

Town of Petrolia

Concise Asset Management Plan

2024

| Rev No | Date | Revision Details | Author | Reviewer | Approver |
|--------|-----------|------------------|-----------------|----------------|-----------------|
| 1 | July 2024 | Updated | Jessica McNally | Annette Strand | Rick Charlebois |
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Executive Summary

For over 150 years, the Town of Petrolia has been a progressive and fiercely independent community that has a proven focus on preserving and celebrating heritage, while continuing to have a focus on growth and innovation. Petrolia is proud to provide residents with excellent customer service and the amenities of a larger urban center, while maintaining the atmosphere of a small town. Some of Petrolia's amenities include: the Petrolia Community Centre (YMCA), Greenwood Recreation Centre, farmers market, public library, water and wastewater systems, hiking trails, manicured parklands, and the Victoria Playhouse Petrolia (performing arts studio). In addition, the Town has strategic partnerships with Charlotte Eleanor Englehart Hospital, Central Lambton Family Health Team, Lambton Central Collegiate and Vocational Institute, Bluewater Power, as well as many local service clubs and organizations.

In 2014, Council approved the Town's first 10-year Asset Management Plan (AMP) and developed a basic municipal strategic 10-year financial plan that included water, sewer, and most roads, but no buildings or vehicles assets. To take advantage of the announcement of new infrastructure grants, the Town realized it needed to develop a more comprehensive, integrated Long Term Capital and Financial Plan (LTCFP). Since 2014, Petrolia has developed and enhanced its LTCFP to meet its evolving needs.

Asset Management (AM) is a planned approach for managing the Town's infrastructure assets. AM ensure the approved levels of services are provided, while minimizing risk and lifecycle cost. Council and Town staff are responsible for establishing the current levels of service, as well as proposed levels of service. Many of these services require major capital infrastructure, such as safe drinking water and transportation networks.

Asset Management in Ontario is guided by Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure.

What is Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure?

The following are requirements set through this regulation:

- ✓ Phase I: By July 2019, every municipality will have a Council approved Strategic Asset Management Policy.
- ✓ Phase II: By July 2022, every municipality will have an AMP for core assets (water, sewer, and roads) that discusses current levels of service and the cost of maintaining those services.
- ✓ Phase III: By July 2024, every municipality will have an AMP for all municipal infrastructure assets (such as buildings, vehicles, equipment, etc.) that discusses current levels of service and the cost of maintaining those services.
- ✓ Phase IV: By July 2025, this phase builds on Phase I and II by adding proposed level of service, lifecycle management, and financial strategy.

This is the first Concise Asset Management Plan (AMP) written and published by the Town of Petrolia. This Concise AMP details information about the Town of Petrolia's infrastructure assets. The assets are divided into three main sub-groups: Town General Assets, Water System, and Wastewater System (Sewer). The current replacement value of Petrolia's infrastructure assets is approximately \$364 million.

This plan reflects current infrastructure condition assessments, current levels of service, and risk management strategies. Asset management is a journey and will be continuously evolving to meet the

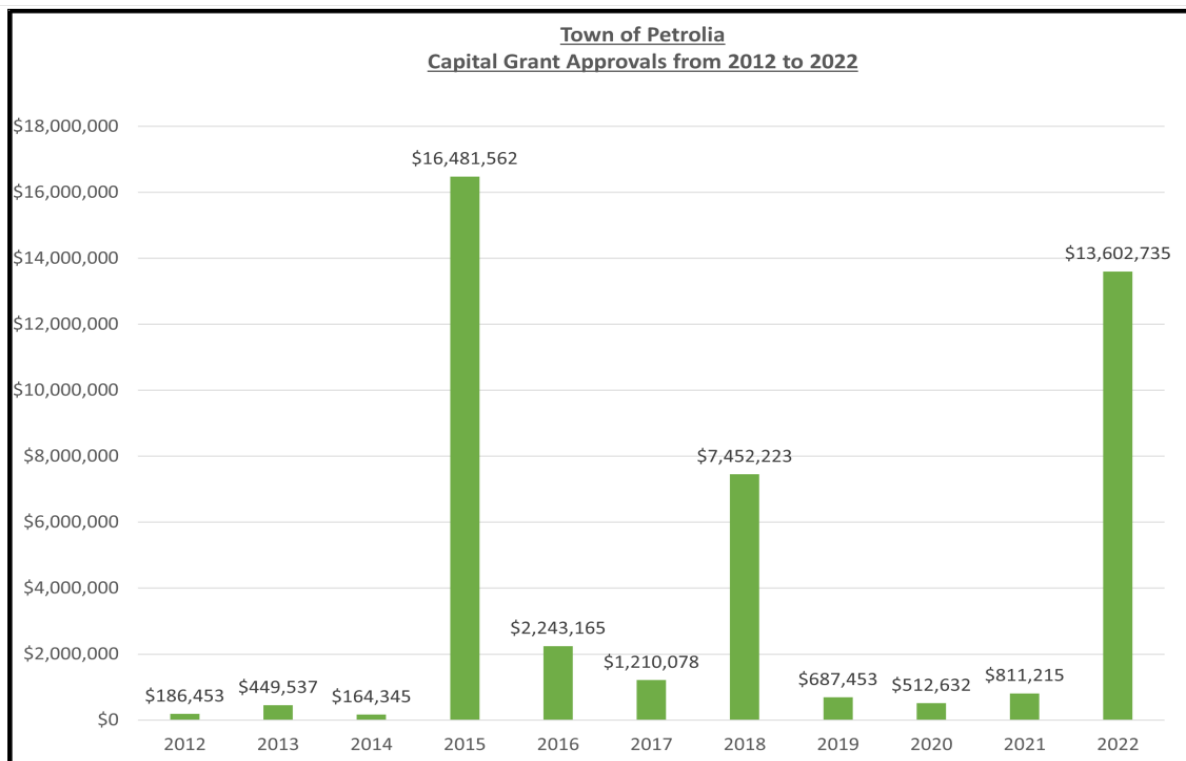
needs of the Town of Petrolia. Annual updates will be made to this AMP and the LTCFP as a precursor to the annual budget process. The Town's AMP, LTCFP and annual budgets are all integrated with short-term and long-term coordination and synergies.

Good asset management strives to have infrastructure assets that meet Council approved levels of service and provide reliable services to residents at reasonable rates for taxpayers.

