



Fiscal Health in Rural Communities: A Case Study of Pine River Township, Michigan

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Executive Summary

This case study examines the fiscal health of Pine River Township, Michigan, a mostly rural community in central Michigan, using data from the Township's audited financial reports. We find that Pine River Township has a sizable and growing General Fund balance, suggesting good alignment between revenues and expenditures. The Township's strengths also include minimal liabilities and ample cash reserves. Looking forward, the Township should keep an eye on depreciation and ensure that it is prioritizing investment in capital assets, including roads and the sewer system. This case study also highlights other factors—including financial implications of wind farm development and contamination in the Pine River, as well as a lack of financial flexibility—that are important to understanding the fiscal health of Pine River Township, in particular, but also rural communities more generally.

Introduction

Local governments provide services that are essential to the health and welfare of residents, the smooth functioning of the economy, and the implementation of democratic institutions. Therefore, it is very important to monitor their fiscal health to ensure that they can continue to provide services, access resources, and meet their obligations.

This case study will take an in-depth look at the fiscal health of Pine River Township, Michigan, using a variety of financial indicators calculated with data from the Township's audited financial reports, as well as other economic data. While the set of fiscal indicators used in this case study is relatively standard, we highlight how it is important to interpret them in context. In particular, Pine River Township's small size and rural makeup affect how certain indicators should be interpreted.

This case study also highlights some of the broader contextual factors that are important to our understanding of Pine River Township, in particular, but other rural communities in Michigan and other states. One of the most important recent changes in Pine River Township is the installation of a utility-scale wind farm. Because wind farm developments are relatively new in Michigan, there is still considerable uncertainty about how they should be taxed, and this has implications for Pine River Township's property tax assessments and collections. In addition, rural communities are especially dependent on regional cooperation in service delivery, which can create both benefits and risks. For Pine River Township, ongoing concerns about contamination in a main drinking water source is a risk Township officials must carefully monitor.

Township Characteristics

Township Population Demographics

Pine River Township is located in central Michigan, just outside the small cities of Alma and St. Louis in Gratiot County. As of the 2020 United States Census, Pine River has a total population of 2,348 people and 1,067 households. With an area of 30.4 square miles and population density of 77.24 people per square mile, Pine River Township is a small rural community. With the median age of residents in Pine River Township at 36.9, 3.1 years younger than the county average, and only 18.8 percent of the population being over the age of 65, Pine River Township is a relatively young community. The ethnic and racial make-up of the Township is predominantly homogeneous, with only 8 percent of the population identifying as people of color, and almost 99 percent of the population speaking only English.

Pine River Township has moderately high labor and education rates for the area, with the employment rate at 60.7 percent, median household income at \$58,691, and with 24.5 percent of the population having a bachelor's degree or higher. Compared to all Gratiot County residents, Pine River Township residents earn around \$8,896 more in household income and have an 8.4 percentage point lower poverty rate. The Township has an unemployment rate of 2.3%.¹

Government Organization

Pine River Township provides basic public works and general administration services. However, given its small size, it relies on a number of interlocal agreements for shared services. The Township participates in the Mid-Michigan Fire Board District and the Rural Urban Fire Department for fire protection and suppression services. It also shares its sewer management services with adjacent cities through the St. Louis Sewer Fund and the Alma Sewer Fund, which are designed as self-funding enterprise or proprietary funds.

The Township has two major funds through which most governmental functions of the county are reported. The General Fund is where both revenue collection and most general government services are accounted for. In FY21, General Fund expenditures were \$427,186, with a little more than half spent on public works services such as roads and drains, and a little less than half spent on general administration. The other governmental fund is the Fire Fund, which makes payments to the Fire Board and Department. In FY21, its expenditures totaled \$150,306.

1 <https://www.niche.com/places-to-live/pine-river-township-gratiot-mi/residents/>



Methodology

In this analysis, we use data from the Township’s past five biennial audit reports—FY13, FY15, FY17, FY19, and FY21.² These reports are public information and available from the Community Engagement and Finance Division of the Michigan Department of Treasury. The analysis involves using the data to calculate a range of financial ratios corresponding to different aspects of Pine River Township’s fiscal health, including its liquidity, which evaluates the adequacy of cash or cash-convertible assets to cover short-term liabilities; financial performance, which evaluates how well revenues cover expenditures; and solvency, the ability to pay down debts in both the short- and long-terms.

For the sake of peer comparison, we perform the same calculations for FY21 for three peer governments: Bethany, Fulton, and Sebawaing Townships. Benchmarking provides additional context to interpret data and ratios, allowing us to examine Pine River Township’s fiscal health relative to similar townships in the state. Bethany and Fulton Townships are also in Gratiot County, and Bethany Township shares Pine River’s eastern border. Sebawaing Township, in Huron County, is similar in size and, like Pine River Township, also has utility-scale wind farms. Bethany Township has 1,117 residents with FY21 General Fund expenditures of \$102,245. Fulton Township has 2,407 residents, with \$298,400 in General Fund expenditures in FY21. Lastly, Sebawaing Township has 2,346 residents with General Fund expenditures of \$327,391 in FY21. *Table 1* below details the cross-township comparison.

Table 1
Peer Benchmarking³

	Pine River	Bethany	Fulton	Sebawaing
Population	2,788	1,117	2,407	2,346
Median Income (dollars)	\$32,264	\$34,271	\$33,711	\$28,646
GF Expenditures (dollars)	\$214,796	\$102,245	\$298,400	\$327,391
Median Age (years)	36.7	48.6	43.7	49.1
Number of Households	1,067	444	986	1,110
Population Density (per square mile)	91.8	32.3	68.87	72.2
Land Size (square miles)	30.4	34.6	35	32.5

² Michigan law allows jurisdictions with a population under 4,000 to obtain an audit every other year instead of every year (MCL 141.425).

