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TOWN OF PETROLIA DEVELOPMENT CHARGES BACKGROUND STUDY (2023)



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TOWN OF PETROLIA 2023 DEVELOPMENT CHARGES BACKGROUND STUDY

1.0 Introduction

The Town of Petrolia is considering establishing, by by-law, development charges to pay for capital costs required due to increased needs for services arising from development. The by-law may establish development charges against residential and non-residential development activities in the Town during the period of 2023-2034. This by-law would be passed under the statutory authority of the *Development Charges Act, 1997* (DCA) as amended and its accompanying Regulations.

Section 10 of the Act requires that a development charge background study be completed and specifies the contents of the study. *Ontario Regulation 82/98*, Section 8, as amended (O.Reg. 82/98) further defines the content of the study. This Development Charges Background Study (Background Study) has been prepared in order to provide Council with sufficient information to make a decision on the value of any development charge to adopt. This report includes the following major components:

- An outline of the framework for conducting the study;
- An overview of the local growth forecasts for residential and non-residential activities;
- A summary of growth-related projects and services;
- A synopsis of the methodology applied to establish a development charge;
- The calculations associated with establishing development charges for each applicable service category;
- Asset management information for assets funded by the development charges;
- Presentation of the proposed development charge schedule; and
- Details on the process to implement a Development Charges By-law.

2.0 Background

The Town currently administers a wide variety of public services and maintains an extensive inventory of facilities, infrastructure, equipment and land. Several major infrastructure projects have been initiated in recent years or are being planned for implementation in the foreseeable future. Given the capital investment associated with the provision of these projects and other municipal activities, Council has expressed an interest in considering a new Development Charge By-law to recover applicable costs from new development activities.

B. M. Ross and Associates Limited (BMROSS) was engaged to conduct a Development Charges Background Study to consider the adoption of development charges applicable to new construction activities within the Town. Section 10 of the DCA specifies that the Background Study must include the following components:

- Forecasts for the anticipated amount, type and location of development for which development charges can be applied;
- An estimate of the increased level of service required to accommodate growth (for each service incorporated into the development charge);
- Forecasts of the average service levels for certain services over the 15-year period immediately preceding the preparation of the Background Study. The assessment of previous service levels must consider both the quality and quantity of service provided;
- Assessment of long-term capital and operating costs for infrastructure required for each applicable service;
- Consideration of the use of more than one development charge bylaw to reflect different service areas; and
- An evaluation of life cycle costs and financial sustainability over the lifetime of the asset.

3.0 Current Practice

The Town of Petrolia currently does not collect development charges and does not have a development charge by-law in place.

4.0 Approach

The purpose of this study is to conform to the requirements of the DCA and to support an amount that can be collected as a development charge. The approach to conducting the review is as follows:

- Review with municipal staff and Council the development charge process, what projects are anticipated to benefit future growth over the next 10 years.
- Review historical and future growth in the Town. Staff provided information on buildings/development activity;

- Town staff and consulting engineers provided updated capital works forecasts and potential projects;
- BMROSS analyzed and evaluated the proposed works to service new development, with respect to:
 - Applicability under the Act;
 - Benefit to existing development;
 - Allocation between different types of development;
 - Level of service in the community;
 - Potential impact of long-term capital and operating costs for the proposed works; and
 - Service areas of the proposed works.

The following represent the final components of the development charges process:

- Provide Council with an interim presentation to identify proposed services that could be collected for in a development charge;
- Council determines a development charge amount they intend to collect by by-law;
- Establish, by Council resolution, a development charge schedule which the Town intends to collect;
- Prepare a draft Development Charges By-law prescribing the proposed development charges schedule;
- Arrange a public meeting to present details on the study process and the proposed development charges schedule. The meeting is a requirement of the DCA. A minimum 20-day notice period must be provided prior to the meeting;
- Acknowledge and attempt to address concerns raised during the statutory public meeting, and document input received through consultation;
- Finalize the implementing By-law following consideration of comments received via consultation;
- Obtain, by Council resolution, approval of the proposed Development Charges By-law; and
- Circulate the Notice of Passage for the Development Charges By-law. The By-law will immediately come into effect. The By-law may be appealed to the Ontario Land Tribunal (OLT) in the 40-day period following the passage of the By-law.

5.0 Population and Growth Forecast

5.1 General

Forecasts have been prepared to project population and household growth for the Town over a 20-year planning period. The growth forecasts were established following an assessment of general growth and development trends in Petrolia as identified from statistical data, building permit data and background research. The forecasts extrapolated from these analyses are considered reasonable projections of growth and

development within the Town. The background research and analyses of population and growth is included in Appendix A.

5.2 Current Population and Household Trends

The most recent population count for the Town of Petrolia is the 2021 Census. In 2021, the population of Petrolia was 6,013 residents, an increase of 271 persons from the 2016 count and 485 persons from the 2011 Census. The increase in population between 2016 and 2021 equates to an annual average growth rate of 0.93%. Over the last 10 years of census data, the annual average growth rate was 0.84%. Population data from previous censuses are summarized in Table 5.1.

The Town consists of a single, primarily urban area. There are no other communities or urban areas within the municipality.

Table 5.1 Petrolia Census Population Counts, 2001-2021

Year	Population
1996	4,908
2001	4,849
2006	5,222
2011	5,528
2016	5,742
2021	6,013
5-year change	271
10-year change	485
20-year change	1,164
5-year change (%)	4.72
10-year change (%)	8.77
20-year change (%)	24.00
5-year average annual growth rate (%)	0.93
10-year average annual growth rate (%)	0.84
20-year average annual growth rate (%)	1.08

The increase in population in Petrolia is the result of continued residential development. The increase in the population in Petrolia is likely attributable to its proximity to local and regional employment opportunities (e.g. in the chemical and energy industries), availability of lands for development and availability of new homes.

The number of private dwellings in Petrolia as counted through previous censuses are summarized in Table 5.2. The number of private dwellings in the Town has increased over the last 20 years, with approximately 643 additional dwellings over that time. Within the last 5 years, the greatest average annual growth rate over the last twenty years occurred. This reflects a surge in residential building activity between 2019-2021, that was similarly observed throughout many municipalities in southwestern Ontario.

Table 5.2 Census Total Private Dwelling Counts, Petrolia 1996-2021

Year	Number of Dwellings
1996	1,765
2001	1,881
2006	2,082
2011	2,223
2016	2,323
2021	2,524
5-year change	201
10-year change	301
20-year change	643
5-year change (%)	8.65
10-year change (%)	13.54
20-year change (%)	34.18
5-year average annual growth rate (%)	1.67
10-year average annual growth rate (%)	1.28
20-year average annual growth rate (%)	1.48

To gain a better understanding of residential development occurring in Petrolia, building permit data for new residential dwellings was assessed. Table 5.3 summarizes the number of new residential building units in the Town between 2012 and 2021.

Table 5.3 Building Permits Issued for New Residential Development, 2012-2021

Year	Single & Semi-Detached	Multiple and Apartments	Total
2012	21		21
2013	11		11
2014	10		10
2015	18	3	21
2016	17	4	21
2017	24	12	36
2018	37	3	40
2019	26	3	29
2020	23	9	32
2021	5	72	77
2022	1	6	7
5-year total	92	93	185
10-year total	172	112	284
5-year average	18.4	18.6	37
10-year average	17.2	14	28.4

Over the past 10 years, there were 284 building permits issued for new residential units in Petrolia. The building permit data shows a significant increase in the number of permits issued in 2021 compared to previous years. Over the last 10 years, the number of apartment and multi-unit type dwellings have increased. This trend is expected to continue, in keeping with planning policies and demand for more affordable housing types.

5.3 Population and Households Forecast

5.3.1 Forecast Methodology

For the purposes of this study, a population forecast for Petrolia was developed. These forecasts are based on input from staff, County forecasts, forecasted developments, and building permit data.

The forecast incorporated the following methodological components:

- The 2021 population and household counts, as determined by the 2021 Census, were used as the starting points for the projections.
- The forecasted growth is based on the 10 year average number of building permits per year.
- Population densities throughout Petrolia are expected to decrease over the forecast period. Over the next 20 years, the number of persons per unit in Petrolia is expected to decrease from 2.37 to 2.33 in 2043.
- It is expected that the majority of development will occur as single detached units and medium density units (row houses and/or townhouses).
- The build-out forecast is based on the current development proposals and undeveloped areas within the current urban boundary.