The Town of Petrolia's infrastructure is in fair condition overall. Approximately 50% are in good or very good condition, and 27% are in poor condition. Petrolia has improved the overall state of infrastructure significantly over the last five years due to good asset management planning and successful grant applications. Services provided by these assets are meeting residents' expectations. The Town's data collection and analysis procedures are ongoing and improving with experience. The Town's goals are:

- to improve the overall condition of assets
- replace infrastructure assets at appropriate times to optimize lifecycle costs
- maintain or improve current levels of service

In 2015, Petrolia's Council asked staff to focus on obtaining capital grants as the federal and provincial governments had started announcing new grant programs. With the introduction of Petrolia's first Long Term Capital and Financial Plan (LTCFP), staff were able to focus on key strategic assets needing replacement. The graphic below illustrates the large capital grant approvals that have been secured in 2015, 2018 and 2022 enabling the Town to address major infrastructure gaps.



Key Statistics

Replacement cost
of
asset portfolio
\$364 million

Recommended timeframe
for eliminating annual
infrastructure deficit
10-20 years

Percentage of assets in
fair or better condition
75%

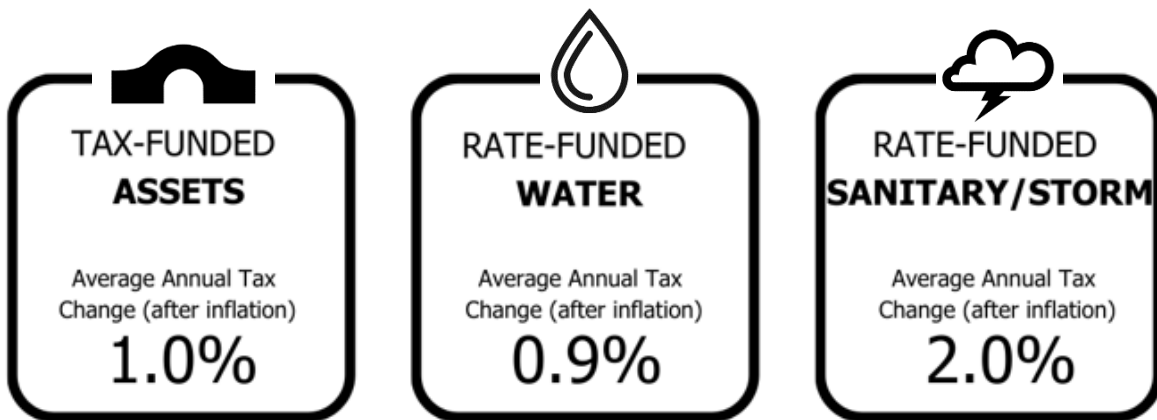
Annual capital
infrastructure deficit
\$1.6 million

Actual reinvestment
rate
1.1%

Target reinvestment
rate
2.2%

Recommendations

A financial strategy was developed in 2022 to address the annual capital funding gap. The following graphics show **annual tax/rate change** (in addition to inflation) required to eliminate the Town's infrastructure deficit based on a 10-year plan for tax funded assets and water assets and a 20-year plan for sanitary and storm assets:



Improvement Plan

Improved asset management planning is vital to the long-term sustainability of assets. The AMP is intended to be a live document. The Town of Petrolia is committed to monitoring and implementing best practices over time.

Town staff are also committed to updating our asset management data on a continuous basis as new information is received. (i.e. the Bridge Needs Study is completed every two years, providing updated conditions). This continuous improved inventory data helps ensure that capital project decisions are made with as much accurate information as possible.

Strategic Plan & Long-Term Capital Financial Plan

Petrolia's Strategic Plan 2024-2028

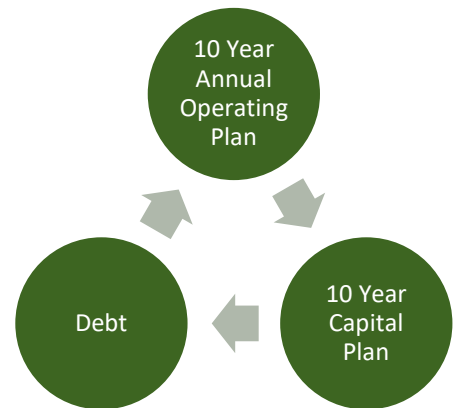
This Asset Management Plan (AMP) is prepared in coordination with the Town of Petrolia's vision, mission and values.

Vision: to continue to create an outstanding quality of life for our residents through progressive and sustainable governance; to be a leader and a model for all Ontario municipalities through innovation, civility, adaptability and inclusivity; to foster growth and encourage development and diversity.

Mission: To provide exceptional leadership and to sustain the quality of life in Petrolia through fiscal responsibility and community engagement

Values:

- Meaningful partnerships
- Promote equity, diversity and inclusion
- A safe community for all
- Participation in active communication
- Foster growth and development
- Celebration of our heritage
- Financial viability and responsibility
- Respect and civility
- Environmental leadership
- A healthy community
- Ethical and informed decision making
- Technological innovation



Long-Term Capital Financial Plan

Long term financial planning is the process of aligning financial capacity with long term service objectives. Financial planning uses forecasts to provide insight into future financial capacity so that strategies can be developed to achieve long term sustainability in light of municipal service objectives and financial challenges. LTCFP is intergrated with the annual budgeting process. The 10-year Operating Plan determines if an annual operating surplus is available to help fund the Capital Plan. The Capital Plan determines the affordability of the prioritized capital acquisitions and the appropriate long term funding strategy using operating surpluses, reserves, grants and donations to fund the capital projects. The LTCFP also determines recommended borrowing amounts, and then automatically calculates annual debt payments and annual debt repayment limits which is regulated by the province. The Province sets municipal legislation to a maximum annual debt repayment limit which is 25% of net revenues. The Town of Petrolia follows this legislation and is well within the maximum limit. Any calculated annual new debt payments automatically flow into the long-term operating plan.