³ <https://censusreporter.org/>

Financial Condition Analysis

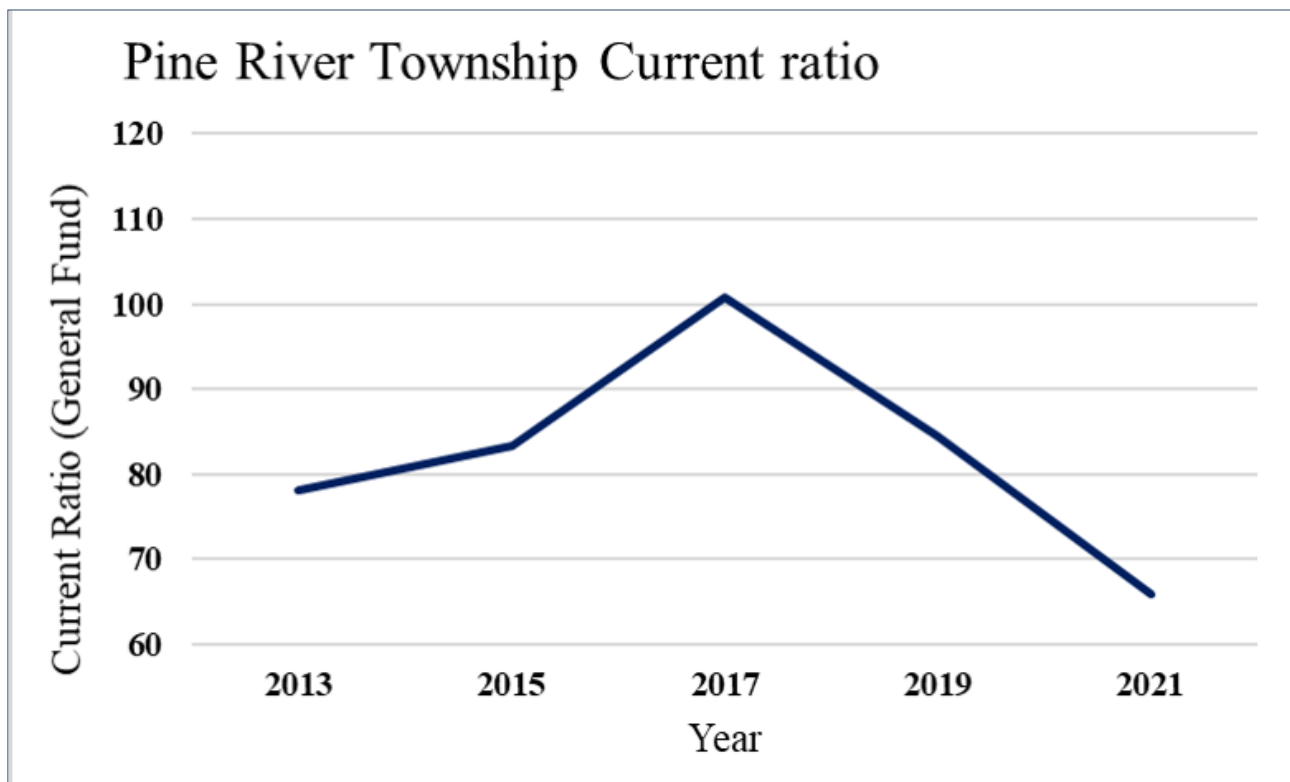
Liquidity

When assessing Pine River Township’s ability to meet short-term obligations – payroll, accounts payable and other regular uses of cash – we are primarily looking at the amount of available cash in the General Fund. Three metrics commonly used to assess liquidity are the quick ratio, the current ratio, and days of cash on hand.

The quick ratio measures the size of a government’s most liquid assets, cash and cash equivalents, divided by current liabilities. Pine River Township’s quick ratio is quite large at 62.39 in FY21, and remained consistently high throughout the observation period. This is mainly due to a somewhat high cash and cash equivalents balance (\$865,750) and very low General Fund liabilities (\$13,877). Fulton Township follows a similar pattern, with about \$464,000 in cash and only about \$26,000 in liabilities, resulting in a quick ratio of 17.55. Typically, the recommended quick ratio for governments is at least 1.0, meaning that the amount of cash is equal to or greater than the value of current liabilities. Both Bethany and Sebawaing Townships’ quick ratios are in this more standard range, at 1.94 and 1.26 respectively.

Another measure of the Township’s ability to cover its short-term financial obligations is the current ratio, which is similar to the quick ratio except that it includes all current assets, not just cash, in the numerator. With an already high General Fund cash balance, and a total current assets balance of \$913,564, it is not surprising that the current ratio is also very high. In FY21 the Township’s General Fund had a current ratio of 65.83, meaning that its current assets are sufficient to cover liabilities almost 66 times over. The current ratio values over time are shown in *Figure 1*.

