

VERSION FOR PUBLIC CONSULTATION

PREPARED BY HEMSON FOR THE MUNICIPALITY OF NORTH PERTH

DEVELOPMENT CHARGES BACKGROUND STUDY FOR THE NORTHEAST MASTER PLAN AREA

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CONTENTS

EXECUTIVE SUMMARY	1
A. Purpose of area-specific Development Charges (ASDC) Study	1
B. The Study is Consistent with Development Charges Legislation	1
C. Development Forecast	2
D. Development Related-Capital Program	2
E. Area-specific Development Charges Calculation	3
F. Proposed Assets are Deemed to be Financially Sustainable	3
1. INTRODUCTION AND BACKGROUND	5
A. Key Steps In Determining Area-Specific Development Charges For Future Development-Related Projects	5
2. AREA-SPECIFIC APPROACH IS USED TO ALIGN DEVELOPMENT-RELATED COSTS AND BENEFITS	8
A. Area-Specific Development Charges	8
B. Public and Stakeholder Consultation	10
3. DEVELOPMENT FORECAST	11
A. Residential Forecast	11
B. Non-Residential Forecast	11
C. Map of Area-Specific Development Charges Area	12
4. THE DEVELOPMENT-RELATED CAPITAL PROGRAM	13
A. A Development-Related Capital Forecast is Provided for Council's Approval	13
B. Proposed Development-Related Capital Forecast	13
C. Area-Specific Development Charges Calculation	16
5. LONG-TERM CAPITAL AND OPERATING COSTS AND ASSET MANAGEMENT PROVISIONS	21
A. Long-term Capital and Operating Impacts	21
B. Asset Management Considerations for New Infrastructure	21
C. The Program is Deemed Financially Sustainable	22

6. OTHER ISSUES AND CONSIDERATION	23
A. Development Charges Administration	23
APPENDIX A – DEVELOPMENT FORECAST	24
APPENDIX B – DEVELOPMENT-RELATED CAPITAL PROGRAM	30

EXECUTIVE SUMMARY

A. PURPOSE OF AREA-SPECIFIC DEVELOPMENT CHARGES (ASDC) STUDY

The following summarizes the findings of the Municipality of North Perth's Area-Specific Development Charges (ASDC) Background Study for the Northeast Master Plan (NEMP) lands. The development charges identified in this study are related to infrastructure needs specific to this servicing area and not currently identified in the Municipality's existing municipal-wide development charges levied under DC By-law 78-2019. As such, the rates presented are in addition to the Municipality's existing municipal-wide and area specific development charges outside the NEMP area. A map of the NEMP area is at the end of the Executive Summary.

B. THE STUDY IS CONSISTENT WITH DEVELOPMENT CHARGES LEGISLATION

This study calculates area-specific development charges for the Municipality of North Perth's NEMP lands in compliance with the provisions of the *Development Charges Act, 1997* (DCA) and its associated regulation (Ontario Regulation 82/98) and the recently amended provisions of the legislation.

This report identifies the development-related capital costs attributable to development that is forecast to occur in the identified NEMP lands. The costs are apportioned and calculated on a per unit basis for residential development and per square metre basis for non-residential development.

The calculated charges are the maximum charges the Municipality may adopt. Although Council can approve lower charges, this requires a reduction in the capital plan, reduced service levels, or may require financing from other sources, most likely property taxes and utility rates.

This DC Background will also help facilitate an amendment to the existing Municipal by-law 78-2019 to remove the existing NEMP rates from that by-law. The NEMP area specific rates will be passed as an independent by-law to allow for easier updates following the tendering results and completion of works in the coming years.

C. DEVELOPMENT FORECAST

A forecast was prepared for the NEMP lands and was informed by the Municipality’s engineering consultants (GM BluePlan), staff review, and consultation with developers. Overall, within the NEMP lands, it is projected that there will be 1,129 people in 440 new units (220 semi/single-detached and 220 rows and other multiples). It is estimated that there will also be an additional 350 new employees accommodated in 21,000 square metres of net new non-residential floor space. Of particular importance, the non-residential floor space and associated employment of the Moore subdivision lands are excluded from the forecast as those costs are to be recovered independently from municipal lot sales.

D. DEVELOPMENT RELATED-CAPITAL PROGRAM

The development-related capital program includes infrastructure costs relating to the increase in need for service arising from the future development within the identified NEMP land area. Capital costs included in the calculation are related to sanitary sewer infrastructure, new watermains, new storm sewers, two new sewage pumping stations, a new stormwater management facility, and road improvements.

In total, the capital program amounts to \$27.91 million. Of this total amount, about \$9.67 million is recovered from development charges over the planning period. A detailed breakdown of the capital program is in Section 4 which would also outline the allocation of costs to other funding sources.

Area-Specific Costs 2024-Buildout		
NEMP Projects	Gross Cost (\$000)	ASDC Eligible (\$000)
Water	\$2,859	\$1,105
Wastewater	\$10,678	\$7,127
Storm Water Drainage and Control	\$5,735	\$1,437
Services Related to a Highway (Roads and Related)	\$8,635	\$0
Total	\$27,907	\$9,669

E. AREA-SPECIFIC DEVELOPMENT CHARGES CALCULATION

The fully calculated residential ASDCs are recommended to vary by unit type, reflecting the difference in occupancy patterns expected in various unit types and associated differences in demand placed on municipal services.

Service	Charge By Unit Type				
	Single & Semi-Detached	Rows & Other Multiples	Apartments 2 Bedrooms +	Apartments Bachelor & 1	Special Care
Northeast Master Plan Area	\$ 24,757	\$ 16,212	\$ 14,295	\$ 9,583	\$ 7,986

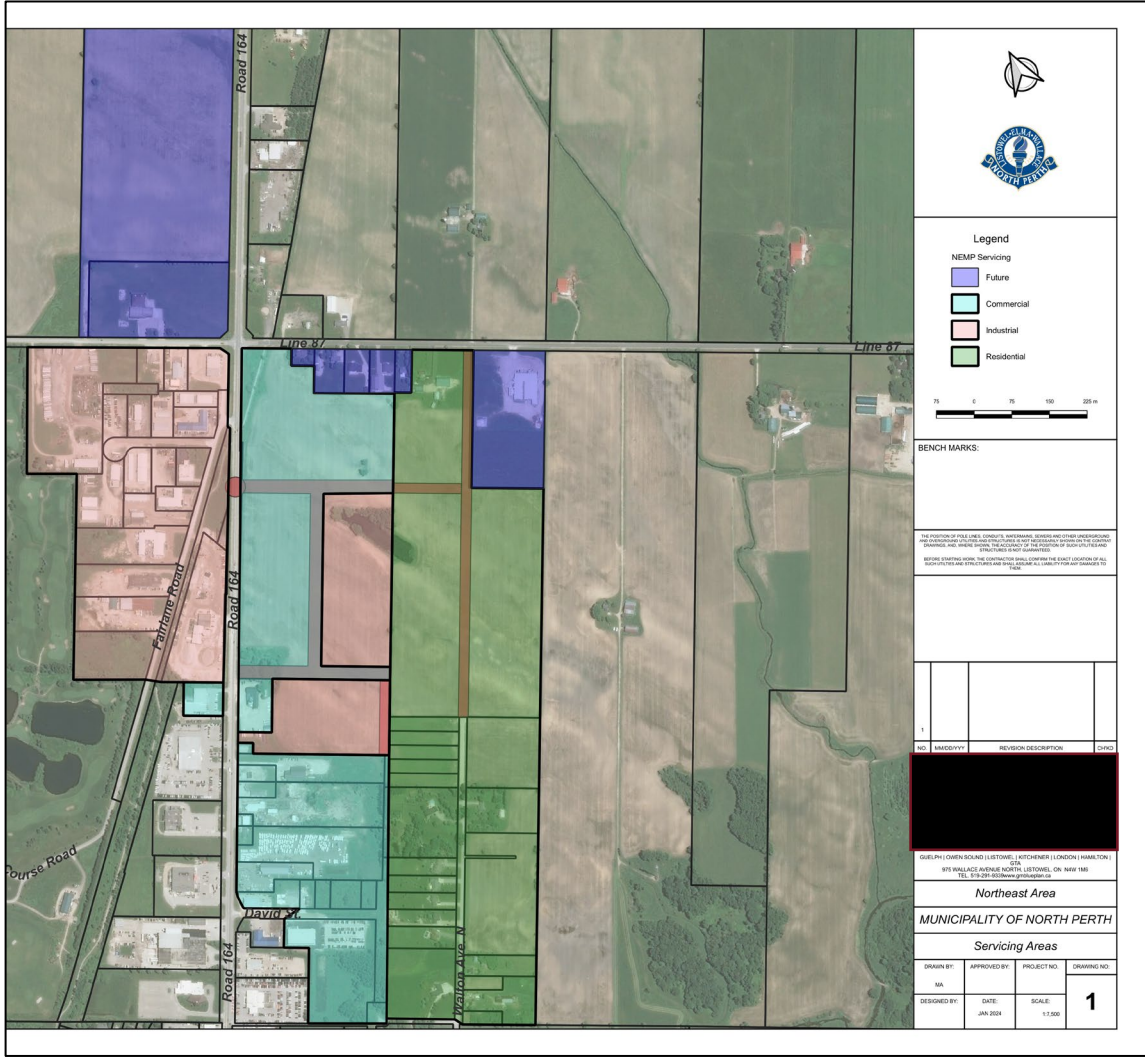
The calculated non-residential ASDCs are uniform and applicable to all non-residential development.