Several major assumptions were also made to substantiate the use of the aforementioned methodology as the basis for a population forecast. They are as follows:

- Population growth will generally be accommodated through the development of existing lots and registered lots through Plans of Subdivisions and Site Plans.
- There will be substantive change in the employment opportunities within Petrolia that would drive significant change in the population.

5.3.2 Residential and Population Forecast

A residential and population growth forecast was developed for Petrolia based upon the previously discussed methodology. Table 5.4 shows the population and dwelling forecasts.

Table 5.4: Residential Population and Dwelling Forecast 2022-2043

Year	Population	Dwellings
2021	6,013	2,524
2022	6,190	2,601
2023	6,181	2,608
2028	6,485	2,748
2033	6,787	2,888
2038	7,086	3,028
2043	7,381	3,168
Build-out	9,758	4,194
5-year change	304	140
10-year change	606	280
20-year change	1,200	560

5.4 Non-Residential Development Forecast

The forecast for non-residential development is based the 10-year annual average gross square feet added or constructed. Table 5.5 summarizes the expected non-residential growth over the next 5, 10 and 20 years. It is expected that non-residential development will continue given the availability of undeveloped land designated for non-residential growth within Petrolia.

Table 5.5 Forecasted Non-Residential Growth (ft²)

Time Period	Commercial	Industrial	Institutional	Total
2023-2028	29,185	61,540	10,985	101,710
2023-2033	58,370	123,080	21,970	203,420
2023-2043	116,740	246,160	43,940	406,840

6.0 Review of Growth-Related Capital Costs

6.1 General Considerations

Projects and services that are anticipated to be required as a result of growth throughout Petrolia were reviewed and evaluated. The following factors and evaluation steps were considered during this process:

- Identification of municipal services required to permit occupancy for new development (e.g., water, wastewater, parks and recreation, public work facilities, roads, etc.).
- A review of projects/services contained in the 10-year Capital Works Plan.
- A review of new projects/services that were proposed to be collected for in a development charge because they will be required as a result of growth.

- Assessment of the applicability of services and projects under the DCA, taking the following factors into consideration:
 - Eligible Services: Development charges can only be applied to each of the following services to recover the growth-related capital costs for facility construction and improvement, land acquisition and improvement, equipment and furnishings:
 - Water and wastewater services.
 - Stormwater infrastructure.
 - Services related to a highway (as defined in subsection 1(1) of the *Municipal Act, 2001*).
 - Electrical power services.
 - Policing services.
 - Ambulance services.
 - Waste diversion services.
 - Fire Protection services.
 - Library services.
 - Long term care services.
 - Parks and recreation services.
 - Childcare and early year programs and services.
 - Services related to by-law enforcement and municipally administered courts.
 - Emergency preparedness services, and
 - Transit services.
- Identification of completed projects and services which benefit future development and included allocations specifically for growth (i.e., additional capacity).
- Identification of proposed projects and services which will provide benefit to further development within the next ten years; and
- Assessment of the probable capital costs which will be incurred for those projects or services determined to be DCA-eligible.

6.2 Review of Growth-Related Projects

Additional services that are anticipated to be required as a result of growth in the Town were reviewed and evaluated as part of the study. Table 6.1 provides a summary of service categories/projects that are proposed to be included in the development charge calculation. Additional information on the projects included in Table 6.1 is also included in Appendix B.

Table 6.1 Projects for Inclusion in Development Charges

Service Category	Project	Description
Fire Services	Firefighter Gear	<ul style="list-style-type: none"> • Additional bunker and radio equipment for additional firefighters is required. • Estimated cost of gear and radio per new firefighter is \$5,800.
Fire Services	Vehicles	<ul style="list-style-type: none"> • An additional combination tanker and pumper truck and rescue truck will be required to service additional growth. • The estimated cost of these vehicles totals \$1,100,000.
Parks and Recreation	Facilities	<ul style="list-style-type: none"> • The 10-year Capital Works Plan and Parks and Recreation Master Plan identified a number of projects that will benefit existing and future development. • These projects include: splashpad, multi-purpose studio, trails, basketball/tennis/pickleball courts, and additional ball diamond. • The total cost of these projects is \$2,401,156
Parks and Recreation	Park Equipment	<ul style="list-style-type: none"> • Three new parks are identified in the 10-year Capital Works Plan. The parkland will be acquired through the development process but funds will be required to equip the parks. • The estimated cost to equip the three parks is 1,250,000.
Parks and Recreation	Fleet and Equipment	<ul style="list-style-type: none"> • The 10-year Capital Works Plan and staff have identified additional fleet and equipment necessary to service additional growth as well as the existing population. • Equipment includes: a tractor, utility vehicle, and mower. • The estimated cost of the additional equipment is \$65,000.
Public Works	Fleet and Equipment	<ul style="list-style-type: none"> • It is anticipated that an additional trackless and plow and truck will be required by the Public Works Development in the next 10 years to service both existing and future development. • The estimated cost of the equipment is \$610,000.
Public Works	Additional Shed	<ul style="list-style-type: none"> • Additional space will be required to store additional equipment. An additional storage shed to provide additional storage space is forecasted to be required over the next 10 years. • The estimated cost is \$200,000.

Service Category	Project	Description
Water	Petrolia Line Watermain Replacement	<ul style="list-style-type: none"> • A larger watermain is required to service future residential development lands north and south of Petrolia Line in the eastern area of the Town. • The estimated cost of the project is \$2,327,000 and the estimated benefit to existing is \$442,212. • It is expected that half of the project costs will be debentured over a 10-year period.
Water	Oil Heritage Watermain Extension	<ul style="list-style-type: none"> • A watermain extension is required to service future residential and non-residential growth in the vicinity of Oil Heritage Road, south of Petrolia Line. • The estimated cost of the project is \$511,750.
Sewer	Oil Heritage Sewer and Sewage Pumping Station	<ul style="list-style-type: none"> • A sewer extension and sewage pumping station is required to service future non-residential growth in the vicinity of Oil Heritage Road, south of Petrolia Line. • The estimated cost of the project is \$701,500.

6.3 Service Areas

The Development Charge Act requires that if a project benefits only a specific or defined area, that development charges are only collected from the area that benefits. Through this Background Study, it has been identified that there are four service areas for the purposes of collecting development charges:

- Municipal-wide
- Development Area 1
- Development Area 2
- Development Area 3

The following table summarizes the projects collected for in each of the service areas.

Table 6.2 Development Charge Projects and Applicable Service Areas

Project Category	Project	Service Area(s)
Fire Services	Firefighter Gear	Municipal-wide
Fire Services	Vehicles	Municipal-wide
Parks and Recreation	Facilities	Municipal-wide
Parks and Recreation	Park Equipment	Municipal-wide
Parks and Recreation	Fleet and Equipment	Municipal-wide
Public Works	Fleet and Equipment	Municipal-wide
Public Works	Additional Shed	Municipal-wide
Water	Petrolia Line Watermain Replacement	Development Area 1 and 2

Project Category	Project	Service Area(s)
Water	Oil Heritage Watermain Extension	Development Area 1 and 3
Wastewater	Oil Heritage Sewer and Sewage Pumping Station	Development Area 3

The service areas are shown in Figure 6.1.