Figure 1
Current Ratio: 2013-2021

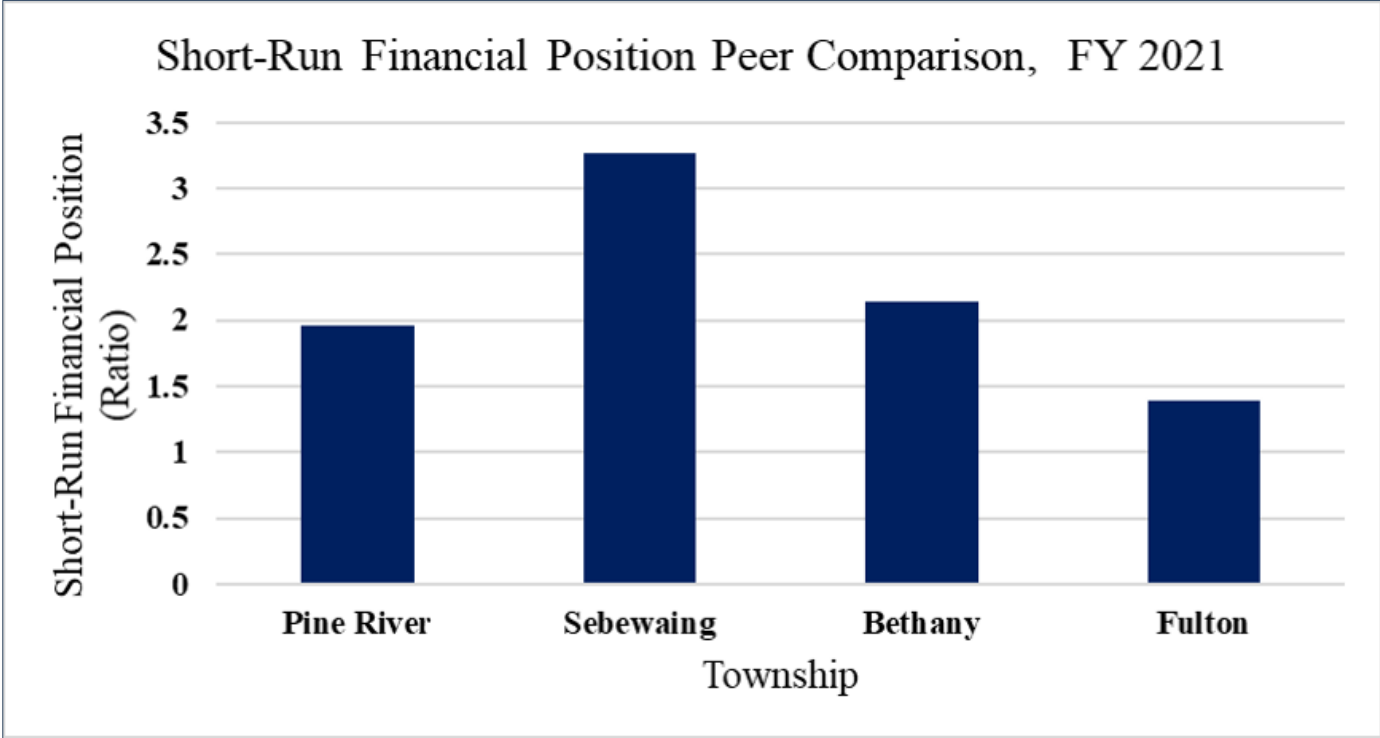




Finally, we can also confirm the high liquidity for Pine River Township by looking at the size of its unassigned General Fund balance, \$899,687 in FY21. The unassigned General Fund balance is a particularly important data point for financial condition analysis because it measures the size of the Township’s “emergency reserves.” It is commonly recommended that the unassigned General Fund balance should be equal to about 15 to 20 percent of revenues, and Pine River Township far exceeds this threshold.

Figure 2 shows the ratios of the unassigned General Fund balances to General Fund revenues for Pine River Township and its peers in FY21. Pine River Township has a ratio of 1.96, which has fluctuated between 1.0 and 2.0 since FY13. For comparison, Bethany, Fulton and Sebewaing Counties FY21 General Fund unassigned balances are equal to 214 percent, 139 percent and 327 percent of revenues, respectively (\$1,005,126, \$453,580 and \$878,834). It is not unusual for small townships to have large fund balances, and Pine River Township’s fund balance is comparable to its peers. Sebewaing Township’s large ratio is attributable more to lower revenues rather than a particularly large fund balance.

Figure 2
Short-Run Financial Position: 2021



With an ample cash cushion and lack of liabilities, Pine River Township’s liquidity position is very strong, although not outside the normal ranges for a township of its size.

