create this opportunity. Overall, preparing and marketing sites with rail access will enhance regional competitiveness and connect local products to broader markets.

Utilities and Service Providers

Water and Wastewater

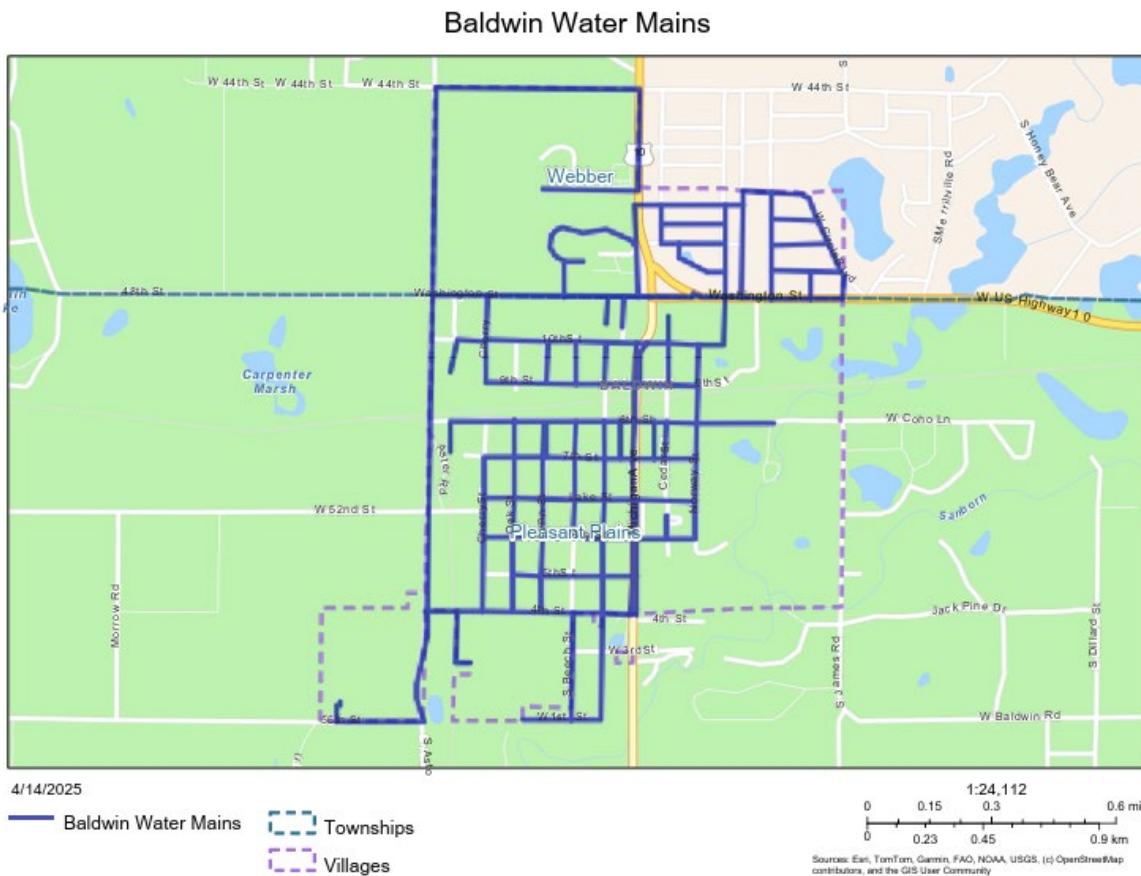
While many municipalities in the region outside of Lake County operate water distribution and wastewater collection systems, Lake County has limited municipally operated facilities. These are limited to the Village of Baldwin, Yates Township, and Webber Township. The Village of

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Baldwin is the only municipality with both water and wastewater public utilities. A small part of Webber Township is served by Baldwin's municipal water, and Yates Township provides wastewater services in the Idlewild neighborhood.