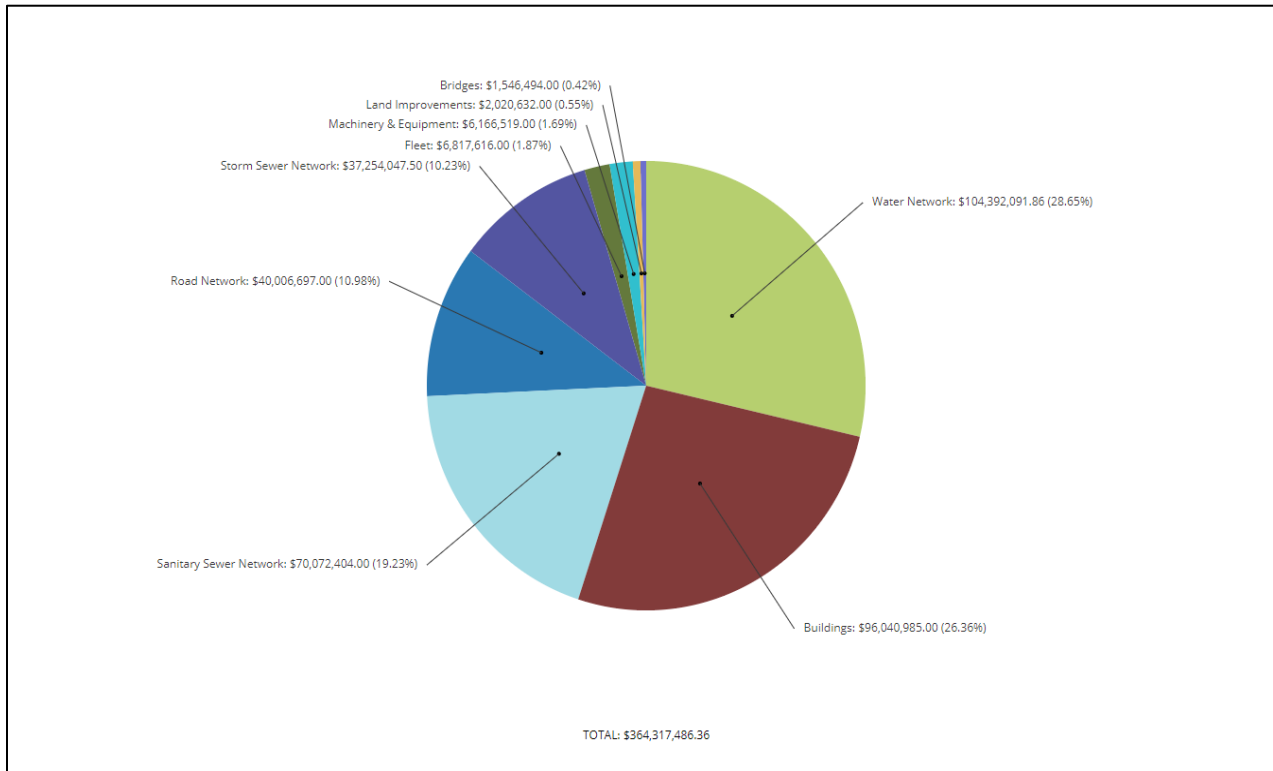
Asset Valuation

Petrolia’s infrastructure assets have a total replacement value of \$364 million. This amount is comprised of Wastewater 30%; Roads 10%; Water 29%; Buildings 26%; Other 5%.

Petrolia’s Assets by Type:



Petrolia’s Assets by Replacement Cost Values:



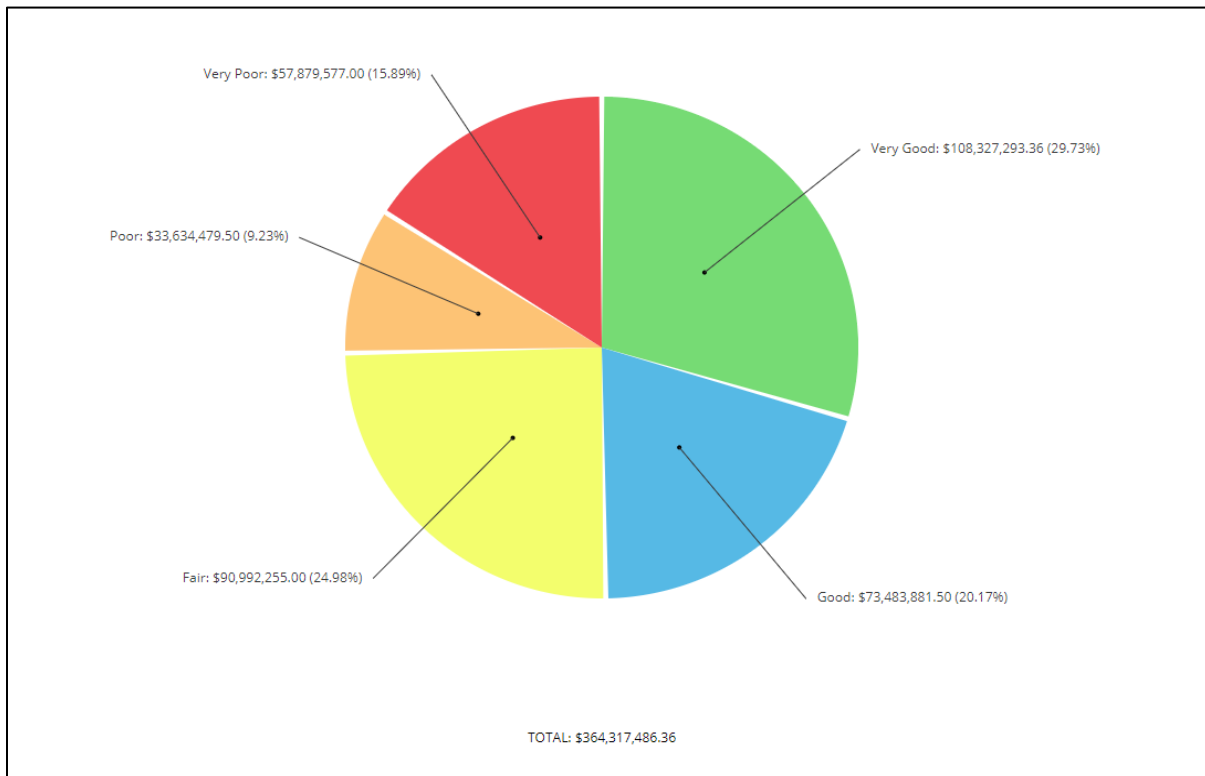
Overall Condition

Based on the 2023 replacement costs, recent inspections, and age-based condition data, 50% of the infrastructure assets are in very good or good condition. About 25% of the assets are in poor or very poor condition.

The Town would like to maintain all water infrastructure in very good condition, storm and wastewater infrastructure in very good condition, roads in good condition, and buildings in good condition. The Town is currently developing plans and carrying out actions to achieve this by replacing, renewing, and repairing assets that are currently in poor or very poor condition. The condition rating is based on age-based and field condition data.

Petrolia’s Assets by Condition Rating

- **Very Good** - Asset is well maintained with no noticeable defects.
- **Good** - Asset may show signs of minor deterioration and may require some maintenance.
- **Fair** - Deterioration evident, function affected.
- **Poor** - Serious deterioration, function inadequate.
- **Very Poor** - No longer functional



Town General Assets

The Town General Assets include all assets excluding the water and wastewater networks. This portfolio of assets include: the transportation network, facilities, fleet, equipment, etc.