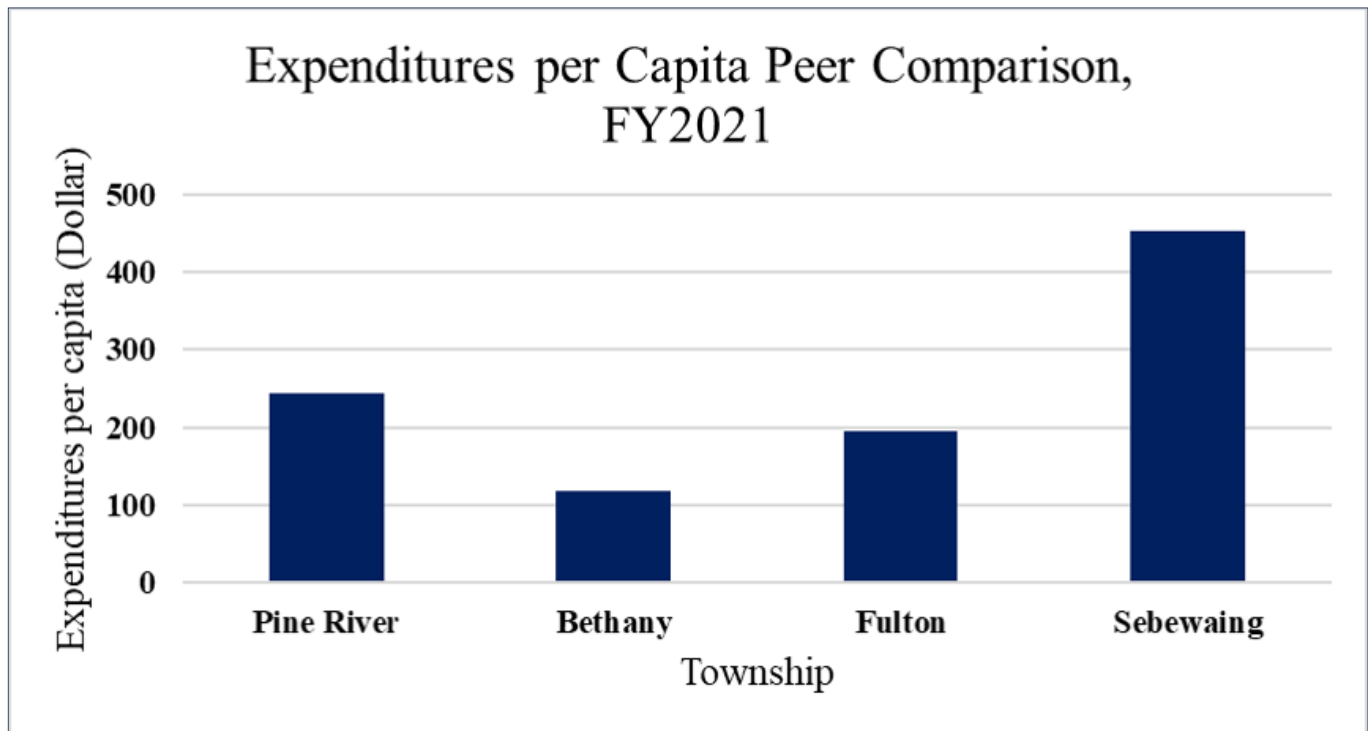
Financial Performance

Financial performance ratios focus on the alignment of annual revenues and expenditures to ensure that budgets are structurally balanced and fund balances are adequate to provide a buffer against emergencies or unexpected events.

Revenue mix. Pine River Township’s largest sources of revenue are property taxes and state revenue sharing, with General Fund revenues totaling \$459,289 in FY21. Property taxes accounted for 47.58 percent of total General Fund revenues while the state revenue sharing comprised 45.10 percent. The Fire Fund collects revenue from a dedicated 1.0 mill levy, and additional services, including sewer, permits, and trash collection, are funded through user fees.

Expenditure mix. General Fund expenditures totaled \$427,186 in FY21. The largest categories of expenditures are public works (e.g. road maintenance, trash collection), representing 51.7 percent of the total, and general government expenditures (e.g. clerk, township board) at 45.38 percent. Public works spending as a share of total expenditures has increased slightly from 49.2 percent in FY19 to 51.7 percent in FY21. But in terms of dollars spent, the amount has fallen by 11.8 percent due to a reduction in overall expenditures from \$509,024 in FY19 to \$427,186 in FY21. In general, however, the overall expenditure mix has remained relatively stable over the past few years. Total governmental expenditures per capita (including the Fire Fund) for Pine River were \$245.01 in FY21, which is more than Bethany and Fulton Townships, but less than Sebewaing Township.

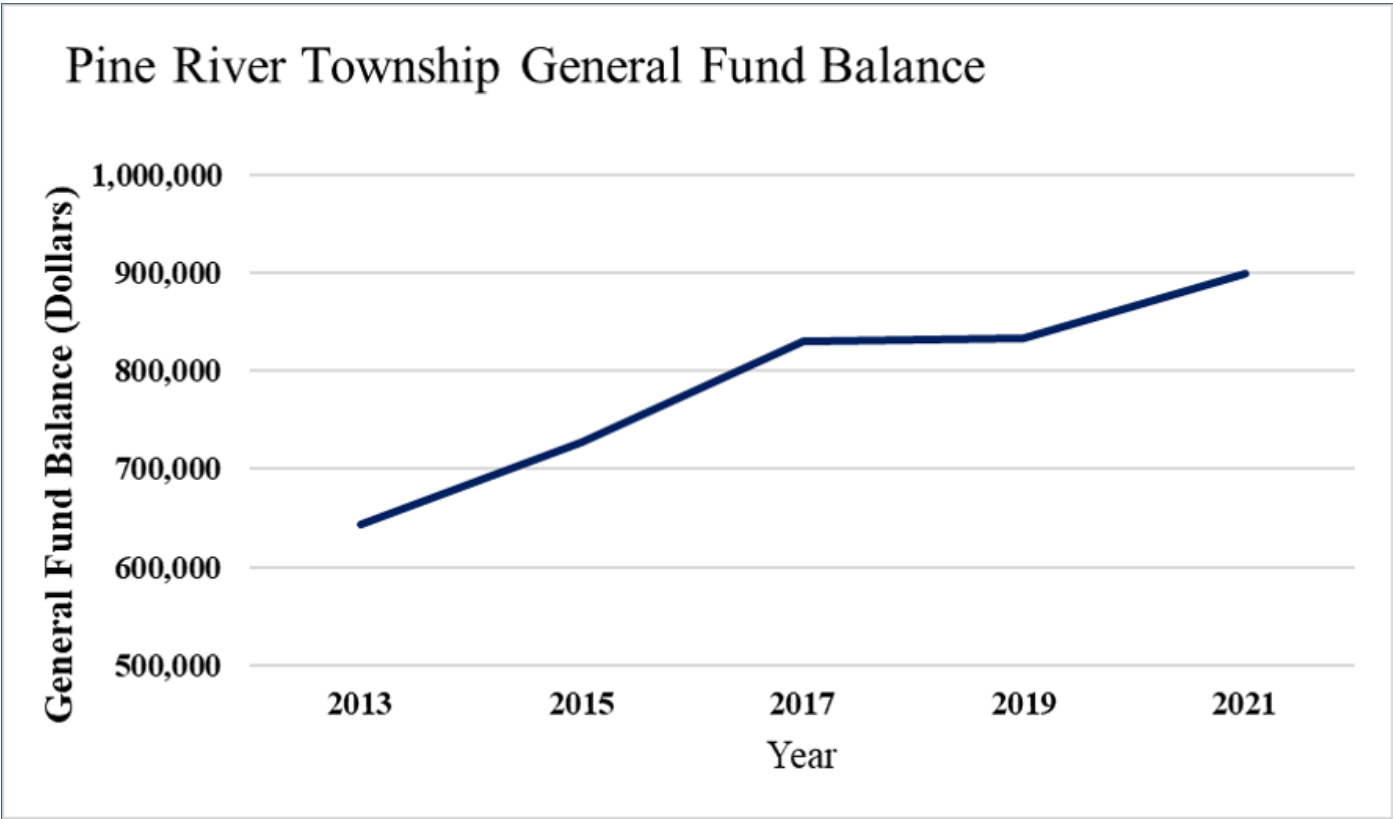
Figure 3
Expenditure per capita (Governmental): 2021