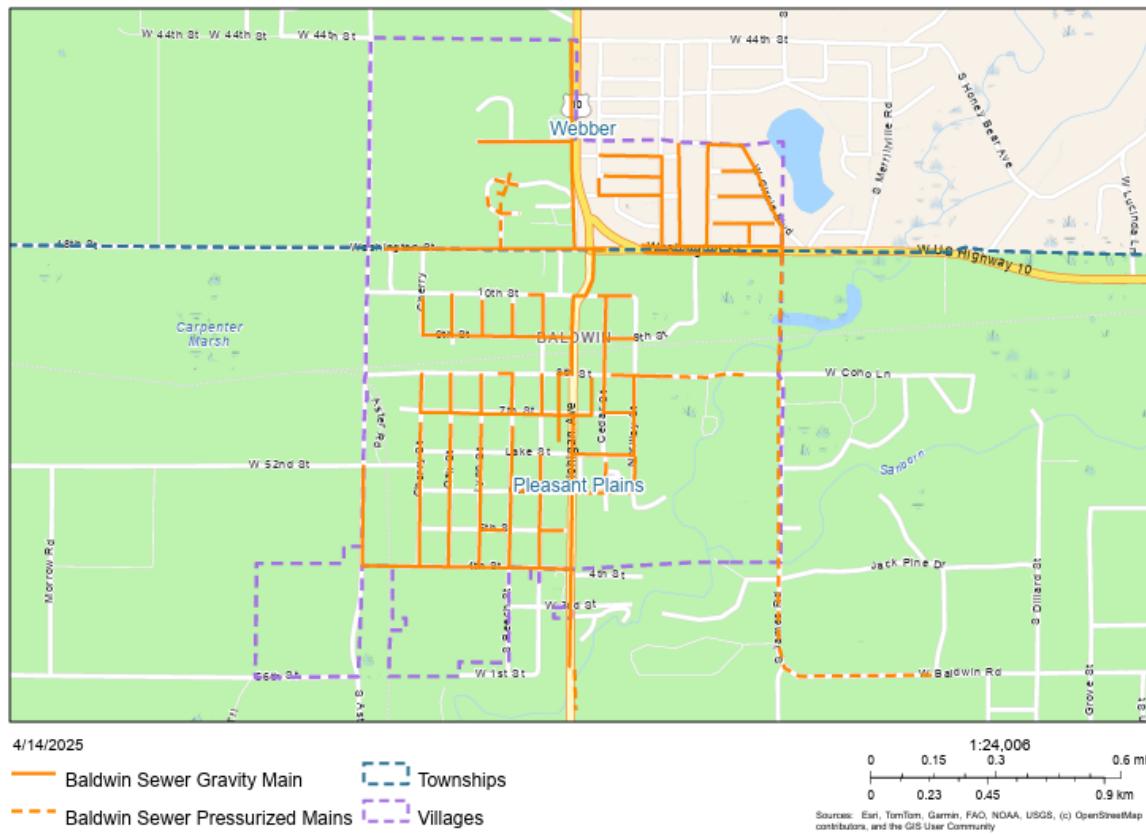
The following images are pulled from the GIS map and give an overview of where water and wastewater main lines currently exist.

Village of Baldwin



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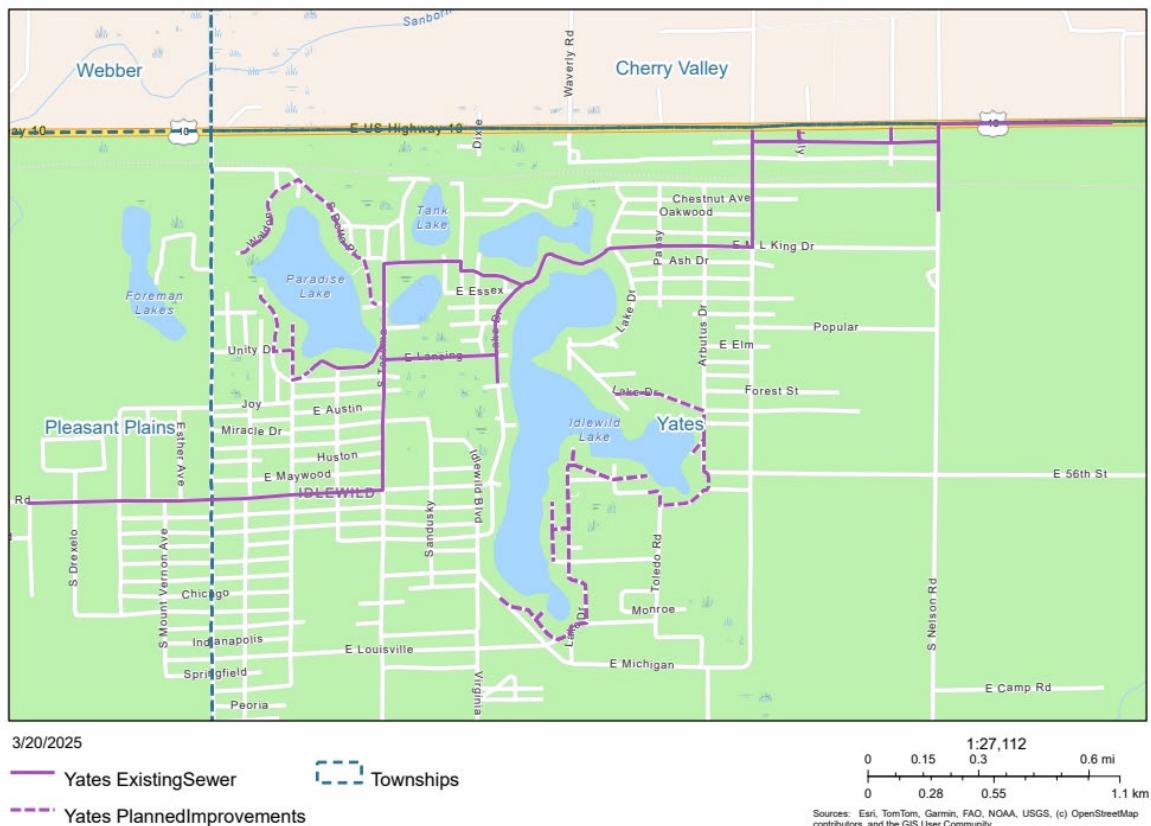
Baldwin Wastewater