Key Assumptions:

- Tax rate change of 1% plus inflation over planning period
- 2% assessment growth over planning period
- 3% growth in expenses over planning period
- Any debt assumed to be at 10-year term and 5% interest
- Maintain a minimum Working Capital Reserve of \$500,000

Town General Revenue

The Town of Petrolia has the following main sources of general revenue:

- Property taxes (approx. 80%).
- Ontario Municipal Partnership Fund (approx. 10%)
- Other revenue: (remaining 10%)
 - Federal/provincial grants (including OCIF)
 - Interest
 - BWP dividends
 - Miscellaneous

Town General Expenses

The Town's general expenses include all expenses not related to water or wastewater. Some examples are: general administration, facilities and fleet maintenance, parks and recreation, planning and development, etc.

Petrolia's Victoria Playhouse Petrolia (VPP) has been operating at a breakeven point since 2015. Any VPP surpluses are transferred to the VPP reserve to cover any future operating deficits and to fund VPP capital projects.

There are no major changes to the general operating expenses expected over the planning period.

Town General Debt

The Town's strategy is not to issue any debt, unless absolutely necessary. Current annual debt payments are less than \$300K and will reduce to zero by 2028. The Town's current LTICFP shows a requirement to borrow about \$560K in 2024. This number assumes known capital grants, but staff are always actively pursuing additional grant opportunities. Any borrowing has a maximum term of 10 years and current estimated interest rate of 5% over the planning horizon.

Operating Surplus/Deficit

The Town of Petrolia's strategy is to allocate at least 20% of revenue to working capital reserves to help fund general capital. The Town's current LTICFP achieves this goal.

Town General - Asset Condition Rating 2023

| Asset | Components | Quantity | Condition Rating (Age-Based Condition) | Current Replacement Cost |
|-----------------------------------|------------------------------------|------------------|---|---------------------------------|
| Bridges & Culverts | Bridge – Bridge View | 1 | Good | \$75K |
| | Bridge – Discovery Line | 1 | Good | \$1.4M |
| Buildings & Facilities | Fire Dept - Fire Hall | 1 | Fair | \$1.9M |
| | Fire Dept - Training Centre | 1 | Very Poor | \$10.1M |
| | Victoria Hall - Building | 1 | Poor | \$22.6M |
| | Victoria Hall - Standby Power | 1 | Good | \$273K |
| | VPP - Workshop and Garage | 1 | Very Good | \$120K |
| | Health Services - Hillsdale Garage | 1 | Poor | \$21K |
| | Health Services - Hillsdale Office | 1 | Very Poor | \$117K |
| | Health Services - FHT Building | 1 | Very Good | \$511K |
| | Parks & Rec - Greenwood Arena | 1 | Poor | \$35.2M |
| | Parks & Rec - OHDCC/YMCA | 1 | Fair | \$13.7M |
| | Parks & Rec - Other Bldgs. | 14 | Fair | \$9.5M |
| | Public Works Garage | 1 | Fair | \$2M |
| | Storage Barn & Public Works Shed | 2 | Very Good | \$80K |
| | Machinery & Equipment | Admin. Equipment | 10 | Varies |
| Cemetery Equipment | | 4 | Very Poor - Poor | \$32K |
| Greenwood Arena Equipment | | 23 | Varies | \$670K |
| OHDCC/YMCA Equipment | | 46 | Varies | \$1.4M |
| Parks & Recreation Equipment | | 34 | Varies | \$741K |
| Petrolia Fire Dept. Equipment | | 90 | Varies | \$1.4M |
| Public Works Equipment | | 11 | Varies | \$428K |
| Victoria Hall Equipment | | 18 | Varies | \$500K |
| VPP Equipment | | 11 | Varies | \$552K |
| Road Network | Arterial | 16 | 100% Good - Very Good | \$4.4M |
| | Collector | 65 | 40% Good - Very Good | \$12.3M |
| | Local | 173 | 70% Good - Very Good | \$32.4M |
| | Sidewalks | 115 | 54% Fair - Very Good | \$4M |
| | Streetlights | 700+ | Very Poor | \$668K |
| | Traffic Operations | 2 | Poor | \$54K |
| Total | | | | \$157.3M |

Town General – Capital

Some upcoming capital projects include:

Road network –

- Tank Street reconstruction
- Long-term sidewalk replacement program

Fleet –

- Public works backhoe
- Parks and recreation pick up truck
- Fire truck

Facilities –

- Long-term facilities maintenance plan
- VPP theatre accessibility upgrade
- YMCA recreational upgrades and splashpad

Other–

- Town entrance signs
- Cemetery database software
- 150th Legacy Project: Victoria Park Bandshell



Town General Levels of Service & Performance

The tables below summarize the Town’s current levels of service with respect to prescribed metrics under Ontario Regulation 588/17 for the Road Network, Bridges & Culverts, and Other General Assets.

Road Network

| Community Levels of Service | | |
|-----------------------------|--|---|
| Service Attribute | Community Level of Service Description | Current Level of Service Statement |
| Scope | Road network level of connectivity | See Appendix A: Road Network Map |
| Quality | Roads are maintained in FAIR condition | See Appendix B: Road Network Condition Examples |

| Technical Levels of Service | | |
|--|---|---|
| Key Corporate Performance Expectations | Technical Requirements O. Reg. 588/17 | Technical Measurement (2023) |
| Road network assets support reliable, efficient and safe transportation. | # of lane-km of each arterial road, collector roads and local roads as a proportion of square kms of land area of the municipality. | 79 km of lanes 12.68 km square Therefore, 6.23 km per square km of land area. |
| Road assets are maintained and road surfaces are smooth. | Average pavement condition index (PCI) value. | The weighted average PCI of the road system was 60.81 as per the last condition assessment in 2021. Road assessments are completed every 4-5 years. |

Bridges & Culverts

| Community Levels of Service | | |
|-----------------------------|--|--|
| Service Attribute | Community Level of Service Description | Current Level of Service Statement |
| Scope | Bridges support heavy and light duty vehicle loads | None of the municipality's bridges have loading or dimensional restrictions. |
| Quality | Bridge are maintained in GOOD condition | The municipality is required to complete biennial inspections of all bridge and culvert structures over 3m in span according to the Ontario Structure Inspection Manual. Inspections are done by an engineer and any maintenance, rehabilitation or replacement requirements are provided to the municipality |

| Technical Levels of Service | | |
|---|--|---|
| Key Corporate Performance Expectations | Technical Requirements O. Reg. 588/17 | Technical Measurement (2023) |
| Provide reliable bridges with adequate load limits. | % of bridges with loading or dimensional restrictions. | 0% |
| Provide reliable bridges and maintain adequate condition. | Average bridge condition index (BCI) value. | Discovery Line Bridge: 74.7 (2022) Bridgeview Park Bridge: 68.1 (2022) |