6.4 Asset Management

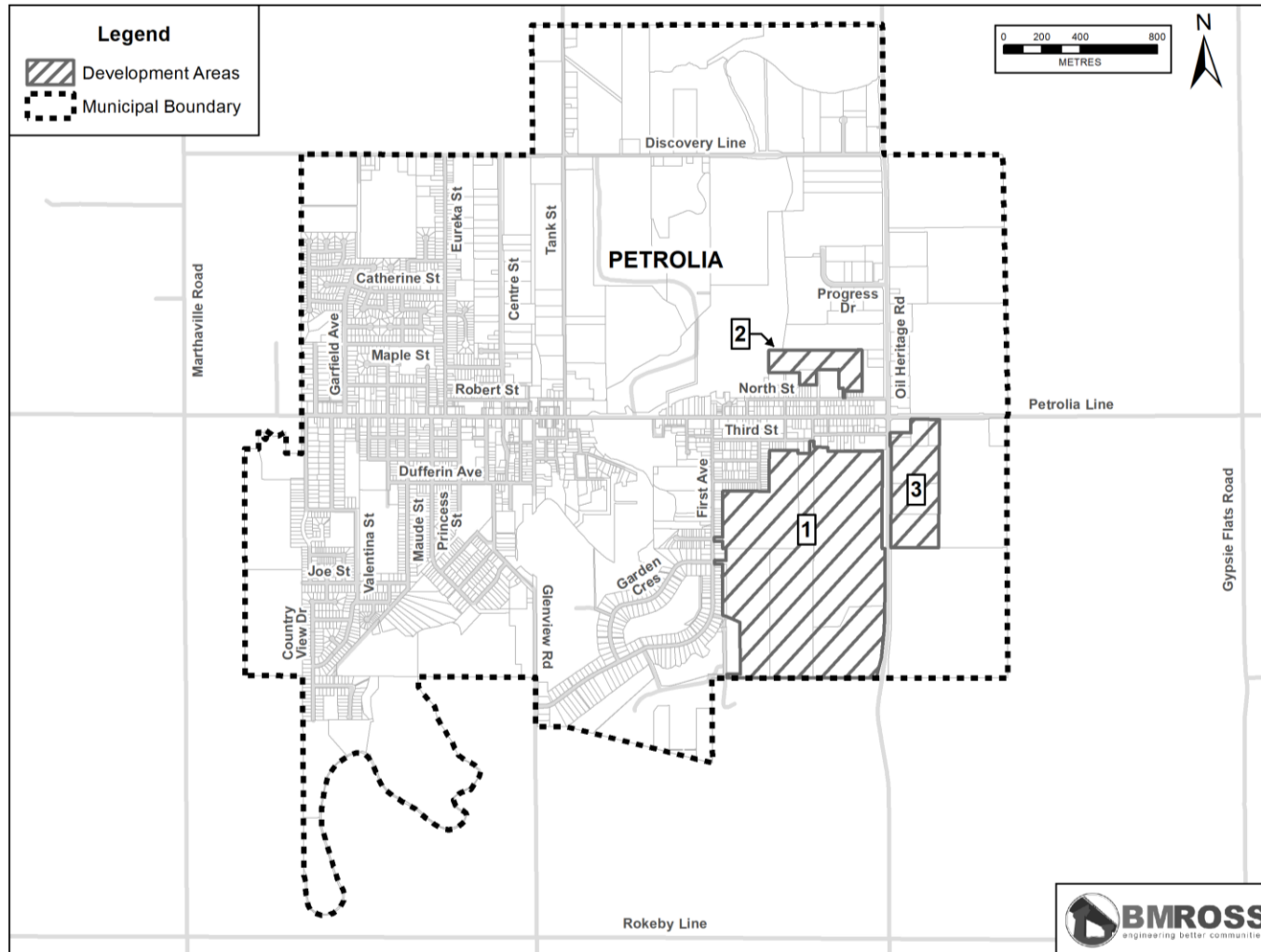
Amendments to the Development Charges Act in 2015 and Ontario Regulation 82/98 require that development charge background studies include an asset management plan. This plan must include all assets with capital costs funded by development charges and demonstrate that assets are financially sustainable over their full life cycle.

The Town of Petrolia last updated their asset management plan in 2022. The intent of the AMP is to serve as a strategic, tactical and financial document to allow the Town to follow sound asset management practices while optimizing available resources and achieving a desired level of service. The AMP included consideration of the following asset categories: road network, bridges and culverts, water, wastewater, stormwater, buildings and facilities, parks and recreation, and fleet assets.

It is expected that as these projects are built or bought, they will be incorporated into future updates of the AMP. Given the estimated life cycle of the assets (based on the lifetime estimates), the replacement costs were estimated assuming 3% annual inflation over the lifetime of the asset. The assets not included in the 2022 AMP have a life-cycle cost totaling: \$36.9 million dollars. The assumed life expectancies of the assets ranges from 14 to 70 years. Assuming 2.5% annual interest, the Town will require an additional \$608,000 per year to fund the lifecycle costs of these additional projects. This amount does not factor in potential grants or other contributions.

The number of additional residences in Petrolia is expected to continue to increase over the next 10 years. The forecasted addition of 280 units will contribute to the existing assessment base and offset the costs associated with these additional assets. Given this, and the Town's continued efforts towards establishing long-term funding strategies, the projects included in the development charges are considered financially sustainable over their life cycles.

Figure 6.1 Development Charge Service Areas



7.0 Calculation of the Development Charge

7.1 Methodology

The DCA and O. Reg. 82/98 prescribe the methodology which must be applied to calculate the growth-related capital costs for those projects and services being considered for inclusion into the development charge (i.e., DCA-recoverable capital costs). The following outlines the methodology used to calculate possible development charges for each service category:

Preliminary Capital Cost Assessment

- Establish the total estimated capital costs for those projects or services with growth related components which will be implemented within ten years (i.e., gross growth-related capital costs). Exclude costs for local services installed or paid for by land developers as a condition of approval under Section 51 of the Planning Act (subdivision of land);
- Define the benefiting area for the proposed works and estimate the total capacity of the growth-related project or service. Exclude the proportion of the service that can be met by the excess capacity of existing facilities, unless Council has indicated, at the time the excess capacity was created, that it would be paid for by new development;
- Reduce the net growth-related capital costs of the project or service by the value of any anticipated grants or subsidies.

Service Level and Benefit Adjustments

- Review the service description to determine if the proposed works exceed the average level of service (service standard) in the Town over the previous 15-year period. The determination of average service level must take into account the quantity of service (i.e., number or size) and the quality of service (i.e., value or cost). Reduce the net cost of the works by any anticipated increase in the service standard. See Appendix C.
- Reduce the net capital cost by the amount the increase in service would benefit existing development.
- Allocate the net capital costs for project or service between residential and non-residential development (i.e., industrial, institutional, commercial activities), based upon anticipated benefit.

Development Charge Calculation and Cash Flow Adjustments

- Calculate the development charge for each service based upon the estimated amount of future growth it will facilitate during the applicable planning period;

- Determine the residential development charge for various types of dwellings based upon the expected occupancy characteristics. Establish area-specific charges for localized projects and services, as required.
- Establish the non-residential development charge based upon a building standard (i.e., cost per square foot of development). Establish area-specific charges for localized projects and services, as required.

7.2 Assumptions Used in the Development Charge Calculation

7.2.1 Spatial Applicability of Capital Costs

The projects included in the following service categories that benefit development on a municipal-wide basis: Fire Protection, Parks and Recreation, and Public Works. The projects in the Wastewater and Water categories have specific benefiting areas as summarized in Table 6.3. The four service areas are:

- Municipal-wide
- Development Area 1
- Development Area 2
- Development Area 3

7.2.2 Allocation of Costs Between Growth and Existing Development

Where a proposed service provides a benefit to existing development, the capital costs must be reduced by the amount of the benefit. Where applicable, for purposes of allocating project costs between future growth and existing development, design capacities have been converted to single person equivalents. This permits a cost per person value to be calculated, which applies equally to both existing development and predicted growth. For other projects, where capacity is not defined, the allocation is based on the assumed proportion of benefit to existing and future development.

7.2.3 Allocation of Costs Between Residential and Non-Residential Development

For the purposes of this study, a series of ratios were established to calculate the relative benefit of projects and services to residential and non-residential activities. The ratios were established based upon the current assessment data. Table 7.1 shows the percentage of residential and non-residential development in the Town.

Table 7.1 Ratio of Residential and Non-Residential Development in Petrolia

Category	Petrolia
Residential	85.2%
Non-Residential	14.8%

7.2.4 Occupancy Considerations

The average occupancy rate in Petrolia, based on the population and number of dwellings as reported in the Census is 2.36 persons per dwelling unit. Different types of residential development contain different numbers of occupants. On a per unit basis, the smaller the average occupancy, the less demand is generally placed on services.

For purposes of this report, the occupancies defined in Table 7.2 are assumed for various housing types. These are based on average occupancies per the last Census.

Table 7.2 Residential Occupancies for Various Dwelling Types

Residential Unit Type	Persons Per Unit	Percentage of Single-Family Unit Charge
Single Family Residential, including semi-detached	2.53	100%
Multi-units	1.65	65%
Apartment (1 bedroom), mobile home, park model trailer	1.25	49%
Apartment (2+ bedroom)	1.39	55%

7.3 Calculated Development Charge

Appendix B provides information on each service category and service component, as well as the key considerations for the calculation of development charges. Based upon the calculations presented in Appendix B, development charge schedules have been prepared for residential and non-residential activities. Tables 7.3 provide a summary of the development charge calculations for Petrolia based on the calculations outlined in Appendix B for the service areas.

It is recommended that development charges schedules, selected by Council using this Report as a guide, be collected by by-law in Petrolia for the period 2023-2033.