Service	Calculated Non-Residential Charge / Sq.m
Northeast Master Plan Area	\$148.12

F. PROPOSED ASSETS ARE DEEMED TO BE FINANCIALLY SUSTAINABLE

In accordance with the DCA, a long-term capital and operating impact analysis as well as an asset management plan has been undertaken for the identified servicing works. In total, the net operating costs related to the proposed area-specific projects are estimated to be similar to other DC eligible services provided by the Municipality. Any increase in assessment growth and utility rates driven by the forecast development will be able to offset any operating impacts and related long-term capital costs.

From an asset management perspective, the calculated lifecycle costs are considered financially sustainable as it is expected that the increased operating, maintenance and capital asset management requirements can be absorbed through the Municipality's tax and utility rates over time.



1. INTRODUCTION AND BACKGROUND

The Municipality of North Perth's Area-Specific Development Charges (ASDC) Background Study for the Northeast Master Plan lands is presented as part of a process to lead to the approval of a new ASDC By-law in compliance with the *Development Charges Act, 1997* (DCA) and its associated *Ontario Regulation 82/98 (O. Reg. 82/98)*.

While there is significant potential for commercial, light industrial, and residential development within NEMP lands, development potential is contingent on the availability of municipal services. The Municipality wishes to continue implementing ASDCs to fund development-related capital projects so that development may be serviced in a fiscally responsible manner.

A. KEY STEPS IN DETERMINING AREA-SPECIFIC DEVELOPMENT CHARGES FOR FUTURE DEVELOPMENT-RELATED PROJECTS

Section 10(1) of the DCA, sets out the requirement for a municipality to complete a Background Study prior to the passage of a DC By-law. Subsection 10(2) identifies what is to be included in the DC Background Study. These legislative requirements are shown in Figure 1 and are discussed below as well as in subsequent sections:

s.10(2)(a) – estimate the amount, type and location of development to which the development charge is to apply;

s.10(2)(b) – establish the eligible growth-related costs and services (as determined under paragraphs 2 to 8 of subsection 5(1) of the DCA) to which the development charge by-law would relate;

s.10(2)(c) – examine, for each service to which the development charge by-law relates, the long term capital and operating costs for the capital infrastructure required.

s.10(2)(c.1) – consideration for the use of more than one development charge by-law to reflect different needs for services in different areas.

s.10(2)(c.2)(3) – an asset management plan deals with all assets proposed to be funded under the development charges by-law that demonstrates that assets are financially sustainable over their full life cycle.

The remainder of this study sets out the information and analysis upon which the proposed development charges are based.

Section 2 designates the services for which the development charges are proposed and the areas within the Municipality to which the development charges will apply. It also briefly reviews the methodology that has been used in this background study.

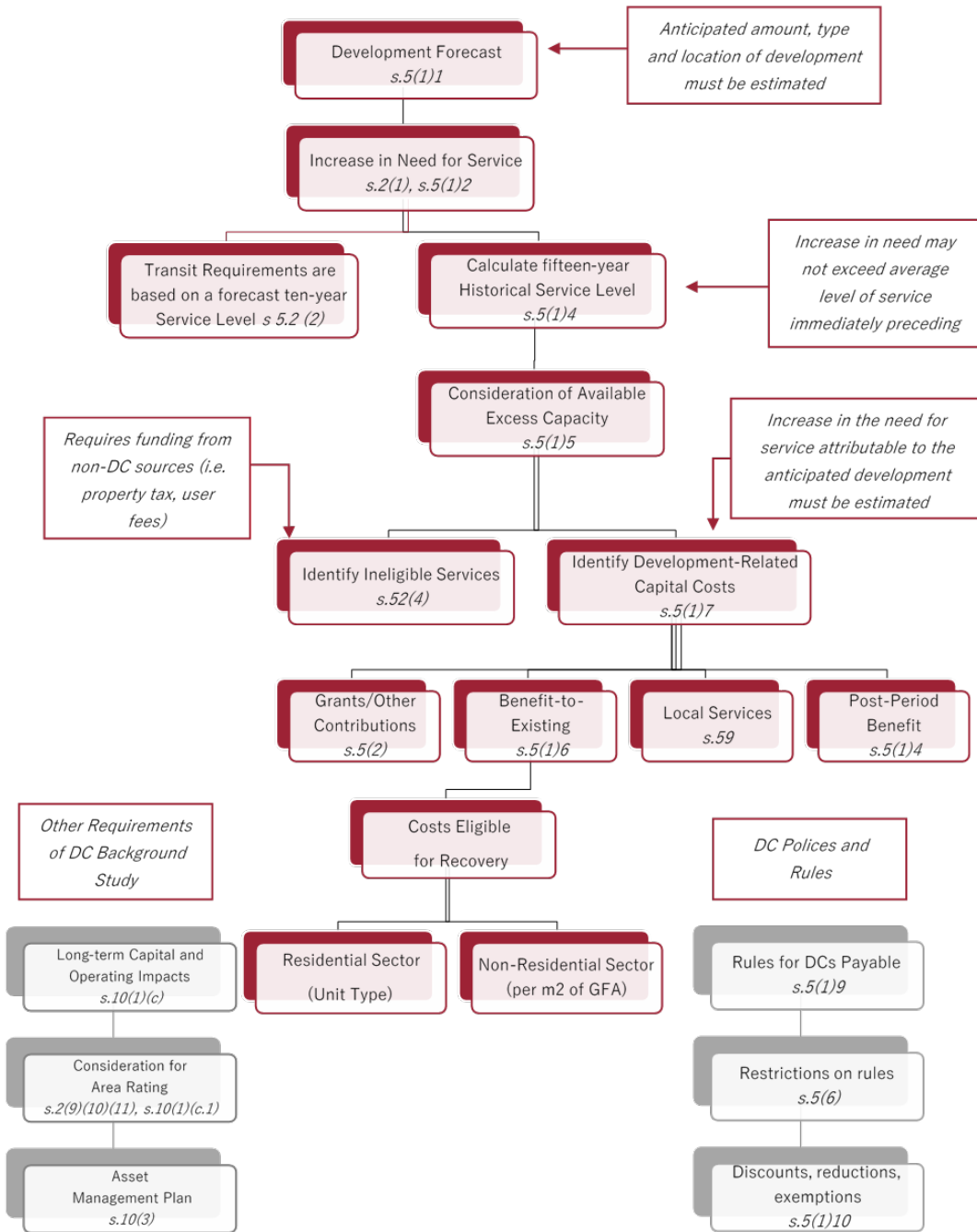
Section 3 presents a summary of the forecast residential and non-residential development that is expected to occur within NEMP lands from 2024 to build-out.

Section 4 summarizes the future development-related capital costs associated with the provision of Water, Wastewater, Stormwater Drainage and Control Services, and Services Related to a Highway (Roads and Related) on the NEMP lands. This section also details the calculated ASDC rates by class and type of development.

Section 5 provides an examination of the long-term capital and operating cost impacts for the infrastructure included in the ASDC calculation. It also addresses the asset management provisions required to maintain the development-related components of the capital projects included in the analysis.

Section 6 provides a discussion of other issues and considerations including by-law administration, rules and policies.

Figure 1: Statutory Requirements of Development Charge Calculation and Study Process



2. AREA-SPECIFIC APPROACH IS USED TO ALIGN DEVELOPMENT-RELATED COSTS AND BENEFITS

Several key steps are required when calculating any development charge. However, specific circumstances arise in each municipality that must be reflected in the calculation. Therefore, Hemson has tailored the approach to the unique circumstances in the Municipality of North Perth. The approach to the proposed ASDC is focused on providing a reasonable alignment of development-related costs with the development that necessitates them.

A. AREA-SPECIFIC DEVELOPMENT CHARGES

The development charges may apply to all lands in the Municipality or to other designated development areas as specified in the by-laws.