General Fund balance. The General Fund balance has gradually increased over the past several years, suggesting that revenues are consistently covering expenditures. It has grown 39.7 percent in the last decade, and 8 percent since FY19. The Township ended FY21 with a total General Fund balance of \$899,687.

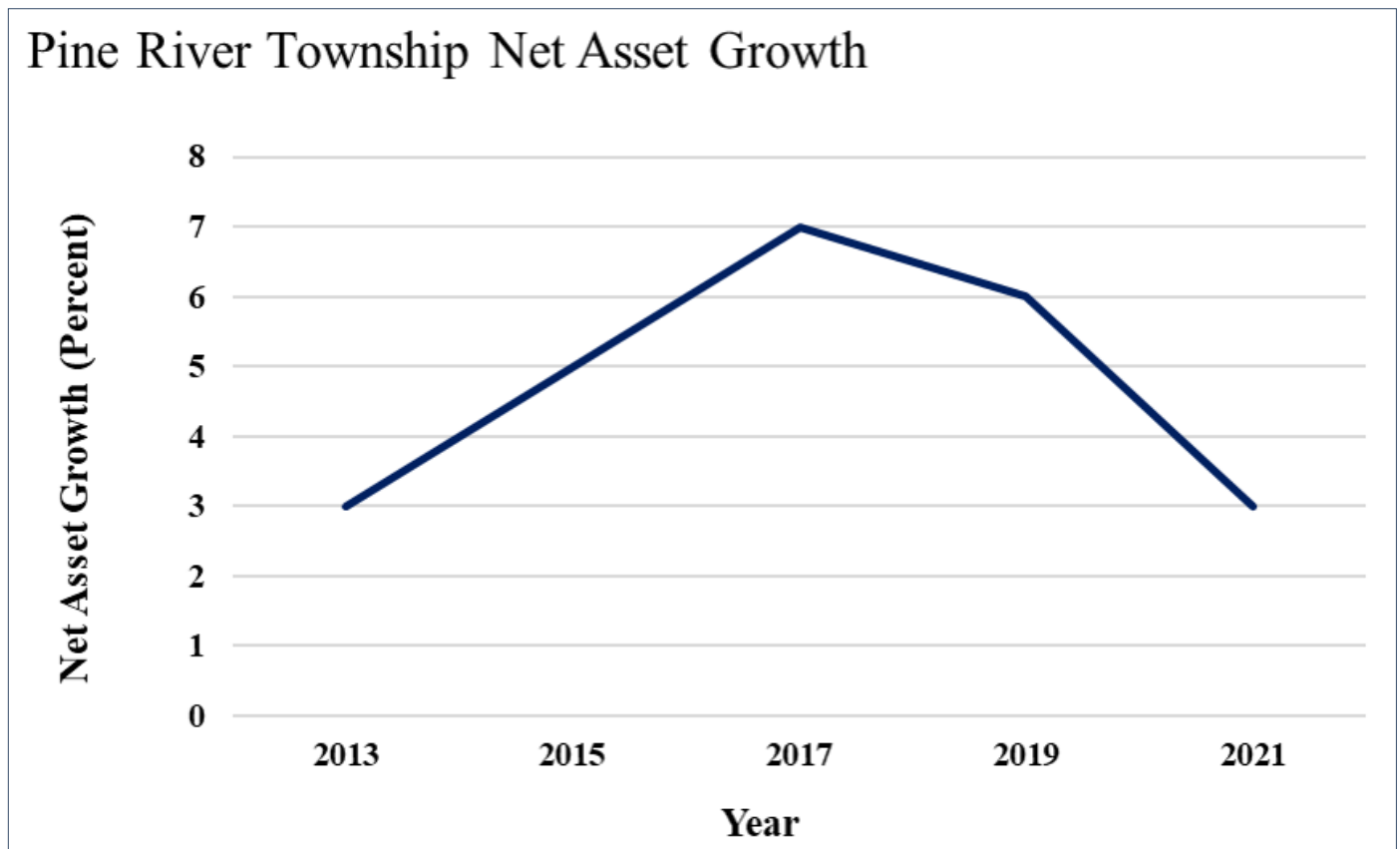
Figure 4
General Fund Balance: 2013-2021