Table 7.3 Calculated Development Charges, Petrolia

Development Charge Service Area	Service Category	Per Capita Charge (\$)	Singles & Semis (charge per unit)	Multi-Unit (charge per unit)	Apartment - 2 and 2+ bedrooms (charge per unit)	Apartment - 1 bedroom, bachelor (charge per unit)	Non-Residential (charge per sqft)
Municipal-Wide	Fire	659	1,667	1,087	916	824	0.34
Municipal-Wide	Parks and Recreation	1,999	5,057	3,298	2,779	2,499	-
Municipal-Wide	Public Works	436	1,103	719	606	545	0.23
Municipal-Wide	Total	3,094	7,827	5,104	4,301	3,868	0.57
Development Area 1	Water	1,023	2,588	1,688	1,422	1,279	-
Development Area 2	Water	815	2,062	1,345	1,133	1,019	-
Development Area 3	Water	-	-	-	-	-	1.28
Development Area 3	Sewage	-	-	-	-	-	11.89
Development Area 1 Total	Total (Municipal + Water)	4,117	10,415	6,792	5,723	5,147	0.57
Development Area 2 Total	Total (Municipal + Water)	3,909	9,890	6,450	5,434	4,886	0.57
Development Area 3 Total	Total (Municipal + Water + Sewage)	3,094	7,827	5,104	4,301	3,868	13.74

7.4 Development Charge Capital Program Summary

Table 7.4 summarizes the net project costs, amount attributable to existing development and amount potentially recoverable through development charges. The capital costs attributable to future development amount to \$5.1 million dollars over the next 10 years. The majority of these costs are attributed to future residential development (\$4.20 million dollars), with approximately \$892,650 attributed to non-residential development. Actual collection will depend on the rate of development. The total collected may also be impacted by reductions in development charges as a result of legislated phasing in of development charges and additional exemptions and discounts.

For projects included in the development charges \$672,000 is attributed benefits beyond the next 10 years and is expected to be collected post 2033. Approximately \$3.3 million dollars associated with the identified projects is attributed to existing development and must be funded through reserves, rates and other sources.

Table 7.4 Development Charge Capital Program Summary

Service Category	Net Cost	Amount Attributable to Existing	Total Recoverable through Development Charges	Post 2033 Amount to Collect	Amount Recoverable 2023-2034	Development Charges Attributable Residential	Development Charges Attributable to Non-Residential
Fire	1,119,314	275,000	844,314	375,000	469,314	399,856	69,458
Parks and Recreation	3,566,156	2,354,790	1,211,366		1,211,366	1,211,366	-
Public Works	810,000	202,500	607,500	297,000	310,500	264,546	45,954
Sewage	701,500	-	701,500		701,500	-	701,500
Water	2,839,180	442,212	2,396,968		2,396,968	2,321,229	75,739
Grand Total	9,036,150	3,274,502	5,761,648	672,000	5,089,648	4,196,997	892,651

*note –Capacity expected to be allocated on first come-first serve basis, so amount collected through development charges over the next 10 years will be based on how much actual development occurs.

8.0 Implementation

8.1 General Considerations

As discussed, a Development Charges By-law must be adopted to implement a development charges schedule and the associated collection policies. Section 5(1)(9) of the DCA prescribes that the Town of Petrolia must establish rules within the implementing by-law to set out how development charges will be applied at the local level.

This section of the report outlines certain components of the DCA which will need to be considered during the preparation of the Development Charges By-law.

8.2 Applicable Development

Section 2(2) of the DCA prescribes that development charges can be collected against development activities requiring one or more of the following:

- Issuance of a building permit;
- Condominium Act approval;
- Certain Planning Act approvals (i.e., minor variances, re-zonings, consents, severances, plans of subdivision).

Development charges cannot be applied to development activities which:

- Enlarge an existing dwelling unit;
- Create second or third dwelling units in prescribed classes of proposed new residential buildings, including structures ancillary to dwellings;
- Create additional dwelling units as prescribed (subject to prescribed restrictions); and
- Increase the gross floor area of an industrial development by less than 50%.

Section 3 of the DCA further prescribes that lands owned, and used by, municipal governments and school boards are not subject to the provisions of the by-law. However, Council is also permitted to include provisions in the by-law which exempt specific types of development from development charges. In this respect, local municipalities commonly exempt places of worship, public hospitals and farm buildings from the development charges specified in the by-law.

8.3 Charge Ceilings

Development charges to be collected against new development must not exceed the values defined in Tables 7.4 of this study. Council can establish Development Charges Schedules in the by-law which prescribe charges which are less than those calculated in the aforementioned tables for the entire Town, specific areas of the Town, or specific categories of development.

8.4 Phasing-in

Under section 5(6) of the DCA, development charges must be phased in over the first five years of the by-law. The mandatory phasing is as follows:

- Year 1 – 80% of the calculated charges
- Year 2 – 85% of the calculated charges
- Year 3 – 90% of the calculated charges
- Year 4 – 95% of the calculated charges
- Years 5 to 10 – 100% of the calculated charges

8.5 Inflation Adjustments

The DCA permits development charges to be adjusted to inflation, on an annual basis, using the index specified in O. Reg 82/98. This measure is commonly employed by local municipalities to ensure that the fees collected reflect the real cost of the projects and services.

8.6 Front-Ending Agreements

The Development Charges By-law may contain policies which permit the Town to enter into front-ending agreements with land developers for infrastructure activities specified in the by-law (e.g., watermain installation, road extensions). Front-ending agreements allow developers to finance all, or a portion of the capital costs of a project in order to permit the work to proceed in advance of a municipal capital works schedule. The agreement is required to stipulate, at a minimum, the nature and cost of the work, a cost-sharing program, a collection system and the specific benefiting area.

Under front-ending agreements, the Town typically assumes the following general responsibilities:

- Collecting development charges from subsequent development activities in the defined service area;
- Reimbursing the other parties in the agreement for a share of the development charge (corresponding to the work completed).

Front-ending agreements are subject to public review. Affected property owners may appeal the terms of an agreement to the Ontario Land Tribunal.

8.7 Credits

The Development Charges By-law may contain provisions which allow the Town to permit works specified in the by-law to be carried out by an individual in exchange for credit towards the applicable development charge. The amount of the credit established must reflect the reasonable cost for the doing the work, as agreed upon by the involved parties. The credit provided by the Town can only be applied to the service category, or categories, which are directly related to the work undertaken.

8.8 Discounts

Under Section 26.2(1.1) of the DCA, development charges for rental housing developments must be reduced by the following amounts:

- The development charge for a rented residential premises with three or more bedrooms will be reduced by 25%.

- The development charge for a rented residential premises with two bedrooms will be reduced by 20%.
- The development charge for a rented residential premises not described above will be reduced by 15%.

8.9 Duration of Bylaw

Development charge bylaws expire 10 years after the day they come into force. A municipality may pass a new or additional bylaw prior to the expiry of the existing bylaw.

8.10 Reserve Funds

Starting in 2023, and subsequently on an annual basis, municipalities are required to spend or allocated at least 60% of the monies in development charge reserve accounts for water, wastewater and services related to highway.

9.0 SUMMARY

This report presents the results of a Development Charges Background Study for the Town of Petrolia. Council is considering a new Development Charges By-law for the Town and the study is required under the *Development Charges Act, 1997*.

The study incorporated the primary key activities:

- Review of historic growth in Petrolia and extrapolation of growth and development forecasts for that study area;
- Review and evaluation of capital works projects that would be required to service the predicted growth;
- Calculation of a recommended Development Charge Amount for the proposed projects and services in accordance with the DCA.

It is our opinion that the Development Charge Amounts set out in Tables 7.4 of the report are in compliance with the provisions of the DCA and O. Reg. 82/98. However, the charge that is used in the implementing by-law will be set by Council after due consideration.

10.0 FUTURE ACTION

The following represent the final activities required to adopt a Development Charges program:

- Council reviews the Background Study. Following due consideration and any required revisions, Council accepts this draft report and by resolution, agrees that the intent of the Town is to implement the growth-related capital works itemized in Appendix B;
- The Background Study is made available for public review 60 days prior to the passing of the By-law;
- Council considers a Development Charge Amount to establish, and specific implementation policies to be incorporated into the implementing by-law;

- A draft by-law is prepared in accordance with the recommendations of Council;
- The statutory public meeting is held with a minimum 20-day notice period. The Background Study and the draft By-law will be made available for public review during the notice period;
- Council must pass the implementing by-law within one year of the completion of Background Study. A 40-day review period must be provided after the passage of the By-law. Any individual or organization may appeal the provisions of the Development Charges By-law to the Ontario Land Tribunal during the review period.