The Municipality of North Perth currently levies development charges on a municipal-wide uniform basis to recover for development-related costs for services such as Library, Indoor Recreation, Outdoor Recreation, Child Care, Administration Services, Public Work, and Roads and Related. Additionally, there are urban area-specific charges for Water, Wastewater, Stormwater Drainage and Control Services, and Services Related to a Highway (Roads and Related). Further to this, there is a separate charge for development on the NEMP lands. This study relates to area-specific charges that would apply to the NEMP lands to recover for various infrastructure works related to Water, Wastewater, Stormwater Drainage and Control Services, and Services Related to a Highway (Roads and Related). It is important to note that both the Municipal-wide development charges, area specific charges (where applicable) and the calculated area-specific development charges would apply to development on NEMP lands.

As the identified infrastructure requirements provide a localized benefit specific to a distinct geographic boundary, area-specific development charges are more appropriate than a Municipal-wide charge. This study and accompanying ASDC By-law, are intended to build upon the existing policies and practices identified in North Perth's existing Municipal-wide DC By-law 78-2019.

A map of the NEMP lands is included in Section III.

1. Development Forecast

A per unit residential charge and per square metre non-residential charge are proposed for the purposes of calculating an ASDC for the NEMP lands. As such, Hemson has prepared a residential and non-residential development forecast with input from the Municipality and its engineering consultant GM BluePlan.

2. Service Categories and Historical Service Levels, If Applicable

The DCA provides that the increase in the need for service attributable to anticipated development:

... must not include an increase that would result in the level of service exceeding the average level of that service provided in the Municipality over the 10-year period immediately preceding the preparation of the background study...(s. 5. (1) 4.)

This provision of the DCA is typically applicable to general services and requires a detailed review of capital service levels for buildings, land, vehicles and related facilities. For engineered services, such as water, wastewater, stormwater management and services related to a highway (including road-related works), historical service levels are less applicable as municipalities must build to minimum standards required by Provincial health and environmental requirements.

Given that the increase in need for service identified for the NEMP lands relate to engineered services, the ASDC calculations are not subject to the same service level restrictions applied for general services, thus no funding level caps have been applied.

3. Development-Related Capital Program and DC Eligible Costs to be recovered through the ASDCs

The Municipality's engineering consultants and staff prepared the development-related capital program. The program identifies development-related projects and their gross and net costs, after allowing for capital grants, subsidies or other contributions as required by the Act (DCA, s. 5. (2)). The capital forecast is another cornerstone upon which development charges are based. The DCA requires that the increase in the need for service attributable to the anticipated development may include an increase:

... only if the council of the Municipality has indicated that it intends to ensure that such an increase in need will be met. (s. 5. (1) 3.)

The development-related capital program prepared for this Study ensures that development charges are only imposed to help pay for projects that have been or are intended to be purchased or built in order to accommodate future anticipated development. It is not sufficient in the calculation of development charges merely to have had the service in the past. There must also be a demonstrated commitment to continue to emplace facilities or infrastructure in the future. In this regard, *Ontario Regulation 82/98*, s. 3 states that:

For the purposes of paragraph 3 of subsection 5 (1) of the Act, the council of a municipality has indicated that it intends to ensure that an increase in the need for service will be met if the increase in service forms part of an Official Plan, capital forecast or similar expression of the intention of the council and the plan, forecast or similar expression of the intention of the council has been approved by the council.

For some projects in the development-related capital program, a portion of the project may confer benefits to existing residents. As required by the DCA, s. 5. (1) 6., these portions of projects and their associated net costs are the funding responsibility of the Municipality from non-development charges sources. The amount of municipal funding for such non-development shares of projects is also identified as part of the preparation of the development-related capital program.

4. Attribution to Residential and Non-residential Development

Once the total gross capital project costs have been identified and all necessary reductions and adjustments have been made, the ASDC is calculated based on the population and employment forecasts.

B. PUBLIC AND STAKEHOLDER CONSULTATION

In accordance with the DCA, a statutory public meeting will be held to solicit feedback on this study and associated the ASDC By-law. Input received from the statutory public meeting will be considered prior to the passage of a new ASDC By-law for the NEMP Area.

3. DEVELOPMENT FORECAST

This section provides the basis for the development forecasts used in calculating the ASDCs, as well as a summary of the forecast results. A more detailed summary is provided in Appendix A.

A. RESIDENTIAL FORECAST

Development charges are levied on residential development as a charge per new unit. Therefore, for the residential forecast, a projection of the population in new housing units is required. This population in new units represents the population from which development charges will be collected.

Table 1 provides a summary of the residential forecast over the planning period from 2024 to 2041 (buildout).

The NEMP lands will see about 440 new housing units constructed over the planning period. The population forecasted to reside in these housing units is estimated at approximately 1,129 people.

B. NON-RESIDENTIAL FORECAST

Development charges are levied on non-residential development as a charge per square metre of gross floor area (GFA). As with the residential forecast, the non-residential forecast requires a projection of the employment growth associated with new floor space on NEMP lands.

It is estimated that the NEMP lands will accommodate about 350 jobs within new non-residential space over the 2024 to 2041 planning period. Approximately 21,000 square metres of new non-residential building space is anticipated. Of particular importance, the non-residential floor space and associated employment of the Moore subdivision lands are excluded from the forecast as those costs are to be recovered independently from municipal lot sales.

Table 1 also provides a summary of the non-residential development forecasts used in this analysis.

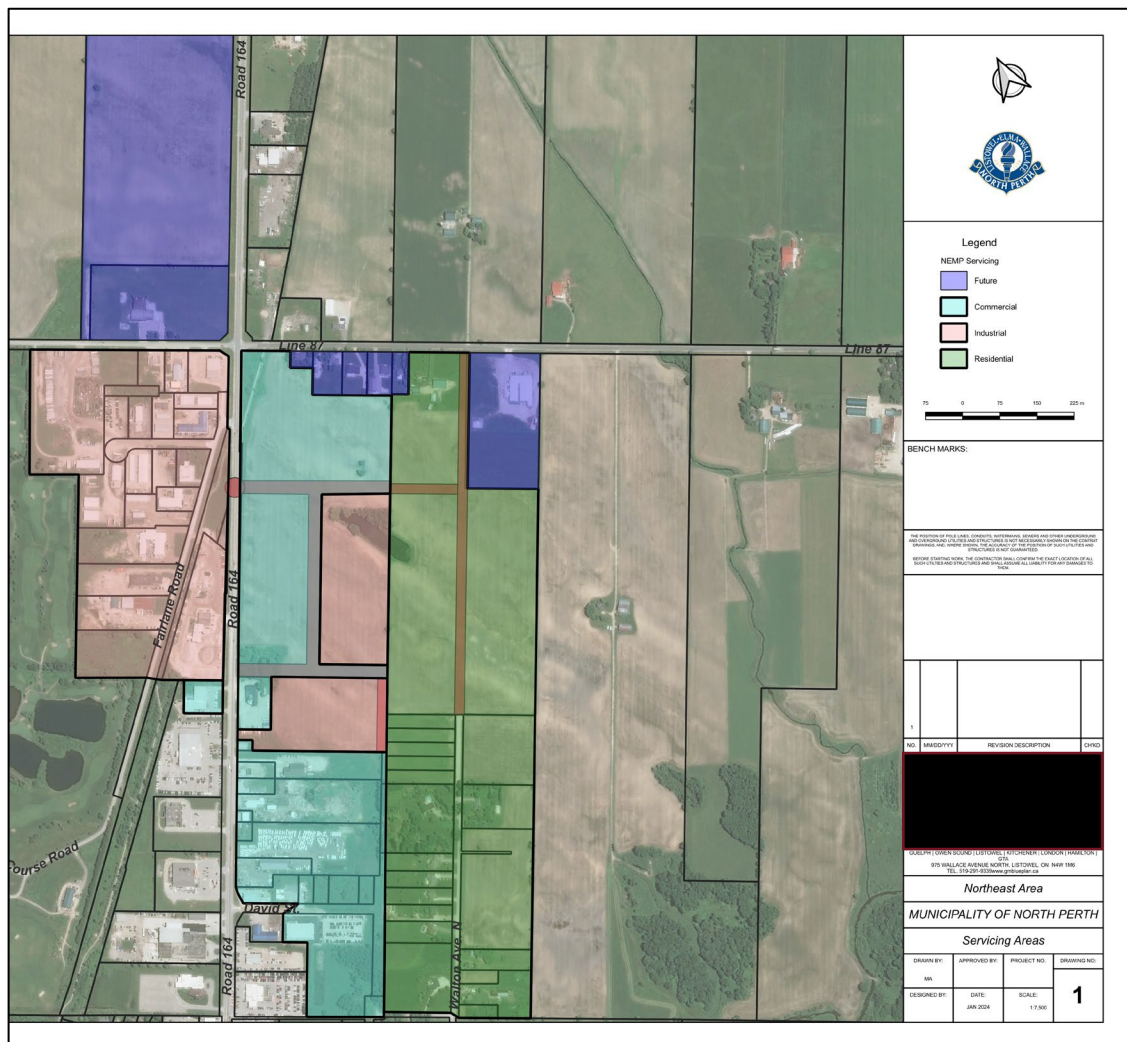
TABLE 1
NEMP ASDC
MUNICIPALITY OF NORTH PERTH
AREA SPECIFIC FORECAST FOR SERVICES IN NORTHEAST MASTER PLAN
(2024 - BUILD OUT)

Households	Population in New Units	Employment	Gross Floor Area (m ²)
440	1,129	350	21,000

C. MAP OF AREA-SPECIFIC DEVELOPMENT CHARGES AREA

Figure 2 provides an outline of the area to which the proposed ASDCs will apply.