Net assets. Looking more broadly at the balance between revenues and expenses, we can also examine how governmental net assets have changed over time. In comparison to fund balances, net assets are calculated on a full accrual basis, which means that they account for changes in the value of long-term assets and liabilities. Pine River Township’s net assets have been growing over the past several years, although the pace of growth has been slowing since its peak in FY17, as shown in *Figure 5*. This slowdown is likely due in part to revenue challenges created by the COVID-19 pandemic. Charges for service, for example, represent over 23.8 percent of all governmental and business activity revenue, and fell by 4 percent between FY19 and FY21.

In comparison to Pine River Township, between FY19 and FY21, net assets grew faster for Sebawaing and Bethany Townships (9.2 percent and 5.5 percent respectively), while Fulton Township’s net assets only grew by 1.2 percent.

Figure 5
Net Asset Growth: 2013-2021



Budget variances. A last way to view the Township’s financial performance is to assess how well actual revenues and expenditures in the General Fund line up with budgeted amounts. Accurate budget projections are sometimes hard to get precise, but a pattern of significant variances can sometimes be a symptom—expected or unexpected—of fiscal stress. For all years except FY21, revenues exceeded projections, with an average variance of 8.36 percent between FY13 and FY21. For FY21, revenues came in just one percent below budget, mainly attributable to below-expected interest and rents. The highest revenue variance occurred in FY17 when actual revenues surpassed the budget amount by 16.8 percent, driven mainly by property tax collections coming in 26.1 percent above budget.



On the spending side the variances are slightly lower, with an average favorable variance of 7.08 percent, meaning that actual spending was 7.08 percent below budget on average. The Township had the highest variances in FY15 and FY17, at 10.6 percent and 13.7 percent respectively, with below-budget spending in general government and public works. More recently, variances have shrunk to 5.9 percent in FY19 and 5.6 percent in FY21.