All of which is respectfully submitted.

B. M. ROSS AND ASSOCIATES LIMITED

Per _____

Lisa J. Courtney M.Sc., RPP, MCIP
Senior Planner

Per _____

Matt Pearson, RPP, MCIP
Senior Planner

APPENDIX A GROWTH AND DEVELOPMENT FORECAST

1.0 INTRODUCTION

1.1 General

Section 5(1) of the Development Charges Act, S.O. 1997 (DCA) stipulates that for the purposes of calculating a development charge, “the anticipated amount, type and location of development, for which development charges can be imposed, must be estimated”. The following discussion summarizes the process undertaken to develop a growth and development forecast for the Town of Petrolia.

Development forecasts have been prepared in conjunction with the Development Charges Background Study to project a population for Petrolia over 10-year (2023-2033) and 20-year (2023-2043) periods. The growth projections were established following an assessment of general growth and development trends evident in the Town as identified from statistical data, recent population projections and other background research. The forecasts extrapolated from this analysis are considered to be realistic predictions of population and household growth in Petrolia. An estimate of non-residential development has been prepared through an analysis of available building permit information.

The growth projections established in this study provide a basis for determining the level of service required to accommodate future development activities. In this regard, the growth forecasts provide a framework to estimate (1) the capital expenditures needed to finance additional service and (2) an appropriate development charge to recover growth related capital costs.

1.2 Background

A series of reports were reviewed to gather background information on population growth and general development trends in the study area. The following are among the key sources of information consulted during this review:

- Statistics Canada Census of Canada data for the period 2001-2021 (data is collected in 5-year intervals).
- Building permit records compiled by the Town for the period 2010-2022. The records detail the type (e.g., residential, commercial, industrial) and value of development.
- Town staff and
- An assessment of current development projects and proposals.

2.0 BACKGROUND POPULATION & DEVELOPMENT INFORMATION

2.1 Residential Growth Trends

2.1.1 Population

The most recent population count for the Town of Petrolia is the 2021 Census. In 2021, the population of Petrolia was 6,013 residents, an increase of 271 persons from the 2016 count and 485 persons from the 2011 Census. The increase in population

between 2016 and 2021 equates to an annual average growth rate of 0.93%. Over the last 10 years of census data, the annual average growth rate was 0.84%. Population data from previous censuses are summarized in Table 2.1.

The Town consists of a single, primarily urban area. There are no other communities or urban areas within the municipality.

Table 2.1 Petrolia Census Population Counts, 2001-2021

Year	Population
1996	4,908
2001	4,849
2006	5,222
2011	5,528
2016	5,742
2021	6,013
5-year change	271
10-year change	485
20-year change	1,164
5-year change (%)	4.72
10-year change (%)	8.77
20-year change (%)	24.00
5-year average annual growth rate (%)	0.93
10-year average annual growth rate (%)	0.84
20-year average annual growth rate (%)	1.08

The increase in population in Petrolia is the result of continued residential development. The increase in the population in Petrolia is likely attributable to its proximity to local and regional employment opportunities (e.g. in the chemical and energy industries), availability of lands for development and availability of new homes.

The average age in Petrolia, as of the 2021 census, is 42.8 years old. This is slightly older than the provincial average of 41.8 years. Those aged 65 and over account for 24% of the population of Petrolia, whereas children, or those aged 14 or less make up approximately 17.6% of the population. Compared to Ontario as a whole, the proportion of the population older than 65 in Petrolia is greater, suggesting there the population includes a significant proportion of seniors.

2.1.2 Residential Development

The number of private dwellings in Petrolia as counted through previous censuses are summarized in Table 2.2. The number of private dwellings in the Town has increased over the last 20 years, with approximately 643 additional dwellings over that time. Within the last 5 years, the greatest average annual growth rate over the last twenty years occurred. This reflects a surge in residential building activity between 2019-2021, that was similarly observed throughout many municipalities in southwestern Ontario.

Table 2.2 Census Total Private Dwelling Counts, Petrolia 1996-2021

Year	Number of Dwellings
1996	1,765
2001	1,881
2006	2,082
2011	2,223
2016	2,323
2021	2,524
5-year change	201
10-year change	301
20-year change	643
5-year change (%)	8.65
10-year change (%)	13.54
20-year change (%)	34.18
5-year average annual growth rate (%)	1.67
10-year average annual growth rate (%)	1.28
20-year average annual growth rate (%)	1.48

To gain a better understanding of residential development occurring in Petrolia, building permit data for new residential dwellings was assessed. Table 2.3 summarizes the number of new residential building units in the Town between 2012 and 2021.

Table 2.3 Building Permits Issued for New Residential Development, 2012-2021

Year	Single & Semi-Detached	Multiple and Apartments	Total
2012	21		21
2013	11		11
2014	10		10
2015	18	3	21
2016	17	4	21
2017	24	12	36
2018	37	3	40
2019	26	3	29
2020	23	9	32
2021	5	72	77
2022	1	6	7
5-year total	92	93	185
10-year total	172	112	284
5-year average	18.4	18.6	37
10-year average	17.2	14	28.4

Over the past 10 years, there were 284 building permits issued for new residential units in Petrolia. The building permit data shows a significant increase in the number of permits issued in 2021 compared to previous years. Over the last 10 years, the number of apartment and multi-unit type dwellings have increased. This trend is expected to continue, in keeping with planning policies and demand for more affordable housing types.

2.1.3 Occupancy

For the purposes of this study, the average household density, or occupancy, is calculated from the permanent population and number of private dwellings. It is generally expressed as the average number of persons per household. The household density for the Town based on census data, is shown in Table 2.4.

Table 2.4 Household Densities (Persons Per Unit)

Year	Persons Per Unit
2006	2.51
2011	2.49
2016	2.47
2021	2.38

Over the last 15 years, the average number of people per unit in the Town has declined from 2.51 to 2.38. The decline in density is a common trend in Southwestern Ontario as a result of shifting demographics, with a greater number of seniors, fewer children per household, and an increase in the number of single-person households. This trend is expected to continue.

2.1.4 Types of Residential Development

Residential development in Petrolia includes a variety of types of dwelling units, including single detached, townhouses, row homes and apartment buildings. Table 2.5 summarizes the number of single detached, multi and apartment units, population living the different unit types and average density as reported through the 2021 Census.

Table 2.5 2021 Count of Residential Units by Type, Petrolia

Unit Type	Population	Number of Units	Persons Per Unit (PPU)
Single & Semi Detached	5,280	2,090	2.53
Multi	190	115	1.65
Apartment	355	255	1.39

2.1.5 Residential Developments

The majority of residential development in Petrolia occurs on existing lots, lots created by severance, or lots created by Plan of Subdivision. Town staff provided information on the following potential developments. The number of potential, proposed and approved units are summarized in Table 2.6. In total, there is the potential for 1,586 additional residential units within the Town.

Table 2.6 Potential and Approved Residential Developments

Type of Unit	Potential Number of Units
Single, semi-detached	1,110
Multi and townhouses	414
Apartment	62
Total	1,586

2.2 Non-Residential Growth Trends

2.2.1 Labour Force

In Petrolia, from information gathered as part of the 2021 Census, the number of persons employed is 2,505 or 52.9% of the population aged 15 and over. The unemployment rate is 5.3% which is slightly lower than the provincial rate of 6.0% (as of September 2023). Approximately 41.9% of the population reported not being in the labour force.

Approximately 54% of those who worked, reported working full time. The remaining 46% worked part time. The majority of employed residents in Petrolia work in trades, transportation or equipment (22.7%); sales and service (20.2%); business, finance and administration (14%); and education, law, community or government services (13.1%)

The majority of employees in Petrolia (52%) commute to another municipality in Lambton County. It is suspected that the majority of these workers commute to the City of Sarnia and St. Clair Township. Approximately 6.3% of workers commute to another County and 41.3% work within Petrolia.

2.2.2 Non-Residential Development

The number of building permits issued for non-residential development, including additions and new construction, in the Town over the last 10 years is summarized in Table 2.7. In the last ten years there have been 49 building permits issued for non-residential buildings. The majority of non-residential permits have been issued for industrial buildings. The 10-year annual average additional gross floor area of commercial space is 7,783 square feet, 19,694 square feet of industrial space and 2,637 square feet of institutional space.