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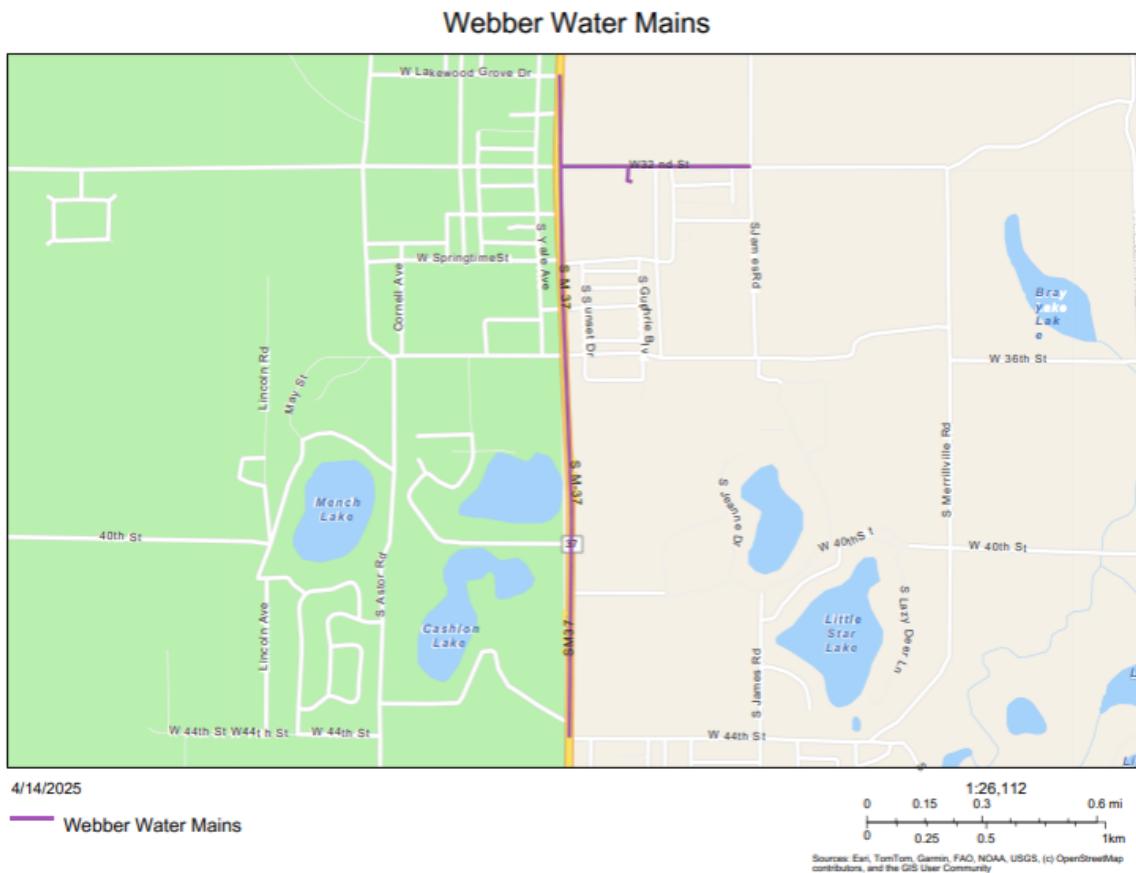
Yates Township