Figure 2: Map of NEMP Area



4. THE DEVELOPMENT-RELATED CAPITAL PROGRAM

A. A DEVELOPMENT-RELATED CAPITAL FORECAST IS PROVIDED FOR COUNCIL'S APPROVAL

The DCA requires the Council of a municipality to express its intent to provide future capital facilities. As noted above in Section II, *Ontario Regulation 82/98*, s. 3 states that:

For the purposes of paragraph 3 of subsection 5 (1) of the Act, the council of a municipality has indicated that it intends to ensure that an increase in the need for service will be met if the increase in service forms part of an official plan, capital forecast or similar expression of the intention of the council and the plan, forecast or similar expression of the intention of the council has been approved by the council.

One of the recommendations contained in this study is for Council to adopt the development-related capital forecast related to the ASDC calculation. It is assumed that future capital budgets and forecasts will continue to bring forward the development-related projects contained herein, consistent with the growth occurring in the Municipality. It is acknowledged that changes to the forecast presented here may occur through the Municipality's normal capital budget process.

B. PROPOSED DEVELOPMENT-RELATED CAPITAL FORECAST

The following provides a detailed discussion of the analysis undertaken to establish the area-specific capital program for the NEMP lands. The projects identified in the capital program are driven by the need to provide infrastructure to facilitate development in the area.

The development-related capital program is based on cost estimates by the Municipality's engineering consultant, GM BluePlan, and further reviewed by staff. As shown in Table 2, the 2024-buildout (which is expected by 2041) engineered services capital program totals \$27.91 million and includes for construction of roadwork, Water, Wastewater, Storm Water Drainage and Control Services, and Roads and Related infrastructure. About \$10.24 million in costs is considered other recoveries and will be paid via lot sales in the Moore Subdivision or, are costs which are growth related but have a wider benefit and will be recouped through the municipal-wide DC. An additional \$6.85 million in costs will benefit

existing residents in the Municipality are thus non-growth related and removed from the calculation of the ASDC. About \$10.82 million is attributable to future development on NEMP lands. Of this total DC eligible share, about \$64,200 will be funded from existing DCs. Additionally, 10% of the development related costs, or \$1.08 million, will benefit areas not yet designated for development but could benefit from this infrastructure – this share of cost has been allocated as “Post Period” and will be considered for recovery in a subsequent by-law. Therefore, \$9.67 million is brought forward in the ASDC calculation. A detailed breakdown of the capital program for the NEMP lands is provided in Appendix B.

The NEMP capital program is broken down into four categories: Water, Wastewater, Stormwater Drainage and Control Services, and Services Related to a Highway (Roads and Related). The capital program for Water totals \$2.86 million, of which \$1.39 million is recovered through lot sales in the Moore Subdivision, \$239,500 is deemed the non-growth share (Benefit to Existing), \$122,800 will benefit lands not yet designated for development, and \$1.11 million is brought forward for the ASDC calculation. The new infrastructure related to Water includes new watermains and specific water costs for the Moore Subdivision.

The capital program for Wastewater totals \$10.68 million, of which \$1.70 million is recovered through lot sales in the Moore Subdivision, \$985,100 is deemed the non-growth share (Benefit to Existing), \$64,200 is covered with available DC reserve funds, \$799,000 will benefit post period development, and \$7.13 million is brought forward for the ASDC calculation. The new infrastructure related to Wastewater includes two new sewage pumping stations, new sanitary sewage connections, and specific wastewater costs for the Moore Subdivision.

The capital program for Stormwater Drainage and Control Services totals \$5.74 million, of which \$1.46 million is recovered through lot sales in the Moore Subdivision, \$2.67 million is deemed to benefit existing residents, \$159,700 will benefit post period development, and \$1.44 million is brought forward for the ASDC calculation. The new infrastructure related to Stormwater Drainage and Control Services includes a new stormwater management facility, storm sewer infrastructure, and specific stormwater costs for the Moore Subdivision.

The capital program for Services Related to a Highway (Roads and Related) totals \$8.63 million, of which \$4.95 million is recovered through lot sales in the Moore Subdivision, \$730,900 will be recovered through municipal-wide DCs, and the remaining \$2.95 million is deemed to be non-growth related and benefit existing residents and removed from the calculation of the ASDC. Therefore, no costs related to roads infrastructure is brought forward in the ASDC calculation. The new infrastructure for Services Related to a Highway includes new roads and intersection improvements.

TABLE 2
NEMP ASDC
MUNICIPALITY OF NORTH PERTH
SUMMARY OF NEMP CAPITAL PROGRAM

NO.	Infrastructure Requirement	Timing	Estimated Project Costs							
			Gross Cost	Grants/ Subsidies and other Recoveries	Net Municipal	Benefit to Existing Share	Net DC Eligible	Available DC Reserves	Net Growth-Related	Post Period Allocation
NEMP Projects										
1	Water	2025 - 2027	\$ 2,859,236	\$ 1,391,785	\$ 1,467,451	\$ 239,465	\$ 1,227,986	\$ -	\$ 1,105,187	\$ 122,799
2	Wastewater	2025 - 2027	\$ 10,677,831	\$ 1,702,404	\$ 8,975,427	\$ 985,120	\$ 7,990,307	\$ 64,216	\$ 7,127,060	\$ 799,031
3	Storm Water Drainage and Control Services	2025 - 2027	\$ 5,735,233	\$ 1,464,112	\$ 4,271,121	\$ 2,674,393	\$ 1,596,728	\$ -	\$ 1,437,056	\$ 159,673
4	Services Related to a Highway (Roads and Related)	2025 - 2027	\$ 8,634,544	\$ 5,681,979	\$ 2,952,565	\$ 2,952,565	\$ -	\$ -	\$ -	\$ -
TOTAL PROJECT			\$ 27,906,844	\$ 10,240,280	\$ 17,666,564	\$ 6,851,543	\$ 10,815,021	\$ 64,216	\$ 9,669,303	\$ 1,081,502

C. AREA-SPECIFIC DEVELOPMENT CHARGES CALCULATION

The total DC eligible share of \$9.67 million is attributed to 1,129 people in 440 new units and about 21,000 m² of new non-residential floor space. This would yield an unadjusted charge of \$6,511.32 per capita and \$110.51 per square metre. As shown in Table 3 and 4, once adjusted for cashflow analysis, this yields an adjusted residential charge of \$7,985.99 per capita and an adjusted non-residential charge of \$148.12 per square metre.

Table 5 provides a comparison of the current single and semi detached unit charge in the NEMP area compared to the newly calculated charge. The NEMP charge for single and semi detached units increased from \$6,302 to \$24,757. This represents an increase of \$18,455 per unit, or 293%.

Table 6 provides a comparison of the current non-residential floor space in the NEMP area compared to the newly calculated charge. The NEMP charge for non-residential floor space increased from \$27.23 to \$148.12. This represents an increase of \$120.89 per square metre, or 444%.