Table 2.7 Summary of Non-Residential Building Permits 2012-2022, Petrolia

Year	Commercial (Number of permits)	Commercial (Gross Square Feet)	Industrial (Number of permits)	Industrial (Gross Square Feet)	Institutional (Number of permits)	Institutional (Gross Square Feet)
2012	0	0	1	2,880	2	7,224
2013	1	1,920	2	1,260	2	2,464
2014	4	23,890	3	5,000	0	0
2015	0	0	7	14,376	0	0
2016	0	0	4	64,206	1	768
2017	1	1,800	2	21,903	0	0
2018	0	0	0	15,770	0	0
2019	0	0	3	61,048	1	1,206
2020	5	14,987	3	2,340	1	1,521
2021	1	2,065	1	9,050	0	0
2022	1	2,034	1	1,984	0	0
Total	13	46,696	27	196,937	9	13,183

2.3 Development Patterns in the Study Area

A number of factors could influence growth trends in Petrolia. Of relevance to this study are the following:

- It is expected that residential development will continue on undeveloped lands zoned for such through the site plan process and Plans of Subdivision.
- In general, the Town does not contain the scale of manufacturing and service sector activities to draw a significant number of commuting workers to Petrolia. However, residents are expected to continue to be drawn to the community due to its proximity to other employment areas and available services and amenities.
- It is expected the majority of residential growth will occur as single detached units, however it is expected that multi-unit type dwellings will be built at an increasing rate.

2.4 Residential and Non-Residential Allocation

The allocation between residential and non-residential development for the purposes of calculating development charges is determined from the tax assessment data. The tax assessment data is used to determine the percentage of the tax base that is residential and non-residential. The non-residential percentage includes commercial and industrial development and excludes landfills, farms, managed forests, and pipeline assessment data. The allocation of residential and non-residential development for Petrolia is summarized in Table 2.8.

Table 2.8: Residential and Non-Residential Allocations

Area	Residential Allocation (%)	Non-Residential Allocation (%)
Petrolia	85.2	14.8

3.0 RESIDENTIAL GROWTH PROJECTIONS

3.1 Forecast Methodology

For the purposes of this study, a population forecast for Petrolia was developed. These forecasts are based on input from staff, County forecasts, forecasted developments, and building permit data.

The forecast incorporated the following methodological components:

- The 2021 population and household counts, as determined by the 2021 Census, were used as the starting points for the projections.
- The forecasted growth is based on the 10 year average number of building permits per year.
- Population densities throughout Petrolia are expected to decrease over the forecast period. Over the next 20 years, the number of persons per unit in Petrolia is expected to decrease from 2.37 to 2.33 in 2043.
- It is expected that the majority of development will occur as single detached units and medium density units (row houses and/or townhouses).

Several major assumptions were also made to substantiate the use of the aforementioned methodology as the basis for a population forecast. They are as follows:

- Population growth will generally be accommodated through the development of existing lots and registered lots through Plans of Subdivisions and Site Plans.

3.2 Residential and Population Forecasts

A residential and population growth forecast was developed for Petrolia based upon the previously discussed methodology. Table 3.1 shows the population forecasts. Table 3.2 contains the forecasted number of additional dwelling units over the same period.

Table 3.1: Residential Population and Dwelling Forecast 2022-2043

Year	Population	Dwellings
2021	6,013	2,524
2022	6,190	2,601
2023	6,181	2,608
2028	6,485	2,748
2033	6,787	2,888
2038	7,086	3,028

Year	Population	Dwellings
2043	7,381	3,168
5-year change	304	140
10-year change	606	280
20-year change	1,200	560

3.3 Forecast Assessment

The following represents the key findings of the population and residential development forecasts for the Town of Petrolia:

- The number of residential units in Petrolia is expected to continue to increase over the next 20 years. The majority of the development is expected to occur in the form of single detached and multi-units.
- It is forecasted that there will be an additional 1,200 persons in the Town in 20 years.
- It is expected that the future developments via the Plan of Subdivision process will support the continued growth within the Town.

3.4 Conclusions

The forecasts presented in Section 3.2 appear to be reasonable and appropriate forecasts for the Town of Petrolia given historic growth rates and the factors previously discussed. In this regard, the forecast defined in Tables 3.1 should be adopted as the basis for calculating the residential development charges for the Town.

4.0 NON-RESIDENTIAL GROWTH FORECAST

4.1 Forecast

The forecast for non-residential development is based the 10-year annual average gross square feet added or constructed. Table 4.1 summarizes the expected non-residential growth over the next 5, 10 and 20 years. It is expected that non-residential development will continue given the availability of undeveloped land designated for non-residential growth within Petrolia.

Table 4.1 Forecasted Non-Residential Growth (ft²)

Time Period	Commercial	Industrial	Institutional	Total
2023-2028	29,185	61,540	10,985	101,710
2023-2033	58,370	123,080	21,970	203,420
2023-2043	116,740	246,160	43,940	406,840

APPENDIX B
ANALYSIS OF GROWTH-RELATED
PROJECTS

Project Description: Firefighter gear (bunker suit and radios) is required to equip additional firefighters needed as growth occurs. Currently, there are 32 firefighters servicing the Town. The 15-year average level of service is 0.0055 firefighters per person. This level of service will be carried forward to service additional residential and non-residential growth.

The estimated cost to provide a new firefighter with a bunker suit and radio is \$5,800.

Project Benefiting Area(s): All of Petrolia.

Costs:

Cost of Equipment	\$ 5,800
Current level of service (firefighters per person)	0.0055
Amount recoverable through development charges (cost of equipment x current level of service x 10 year growth)	\$19,314

Allocation of Costs

Not applicable as the costs are being determined based on providing the equivalent level of service as is currently standard in the Town.

Development Charge Calculations

Residential Development Charge

\$19,314 x 85.2% (based on residential assessment)	\$ 16,456
Divided by 10-year growth (persons)	606
Residential development charges (per capita)	\$ 27

Non-Residential Allocation (per square foot)

\$19,314 x 14.8% (based on non-residential assessment)	\$ 2,858
Forecasted non-residential growth (10 years) in sq. ft.	203,420
Non-residential development charges (per ft²)	\$ 0.01

Project Description: Over the next 10 years, the Fire Department and Capital Works plan have identified the need for an additional rescue truck and combination pumper truck to service the growing population. The costs associated with these vehicles are summarized in Table B-1.

Analysis of Long-Term Capital and Operating Costs: The project costs attributable to the existing customers will be recovered through capital reserves and rates. Operating costs will be borne by the users of the facilities.

Project Benefiting Area(s): All of Petrolia

Costs:

Total Costs	\$ 1,100,000
Deduct any grants or subsidies	\$ 0
Subtotal	\$ 1,100,000

Allocation of Costs

Allocation of Costs

Benefit to Existing Development (25%)	\$ 275,000
Benefit to Future Development (75%)	\$ 825,000
Post period benefit	- 375,000
Amount recoverable through Development Charges	\$ 450,000

Development Charge Calculations

Residential Allocation (per capita)

\$ 450,000 x 85.2% (based on residential assessment)	\$ 383,400
Divided by future capacity	606 persons
Residential development charges (per capita)	\$ 632

Non-Residential Allocation (per square foot)

\$ 450,000 x 14.8% (based on non-residential assessment)	\$ 66,600
Forecasted non-residential growth (10 years) in sq. ft.	203,420
Non-residential development charges (per ft²)	\$ 0.33

Table B-1 Fire Vehicles

Vehicle	Cost (\$)	Benefit to Future (\$)	Post-Benefit Amount (\$)	Amount Recoverable over next 10 years (\$)
Rescue Truck	100,000	75,000 (75%)	0	75,000
Pumper	1,000,000	725,000 (75%)	375,000	375,000
Total	1,100,000	825,000	375,000	450,000

Project Description: The 10-year capital works budget and Parks and Recreation Master Plan identified a number of additional facilities to accommodate future growth. These facilities are summarized in Table B-2.

Analysis of Long-Term Capital and Operating Costs: Operating costs of the new facilities will be paid out of the general tax base. The increase in the tax base from new development should offset any increase in operating costs as well as revenue from registration fees for sport leagues.

Project Benefiting Area(s): All of Petrolia

Costs:

Total Costs	\$ 2,401,156
Deduct any grants or subsidies	\$ 150,000
Subtotal	\$ 2,251,156

Allocation of Costs

Benefit to Existing Development (90%)	\$ 2,026,040
Benefit to Future Development (10%)	\$ 225,116
Amount recoverable through Development Charges	\$ 225,116

Development Charge Calculations

Residential Allocation (per capita)

\$ 225,116 x 100%	\$ 225,116
Divided by future growth (606 persons)	606 persons
Residential development charges (per capita)	\$371

Non-Residential Allocation (per square foot)

This project is solely attributed to residential development.