Yates Township Sanitary Sewer Collection System



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Webber Township



Natural Gas

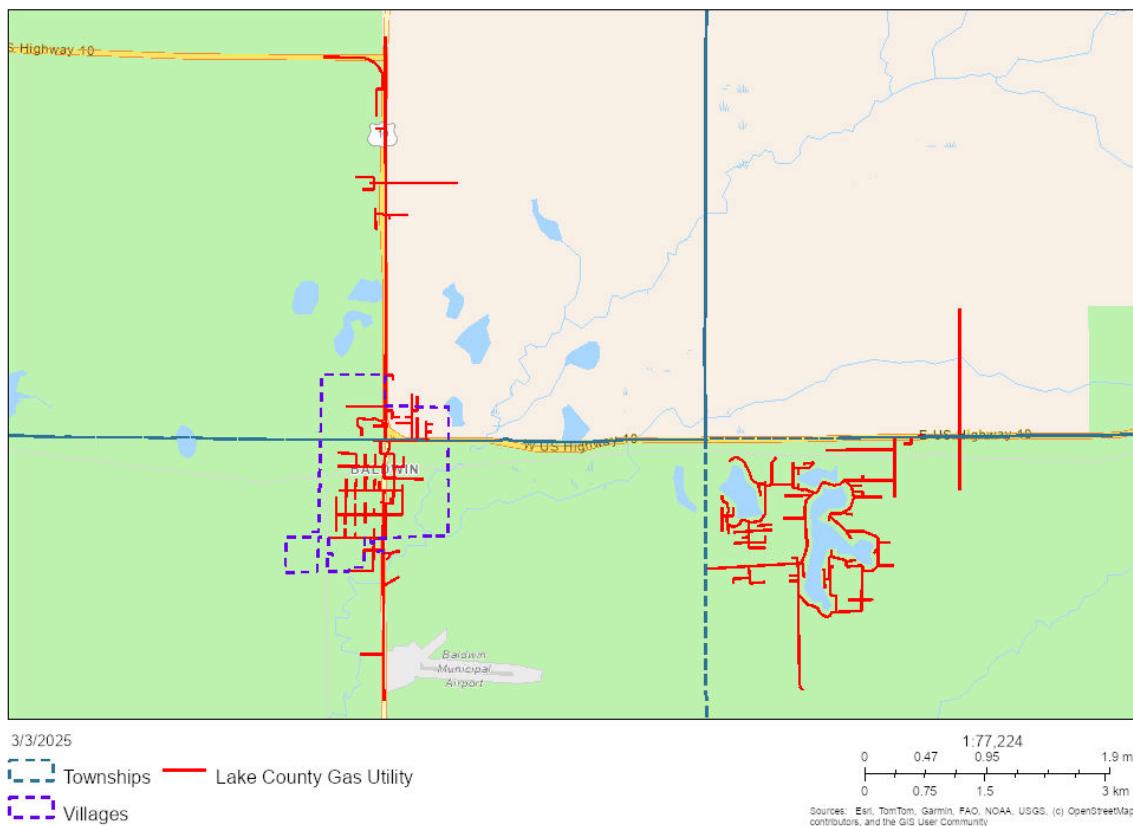
DTE Energy is the primary provider of natural gas. Access to this service is not readily available throughout the county, though it has been improving. Jonathan Wilson, the Regional Manager for Corporate and Community Affairs, provided information for each of the prioritized sites. Gas access is very limited, with a concentration of service to residents and businesses in the Village of Baldwin and Idlewild, with only a few extensions beyond. For instance, gas lines do extend along M37 from the northern junction of US-10 in Webber Township to the

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Baldwin Municipal Airport in Pleasant Plains Township. In Yates Township, one line extends south from Idlewild along Virginia Ave and another runs along South Nelson Road with the southern point at (approximately) E. Martin Luther King Dr and then crossing US-10, extending as far north as East 40th Street.