Other Town General Assets

| Community Levels of Service | | |
|---|--|---|
| Asset | Community Level of Service Description | Current Level of Service Statement (2023) |
| Buildings & Facilities | Provide an adequate provision of indoor facilities providing services to the demands of the community. | Petrolia currently has the following community buildings: <ul style="list-style-type: none"> • Community centre • Arena/indoor ice rink • Library • Theatre |
| Fleet Heavy & light duty vehicles | To assist with the delivery of services, the town owns and maintains a diverse stock of heavy and light duty vehicles. | The town owns a diverse stock of light duty vehicles as well as heavy duty vehicles, incl. three fire trucks and two snow plows. To reduce costs, the town endeavors to procure vehicles that can be used for multiple purposes. |
| Land & Land Improvements Parks & Rec Facilities | Provide an adequate provision of parks and outdoor recreational facilities are available to the community. | Petrolia currently has the following outdoor parks/recreational facilities: <ul style="list-style-type: none"> • Soccer fields • Baseball Diamonds • Parks |
| Land & Land Improvements Playgrounds | Provide safe and accessible playground equipment. | Playgrounds are inspected on a regular basis. |
| Machinery & Equipment Public Works | Provide residents with public works services. | The Town Public Works dept. owns and maintains a diverse stock of heavy and light machinery and equipment. |
| Machinery & Equipment Fire | Provide residents fire protection services. | The Town Fire dept. owns and maintains a diverse stock of heavy and light fire machinery and equipment. |
| Machinery & Equipment Parks & Rec | Provide residents with parks & recreation services. | The Town Parks and Rec. dept. owns and maintains a diverse stock of heavy and light machinery and equipment. |

| Technical Levels of Service | | |
|--|---|--|
| Asset | Technical Metric | Current Level of Service |
| Buildings & Facilities | Square footage of indoor facilities per 1000 households | 42924 |
| Fleet – Heavy & light duty vehicles | <u>Heavy duty fleet</u> – maintain licensed heavy duty fleet at a condition rating = GOOD <u>Light duty fleet</u> – maintain light duty fleet at a condition rating = GOOD | Inspections annually. Condition rating updated. Renew or replace vehicle when condition reaches fair or when the asset age reaches end of useful life. |
| Land & Land Improvements - Parks & rec. facilities | Square footage of outdoor recreation space per 1000 households | 2368008 |
| Land & Land Improvements - Playgrounds | % of CSA mandated playground inspections completed on time | 100% |
| Machinery & Equipment – Public Works | <u>Heavy duty machines/equipment</u> – maintain condition rating = GOOD <u>Light duty machines/equipment</u> – maintain condition rating = FAIR | Inspections annually. Condition rating updated. Renew or replace machine when condition reaches fair or when the asset age reaches end of EUL. |
| Machinery & Equipment – Fire | <u>Heavy duty machines/equipment</u> – maintain condition rating = GOOD <u>Light duty machines/equipment</u> – maintain condition rating = FAIR | Inspections annually. Condition rating updated. Renew or replace machine when condition reaches good or when the asset age reaches end of EUL. |
| Machinery & Equipment – Parks & Rec | <u>Heavy duty machines/equipment</u> – maintain condition rating = FAIR <u>Light duty machines/equipment</u> – maintain condition rating = FAIR | Inspections annually. Condition rating updated. Renew or replace machine when condition reaches fair or when the asset age reaches end of EUL. |

Managing Risk of Town General Assets

Town of Petrolia staff and contractors regularly review high-risk assets to determine appropriate risk mitigation strategies. Risk models are also regularly reviewed and adjusted according to an evolving understanding of probability and consequence of asset failure.

- **Roads/Bridges: Current Risks and Management** - The Town does not have sufficient funds to properly address road needs as highlighted by the 2021 Roads Condition Assessment report. Working with a road expert, staff have proposed a balanced approach to addressing the Town's total road construction needs while giving priority to preserving and extending the useful life of the roads in good condition, before they require a total road reconstruction. Staff will actively seek grant funds to address these needs. Roads condition assessments are to be conducted every 4-5 years.
- **Facilities: Current Risks and Management** – The Town has conducted its first facilities assessment study which has identified accessibility concerns of multiple facilities, including many renovations required at Victoria Hall. The Town conducted an engineering study to address the minimum essential requirements for Victoria Hall. The federal and provincial government just announced a new long-term grant which may assist with funding these renovations. Facilities studies are to be conducted every 4-5 years.
- **Other: Current Risks and Management** – Another risk to consider is staff retention – loss of key staff knowledge and experience. Petrolia's CAO completes a Strategic Human Resource Plan every 3-4 years. The objective is to take a forward-looking, strategic perspective of our workforce to identify opportunities and risks.

Water System

The Town maintains a portfolio of assets necessary to produce and supply clean drinking water. These assets include the Water Treatment Plant, located in Brights Grove, as well as the distribution network assets (watermains, hydrants, reservoirs, etc.).

Key Assumptions

- Water rates:
 - 2022: 2.5%
 - 2023: 4%
 - 2024: 3%
 - 2025+: 3%
- Annual consumption increase expected is currently at 1.5% for Petrolia & 1% for Enniskillen.
- 2% growth in expenses over planning period
- Any debt at 20-year term and 5% interest
- Maintain a minimum Water Reserve of \$500K

Water Revenue

The Town of Petrolia has two main sources of water revenue:

1. Residential water rates - per M3 and fixed charges (58%)
2. Bulk water sales to Enniskillen (42%)

Water Expenses

Total operating expenses for 2024 are estimated at \$1.3M with the major costs being approximately 42% for Ontario Clean Water Association (OCWA) for operating the water system; and over 15% for power purchased. Staff do not foresee any major changes in expenses going forward.

Water Debt

The annual water debt is approximately \$190K, The Town will need to replace the water intake pipe as it is approaching the end of its useful life. The intake pipe replacement is estimated to cost \$16M by 2028.

Operating Surplus/Deficit

The Town's strategy is to maximize annual surpluses and build up the Water Reserve to fund the water intake pipe replacement project, with minimal debt.