TABLE 3
NEMP ASDC
MUNICIPALITY OF NORTH PERTH
SUMMARY OF NEMP DC RATES

Service	Residential						
	Unadjusted Charge Per Capita	Adjusted Charge After Cashflow Per Capita	Charge By Unit Type (1)				
			Single & Semi-Detached	Rows & Other Multiples	Apartments 2 Bedrooms +	Apartments Bachelor & 1	Special Care
Northeast Master Plan Area	\$ 6,511.32	\$ 7,985.99	\$ 24,757	\$ 16,212	\$ 14,295	\$ 9,583	\$ 7,986
(1) Based on Persons Per Unit of:			3.10	2.03	1.79	1.20	1.00

TABLE 4
NEMP ASDC
MUNICIPALITY OF NORTH PERTH
SUMMARY OF NEMP DC RATES

Service	Non-residential	
	Unadjusted Charge (\$/sq.m)	Adjusted Charge After Cashflow (\$/sq.m)
North East Master Plan Area	\$ 110.51	\$ 148.12

TABLE 5
NEMP ASDC
MUNICIPALITY OF NORTH PERTH
COMPARISON OF CURRENT AND CALCULATED

Service	Current Residential Charge / SDU	Calculated Residential Charge / SDU	Difference in Charge	
Northeast Master Plan Area	\$ 6,302	\$ 24,757	\$ 18,455	293%

TABLE 6
NEMP ASDC
MUNICIPALITY OF NORTH PERTH
COMPARISON OF CURRENT AND CALCULATED

Service	Current Non-Residential Charge / Sq.m	Calculated Non-Residential Charge / Sq.m	Difference in Charge (Current vs. Calculated)	
Northeast Master Plan Area	\$27.23	\$148.12	\$120.89	444%

5. LONG-TERM CAPITAL AND OPERATING COSTS AND ASSET MANAGEMENT PROVISIONS

This section provides a brief examination of the long-term capital and operating costs for the area-specific capital facilities and infrastructure to be included in the ASDC By-law. This section also considers the required annual asset management provisions associated with emplacing the infrastructure.

The DCA now requires that municipalities complete an Asset Management Plan before passing a development charges by-law. A key function of the Asset Management Plan is to demonstrate that all assets proposed to be funded under the development charges by-law are financially sustainable over their full life cycle. The DCA also requires that a background study estimate the future operating cost implications of the development-related capital program contained in the study.

A. LONG-TERM CAPITAL AND OPERATING IMPACTS

As required by section 10(2)(c) of the DCA, the long-term capital and operating costs for capital infrastructure must be examined. In total, the net operating costs related to the proposed area-specific projects are estimated to be similar to other DC eligible services provided by the Municipality. Any increase in assessment growth and user fees driven by the forecast development will be able to offset any operating impacts and related long-term capital costs.

B. ASSET MANAGEMENT CONSIDERATIONS FOR NEW INFRASTRUCTURE

Based on an analysis of the proposed infrastructure requirements associated with servicing the NEMP lands, as shown in Table 7, the calculated annual provision amounts to approximately \$121,500 for DC-related infrastructure and \$201,200 for Non DC-related infrastructure.

This figure represents the amount of funding which should be contributed on an annual basis to replace the infrastructure at the end of its useful life.

The Municipality has historically done a good job of contributing funds on an annual basis for the future repair and replacement of infrastructure (both tax and rate supported). In order to ensure that these assets are financially sustainable, the Municipality should continue this practice into the future.

TABLE 7
NEMP ASDC
MUNICIPALITY OF NORTH PERTH
CALCULATED ANNUAL AMP PROVISION: 23-YEAR SERVICES

	2024-2041 Capital Program		Annual AMP Provision by 2042	
	DC-Eligible	Non DC-Eligible	DC-Related	Non DC-Related
Northeast Master Plan	\$9,733,519	\$18,173,325	\$121,535	\$201,192

C. THE PROGRAM IS DEEMED FINANCIALLY SUSTAINABLE

The calculated lifecycle costs are considered financially sustainable as it is expected that the increased operating, maintenance and capital asset management requirements can be absorbed through the Municipality’s tax and utility rates over time.

6. OTHER ISSUES AND CONSIDERATION

A. DEVELOPMENT CHARGES ADMINISTRATION

The list below provides a summary of any relevant administration related recommendations:

- It is recommended that practices regarding collection of development charges and by-law administration continue to the extent possible.
- As required under the DCA, the Municipality should codify any rules regarding application of the by-laws and exemptions within the development charges by-laws proposed for adoption.
- It is recommended that Council adopt the development-related capital program included in this background study, subject to annual review through the Municipality's normal capital budget process.
- The NEMP related charges in the Municipality's existing DC By-law (#78-2019) be deleted upon the in force and effective date of the new NEWP DC by-law. The Map as illustrated in Section C-6 and the North East Master Plan (NEMP) Engineering Services rates in Schedules B-5 to B-8 would be removed.

APPENDIX A

DEVELOPMENT FORECAST

DEVELOPMENT FORECAST

This appendix provides details of the development forecast used to prepare the 2024 Area-Specific Development Charges (ASDC) Background Study for the NEMP lands in North Perth.

A. FORECAST APPROACH AND KEY ASSUMPTIONS

The Development Charges Act (DCA) requires an estimate of “the anticipated amount, type and location of development” for which development charges may be imposed. The forecast must cover both residential and non-residential development. The forecast must also be specific enough with regards to the quantum, type, location and timing of such development to assist in the preparation of a reasonable development-related capital program. This ASDC Background Study is based on a development forecast for the planning period of 2024 to 2041 (2041 is the anticipated build-out horizon).

Hemson has prepared forecasts of population, households and employment based on input from the Municipality, the Municipality engineering consultants and interested stakeholders. It is noted that assumptions related to persons per unit are generally based on the most recent census data detailing historical occupancy patterns in the Municipality.

B. FORECAST METHOD AND RESULTS

Development charges are levied on residential development as a charge per new unit. Therefore, for the residential forecast, a projection of the population in new housing units is required. This population in new units represents the population from which development charges will be collected. For the purposes of this study, the population in new units is also considered the census population growth in this area.

Development charges are levied on non-residential development as a charge per square metre of gross floor area (GFA). As with the residential forecast, the non-residential forecast requires a projection of the employment growth associated with new floor space in the Municipality.

1. Residential Forecast

The residential development forecast incorporates anticipated growth in population and occupied dwelling units by type. The residential development charges calculation is based on a forecast of population growth in new housing units on NEMP lands. The population in new units is based on occupancy assumptions derived from 2021 census results.

As detailed in Table 1, the NEMP lands is anticipated to see about 440 new housing units over the planning period. These units are anticipated to be accommodated within lands designated for residential development within NEMP lands. This housing forecast is based on a projection from GM BluePlan on the amount of persons anticipated to settle on NEMP lands and the number of residential lots available. Furthermore, consultations with developers have suggested that the residential unit breakdown on NEMP lands will be about 50% single and semi-detached houses and 50% row houses. Based on these discussion and existing projections, there are projected to be 220 new single and semi-detached units and 220 row units constructed. Given the timeline associated with servicing the lands, it is expected that unit construction wouldn't begin until 2025/2026 and that about half the residential growth would still occur in the latter half of the planning period.

The forecast of population expected to reside in these new housing units over the 2024 to 2041 period is approximately 1,129 additional persons. This population growth by unit type is shown in Table 2. Population growth in new units is estimated by applying the following PPU to the housing unit forecast: 3.10 for single and semi-detached units, and 2.03 for row units and other multiples. As shown in Table 1, these PPU assumptions are consistent with the most recent 2021 census information regarding historical occupancy patterns for newly constructed units from 2011-2021.

2. Non-Residential Forecast

Table 3 shows that the NEMP lands are anticipated to accommodate about 350 jobs within new non-residential floor space over the 2024 to 2041 planning period. This figure is estimated based on discussions with staff considering the potential new non-residential building space which could be accommodated in the area.

Non-residential development charges are calculated on a per square metre of gross floor area (GFA) basis. Therefore, as per the DCA, a forecast of future non-residential building space has been developed. As with the residential forecast, the GFA forecast covers the period from 2024 to 2041. Approximately 21,000 square metres of new non-residential building space is anticipated as shown in Table 3. This figure would exclude any new floor space that would be constructed in the Moore subdivision.

APPENDIX A - TABLE 1
MUNICIPALITY OF NORTH PERTH
NEMP ASDC
HISTORICAL HOUSEHOLDS BY PERIOD OF CONSTRUCTION SHOWING HOUSEHOLD SIZE

Dwelling Unit Type	Period of Construction										Period of Construction Summaries			
	Pre 1945	1946-1960	1961-1970	1971-1980	1981-1990	1991-1995	1996-2000	2001-2005	2006-2010	2011-2016	2016-2021	Pre 2011	2011-2021	Total
<i>Singles and Semis</i>														
Household Population	3,390	1,090	1,105	1,090	880	440	840	700	760	850	1,785	10,295	2,635	12,930
Households	1,165	440	435	430	330	155	260	250	225	265	585	3,690	850	4,540
Household Size	2.91	2.48	2.54	2.53	2.67	2.84	3.23	2.80	3.38	3.21	3.05	2.79	3.10	2.85
<i>Rows</i>														
Household Population	35	0	0	0	0	0	25	0	70	80	305	130	385	515
Households	15	0	0	10	0	0	15	10	50	45	145	100	190	290
Household Size	2.33	0.00	0.00	0.00	0.00	0.00	1.67	0.00	1.40	1.78	2.10	1.30	2.03	1.78
<i>Apartments</i>														
Household Population	260	130	150	300	220	0	65	80	70	110	290	1,275	400	1,675
Households	175	95	100	180	130	10	40	55	50	60	175	835	235	1,070
Household Size	1.49	1.37	1.50	1.67	1.69	0.00	1.63	1.45	1.40	1.83	1.66	1.53	1.70	1.57
<i>All Units</i>														
Household Population	3,685	1,220	1,255	1,390	1,100	440	930	780	900	1,040	2,380	11,700	3,420	15,120
Households	1,355	535	535	620	460	165	315	315	325	370	905	4,625	1,275	5,900
Household Size	2.72	2.28	2.35	2.24	2.39	2.67	2.95	2.48	2.77	2.81	2.63	2.53	2.68	2.56