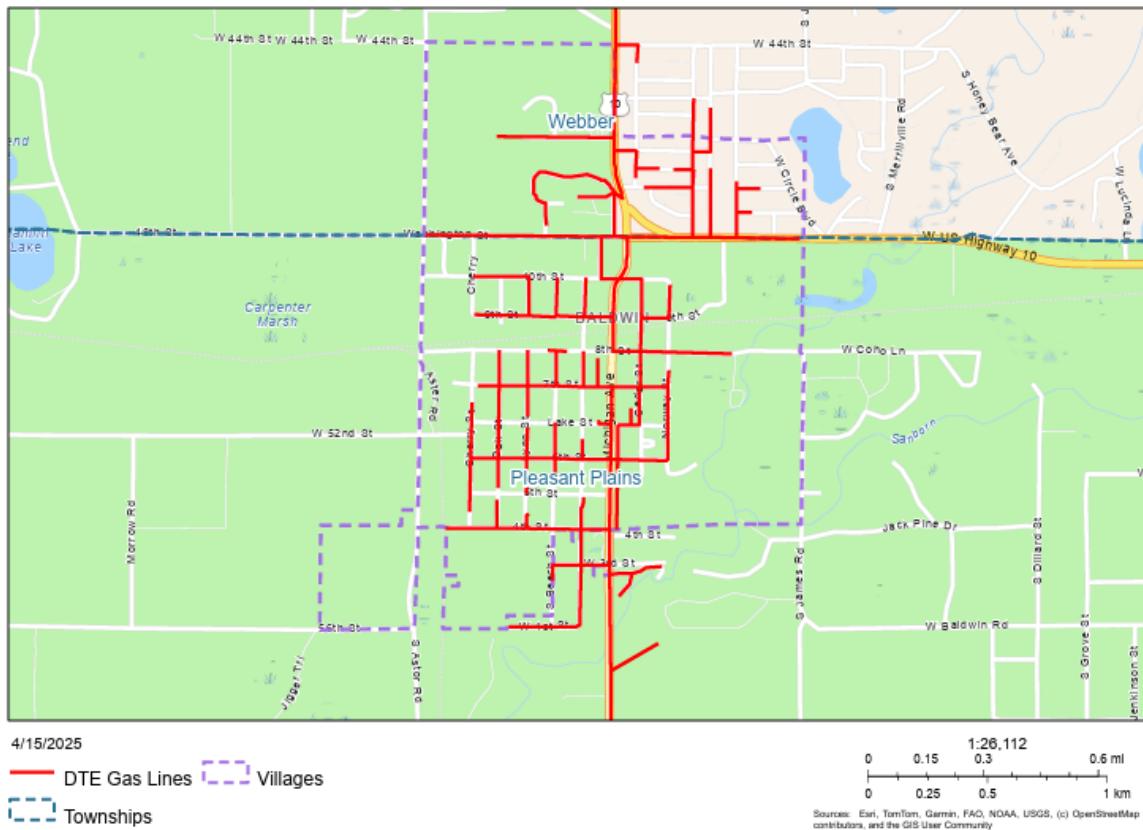
While DTE has expressed a willingness to expand gas lines in the county, there are several limiting factors. The low residential density in most of the county results in a high infrastructure cost per household. While there is existing demand to expand lines to meet industrial development goals, the railroad also poses a barrier, as crossing requires both a significant capital and financial investment, as well as coordination with the Marquette Rail.

Lake County Utilities Map



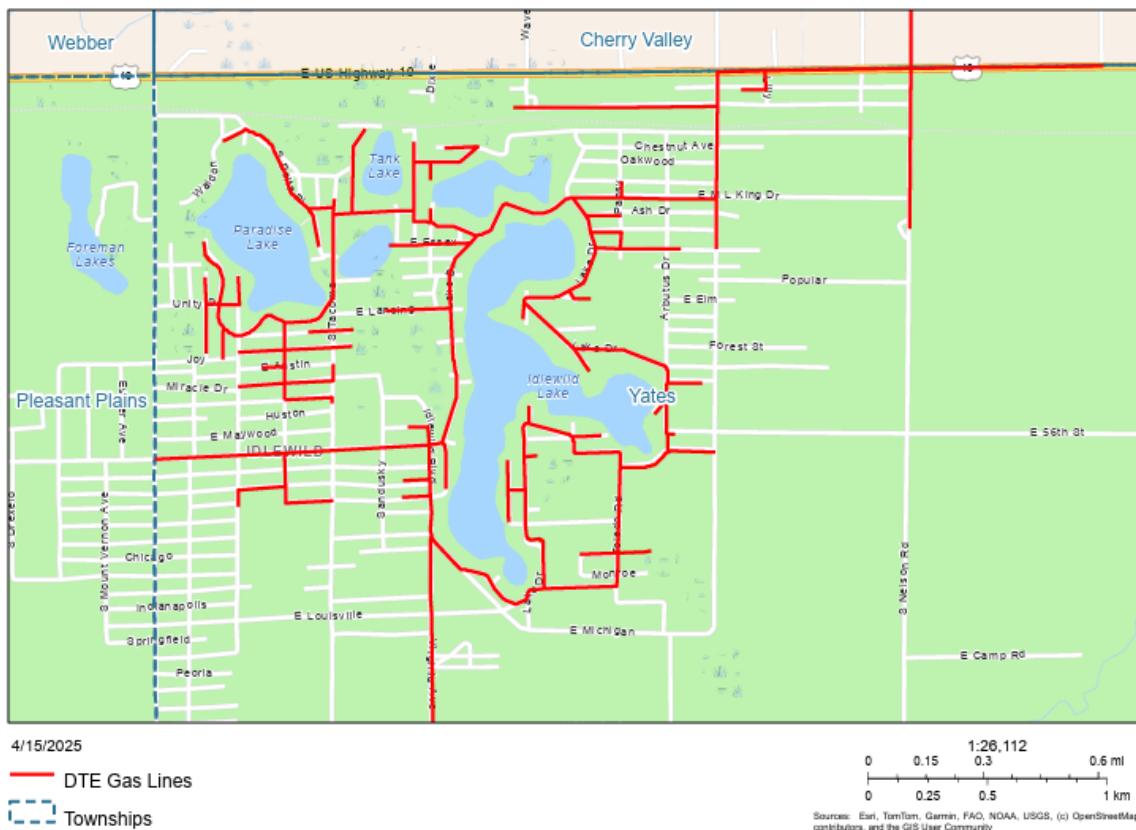
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Gas Lines in the Village of Baldwin