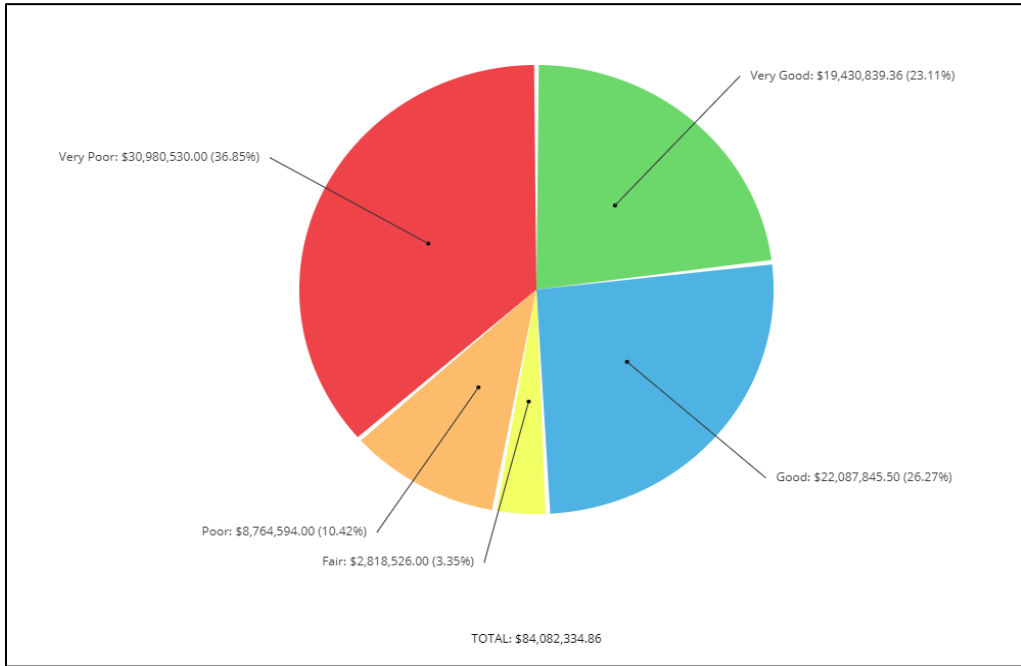
Water Capital

The three main types of capital projects over the planning period are:

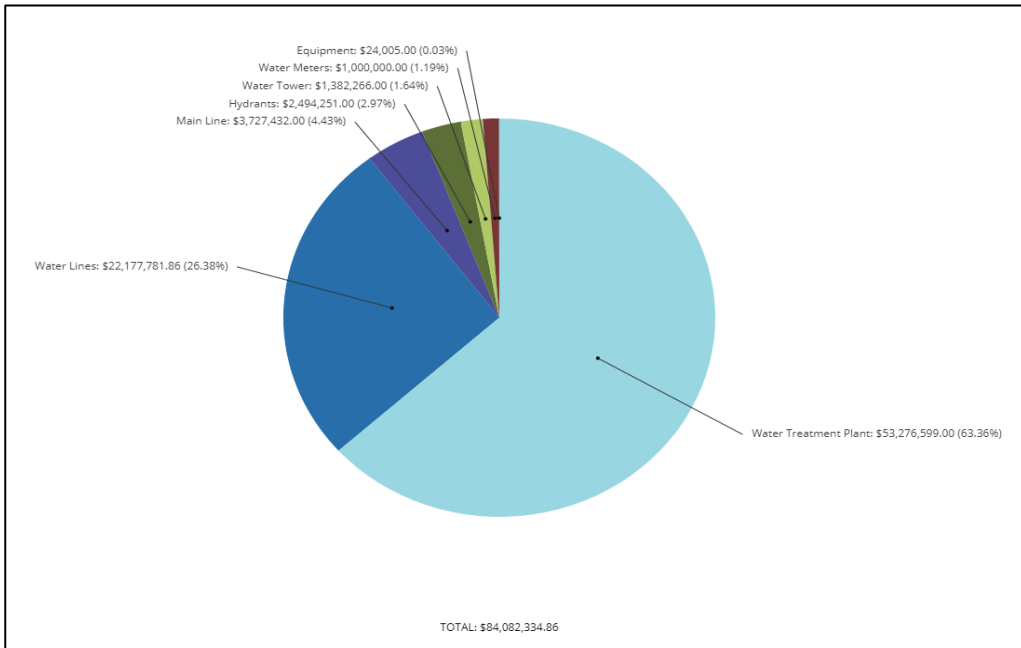
1. **OCWA capital plan:** Ontario Clean Water Associations updates and submits a 10-year plan for capital projects and major maintenance annually.
2. **Road reconstructions:** Water network renewal/replacement associated with reconstruction of roads.
3. **Equipment replacement:** The Town plans to replace the Water intake pipe by 2028.

Water System Asset Portfolio

The following graph represents the overall condition of the Water System assets:



The following chart represents the current replacement cost of the Water System assets:



Water System Levels of Service & Performance

The tables below summarize the Town’s current levels of service with respect to prescribed metrics under Ontario Regulation 588/17.

| Community Levels of Service | | |
|------------------------------------|---|---|
| Service Attribute | Community Level of Service Description | Current Level of Service Statement (2023) |
| Scope | Description of the user groups or areas of the municipality that are connected to the municipal water system. | All properties are connected to the municipal water system. |
| | Description of the user groups or areas of the municipality have fire flow. | All areas of the municipality have fire flow. |
| Reliability | Description of boil water advisories and service interruptions. | There was 1 watermain break in 2023. |

| Technical Levels of Service | | | |
|------------------------------------|---|--|---|
| Service Attribute | Key Corporate Performance Expectations | Technical Requirements O. Reg. 588/17 | Technical Measurement (2023) |
| Scope | Providing clean and safe drinking water to all Town residents. | % of properties are connected to the municipal water system. | 100% |
| | Water has acceptable pressure/fire protection. | % of properties where fire flow is available. | 100% |
| Reliability | To have no boil water advisories. | # of days per year where a boil advisory notice is in place compared to the total # of properties connected to the municipal water system. | 0 connection-days (No boil water advisories in 2023) |
| | To have watermain breaks repaired with minimal service interruptions. | # of connection-days per year due to water main breaks compared to the total number of properties connected to the municipal water system. | 1 connection-day |

Managing Risk - Water System Assets

Risk management strategies are developed to assist with the prioritization of investments within the planning period.

Some risks in the Towns Water system include:

- Rapid Population Growth: Significant growth in population and employment will lead to increased demand and pressure on water resources. This added pressure may decrease useful life or cause potential service disruptions.
- Financial Constraints: Budget constraints may limit investments in water network infrastructure, leading to increased vulnerability to risks. About 77% of Petrolia's Town water revenue is variable with only 23% from fixed which can be a challenge for the Town as most of the expenses are fixed.

Town staff will continue to monitor high risk assets and analyze age-based condition ratings to plan for repairs and replacements accordingly. Some current risk management strategies for the water network are:

- Infrastructure updates:
 - Replacement of the water intake pipe is planned for 2028.
 - Watermains are replaced as roads are reconstructed.
- Improved costing: Town staff are discussing the possibility of increasing the fixed water rate and reducing the variable rate to improve future budgeting.

Wastewater System

Wastewater assets are those that enable us to live in a clean and safe environment. It includes everything from wastewater mains that service our homes and businesses throughout the Town, to the Wastewater Treatment Plant, which ensure that effluent is properly treated.

Key Assumptions

- Wastewater rates:
 - 2022: 2.5%
 - 2023: 4%
 - 2024: 3%
 - 2025: 3%
 - Inflation thereafter
- Any debt at 20-year term and 5% interest.