APPENDIX A - TABLE 2

MUNICIPALITY OF NORTH PERTH
NEMP ASDC
NEW OCCUPIED HOUSEHOLDS AND POPULATION IN NEW HOUSEHOLDS (TO BUILD-OUT)

PPUs	
Singles & Semis	3.10
Rows & Other Multiples	2.03

Mid-Year	New Occupied Households			Population in New Households		
	Singles & Semis	Rows & Other Multiples	Total	Singles & Semis	Rows & Other Multiples	Total
2024	0	0	0	0	0	0
2025	0	0	0	0	0	0
2026	10	10	20	31	20	51
2027	10	10	20	31	20	51
2028	10	10	20	31	20	51
2029	25	25	50	78	51	128
2030	25	25	50	78	51	128
2031	30	30	60	93	61	154
2032	30	30	60	93	61	154
2033	15	15	30	47	30	77
2034	15	15	30	47	30	77
2035	15	15	30	47	30	77
2036	10	10	20	31	20	51
2037	5	5	10	16	10	26
2038	5	5	10	16	10	26
2039	5	5	10	16	10	26
2040	5	5	10	16	10	26
2041	5	5	10	16	10	26
2024-2041	220	220	440	682	447	1,129

APPENDIX A - TABLE 3

MUNICIPALITY OF NORTH PERTH

NEMP ASDC

FORECAST OF EMPLOYMENT AND GFA TO BUILD-OUT

Floor Space Assumptions	
Average Sq.M. per Employee	60.00

Mid-Year	Place of Work Employment	Non-Residential GFA Growth (Sq. M.)
2024	0	0
2025	0	0
2026	15	900
2027	15	900
2028	15	900
2029	15	900
2030	15	900
2031	15	900
2032	20	1,200
2033	20	1,200
2034	20	1,200
2035	25	1,500
2036	25	1,500
2037	30	1,800
2038	30	1,800
2039	30	1,800
2040	30	1,800
2041	30	1,800
2024-2041	350	21,000

APPENDIX B

DEVELOPMENT-RELATED CAPITAL PROGRAM

DEVELOPMENT-RELATED CAPITAL PROGRAM

This appendix provides the detailed analysis undertaken to establish the area-specific development charge rates for the NEMP lands.

The development-related capital program is based on an estimated cost of the works on NEMP lands for Water, Wastewater, Storm Water Drainage and Control Services, and Services Related to a Highway (Roads and Related). A map outlining the NEMP lands is illustrated below. The projects identified in the capital program are required to service the NEMP area to facilitate development over the planning period of 2024 to Build-Out (which is assumed at 2041).

Table 1 provide details of the projects included in the area-specific infrastructure development charges calculations as well as the calculation of the Unadjusted Development Charges.

1. Development-Related Capital Program

The 2024-2041 NEMP capital program totals \$27.91 million and includes for Water, Wastewater, Storm Water Drainage and Control Services, and Services Related to a Highway (Roads and Related) infrastructure pertaining to the NEMP lands. The detailed capital program is based on information for projects provided by GM BluePlan and Municipal staff. The details, timing, and cost breakdown of each project are shown on Table 1.

The 2024-2041 development-related costs included in the capital program are recovered through a combination of different sources: Area-Specific Development Charges imposed in the NEMP area, municipal-wide development charges, lot sales in the Moore Subdivision, and municipal levies.

The development-related capital program over the 2024 to 2041 planning period totals \$27.91 million. Shares funded from non-ASDC sources (e.g. municipal-wide DCs and lot sales) are shown as other recoveries and costs funded from municipal levies are shown as a benefit-to-existing residents. Overall, other recoveries amount to \$10.24 million and \$6.85 million in costs is non-growth related and not included for in the calculation of the rates. There is also \$64,200 in the NEMP DC reserve that has been allocated to the ASDC capital program. Furthermore, \$1.08 million in costs will benefit lands not yet designated for development and are a "Post Period Allocation". Therefore, \$9.67 million is brought forward for ASDC recovery. Table 1 summarizes the NEMP capital program.

The capital program for Water totals \$2.86 million, of which \$1.39 million is anticipated to be recovered through lot sales in the Moore Subdivision, and \$239,500 is deemed to be the non-growth related component. An additional \$122,800 in costs which may benefit lands

not yet designated for development and are allocated as post period to be considered for recovery in a future by-law. As a result, \$1.11 million is brought forward for the ASDC calculation. The new infrastructure related to Water includes new watermains and specific water costs for the Moore Subdivision. Note, the amount carried forward to the DC calculation has been reduced by the funds collected from existing property owners (\$239,500) who will benefit from the new infrastructure and have contributed to the system costs via a connection fee levied to each applicable property in the amount of \$5,095 per lot (as per by-law #101-2023).

The capital program for Wastewater totals \$10.68 million, of which \$1.70 million is recovered through lot sales in the Moore Subdivision and \$985,100 is deemed to benefit existing residents and employees. Of the development-related costs \$64,200 is recovered through available DC reserves. A further \$799,000 has been allocated as a post period benefit and can be considered for recovery in a subsequent by-law. The remaining \$7.13 million is brought forward to the ASDC calculation. The new infrastructure related to Wastewater includes two new sewage pumping stations, new sanitary sewage connections, and specific wastewater costs for the Moore Subdivision. Note, the amount carried forward to the DC calculation has been reduced by the funds collected from existing property owners (\$985,100) who will benefit from the new infrastructure and have contributed to the system costs via a connection fee levied to their property in the amount of \$20,960 per lot (as per by-law #101-2023)

The capital program for Stormwater Drainage and Control Services totals \$5.74 million, of which \$1.46 million is recovered through lot sales in the Moore Subdivision and removed from the ASDC calculation. About \$2.67 million of the program is considered to be non-growth and funded from non-dc sources. An additional \$159,700 in costs may benefit lands not yet designated for development and are allocated as post period. Therefore, \$1.44 million is brought forward for the ASDC calculation. The new infrastructure related to Stormwater Drainage and Control Services includes a new stormwater management facility, storm sewer infrastructure, and specific stormwater costs for the Moore Subdivision. Based on discussions with staff and the engineering consultants (GM BluePlan), the Industrial Storm Sewers, Fairland Storm Sewers, and David Storm Sewers are not growth related and thus 100% of the cost of those works has been removed from the development charges calculation. Furthermore, the Trunk Storm Sewers, Walton Storm Sewers, and Phase 1 of the Storm Sewer Management Facility have been allocated a 73% BTE share related to improving and reconstructing the stormwater system in existing areas and this share of costs will not be recovered from development charges.

The capital program for Services Related to a Highway (Roads and Related) totals \$8.63 million, of which \$4.95 million is recovered through lot sales in the Moore Subdivision. The project related to the Davidson Roads (\$730,900) will be recovered by the municipal-wide DC as the road improvements will increase connectivity and provide benefit to growth across the Municipality. Notably, the Walton Roads, Industrial Roads, Fairlane Roads, and David Roads are considered to be entirely non-growth related as these road improvements are required irrespective of development, therefore, these costs are removed from the calculation of the ASDC. Therefore, no costs related to roads infrastructure is brought forward in the ASDC calculation.

The DC eligible share of \$9.67 million has been allocated 76% to new residential development and 24% to non-residential development. The allocation of costs is based on the future shares of population in new units and employment growth in new space. The residential share of the capital program totals \$7.35 million and, when divided by the forecast growth in population in new units (1,129), the result is an unadjusted charge of \$6,511.32 per capita.

The non-residential share is applied against the forecast increase in square metres of non-residential floor space by type of development. The \$2.32 million divided by the increase in square metres of non-residential building space (21,000), yields an unadjusted charge of \$110.51 per square metre.

2. Cash flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of development charges. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the growth forecast, the analysis calculates the development charges rate that is required to finance the net development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate development charges rates reflecting borrowing and earnings necessary to support the net development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0% is used for the funding requirements, an interest rate of 3.5% is used for positive opening balances, and a rate of 5.5% is used for negative opening balances.