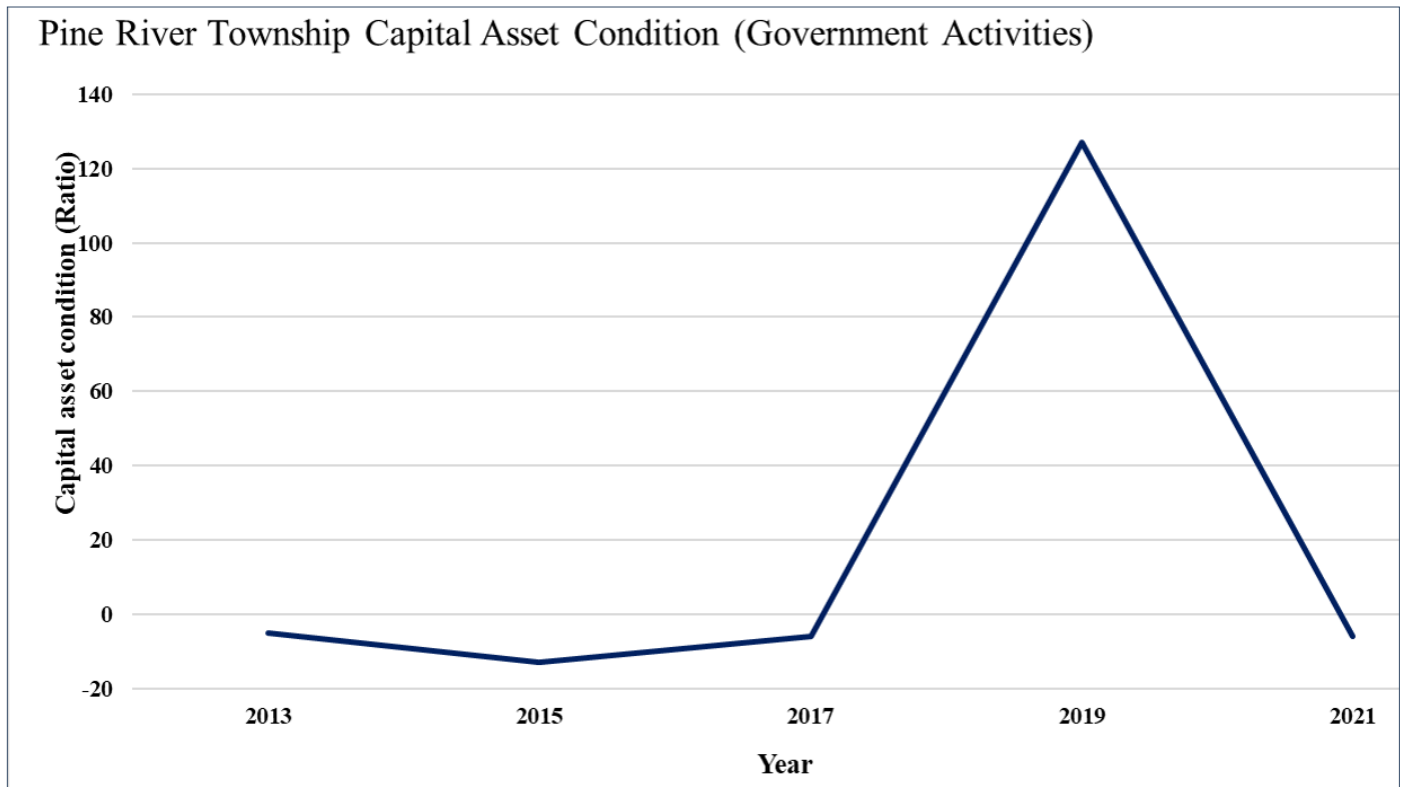
Long-term Solvency

Long-term solvency focuses on a government’s ability to meet its obligations to creditors, residents, and other stakeholders over time. Like many small townships, Pine River Township has no debt, pension liabilities, or other long-term obligations that other types of local governments often have. Still, we can examine changes in the value of the Township’s capital assets, which include buildings, equipment, infrastructure, and sewer lines. Consistent investment in capital assets is necessary to offset depreciation and ensure that assets will be available to provide high-quality services to current and future residents.

Figure 6 shows the annual percent change in the value of the Township’s capital assets. Reductions in most years mainly reflect depreciation, but the large increases in FY19 reflect new investments in roads and physical infrastructure. Overall, between FY13 and FY21, the value of Pine River Township’s governmental capital assets (e.g. roads, buildings, equipment) has fallen by 16.2 percent and the value of its business-type assets (sewer system and related equipment) has fallen by 58.3 percent, suggesting that the Township should consider additional capital investment, particularly in the sewer system, to keep up with depreciation.

The Township will receive \$231,527 under the American Rescue Plan Act (ARPA), spread between FY22 and FY23. The ARPA legislation allows municipalities receiving less than \$10 million to use it all for “revenue replacement” instead of the restricted categories of eligible uses, so Pine River Township’s grant can be used on any expenses.

Figure 6
Capital Asset Condition, Government Activities: 2013-2021



Pine River Township's Fiscal Health in Context

In addition to reviewing general indicators of liquidity, financial performance, and long-term solvency, it's also important to review factors that are particularly important to understanding the fiscal health of Pine River Township and other local governments like it.

Wind Energy and Property Taxes

According to DTE Energy, Gratiot County is home to the largest wind park in the state of Michigan.⁴ The wind farm has 65-turbines that generate 161.3 megawatts, and it is expected to power 54,000 homes. Twenty-seven of these turbines, which became operational in 2020, are in Pine River Township.

With the spread of utility-scale wind farms, state and local governments have had to decide how to assess and tax the wind turbines. Property tax assessment is very decentralized, with most assessment carried out at the local level with state guidance. As a result, there has been significant variation in how state and local governments have treated wind farms for property tax purposes, frustrating both developers and local officials, and slowing the development of wind energy installations. Small jurisdictions like Pine River Township are at a particular disadvantage because they do not have the resources to engage in long-term legal battles with corporate wind developers.

In July 2022, DTE and the Michigan Renewable Energy Collaborative, a group of local governments, school districts, and other jurisdictions—including Pine River Township—settled a long-running dispute about property tax assessments on wind farm property.⁵ DTE will drop its tax appeals to over 17 townships, including Pine River Township, meaning that the townships won't have to pay back millions of dollars in taxes to the utility. Furthermore, new uniform statewide turbine taxation rules were also introduced in September 2021 in the Michigan House of Representatives. The bill would set a standard depreciation schedule of 5 percent per year over a 15-year period. Thereafter, the turbines would be assessed at 30 percent of their original value until they are decommissioned.

Wind farms also provide a stable source of income for landowners with turbines on their property. In Gratiot County, where Pine River Township is located, 350 families participate in land royalty payments. Wind farms have also created a reported 300 temporary skilled jobs, as well as tax revenue that can be used to support improvements in roads, schools, emergency services and other vital community needs. Wind developments in Gratiot County have increased the County's tax base by \$379 million, generating approximately \$42 million in tax revenues since 2012.⁶

In Pine River Township, after twenty-seven wind turbines became operational in 2020, General Fund property tax revenues jumped over 50 percent, from \$144,687 in FY19 to \$218,554 in FY21. Overall General Fund revenues increased by 18.5 percent over the same period. While certainly a boon to the Township's budget, local governments face "concentration risk" when significant portions of their tax base come from a few large taxpayers. Disputes with these taxpayers can lead to dramatic impacts on small township budgets. While the settlement with DTE should mitigate these risks in the near term, townships considering hosting wind farms should plan conservatively. Moreover, states should be proactive to help coordinate policy among these small, rural jurisdictions.

4 <https://www.mlive.com/news/saginaw-bay-city/2019/06/dte-celebrates-grand-opening-of-largest-wind-park-in-michigan.html>

5 <https://www.michiganradio.org/transportation-infrastructure/2022-07-20/townships-say-tax-dispute-settlement-with-dte-energy-opens-doors-to-more-wind-and-solar>

6 https://www.altenerg.com/back_issues/story.php?sid=1975



Volatility in the Data

Just as a major project like wind turbines can cause large increases in property tax revenues for small townships, other financial data points and ratios may fluctuate significantly from year to year simply because most numbers are small. We saw this pattern earlier with budget variances and changes in capital asset values.

Volatility in the data can also result from the fact that small townships usually do not have separate capital budgets, funding most capital expenditures out of operating dollars or spending down fund balances. As a result, capital outlay expenditures are likely to vary considerably from year to year, and fund balances may also fluctuate. Therefore, when assessing the fiscal health of a small government or township, it is necessary to look at multiple years' worth of data to smooth out year-to-year volatility.