Table B-2 – Parks and Recreation Facilities

Facility	Cost (\$)	Grant/Subsidies (\$)	Net Cost	Benefit to Future (\$)
Splashpad and Facilities	891,156	150,000	741,156	74,116 (10%)
Multi-Purpose Studio Y-Addition	575,000	0	575,000	57,500 (10%)
Trails	200,000	0	200,000	20,000 (10%)
Petrolia Line Bridge Walking Path	235,000	0	235,000	23,500 (10%)
Tennis/Pickleball/Basketball Courts	250,000	0	250,000	25,000 (10%)
Ball Field	250,000	0	250,000	25,000 (10%)
Total	2,401,156	150,000	2,251,156	225,116

Project Description: Three new parks are identified in the 10-year capital plan. It is anticipated that land (or cash in lieu) will be obtained from developers. New equipment (e.g. swings, play structures, etc.) is required for these new parks. For the three parks, the estimated value of needed equipment is \$1,250,000. It is anticipated that these parks will be in areas of new development.

Analysis of Long-Term Capital and Operating Costs: Operating costs associated with new park equipment will be paid out of the general tax base. The increase in the tax base from new development should offset any increase in operating costs.

Project Benefiting Area(s): All of Petrolia

Costs:

Total Costs	\$ 1,250,000
Deduct any grants or subsidies	- \$0
Subtotal	\$ 1,250,000

Allocation of Costs

Benefit to Existing Development (25%)	\$ 312,500
Benefit to Future Development (75%)	\$ 937,500
Amount recoverable through Development Charges	\$ 937,500

Development Charge Calculations

Residential Allocation (per capita)

\$ 937,500 x 100%	\$ 937,500
Divided by future growth (606 persons)	606 persons
Residential development charges (per capita)	\$ 1,547

Non-Residential Allocation (per square foot)

This project is solely attributed to residential development.

Project Description: The 10-year capital works budget identifies a number of vehicles and fleet equipment that will be necessary to support additional growth. The equipment is summarized in Table B-3.

Analysis of Long-Term Capital and Operating Costs: Operating costs of the new vehicles and equipment will be paid out of the general tax base. The increase in the tax base from new development should offset any increase in operating costs as well as revenue from registration fees for sport leagues.

Project Benefiting Area(s): All of Petrolia

Costs:

Total Costs	\$ 65,000
Deduct any grants or subsidies	\$ 0
Subtotal	\$ 65,000

Allocation of Costs

Benefit to Existing Development (25%)	\$ 16,250
Benefit to Future Development (75%)	\$ 48,750
Amount recoverable through Development Charges	\$ 48,750

Development Charge Calculations

Residential Allocation (per capita)

\$ 48,750 x 100%	\$ 48,750
Divided by future growth (606 persons)	606 persons
Residential development charges (per capita)	\$81

Non-Residential Allocation (per square foot)

This project is solely attributed to residential development.

Table B-3– Parks and Recreation Fleet and Equipment

Fleet/Equipment	Cost (\$)	Grant/Subsidies (\$)	Net Cost	Benefit to Future (\$)
Tractor	25,000	0	25,000	18,750 (75%)
UTV	20,000	0	20,000	15,000 (75%)
Mower	20,000	0	20,000	15,000 (75%)
Total	65,000	0	65,000	48,750

Project Description: The 10-year capital works budget identifies a number of vehicles and fleet equipment for the Public Works Department that will be necessary to support additional growth. The equipment is summarized in Table B-4.

Analysis of Long-Term Capital and Operating Costs: Operating costs of the new vehicles and equipment will be paid out of the general tax base. The increase in the tax base from new development should offset any increase in operating costs.

Project Benefiting Area(s): All of Petrolia

Costs:

Total Costs	\$ 610,000
Deduct any grants or subsidies	\$ 0
Subtotal	\$ 610,000

Allocation of Costs

Benefit to Existing Development (25%)	\$ 152,200
Benefit to Future Development (75%)	\$ 457,000
Post period benefit	- \$222,000
Amount recoverable through development charges	\$235,500

Development Charge Calculations

Residential Allocation (per capita)

\$ 235,500 x 85.2%	\$ 200,646
Divided by future growth (606 persons)	606 persons
Residential development charges (per capita)	\$331

Non-Residential Allocation (per square foot)

Non-Residential Allocation (per capita)

\$ 200,646 x 14.8%	\$34,854
Divided by future growth (203,420 sqft)	203,420 sqft
Non-Residential development charges (per sqft)	\$0.17

Table B-4– Public Works Fleet and Equipment

Fleet/Equipment	Cost (\$)	Grant/Subsidies (\$)	Benefit to Future (\$)	Post Period Benefit (\$)	Amount Recoverable over next 10 years (4)
Trackless and Plow	550,000	0	412,500 (75%)	222,000	190,500
Truck	60,000	0	45,000 (75%)	0	45,000
Total	610,000	0	457,500	222,000	235,500

Project Description: The Town has identified an additional Public Works shed will be required to accommodate the additional equipment associated with servicing future development. The estimated cost of the expansion is \$200,000. It is expected that this project will benefit both future and existing development.

Analysis of Long-Term Capital and Operating Costs: The additional shed is expected to have minimal operating costs as it will be used primarily for storage space.

Project Benefiting Area(s): All of Petrolia

Costs:

Total Costs	\$ 200,000
Deduct any grants or subsidies	\$ 0
Subtotal	\$ 200,000

Allocation of Costs

This project benefits the existing population of the Township and the next 10 years of growth

Benefit to Existing Development (25%)	\$ 50,000
Benefit to Future Development (75%)	\$ 150,000
Post period benefit	\$75,000
Amount recoverable through Development Charges	\$ 75,000

Development Charge Calculations

Residential Allocation (per capita)

\$75,000 x 85.2% (based on residential assessment)	\$ 63,900
Divided by future growth (606 persons)	606 persons
Residential development charges (per capita)	\$ 105

Non-Residential Allocation (per square foot)

\$75,000 x 14.8% (based on non-residential assessment)	\$ 11,100
Forecasted non-residential growth (10 years) in sq. ft.	203,420
Non-residential development charges (per ft²)	\$ 0.05

Project Description: A larger watermain is required to service future development areas north and south of Petrolia Line in the eastern area of the Town. The cost of replacing the watermain is estimated to be \$1,920,500. The benefit to existing residents along Petrolia Road is estimated to be 19% of the project cost. It is assumed that half of the project costs will be debentured over 10 years at 7% interest. The interest associated with the loan is \$406,930, bringing the total cost of the project to \$2,327,430.

Analysis of Long-Term Capital and Operating Costs: The project costs attributable to the existing customers will be recovered through capital reserves and rates. Operating costs will be borne by the users of the facilities through rates.

Project Benefiting Area(s): Development Area 1, Development Area 2

Costs:

Total Costs	\$ 2,327,430
Deduct any grants or subsidies	\$ 0
Subtotal	\$ 2,327,430

Allocation of Costs

Capacity will be allocated as development occurs. This project benefits the residential lands in Development Areas 1 and 2. The estimated future capacity of this service is 2,314 persons.

Benefit to Existing Development (19%)	\$ 442,212
Benefit to Future Development (81%)	\$ 1,885,218
Amount recoverable through Development Charges	\$ 1,885,218

Development Charge Calculations

Residential Allocation (per capita)

\$ 1,885,218 x 100 % (based on serviced lands)	\$ 1,885,218
Divided by future growth	2,314 persons
Residential development charges (per capita)	\$ 815

Non-Residential Allocation (per square foot)

Not attributable to non-residential development based on area being serviced and benefiting.

Project Description: A watermain extension is required to service future residential and non-residential lands along Oil Heritage Road, south of Petrolia Line. The estimated cost of the watermain extension is \$511,750. This project solely benefits future development.

Analysis of Long-Term Capital and Operating Costs: Operating costs will be borne by the users of the facilities through rates.

Project Benefiting Area(s): Development Area 1, Development Area 3

Costs:

Total Costs	\$ 511,750
Deduct any grants or subsidies	\$ 0
Subtotal	\$ 511,750

Allocation of Costs

Capacity will be allocated as development occurs. This project benefits residential land and non-residential land. The forecasted population of the service area is 2,098 persons and 58,976 square feet of non-residential development.