Wastewater Revenue

The Town of Petrolia's main source of revenue for Wastewater system is:

1. Residential sewer rates – per M3
2. Grant funding when available

Wastewater Expenses

Total operating expenses for 2024 are estimated at \$1.67M with the major cost being approx. 33% for Jacobs, Petrolia's contracted services for operating the Wastewater Treatment Plant (WWTP). Staff do not foresee any major changes in expenses over the planning period.

Wastewater Debt

On average the Town's current debt costs are \$385K per year for the Wastewater system.

Operating Surplus/Deficit

The Town's strategy is to maximize annual surpluses to build the Wastewater Reserve to \$500K. This fund will be used to help fund future or unexpected projects with minimal debt.

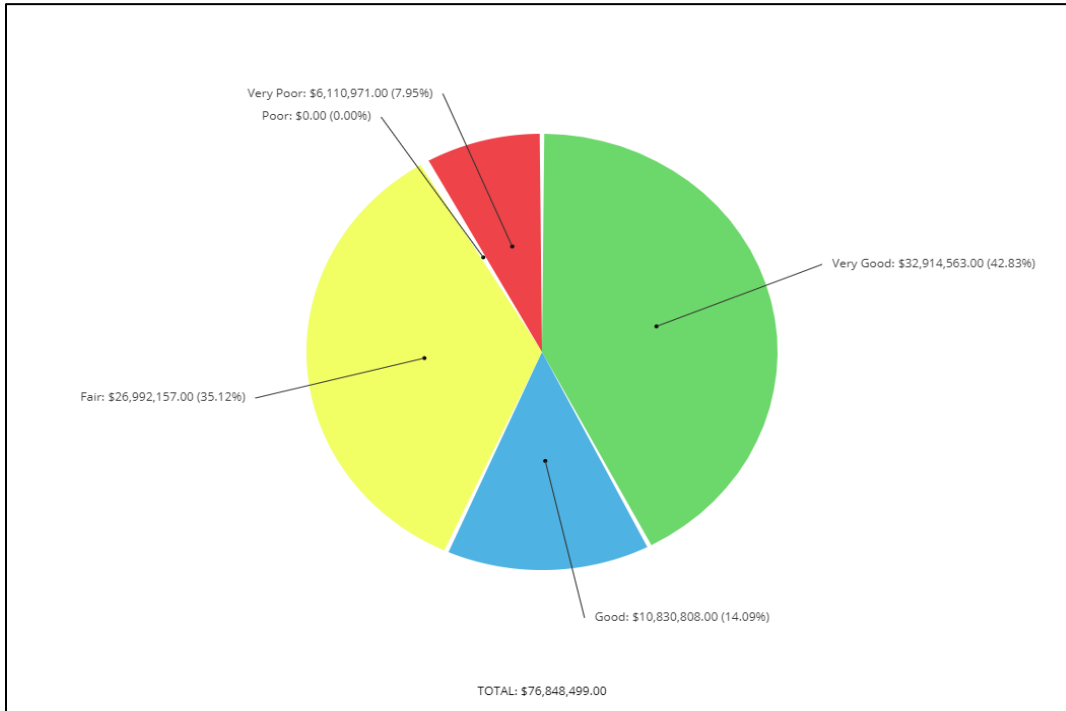
Wastewater Capital

The three main types of capital projects over the planning period are:

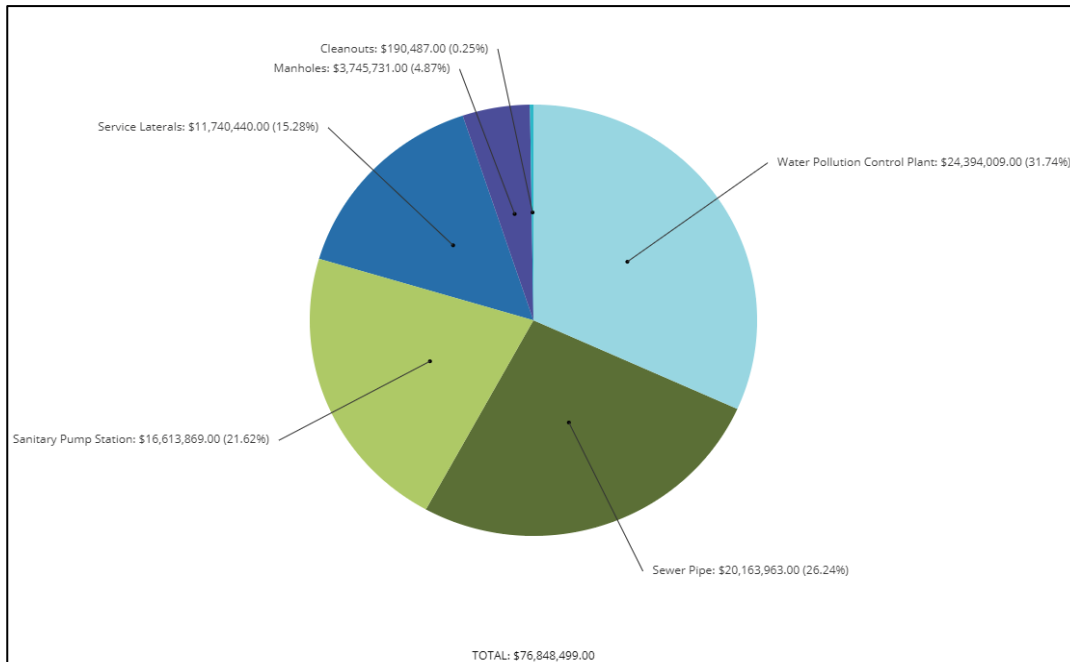
1. **Jacob's capital plan:** Capital recommendations are updated and submitted for approval by Jacobs annually.
2. **Infrastructure:** The sewer network renewal/replacement is aligned with the reconstruction of roads as required.
3. **Equipment replacement:** The Town plans to replace the WWTP filter system in upcoming years, the cost will be around \$1.3M. The Town is currently spending \$30K per year on replacement disk filters. The replacement of the filter system will eliminate the cost of replacement disk filters, as well as the operational costs of repeatedly replacing them.