Tables 2 and 3 displays the results of the cash flow analysis and provides the adjusted and final per capita residential and per square metre (of GFA) non-residential development charges. The cash-flow analysis yields a residential development charge of \$7,985.99 per capita (Table 2) and a non-residential charge of \$148.12 per square metre (Table 3).

APPENDIX B
TABLE 1

MUNICIPALITY OF NORTH PERTH
DEVELOPMENT-RELATED CAPITAL PROGRAM
NORTHEAST MASTER PLAN (NEMP)

NO.	Infrastructure Requirement	Timing	Estimated Project Costs							
			Gross Cost	Grants/ Subsidies & Other Recoveries	Net Municipal	Benefit to Existing Share	Net DC Eligible	Available DC Reserves	Net Growth-Related	Post Period Allocation
NEMP Projects										
Water										
1	Walton Watermains	2025 - 2027	\$335,938	\$ 30,265	\$ 305,673	\$ 49,881	\$ 255,792	\$ -	\$ 230,213	\$ 25,579.20
2	David Watermains	2025 - 2027	\$94,443	\$ 8,508	\$ 85,935	\$ 14,023	\$ 71,912	\$ -	\$ 64,720	\$ 7,191
3	Davidson Watermain	2025 - 2027	\$248,095	\$ 22,351	\$ 225,744	\$ 36,838	\$ 188,906	\$ -	\$ 170,015	\$ 18,891
4	Wallace Watermains	2025 - 2027	\$264,746	\$ 23,851	\$ 240,895	\$ 39,310	\$ 201,585	\$ -	\$ 181,426	\$ 20,158
5	Fairlane Watermains	2025 - 2027	\$570,417	\$ 51,389	\$ 519,028	\$ 84,697	\$ 434,331	\$ -	\$ 390,898	\$ 43,433
6	Industrial Watermains	2025 - 2027	\$99,104	\$ 8,928	\$ 90,176	\$ 14,715	\$ 75,461	\$ -	\$ 67,915	\$ 7,546
7	Moore Subdivision Specific Costs	2025 - 2027	\$1,246,492	\$ 1,246,492	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Subtotal Water		\$2,859,236	\$ 1,391,785	\$ 1,467,451	\$ 239,465	\$ 1,227,986	\$ -	\$ 1,105,187	\$ 122,799
Wastewater										
1	SPS#1 & SPS#2	2025 - 2027	\$8,583,953	\$ 773,329	\$ 7,810,624	\$ 857,274	\$ 6,953,349	\$ -	\$ 6,258,014	\$ 695,335
2	Walton Sanitary Sewers	2025 - 2027	\$293,627	\$ 26,453	\$ 267,174	\$ 29,324	\$ 237,849	\$ 64,216	\$ 149,848	\$ 23,785
3	David Sanitary Sewers	2025 - 2027	\$184,747	\$ 16,644	\$ 168,103	\$ 18,451	\$ 149,653	\$ -	\$ 134,687	\$ 14,965
4	Davidson Sanitary Sewers	2025 - 2027	\$297,676	\$ 26,818	\$ 270,859	\$ 29,729	\$ 241,130	\$ -	\$ 217,017	\$ 24,113
5	Wallace Sanitary Sewers	2025 - 2027	\$166,779	\$ 15,025	\$ 151,753	\$ 16,656	\$ 135,097	\$ -	\$ 121,588	\$ 13,510
6	Fairlane Sanitary Sewers	2025 - 2027	\$252,107	\$ 22,712	\$ 229,395	\$ 25,178	\$ 204,217	\$ -	\$ 183,795	\$ 20,422
7	Industrial Sanitary Sewers	2025 - 2027	\$85,195	\$ 7,675	\$ 77,520	\$ 8,508	\$ 69,011	\$ -	\$ 62,110	\$ 6,901
8	Moore Subdivision Specific Costs	2025 - 2027	\$813,748	\$ 813,748	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Subtotal Wastewater		\$10,677,831	\$ 1,702,404	\$ 8,975,427	\$ 985,120	\$ 7,990,307	\$ 64,216	\$ 7,127,060	\$ 799,031

APPENDIX B
TABLE 1

MUNICIPALITY OF NORTH PERTH
DEVELOPMENT-RELATED CAPITAL PROGRAM
NORTHEAST MASTER PLAN (NEMP)

NO.	Infrastructure Requirement	Timing	Estimated Project Costs							
			Gross Cost	Grants/ Subsidies & Other Recoveries	Net Municipal	Benefit to Existing Share	Net DC Eligible	Available DC Reserves	Net Growth-Related	Post Period Allocation
NEMP Projects										
Storm Water Drainage and Control Services										
1	Davidson Storm Sewers	2025 - 2027	\$113,749	\$ -	\$ 113,749	\$ -	\$ 113,749	\$ -	\$ 102,374	\$ 11,375
2	Trunk Storm Sewers	2025 - 2027	\$1,375,872	\$ -	\$ 1,375,872	\$ 1,004,387	\$ 371,485	\$ -	\$ 334,337	\$ 37,149
3	Walton Storm Sewers	2025 - 2027	\$515,376	\$ -	\$ 515,376	\$ 376,225	\$ 139,152	\$ -	\$ 125,236	\$ 13,915
4	PH1 SWM	2025 - 2027	\$1,055,907	\$ -	\$ 1,055,907	\$ 770,812	\$ 285,095	\$ -	\$ 256,586	\$ 28,510
5	Ph2 SWM	2025 - 2027	\$1,462,228	\$ 774,981	\$ 687,247	\$ -	\$ 687,247	\$ -	\$ 618,522	\$ 68,725
6	Industrial Storm Sewers	2025 - 2027	\$95,092	\$ -	\$ 95,092	\$ 95,092	\$ -	\$ -	\$ -	\$ -
7	Fairlane Storm Sewers	2025 - 2027	\$263,425	\$ -	\$ 263,425	\$ 263,425	\$ -	\$ -	\$ -	\$ -
8	Moore Subdivision Specific Costs	2025 - 2027	\$689,131	\$ 689,131	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	David Storm Sewers	2025 - 2027	\$164,453	\$ -	\$ 164,453	\$ 164,453	\$ -	\$ -	\$ -	\$ -
	Subtotal Storm Water Drainage and Control Services		\$5,735,233	\$ 1,464,112	\$ 4,271,121	\$ 2,674,393	\$ 1,596,728	\$ -	\$ 1,437,056	\$ 159,673
Services Related to a Highway (Roads and Related)										
1	Moore Subdivision Specific Costs	2025 - 2027	\$4,951,069	\$ 4,951,069	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	Walton Roads	2025 - 2027	\$1,561,685	\$ -	\$ 1,561,685	\$ 1,561,685	\$ -	\$ -	\$ -	\$ -
3	Industrial Roads	2025 - 2027	\$218,043	\$ -	\$ 218,043	\$ 218,043	\$ -	\$ -	\$ -	\$ -
4	Fairlane Roads	2025 - 2027	\$1,006,088	\$ -	\$ 1,006,088	\$ 1,006,088	\$ -	\$ -	\$ -	\$ -
5	David Roads	2025 - 2027	\$166,749	\$ -	\$ 166,749	\$ 166,749	\$ -	\$ -	\$ -	\$ -
6	Davidson Roads	2025 - 2027	\$730,910	\$ 730,910	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Subtotal Services Related to a Highway (Roads and Related)		\$8,634,544	\$ 5,681,979	\$ 2,952,565	\$ 2,952,565	\$ -	\$ -	\$ -	\$ -
Subtotal NEMP Projects			\$27,906,844	\$ 10,240,280	\$ 17,666,564	\$ 6,851,543	\$ 10,815,021	\$ 64,216	\$ 9,669,303	\$ 1,081,502

Residential Development Charge Calculation		
Residential Share of 2024 - 2041 DC Eligible Costs	76%	\$7,348,670
Growth in Population in New Units to Build-out		1,129
Unadjusted Development Charge Per Capita		\$6,511.32
Non-Residential Development Charge Calculation		
Non-Residential Share of 2024 - 2041 DC Eligible Costs	24%	\$2,320,633
Growth in Square Metres to Build-Out		21,000
Unadjusted Development Charge Per Square Metre		\$110.51