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Gas Lines in the Idlewild Area

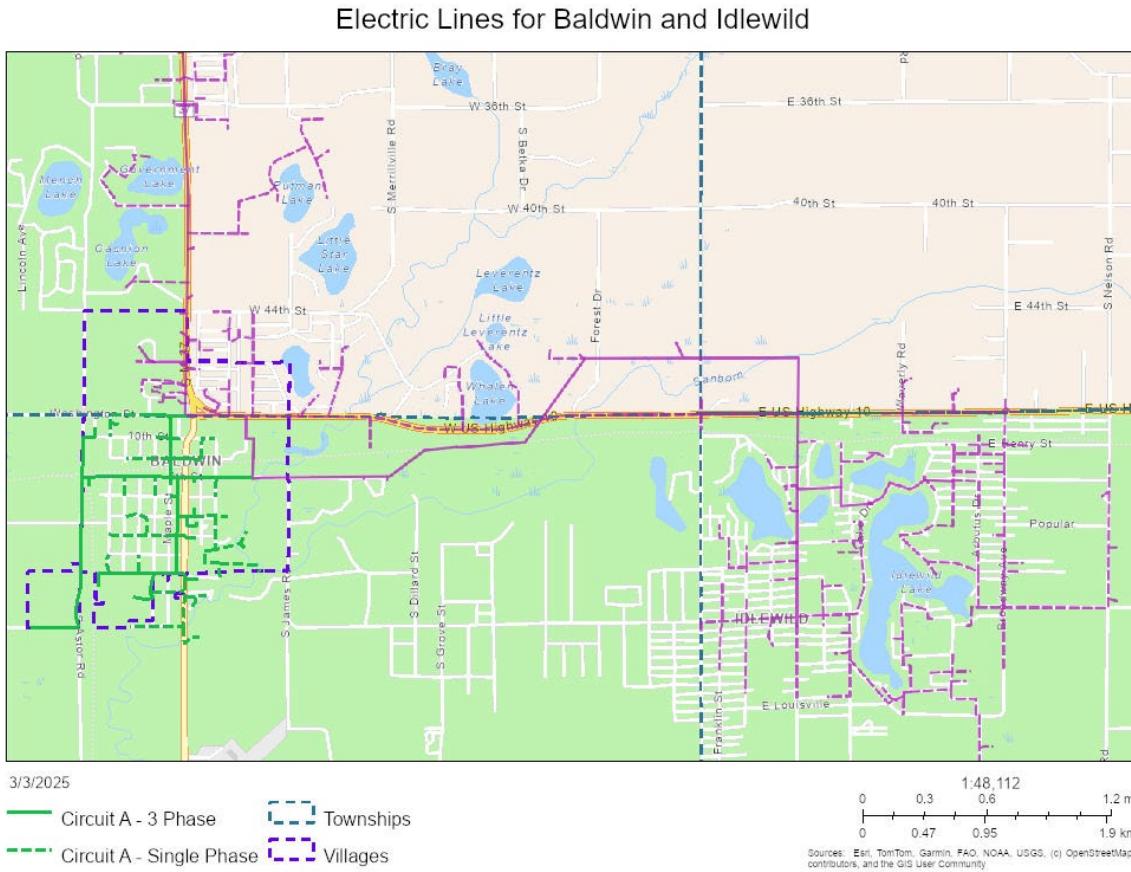


Electricity

Consumers Energy is the primary electric provider in the county, though Great Lake Energy serves some areas. Access to electricity does not pose a significant barrier to development in the county, though 3 Phase is more limited than Single Phase in most of the area. The corresponding map and GIS do not depict all electrical lines in the county. At the time of this study, the map and GIS only focus on electrical lines in the Baldwin and Idlewild areas.

Patrick Tiedt from Consumers Energy (CMS) provided information on the availability of electricity in the area and to each prioritized site. Additional information can be provided upon request for individual addresses.

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Broadband

Lake County Economic Development Alliance's Strategic Plan highlights increasing the availability of high-quality broadband as a key objective. The LCEDA is named as the point of contact for broadband providers as upgrades are rolled out across the county and responsible for promoting the need for high-speed broadband for all residents of the county.

The largest broadband provider in the region is Spectrum offering cable fiber speeds of up to 1000 mbps+. Point Broadband also offers a similar service with cable fiber speeds of up to 1000 mbps+. TrueSteam by Great Lakes Energy is also a fiber optics provider with speeds of up to 1000 mbps+. Hughesnet is an available satellite provider offering up to

100 mbps along with Viasat who offers a similar service of up to 150 mbps. Micom is a cable provider offering up to 50 mbps and ISTV is a DSL provider with speeds of up to 6 mbps. In the area, some residents are reportedly using Starlink. Mobile telephone service is provided by 4G LTE from ATT, Verizon and T-mobile.