Benefit to Existing Development (0%)	\$ 0
Benefit to Future Development (100%)	\$ 511,750
Amount recoverable through Development Charges	\$ 511,750

Development Charge Calculations

Residential Allocation (per capita)

\$ 511,750 x 85 % (based on residential assessment)	\$ 436,011
Divided by future growth	2,098 persons
Residential development charges (per capita)	\$ 208

Non-Residential Allocation (per square foot)

\$511,750 x 14.8% (based on non-residential assessment)	\$ 75,739
Forecasted non-residential growth in sq. ft.	58,976
Non-residential development charges (per ft²)	\$1.28

Project Description: A sanitary sewage system extension is required to service future non-residential development lands in the vicinity of Oil Heritage Road, south of Petrolia Line. The extension includes a sewage pumping station as well as sewer. The estimated cost of these works is \$701,500. This project solely benefits future non-residential development areas.

Analysis of Long-Term Capital and Operating Costs: Operating costs will be borne by the users of the facilities through rates.

Project Benefiting Area(s): Development Area 3

Costs:

Total Costs	\$ 701,500
Deduct any grants or subsidies	\$ 0
Subtotal	\$ 701,500

Allocation of Costs

Capacity will be allocated as development occurs. This project benefits future non-residential lands. The forecasted development in this area is 58,976 square feet of non-residential development.

Benefit to Existing Development (0%)	\$ 0
Benefit to Future Development (100%)	\$ 701,500
Amount recoverable through Development Charges	\$ 701,500

Development Charge Calculations**Non-Residential Allocation (per square foot)**

\$701,500 x 100 % (based on benefitting area)	\$ 701,500
Forecasted non-residential growth in sq. ft.	58,976
Non-residential development charges (per ft²)	\$11.89

Table B-5 Calculated Development Charges, Petrolia

DC Area	Service Category	Per Capita Charge (\$)	Singles & Semis (charge per unit)	Multi-Unit (charge per unit)	Apartment - 2 and 2+ bedrooms (charge per unit)	Apartment - 1 bedroom, bachelor (charge per unit)	Non-Residential (charge per sqft)
Municipal-Wide	Fire	659	1,667	1,087	916	824	0.34
Municipal-Wide	Parks and Recreation	1,999	5,057	3,298	2,779	2,499	-
Municipal-Wide	Public Works	436	1,103	719	606	545	0.23
Municipal-Wide	Total	3,094	7,827	5,104	4,301	3,868	0.57
Development Area 1	Water	1,023	2,588	1,688	1,422	1,279	-
Development Area 2	Water	815	2,062	1,345	1,133	1,019	-
Development Area 3	Water	-	-	-	-	-	1.28
Development Area 3	Sewage	-	-	-	-	-	11.89
Development Area 1 Total	Total (Municipal + Water)	4,117	10,415	6,792	5,723	5,147	0.57
Development Area 2 Total	Total (Municipal + Water)	3,909	9,890	6,450	5,434	4,886	0.57
Development Area 3 Total	Total (Municipal + Water + Sewage)	3,094	7,827	5,104	4,301	3,868	13.74

Table B-6 Summary of Phased in Calculated Development Charges

Year 1 - 80%	Singles & Semis (charge per unit)	Multi-Unit (charge per unit)	Apartment - 2 and 2+ bedrooms (charge per unit)	Apartment - 1 bedroom, bachelor (charge per unit)	Non-Residential (charge per sqft)
Municipal-Wide Total	6,262	4,083	3,441	3,094	0.45
Development Area 1 Total	8,332	5,434	4,578	4,118	0.45
Development Area 2 Total	7,912	5,160	4,347	3,909	0.45
Development Area 3 Total	6,262	4,083	3,441	3,094	10.99

Year 2 - 85%	Singles & Semis (charge per unit)	Multi-Unit (charge per unit)	Apartment - 2 and 2+ bedrooms (charge per unit)	Apartment - 1 bedroom, bachelor (charge per unit)	Non-Residential (charge per sqft)
Municipal-Wide Total	6,653	4,338	3,656	3,288	0.48
Development Area 1 Total	8,853	5,773	4,865	4,375	0.48
Development Area 2 Total	8,407	5,483	4,619	4,153	0.48
Development Area 3 Total	6,653	4,338	3,656	3,288	11.68

Year 3 - 90%	Singles & Semis (charge per unit)	Multi-Unit (charge per unit)	Apartment - 2 and 2+ bedrooms (charge per unit)	Apartment - 1 bedroom, bachelor (charge per unit)	Non-Residential (charge per sqft)
Municipal-Wide Total	7,044	4,594	3,871	3,481	0.51
Development Area 1 Total	9,374	6,113	5,151	4,632	0.51
Development Area 2 Total	8,901	5,805	4,891	4,397	0.51
Development Area 3 Total	7,044	4,594	3,871	3,481	12.36

Year 4 - 95%	Singles & Semis (charge per unit)	Multi-Unit (charge per unit)	Apartment - 2 and 2+ bedrooms (charge per unit)	Apartment - 1 bedroom, bachelor (charge per unit)	Non-Residential (charge per sqft)
Municipal-Wide Total	7,436	4,849	4,086	3,675	0.54
Development Area 1 Total	9,894	6,452	5,437	4,890	0.54
Development Area 2 Total	9,396	6,128	5,162	4,642	0.54
Development Area 3 Total	7,436	4,849	4,086	3,675	13.05

APPENDIX C

LEVEL OF SERVICE CALCULATIONS

Level of Service Calculation

Category: Fire Services

Category	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Historic Population (persons)	5387	5443	5528	5557	5613	5670	5727	5742	5840	5896	5953	6010	6013	6190	6181
Historic Employment (persons)	2795	2795	2795	2800	2900	3000	3120	3230	3220	3200	3180	3155	3135	3135	3135

Inventory	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Value
No. of Buildings	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	1710000
No. of Vehicles	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	3830000
No. of Machinery/ Equipment	664	664	664	664	664	664	664	664	664	664	664	664	664	664	664	1205000
Estimated Value (\$)	6,745,000	6,745,000	6,745,000	6,745,000	6,745,000	6,745,000	6,745,000	6,745,000	6,745,000	6,745,000	6,745,000	6,745,000	6,745,000	6,745,000	6,745,000	-
Service Level (\$/ population+ employment)	824.37	818.77	810.40	807.11	792.32	777.97	762.41	751.78	744.48	741.53	738.53	735.95	737.32	723.32	724.02	-

15 year average service level: \$766.02

Net Population & Employment Growth (2023-2032): 839 persons

Max. Allowable Funding Envelope: 642,690.34

Level of Service Calculation

Category: Parks and Recreation Services

Category	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Historic Population (persons)	5387	5443	5528	5557	5613	5670	5727	5742	5840	5896	5953	6010	6013	6190	6181
Historic Employment (persons)	2795	2795	2795	2800	2900	3000	3120	3230	3220	3200	3180	3155	3135	3135	3135

Inventory	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Value
No. of Vehicles	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	262000
No. of Equipment	676	676	676	676	676	676	676	676	676	676	676	676	676	676	676	1779000
No. of Courts	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	162000
No. Parks/Trails	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	360000
No. Facilities	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	5048000 0
Estimated Value (\$)	52,743,000	52,743,000	52,743,000	52,743,000	52,743,000	52,743,000	52,743,000	52,743,000	52,743,000	52,743,000	52,743,000	52,743,000	52,743,000	52,743,000	52,743,000	-
Service Level (\$/population+employment)	6,446	6,402	6,337	6,311	6,196	6,083	5,962	5,879	5,822	5,798	5,775	5,755	5,766	5,656	5,662	-

15 year average service level: \$5,989.94

Net Population & Employment Growth (2023-2032): 839 persons

Max. Allowable Funding Envelope: 5,025,562

Level of Service Calculation

Category: Public Works

Category	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Historic Population (persons)	5387	5443	5528	5557	5613	5670	5727	5742	5840	5896	5953	6010	6013	6190	6181
Historic Employment (persons)	2795	2795	2795	2800	2900	3000	3120	3230	3220	3200	3180	3155	3135	3135	3135

Inventory	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Value
No. of Vehicles	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	1435000
No. of Equipment	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	412000
No. of Fencing	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	203000
No. of Lots	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	978000
No. of Buildings	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	240000
Estimated Value (\$)	3268000	3268000	3268000	3268000	3268000	3268000	3268000	3268000	3268000	3268000	3268000	3268000	3268000	3268000	3268000	-
Service Level (\$/ population+ employment)	399	397	393	391	384	377	369	364	361	359	358	357	357	350	351	-

15 year average service level: \$371.14

Net Population & Employment Growth (2023-2032): 839 persons

Max. Allowable Funding Envelope: 311,387.99