Reserve Fund Balance	
Balance as of December 31, 2023	\$64,216

**APPENDIX B
TABLE 2 - PAGE 1**

**MUNICIPALITY OF NORTH PERTH
NORTHEAST MASTER PLAN (NEMP)
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE**

NEMP RESIDENTIAL	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
OPENING CASH BALANCE (\$000)	\$ 48.8	\$ 50.5	\$ (2,532.0)	\$ (4,869.3)	\$ (7,379.1)	\$ (7,333.8)	\$ (6,586.5)	\$ (5,775.2)	\$ (4,656.3)	\$ (3,447.2)
2024 to BUILD-OUT RESIDENTIAL FUNDING REQUIREMENTS										
NEMP Residential: Prior Growth	\$ -	\$ 16.3	\$ 16.3	\$ 16.3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NEMP Residential: Non Inflated	\$ -	\$ 2,449.6	\$ 2,449.6	\$ 2,449.6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NEMP Residential: Inflated	\$ -	\$ 2,515.1	\$ 2,565.4	\$ 2,616.8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NEW RESIDENTIAL DEVELOPMENT										
- Population Growth in New Units	-	-	51	51	51	128	128	154	154	77
REVENUE										
- DC Receipts: Inflated	\$ -	\$ -	\$ 426.2	\$ 434.8	\$ 443.5	\$ 1,130.8	\$ 1,153.4	\$ 1,411.8	\$ 1,440.0	\$ 734.4
INTEREST										
- Interest on Opening Balance	\$ 1.7	\$ 1.8	\$ (139.3)	\$ (267.8)	\$ (405.9)	\$ (403.4)	\$ (362.3)	\$ (317.6)	\$ (256.1)	\$ (189.6)
- Interest on In-year Transactions	\$ -	\$ (69.2)	\$ (58.8)	\$ (60.0)	\$ 7.8	\$ 19.8	\$ 20.2	\$ 24.7	\$ 25.2	\$ 12.9
TOTAL REVENUE	\$ 1.7	\$ (67.4)	\$ 228.1	\$ 106.9	\$ 45.4	\$ 747.2	\$ 811.3	\$ 1,118.9	\$ 1,209.1	\$ 557.7
CLOSING CASH BALANCE	\$ 50.5	\$ (2,532.0)	\$ (4,869.3)	\$ (7,379.1)	\$ (7,333.8)	\$ (6,586.5)	\$ (5,775.2)	\$ (4,656.3)	\$ (3,447.2)	\$ (2,889.6)

APPENDIX B
TABLE 2 - PAGE 2

MUNICIPALITY OF NORTH PERTH
NORTHEAST MASTER PLAN (NEMP)
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE

NEMP RESIDENTIAL	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
	\$ (2,889.6)	\$ (2,286.3)	\$ (1,634.6)	\$ (1,195.8)	\$ (992.0)	\$ (771.5)	\$ (533.4)	\$ (276.6)	
OPENING CASH BALANCE (\$000)									
2024 to BUILD-OUT RESIDENTIAL FUNDING REQUIREMENTS									
NEMP Residential: Prior Growth	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48.8
NEMP Residential: Non Inflated	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,348.7
NEMP Residential: Inflated	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,697.3
NEW RESIDENTIAL DEVELOPMENT									
- Population Growth in New Units	77	77	51	26	26	26	26	26	1129
REVENUE									
- DC Receipts: Inflated	\$ 749.1	\$ 764.1	\$ 519.6	\$ 265.0	\$ 270.3	\$ 275.7	\$ 281.2	\$ 286.8	\$ 10,586.6
INTEREST									
- Interest on Opening Balance	\$ (158.9)	\$ (125.7)	\$ (89.9)	\$ (65.8)	\$ (54.6)	\$ (42.4)	\$ (29.3)	\$ (15.2)	\$ (2,920.3)
- Interest on In-year Transactions	\$ 13.1	\$ 13.4	\$ 9.1	\$ 4.6	\$ 4.7	\$ 4.8	\$ 4.9	\$ 5.0	\$ (17.8)
TOTAL REVENUE	\$ 603.3	\$ 651.7	\$ 438.8	\$ 203.9	\$ 220.5	\$ 238.1	\$ 256.8	\$ 276.6	\$ 7,648.5
CLOSING CASH BALANCE	\$ (2,286.3)	\$ (1,634.6)	\$ (1,195.8)	\$ (992.0)	\$ (771.5)	\$ (533.4)	\$ (276.6)	\$ (0.0)	

2024 Adjusted Charge Per Capita	\$7,985.99
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Allocation of Capital Program	
Residential Sector	76.0%
Non-Residential Sector	24.0%
Rates for 2024	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

**APPENDIX B
TABLE 3 - PAGE 1**

**MUNICIPALITY OF NORTH PERTH
NORTHEAST MASTER PLAN (NEMP)
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE**

NEMP NONRESIDENTIAL	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
OPENING CASH BALANCE (\$000)	\$ 15.4	\$ 16.0	\$ (799.6)	\$ (1,533.5)	\$ (2,321.5)	\$ (2,302.4)	\$ (2,279.3)	\$ (2,251.9)	\$ (2,219.9)	\$ (2,130.1)
2024 to BUILD-OUT NON-RESIDENTIAL FUNDING REQUIREMENTS										
NEMP Non-residential: Prior Growth	\$ -	\$ 5.1	\$ 5.1	\$ 5.1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NEMP Non-residential: Non Inflated	\$ -	\$ 773.5	\$ 773.5	\$ 773.5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NEMP Non-residential: Inflated	\$ -	\$ 794.3	\$ 810.1	\$ 826.3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NON-RESIDENTIAL SPACE GROWTH										
- Growth in Square Metres	-	-	900	900	900	900	900	900	1,200	1,200
REVENUE										
- DC Receipts: Inflated	\$ -	\$ -	\$ 138.7	\$ 141.5	\$ 144.3	\$ 147.2	\$ 150.1	\$ 153.1	\$ 208.3	\$ 212.4
INTEREST										
- Interest on Opening Balance	\$ 0.5	\$ 0.6	\$ (44.0)	\$ (84.3)	\$ (127.7)	\$ (126.6)	\$ (125.4)	\$ (123.9)	\$ (122.1)	\$ (117.2)
- Interest on In-year Transactions	\$ -	\$ (21.8)	\$ (18.5)	\$ (18.8)	\$ 2.5	\$ 2.6	\$ 2.6	\$ 2.7	\$ 3.6	\$ 3.7
TOTAL REVENUE	\$ 0.5	\$ (21.3)	\$ 76.3	\$ 38.3	\$ 19.1	\$ 23.1	\$ 27.4	\$ 32.0	\$ 89.8	\$ 99.0
CLOSING CASH BALANCE	\$ 16.0	\$ (799.6)	\$ (1,533.5)	\$ (2,321.5)	\$ (2,302.4)	\$ (2,279.3)	\$ (2,251.9)	\$ (2,219.9)	\$ (2,130.1)	\$ (2,031.1)

APPENDIX B
TABLE 3 - PAGE 2

MUNICIPALITY OF NORTH PERTH
NORTHEAST MASTER PLAN (NEMP)
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE

NEMP NONRESIDENTIAL	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE (\$000)	\$ (2,031.1)	\$ (1,922.4)	\$ (1,747.0)	\$ (1,556.4)	\$ (1,291.1)	\$ (1,004.2)	\$ (694.3)	\$ (360.1)	
2024 to BUILD-OUT NON-RESIDENTIAL FUNDING REQUIREMENTS									
NEMP Non-residential: Prior Growth	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15.4
NEMP Non-residential: Non Inflated	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,320.6
NEMP Non-residential: Inflated	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,430.7
NON-RESIDENTIAL SPACE GROWTH									
- Growth in Square Metres	1,200	1,500	1,500	1,800	1,800	1,800	1,800	1,800	21,000
REVENUE									
- DC Receipts: Inflated	\$ 216.7	\$ 276.3	\$ 281.8	\$ 344.9	\$ 351.8	\$ 358.8	\$ 366.0	\$ 373.3	\$ 3,865.1
INTEREST									
- Interest on Opening Balance	\$ (111.7)	\$ (105.7)	\$ (96.1)	\$ (85.6)	\$ (71.0)	\$ (55.2)	\$ (38.2)	\$ (19.8)	\$ (1,453.4)
- Interest on In-year Transactions	\$ 3.8	\$ 4.8	\$ 4.9	\$ 6.0	\$ 6.2	\$ 6.3	\$ 6.4	\$ 6.5	\$ 3.6
TOTAL REVENUE	\$ 108.7	\$ 175.4	\$ 190.6	\$ 265.3	\$ 286.9	\$ 309.9	\$ 334.2	\$ 360.1	\$ 1,124.2
CLOSING CASH BALANCE	\$ (1,922.4)	\$ (1,747.0)	\$ (1,556.4)	\$ (1,291.1)	\$ (1,004.2)	\$ (694.3)	\$ (360.1)	\$ -	\$ -

2024 Adjusted Charge Per Sq.M

\$148.12

Allocation of Capital Program

Residential Sector 76.0%
Non-Residential Sector 24.0%

Rates for 2024

Inflation Rate 2.0%
Interest Rate on Positive Balances 3.5%
Interest Rate on Negative Balances 5.5%