Further information regarding broadband coverage in the county can be found using the [FCC Service Map](#).

Implications to Local Economic Development

Lack of access to gas, water, and sewer utilities imposes a significant barrier to economic development in rural regions across the country. These barriers are especially exacerbated in Lake County, where large assemblies of federal and state-owned land already limit the pool of potential areas for development. Local jurisdictions are encouraged to partner with regional economic development entities that typically cover a multi-county geography. In the case of Lake County, the Western Michigan Shore Regional Development Commission (WMSRDC) serves as such an entity through its economic district's [Comprehensive Economic Development Strategy \(CEDS\)](#). The CED is updated every five years and is a strategy-driven plan for regional development and is a result of a planning process intended to build capacity and guide development and resiliency. The CEDS enables eligible applicants, such as Lake County, to request assistance and funding through the U.S. Department of Commerce, Economic Development Administration (EDA).

Potential Funding Sources for Infrastructure Projects

Western Michigan Shore Regional Development Commission (WMSRDC) for EDA Funding

WMSRDC is the primary conduit for funding from the U.S Department of Commerce Economic Development Administration (EDA) which has historically targeted improvements in infrastructure and selective job creation projects. A review of their website reveals a regional GIS map specifying EDA investments for the region. The map reveals limited investments to date in Lake County. A discussion with Stephen Carlson, Economic Development Director for WMSRDC, suggested that his agency was ready, willing, and able to advocate for additional EDA funding for Lake County.

Public Works and Economic Adjustment Assistance (PWEAA) Grants

The Public Works and Economic Adjustment Assistance (PWEAA) funding opportunity, offered through the U.S. Economic Development Administration (EDA), supports infrastructure projects aimed at spurring economic growth and enhancing resilience in distressed communities. It includes two core programs: Public Works and Economic Adjustment Assistance (EAA), with a focus on innovative, bottom-up strategies. Applications are accepted on a rolling basis until funds are exhausted or a new funding opportunity is released.

Michigan Rural Development Fund Grants

Administered by the Michigan Department of Agriculture and Rural Development (MDARD), these grants aim to promote the sustainability of land-based industries and support infrastructure benefiting rural communities. Eligible projects include those related to agriculture, forestry, mining, oil and gas production, and tourism.

MDARD Wastewater Infrastructure Fund Grants

The Michigan Department of Agriculture and Rural Development (MDARD) Wastewater Infrastructure Fund Grants are intended to assist the food and agriculture industry to comply with the Michigan Department of Environment, Great Lakes, and Energy (EGLE) wastewater regulations under the Groundwater Discharge Permit Program. Funds can be used to improve wastewater infrastructure, including engineering design, construction materials, business planning, labor, and more.

MDARD Resilient Food Systems Infrastructure (RFSI) Program

The purpose of the RFSI program is to build resilience in the middle of the food supply chain, to provide more and better markets for small farms and food businesses, and to support the development of value-added products for consumers, fair prices, fair wages, and new and safe job opportunities. Grants offered through the program must be used to expand middle-of-the-food-supply-chain capacity for locally and regionally produced foods. Potential uses include construction of new facilities, modernization of manufacturing or tracking systems, construction of wastewater management systems, and more. Applications for the 2024 cycle are no longer accepted, but the program might accept new applications in 2025.

Michigan Infrastructure Council

The Michigan Infrastructure Council (MIC) is a state organization focused on improving and maintaining Michigan's infrastructure systems, including transportation, water, and energy. It works to enhance coordination among various levels of government and private entities, helping communities plan for long-term infrastructure needs. While the MIC itself does not offer project funding, it can help local organizations access funding through other sources, such as federal programs.

Property Taxes and Special Assessments

A conventional public finance tool often used to fund infrastructure improvements is tied to increases in property taxes. A general hike in property taxes is the most general and flexible tool for taxing entities to direct revenue to a broad set of programs or projects. Unlike property taxes, which generally apply to general services, special assessment taxes are usually tied to improvements or services that enhance the value of specific properties. Special Assessments might fund specific public improvements such as sidewalk repairs, sewage system upgrades, water delivery, drainage and flood control, street lighting, etc.

Private Provider Incentives

Consumers Energy (CMS Energy's primary business) offers various [energy efficiency programs and rebates for commercial customers](#), including incentives for energy-saving upgrades, demand response participation, and even EV charging station installation. CMS offers rebates on a wide range of energy-efficient products and equipment such as building envelopes, insulation, HVAC, commercial cooking and refrigeration, and lighting.