Pine River Contamination and Interlocal Cooperation

A history of contamination in the Pine River also has implications for how Pine River Township and neighboring communities rely on interlocal agreements to provide water services to residents. Some Township residents are eligible to connect to municipal water from the Gratiot Area Water Authority, which serves the cities of Alma and St. Louis. The Township's sewer system also connects with sewer systems in Alma and St. Louis. However, water quality has been a long-standing concern in the area due to contamination in the Pine River.

In 1936, on the banks of the Pine River the Michigan Chemical Corporation opened in St. Louis, Michigan.⁷ The company produced the fire retardant polybrominated biphenyl (PBB), ethyl bromine for petroleum refiners, chemicals for road dust control/pharmaceutical industry, and the pesticide DDT (dichloro-diphenyl-trichloroethane), among other chemical products. Concerns grew over time about contamination of the watershed and possible health problems caused by the production of chemicals at the plant, and as early as 1941, more than one hundred St. Louis residents filed complaints about the company, which eventually shut down in 1978.

In 1997 studies of fish and sediment in the Pine River showed DDT levels higher than any that had been recorded in the United States.⁸ On seeing increased community interest, the EPA helped start a St. Louis chapter of the community outreach method known as a Community Advisory Group (CAG) in 1997. In 1998, residents, faculty, and students from nearby Alma college came together to form The Pine River Superfund Citizen Task Force, which continues to meet and fight for the cleanup of the river.⁹ In 2015, St. Louis switched its drinking water source to Alma, forming the Gratiot Area Water Authority, after it discovered contamination in city wells.

While Pine River Township does not directly provide water services to its residents, it relies on interlocal agreements with St. Louis and Alma to ensure residents have access to clean water. Therefore, water quality concerns are a source of health risk and financial risk for the Township and its residents, who will need to carefully monitor water quality and potentially invest in additional infrastructure upgrades and safeguards.

7 <https://storymaps.arcgis.com/stories/85abc61dbe8f4caba3d337045f74cdfd>

8 <https://www.bridgemi.com/michigan-environment-watch/michigan-town-toxic-legacy-residents-fought-decades-heal>

9 <https://www.pinerivercag.org/timeline>

Lack of Financial Flexibility

Pine River Township, like all local governments in Michigan, has fairly stringent constraints on its financial flexibility and ability to generate revenue. Property taxes in particular are subject to three state-imposed limitations: one on the assessed value of individual properties (“Proposal A” tax caps), a second on the property tax millage rate, and a third on the annual increases in a jurisdiction’s revenue (the “Headlee limit”)¹⁰. In practice, the assessment cap from Proposal A likely restrains revenue the most because it limits the assessment growth to less than five percent or inflation, which has lagged significantly behind growth in market values for the property. The main potential sources of property tax revenue growth are new construction and voter-approved taxes.

As a result, these property tax limitations are particularly restrictive for local governments that have mostly residential property, that lack population growth, and that are heavily reliant on property taxes. Pine River Township falls into all three categories. Residential and agricultural property also tends to turn over less often than commercial and industrial property, resulting in a larger gap between market values and taxable values.

Unlike larger urban local governments, which may have access to additional revenue from excise or income taxes, most small and rural jurisdictions mainly rely on property taxes and state revenue sharing. Just under half of Pine River Township’s General Fund revenue come from property taxes. The township levies a main operating millage of 0.90 mills, as well as a supplementary voter-approved 1.0 mill levy for fire and rescue services. Additional voter-approved millages are generally considered “tools of last resort” for shoring up revenues.

While property taxes tend to be a steady source of revenue for local governments, periods of high inflation create challenges because property tax revenue growth cannot keep up with inflationary pressures on expenditures.

10 <https://crcmich.org/publications/michigans-overlapping-property-tax-limitations>



Conclusions

This case study of Pine River Township's fiscal health provides a few key takeaways about understanding and supporting local government fiscal health, particularly for rural communities:

1. **Small communities are at a strategic disadvantage negotiating with large developers and would benefit from more resources for coordination.** Wind farms and other large-scale developments can certainly be a boon to rural communities in terms of new jobs and an expanded tax base, but they need better tools to work with developers in a coordinated and multilateral way.
2. **State policy could better focus on recognizing and supporting rural local government cooperation.** Small governments like Pine River Township are frequently dependent on cooperative agreements with neighboring communities to provide essential services like water and sewer. While this helps communities take advantage of economies of scale, it also means they are financially interdependent, sharing both benefits and risks – for example, risks associated with drinking water contamination. For fiscal health, it is important to examine how these risks could affect revenues, expenditures, and other aspects of financial condition.
3. **Small governments face obstacles in planning for the long term.** While they do not often have the debt burdens or unfunded liabilities that plague other local governments, small governments face their own challenges in ensuring their long-term ability to meet the needs of residents. Financial management practices that focus on the long-term, like capital project planning, require significant time and expertise for both staff and elected officials. A lack of attention to these issues – especially when so much time and attention is given to short-term budget balance – can impair long-term economic development, as well as result in the buildup of deferred maintenance on existing capital assets.

About the Fiscal Health Project

CLOSUP's Fiscal Health Project aims to develop a deeper understanding of the fiscal health and fiscal challenges of local governments in Michigan, and beyond. These case studies focus on specific Michigan local governments and are intended to highlight some of the unique and possibly overlooked fiscal challenges they face.

Acknowledgements

This report is funded by a grant from the University of Michigan Center for Academic Innovation. The findings reported here do not necessarily reflect the views of the University of Michigan, or Pine River Township.

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