Wastewater System Asset Portfolio:

The following chart represents the overall condition of the Wastewater system assets:



The following chart represents the current replacement cost of the Wastewater System assets:



Wastewater Levels of Service & Performance

The tables below summarize the Town’s current levels of service with respect to prescribed metrics under Ontario Regulation 588/17.

| Community Levels of Service | | |
|-----------------------------|--|--|
| Service Attribute | Community Level of Service Description | Community Level of Service Statement |
| Scope | Description of the user groups or areas of the municipality that are connected to the municipal wastewater system | 99% 2498 out of 2524 units in Petrolia are connected to the municipal wastewater system. |
| Reliability | Description of how combined sewers in the municipal wastewater system are designed with overflow structures in place which allow overflow during storm events to prevent backups into homes. | N/A Petrolia has no combined sewers. |
| | Description of the frequency and volume of overflows in combined sewers in the municipal wastewater system that occur in habitable areas or beaches | N/A Petrolia has no combined sewers. |
| | Description of how stormwater can get into sanitary sewers in the municipal wastewater system, causing sewage to overflow into streets or backup into homes | Infiltration from stormwater and groundwater may enter the sanitary sewers causing backups in various ways: <ul style="list-style-type: none"> • Cross-connections • Cracks in sewer • Foundation drain connections • Catch basins |

| Technical Levels of Service | | | |
|-----------------------------------|---|---|--|
| Asset | Key Corporate Performance Expectations | Technical Requirements O. Reg. 588/17 | Technical Measurement (2023) |
| Wastewater Treatment Plant | Access to wastewater system for all residents. | % of properties connected to the municipal wastewater system | 99% |
| | To have no combined sanitary/storm sewers. | # of events per year where combined sewer flow in the municipal wastewater system exceeds system capacity compared to the total # of properties connected to the municipal wastewater system. | N/A Petrolia has no combined sewers. |
| | To have no lost connection days due wastewater back ups. | #of connection-days per year due to wastewater backups compared to the total number of properties connected to the municipal WWS. | This data is not immediately available. Future tracking will occur in conjunction with Jacobs. |
| | To provide wastewater system with minimal impact on the environment. | # of effluent violations per year due to WW discharge compared to the total number of properties connected to the municipal WWS. | 0 (Tracked by Jacobs) |
| Storm Sewer | To have no combined sanitary/storm sewers. | Percentage of properties in municipality resilient to a <u>100-year</u> storm. | 80% (Last assessment in 2021) |
| | As roads are replaced, the storm mains will be upgraded to meet recommended pipe sizes. | Percentage of properties resilient to a <u>5-year</u> storm. | 100% (Last assessment in 2021) |

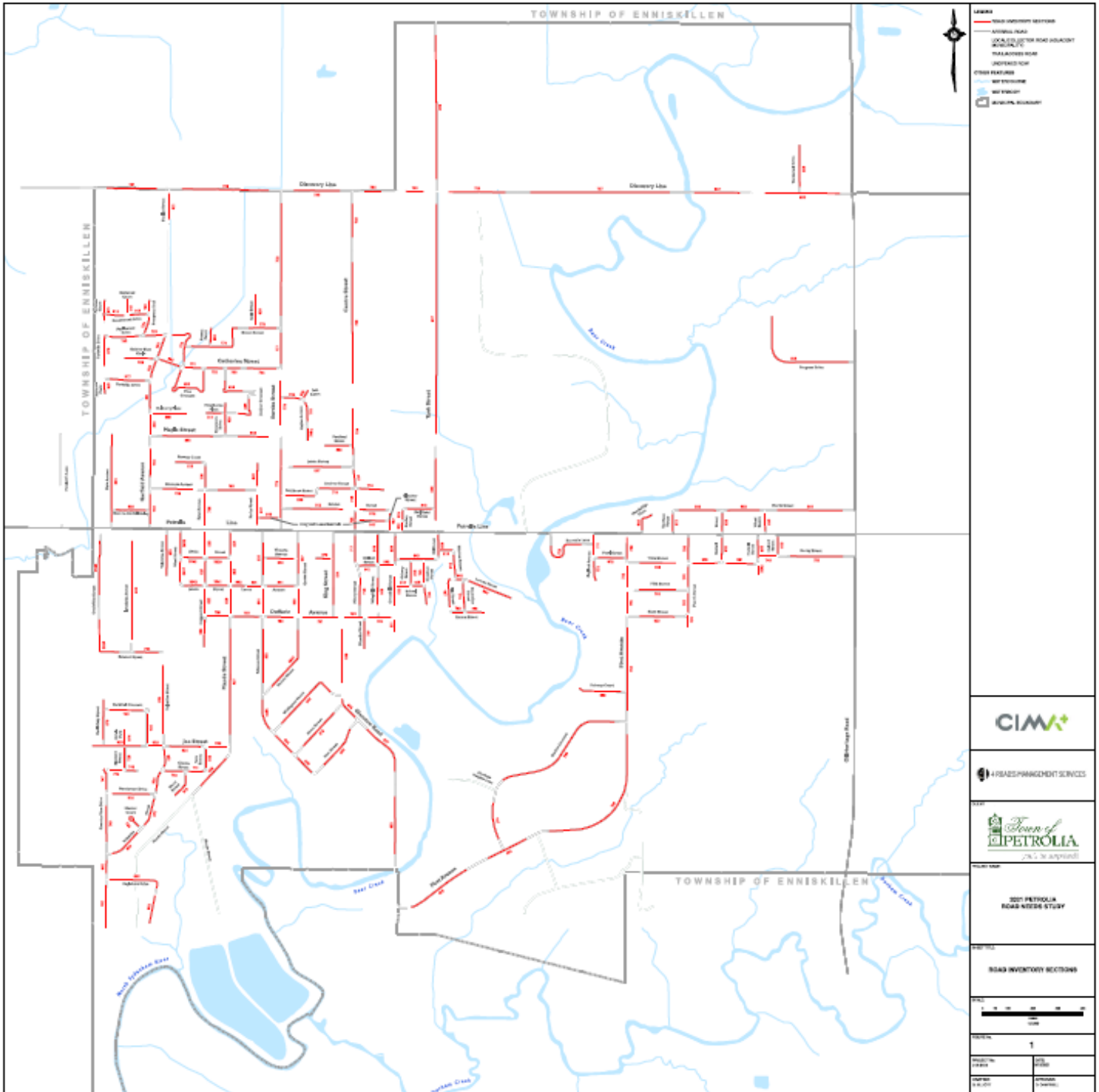
Managing Risk - Wastewater System Assets

Risk management strategies are developed to assist with the prioritization of investments within the planning period.

The main risk in the Town's Wastewater system is the many undersized storm sewer pipes. Replacing all undersized pipes would result in high financial consequence, as the Town does not currently have the budget to address all undersized pipes without acquiring a large amount of debt. Town staff will continue to monitor these undersized pipes and plan to be gradually replaced during road reconstructions in the recommended sizing and material.

Appendix A

Road Network Map



Appendix B

| Road Network Condition Data Examples | | |
|--------------------------------------|--|--|
| Asset | Key Corporate Performance Expectations | |
| Very Poor | |  |
| Poor | |  |
| Fair | |  |
| Good | |  |
| Very Good | |  |