DTE Energy offers various programs and rebates for commercial and industrial natural gas. offers various programs and rebates for commercial and industrial natural gas customers. They include [instant discounts](#) for specific energy efficient equipment and rebates for equipment upgrades and tune-ups. Discounts target food service, lighting and HVAC. [Rebates](#) include commercial and industrial energy efficiency, new construction and renovations, and multi-family housing.

MUNICIPAL UTILITIES CAPACITY ISSUES

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The cyclical nature of the opening and closing of the North Lake Correctional facility operated by The GEO Group on behalf of federal departments and enforcement agencies places a burden on local water and wastewater systems. GEO recently announced it will be re-opening the 1,800-capacity facility (1,400 detainees/400 staff) in the near future through a newly minted contract with the Federal Department of Immigration and Customs Enforcement (ICE). The facility has opened and closed through contracts with alternative federal and state administrations since 1998.

Water and wastewater collection for the facility is provided through Webber Township. A lengthy discussion with a senior representative from the water department revealed a system comprised of four commercial wells with the following flow rates: 194 gallons/minute, 70 gallons/minute, 172 gallons/minute, and a larger production well with 677 gallons/minute. The senior representative relates that these rates do not factor in a total dynamic head loss of 20-30% to lift for storage purposes. He shared that the current capacity of the township's water distribution system, if fully functional, is just barely sufficient to serve all current customers, including the GEO facility with 1,800 detainees and staff. However, there are serious concerns about whether the large production well was to go down or if there is a need for the local fire department to combat a larger fire, particularly at the GEO facility. Under an agreement with the Village of Baldwin, as part of an emergency response contingency plan, Webber Township can connect via corresponding fire hydrants through a large-diameter industrial hose. To avoid such contingencies, the senior representative estimates that an additional production well would cost approximately \$750k.

Wastewater collection is also of concern to the leadership of Webber Township. An older lift station is located adjacent to the GEO property to pump effluent downstream to the treatment facility adjacent to the Baldwin Municipal Airport. However, the senior representative relates that the current pumps within the existing lift station need upgrading

to avoid an environmental catastrophe. He states that this could occur from an unauthorized discharge due to sudden growth at the GEO facility as it ramps up to 1800 inhabitants or a stormwater intrusion event during a huge rain event. He estimates that such a catastrophe could result in up to 500 gallons/minute of untreated discharge at or near the existing lift station. Such an incident would likely trigger an investigation and mitigation measures from the Michigan Department of Environment, Great Lakes and Energy (EGLE). The senior representative estimates the cost for an additional lift station to ensure sufficient future collection capacity to be approximately \$1.0m.

A discussion with a former president of the Village of Baldwin provided some keen insights into the joint wastewater treatment facility located near the airport. He shared that the plant has been upgraded several times with GEO investment to accommodate growth within the three participating municipal entities (Village of Baldwin, Idlewild, and Webber Township) and the GEO facility. A new batch reactor was installed about seven to eight years ago, and the capacity for the original two was expanded to a total current treatment capacity of 600 gallons per day. The former president relates that the GEO facility, once fully operational, will contribute about half of the estimated daily total flows of effluent into the plant.

The cyclical operating nature of the GEO correctional facility also presents a dilemma in opportunity costs related to existing and excess capacity for municipal utilities such as water and wastewater. GEO has historically invested in such infrastructure to ensure sufficient capacity is maintained whether its facility is operational or not. During those periods when it is not, municipal leaders are burdened with having excess capacity but are unable to market services to others. This is due to the uncertainty of when the GEO facility will again become operational. The sunk cost in maintaining or expanding capacity that is partially financed by GEO represents a priority reservation bid for any future service at the expense of revenue from other potential

customers in the near term. This practice can place constraints on economic diversification efforts, such as supporting new businesses and accompanying real estate development. It also may preclude accepting septic waste from regional generators that may generate substantial fees.

Summary

Lake County is blessed with an abundance of natural resources that attract tourists and the businesses that serve them. Planning and implementing new infrastructure and utilities while balancing such resources requires thoughtful stewardship. As each township and village expands its infrastructure and private utilities respond to growth, assurances such as well-head protection programs, hike and bike trails, and the preservation of public lands remain paramount. To stimulate economic growth, investments in infrastructure must be conceptualized in a way that is both strategic and precise. An example of this duality is the wastewater treatment facility adjacent to Baldwin Airport. Proponents of the facility had the vision and design acumen to engineer excess capacity to accommodate growth for the foreseeable future for Webber Township, Idlewild, and the Village of Baldwin. These leaders, along with the facilities operator, Infrastructure Alternatives, Inc., have positioned the plant to be a key asset in attracting, retaining, and growing businesses that may catalyze economic development.